CITY OF SURPRISE
Regular City Council Meeting
16000 N. Civic Center Plaza
Surprise, AZ 85374
Tuesday, November 15, 2022 @ 6:00 PM
COUNCIL CHAMBERS

A. Call To Order

Any prayer or invocation that may be offered before the start of the Regular Council Meeting is a voluntary offering by a private resident of Surprise; has not been previously reviewed or approved by City Council or City staff; should not be considered an endorsement of any particular religion by the City or its officials, as the beliefs, viewpoint, and content are personal to the speaker; and no participation by any person in attendance is required. A list of volunteers is maintained by the office of the City Clerk and interested persons should contact the Clerk's Office for further information.

B. Roll Call

C. Pledge of Allegiance

D. Proclamation and Community Acknowledgements

Senator Rick Gray Acknowledgment

E. City Manager Report

Oath of Office - Fire Chief, Brenden Espie

F. City Clerk Report

G. Call To The Public

INSTRUCTIONS: In order to address the City Council, you will need to fill out a Call to the Public Form available at the front counter, and then turn it in to the City Clerk before the meeting begins.
Download the Call to the Public form (PDF download requires Adobe Acrobat Reader)
Fill out the Call to the Public form online If submitting form electronically, please submit to City Clerk at least one hour before the meeting start time.
The Call to the Public form is also available at the front counter.

Note: A.R.S. 38-431.01(H)- During this time members of the public may address City Council only on issues within the jurisdiction of the City Council which are not an item on the agenda. At the conclusion of the open call, City Council may respond to criticism, may ask staff to review the matter or may ask that the matter be put on a future agenda. No discussion or action shall take place on any item raised.

Approval of items on the Consent Agenda – all items with an asterisk (*) are considered to be routine matters and will be enacted by one motion and one roll call vote to the City Council. There will be no separate discussion on these items unless a Councilmember requests, in which event the item will be removed from the consent agenda and considered in its normal sequence on the agenda.

Please be aware that Council Members may not discuss or respond to matters raised during call to the public that are not specifically identified on the agenda. Council Members may however, in their discretion, discuss or respond to relevant matters raised during a noticed public hearing or agenda item.

H. Regular City Council Meeting Agenda

CONSENT AGENDA:

1.	Internal	Consideration and action to approve the Regular Council Meeting Minutes of November 1, 2022.	None Sherry Aguilar City Clerk
2.	District 3	Consideration and action accepting a Quit Claim Deed from Henry and Patricia Conklin for Rights-of-Way along Waddell near 143rd Avenue.	Lloyd Abrams Community Development
3.	District 1	Consideration and action declaring the intention to establish the lighting improvement district known as City of Surpise, Arizona, SU-WINDSTNERNCH205 pursuant to A.R.S. § 48-616 for the purpose of purchasing facilities and energy for lighting the public streets; Resolution # 2022-75.	Kristin Tytler Public Works
4.	District 1	Consideration and action declaring the intention to establish the lighting improvement district known as City of Surpise, Arizona, SU-BONITARNCH204 pursuant to A.R.S. § 48-616 for the purpose of purchasing facilities and energy for lighting the public streets; Resolution # 2022-73.	Kristin Tytler Public Works
5.	District 1	Consideration and action pertaining to approval of the Final Plat entitled, “Bonita Ranch” and received September 14, 2022, a property generally located south of Jomax Road and west of 147th Avenue.	Chris Sexton Community Development
6.	Internal	Consideration and action to approve the Council Meeting dates for 2023.	None Sherry Aguilar City Clerk
7.	District 1	Consideration and action pertaining to approval of the Final Plat entitled, “Heritage Asante – Parcel 8 and dated September 2022, a property generally located west of Asante Blvd. and south of Pat Tillman Blvd; Case FS22-0590.	LESLIE CARNIE Community Development
	REGULAR AGENDA ITEM - PUBLIC HEARING:		
8.	District 5	Consideration and action pertaining to a zone change from Community Commercial (C-2) to Residential High Density (R-3) on an approximately 12.82 acre property generally located on the southwest corner of Mountain View Blvd. and White Horse Trail; Ordinance # 2022-24.	LESLIE CARNIE Community Development
	REGULAR AGENDA ITEM - NON-PUBLIC HEARING:		
9.	District 1	Consideration and action pertaining to approval of The Third Amendment to the Broadstone Ranch Pre-Annexation Development Agreement between the City of Surprise and Elliott Homes, Inc.; Resolution #2022-110.	Lloyd Abrams Community Development
10.	Internal	Consideration and action pertaining to authorizing submission of the Request for Exemption from posting deposit to the Industrial Commission of Arizona.	Robert Wingo Legal

I. Other Business and Future Agenda Items

J. City Council Reports

K. Executive Session

For information Purposes; Upon a public majority vote of a quorum of the City Council, the Council may hold an executive session, which will not be open to the public, but for only the following purposes:

- discussion or consideration of personnel matters (A.R.S. §38-431.03 (A)(1));
- discussion or consideration of records exempt by law from public inspection (A.R.S. §38-401.03 (A)(2));
- discussion or consultation for legal advice with the city's attorneys (A.R.S. §38-431.03 (A)(3));
- discussion or consultation with the city's attorneys regarding the city's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation, or in settlement discussions conducted in order to avoid or resolve litigation (A.R.S.§38-431.03 (a)(4));
- discussion or consultation with designated representatives of the city in order to consider its position and instruct its representatives regarding negotiations with employee organizations (A.R.S. §38-431.03 (A)(5)); or
- discussion, consultation or consideration for international and interstate negotiations or for negotiations by a city or town, or its designated representatives, with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city or town. A.R.S. §38-401.03 (A)(6)).
- discussing or consulting with designated representatives of the city in order to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property (A.R.S. §38-431.03 (A)(7)).

Confidentiality Requirements Pursuant to A.R.S. §38-431.03(C)(D): Any person receiving executive session information pursuant to A.R.S. §38-431.02 shall not disclose that information except to the Attorney General or County Attorney by agreement of the City Council, or as otherwise ordered by a court of competent jurisdiction.

The council may vote to hold an executive session for the purpose of obtaining legal advice from the Board's attorney on any matter listed on the agenda pursuant to A.R.S. § 38-431.03(A)(3).

L. Adjournment

SHERRY ANN AGUILAR, CITY CLERK, MMC

POSTED: November 10, 2022 at 10:20 AM

SPECIAL NOTE: PERSONS WITH SPECIAL ACCESSIBILITY NEEDS, INCLUDING LARGE PRINT MATERIALS OR INTERPRETER, SHOULD CONTACT THE CITY CLERK'S OFFICE @ 623.222.1200 OR TTY 623.222.1002, BY NO LATER THAN 24 HOURS IN ADVANCE OF THE REGULAR SCHEDULED MEETING TIME.

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022
Submitting Department: City Clerk
Staff Recommendations:

Contact Person:
District: Internal

Consent: No Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Invocation

Motion:

Background:

Objective Analysis:

Policy Compliant:

Financial Impact:

Budget Impact:
FTE Impact:

ATTACHMENTS:

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022

Contact Person: Jodi Tas, MNGMNT ANALYST - SR

Submitting Department: City Manager Office

District: Citywide

Staff Recommendations: None

Consent: No Regular: Yes Public Hearing: No Report/Discussion: No

Agenda Wording:

Senator Rick Gray Acknowledgment

Motion:

Background:

Objective Analysis:

Policy Compliant:

Financial Impact:

Budget Impact:

FTE Impact:

ATTACHMENTS:

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022
Submitting Department: City Clerk
Staff Recommendations:

Contact Person:
District: Internal

Consent: No Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:

Oath of Office - Fire Chief, Brenden Espie

Motion:

Background:

Objective Analysis:

Policy Compliant:

Financial Impact:

Budget Impact:

FTE Impact:

ATTACHMENTS:

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022
Submitting Department: City Clerk
Staff Recommendations: None

Contact Person: Sherry Aguilar, City Clerk
District: Internal

Consent: Yes Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action to approve the Regular Council Meeting Minutes of November 1, 2022.

Motion:
I move to approve the Regular Council Meeting Minutes of November 1, 2022.

Background:

Objective Analysis:

Policy Compliant:

Financial Impact:

Budget Impact:
FTE Impact:

ATTACHMENTS:
1. 11012022 Regular Council Meeting Minutes

CITY OF SURPRISE

Regular City Council Meeting
16000 North Civic Center Plaza
Surprise, AZ 85374

Tuesday, November 1, 2022 @ 6:00PM

- **A. Call To Order:**

  Mayor Hall called the Regular Council Meeting of Tuesday, November 1, 2022 to order at 6:00 p.m. at the Surprise City Hall located at 16000 N. Civic Center Plaza, Surprise, AZ. 85374.

- **B. Roll Call**

  In attendance with Mayor Hall were Vice-Mayor, Aly Cline; Councilmembers Jack Hastings, Ken Remley, Patrick Duffy, Roland Winters and Chris Judd.

- **1. Invocation**

  Pastor, Paul Outlaw with Transformation Community Church (TCC) led the Invocation.

- **C. Pledge of Allegiance**

  The Pledge was led by Valley Vista High School National Honor Society

- **1. Purple Heart Anniversary Proclamation**

- Mayor Hall read the proclamation allowed and presented it to Veteran, Larry Brown.

- **E. City Manager Report**

Valley Vista High National Honor Society, Andrea Coseo, President and Lindsey Miles, Treasurer gave a brief report on activities taking place and the role of the Honor Society. Vice-Principal Martinez attended as well from Valley Vista High School.

Maya Caluguru, 11th grade student from Liberty High School, 2nd year of service. Maya gave a brief update on the youth council activities.

- **G. Call To The Public**

  No public comments received.

- **1. CONSENT AGENDA:**

  Councilmember Judd made the motion to approve the Consent Item that includes items 1 - 7. Vice-Mayor Cline seconded the motion. 7 yes votes, motion carried.

  The following items were approved by Consent.

  1. Consideration and action on the Special Council Meeting of October 11, 2022 and Regular City Council Work Session and the Regular City Council Meeting Minutes of October 18, 2022.

  2. Consideration and action to approve a request by Sargis Gewargis for a new series 12 (Restaurant) liquor license for Tap House Sports Grill located at 13699 N. Litchfield Road, Surprise, AZ. 85379.

  3. Consideration and action to approve a request by Minesh Patel for a new Series 10 (Beer & Wine Store) for Bubba's Drive Thru located at 15445 N. Greasewood Street, Surprise, AZ. 85378.

  4. Consideration and action to approve a series 07 (Beer & Wine Bar) new license requested by Theresa June Morse, Agent for Dickey's Barbecue #1413 located at 16581 W. Bell Road #101, Surprise, AZ. 85388.

  5. Consideration and action pertaining to approval of the Intergovernmental Agreement with the City of Phoenix for Arizona Internet Crimes Against Children (ICAC) Task Force participation and training; Resolution #2022-105.

  6. Consideration and action pertaining to approval of an amendment to the Fiscal Year 2023 Budget by moving budget authority of $40,000 from General Contingency to Project G31226 to account for the acceptance of One Arizona Department of Homeland Security (UASI) grant to receive funding for specialized tactical team training and the purchase of equipment; Resolution #2022-107.

7. Consideration and action pertaining to the City of Surprise granting a Utility Easement to APS to facilitate the service of the new recreational fields at Countryside school.
8. Consideration and action pertaining to approval of a zone change of approximately 320 gross acres from Rural Residential (RR) to Residential Low Density (R-1), Residential High Density (R-3), and Community Commercial (C-2), generally bounded by Pinnacle Peak Road to the north, 227th Avenue to the east, Deer Valley Road to the south, and 231st Avenue to the west; Ordinance #2022-22.

City Planner, Trever Fleetham gave a powerpoint presentation regarding Ordinance No. 2022-22.

Councilmember Winters asked about the public hearings held, was there discussion with the public hearing signs not being readable or visible to the public? Mr. Fleetham commented that the applicant posted the signs per statute, but the terrain made it difficult to view, but met the legal requirements.

Councilmember Winters also brought up the issue of flooding for this area. Mr. Fleetham commented that we will require more extensive drainage studies on the property.

Mayor Hall asked about 227th Avenue, if it continues? Mr. Fleetham commented, no the road ends.

Councilmember Judd asked about the southwest corner and which wash cuts through the property? Mr. Fleetham confirmed that it is Tribley Wash.

Council member Judd asked why are we paving over this major wildlife corridor. I cannot support this at this zoning, why are we doing it this way? Mr. Fleetham pulled up the map and explained LDO zoning for this area. The applicant has not requested the rezone at this time for open space. The applicant would still be required to follow the wildlife preserve zoning according to Mr. Fleetham.

Councilmember Judd commented that he wants this language incorporated into the ordinance as a stipulation in the ordinance to protect Trilby Wash. Attorney Wingo commented that we need to legally identify the boundary of the zones and we would not be able to do this tonight. This would have to come back at another date. Councilmember Judd commented that his preference is to not make this difficult for the applicant, but to make it as easy

as possible.

Councilmember Judd asked if we have data on how much commercial is needed for a certain size property or lot? How did we come up with 14 acres? Mark Ready, With RBI for the applicant, confirmed that the City ordinances clearly outline uses for this area and the applicant is not interested in developing within the wildlife preserve and wash, and have no issue of working with amending the language for the zoning, but would not want to have to start over. Mr. Ready further clarified the 14 acres for Commercial Use.

Councilmember Remley read the letter from the Department of Air Force arsenal, if the rezone is approved, it should have review of the sound attenuation requirements that the air force currently has. There should be a stipulation for this. Lloyd Abrams under current code, we require this for any properties within the sound attenuation zone.

Councilmember Hastings commented that these two stipulations are already in City Code so I feel we are making more work for ourselves. That is my thoughts on this.

Councilmember Duffy commented regarding the R-1 zoning, will this get locked for 10 years? What if another developer comes in and asks for something different? We have been through this before, don't want to do this again.

Open to public comments - None received.

Councilmember Judd made the motion to approve Ordinance 2022-22 including Stipulation "I" which is included to preserve Trilby Wash pursuant to the requirements of the City of Surprise land ordinance. Vice-Mayor Cline seconded the motion. 6 yes votes, 1 no vote (Councilmember Winters). Motion carried.

- **9. Consideration and action pertaining to the Neighborhood Grant Program Awards for Fiscal Year 2023 as recommended by the sub-committee on Community Outreach, Partnerships and Grants.**

Governmental Relations Administrator, Jodi Tas gave a powerpoint presentation on this item.

Mayor Hall complimented Jodi Tas and the committee on the hard work on task.
Councilmember Remley commented that he will be abstaining from the vote due to being a resident of Litchfield Manor.

Vice-Mayor Cline thanked staff for their efforts and was glad to be a part of this process. I would love it if we had more money to spend on the residents, on the other hand

Councilmember Judd also thanked Jodi and staff for organizing the meeting and coordinating the documentation.

Councilmember Judd made the motion to approve the Neighborhood Grant Program Awards for 2023. Seconded by Vice-Mayor Cline. 6 yes votes, 1 abstained (Councilmember Remley). Motion carried.

I. Other Business and Future Agenda Items

Councilmember Remley requested a work session item regarding Traffic issues on 303 and what are the alternatives to traffic. Seconded by Councilmember Judd

Vice-Mayor Cline requested a work session item on sustainability throughout the City (Example: solar, wind). Seconded by Councilmember Hastings.

- **J. City Council Reports**
- Councilmember Judd - no report tonight.

  Councilmembers Winters reported on attending GAIN Night

  Vice-Mayor Cline reported on the following: Attended 3 ribbon cuttings last week - Economic Development does a great job! Attended the Special Olympics fall games, the group did an awesome and an=mazing job, very impressed with the ceremony; District 2 meeting this month, next one in November, Tuesday before Thanksgiving; attended Best of the West Awards Ceremony.

  Councilmember Hastings reported on the following: GAIN Night, great relationship with our police and fire departments; Meet and Greet coming up the 3rd Wednesday of this month.

Councilmember Remley reported on the following: I hope everyone gets out and votes, it's our one privilege we have to exercise our rights; Veteran's Day Parade - Grand Marshall, Veteran Larry Brown; no District meeting for November; if you belong to an HOA, please take note we have money through a grant each year, to do a project in the community, for next year ask your HOA Board to apply for grant money.

Councilmember Duffy reported on the following: This Saturday Meet and Greet at Spencer's Place - 9:00 a.m.

Mayor Hall reported on the following: Enjoyed opening ceremony for the Special Olympics, thanked staff for a great job; Served food at the Senior Center, Fall Senior Services event; November 6th Sunday in the Park 3 to 7 at Mark Coronado Park. November 11th - 10:00 a.m. 8th Annual; Veteran's Day Parade.

- **L. Adjournment**
    - Councilmember Winters made the motion to adjourn the Regular Council Meeting at 7:02 p.m. Seconded by Vice-Mayor Cline. 7 yes votes to adjourn. Motion carried.

_____
Skip Hall, Mayor

ATTEST:

_____
Sherry Ann Aguilar, City Clerk, MMC

CERTIFICATION:

I, Sherry Ann Aguilar, City Clerk for the City of Surprise, Maricopa County, Arizona, do hereby verify that these are the true and correct minutes of the Regular City Council Meeting of **Tuesday, November 1, 2022.**

_____
Sherry Ann Aguilar, City Clerk, MMC

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022 Contact Person: Lloyd Abrams
Submitting Department: Community Development District: District 3
Staff Recommendations:

Consent: Yes Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action accepting a Quit Claim Deed from Henry and Patricia Conklin for Rights-of-Way along Waddell near 143rd Avenue.

Motion:
I move to accept a Quit Claim Deed from Henry and Patricia Conklin.

Background:
The Conklin's dedicated right of way to the City in 2003. The original dedication has been determined to be invalid as only Mr. Conklin signed the deed. The Conklin's have provided a deed with both of their signatures to remedy this issue.

Objective Analysis:
The recording of this deed will correct the past recording issue.

Policy Compliant:
Approval of this item is policy compliant. The proposed dedication will advance the goals and policies of the Surprise General Plan and the City Council's Strategic Plan

Financial Impact:
While this item does not have an immediate or direct financial impact, ongoing development activity in the City will inevitably have a future financial impact as additional resources are needed to provide city services.

Budget Impact:
There is currently no budgetary impact related to approval of this item. The City will plan for future O&M when the road is in place and is accepted by the City.

FTE Impact:
This item does not have an impact on current staff levels.

ATTACHMENTS:

1. Council Meeting Action Agenda Conklin RW
2. executed RW
3. Conklin for Right of Way

CITY OF SURPRISE
COUNCIL AGENDA ACTION FORM

Title RFLS # Conklin RW dedication Waddell Road	
Scheduled Meeting Type: ☐ P&Z ☒Council Meeting ☐ Council Work Session	**Agenda Category:** ☐ Public Hearing ☐ Regular (No Public Hearing) ☒ Consent
Scheduled Meeting Date:11/15/2022	**Contact Person:** Lloyd Abrams
District #: ☐ 1 ☐ 2 ☒ 3 ☐ 4 ☐ 5 ☐ 6 ☐ Internal ☐ Citywide	**Staff Recommendation:** ☐ None ☒ Approve ☐ Deny ☐Continue ☐ Table ☐No Action
Public Engagement Plan Required? ☐ Yes ☒ No If your item requires a public engagement piece **you will need to complete the Public Engagement Form**. Make sure to include what district(s) is/are affected by your agenda item.	

Agenda Wording:

Consideration and Action on accepting a Quit Claim Deed from Henry and Patricia Conklin for Right of Way along Waddell near 143rd Avenue.

Motion:

I move to approve accepting a Quit Claim Deed from Henry and Patricia Conklin.

Background Information:

The Conklin's dedicated right of way to the City in 2003. The original dedication has been determined to be invalid as only Mr. Conklin signed the deed. The Conklin's have provided a deed with both their signatures to remedy this issue.

Objective Analysis:

The recording of this deed will correct the past recording issue.

Policy Compliant:

Approval of this item is policy compliant. The proposed dedication will advance the goals and policies of the Surprise General Plan and the City Council's Strategic Plan

Financial Impact:

All activity related to ongoing development of the City of Surprise has an economic and fiscal impact on the City and region.

Budget Impact:

There is currently no budgetary impact related to approval of this item. The City will plan for future O&M when the road is in place and is accepted by the City.

FTE Impact:

This item does not have an impact on current staff levels.

Attachments:

Quit Claim Deed

When Recorded Mail To:

City Clerk
City of Surprise
16000 N Civic Center Plaza
Surprise, AZ 85374

Exempt from filing an
Affidavit of legal value
A.R.S. §11-1134(A)(3)

QUIT CLAIM DEED

For the consideration of One Dollar ($1.00) and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged,

Henry C. Conklin and Patricia A. Conklin, husband and wife ("Grantors")

Does hereby quitclaim to the City of Surprise, an Arizona municipal corporation, all of Grantor's right, title, and interest in the real property as legally described in Exhibit A and depicted in Exhibit B.

Dated this 24th day of October, 2022.

GRANTORS:

Henry C. Conklin

Patricia A. Conklin

STATE OF)
)ss.
County of)

This instrument was acknowledged and executed before me this 24th day of October, 2022, by **Henry C. Conklin and Patricia A. Conklin, husband and wife.**

My Commission Expires:

DEBBIE L. MALONE
NOTARY PUBLIC - ARIZONA
MARICOPA COUNTY
COMMISSION # 555731
MY COMMISSION EXPIRES
DECEMBER 26, 2022

NOTARY PUBLIC

GRANTEE:

CITY OF SURPRISE,
An Arizona municipal corporation

By: _____
Skip Hall
Its: Mayor

Attest:

_____
Sherry Aguilar, City Clerk

STATE OF ARIZONA)
)SS.
County of Maricopa)

The foregoing instrument was acknowledged before me this ____ day of _____, 2022, by Skip Hall, known by me as the Mayor of the City of Surprise an Arizona municipal corporation.

_____
Notary Public

My Commission Expires:

EXHIBIT A

A PORTION OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 9, TOWNSHIP 3 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER BASE MERIDIAN MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND BRASS CAP IN A HAND HOLE AT THE SOUTHWEST CORNER OF SAID SECTION 9;

THENCE NORTH 90 DEGREES 00 MINUTES 00 SECONDS EAST ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER A DISTANCE OF 2619.24 FEET TO A POINT 20.00 FEET WEST OF A FOUND BRASS CAP FLUSH AT THE SOUTH QUARTER CORNER OF SAID SECTION 9;

THENCE NORTH 00 DEGREES 43 MINUTES 24 SECONDS WEST A DISTANCE OF 33.00 FEET TO THE **POINT OF BEGINNING**:

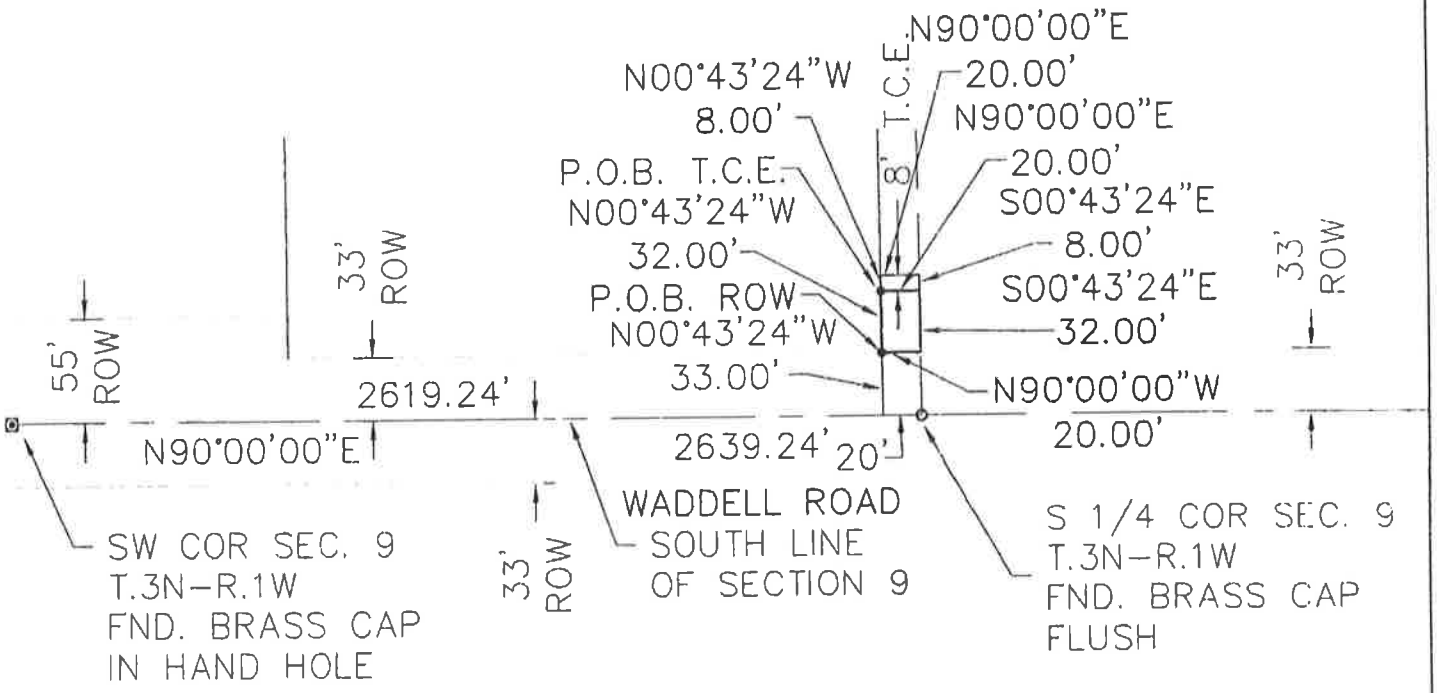
THENCE CONTINUING NORTH 00 DEGREES 43 MINUTES 24 SECONDS WEST A DISTANCE OF 32.00 FEET;

THENCE NORTH 90 DEGREES 00 MINUTES 00 SECONDS EAST A DISTANCE OF 20.00 FEET;

THENCE SOUTH 00 DEGREES 43 MINUTES 24 SECONDS EAST A DISTANCE OF 32.00 FEET;

THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS WEST A DISTANCE OF 20.00 FEET TO THE **POINT OF BEGINNING**;

THE ABOVE DESCRIBED PARCEL CONTAINS 640 S.F. (0.01 ACRES) MORE OR LESS



LEGEND

T.C.E.	TEMPORARY CONSTRUCTION EASEMENT
ROW	RIGHT-OF-WAY
P.O.B.	POINT OF BEGINNING

100 50 0 100 200

SCALE FEET

1515 E. MISSOURI STE.115
PHOENIX, AZ 85014
PH (602)279-8436
FAX (602)265-1191
www.cmxinc.com

WADDELL ROAD ROW DEDICATION
T.3N. - R.1W. SEC. 9
SURPRISE, ARIZONA

EXHIBIT B

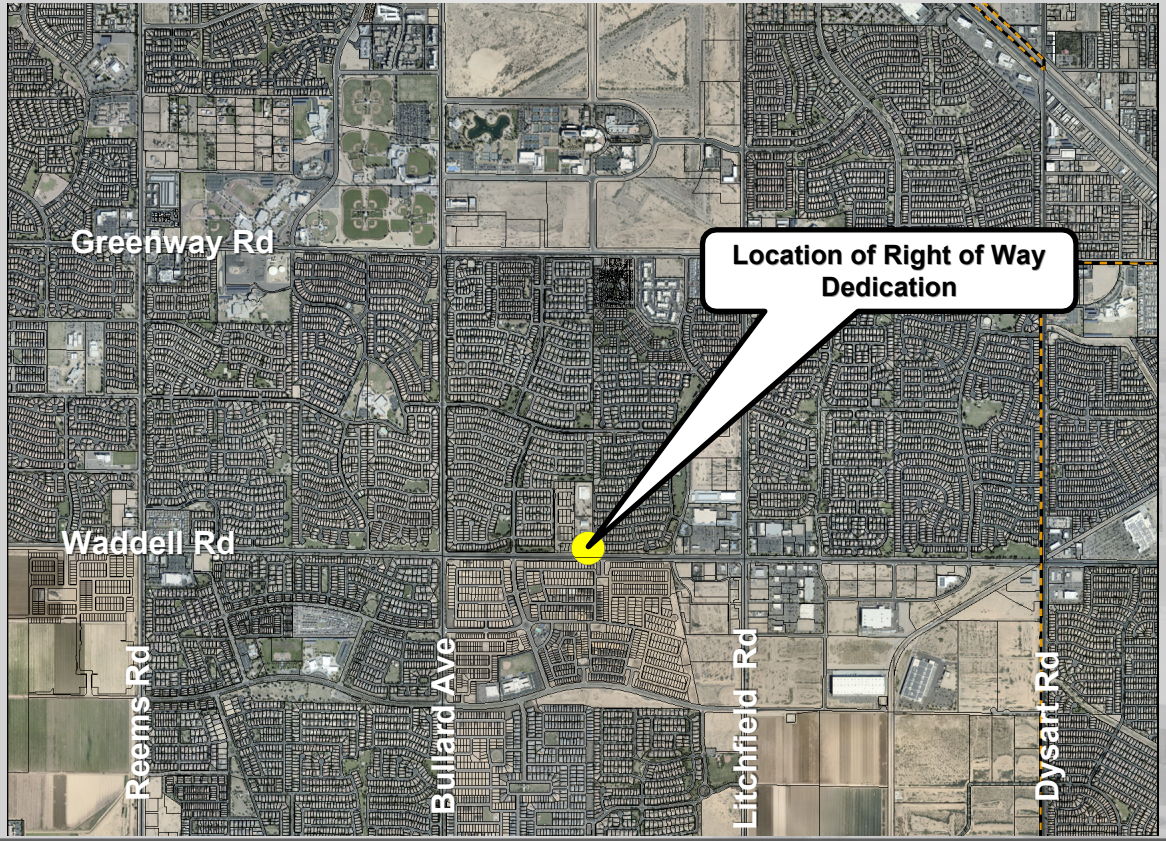
CMX PROJ.	6537.1C
DATE:	SEPT 2002
SCALE:	1"=100'
DRAWN BY:	SKF
CHECKED BY:	PS

SURPRISE
ARIZONA

Quit Claim Deed from Henry and Patricia Conklin for Right of Way along Waddell near 143rd Avenue

City Council – November 15, 2022

VICINITY MAP



SURPRISE
ARIZONA

QUESTIONS / COMMENTS?

Thank You

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022
Submitting Department: Public Works
Staff Recommendations:

Contact Person: Kristin Tytler, Department Director
District: District 1

Consent: Yes Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action declaring the intention to establish the lighting improvement district known as City of Surpise, Arizona, SU-WINDSTNERNCH205 pursuant to A.R.S. § 48-616 for the purpose of purchasing facilities and energy for lighting the public streets; Resolution # 2022-75.

Motion:
I move to approve Resolution # 2022-75.

Background:
The City has verified that the Petition for the proposed street light improvement district contains the signatures of all of the real property owners in the district, exclusive of mortgage and other lien holders.

The City and Arizona Public Service Company ("APS") have approved the street layout and facilities design. The electric rates are established by APS tariff.

The lighting improvements are more than local or ordinary public benefits and the expenses of the district will be paid for by the levy and collection of ad valorem taxes based upon the assessed value of all property in the District.

Objective Analysis:
A SLID is a neighborhood partnership and very common practice in which property owners in a defined area agree to pay the costs to operate and maintain their immediate area's street lights through a property tax. All new developments in the City of Surprise require a SLID. This action will form the SLID boundary for the Windstone Ranch development.

Policy Compliant:
The Surprise Municipal Code requires that street lighting that serves a defined area be paid for through revenues obtained from the specific area being served by such street lighting. In these instances, a Street Light Improvement District (SLID) is formed. The city strives to assure that residents are subject to only one SLID and that the boundaries of each SLID accurately reflect the service area. This item is

consistent with these objectives.

Financial Impact:

Any financial impact on the City is anticipated to be minimal, as the Developer and District will be bearing the costs and expenses of the District and street light improvement facilities.

Budget Impact:

Funding was not included as part of the FY2023 adopted budget. A separate fund will be created to track revenue and expenses once the city starts receiving electric bills from APS for this particular SLID. If the SLID incurs expenses during FY2023, staff will return to request a budget amendment to appropriate the new fund. Regardless, the city will be unable to collect property taxes for this SLID until FY2024, at the earliest.

FTE Impact:

This action does not change the full time equivalent count.

ATTACHMENTS:

1. 01 Res 2022-75 SLID at Windstone Ranch
2. 02 SLID Petition- WINDSTONE
3. 03 Streetlight Plans- Windstone
4. 04 COUNCIL MAP- WINDSTONE

RESOLUTION # 2022-75

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE CITY OF SURPRISE, ARIZONA, DECLARING ITS INTENTION TO ESTABLISH A STREET LIGHT IMPROVEMENT DISTRICT TO PURCHASE ENERGY FOR LIGHTING THE PUBLIC STREETS AND PARKS IN THE AREA WITHIN THE CORPORATE LIMITS OF THE CITY OF SURPRISE, ARIZONA DESCRIBED ON EXHIBIT A, ATTACHED HERETO; DECLARING SUCH IMPROVEMENTS TO BE OF MORE THAN LOCAL OR ORDINARY PUBLIC BENEFIT AND THAT THE EXPENSES THEREOF BE PAID FOR BY THE LEVY AND COLLECTION OF AD VALOREM TAXES UPON THE ASSESSED VALUATION OF ALL REAL AND PERSONAL PROPERTY IN A CERTAIN DISTRICT TO BE KNOWN AS "CITY OF SURPRISE, ARIZONA, SU-WINDSTNERNCH205 LIGHTING IMPROVEMENT DISTRICT"; AND ORDERING THAT SUCH IMPROVEMENTS BE PROVIDED FOR UNDER THE PROVISIONS OF SECTION 48-572, ARIZONA REVISED STATUTES.

WHEREAS, the owners, exclusive of mortgagees and other lienholders, of all of the real property (hereinafter referred to as "Petitioner") in the hereinafter described District, acting pursuant to the provisions of Sections 48-615(A) and 48-617(A), Arizona Revised Statutes, have petitioned the Mayor and Council of the City of Surprise, Arizona (hereinafter referred to as "City"), to adopt a resolution of intention (hereinafter referred to as "Resolution") ordering the purchase of energy for the lighting of the public street and parks (hereinafter referred to as "Improvements") for the real property legally described in Exhibit A (such area hereinafter referred to as the "District") with such boundaries as shown in the map in Exhibit B attached hereto pursuant to the provisions of Section 48-576, Arizona Revised Statutes, giving the City immediate jurisdiction to order the improvements pursuant to the provisions of Section 48-581, Arizona Revised Statutes, without the necessity of the publications or posting of this Resolution provided for in Sections 48-578, Arizona Revised Statutes;

WHEREAS, the City has verified that Petitioner is the owner, exclusive of mortgagees and other lienholders, of all of the real property included within the boundaries of the District, and;

WHEREAS, the Mayor and Council of the City hereby find and determine that they have jurisdiction to adopt this Resolution to order the Improvements pursuant to the provisions of Section 48-576, Arizona Revised Statutes, and have immediate jurisdiction to adopt this Resolution ordering the Improvements pursuant to the provisions of Section 48-581, Arizona Revised Statutes without the necessity of publications and posting of this Resolution as provided for in Section 48-578, Arizona Revised Statutes;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Surprise, Arizona, as follows.

Section 1. The City, after verifying ownership of the real property included within the boundaries of the District, hereby finds the Petitioner is the owner, exclusive of mortgagees and other lienholders, of all of the real property included within the boundaries of the District.

Section 2. The name of the District shall be "CITY OF SURPRISE, ARIZONA, SU-WINDSTNERNCH205 LIGHTING IMPROVEMENT DISTRICT."

Section 3. The District is formed, and shall exist, pursuant to the provisions of Title 48, Chapter 4, Article 2, Arizona Revised Statutes, and Section 48-616, Arizona Revised Statutes.

Section 4. The public interest or convenience requires, and it is the intention of the Mayor and Council of the City to order the Improvement as so described above.

Section 5. The Improvements, in the opinion of the Mayor and Council of the City, are of more than local or ordinary public benefit and are of special benefit to the respective lots, pieces and parcels of real property in the District, and the Mayor and Council of the City hereby make and order the expense of the Improvements payable from the levying and collection of ad valorem taxes upon the assessed value of all real and personal property in the District to be known and designated as "City of Surprise, Arizona SU-WindstneRnch205 Lighting Improvement District" and hereby declare that the District is as legally described on Exhibit A attached hereto with the boundaries as shown in the map in Exhibit B attached hereto. Any public street or alley within the District shall be omitted from the assessment. Any lot belonging to the United States, the State, a county, city, school district or political subdivision or institution of the state or county within the District shall be omitted from the assessment.

Section 6. The Superintendent of Streets or equivalent of the City shall not be required to post or cause to be posted notices of the Resolution of Intention. The Clerk of the City shall certify to the passage of this Resolution of Intention but shall not be required to cause the same to be published in a newspaper published and of general circulation in the City.

Section 7. The Mayor and Council of the City shall make annual statements and estimates of the expenses of the district, which shall be provided for by the levy and collection of ad valorem taxes upon the assessed value of all the real and personal property in the District; shall publish notice thereof; shall have hearings thereon; and shall adopt them at the times and in the manner provided for incorporated cities and towns by the applicable portions of Section 42-17101, et seq., 42-17152, Arizona Revised Statutes. The Mayor and Council of the City shall, on or before the third Monday in August of each year, fix, levy and assess the amount to be raised by ad valorem taxes upon all of the property of the District and collect, as Maricopa County, Arizona (the "County") taxes are collected, the amounts shown by the statements and estimates as adopted by the Mayor and Council of the City. All statutes providing for the levy and collection of State of Arizona and County taxes, shall be applicable to District taxes as provided to be levied under Section 48-616, Arizona Revised Statutes.

Section 8. The District shall not be authorized to issue bonds and no assessment for District purposes against the property within the District shall exceed One Dollar and Twenty Cents ($1.20) per each hundred dollars of taxable valuation thereof in any year.

Section 9. The District shall not engage in any activity other than as provided in Section 48-616, Arizona Revised Statutes, i.e., contracting for and purchasing of energy for street and public park lighting.

Section 10. The formation of the District shall not be considered as preventing the subsequent establishment of improvement districts for any other purpose authorized by law, including improvement districts for the purpose of construction street lighting facilities within any part or all of the same territory as the District.

Section 11. The type of lighting facilities to be installed in the District and the locations thereof shall consist of those lighting facilities and locations described in the petition submitted by Petitioner, or as may be approved by the City.

Section 12. The rate to be paid for purchasing the energy for the District shall be the rate described in the petition submitted by Petitioner, or as may be approved by the Arizona Public Service Company.

Section 13. Any resolutions or parts of resolutions in conflict with the provisions of this Resolution are hereby repealed.

APPROVED AND ADOPTED this __day of _____, 2022.

Skip Hall, Mayor

Attest:

Sherry Aguilar, City Clerk

Approved as to form:

Robert Wingo, City Attorney

Exhibit A

ATWELL

ONE COMPANY.
INFINITE SOLUTIONS.

STREET LIGHT IMPROVEMENT DISTRICT
WINDSTONE RANCH
CITY OF SURPRISE, ARIZONA

LOCATED WITHIN A PORTION OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A SET PK NAIL WITH TAG PLS 22282, ACCEPTED AS THE SOUTHEAST CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST FROM WHICH A SET PK NAIL WITH TAG STAMPED PLS 22282, ACCEPTED AS THE EAST QUARTER CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, THEREOF BEARS N00°07'05"W A DISTANCE OF 2645.63 FEET;

THENCE, ALONG THE EAST LINE OF SAID SECTION 5, N00°07'05"W A DISTANCE OF 1984.22 FEET;

THENCE, LEAVING THE EAST LINE OF SAID SECTION 5, N89°40'13"W A DISTANCE OF 1310.83 FEET TO THE **POINT OF BEGINNING**;

THENCE, S00°02'31"E A DISTANCE OF 1982.94 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE LEFT;

THENCE, WESTERLY ALONG SAID CURVE AN ARC LENGTH OF 250.00 FEET, WITH A RADIUS OF 1900.00 FEET AND THE RADIAL BEARING OF S00°23'05"W AND A CENTRAL ANGLE OF 07°32'20";

THENCE, S82°50'45"W A DISTANCE OF 450.86 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE RIGHT;

THENCE, WESTERLY ALONG SAID CURVE AN ARC LENGTH OF 250.00 FEET, WITH A RADIUS OF 1900.00 FEET AND A CENTRAL ANGLE OF 07°32'20";

THENCE, N89°36'55"W A DISTANCE OF 367.38 FEET;

THENCE, N00°01'59"E A DISTANCE OF 1413.09 FEET;

THENCE, CONTINUING ALONG SAID LINE, N00°01'59"E A DISTANCE OF 660.57 FEET;

THENCE, S89°40'13"E A DISTANCE OF 1310.87 FEET TO THE **POINT OF BEGINNING**.

ATWELL

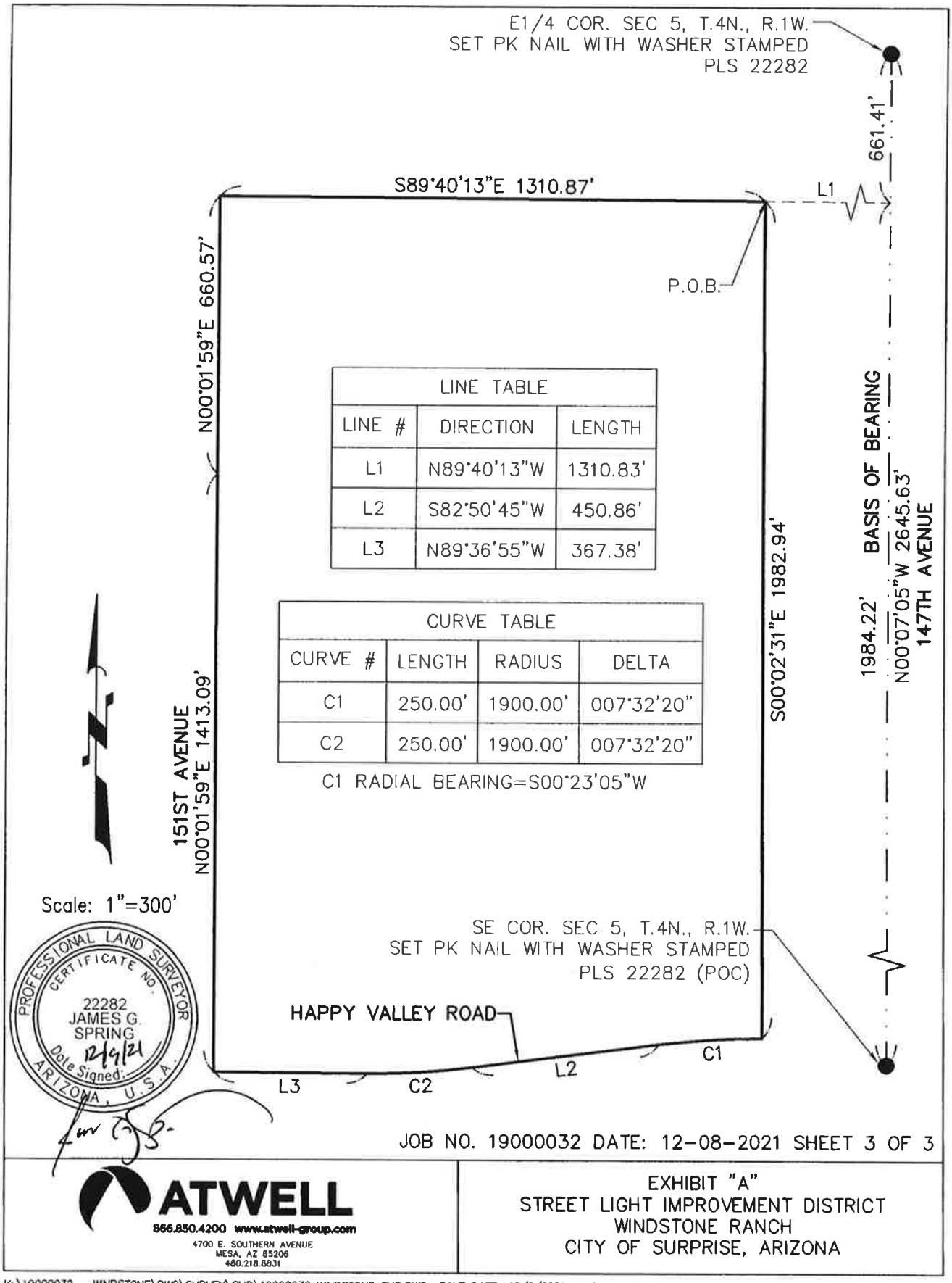
ONE COMPANY.
INFINITE SOLUTIONS.

THE ABOVE DESCRIBED PARCEL CONTAINS A COMPUTED AREA OF 2,678,384 SQUARE FEET OR 61.49 ACRES, MORE OR LESS AND IS SUBJECT TO ANY EASEMENTS, RESTRICTIONS, OR RIGHTS OF WAY OF RECORD OR OTHERWISE.

THE DESCRIPTION SHOWN HEREON IS NOT TO BE USED TO VIOLATE ANY SUBDIVISION REGULATIONS OF THE STATE, COUNTY AND/OR MUNICIPALITY OR ANY OTHER LAND DIVISION RESTRICTIONS.

PREPARED BY:
ATWELL, LLC
4700 E. SOUTHERN AVENUE
MESA, ARIZONA 85206
PROJECT NO.19000032
DECEMBER 8TH, 2021

EXHIBIT B



LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N89°40'13"W	1310.83'
L2	S82°50'45"W	450.86'
L3	N89°36'55"W	367.38'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	250.00'	1900.00'	007°32'20"
C2	250.00'	1900.00'	007°32'20"

C1 RADIAL BEARING=S00°23'05"W

PROFESSIONAL LAND SURVEYOR
CERTIFICATE NO.
22282
JAMES G. SPRING
Date Signed: 12/9/21
ARIZONA, U.S.A.

JOB NO. 19000032 DATE: 12-08-2021 SHEET 3 OF 3

ATWELL
866.850.4200 www.atwell-group.com
4700 E. SOUTHERN AVENUE
MESA, AZ 85206
480.218.8831

EXHIBIT "A"
STREET LIGHT IMPROVEMENT DISTRICT
WINDSTONE RANCH
CITY OF SURPRISE, ARIZONA

K:\19000032 - WINDSTONE\DWG\SURVEY\SLID\19000032 WINDSTONE SLID.DWG SAVE DATE: 12/8/2021 6:40 AM PLOT DATE: 12/8/2021 6:45 AM

Name: WINDSTONE SLID BDRY

North: 988593.0315' East: 558607.7276'

Segment #1 : Line

Course: S0°02'31.233"E Length: 1982.9410'

North: 986610.0910' East: 558609.1815'

Segment #2 : Curve

Length: 250.0000' Radius: 1900.0000'

Delta: 7°32'20.11" Tangent: 125.1807'

Chord: 249.8197' Course: S86°36'55.346"W

Course In: S0°23'05.399"W Course Out: N7°09'14.707"W

RP North: 984710.1339' East: 558596.4200'

End North: 986595.3420' East: 558359.7976'

Segment #3 : Line

Course: S82°50'45.293"W Length: 450.8603'

North: 986539.1927' East: 557912.4473'

Segment #4 : Curve

Length: 250.0000' Radius: 1900.0000'

Delta: 7°32'20.11" Tangent: 125.1807'

Chord: 249.8197' Course: S86°36'55.346"W

Course In: N7°09'14.707"W Course Out: S0°23'05.399"W

RP North: 988424.4009' East: 557675.8248'

End North: 986524.4438' East: 557663.0634'

Segment #5 : Line

Course: N89°36'54.601"W Length: 367.3846'

North: 986526.9113' East: 557295.6870'

Segment #6 : Line

Course: N0°01'58.660"E Length: 1413.0940'

North: 987940.0051' East: 557296.5000'

Segment #7 : Line

Course: N0°01'58.660"E Length: 660.5706'

North: 988600.5756' East: 557296.8800'

Segment #8 : Line

Course: S89°40'12.954"E Length: 1310.8693'

North: 988593.0316' East: 558607.7276'

Perimeter: 6685.7197' Area: 2678384.15 Sq. Ft.

Error Closure: 0.0001 Course: N18°07'53.079"W

Error North: 0.00011 East: -0.00004

Precision 1: 66857198.0000

STREET LIGHT IMPROVEMENT DISTRICT PETITION

TO THE MAYOR AND COUNCIL OF THE CITY OF SURPRISE:

We, the undersigned, are all or a majority of the real property owners, exclusive of mortgagees and other lienholders, within the district named below. We petition the City Council of the City of Surprise, Arizona, to establish a street light improvement district under Arizona Revised Statutes (A.R.S.) §48-571 to 48-622, and any amendments, and specifically A.R.S. §48-615 to 48-617, to purchase electricity for lighting the public streets and/or parks within the district whose boundaries and area is described in Exhibits A and B attached hereto. This petition includes a charge for maintaining the lighting facilities.

It is hereby requested that, in compliance with the Arizona Revised Statutes, the City Council adopt a Resolution of Intention to order the proposed improvements, and that unless protests are received pursuant to A.R.S. §48-579 sufficient to bar further proceedings, the City Council proceed with the improvements petitioned for herein.

Expenses of the District (**PICK ONE**)

● shall be paid by the levy and collection of ad valorem taxes upon assessed value of all property in the District

○ shall be paid by the levy and collection of equal apportionment of taxes based on the number and classification of properties within the District.

Public convenience, necessity and welfare will be promoted by the establishment of the District and the real property within the District will be benefited by the District. Additional street lighting facilities may be installed and included in the District, at no investment cost to the District, as directed by the City and as approved by Arizona Public Service and the City Engineer.

WHEREFORE, we respectfully ask that this Petition be properly filed and that the Mayor and Council of the City adopt the Resolution and take such other action as is proper, necessary and appropriate to form the District and to fulfill the purposes for which the District is organized, as the Mayor and Council believe is proper and necessary.

The name of the proposed street light improvements district shall be:

SU-WindstneRnch205

(Leave Blank - to be assigned by City staff)

PETITIONERS: Please print and sign your name

PRINT BUSINESS/ PETITIONER'S NAME	ADDRESS OF PROPERTY OWNED WITHIN DISTRICT	ASSESSOR PARCEL #	SIGNATURE
R-Hearthstone Lot Option Pool 04, LP	N/A	503-54-013C 503-54-013B 503-54-013D 503-54-005C 503-54-005D	Steven C. Porath Authorized Representative

AVAILABILITY

This rate schedule is applicable to those portions of cities, towns and unincorporated communities in which the Company does a general retail electric business and where the Company has installed a multiple or series street lighting system of adequate capacity for the service to be rendered after December 1, 2021.

DESCRIPTION

E-68 is a rate that is applicable for lighting public streets, alleys, thoroughfares, public parks and playgrounds from dusk to dawn by use of Company's facilities.

TIME PERIOD

Dusk: The time between sunset and full night when photocontrol senses the lack of sufficient sunlight and turns on the lights.

Dawn: The time between full night and sunrise when a photocontrol senses sufficient sunlight to turn off lights.

CHARGES

The monthly bill will consist of the fixture and energy charges, plus adjustments:

I. FIXTURES (Includes Mounting Arm, if applicable)

Fixture Equipment Class	Fixture Cost Range (per unit)	Investment by Company Monthly Rate	Investment by Others Monthly Rate
A	$ 1 - $ 430	$5.72	$1.75
B	$ 431 - $ 520	$6.97	$2.12
C	$ 521 - $ 640	$8.36	$2.60
D	$ 641 - $ 820	$9.99	$3.32
E	$ 821 - $ 910	$12.64	$3.68
F	$ 911 - $ 1,010	$14.07	$4.08
G	$ 1,011 - $ 1,110	$15.38	$4.49
H	$ 1,111 - $ 1,250	$17.44	$5.04
I	$ 1,251 - $ 1,520	$19.40	$6.12
J	$ 1,521 - $ 1,670	$23.65	$6.73
K	$ 1,671 - $ 1,850	$26.29	$7.45

Note: Equipment cost greater than $1,850 shall be Customer owned.

II. ENERGY (Includes Generation, T&D, RCS & SBC)

Monthly energy charges for new lighting fixtures will be determined by the Company using the following method:

kWh = Fixture Wattage x 344 Usage Hours

Generation = kWh per month x $ 0.06621

T&D, RCS, System Benefits = kWh per month x $ 0.02682

NOTES:

1. Investment by Company. These rates are applicable where the Company provides the initial investment to purchase and install all facilities necessary for street lighting service. The Company will own, operate, and maintain the street lighting system.

2. Investment by Others. These rates are applicable in those instances where the requesting entity or individual purchases and installs the street lighting facilities at their own expense and in accordance with Company specifications. These rates will also apply in the instance where the Customer provides a non-refundable advance to the Company to cover the Company's cost of purchasing and installing the street lighting system. The Company retains ownership of the street lighting system and provides operation and maintenance for all facilities.

3. Listed kWh reflects the assigned monthly energy usage for each type of fixture and are used to determine any applicable transmission, system benefit, distribution, energy, and adjustment charges.

4. kWh is determined by the company based on the rated wattage of the equipment and an established average hourly usage per month.

5. The monthly rate for all new poles includes up to 300 feet of overhead secondary wire, or up to 300 feet of underground secondary wire if the Customer provides earthwork and conduit (excluding the underground to overhead transition).

III. POLES

				CHARGES	
			Height	Investment by Company	Investment by Others
A. Anchor Base Mounted (Flush)	Round Steel	1 Simplex Adapter	12 ft.	$12.84	$1.77
			22 ft.	$14.45	$1.99
			25 ft.	$15.64	$2.16
			30 ft.	$17.96	$2.47
			32 ft.	$18.87	$2.50
		2 Simplex Adapters	12 ft.	$13.69	$1.89
			22 ft.	$15.73	$2.17
			25 ft.	$16.41	$2.26
			30 ft.	$19.07	$2.63
			32 ft.	$20.34	$2.81
	Square Steel	5"	13 ft.	$14.72	$2.02
			15 ft.	$13.15	$1.81
			23 ft.	$15.60	$2.15
			25 ft.	$17.15	$2.36
			28 ft.	$19.04	$2.62
			32 ft.	$18.93	$2.61
	Concrete		12 ft.	$43.87	$6.04
	Fiberglass		12 ft.	$37.15	$5.11
	Decorative Transit	4"	16 ft.	$36.22	$5.00
	Decorative Transit	6"	30 ft.	$69.93	$9.63
	Hinged Poles	Square	15 ft.	$13.92	$1.14
		Round	19 ft.	$12.59	$1.03
B. Anchor Base Mounted (Pedestal)	Round Steel	1 Simplex Adapter	12 ft.	$12.35	$1.69
			22 ft.	$13.97	$1.92
			25 ft.	$15.14	$2.09
			30 ft.	$17.48	$2.42
			32 ft.	$18.37	$2.53
		2 Simplex Adapters	12 ft.	$13.19	$1.81
			22 ft.	$14.74	$2.02
			25 ft.	$15.91	$2.18
			30 ft.	$18.58	$2.55
			32 ft.	$19.84	$2.73
		3 Bolt	32 ft.	$22.80	$3.13
	Square Steel	5"	13 ft.	$14.24	$1.97
			15 ft.	$14.56	$1.99
			23 ft.	$15.11	$2.09
			25 ft.	$16.67	$2.31
			28 ft.	$18.52	$2.55
			32 ft.	$19.23	$2.63

III. POLES (cont.)

				CHARGES	
			Height	Investment by Company	Investment by Others
C. Direct Bury	Round Steel		19 ft.	$19.43	$2.68
			30 ft.	$15.17	$2.81
			38 ft.	$18.51	$2.88
		Self	40 ft.	$22.80	$3.61
		Stepped	25 ft.	$52.45	$4.28
			32 ft.	$55.24	$4.51
			49 ft.	$68.57	$9.45
	Square Steel	4"	34 ft.	$16.74	$2.90
		5"	20 ft.	$15.90	$2.63
			30 ft.	$16.57	$2.73
			38 ft.	$17.98	$3.12
		8"	28 ft.	$30.01	$2.44
			32 ft.	$31.37	$2.57
	Decorative Transit		41 ft 6	$21.60	$3.17
	Decorative Transit		47 ft.	$26.91	$3.96
	Steel Distribution Pole (for lighting only)		35 ft.	$24.84	$3.27
D. Post Top	Decorative Transit Anchor Base		16 ft.	$37.00	$5.08
	Gray Steel/Fiberglass		23 ft.	$12.83	$2.11
	Black Steel		23 ft.	$14.14	$2.33
E. Existing distribution pole suitable for streetlight use				$1.56	--

IV. ANCHOR BASE

			CHARGES	
		Height	Investment by Company	Investment by Others
A. Flush		4 ft.	$10.45	$1.44
		6 ft.	$12.47	$2.16
B. Pedestal		8 ft.	$14.29	$2.49
	For 32' Round Steel Pole only	4 ft. 6"	$9.91	$1.71

V. CHARGES FOR OPTIONAL OR ADDITIONAL COMPANY OWNED EQUIPMENT

Underground Circuit Charges	
a. Per foot of cable, installed under paving	$0.16652
b. Per foot of cable, not installed under paving	$0.05877

TRIP CHARGE

A $150.00 trip charge per light will be charged when a Customer requests a disconnect or reconnect of service in order to accommodate the maintenance activities of the Customer or its designee(s) on their street lighting equipment.

ADJUSTMENTS

The bill will include the following adjustments:

1. The Renewable Energy Standard charge, Adjustment Schedule REAC-1.
2. The Power Supply Adjustment charges, Adjustment Schedule PSA-1.
3. The Transmission Cost Adjustment charge, Adjustment Schedule TCA-1.
4. The Environmental Improvement Surcharge, Adjustment Schedule EIS.
5. The Demand Side Management Adjustment charge, Adjustment Schedule DSMAC-1.
6. Direct Access Customers returning to Standard Offer service may be subject to a Returning Customer Direct Access Charge, Adjustment Schedule RCDAC-1.
7. The Tax Expense Adjustor Mechanism charge, Adjustment Schedule TEAM
8. Any applicable taxes and governmental fees that are assessed on APS's revenues, prices, sales volume, or generation volume.

SERVICE DETAILS

1. Street lighting facilities installed under this rate schedule are of the type currently being furnished by Company as standard at the time service is initially requested. Standard facilities are those listed in the Company's Transmission and Distribution Construction Standards book.

2. The Customer's bill will not be reduced due to photocontrol or cable repair or replacement outages.

3. Non-standard facilities (non-standard being defined as any facility not listed in the Company's Transmission and Distribution Construction Standards book) do not qualify for this rate schedule. At the Company's discretion, such facilities may be served under another of the Company's rate schedules.

4. The Company will extend its standard street lighting system up to a distance of 300 feet for each additional lighting installation without cost at the request of the Customer. When the extension is underground, the customer will provide earthwork as specified in the Company's Service Schedule 3, Conditions Governing Extensions of Electric Distribution Lines and Services; or, at the applicant's request, the Company will provide such earthwork and the applicant will be required to pay a non-refundable contribution in aid of construction equal to the cost of such earthwork. Any additional extension required (over and above the first 300 feet) will be provided by Company for a contribution in aid of construction equal to the cost of the additional extension.

    a. Extensions to isolated areas requiring a substantial extension of the electric distribution system, as opposed to an extension of the street lighting system, will require a special study to determine the terms and conditions under which the Company will undertake such an extension.

5. APS provides electric service under the Company's Service Schedules. These schedules provide details about how the Company serves its Customers, and they have provisions and charges that may affect the Customer's bill. In addition, service may be subject to special terms and conditions as provided for in a Customer contract, maintenance, or service agreement.

WINDSTONE RANCH PHASE 2
STREETLIGHT PLANS
SURPRISE, ARIZONA

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER MERIDIAN, CITY OF SURPRISE, MARICOPA COUNTY, ARIZONA

RECEIVED
12/23/2021
FS21-1037

OWNER/DEVELOPER	LANDSCAPE ARCHITECT	CIVIL ENGINEER	ELECTRICAL ENGINEER
LENNAR ARIZONA INC., 1665 W. ALAMEDA DRIVE, SUITE 130 TEMPE, ARIZONA 85282 PHONE: (602) 332-4674 CONTACT: JOAN SCARBROUGH	RVI PLANNING + LANDSCAPE ARCHITECTURE 120 S. ASH AVENUE TEMPE, ARIZONA 85281 PHONE: (480) 994-0994 CONTACT: SHAWN BYRON, PLA	ATWELL 4700 E. SOUTHERN AVENUE MESA, ARIZONA 85208 PHONE: (480) 218-8831 CONTACT: MICHAEL PARK, PE	HORNS CONSULTING, LLC 1243 E. MURIEL DRIVE PHOENIX, ARIZONA 85022 PHONE: (602) 256-8990 CONTACT: DOUG HORNING & GREG LARSON, PE

ENGINEERS NOTES

1. A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATIONS OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA, HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OBSTRUCTIONS AND UTILITY LINES ENCOUNTERED DURING CONSTRUCTION AND SHALL DETERMINE THE EXACT LOCATION OF UTILITIES IN ADVANCE OF TRENCHING. THE ENGINEER AND/OR DEVELOPER WILL NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
2. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, REQUIREMENTS OF THE WORK AND EXCESS OF DEFICIENCY IN QUANTITIES. IF ANY, NO CLAIMS SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OF RELATIVE.
3. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. ANY QUANTITIES SHOWN ARE THE BEST ESTIMATE OF THE ENGINEER. THE SUBCONTRACTOR SHALL MAKE HIS OWN INDEPENDENT ESTIMATE OF QUANTITIES AND BASE HIS BID THEREON.
5. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF UTILITIES, POWER POLES, ETC.
6. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
7. THE CONTRACTOR WILL MAKE FIELD AS-BUILT MEASUREMENTS OF THE WORK. THESE MEASUREMENTS WILL BE GIVEN TO THE ENGINEER IN WRITING SO THAT AS-BUILT PLANS CAN BE CREATED. IF THE CONTRACTOR DOES NOT TAKE AS-BUILT MEASUREMENTS OR FORWARD THESE MEASUREMENTS TO THE ENGINEER, THE ENGINEER WILL NOT BE RESPONSIBLE FOR PROVIDING ACCURATE AS-BUILT OF THE POLES, ETC.
8. AS-BUILT SUBMITTALS WILL NOT BE PERFORMED UNTIL ORDERED BY THE CLIENT OR HIS MEASUREMENTS.
9. HORNS CONSULTING LLC., IT'S OWNERS, OR EMPLOYEES WILL NOT BE HELD RESPONSIBLE FOR ANY DESTRUCTION OF PROPERTY CAUSED BY OTHERS. IDENTIFY ALL OTHER UTILITIES & CALL BLUE STAKE PRIOR TO DIGGING.
10. SIDEWALK TO MEANDER AROUND ALL STREET LIGHTS AND APS EQUIPMENT.

CITY OF SURPRISE NOTES

1. ALL CONSTRUCTION MUST CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENT (MAG) SPECIFICATIONS AND DETAILS AND LATEST REVISIONS UNLESS OTHERWISE STATED ON PLANS.
2. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND THEY WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL OVERHEAD AND UNDERGROUND UTILITY LOCATIONS WHERE CONSTRUCTION OCCURS. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT ALL UTILITIES ARE AVOIDED. UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND NOT FOR CONSTRUCTION PURPOSES. ANY DAMAGE TO EXISTING TO EXISTING UTILITIES SHALL BE REPAIRED AND OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT BLUE STAKE LAWS. CALL BLUE STAKE FOR FIELD LOCATION AT (602) 263-1100.
4. THE CITY OF SURPRISE ENGINEERING SERVICES OF PUBLIC WORKS SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORK AT (623) 222-4150.
5. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE PROPOSED AND RESUBMITTED FOR REVIEW AND APPROVAL.
6. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
7. ANY INSPECTION BY THE CITY, COUNTY, OR THE ENGINEER, SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
8. THE CONTRACTOR IS TO LOCATE ALL EXISTING LANDSCAPING, IRRIGATION LINES, PROPERTY MONUMENTS, FENCING OR SURFACE FEATURES PRIOR TO CONSTRUCTION. ANYTHING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTORS EXPENSE.
9. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
10. ALL CONSTRUCTION WATER USED WITHIN THE CITY OF SURPRISE WATER SERVICE AREA REQUIRES APPROVAL BY THE CITY OF SURPRISE PUBLIC WORKS DEPARTMENT AND MAY BE SUBJECT TO VOLUME AND TIME RESTRICTIONS. PLEASE SEE THE CITY OF SURPRISE CONSTRUCTION WATER GUIDELINES FOR ADDITIONAL INFORMATION. THE GUIDELINES CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT AT (623) 222-7000.
11. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE "TEMPORARY WORK ZONE TRAFFIC MANAGEMENT POLICY" (LATEST EDITION).
12. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
13. EMERGENCY VEHICLE ACCESS (E.V.A) MUST BE PROVIDED BY THE DEVELOPER/CONTRACTOR THROUGHOUT THE PROJECT SITE. E.V.A. ROADS AND SIGNAGE SHALL BE MAINTAINED BY THE DEVELOPER/CONTRACTOR AT ALL TIMES. SIGNAGE SHALL BE POSTED AT THE POINT OF ENTRY TO THE SITE AND AT ALL LOCATIONS WHERE A CHANGE IN DIRECTION OCCURS.
14. THE PLANS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT'S ACCESSIBILITY GUIDELINES, AS PUBLISHED IN THE FEDERAL REGISTER ON SEPTEMBER 15, 2010.

CITY ADDITIONAL NOTES

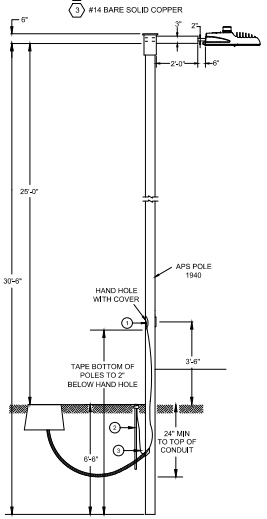
1 THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON LOCAL AND COLLECTOR STREETS ARE TO BE PAID BY THE ADJACENT DEVELOPMENT'S STREET LIGHT IMPROVEMENT DISTRICT (SLID). THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON ARTERIAL STREETS ARE TO BE BILLED TO THE CITY OF SURPRISE'S ENERGY BILL.

2 CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATION AT TIME OF BIDDING AND CONSTRUCTION.

Horns Consulting, LLC
www.hornsconsulting.com
Phone: (623)256-8990
E-mail: doug@hornsconsulting.com
1243 E. Muriel Drive, Phoenix, Arizona 85022

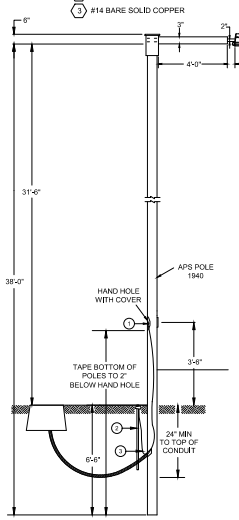
1 39W LED (APS 8030) DETAIL 1

1. GROUND ATTACHMENT
2. ROD COPPERCLAD GRD., 5/8" x 8'
3. #14 BARE SOLID COPPER



1A 96W LED (APS 8030) DETAIL 1A

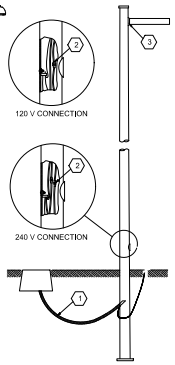
1. GROUND ATTACHMENT
2. ROD COPPERCLAD GRD., 5/8" x 8'
3. #14 BARE SOLID COPPER



2 (APS 8130) DETAIL 2

TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

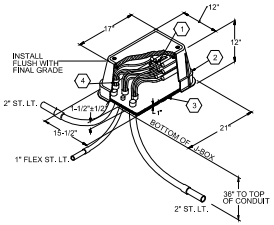
1. 1" FLEX CONDUIT
2. IN-LINE FUSE HOLDER WITH 15AMP FUSE
3. CONNECT BUTT-SPLICE #16-#14



3 (APS 8655) DETAIL 3

TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

1. SET SCREW INSULATED JUNCTION BAR
2. JUNCTION BOX 10"X15"X12"
3. CONCRETE GROUT PREMIX
4. I.D. RINGS (FEED, POLES)



UTILITY COORDINATION LIST

DESCRIPTION	REPRESENTATIVE	PHONE	DATE
APS	MONIQUE HOLLIDAY	(602) 250-1000	11-01-2021
CENTURY LINK	DEBBIE RAMSEY	(602) 630-0492	11-01-2021
SOUTHWEST GAS	ZACH STEVENSON	(602) 484-5270	11-01-2021
COX COMMUNICATIONS	TMC (TRAFFIC MANAGEMENT CENTER)	(623) 322-7215	11-01-2021

* CONFLICTS ARISING DURING THE COURSE OF CONSTRUCTION FROM UNFORSEEN CIRCUMSTANCES SHALL BE REPORTED TO THE INTERESTED UTILITY COMPANY AND BE RESOLVED BY THEM AND THE DESIGN ENGINEER.

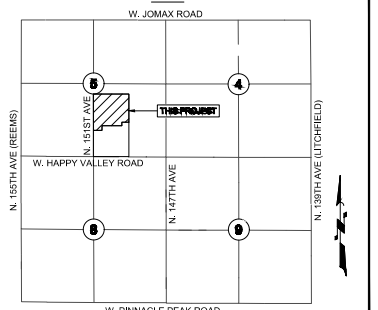
LED NOTE:
LED TECHNOLOGY IS CHANGING RAPIDLY, THE FIXTURES SHOWN ON THESE PLANS MAY NOT BE APPLICABLE AT TIME OF CONSTRUCTION. CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATIONS AT THE TIME OF BIDDING AND CONSTRUCTION.

STREETLIGHT NOTE:
ENSURE THERE IS A 1' CLEARANCE FROM THE EDGE OF THE SIDE WALK TO THE FACE OF THE POLE.

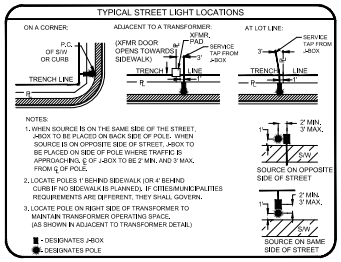
EQUIPMENT LIST

ITEM #	SYMBOL	TYPE STREET:	QUANTITY	MOUNTING HEIGHT	POLE HEIGHT:	MAST ARM	LUMENS	TYPE	WATTAGE	VOLTAGE	C.C.T.	PHOTOMETRIC	LUMINAIRE
1		LOCAL	26	25'-0"	30'-6"	2'-0"	4,900	LED	39W	120V	3000K	TYPE II WIDE	ERL1-0-05-B3-30-A-DKBZ (26)
1A		COLLECTOR	3	31'-6"	38'-0"	4'-0"	11,500	LED	96W	120V	3000K	TYPE III	ERLH-0-11-C3-30-A-DKBZ (3)
		ITEM DESCRIPTION											
2		1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT.											
3		INSTALL AN APS JUNCTION BOX NEXT TO THE POLE PER JUNCTION BOX DETAIL.											

VICINITY MAP
N.T.S.



TYPICAL STREET LIGHT LOCATIONS



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

DETAILS AND LEGEND FOR STREETLIGHTS:

- (1) INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.
- (1A) INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.
- (2) INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
- (3) INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.
- FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)
- FIRE HYDRANT LOCATION PER CIVIL PLANS

THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF PERMITS. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLIANCE APPROVAL SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTIONS OF ERRORS OR OMISSIONS IN PLANS FOUND TO BE IN VIOLATION OF LAW OR ORDINANCES.

CITY OF SURPRISE ENGINEER _____ DATE _____

INDEX

1 ~ COVER SHEET
2 ~ LIGHTING LAYOUT
3 ~ LIGHTING LAYOUT
4 ~ LIGHTING LAYOUT
5 ~ PHOTOMETRICS
6 ~ PHOTOMETRICS
7 ~ PHOTOMETRICS

WINDSTONE RANCH PHASE 2
COVER SHEET
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

NO.	REVISIONS	BY	DATE

SHEET 1 OF 7

Contact: Doug Horning/Greg Larson P.E.
Horns Consulting Project #: 21SL1318

Designed By:	DH	11/01/2021
Drawn By:	DH	11/01/2021
Reviewed By:	GL	11/01/2021

FS21-____

WINDSTONE RANCH PHASE 2
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "A"

DETAILS AND LEGEND FOR STREETLIGHTS:

- (1) INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-0" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.
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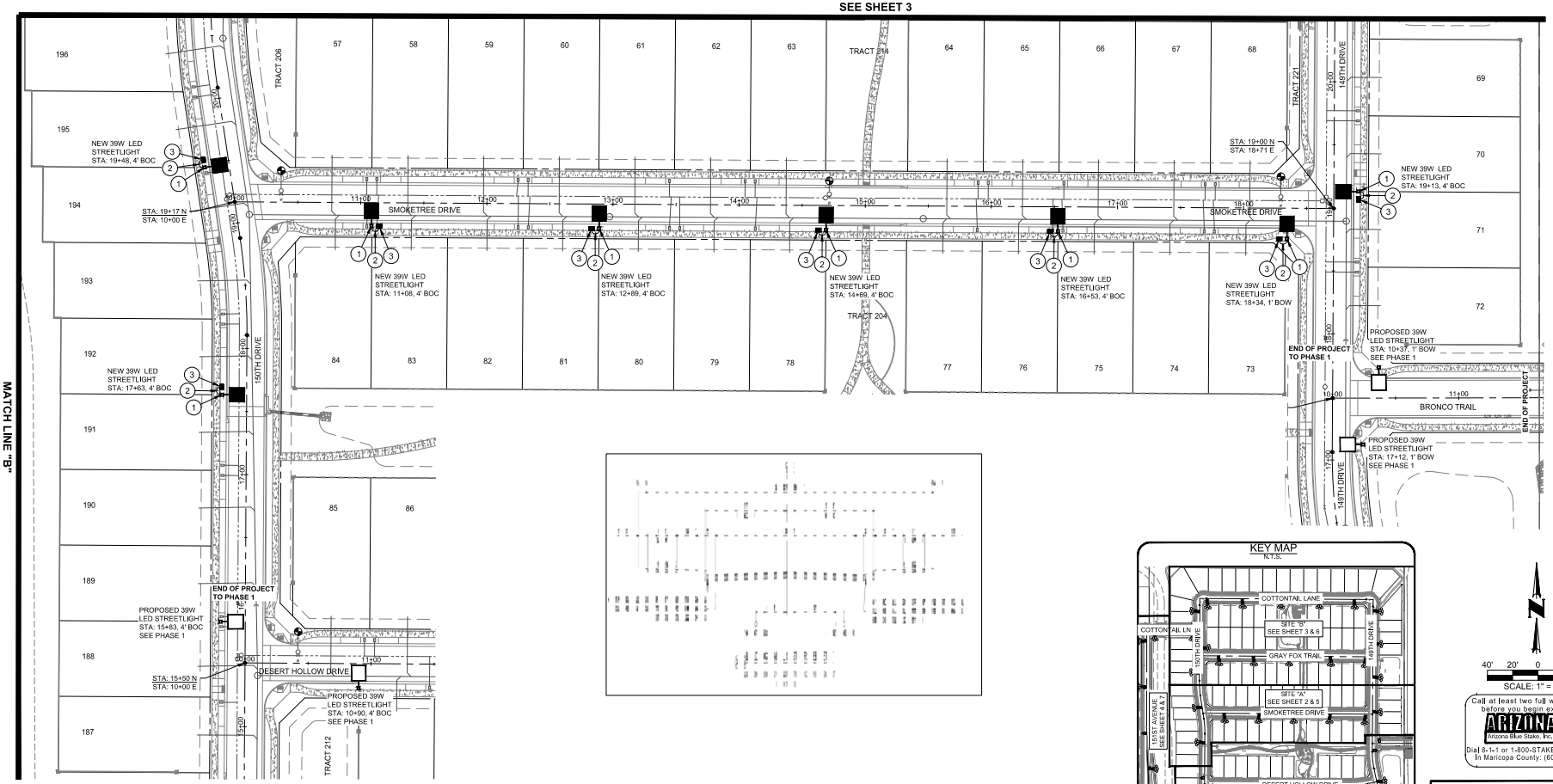
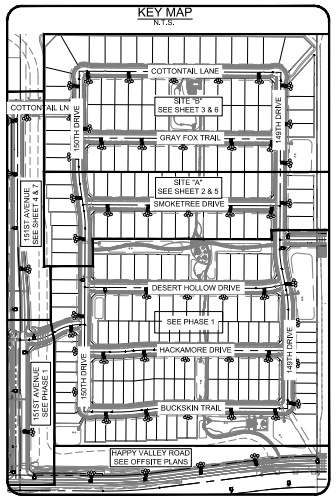
- FIRE HYDRANT LOCATION PER CIVIL PLANS

MATCH LINE "A"
SEE SHEET 3

MATCH LINE "B"
SEE SHEET 4



KEY MAP
N.T.S.



40' 20' 0 40'
SCALE: 1" = 40'

Call at least two full working days before you begin excavation.
ARIZONA 811
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In Maricopa County: (602) 263-1100

WINDSTONE RANCH PHASE 2
LIGHTING LAYOUT
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8090
www.hornsconsulting.com

NO	REVISIONS	BY	DATE

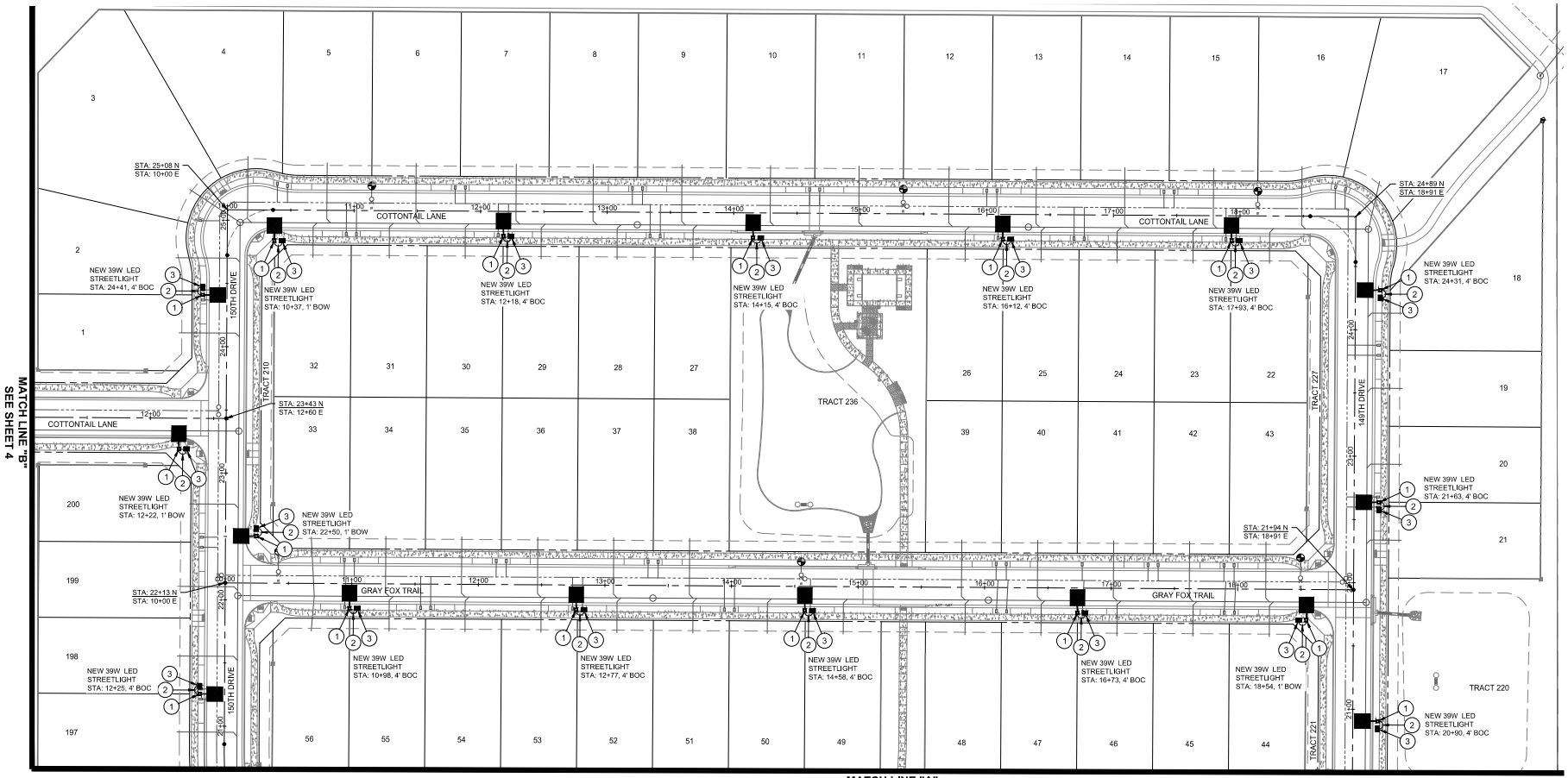
SHEET 2 OF 7

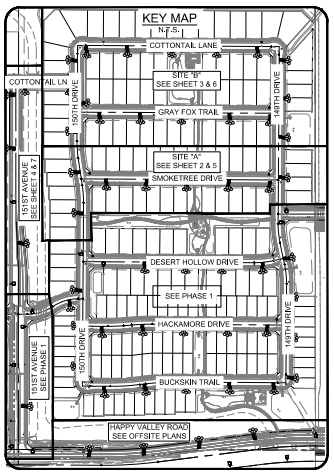
Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL1318

Designed By:	DH	11/01/2021
Drawn By:	DH	11/01/2021
Reviewed By:	GL	11/01/2021

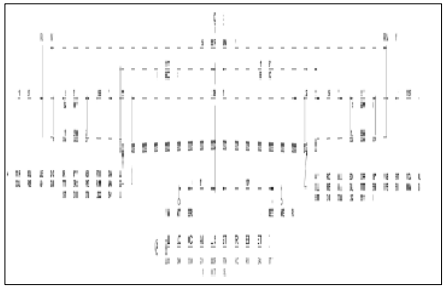
28582 CERTIFICATE NO. GREG D. LARSON ARIZONA U.S.A.

FSZ1-____





WINDSTONE RANCH PHASE 2
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "B"



DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-0" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.

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2. INSTALL 1" FLEX PVC W/3-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT, SEE DETAIL 2.

3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

N

40' 20' 0 40'

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WINDSTONE RANCH PHASE 2
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PHOENIX, ARIZONA 85022
PHONE: (623) 256-8690
www.hornsconsulting.com

NO	REVISIONS	BY	DATE

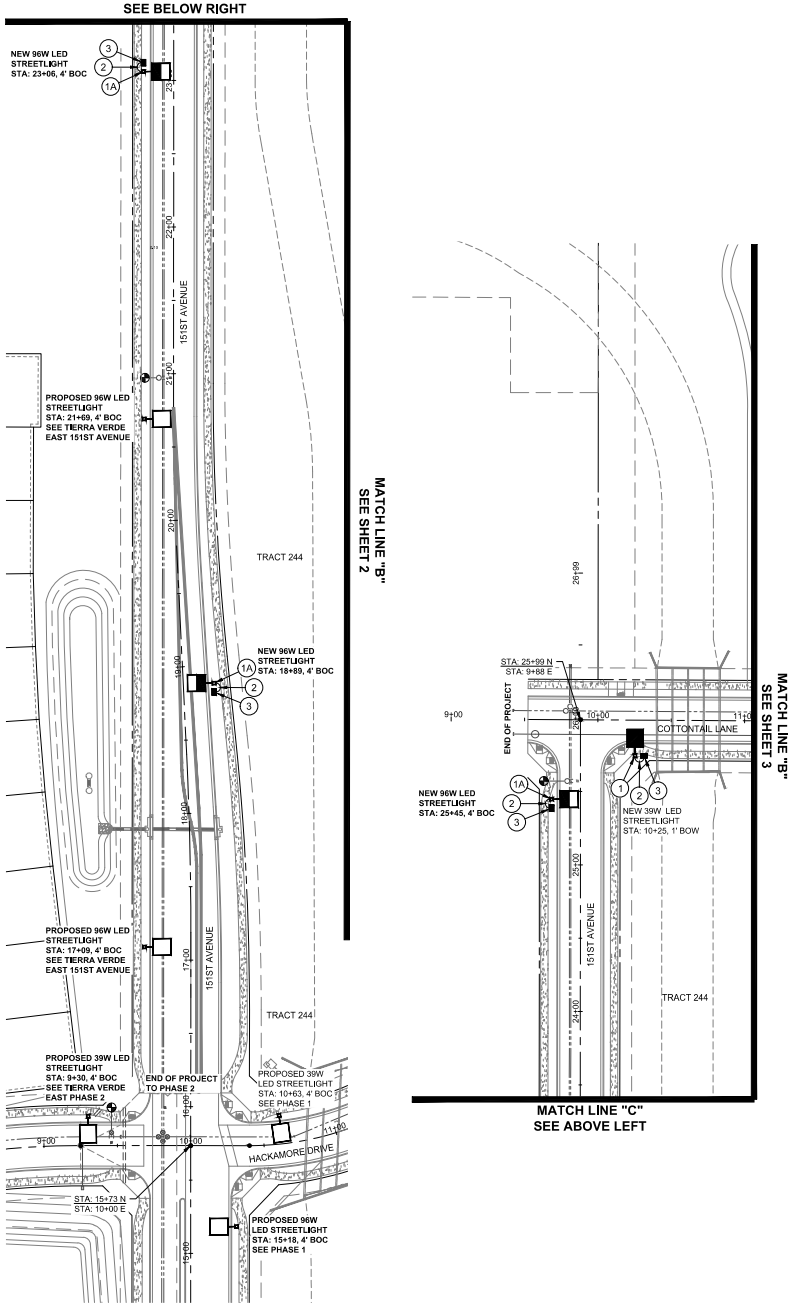
SHEET 3 OF 7

Contact: Doug Horning/Greg Larson,P.E.

Horns Consulting Project #	21SL1318	
Designed By:	DH	11/01/2021
Drawn By:	DH	11/01/2021
Reviewed By:	GL	11/01/2021

FSZ1-____

WINDSTONE RANCH PHASE 2
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "C"



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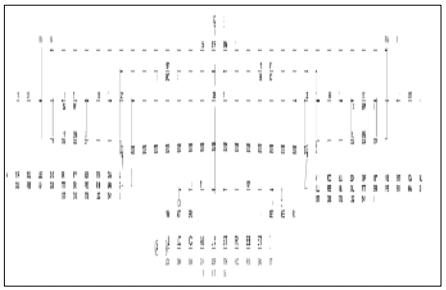

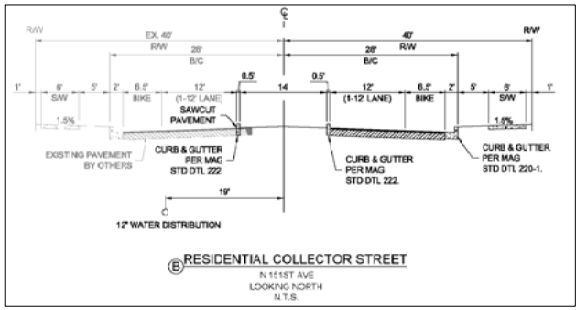

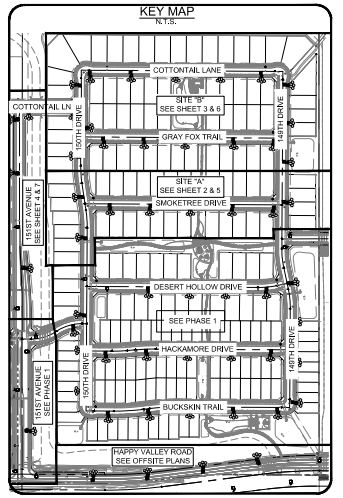

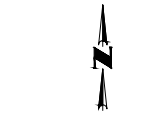

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NO	REVISIONS	BY	DATE

SHEET 4 OF 7

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL131C

Designed By:	DH	11/01/2021
Drawn By:	DH	11/01/2021
Reviewed By:	GL	11/01/2021

FSZ1-____

WINDSTONE RANCH PHASE 2
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "A"

DETAILS AND LEGEND FOR STREETLIGHTS:

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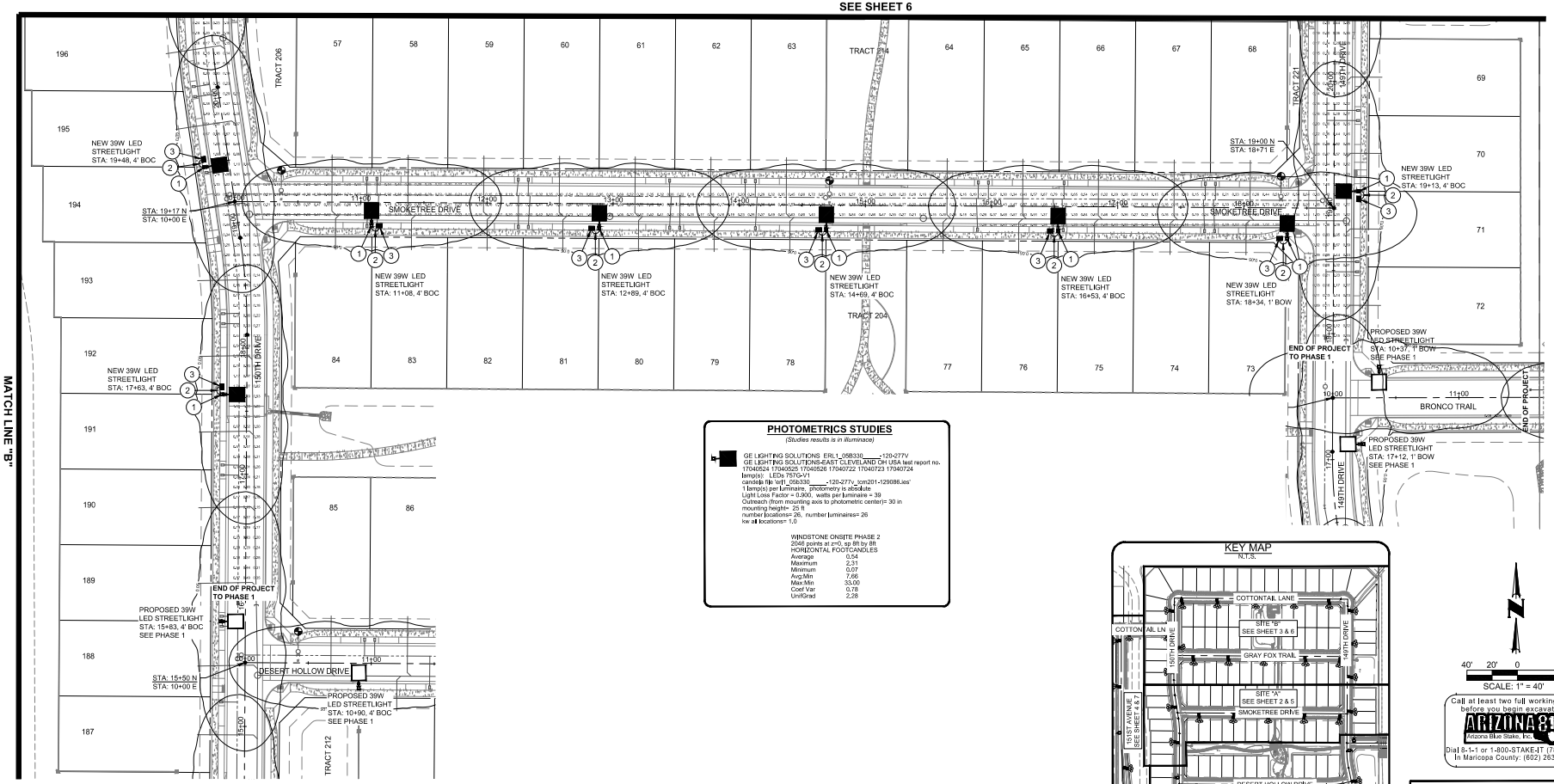
- FIRE HYDRANT LOCATION PER CIVIL PLANS

MATCH LINE "A"
SEE SHEET 6



PHOTOMETRICS STUDIES

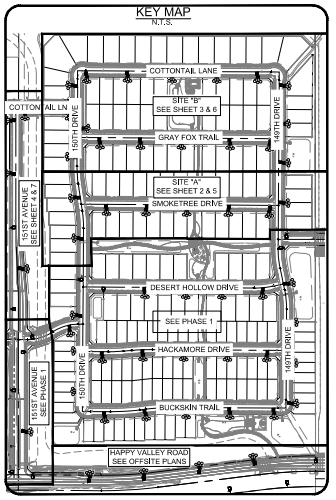
(Studies results is in illuminace)

GE LIGHTING SOLUTIONS ERL1_058330_____120-277V
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no- 17040524 17040525 17040826 17040722 17040723 17040724
lamp(s): LEDs 757G-V1
candela file 'ert1_058330_____120-277v_tcm201-129086.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting height= 25 ft
number locations= 26, number luminaires= 26
kw all locations= 1.0

WINDSTONE ONSITE PHASE 2
2046 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	0.54
Maximum	2.31
Minimum	0.07
Avg:Min	7.66
Max:Min	33.00
Coef Var	0.78
Unif:Grad	2.28

KEY MAP
N.T.S.



SCALE: 1" = 40'

Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

WINDSTONE RANCH PHASE 2
PHOTOMETRICS
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

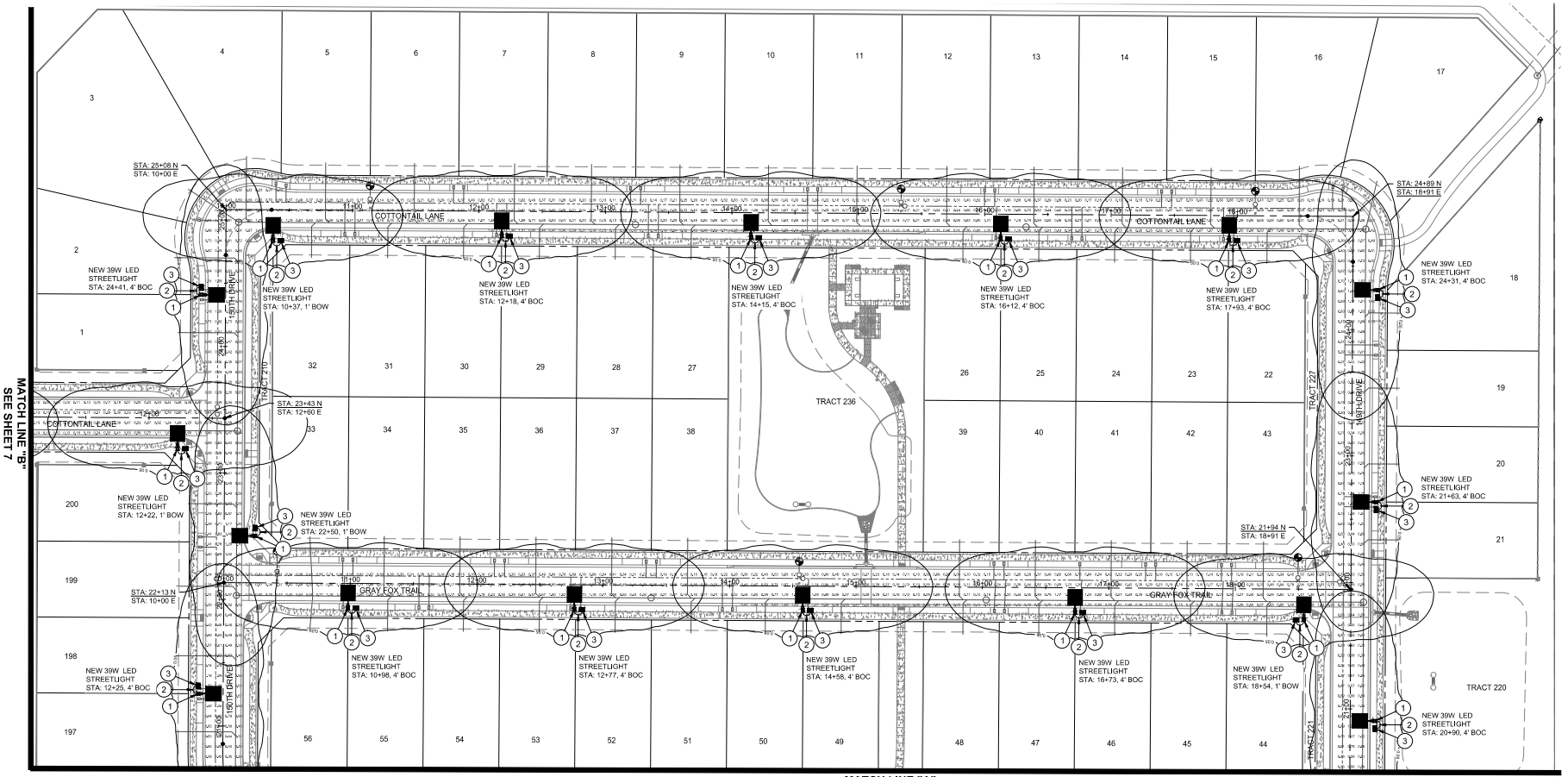
NO	REVISIONS	BY	DATE

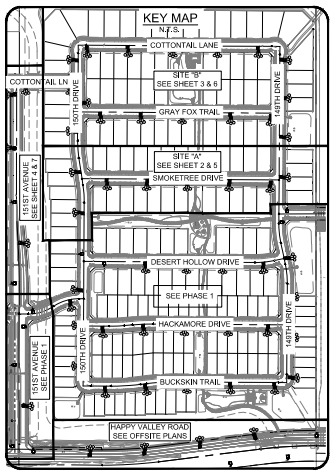
SHEET 5 OF 7

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL1318

Designed By:	DH	11/01/2021
Drawn By:		11/01/2021
Reviewed By:	DH	11/01/2021

FSZ1-____





WINDSTONE RANCH PHASE 2
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "B"

PHOTOMETRICS STUDIES

(Studies results is in illuminace)

GE LIGHTING SOLUTIONS ERL1_058330_____-120-277V
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no. 17040524 17040525 17040526 17040722 17040723 17040724
lamp(s): LEDs 757G-V1
candela file 'wrt_058330_____-120-277v_tcm201-129086.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting heights= 25 ft
number locations= 26, number luminaires= 26
kw all locations= 1.0

WINDSTONE ONSITE PHASE 2
2046 points at z=0, sp @ 5y @5
HORIZONTAL FOOTCANDLES

Average	0.54
Maximum	2.31
Minimum	0.07
Avg:Min	7.66
Max:Min	33.00
Coef Var	0.78
UnifGrad	2.28

DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1, POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.

1A. INSTALL ONE 98W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.

2. INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT, SEE DETAIL 2.

3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

40' 20' 0 40'
SCALE: 1" = 40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

WINDSTONE RANCH PHASE 2
PHOTOMETRICS
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

NO	REVISIONS	BY	DATE

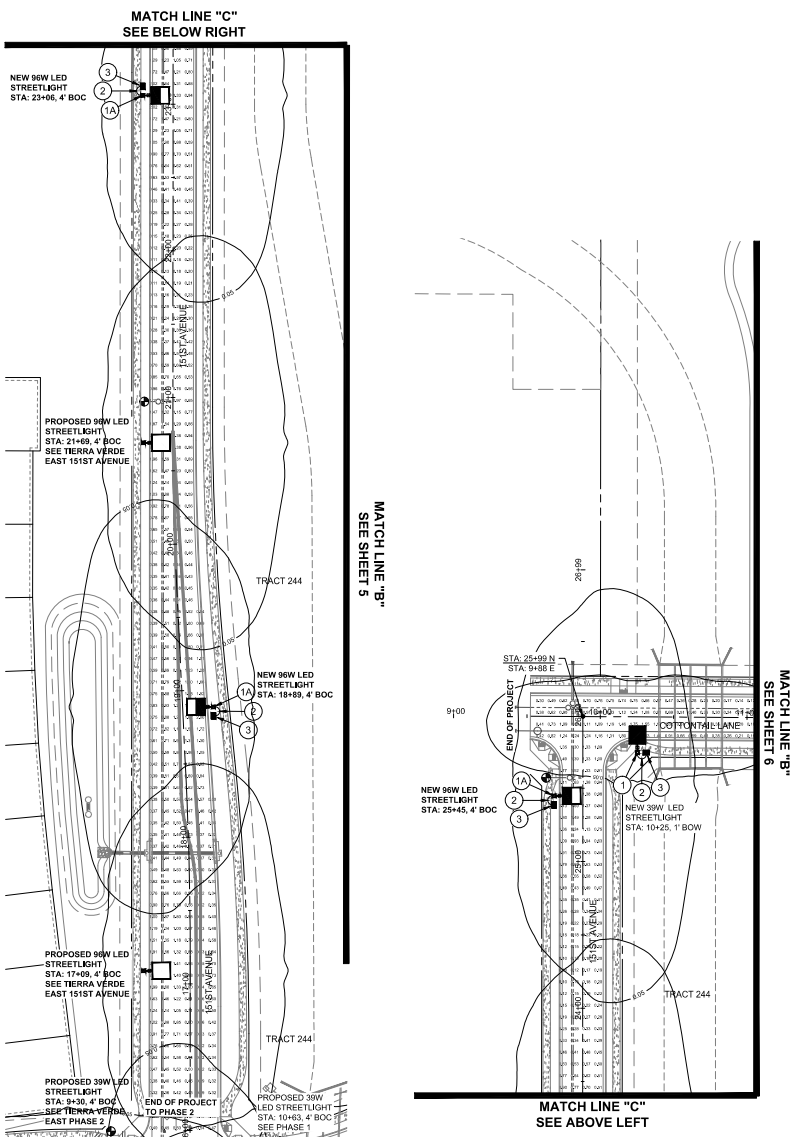
SHEET
6 OF 7

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL131A

Designed By:	DH	11/01/2021
Drawn By:	DH	11/01/2021
Reviewed By:	GL	11/01/2021

FSZ1-____

WINDSTONE RANCH PHASE 2
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "C"



DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.

1A. INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-0" WITH ONE SINGLE 4'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 1' BACK OF WALK.

2. INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.

3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

PHOTOMETRICS STUDIES

(Studies results is in illuminace)

GE LIGHTING SOLUTIONS ERL1_05B330_____-120-277V
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no. 17040524 17040525 17040526 17040722 17040723 17040724
lamp(s): LEDs 757G-V1
candela file 'erl1_05b330_____-120-277v_tcm201-129086.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting height= 25 ft
number locations= 26, number luminaires= 26
kw all locations= 1,0

GE LIGHTING SOLUTIONS ERLH_11C330_____
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no. 17041221 17041321 17041322 17041323 17041324 17041325
lamp(s): LEDs E21A
candela file 'erlh_11c330_____tcm201-129274.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 96
Outreach (from mounting axis to photometric center)= 48 in
mounting height= 31,5 ft
number locations= 3, number luminaires= 3
kw all locations= 0,3

151ST AVENUE PHASE 2
572 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

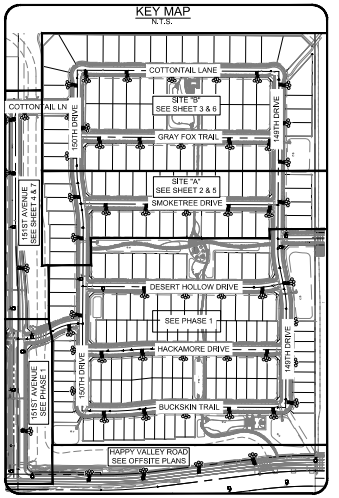
Average	0,71
Maximum	2,30
Minimum	0,10
Avg:Min	7,11
Max:Min	23,00
Coef Var	0,65
UnifGrad	1,57

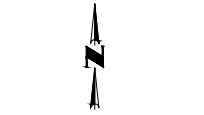
151ST AVE & HACKAMORE DR
42 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	0,90
Maximum	1,33
Minimum	0,49
Avg:Min	1,83
Max:Min	2,71
Coef Var	0,25
UnifGrad	1,36

WINDSTONE ONSITE PHASE 2
2046 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	0,04
Maximum	2,31
Minimum	0,07
Avg:Min	7,66
Max:Min	33,00
Coef Var	0,78
UnifGrad	2,28





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In Maricopa County: (602) 263-1100

WINDSTONE RANCH PHASE 2
PHOTOMETRICS
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

NO	REVISIONS	BY	DATE

SHEET 7 OF 7

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL131A

Designed By:	DH	11/01/2021
Drawn By:	DH	11/01/2021
Reviewed By:	GL	11/01/2021

FS21-____

WINDSTONE RANCH PHASE 1
STREETLIGHT PLANS
SURPRISE, ARIZONA

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER MERIDIAN, CITY OF SURPRISE, MARICOPA COUNTY, ARIZONA

OWNER/DEVELOPER	LANDSCAPE ARCHITECT	CIVIL ENGINEER	ELECTRICAL ENGINEER
LENNAR ARIZONA INC., 1665 W. ALAMEDA DRIVE, SUITE 130 TEMPE, ARIZONA 85282 PHONE: (602) 332-4674 CONTACT: JOAN SCARBROUGH	RVi PLANNING + LANDSCAPE ARCHITECTURE 120 S. ASH AVENUE TEMPE, ARIZONA 85281 PHONE: (480) 994-0994 CONTACT: SHAWN BYRON, PLA	ATWELL 4700 E. SOUTHERN AVENUE MESA, ARIZONA 85208 PHONE: (480) 218-8831 CONTACT: MICHAEL PARK, PE	HORNS CONSULTING, LLC 1243 E. MURIEL DRIVE PHOENIX, ARIZONA 85022 PHONE: (602) 256-8990 CONTACT: DOUG HORNING & GREG LARSON, PE

ENGINEERS NOTES

1. A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATIONS OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA, HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OBSTRUCTIONS AND UTILITY LINES ENCOUNTERED DURING CONSTRUCTION AND SHALL DETERMINE THE EXACT LOCATION OF UTILITIES IN ADVANCE OF TRENCHING. THE ENGINEER AND/OR DEVELOPER WILL NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
2. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, REQUIREMENTS OF THE WORK AND EXCESS OF DEFICIENCY IN QUANTITIES. IF ANY, NO CLAIMS SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OF RELATIVE.
3. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. ANY QUANTITIES SHOWN ARE THE BEST ESTIMATE OF THE ENGINEER. THE SUBCONTRACTOR SHALL MAKE HIS OWN INDEPENDENT ESTIMATE OF QUANTITIES AND BASE HIS BID THEREON.
5. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF UTILITIES, POWER POLES, ETC.
6. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
7. THE CONTRACTOR WILL MAKE FIELD AS-BUILT MEASUREMENTS OF THE WORK. THESE MEASUREMENTS WILL BE GIVEN TO THE ENGINEER IN WRITING SO THAT AS-BUILT PLANS CAN BE CREATED. IF THE CONTRACTOR DOES NOT TAKE AS-BUILT MEASUREMENTS OR FORWARD THESE MEASUREMENTS TO THE ENGINEER, THE ENGINEER WILL NOT BE RESPONSIBLE FOR PROVIDING ACCURATE AS-BUILT OF THE POLES, ETC.
8. AS-BUILT SUBMITTALS WILL NOT BE PERFORMED UNTIL ORDERED BY THE CLIENT OR HIS MEASUREMENTS.
9. HORNS CONSULTING LLC., IT'S OWNERS, OR EMPLOYEES WILL NOT BE HELD RESPONSIBLE FOR ANY DESTRUCTION OF PROPERTY CAUSED BY OTHERS, IDENTIFY ALL OTHER UTILITIES & CALL BLUE STAKE PRIOR TO DIGGING.
10. SIDEWALK TO MEANDER AROUND ALL STREET LIGHTS AND APS EQUIPMENT.

CITY OF SURPRISE NOTES

1. ALL CONSTRUCTION MUST CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENT (MAG) SPECIFICATIONS AND DETAILS AND LATEST REVISIONS UNLESS OTHERWISE STATED ON PLANS.
2. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND THEY WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL OVERHEAD AND UNDERGROUND UTILITY LOCATIONS WHERE CONSTRUCTION OCCURS. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT ALL UTILITIES ARE AVOIDED. UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND NOT FOR CONSTRUCTION PURPOSES. ANY DAMAGE TO EXISTING TO EXISTING UTILITIES SHALL BE REPAIRED AND OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT BLUE STAKE LAWS. CALL BLUE STAKE FOR FIELD LOCATION AT (602) 263-1100.
4. THE CITY OF SURPRISE ENGINEERING SERVICES OF PUBLIC WORKS SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORK AT (623) 222-4150.
5. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE PROPOSED AND RESUBMITTED FOR REVIEW AND APPROVAL.
6. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
7. ANY INSPECTION BY THE CITY, COUNTY, OR THE ENGINEER, SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
8. THE CONTRACTOR IS TO LOCATE ALL EXISTING LANDSCAPING, IRRIGATION LINES, PROPERTY MONUMENTS, FENCING OR SURFACE FEATURES PRIOR TO CONSTRUCTION. ANYTHING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTORS EXPENSE.
9. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
10. ALL CONSTRUCTION WATER USED WITHIN THE CITY OF SURPRISE WATER SERVICE AREA REQUIRES APPROVAL BY THE CITY OF SURPRISE PUBLIC WORKS DEPARTMENT AND MAY BE SUBJECT TO VOLUME AND TIME RESTRICTIONS. PLEASE SEE THE CITY OF SURPRISE CONSTRUCTION WATER GUIDELINES FOR ADDITIONAL INFORMATION. THE GUIDELINES CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT AT (623) 222-7000.
11. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE "TEMPORARY WORK ZONE TRAFFIC MANAGEMENT POLICY" (LATEST EDITION).
12. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
13. EMERGENCY VEHICLE ACCESS (E.V.A) MUST BE PROVIDED BY THE DEVELOPER/CONTRACTOR THROUGHOUT THE PROJECT SITE. E.V.A. ROADS AND SIGNAGE SHALL BE MAINTAINED BY THE DEVELOPER/CONTRACTOR AT ALL TIMES. SIGNAGE SHALL BE POSTED AT THE POINT OF ENTRY TO THE SITE AND AT ALL LOCATIONS WHERE A CHANGE IN DIRECTION OCCURS.
14. THE PLANS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT'S ACCESSIBILITY GUIDELINES, AS PUBLISHED IN THE FEDERAL REGISTER ON SEPTEMBER 15, 2010.

CITY ADDITIONAL NOTES

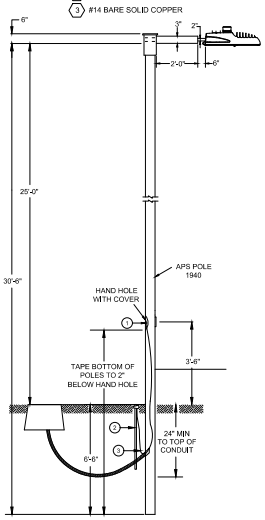
1 THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON LOCAL AND COLLECTOR STREETS ARE TO BE PAID BY THE ADJACENT DEVELOPMENT'S STREET LIGHT IMPROVEMENT DISTRICT (SLID). THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON ARTERIAL STREETS ARE TO BE BILLED TO THE CITY OF SURPRISE'S ENERGY BILL.

2 CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATION AT TIME OF BIDDING AND CONSTRUCTION.

Horns Consulting, LLC
www.hornsconsulting.com
Phone: (623)256-8990
E-mail: doug@hornsconsulting.com
1243 E. Muriel Drive, Phoenix, Arizona 85022

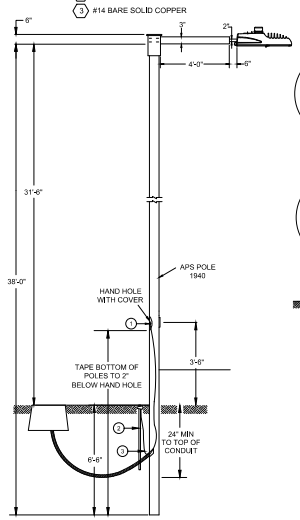
1 39W LED (APS 8030) DETAIL 1

1. GROUND ATTACHMENT
2. ROD COPPERCLAD GRD., 5/8" x 8'
3. #14 BARE SOLID COPPER



1A 96W LED (APS 8030) DETAIL 1A

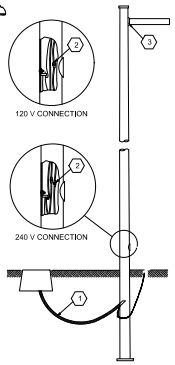
1. GROUND ATTACHMENT
2. ROD COPPERCLAD GRD., 5/8" x 8'
3. #14 BARE SOLID COPPER



2 (APS 8130) DETAIL 2

TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

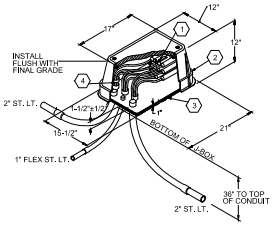
1. 1" FLEX CONDUIT
2. IN-LINE FUSE HOLDER WITH 15AMP FUSE
3. CONNECT BUTT-SPLICE #16-#14



3 (APS 8655) DETAIL 3

TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

1. SET SCREW INSULATED JUNCTION BAR
2. JUNCTION BOX 10"X15"X12"
3. CONCRETE GROUT PREMIX
4. I.D. RINGS (FEED, POLES)



UTILITY COORDINATION LIST

DESCRIPTION	REPRESENTATIVE	PHONE	DATE
APS	MONIQUE HOLLIDAY	(602) 250-1000	10-29-2021
CENTURY LINK	DEBBIE RAMSEY	(602) 630-0492	10-29-2021
SOUTHWEST GAS	ZACH STEVENSON	(602) 484-5270	10-29-2021
COX COMMUNICATIONS	TMC (TRAFFIC MANAGEMENT CENTER)	(623) 322-7215	10-29-2021

* CONFLICTS ARISING DURING THE COURSE OF CONSTRUCTION FROM UNFORSEEN CIRCUMSTANCES SHALL BE REPORTED TO THE INTERESTED UTILITY COMPANY AND BE RESOLVED BY THEM AND THE DESIGN ENGINEER.

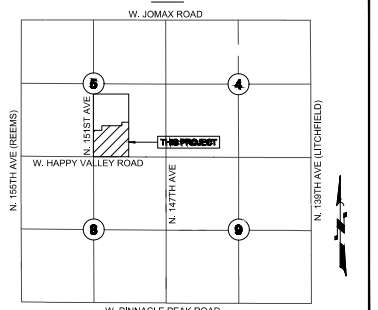
LED NOTE:
LED TECHNOLOGY IS CHANGING RAPIDLY, THE FIXTURES SHOWN ON THESE PLANS MAY NOT BE APPLICABLE AT TIME OF CONSTRUCTION. CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATIONS AT THE TIME OF BIDDING AND CONSTRUCTION.

STREETLIGHT NOTE:
ENSURE THERE IS A 2' CLEARANCE FROM THE EDGE OF THE SIDE WALK TO THE FACE OF THE POLE.

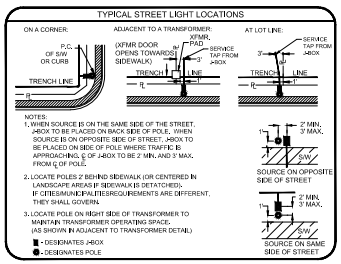
EQUIPMENT LIST

ITEM #	SYMBOL	TYPE STREET:	QUANTITY	MOUNTING HEIGHT	POLE HEIGHT:	MAST ARM	LUMENS	TYPE	WATTAGE	VOLTAGE	C.C.T.	PHOTOMETRIC	LUMINAIRE
1		LOCAL	27	25'-0"	30'-6"	2'-0"	4,900	LED	39W	120V	3000K	TYPE II WIDE TYPE IV	ERL1-0-05-B3-30-A-DKBZ (27)
1A		COLLECTOR	2	31'-6"	38'-0"	4'-0"	11,500	LED	96W	120V	3000K	TYPE III	ERLH-0-11-C3-30-A-DKBZ (2)
		ITEM DESCRIPTION											
2		1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT.											
3		INSTALL AN APS JUNCTION BOX NEXT TO THE POLE PER JUNCTION BOX DETAIL.											

VICINITY MAP
N.T.S.



TYPICAL STREET LIGHT LOCATIONS



Call at least two full working days before you begin excavation.
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Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

DETAILS AND LEGEND FOR STREETLIGHTS:

- (1) INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.
- (1A) INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.
- (2) INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
- (3) INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.
- FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)
- FIRE HYDRANT LOCATION PER CIVIL PLANS

THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF PERMITS. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLIANCE APPROVAL SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTIONS OF ERRORS OR OMISSIONS IN PLANS FOUND TO BE IN VIOLATION OF LAW OR ORDINANCES.

CITY OF SURPRISE ENGINEER _____ DATE _____

INDEX

1 ~ COVER SHEET
2 ~ LIGHTING LAYOUT
3 ~ LIGHTING LAYOUT
4 ~ LIGHTING LAYOUT
5 ~ PHOTOMETRICS
6 ~ PHOTOMETRICS
7 ~ PHOTOMETRICS

WINDSTONE RANCH PHASE 1
COVER SHEET
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

NO	REVISIONS	BY	DATE
1	CITY COMMENTS	D.H.	2/11/22

SHEET 1 OF 7

Contact: Doug Horning/Greg Larson P.E.
Horns Consulting Project #: 21SL131A
Designed By: DH 10/29/2021
Drawn By: DH 10/29/2021
Reviewed By: GL 10/29/2021

FS21-1007

WINDSTONE RANCH PHASE 1
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "A"

DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-0" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.

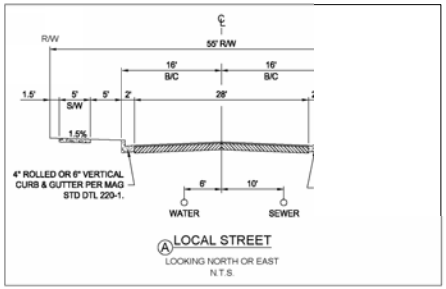
1A. INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.

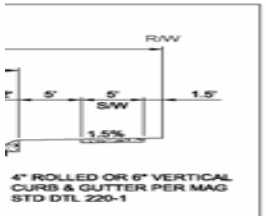
2. INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.

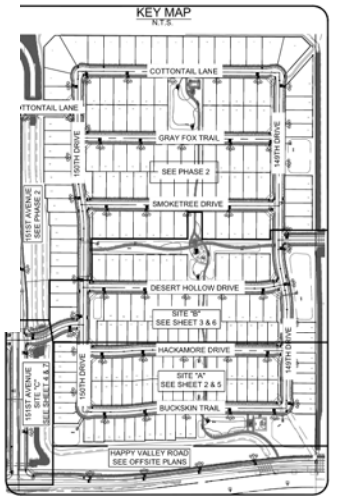
3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

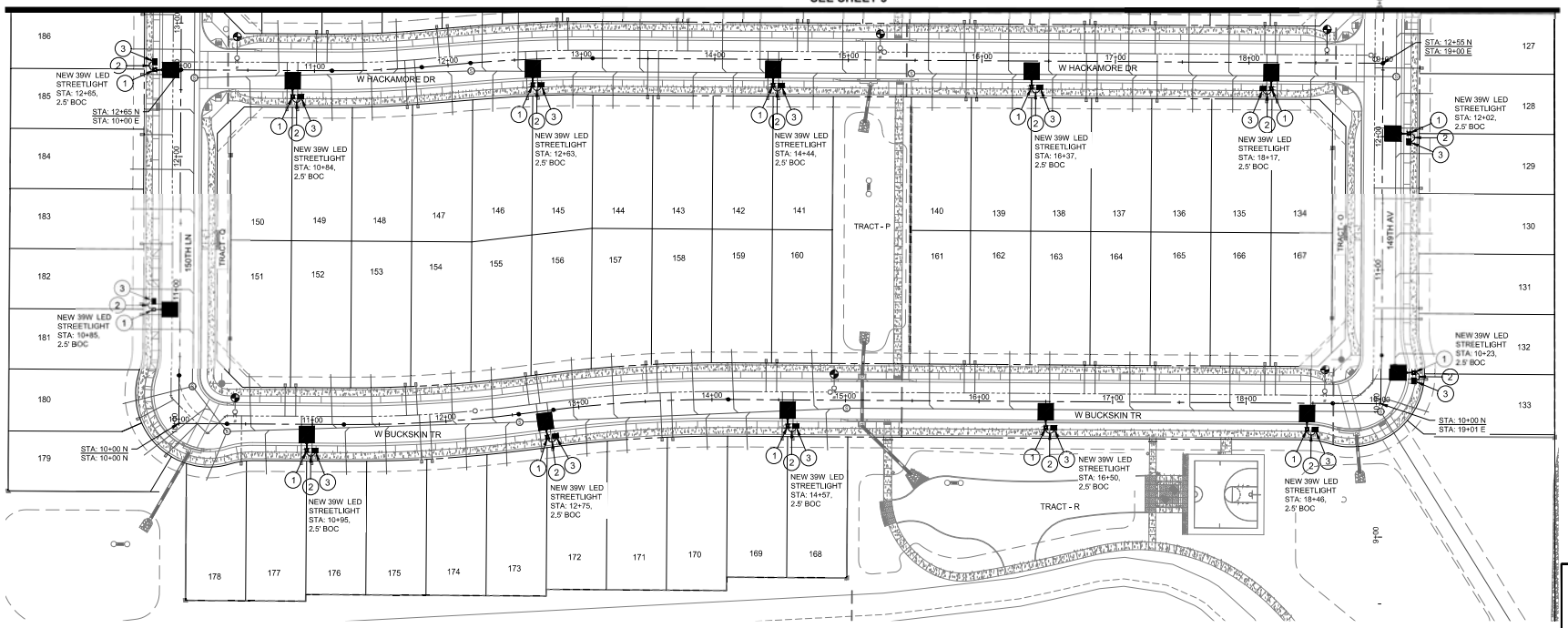
FIRE HYDRANT LOCATION PER CIVIL PLANS







MATCH LINE "A"
SEE SHEET 3



N

40' 20' 0 40'

SCALE: 1" = 40'

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

WINDSTONE RANCH PHASE 1
LIGHTING LAYOUT
STREET LIGHT PLANS

HORNS CONSULTING, LLC
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PHOENIX, ARIZONA 85022
PHONE: (623) 256-8080
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NO	REVISIONS	BY	DATE
A	CITY COMMENTS	D.H.	2/11/22

SHEET
2 OF 7

Contact: Doug Horning/Greg Larson,P.E.		
Horns Consulting Project #:	21SL131A	
Designed By:	DH	10/28/2021
Drawn By:	DH	10/28/2021
Reviewed By:	GL	10/28/2021

FS21-1007

WINDSTONE RANCH PHASE 1
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "B"

DETAILS AND LEGEND FOR STREETLIGHTS:

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1A. INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.

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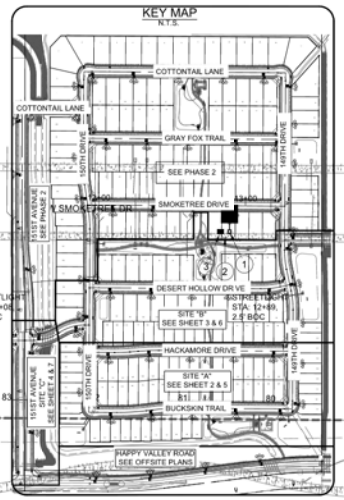
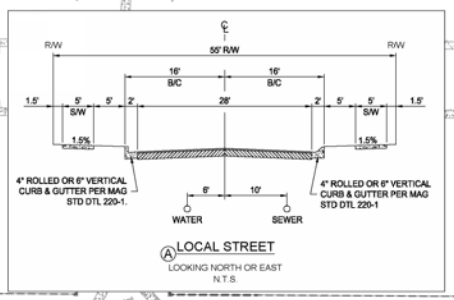
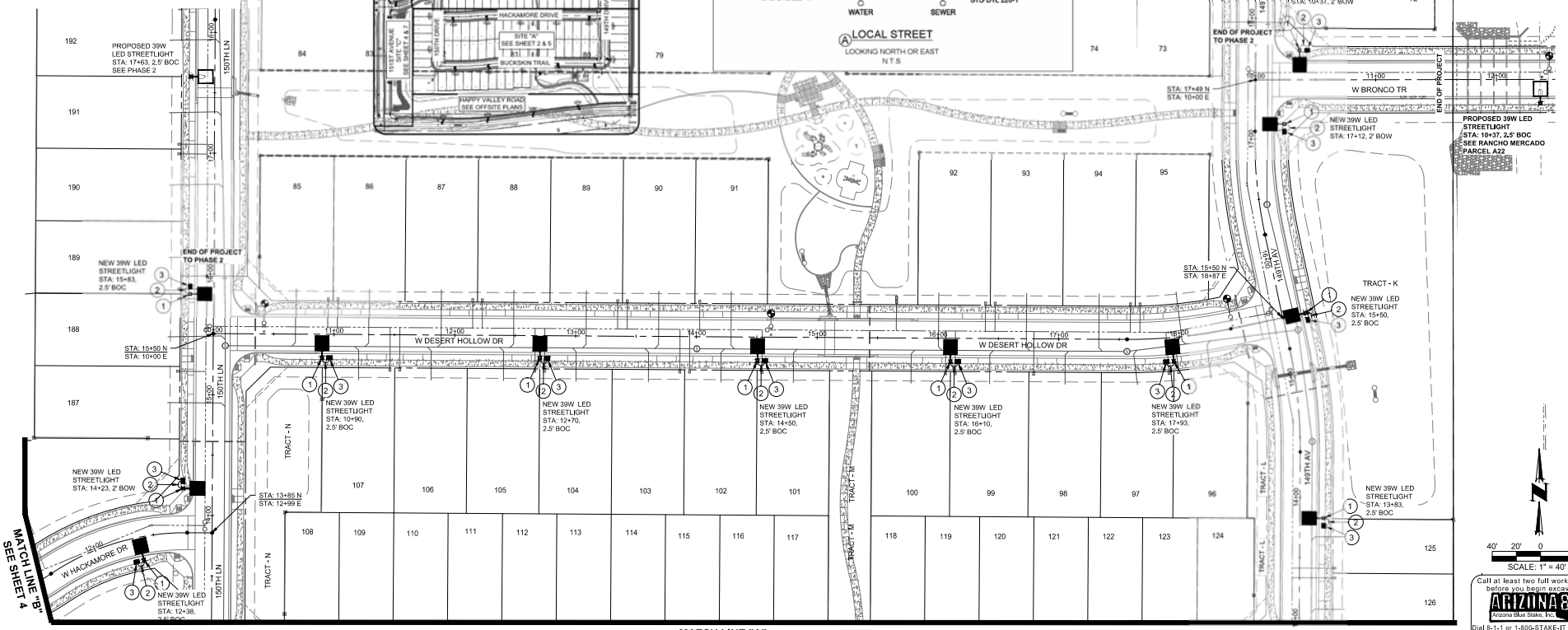
FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

KEY MAP
N.T.S.







MATCH LINE "A"
SEE SHEET 2

SCALE: 1" = 40'

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ARIZONA 811
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WINDSTONE RANCH PHASE 1
LIGHTING LAYOUT
STREET LIGHT PLANS

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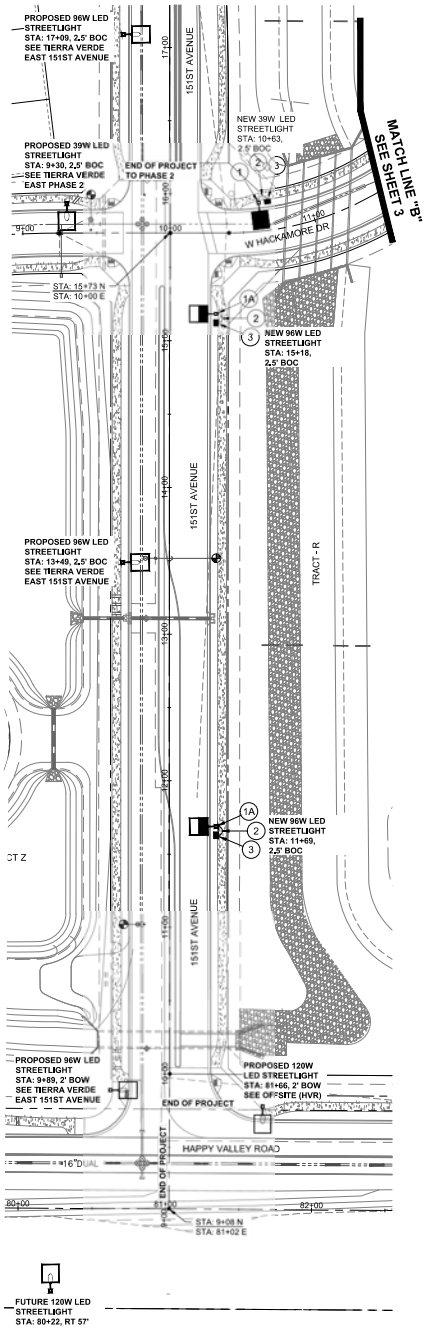
NO	REVISIONS	BY	DATE
1	CITY COMMENTS	D.H.	2/11/22

SHEET 3 OF 7

Contact: Doug Horning/Greg Larson,P.E.		
Horns Consulting Project #:	21SL131A	
Designed By:	DH	10/28/2021
Drawn By:	DH	10/28/2021
Reviewed By:	DH	10/28/2021

FS21-1007

WINDSTONE RANCH PHASE 1
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "C"



DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.

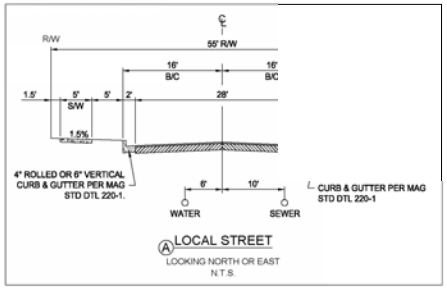
1A. INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 35'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM. SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.

2. INSTALL 1" FLEX PVC W/3-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.

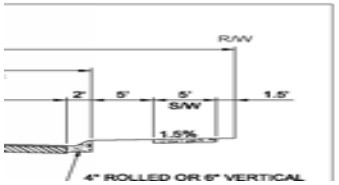
3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

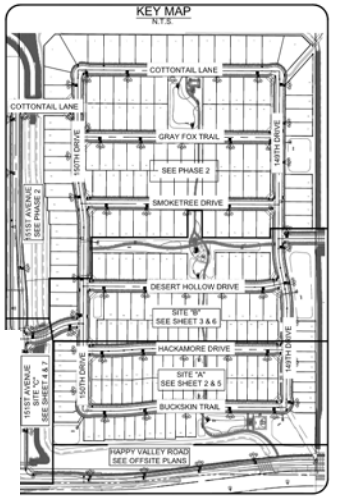
FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

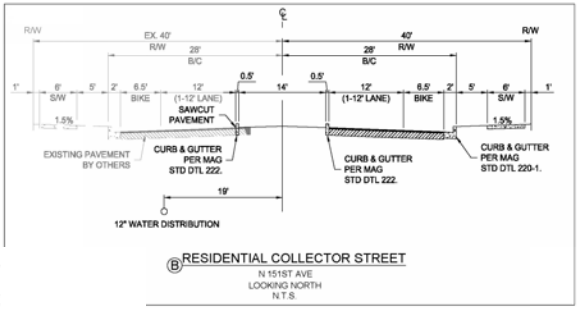
FIRE HYDRANT LOCATION PER CIVIL PLANS



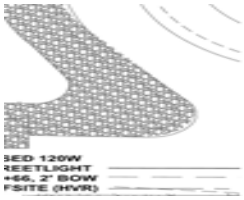
A LOCAL STREET
LOOKING NORTH OR EAST
N.T.S.

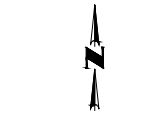






B RESIDENTIAL COLLECTOR STREET
N 151ST AVE
LOOKING NORTH
N.T.S.





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WINDSTONE RANCH PHASE 1
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NO	REVISIONS	BY	DATE
A	CITY COMMENTS	D.H.	2/11/22

SHEET 4 OF 7

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL131A
Designed By: DH 10/28/2021
Drawn By: DH 10/28/2021
Reviewed By: DH 10/28/2021

FS21-1007

WINDSTONE RANCH PHASE 1
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "A"

DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-0" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 2.5' BACK OF CURB OR 2' BACK OF WALK.

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FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

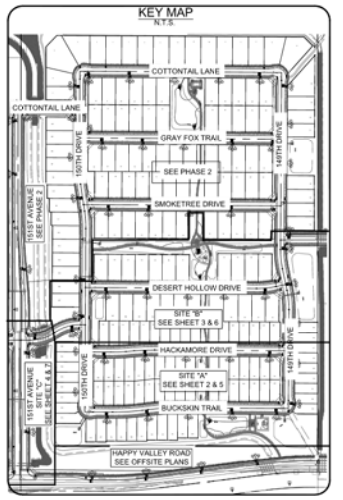
PHOTOMETRICS STUDIES

(Studies results is in illuminace)

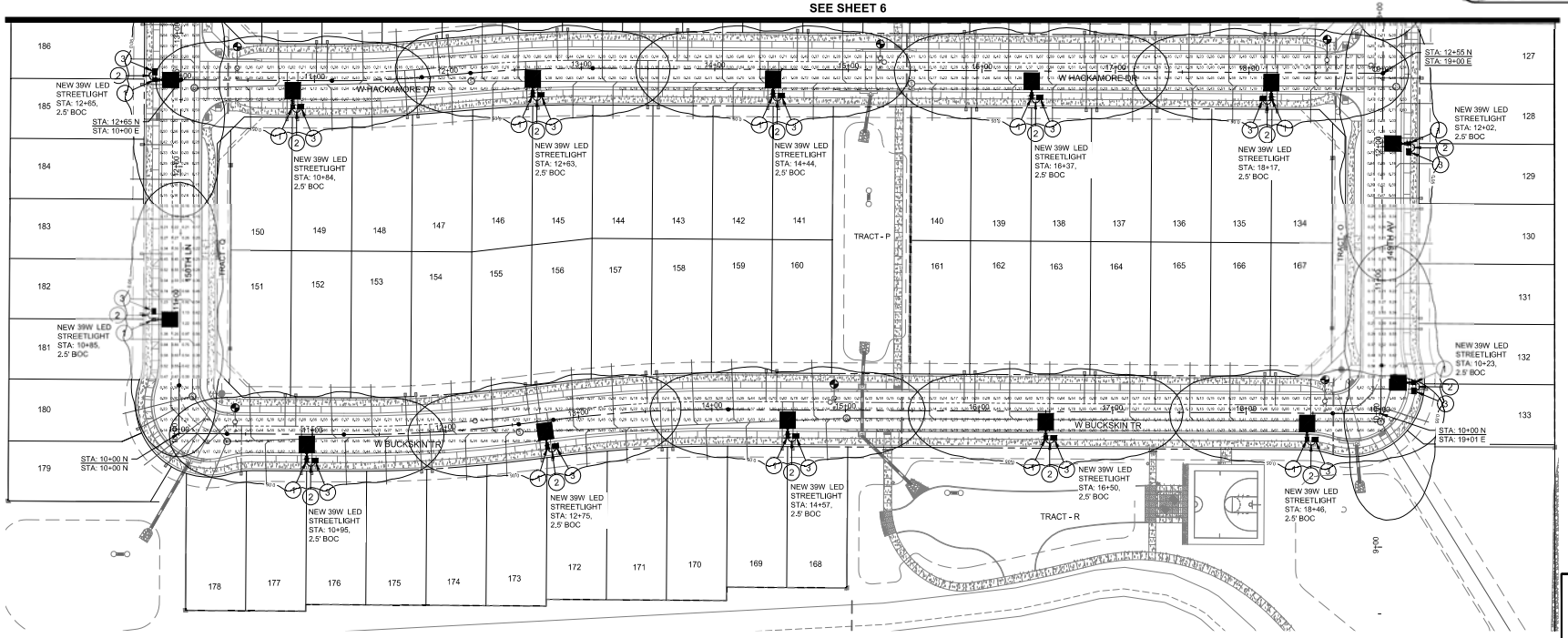
GE LIGHTING SOLUTIONS ERL1_05B330_____-120-277V
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no. 17040524 17040525 17040526 17040722 17040723 17040724
lamp(s): LEDs 757G-V1
candela file 'erl1_05b330_____-120-277v_tcm201-129088.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting height= 25 ft
number locations= 27, number luminaires= 27
kw all locations= 1.1

WINDSTONE ONSITE PHASE 1
2093 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	0.94
Maximum	2.15
Minimum	0.09
Avg:Min	6.05
Max:Min	23.89
Coef Var	0.77
UnifGrad	2.09



MATCH LINE "A"
SEE SHEET 6



SCALE: 1" = 40'

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WINDSTONE RANCH PHASE 1
PHOTOMETRICS
STREET LIGHT PLANS

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NO	REVISIONS	BY	DATE
1	CITY COMMENTS	D.H.	2/11/22

SHEET 5 OF 7

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL131A

Designed By:	DH	10/28/2021
Drawn By:	DH	10/28/2021
Reviewed By:	GL	10/28/2021

FS21-1007

WINDSTONE RANCH PHASE 1
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "B"

DETAILS AND LEGEND FOR STREETLIGHTS:

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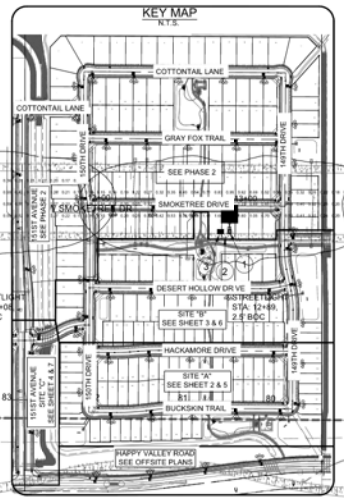
FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

KEY MAP
N.T.S.



PHOTOMETRICS STUDIES
(Studies results is in illuminace)

GE LIGHTING SOLUTIONS ERL1_05B330_____-120-277V
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WINDSTONE ONSITE PHASE 1
2093 points at z=0, sp 9ft by 9ft
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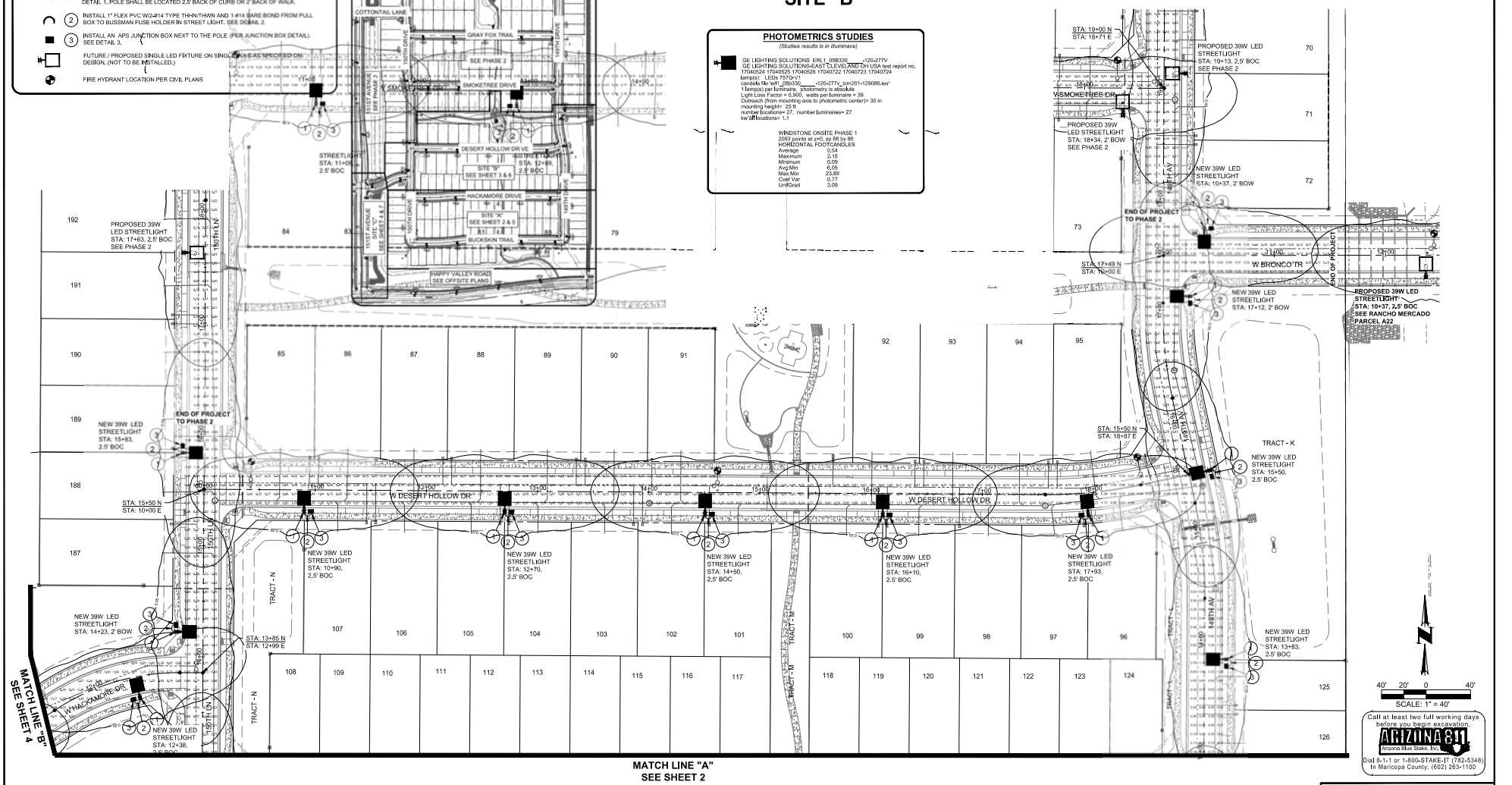

MATCH LINE "A"
SEE SHEET 2

SCALE: 1" = 40'

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WINDSTONE RANCH PHASE 1
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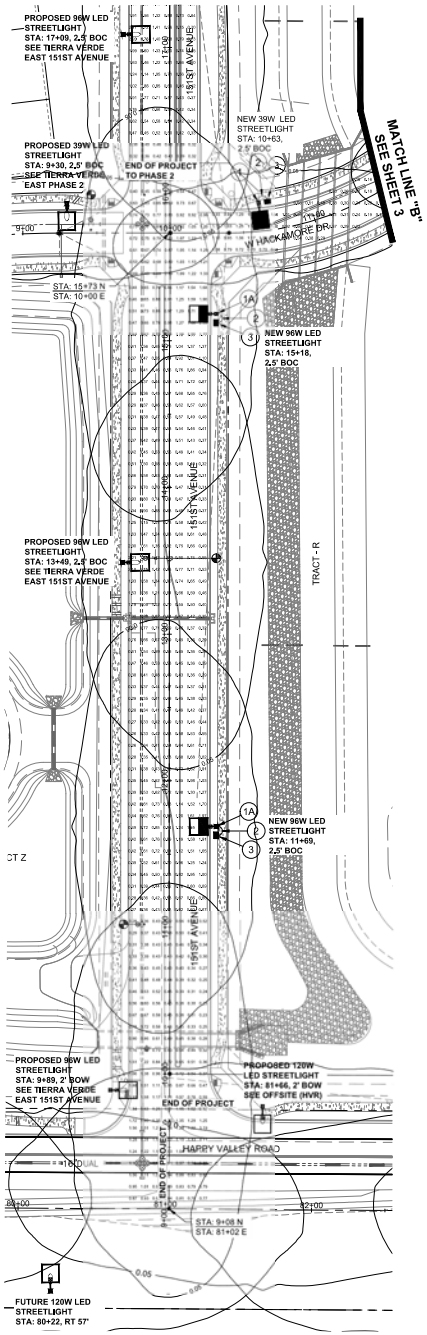
NO	REVISIONS	BY	DATE
1	CITY COMMENTS	D.H.	2/11/22

SHEET 6 OF 7

Contact: Doug Horning/Greg Larson,P.E.		
Horns Consulting Project #:	21SL131A	
Designed By:	DH	10/28/2021
Drawn By:	DH	10/28/2021
Reviewed By:	DH	10/28/2021

FS21-1007

WINDSTONE RANCH PHASE 1
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE "C"



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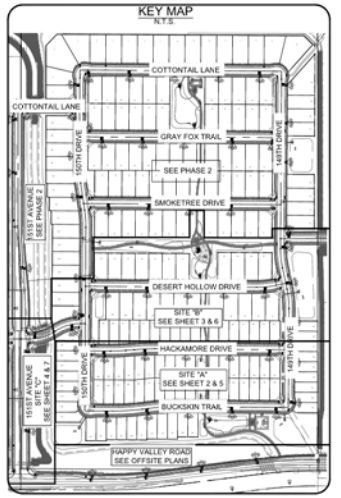
number locations= 27, number luminaires= 27
kw all locations= 1.1

GE LIGHTING SOLUTIONS ERLH_11C330_____
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no. 17041321 17041322 17041323 17041324 17041325
lamp(s): LEDs E21A
candella file 'erlh_11c330_____tcm201-129274.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 96
Outreach (from mounting axis to photometric center)= 48 in
mounting height= 31.5 ft
number locations= 2, number luminaires= 2
kw all locations= 0.2

151ST AVENUE PHASE 1		151ST AVE & HACKAMORE DR	
504 points at z=0, sp 8ft by 8ft		42 points at z=0, sp 8ft by 8ft	
HORIZONTAL FOOTCANDLES		HORIZONTAL FOOTCANDLES	
Average	0.71	Average	0.90
Maximum	2.21	Maximum	1.33
Minimum	0.23	Minimum	0.49
Avg:Min	3.07	Avg:Min	1.83
Max:Min	9.61	Max:Min	2.71
Coef Var	0.58	Coef Var	0.25
Uni/Grad	1.56	Uni/Grad	1.36

WINDSTONE ONSITE PHASE 1		151ST AVE & HAPPY VALLEY ROAD	
2093 points at z=0, sp 8ft by 8ft		49 points at z=0, sp 8ft by 8ft	
HORIZONTAL FOOTCANDLES		HORIZONTAL FOOTCANDLES	
Average	0.54	Average	1.05
Maximum	2.15	Maximum	1.56
Minimum	0.09	Minimum	0.77
Avg:Min	6.05	Avg:Min	1.36
Max:Min	23.89	Max:Min	2.03
Coef Var	0.77	Coef Var	0.18
Uni/Grad	2.09	Uni/Grad	1.23



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

WINDSTONE RANCH PHASE 1
PHOTOMETRICS
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

NO	REVISIONS	BY	DATE
1	CITY COMMENTS	D.H.	2/11/22

SHEET 7 OF 7

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL131A

Designed By:	DH	10/28/2021
Drawn By:	DH	10/28/2021
Reviewed By:	DH	10/28/2021

FS21-1007

RECEIVED
11/02/2021
FS21-1007

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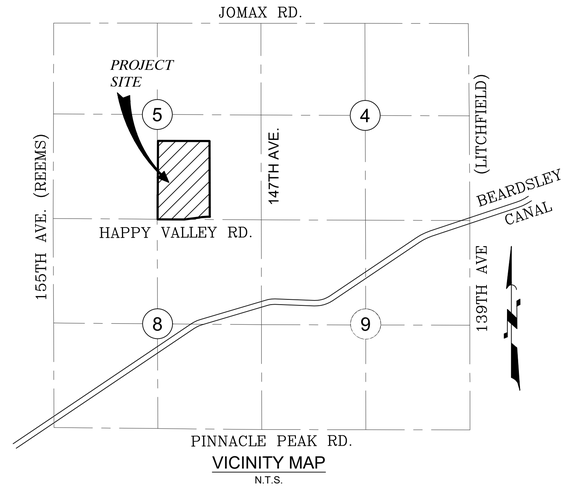
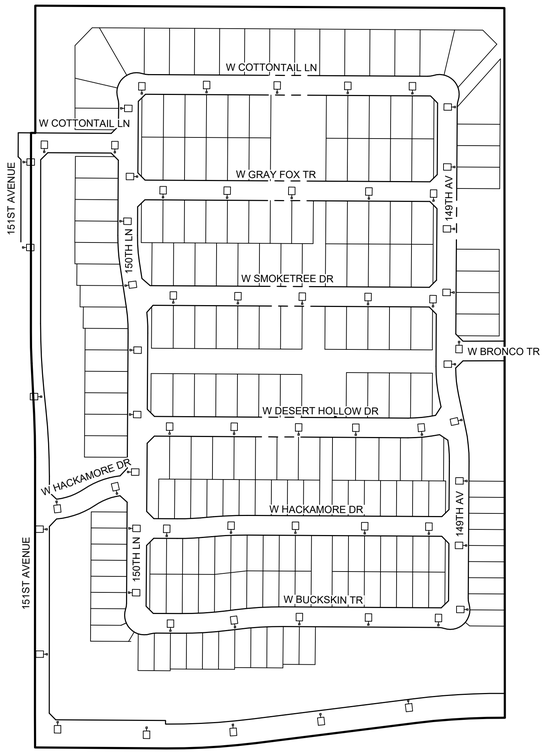
PRELIMINARY EXHIBIT
STREET LIGHT IMPROVEMENT DISTRICT
WINDSTONE RANCH

LOCATED IN A PORTION OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA



VICINITY MAP
N.T.S.



LEGEND

- S.L.I.D. BOUNDARY
- PARCEL LINE
- STREET LIGHT

STREET LIGHTS

63 POLES (ESTIMATED)

ACTUAL POLE NUMBERS MAY VARY ±10%

ATWELL
866.850.4200 www.atwell-group.com
4700 E. SOUTHERN AVENUE
MESA, AZ 85206
480.218.8831

COUNTY: MARICOPA
SECTION: 5
TOWNSHIP: 4 NORTH
RANGE: 1 WEST

PRELIMINARY EXHIBIT
WINDSTONE RANCH
S.L.I.D.
CITY OF SURPRISE, ARIZONA

NOVEMBER 2021

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO.
64583
MICHAEL J. PARK
DATE SIGNED 11/16/2021
ARIZONA U.S.A.

ATWELL

PM. J. SPRING
DR. J. DURAN

JOB NO.
19000032

SCALE 0 100 200
1" = 200 FEET

19000032_PRELIMINARY SLID EXHIBIT.DWG

SHEET NO.
1 OF 1

K:\19000032 – WINDSTONE\DWG\EXHIBITS\SLID EXHIBIT\19000032_PRELIMINARY SLID EXHIBIT.DWG SAVEDATE:11/16/2021 11:29 AM PLOTDATE:11/16/2021 11:44 AM

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022
Submitting Department: Public Works
Staff Recommendations:

Contact Person: Kristin Tytler, Department Director
District: District 1

Consent: Yes Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action declaring the intention to establish the lighting improvement district known as City of Surpise, Arizona, SU-BONITARNCH204 pursuant to A.R.S. § 48-616 for the purpose of purchasing facilities and energy for lighting the public streets; Resolution # 2022-73.

Motion:
I move to approve Resolution # 2022-73.

Background:
The City has verified that the Petition for the proposed street light improvement district contains the signatures of all of the real property owners in the district, exclusive of mortgage and other lien holders.

The City and Arizona Public Service Company ("APS") have approved the street layout and facilities design. The electric rates are established by APS tariff.

The lighting improvements are more than local or ordinary public benefits and the expenses of the district will be paid for by the levy and collection of ad valorem taxes based upon the assessed value of all property in the District.

Objective Analysis:
A SLID is a neighborhood partnership and very common practice in which property owners in a defined area agree to pay the costs to operate and maintain their immediate area's street lights through a property tax. All new developments in the City of Surprise require a SLID. This action will form the SLID boundary for the SU-BonitaRnch204 development.

Policy Compliant:
The Surprise Municipal Code requires that street lighting that serves a defined area be paid for through revenues obtained from the specific area being served by such street lighting. In these instances, a Street Light Improvement District (SLID) is formed. The city strives to assure that residents are subject to only one SLID and that the boundaries of each SLID accurately reflect the service area. This item is

consistent with these objectives.

Financial Impact:

Any financial impact on the City is anticipated to be minimal, as the Developer and District will be bearing the costs and expenses of the District and street light improvement facilities.

Budget Impact:

Funding was not included as part of the FY2023 adopted budget. A separate fund will be created to track revenue and expenses once the city starts receiving electric bills from APS for this particular SLID. If the SLID incurs expenses during FY2023, staff will return to request a budget amendment to appropriate the new fund. Regardless, the city will be unable to collect property taxes for this SLID until FY2024, at the earliest.

FTE Impact:

This action does not change the full time equivalent count.

ATTACHMENTS:

1. 01 Res 2022-73 Bonita Ranch SLID
2. 02 SLID Petition Bonita Ranch
3. 03 SLID STREETLIGHT PLAN Bonita Ranch
4. 04 COUNCIL MAP Bonita Ranch SLID

RESOLUTION # 2022-73

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE CITY OF SURPRISE, ARIZONA, DECLARING ITS INTENTION TO ESTABLISH A STREET LIGHT IMPROVEMENT DISTRICT TO PURCHASE ENERGY FOR LIGHTING THE PUBLIC STREETS AND PARKS IN THE AREA WITHIN THE CORPORATE LIMITS OF THE CITY OF SURPRISE, ARIZONA DESCRIBED ON EXHIBIT A, ATTACHED HERETO; DECLARING SUCH IMPROVEMENTS TO BE OF MORE THAN LOCAL OR ORDINARY PUBLIC BENEFIT AND THAT THE EXPENSES THEREOF BE PAID FOR BY THE LEVY AND COLLECTION OF AD VALOREM TAXES UPON THE ASSESSED VALUATION OF ALL REAL AND PERSONAL PROPERTY IN A CERTAIN DISTRICT TO BE KNOWN AS "CITY OF SURPRISE, ARIZONA, SU-BONITARNCH204 LIGHTING IMPROVEMENT DISTRICT"; AND ORDERING THAT SUCH IMPROVEMENTS BE PROVIDED FOR UNDER THE PROVISIONS OF SECTION 48-572, ARIZONA REVISED STATUTES.

WHEREAS, the owners, exclusive of mortgagees and other lienholders, of all of the real property (hereinafter referred to as "Petitioner") in the hereinafter described District, acting pursuant to the provisions of Sections 48-615(A) and 48-617(A), Arizona Revised Statutes, have petitioned the Mayor and Council of the City of Surprise, Arizona (hereinafter referred to as "City"), to adopt a resolution of intention (hereinafter referred to as "Resolution") ordering the purchase of energy for the lighting of the public street and parks (hereinafter referred to as "Improvements") for the real property legally described in Exhibit A (such area hereinafter referred to as the "District") with such boundaries as shown in the map in Exhibit B attached hereto pursuant to the provisions of Section 48-576, Arizona Revised Statutes, giving the City immediate jurisdiction to order the improvements pursuant to the provisions of Section 48-581, Arizona Revised Statutes, without the necessity of the publications or posting of this Resolution provided for in Sections 48-578, Arizona Revised Statutes;

WHEREAS, the City has verified that Petitioner is the owner, exclusive of mortgagees and other lienholders, of all of the real property included within the boundaries of the District, and;

WHEREAS, the Mayor and Council of the City hereby find and determine that they have jurisdiction to adopt this Resolution to order the Improvements pursuant to the provisions of Section 48-576, Arizona Revised Statutes, and have immediate jurisdiction to adopt this Resolution ordering the Improvements pursuant to the provisions of Section 48-581, Arizona Revised Statutes without the necessity of publications and posting of this Resolution as provided for in Section 48-578, Arizona Revised Statutes;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Surprise, Arizona, as follows.

Section 1. The City, after verifying ownership of the real property included within the boundaries of the District, hereby finds the Petitioner is the owner, exclusive of mortgagees and other lienholders, of all of the real property included within the boundaries of the District.

Section 2. The name of the District shall be "CITY OF SURPRISE, ARIZONA, SU-BONITARNCH204 LIGHTING IMPROVEMENT DISTRICT."

Section 3. The District is formed, and shall exist, pursuant to the provisions of Title 48, Chapter 4, Article 2, Arizona Revised Statutes, and Section 48-616, Arizona Revised Statutes.

Section 4. The public interest or convenience requires, and it is the intention of the Mayor and Council of the City to order the Improvement as so described above.

Section 5. The Improvements, in the opinion of the Mayor and Council of the City, are of more than local or ordinary public benefit and are of special benefit to the respective lots, pieces and parcels of real property in the District, and the Mayor and Council of the City hereby make and order the expense of the Improvements payable from the levying and collection of ad valorem taxes upon the assessed value of all real and personal property in the District to be known and designated as "City of Surprise, Arizona SU-BonitaRnch204 Lighting Improvement District" and hereby declare that the District is as legally described on Exhibit A attached hereto with the boundaries as shown in the map in Exhibit B attached hereto. Any public street or alley within the District shall be omitted from the assessment. Any lot belonging to the United States, the State, a county, city, school district or political subdivision or institution of the state or county within the District shall be omitted from the assessment.

Section 6. The Superintendent of Streets or equivalent of the City shall not be required to post or cause to be posted notices of the Resolution of Intention. The Clerk of the City shall certify to the passage of this Resolution of Intention but shall not be required to cause the same to be published in a newspaper published and of general circulation in the City.

Section 7. The Mayor and Council of the City shall make annual statements and estimates of the expenses of the district, which shall be provided for by the levy and collection of ad valorem taxes upon the assessed value of all the real and personal property in the District; shall publish notice thereof; shall have hearings thereon; and shall adopt them at the times and in the manner provided for incorporated cities and towns by the applicable portions of Section 42-17101, et seq., 42-17152, Arizona Revised Statutes. The Mayor and Council of the City shall, on or before the third Monday in August of each year, fix, levy and assess the amount to be raised by ad valorem taxes upon all of the property of the District and collect, as Maricopa County, Arizona (the "County") taxes are collected, the amounts shown by the statements and estimates as adopted by the Mayor and Council of the City. All statutes providing for the levy and collection of State of Arizona and County taxes, shall be applicable to District taxes as provided to be levied under Section 48-616, Arizona Revised Statutes.

Section 8. The District shall not be authorized to issue bonds and no assessment for District purposes against the property within the District shall exceed One Dollar and Twenty Cents ($1.20) per each hundred dollars of taxable valuation thereof in any year.

Section 9. The District shall not engage in any activity other than as provided in Section 48-616, Arizona Revised Statutes, i.e., contracting for and purchasing of energy for street and public park lighting.

Section 10. The formation of the District shall not be considered as preventing the subsequent establishment of improvement districts for any other purpose authorized by law, including improvement districts for the purpose of construction street lighting facilities within any part or all of the same territory as the District.

Section 11. The type of lighting facilities to be installed in the District and the locations thereof shall consist of those lighting facilities and locations described in the petition submitted by Petitioner, or as may be approved by the City.

Section 12. The rate to be paid for purchasing the energy for the District shall be the rate described in the petition submitted by Petitioner, or as may be approved by the Arizona Public Service Company.

Section 13. Any resolutions or parts of resolutions in conflict with the provisions of this Resolution are hereby repealed.

APPROVED AND ADOPTED this __day of _____, 2022.

Skip Hall, Mayor

Attest:

Sherry Aguilar, City Clerk

Approved as to form:

Robert Wingo, City Attorney

Exhibit A

ATWELL

ONE COMPANY.
INFINITE SOLUTIONS.

LEGAL DESCRIPTION
STREET LIGHT IMPROVEMENT DISTRICT
BONITA RANCH
CITY OF SURPRISE, ARIZONA

LOCATED WITHIN A PORTION OF THE EAST HALF OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND PK NAIL WITH WASHER STAMPED PLS 22282, ACCEPTED AS THE SOUTHEAST CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST FROM WHICH A FOUND PK NAIL WITH WASHER STAMPED PLS 22282, ACCEPTED AS THE EAST QUARTER CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, THEREOF BEARS N00°07'05"W A DISTANCE OF 2645.63 FEET;

THENCE, ALONG THE EAST LINE OF SAID SECTION 5, N00°07'05"W A DISTANCE OF 1985.61 FEET TO THE **POINT OF BEGINNING**;

THENCE, LEAVING THE EAST LINE OF SAID SECTION 5, N89°41'23"W A DISTANCE OF 1310.82 FEET;

THENCE, N00°02'30"W A DISTANCE OF 660.01 FEET;

THENCE, N00°02'42"W A DISTANCE OF 1322.04 FEET;

THENCE, N00°03'42"W A DISTANCE OF 442.34 FEET;

THENCE, N89°53'06"E A DISTANCE OF 1307.89 FEET TO THE EAST LINE OF SAID SECTION 5;

THENCE, ALONG THE EAST LINE OF SAID SECTION 5, S00°06'54"E A DISTANCE OF 1774.10 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 5;

THENCE, CONTINUING ALONG THE EAST LINE OF SAID SECTION 5, S00°07'05"E A DISTANCE OF 660.02 FEET TO THE **POINT OF BEGINNING**.

ATWELL

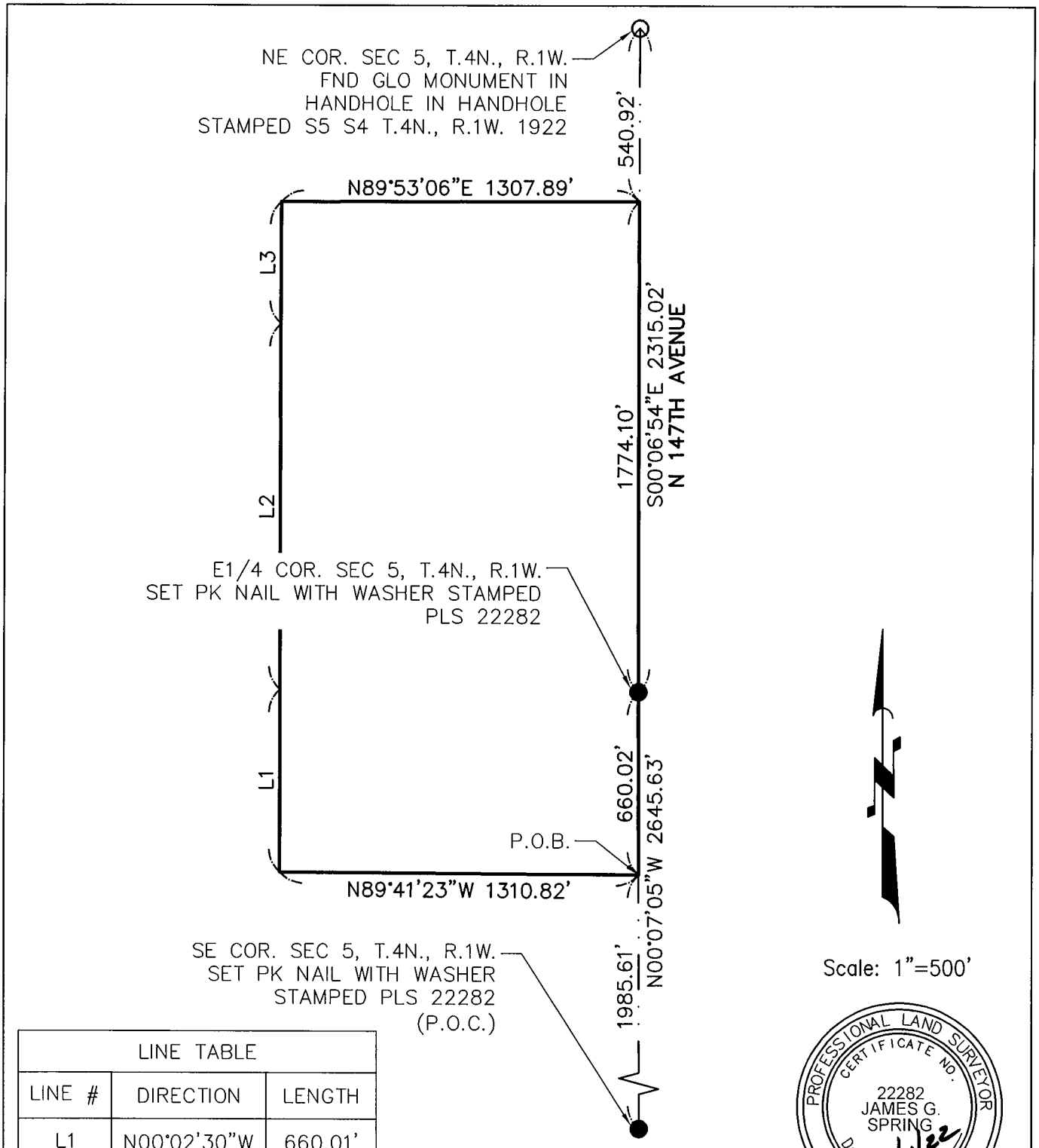
ONE COMPANY.
INFINITE SOLUTIONS.

THE ABOVE DESCRIBED PARCEL CONTAINS A COMPUTED AREA OF 3,180,526 SQUARE FEET OR 73.015 ACRES, MORE OR LESS AND IS SUBJECT TO ANY EASEMENTS, RESTRICTIONS, OR RIGHTS OF WAY OF RECORD OR OTHERWISE.

THE DESCRIPTION SHOWN HEREON IS NOT TO BE USED TO VIOLATE ANY SUBDIVISION REGULATIONS OF THE STATE, COUNTY AND/OR MUNICIPALITY OR ANY OTHER LAND DIVISION RESTRICTIONS.

PREPARED BY:
ATWELL, LLC
4700 E. SOUTHERN AVENUE
MESA, ARIZONA 85206
PROJECT NO. 17002903
DATE JANUARY 11TH, 2022

Exhibit B



LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N00°02'30"W	660.01'
L2	N00°02'42"W	1322.04'
L3	N00°03'42"W	442.34'

PROFESSIONAL LAND SURVEYOR
CERTIFICATE No.
22282
JAMES G.
SPRING
Date Signed 1/11/22
ARIZONA U.S.A.

JOB NO. 17002903 DATE: 01-11-2022 SHEET 3 OF 3

ATWELL
866.850.4200 www.atwell-group.com
4700 E. SOUTHERN AVENUE
MESA, AZ 85206
480.218.8831

EXHIBIT "A"
STREET LIGHT IMPROVEMENT DISTRICT
BONITA RANCH
CITY OF SURPRISE, ARIZONA

K:\17002903 - RANCHO MERCADO PARCELS A23, A24 AND A25 DUE DILLIGENCE\DWG\SURVEY\SLID\17002903 BONITA RANCH-SLID.DWG SAVE DATE: 1/11/2022 12:31 PM PLOT DATE: 1/11/2022 12:34 PM

Name: BONITA SLID BOUNDARY

North: 988586.8770' East: 559918.5349'

Segment #1 : Line

Course: N89°41'23.211"W Length: 1310.8240'

North: 988593.9742' East: 558607.7301'

Segment #2 : Line

Course: N0°02'29.949"W Length: 660.0124'

North: 989253.9864' East: 558607.2503'

Segment #3 : Line

Course: N0°02'42.031"W Length: 1322.0449'

North: 990576.0309' East: 558606.2118'

Segment #4 : Line

Course: N0°03'42.279"W Length: 442.3369'

North: 991018.3675' East: 558605.7351'

Segment #5 : Line

Course: N89°53'06.020"E Length: 1307.8829'

North: 991020.9925' East: 559913.6153'

Segment #6 : Line

Course: S0°06'53.982"E Length: 1774.1013'

North: 989246.8948' East: 559917.1760'

Segment #7 : Line

Course: S0°07'04.672"E Length: 660.0192'

North: 988586.8770' East: 559918.5349'

Perimeter: 7477.2217' Area: 3180525.97 Sq. Ft.

Error Closure: 0.0000 Course: N72°16'53.984"E

Error North: 0.00001 East: 0.00004

Precision 1: 7477221600.0000

STREET LIGHT IMPROVEMENT DISTRICT PETITION

TO THE MAYOR AND COUNCIL OF THE CITY OF SURPRISE:

We, the undersigned, are all or a majority of the real property owners, exclusive of mortgagees and other lienholders, within the district named below. We petition the City Council of the City of Surprise, Arizona, to establish a street light improvement district under Arizona Revised Statutes (A.R.S.) §48-571 to 48-622, and any amendments, and specifically A.R.S. §48-615 to 48-617, to purchase electricity for lighting the public streets and/or parks within the district whose boundaries and area is described in Exhibits A and B attached hereto. This petition includes a charge for maintaining the lighting facilities.

It is hereby requested that, in compliance with the Arizona Revised Statutes, the City Council adopt a Resolution of Intention to order the proposed improvements, and that unless protests are received pursuant to A.R.S. §48-579 sufficient to bar further proceedings, the City Council proceed with the improvements petitioned for herein.

Expenses of the District (**PICK ONE)**

◉ shall be paid by the levy and collection of ad valorem taxes upon assessed value of all property in the District

○ shall be paid by the levy and collection of equal apportionment of taxes based on the number and classification of properties within the District.

Public convenience, necessity and welfare will be promoted by the establishment of the District and the real property within the District will be benefited by the District. Additional street lighting facilities may be installed and included in the District, at no investment cost to the District, as directed by the City and as approved by Arizona Public Service and the City Engineer.

WHEREFORE, we respectfully ask that this Petition be properly filed and that the Mayor and Council of the City adopt the Resolution and take such other action as is proper, necessary and appropriate to form the District and to fulfill the purposes for which the District is organized, as the Mayor and Council believe is proper and necessary.

The name of the proposed street light improvements district shall be:
SU-BonitaRnch204
(Leave Blank - to be assigned by City staff)

PETITIONERS: Please print and sign your name

PRINT BUSINESS/ PETITIONER'S NAME	ADDRESS OF PROPERTY OWNED WITHIN DISTRICT	ASSESSOR PARCEL #	SIGNATURE
Mattamy Arizona, LLC	N/A	503-54-006B,P,F,G	
		503-54-014B	

AVAILABILITY

This rate schedule is applicable to those portions of cities, towns and unincorporated communities in which the Company does a general retail electric business and where the Company has installed a multiple or series street lighting system of adequate capacity for the service to be rendered after December 1, 2021.

DESCRIPTION

E-68 is a rate that is applicable for lighting public streets, alleys, thoroughfares, public parks and playgrounds from dusk to dawn by use of Company's facilities.

TIME PERIOD

Dusk: The time between sunset and full night when photocontrol senses the lack of sufficient sunlight and turns on the lights.

Dawn: The time between full night and sunrise when a photocontrol senses sufficient sunlight to turn off lights.

CHARGES

The monthly bill will consist of the fixture and energy charges, plus adjustments:

I. FIXTURES (Includes Mounting Arm, if applicable)

Fixture Equipment Class	Fixture Cost Range (per unit)	Investment by Company Monthly Rate	Investment by Others Monthly Rate
A	$ 1 - $ 430	$5.72	$1.75
B	$ 431 - $ 520	$6.97	$2.12
C	$ 521 - $ 640	$8.36	$2.60
D	$ 641 - $ 820	$9.99	$3.32
E	$ 821 - $ 910	$12.64	$3.68
F	$ 911 - $ 1,010	$14.07	$4.08
G	$ 1,011 - $ 1,110	$15.38	$4.49
H	$ 1,111 - $ 1,250	$17.44	$5.04
I	$ 1,251 - $ 1,520	$19.40	$6.12
J	$ 1,521 - $ 1,670	$23.65	$6.73
K	$ 1,671 - $ 1,850	$26.29	$7.45

Note: Equipment cost greater than $1,850 shall be Customer owned.

II. ENERGY (Includes Generation, T&D, RCS & SBC)

Monthly energy charges for new lighting fixtures will be determined by the Company using the following method:

kWh = Fixture Wattage x 344 Usage Hours

Generation = kWh per month x $ 0.06621

T&D, RCS, System Benefits = kWh per month x $ 0.02682

NOTES:

1. Investment by Company. These rates are applicable where the Company provides the initial investment to purchase and install all facilities necessary for street lighting service. The Company will own, operate, and maintain the street lighting system.

2. Investment by Others. These rates are applicable in those instances where the requesting entity or individual purchases and installs the street lighting facilities at their own expense and in accordance with Company specifications. These rates will also apply in the instance where the Customer provides a non-refundable advance to the Company to cover the Company's cost of purchasing and installing the street lighting system. The Company retains ownership of the street lighting system and provides operation and maintenance for all facilities.

3. Listed kWh reflects the assigned monthly energy usage for each type of fixture and are used to determine any applicable transmission, system benefit, distribution, energy, and adjustment charges.

4. kWh is determined by the company based on the rated wattage of the equipment and an established average hourly usage per month.

5. The monthly rate for all new poles includes up to 300 feet of overhead secondary wire, or up to 300 feet of underground secondary wire if the Customer provides earthwork and conduit (excluding the underground to overhead transition).

III. POLES

				CHARGES	
			Height	Investment by Company	Investment by Others
A. Anchor Base Mounted (Flush)	Round Steel	1 Simplex Adapter	12 ft.	$12.84	$1.77
			22 ft.	$14.45	$1.99
			25 ft.	$15.64	$2.16
			30 ft.	$17.96	$2.47
			32 ft.	$18.87	$2.50
		2 Simplex Adapters	12 ft.	$13.69	$1.89
			22 ft.	$15.73	$2.17
			25 ft.	$16.41	$2.26
			30 ft.	$19.07	$2.63
			32 ft.	$20.34	$2.81
	Square Steel	5"	13 ft.	$14.72	$2.02
			15 ft.	$13.15	$1.81
			23 ft.	$15.60	$2.15
			25 ft.	$17.15	$2.36
			28 ft.	$19.04	$2.62
			32 ft.	$18.93	$2.61
	Concrete		12 ft.	$43.87	$6.04
	Fiberglass		12 ft.	$37.15	$5.11
	Decorative Transit	4"	16 ft.	$36.22	$5.00
	Decorative Transit	6"	30 ft.	$69.93	$9.63
	Hinged Poles	Square	15 ft.	$13.92	$1.14
		Round	19 ft.	$12.59	$1.03
B. Anchor Base Mounted (Pedestal)	Round Steel	1 Simplex Adapter	12 ft.	$12.35	$1.69
			22 ft.	$13.97	$1.92
			25 ft.	$15.14	$2.09
			30 ft.	$17.48	$2.42
			32 ft.	$18.37	$2.53
		2 Simplex Adapters	12 ft.	$13.19	$1.81
			22 ft.	$14.74	$2.02
			25 ft.	$15.91	$2.18
			30 ft.	$18.58	$2.55
			32 ft.	$19.84	$2.73
		3 Bolt	32 ft.	$22.80	$3.13
	Square Steel	5"	13 ft.	$14.24	$1.97
			15 ft.	$14.56	$1.99
			23 ft.	$15.11	$2.09
			25 ft.	$16.67	$2.31
			28 ft.	$18.52	$2.55
			32 ft.	$19.23	$2.63

III. POLES (cont.)

				CHARGES	
			Height	Investment by Company	Investment by Others
C. Direct Bury	Round Steel		19 ft.	$19.43	$2.68
			30 ft.	$15.17	$2.81
			38 ft.	$18.51	$2.88
		Self	40 ft.	$22.80	$3.61
		Stepped	25 ft.	$52.45	$4.28
			32 ft.	$55.24	$4.51
			49 ft.	$68.57	$9.45
	Square Steel	4"	34 ft.	$16.74	$2.90
		5"	20 ft.	$15.90	$2.63
			30 ft.	$16.57	$2.73
			38 ft.	$17.98	$3.12
		8"	28 ft.	$30.01	$2.44
			32 ft.	$31.37	$2.57
	Decorative Transit		41 ft 6	$21.60	$3.17
	Decorative Transit		47 ft.	$26.91	$3.96
	Steel Distribution Pole (for lighting only)		35 ft.	$24.84	$3.27
D. Post Top	Decorative Transit Anchor Base		16 ft.	$37.00	$5.08
	Gray Steel/Fiberglass		23 ft.	$12.83	$2.11
	Black Steel		23 ft.	$14.14	$2.33
E. Existing distribution pole suitable for streetlight use				$1.56	--

IV. ANCHOR BASE

			CHARGES	
		Height	Investment by Company	Investment by Others
A. Flush		4 ft.	$10.45	$1.44
		6 ft.	$12.47	$2.16
B. Pedestal		8 ft.	$14.29	$2.49
	For 32' Round Steel Pole only	4 ft. 6"	$9.91	$1.71

V. CHARGES FOR OPTIONAL OR ADDITIONAL COMPANY OWNED EQUIPMENT

Underground Circuit Charges	
a. Per foot of cable, installed under paving	$0.16652
b. Per foot of cable, not installed under paving	$0.05877

TRIP CHARGE

A $150.00 trip charge per light will be charged when a Customer requests a disconnect or reconnect of service in order to accommodate the maintenance activities of the Customer or its designee(s) on their street lighting equipment.

ADJUSTMENTS

The bill will include the following adjustments:

1. The Renewable Energy Standard charge, Adjustment Schedule REAC-1.
2. The Power Supply Adjustment charges, Adjustment Schedule PSA-1.
3. The Transmission Cost Adjustment charge, Adjustment Schedule TCA-1.
4. The Environmental Improvement Surcharge, Adjustment Schedule EIS.
5. The Demand Side Management Adjustment charge, Adjustment Schedule DSMAC-1.
6. Direct Access Customers returning to Standard Offer service may be subject to a Returning Customer Direct Access Charge, Adjustment Schedule RCDAC-1.
7. The Tax Expense Adjustor Mechanism charge, Adjustment Schedule TEAM
8. Any applicable taxes and governmental fees that are assessed on APS's revenues, prices, sales volume, or generation volume.

SERVICE DETAILS

1. Street lighting facilities installed under this rate schedule are of the type currently being furnished by Company as standard at the time service is initially requested. Standard facilities are those listed in the Company's Transmission and Distribution Construction Standards book.

2. The Customer's bill will not be reduced due to photocontrol or cable repair or replacement outages.

3. Non-standard facilities (non-standard being defined as any facility not listed in the Company's Transmission and Distribution Construction Standards book) do not qualify for this rate schedule. At the Company's discretion, such facilities may be served under another of the Company's rate schedules.

4. The Company will extend its standard street lighting system up to a distance of 300 feet for each additional lighting installation without cost at the request of the Customer. When the extension is underground, the customer will provide earthwork as specified in the Company's Service Schedule 3, Conditions Governing Extensions of Electric Distribution Lines and Services; or, at the applicant's request, the Company will provide such earthwork and the applicant will be required to pay a non-refundable contribution in aid of construction equal to the cost of such earthwork. Any additional extension required (over and above the first 300 feet) will be provided by Company for a contribution in aid of construction equal to the cost of the additional extension.

    a. Extensions to isolated areas requiring a substantial extension of the electric distribution system, as opposed to an extension of the street lighting system, will require a special study to determine the terms and conditions under which the Company will undertake such an extension.

5. APS provides electric service under the Company's Service Schedules. These schedules provide details about how the Company serves its Customers, and they have provisions and charges that may affect the Customer's bill. In addition, service may be subject to special terms and conditions as provided for in a Customer contract, maintenance, or service agreement.

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER MERIDIAN, CITY OF SURPRISE, MARICOPA COUNTY, ARIZONA

LANDSCAPE ARCHITECT	CIVIL ENGINEER	ELECTRICAL ENGINEER
RVi PLANNING + LANDSCAPE ARCHITECTURE 120 S. ASH AVENUE TEMPE, ARIZONA 85281 PHONE: (480) 994-0994 CONTACT: SHAWN BYRON, PLA	ATWELL 4700 E. SOUTHERN AVENUE MESA, ARIZONA 85208 PHONE: (480) 218-8831 CONTACT: MICHAEL PARK, PE	HORNS CONSULTING, LLC 1243 E. MURIEL DRIVE PHOENIX, ARIZONA 85022 PHONE: (602) 256-8990 CONTACT: DOUG HORNING & GREG LARSON, PE

ENGINEERS NOTES

1. A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATIONS OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OBSTRUCTIONS AND UTILITY LINES ENCOUNTERED DURING CONSTRUCTION AND SHALL DETERMINE THE EXACT LOCATION OF UTILITIES IN ADVANCE OF TRENCHING. THE ENGINEER AND/OR DEVELOPER WILL NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
2. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, REQUIREMENTS OF THE WORK AND EXCESS OF DEFICIENCY IN QUANTITIES, IF ANY. NO CLAIMS SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OF RELATIVE.
3. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. ANY QUANTITIES SHOWN ARE THE BEST ESTIMATE OF THE ENGINEER. THE SUBCONTRACTOR SHALL MAKE HIS OWN INDEPENDENT ESTIMATE OF QUANTITIES AND BASE HIS BID THEREON.
5. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF UTILITIES, POWER POLES, ETC.
6. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
7. THE CONTRACTOR WILL MAKE FIELD AS-BUILT MEASUREMENTS OF THE WORK. THESE MEASUREMENTS WILL BE GIVEN TO THE ENGINEER IN WRITING SO THAT AS-BUILT PLANS CAN BE CREATED. IF THE CONTRACTOR DOES NOT TAKE AS-BUILT MEASUREMENTS OR FORWARD THESE MEASUREMENTS TO THE ENGINEER, THE ENGINEER WILL NOT BE RESPONSIBLE FOR PROVIDING ACCURATE AS-BUILT OF THE POLES, ETC.
8. AS-BUILT SUBMITTALS WILL NOT BE PERFORMED UNTIL ORDERED BY THE CLIENT OR HIS MEASUREMENTS.
9. HORNS CONSULTING LLC., IT'S OWNERS, OR EMPLOYEES WILL NOT BE HELD RESPONSIBLE FOR ANY DESTRUCTION OF PROPERTY CAUSED BY OTHERS. IDENTIFY ALL OTHER UTILITIES & CALL BLUE STAKE PRIOR TO DIGGING.
10. SIDEWALK TO MEANDER AROUND ALL STREET LIGHTS AND APS EQUIPMENT.

CITY OF SURPRISE NOTES

1. ALL CONSTRUCTION MUST CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENT (MAG) SPECIFICATIONS AND DETAILS AND LATEST REVISIONS UNLESS OTHERWISE STATED ON PLANS.
2. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND THEY WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL OVERHEAD AND UNDERGROUND UTILITY LOCATIONS WHERE CONSTRUCTION OCCURS. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT ALL UTILITIES ARE AVOIDED. UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND NOT FOR CONSTRUCTION PURPOSES. ANY DAMAGE TO EXISTING TO EXISTING UTILITIES SHALL BE REPAIRED AND OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT BLUE STAKE LAWS. CALL BLUE STAKE FOR FIELD LOCATION AT (602) 263-1100.
4. THE CITY OF SURPRISE ENGINEERING SERVICES OF PUBLIC WORKS SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORK AT (623) 222-6150.
5. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE PROPOSED AND RESUBMITTED FOR REVIEW AND APPROVAL.
6. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
7. ANY INSPECTION BY THE CITY, COUNTY, OR THE ENGINEER, SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
8. THE CONTRACTOR IS TO LOCATE ALL EXISTING LANDSCAPING, IRRIGATION LINES, PROPERTY MONUMENTS, FENCING OR SURFACE FEATURES PRIOR TO CONSTRUCTION. ANYTHING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTORS EXPENSE.
9. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
10. ALL CONSTRUCTION WATER USED WITHIN THE CITY OF SURPRISE WATER SERVICE AREA REQUIRES APPROVAL BY THE CITY OF SURPRISE PUBLIC WORKS DEPARTMENT AND MAY BE SUBJECT TO VOLUME AND TIME RESTRICTIONS. PLEASE SEE THE CITY OF SURPRISE CONSTRUCTION WATER GUIDELINES FOR ADDITIONAL INFORMATION. THE GUIDELINES CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT AT (623) 222-7000.
11. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH MAG SPECFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE "TEMPORARY WORK ZONE TRAFFIC MANAGEMENT POLICY" (LATEST EDITION).
12. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
13. EMERGENCY VEHICLE ACCESS (E.V.A) MUST BE PROVIDED BY THE DEVELOPER/CONTRACTOR THROUGHOUT THE PROJECT SITE. E.V.A. ROADS AND SIGNAGE SHALL BE MAINTAINED BY THE DEVELOPER/CONTRACTOR AT ALL TIMES. SIGNAGE SHALL BE POSTED AT THE POINT OF ENTRY TO THE SITE AND AT ALL LOCATIONS WHERE A CHANGE IN DIRECTION OCCURS.
14. THE PLANS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT'S ACCESSIBILITY GUIDELINES, AS PUBLISHED IN THE FEDERAL REGISTER ON SEPTEMBER 15, 2010.

CITY ADDITIONAL NOTES

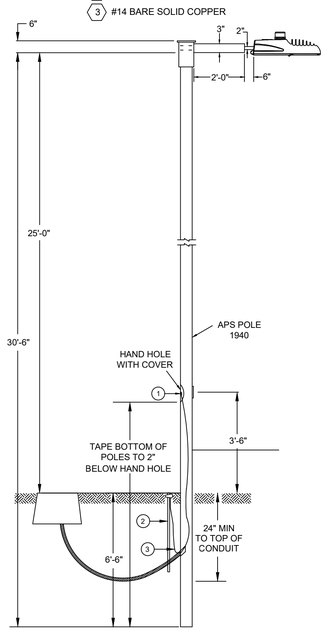
1 THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON LOCAL AND COLLECTOR STREETS ARE TO BE PAID BY THE ADJACENT DEVELOPMENT'S STREET LIGHT IMPROVEMENT DISTRICT (SLID). THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON ARTERIAL STREETS ARE TO BE BILLED TO THE CITY OF SURPRISE'S ENERGY BILL.

2 CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATION AT TIME OF BIDDING AND CONSTRUCTION.

Horns Consulting, LLC
www.hornsconsulting.com
Phone: (623)256-8990
E-mail: doug@hornsconsulting.com
1243 E. Muriel Drive, Phoenix, Arizona 85022

1 39W LED (APS 8030) DETAIL 1

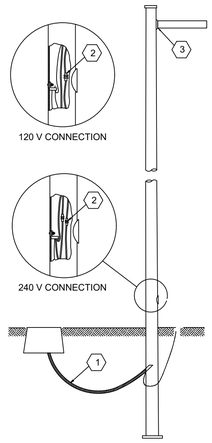
1. GROUND ATTACHMENT
2. ROD COPPERCLAD GRD., 5/8" x 8'
3. #14 BARE SOLID COPPER



2 (APS 8130) DETAIL 2

TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

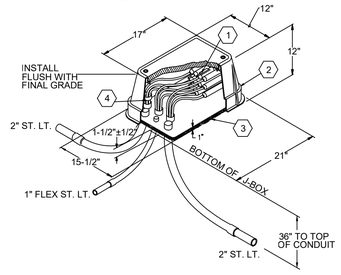
1. 1" FLEX CONDUIT
2. IN-LINE FUSE HOLDER WITH 15AMP FUSE
3. CONNECT BUTT-SPLICE #16-#14



3 (APS 8655) DETAIL 3

TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

1. SET SCREW INSULATED JUNCTION BAR
2. JUNCTION BOX 10"X15"X12"
3. CONCRETE GROUT PREMIX
4. I.D. RINGS (FEED, POLES)



UTILITY COORDINATION LIST

DESCRIPTION	REPRESENTATIVE	PHONE	DATE
APS	MONIQUE HOLLIDAY	(602) 250-1000	4-15-2022
CENTURY LINK	DEBBIE RAMSEY	(602) 630-0492	4-15-2022
SOUTHWEST GAS	ZACH STEVENSON	(602) 484-5270	4-15-2022
COX COMMUNICATIONS	TMC (TRAFFIC MANAGEMENT CENTER)	(623) 322-7215	4-15-2022

* CONFLICTS ARISING DURING THE COURSE OF CONSTRUCTION FROM UNFORSEEN CIRCUMSTANCES SHALL BE REPORTED TO THE INTERESTED UTILITY COMPANY AND BE RESOLVED BY THEM AND THE DESIGN ENGINEER.

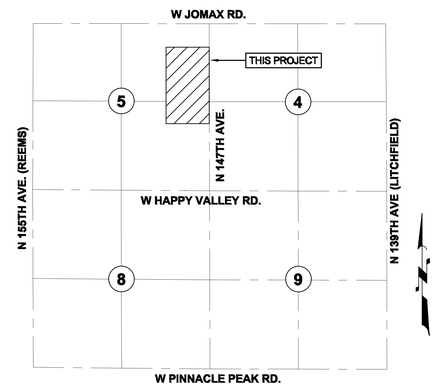
EQUIPMENT LIST

ITEM #	SYMBOL	TYPE STREET:	QUANTITY	MOUNTING HEIGHT	POLE HEIGHT:	MAST ARM	LUMENS	TYPE	WATTAGE	VOLTAGE	C.C.T.	PHOTOMETRIC	LUMINAIRE
1	■	LOCAL	65	25'-0"	30'-6"	2'-0"	4,900	LED	39W	120V	3000K	TYPE II WIDE TYPE IV	ERL1-0-05-B3-30-A-DKBZ (63) ERL1-0-05-D3-30-A-DKBZ (2)
		ITEM DESCRIPTION											
2	◠	1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT.											
3	■	INSTALL AN APS JUNCTION BOX NEXT TO THE POLE PER JUNCTION BOX DETAIL.											

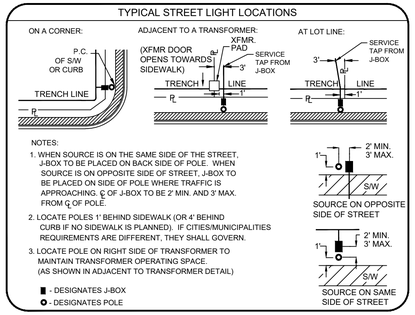
LED NOTE:
LED TECHNOLOGY IS CHANGING RAPIDLY. THE FIXTURES SHOWN ON THESE PLANS MAY NOT BE APPLICABLE AT TIME OF CONSTRUCTION. CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATIONS AT THE TIME OF BIDDING AND CONSTRUCTION.

STREETLIGHT NOTE:
ENSURE THERE IS A 2' CLEARANCE FROM THE EDGE OF THE SIDE WALK TO THE FACE OF THE POLE.

VICINITY MAP
N.T.S.



TYPICAL STREET LIGHT LOCATIONS



Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

DETAILS AND LEGEND FOR STREETLIGHTS:

- ■ 1 — INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 2' BACK OF WALK.
- ◠ 2 — INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
- ■ 3 — INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.
- FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)
- FIRE HYDRANT LOCATION PER CIVIL PLANS

THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF PERMITS. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLIANCE APPROVAL SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTIONS OF ERRORS OR OMISSIONS IN PLANS FOUND TO BE IN VIOLATION OF LAW OR ORDINANCES.

CITY OF SURPRISE ENGINEER DATE

INDEX

1 ~ COVER SHEET
2 ~ LIGHTING LAYOUT
3 ~ LIGHTING LAYOUT
4 ~ LIGHTING LAYOUT
5 ~ LIGHTING LAYOUT
6 ~ LIGHTING LAYOUT
7 ~ PHOTOMETRICS
8 ~ PHOTOMETRICS
9 ~ PHOTOMETRICS
10 ~ PHOTOMETRICS
11 ~ PHOTOMETRICS

BONITA RANCH ONSITE
COVER SHEET
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG D. LARSON Expires 09/30/2022 ARIZONA U.S.A.

NO.	REVISIONS	BY	DATE
7			
6			
5			
4			
3			
2			
1	CITY COMMENTS	DH	4/15/22

SHEET 1 OF 11

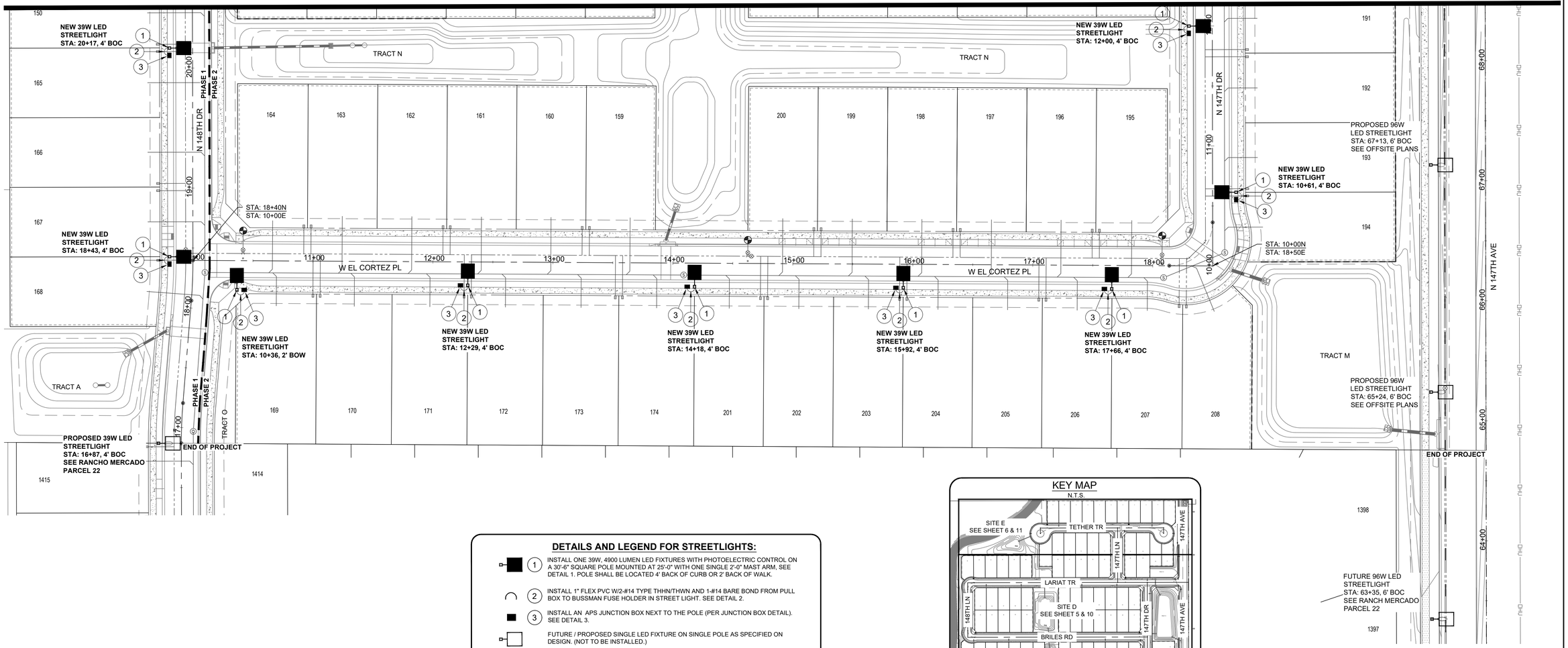
Contact: Doug Horning/Greg Larson,P.E.

Horns Consulting Project #:	21SL120	
Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

FS22-0198

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE A

MATCH LINE "A"
SEE SHEET 3



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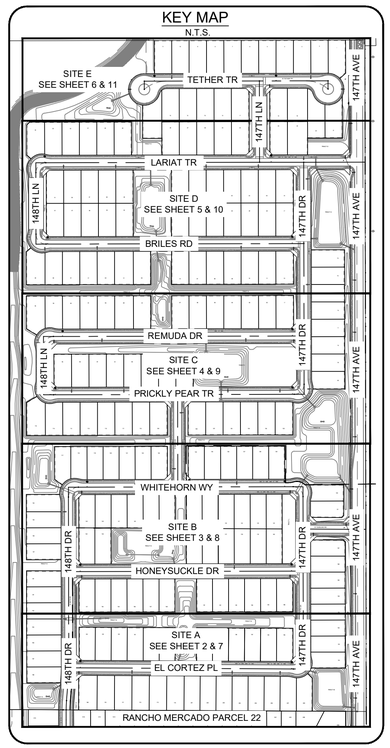
1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 2' BACK OF WALK.
2. INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

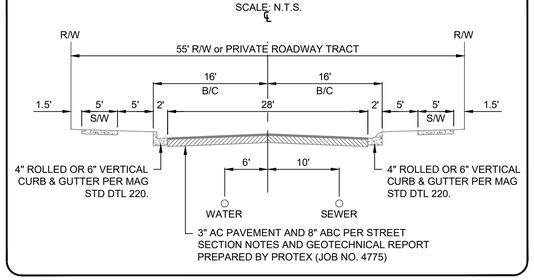
FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

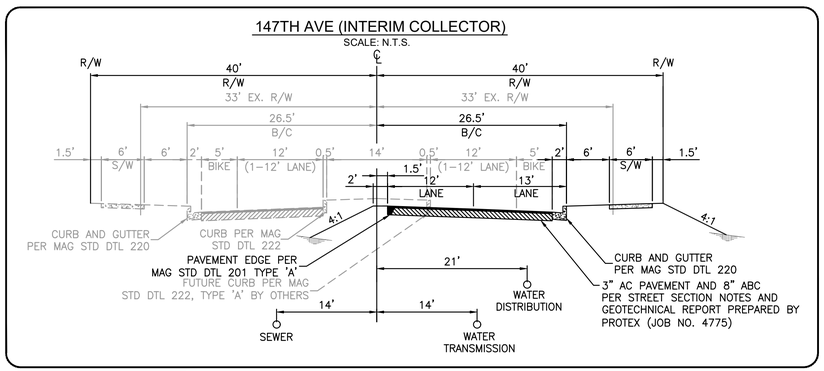
KEY MAP
N.T.S.



LOCAL STREET
LOOKING NORTH OR EAST
SCALE: N.T.S.



147TH AVE (INTERIM COLLECTOR)
SCALE: N.T.S.



40' 20' 0 40'
SCALE: 1" = 40'

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Registered Professional Engineer (Civil) CERTIFICATE NO. 28592 GREG D. LARSON Expires 09/30/2023 ARIZONA U.S.A.

NO.	REVISIONS	BY	DATE
7			
6			
5			
4			
3			
2			
1	CITY COMMENTS	DH	4/15/22

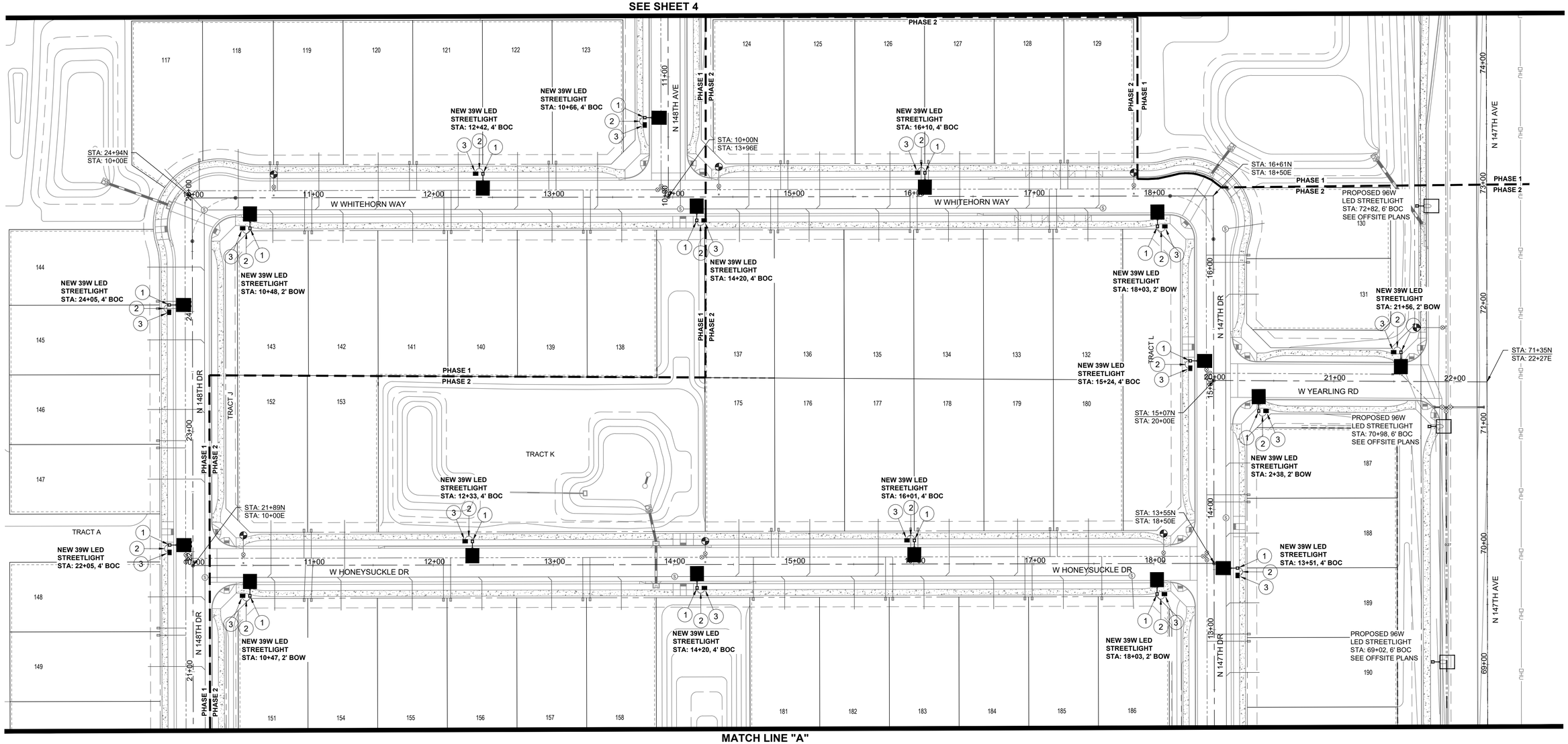
SHEET 2 OF 11

Contact: Doug Horning/Greg Larson,P.E.		
Horns Consulting Project #:		21SL120
Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

FS22-0198

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE B

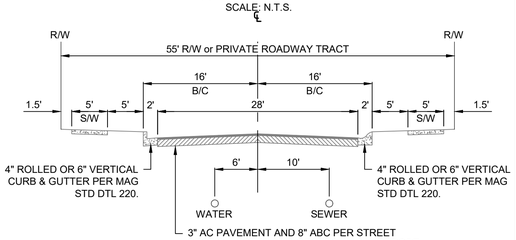
MATCH LINE "B"
SEE SHEET 4



MATCH LINE "A"
SEE SHEET 2

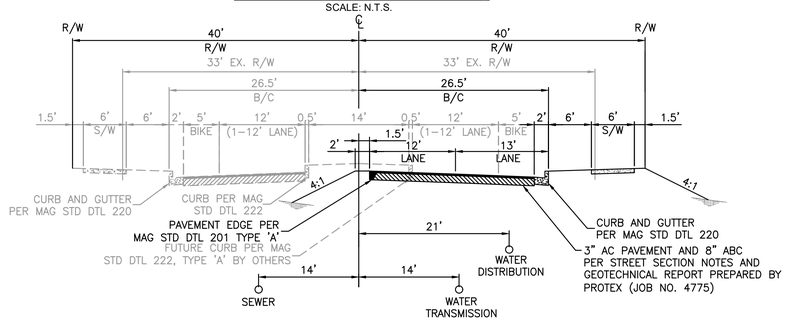
LOCAL STREET

LOOKING NORTH OR EAST
SCALE: N.T.S.



147TH AVE (INTERIM COLLECTOR)

SCALE: N.T.S.



DETAILS AND LEGEND FOR STREETLIGHTS:

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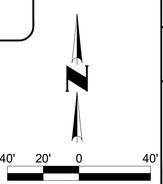
FIRE HYDRANT LOCATION PER CIVIL PLANS

SEE SHEET 2
FOR KEY MAP



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NO	REVISIONS	BY	DATE
7			
6			
5			
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2			
1	CITY COMMENTS	DH	4/15/22

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG D. LARSON Expires 9/30/2022 ARIZONA, U.S.A.

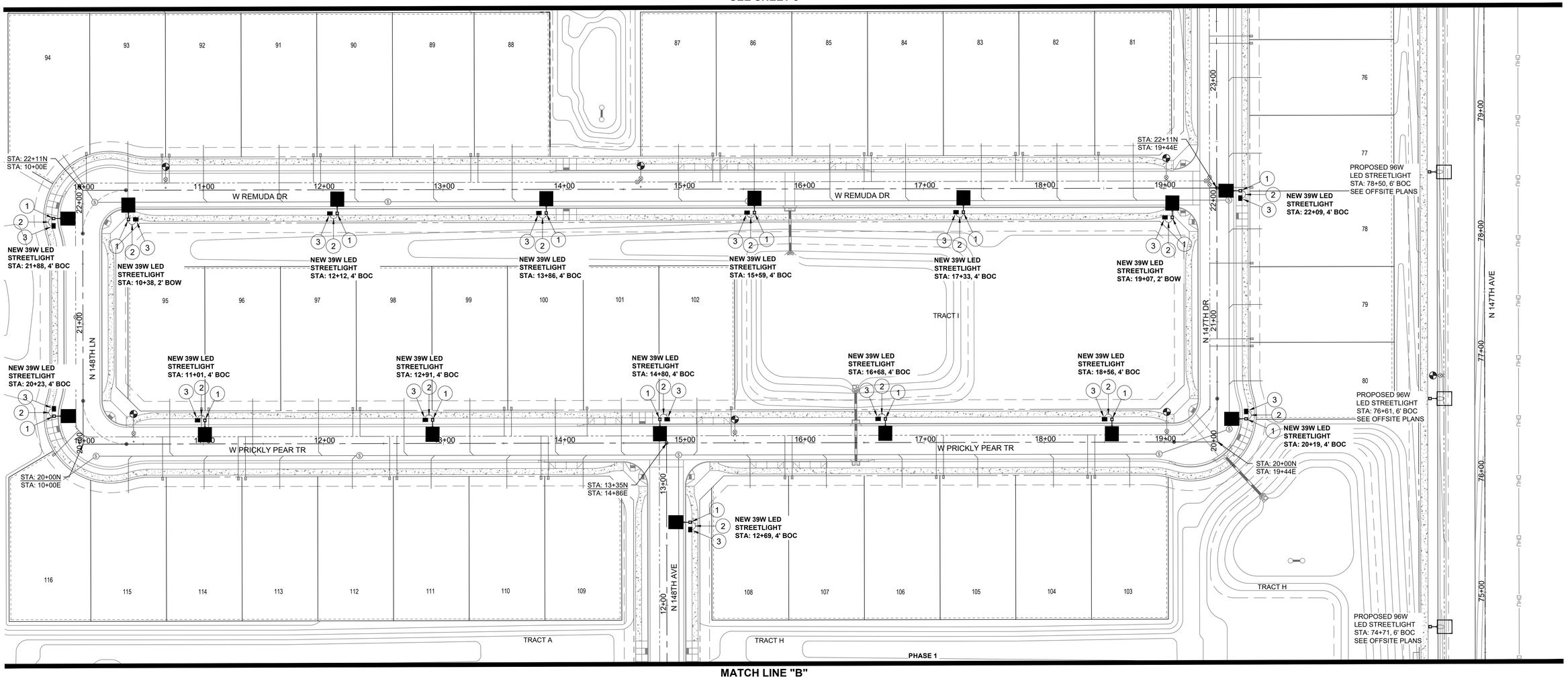
SHEET 3 OF 11

Contact: Doug Horning/Greg Larson,P.E.	
Horns Consulting Project #:	21SL120
Designed By:	DH 1/7/2022
Drawn By:	DH 1/7/2022
Reviewed By:	GL 1/7/2022

FS22-0198

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE C

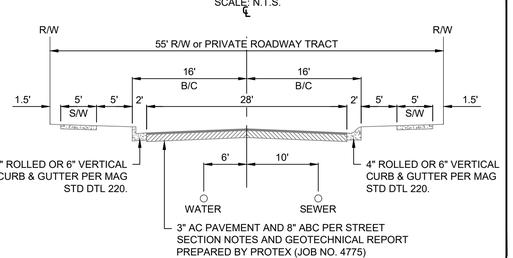
MATCH LINE "C"
SEE SHEET 5



MATCH LINE "B"
SEE SHEET 3

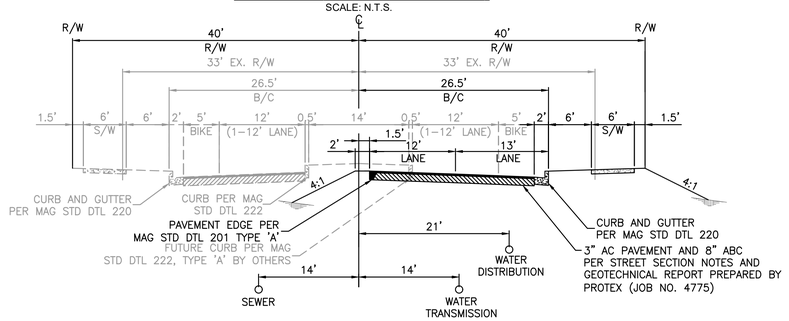
LOCAL STREET

LOOKING NORTH OR EAST
SCALE: N.T.S.



147TH AVE (INTERIM COLLECTOR)

SCALE: N.T.S.



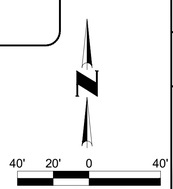
DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 2' BACK OF WALK.
2. INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

SEE SHEET 2
FOR KEY MAP



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ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

BONITA RANCH ONSITE
LIGHTING LAYOUT
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

Registered Professional Engineer (Civil) CERTIFICATE NO. 28582 GREG L. LARSON Expires 09/30/2023 ARIZONA, U.S.A.

NO	REVISIONS	BY	DATE
1	CITY COMMENTS	DH	4/15/22
2			
3			
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5			
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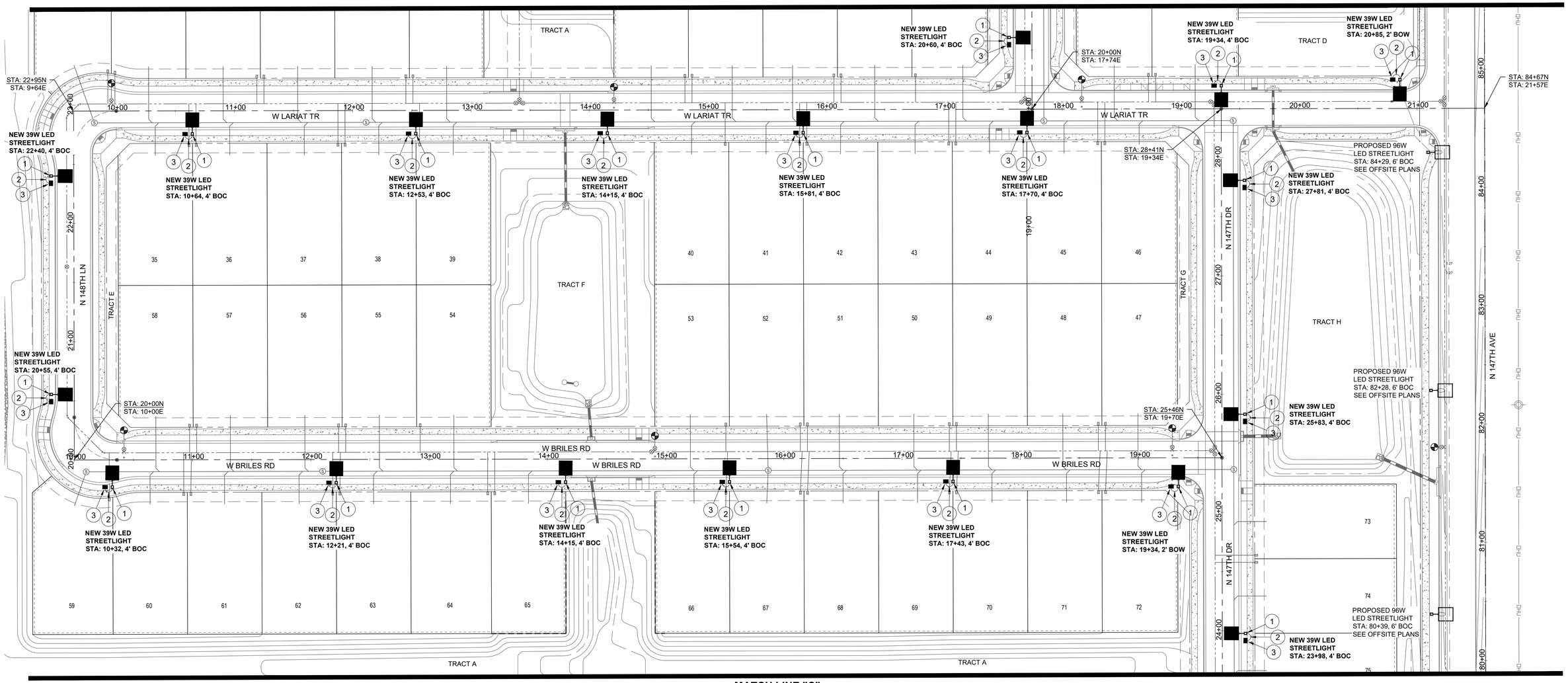
SHEET 4 OF 11

Contact: Doug Horning/Greg Larson,P.E.
Horns Consulting Project #: 21SL120
Designed By: DH 1/7/2022
Drawn By: DH 1/7/2022
Reviewed By: GL 1/7/2022

FS22-0198

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE D

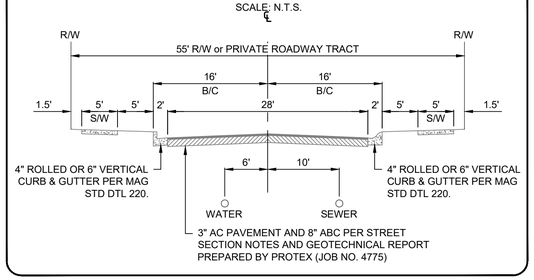
MATCH LINE "D"
SEE SHEET 6



MATCH LINE "C"
SEE SHEET 4

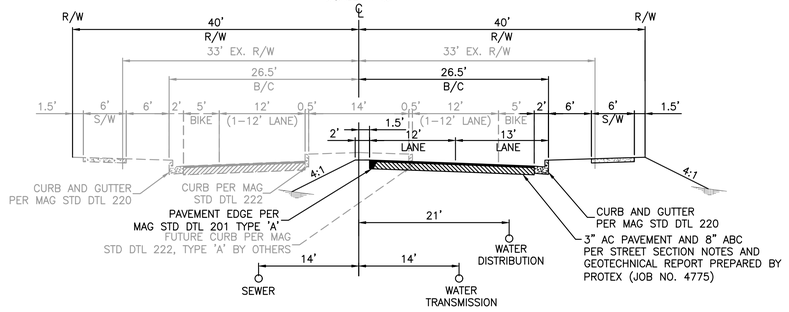
LOCAL STREET

LOOKING NORTH OR EAST
SCALE: N.T.S.



147TH AVE (INTERIM COLLECTOR)

SCALE: N.T.S.



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FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

SEE SHEET 2
FOR KEY MAP

N

40' 20' 0 40'
SCALE: 1" = 40'

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NO	REVISIONS	BY	DATE
7			
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2			
1	CITY COMMENTS	DH	4/15/22

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG GL LARSON Expires 09/30/2023 ARIZONA U.S.A.

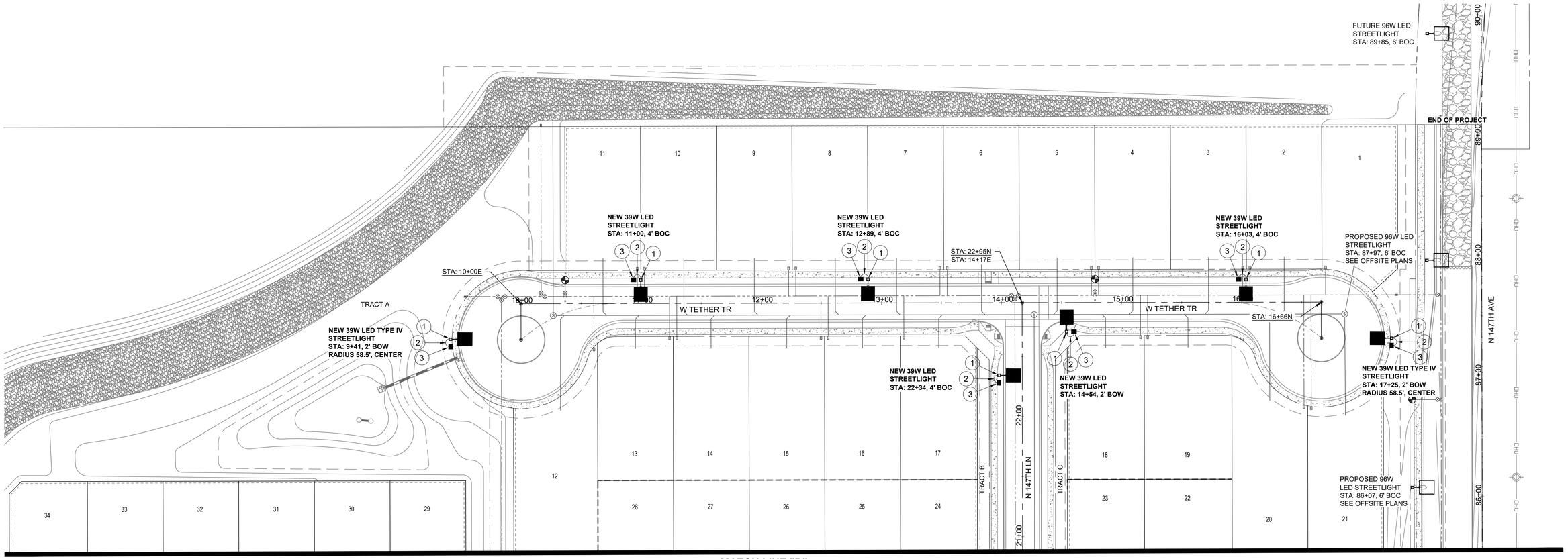
SHEET 5 OF 11

Contact: Doug Horning/Greg Larson,P.E.

Horns Consulting Project #:		21SL120
Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

FS22-0198

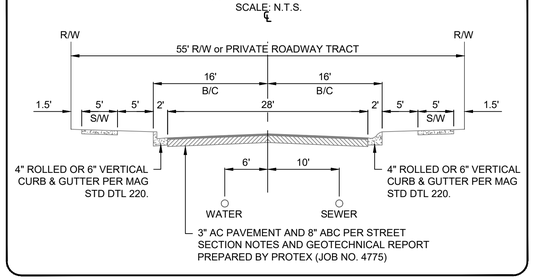
BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE E



MATCH LINE "D"
SEE SHEET 5

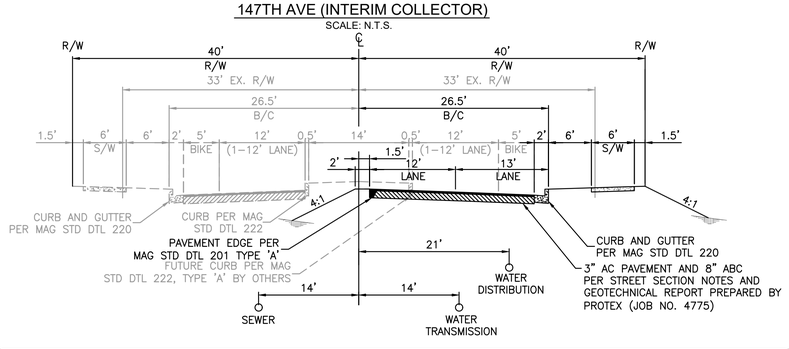
LOCAL STREET

LOOKING NORTH OR EAST
SCALE: N.T.S.



147TH AVE (INTERIM COLLECTOR)

SCALE: N.T.S.



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FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

SEE SHEET 2
FOR KEY MAP

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SCALE: 1" = 40'

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STREET LIGHT PLANS

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www.hornsconsulting.com

Registered Professional Engineer (Retired) CERTIFICATE NO. 28582 GREG R. LARSON Expires 9/30/2023 ARIZONA U.S.A.

NO	REVISIONS	BY	DATE
7			
6			
5			
4			
3			
2			
1	CITY COMMENTS	DH	4/15/22

SHEET 6 OF 11

Contact: Doug Horning/Greg Larson,P.E.	
Horns Consulting Project #:	21SL120
Designed By:	DH 1/7/2022
Drawn By:	DH 1/7/2022
Reviewed By:	GL 1/7/2022

FS22-0198

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE A

DETAILS AND LEGEND FOR STREETLIGHTS:

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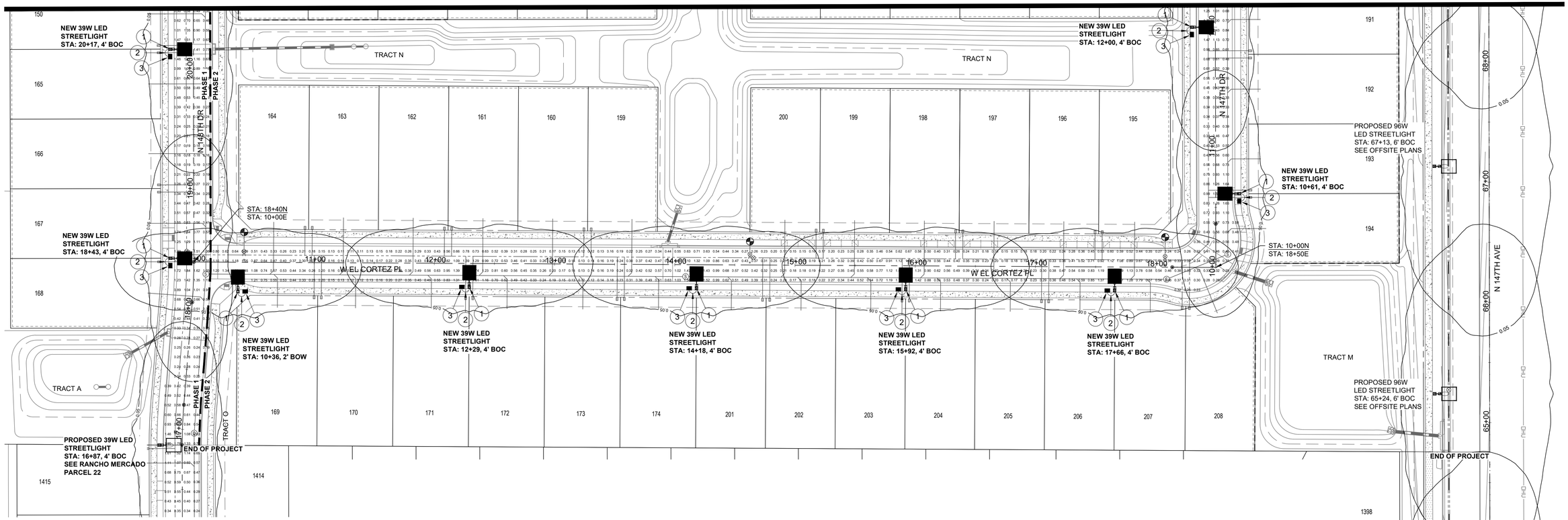
FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

MATCH LINE "A"
SEE SHEET 3



PHOTOMETRICS STUDIES

(Studies results is in illuminace)

GE LIGHTING SOLUTIONS ERL1_05D330_____-120-277V
GE LIGHTING SOLUTIONS-HENDERSONVILLE NC USA test report no. 17072713 17072714 17072715
lamp(s): LEDs 757G-V1
candela file 'erl1_05d330_____-120-277v_tcm201-129098.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting height= 25 ft
number locations= 2, number luminaires= 2
kw all locations= 0.1

BONITA RANCH (OVERALL)
5099 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	0.54
Maximum	2.37
Minimum	0.06
Avg:Min	9.00
Max:Min	39.50
Coef Var	0.79
UnifGrad	2.79

GE LIGHTING SOLUTIONS ERL1_05B330_____-120-277V
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no. 17040524 17040525 17040526 17040722 17040723 17040724
lamp(s): LEDs 757G-V1
candela file 'erl1_05b330_____-120-277v_tcm201-129086.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting height= 25 ft
number locations= 63, number luminaires= 63
kw all locations= 2.1

147TH AVE & LARIAT TR
30 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	1.12
Maximum	1.70
Minimum	0.62
Avg:Min	1.81
Max:Min	2.74
Coef Var	0.27
UnifGrad	1.36

147TH AVE & YEARING RD
35 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	1.04
Maximum	1.62
Minimum	0.53
Avg:Min	1.96
Max:Min	3.06
Coef Var	0.30
UnifGrad	1.40

N

40' 20' 0 40'

SCALE: 1" = 40'

Call at least two full working days before you begin excavation.
ARIZONA 811
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BONITA RANCH ONSITE
PHOTOMETRICS
STREET LIGHT PLANS

HORNS CONSULTING, LLC
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PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
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NO.	REVISIONS	BY	DATE
7			
6			
5			
4			
3			
2			
1	CITY COMMENTS	DH	4/15/22

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG R. LARSON ARIZONA U.S.A.

SHEET 7 OF 11

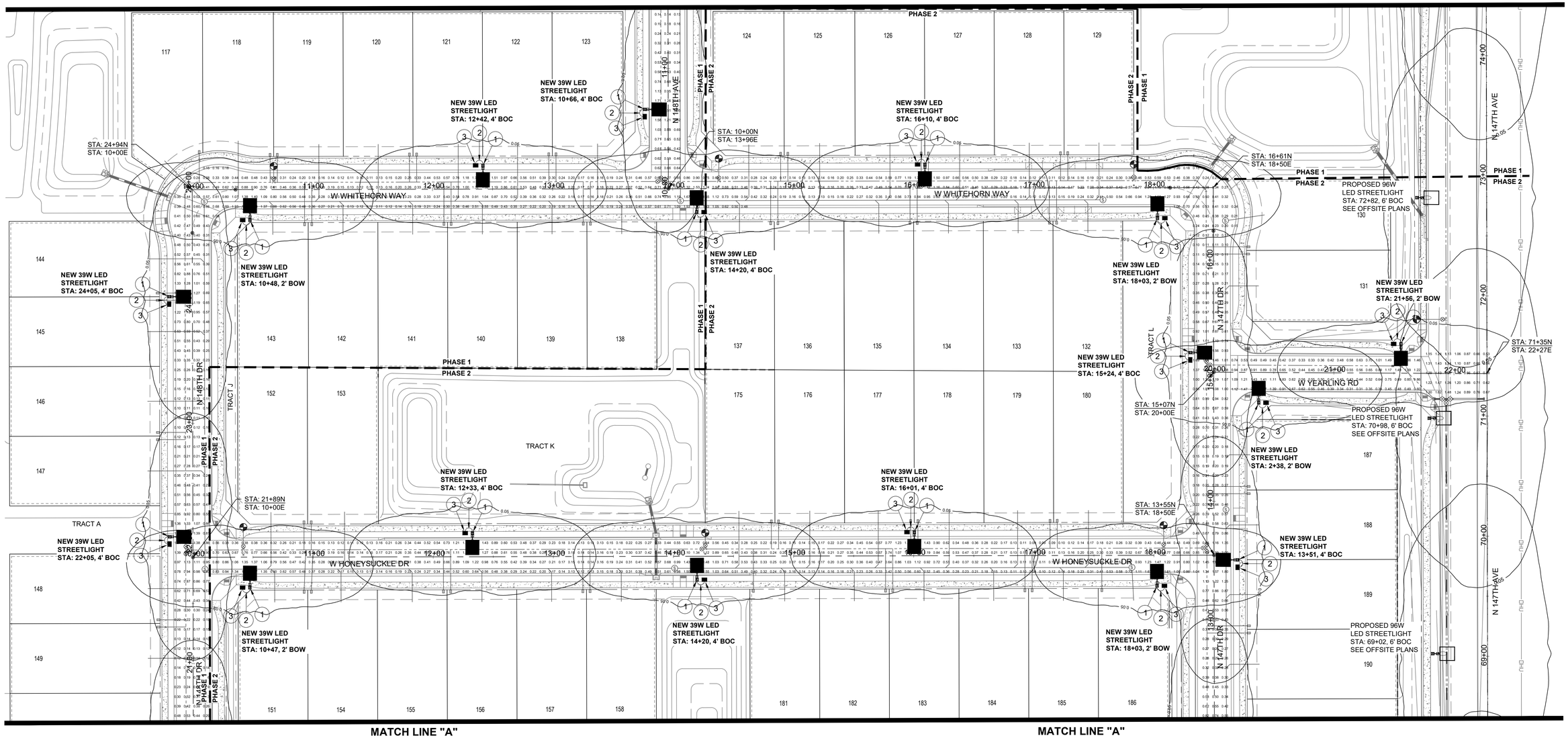
Contact: Doug Horning/Greg Larson,P.E.	
Horns Consulting Project #	21SL120
Designed By:	DH 1/7/2022
Drawn By:	DH 1/7/2022
Reviewed By:	GL 1/7/2022

FS22-0198

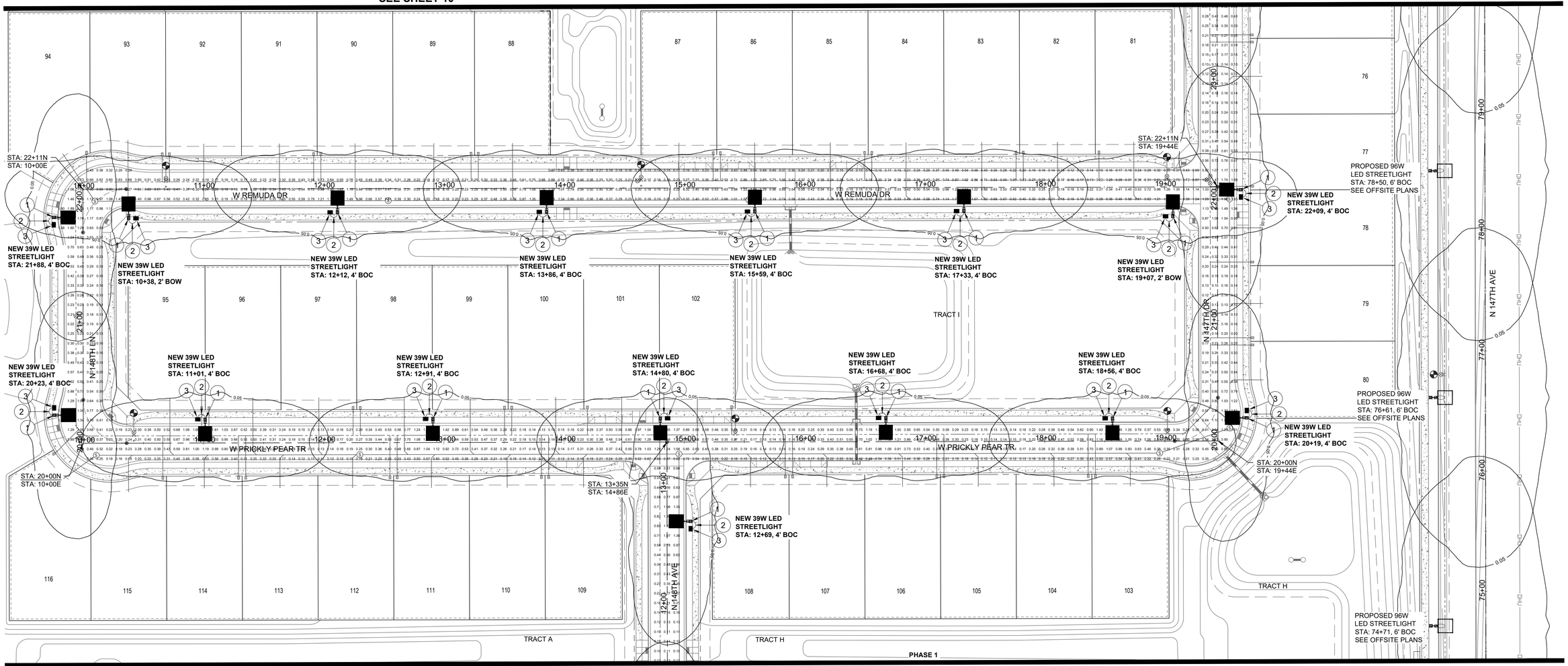
BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE B

MATCH LINE "B"
SEE SHEET 9

MATCH LINE "B"
SEE SHEET 9


PHASE 2
PHASE 1
PHASE 2
PHASE 1
PHASE 2
PHASE 1

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE C



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FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

PHOTOMETRICS STUDIES

(Studies results is in illuminace)

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17072713 17072714 17072715
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N

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BONITA RANCH ONSITE
PHOTOMETRICS
STREET LIGHT PLANS

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NO.	REVISIONS	BY	DATE
7			
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2			
1	CITY COMMENTS	DH	4/15/22

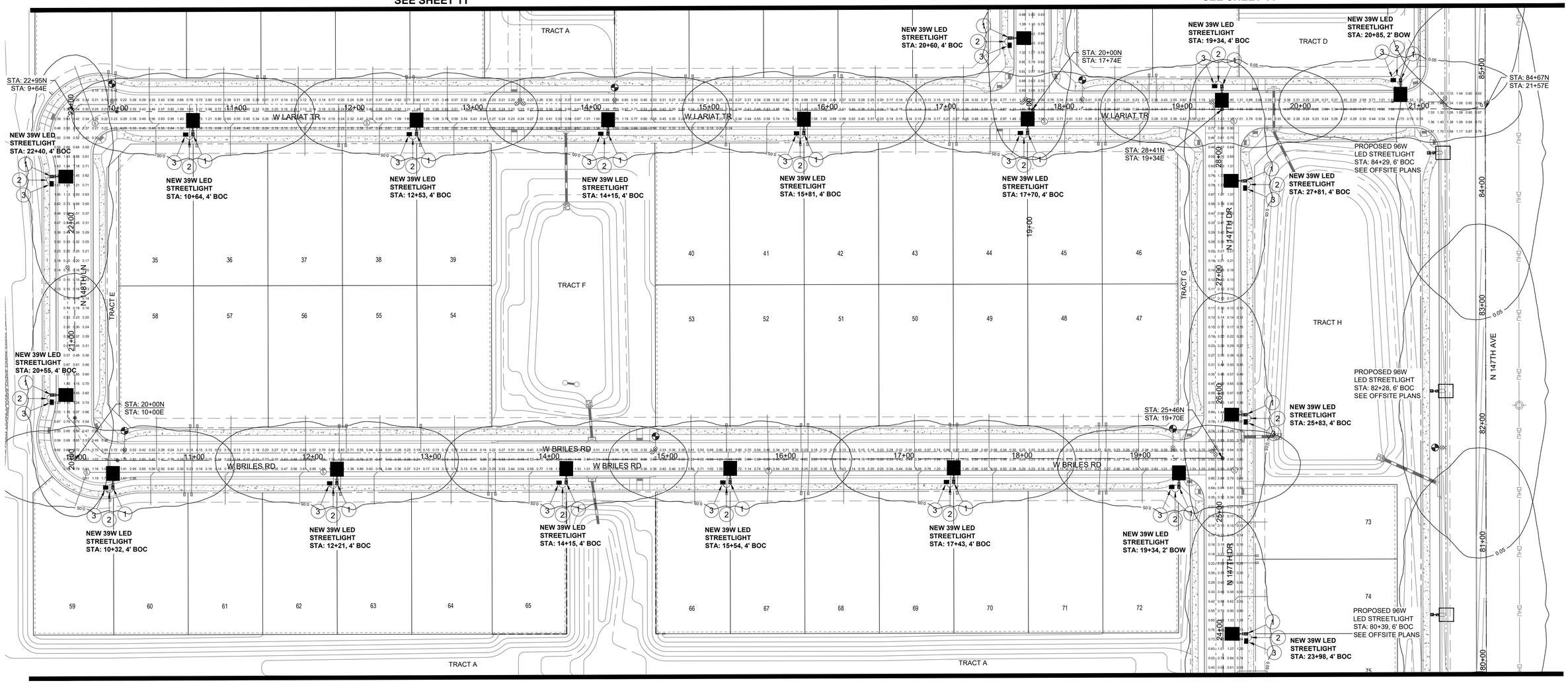
Registered Professional Engineer (Inactive)
CERTIFICATE NO.
28582
GREG R.
LARSON
ARIZONA U.S.A.

SHEET 9 OF 11

Contact: Doug Horning/Greg Larson,P.E.	
Horns Consulting Project #	21SL120
Designed By:	DH 1/7/2022
Drawn By:	DH 1/7/2022
Reviewed By:	GL 1/7/2022

FS22-0198

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE D



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N

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2			
1	CITY COMMENTS	DH	4/15/22

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG D. LARSON Registered ARIZONA U.S.A.

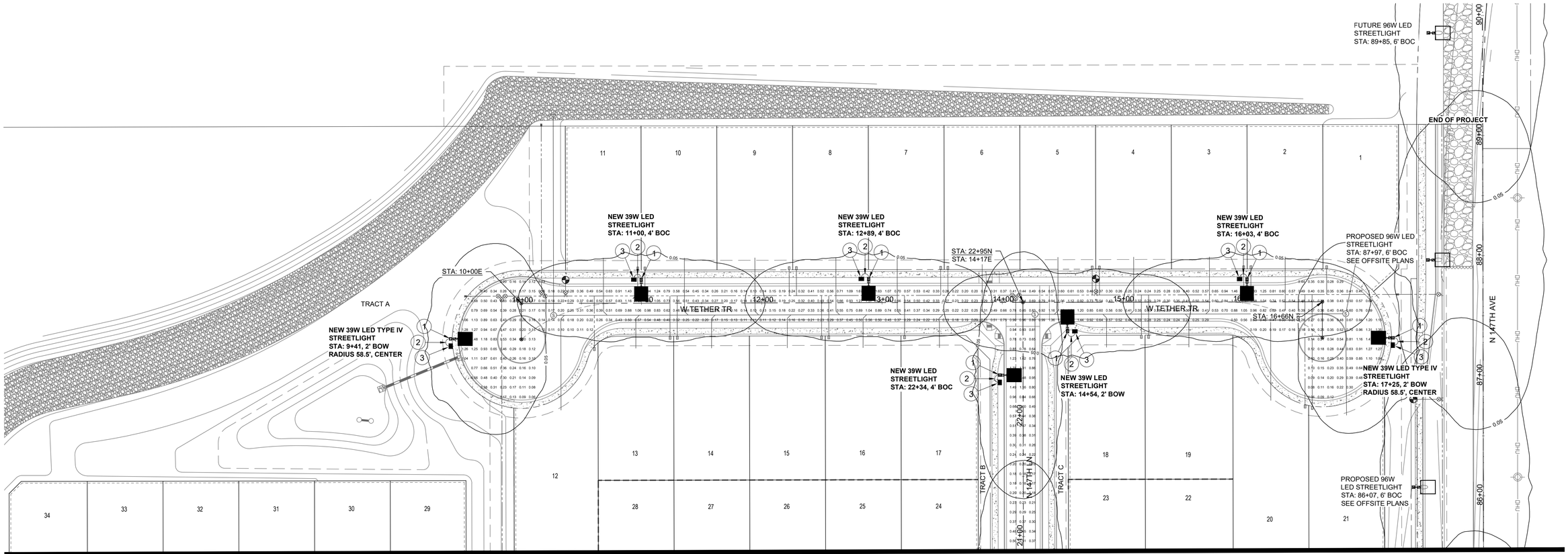
SHEET 10 OF 11

Contact: Doug Horning/Greg Larson,P.E.

Horns Consulting Project #:		21SL120
Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

FS22-0198

BONITA RANCH ONSITE
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE E



MATCH LINE "D"
SEE SHEET 10

MATCH LINE "D"
SEE SHEET 10

DETAILS AND LEGEND FOR STREETLIGHTS:

1. INSTALL ONE 39W, 4900 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 30'-6" SQUARE POLE MOUNTED AT 25'-0" WITH ONE SINGLE 2'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 2' BACK OF WALK.
2. INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
3. INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.

FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)

FIRE HYDRANT LOCATION PER CIVIL PLANS

PHOTOMETRICS STUDIES

(Studies results is in illuminace)

GE LIGHTING SOLUTIONS ERL1_05D330_____-120-277V
GE LIGHTING SOLUTIONS-HENDERSONVILLE NC USA test report no. 17072713 17072714 17072715
lamp(s): LEDs 757G-V1
candela file 'erl1_05d330_____-120-277v_tcm201-129098.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting height= 25 ft
number locations= 2, number luminaires= 2
kw all locations= 0.1

BONITA RANCH (OVERALL)
5099 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	0.54
Maximum	2.37
Minimum	0.06
Avg:Min	9.00
Max:Min	39.50
Coef Var	0.79
UnifGrad	2.79

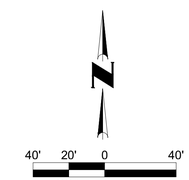
GE LIGHTING SOLUTIONS ERL1_05B330_____-120-277V
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no. 17040524 17040525 17040526 17040722 17040723 17040724
lamp(s): LEDs 757G-V1
candela file 'erl1_05b330_____-120-277v_tcm201-129086.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 39
Outreach (from mounting axis to photometric center)= 30 in
mounting height= 25 ft
number locations= 63, number luminaires= 63
kw all locations= 2.1

147TH AVE & LARIAT TR
30 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	1.12
Maximum	1.70
Minimum	0.62
Avg:Min	1.81
Max:Min	2.74
Coef Var	0.27
UnifGrad	1.36

147TH AVE & YEARING RD
35 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES

Average	1.04
Maximum	1.62
Minimum	0.53
Avg:Min	1.96
Max:Min	3.06
Coef Var	0.30
UnifGrad	1.40



Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

BONITA RANCH ONSITE
PHOTOMETRICS
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

NO	REVISIONS	BY	DATE
1	CITY COMMENTS	DH	4/15/22

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG LARSON Expires 09/30/2022 ARIZONA U.S.A.

SHEET 11 OF 11

Contact: Doug Horning/Greg Larson,P.E.

Horns Consulting Project #:		21SL120
Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

FS22-0198

BONITA RANCH OFFSITE (147TH AVE)
STREETLIGHT PLANS
SURPRISE, ARIZONA

A PORTION OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER MERIDIAN, CITY OF SURPRISE, MARICOPA COUNTY, ARIZONA

LANDSCAPE ARCHITECT
RVi PLANNING + LANDSCAPE ARCHITECTURE
120 S. ASH AVENUE
TEMPE, ARIZONA 85281
PHONE: (480) 994-0994
CONTACT: SHAWN BYRON, PLA

CIVIL ENGINEER
ATWELL
4700 E. SOUTHERN AVENUE
MESA, ARIZONA 85208
PHONE: (480) 218-8831
CONTACT: MICHAEL PARK, PE

ELECTRICAL ENGINEER
HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (602) 256-8990
CONTACT: DOUG HORNING & GREG LARSON, PE

ENGINEERS NOTES

1. A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATIONS OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO OBSTRUCTIONS AND UTILITY LINES ENCOUNTERED DURING CONSTRUCTION AND SHALL DETERMINE THE EXACT LOCATION OF UTILITIES IN ADVANCE OF TRENCHING. THE ENGINEER AND/OR DEVELOPER WILL NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
2. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS, REQUIREMENTS OF THE WORK AND EXCESS OF DEFICIENCY IN QUANTITIES, IF ANY. NO CLAIMS SHALL BE MADE AGAINST THE OWNER/DEVELOPER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OF RELATIVE.
3. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
4. ANY QUANTITIES SHOWN ARE THE BEST ESTIMATE OF THE ENGINEER. THE SUBCONTRACTOR SHALL MAKE HIS OWN INDEPENDENT ESTIMATE OF QUANTITIES AND BASE HIS BID THEREON.
5. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR COORDINATING THE RELOCATION OF UTILITIES, POWER POLES, ETC.
6. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
7. THE CONTRACTOR WILL MAKE FIELD AS-BUILT MEASUREMENTS OF THE WORK. THESE MEASUREMENTS WILL BE GIVEN TO THE ENGINEER IN WRITING SO THAT AS-BUILT PLANS CAN BE CREATED. IF THE CONTRACTOR DOES NOT TAKE AS-BUILT MEASUREMENTS OR FORWARD THESE MEASUREMENTS TO THE ENGINEER, THE ENGINEER WILL NOT BE RESPONSIBLE FOR PROVIDING ACCURATE AS-BUILT OF THE POLES, ETC.
8. AS-BUILT SUBMITTALS WILL NOT BE PERFORMED UNTIL ORDERED BY THE CLIENT OR HIS MEASUREMENTS.
9. HORNS CONSULTING LLC., IT'S OWNERS, OR EMPLOYEES WILL NOT BE HELD RESPONSIBLE FOR ANY DESTRUCTION OF PROPERTY CAUSED BY OTHERS. IDENTIFY ALL OTHER UTILITIES & CALL BLUE STAKE PRIOR TO DIGGING.
10. SIDEWALK TO MEANDER AROUND ALL STREET LIGHTS AND APS EQUIPMENT.

CITY OF SURPRISE NOTES

1. ALL CONSTRUCTION MUST CONFORM TO MARICOPA ASSOCIATION OF GOVERNMENT (MAG) SPECIFICATIONS AND DETAILS AND LATEST REVISIONS UNLESS OTHERWISE STATED ON PLANS.
2. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND THEY WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING ALL OVERHEAD AND UNDERGROUND UTILITY LOCATIONS WHERE CONSTRUCTION OCCURS. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT ALL UTILITIES ARE AVOIDED. UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND NOT FOR CONSTRUCTION PURPOSES. ANY DAMAGE TO EXISTING TO EXISTING UTILITIES SHALL BE REPAIRED AND OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT BLUE STAKE LAWS. CALL BLUE STAKE FOR FIELD LOCATION AT (602) 263-1100.
4. THE CITY OF SURPRISE ENGINEERING SERVICES OF PUBLIC WORKS SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION WORK AT (623) 222-6150.
5. THE ENGINEER AND APPLICABLE AGENCY MUST APPROVE PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE PROPOSED AND RESUBMITTED FOR REVIEW AND APPROVAL.
6. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THE DRAWING, SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.
7. ANY INSPECTION BY THE CITY, COUNTY, OR THE ENGINEER, SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
8. THE CONTRACTOR IS TO LOCATE ALL EXISTING LANDSCAPING, IRRIGATION LINES, PROPERTY MONUMENTS, FENCING OR SURFACE FEATURES PRIOR TO CONSTRUCTION. ANYTHING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTORS EXPENSE.
9. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR.
10. ALL CONSTRUCTION WATER USED WITHIN THE CITY OF SURPRISE WATER SERVICE AREA REQUIRES APPROVAL BY THE CITY OF SURPRISE PUBLIC WORKS DEPARTMENT AND MAY BE SUBJECT TO VOLUME AND TIME RESTRICTIONS. PLEASE SEE THE CITY OF SURPRISE CONSTRUCTION WATER GUIDELINES FOR ADDITIONAL INFORMATION. THE GUIDELINES CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT AT (623) 222-7000.
11. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE "TEMPORARY WORK ZONE TRAFFIC MANAGEMENT POLICY" (LATEST EDITION).
12. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK, THE DEVELOPER/CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
13. EMERGENCY VEHICLE ACCESS (E.V.A) MUST BE PROVIDED BY THE DEVELOPER/CONTRACTOR THROUGHOUT THE PROJECT SITE. E.V.A. ROADS AND SIGNAGE SHALL BE MAINTAINED BY THE DEVELOPER/CONTRACTOR AT ALL TIMES. SIGNAGE SHALL BE POSTED AT THE POINT OF ENTRY TO THE SITE AND AT ALL LOCATIONS WHERE A CHANGE IN DIRECTION OCCURS.
14. THE PLANS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT'S ACCESSIBILITY GUIDELINES, AS PUBLISHED IN THE FEDERAL REGISTER ON SEPTEMBER 15, 2010.

CITY ADDITIONAL NOTES

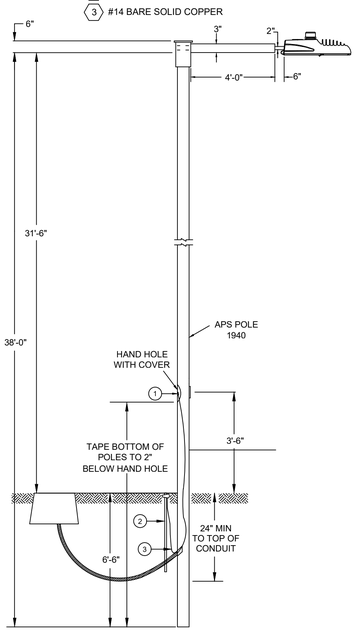
1 THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON LOCAL AND COLLECTOR STREETS ARE TO BE PAID BY THE ADJACENT DEVELOPMENT'S STREET LIGHT IMPROVEMENT DISTRICT (SLID). THE ELECTRICAL / MAINTENANCE COST OF ALL STREET LIGHTS ON ARTERIAL STREETS ARE TO BE BILLED TO THE CITY OF SURPRISE'S ENERGY BILL.

2 CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATION AT TIME OF BIDDING AND CONSTRUCTION.

Horns Consulting, LLC
www.hornsconsulting.com
Phone: (623)256-8990
E-mail: doug@hornsconsulting.com
1243 E. Muriel Drive, Phoenix, Arizona 85022

1A 96W LED (APS 8030) DETAIL 1

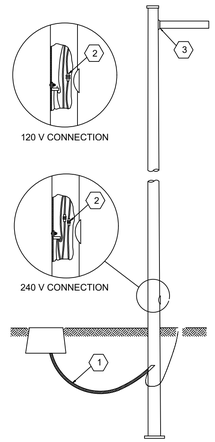
1. GROUND ATTACHMENT
2. ROD COPPERCLAD GRD., 5/8" x 8'
3. #14 BARE SOLID COPPER



2 (APS 8130) DETAIL 2

TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

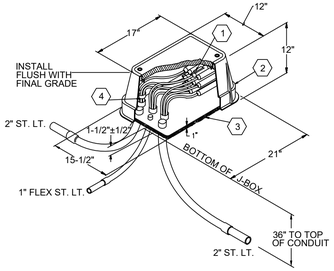
1. 1" FLEX CONDUIT
2. IN-LINE FUSE HOLDER WITH 15AMP FUSE
3. CONNECT BUTT-SPLICE #16-#14



3 (APS 8655) DETAIL 3

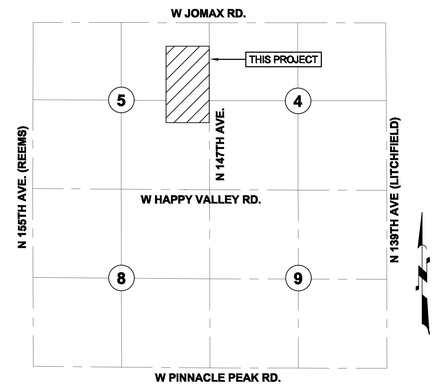
TO BE USED IN CONJUNCTION WITH WITH LED LIGHTS AS SHOWN IN DETAILS #1

1. SET SCREW INSULATED JUNCTION BAR
2. JUNCTION BOX 10"X15"X12"
3. CONCRETE GROUT PREMIX
4. I.D. RINGS (FEED, POLES)

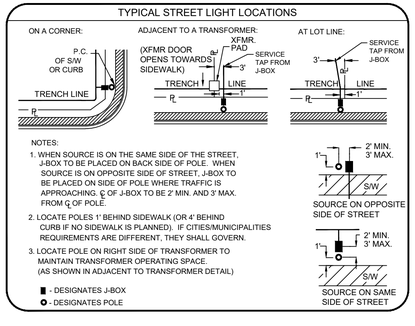


VICINITY MAP

N.T.S.



TYPICAL STREET LIGHT LOCATIONS



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ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

DETAILS AND LEGEND FOR STREETLIGHTS:

- 1A — INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 2' BACK OF WALK.
- 2 — INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
- 3 — INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.
- FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)
- FIRE HYDRANT LOCATION PER CIVIL PLANS

UTILITY COORDINATION LIST

DESCRIPTION	REPRESENTATIVE	PHONE	DATE
APS	MONIQUE HOLLIDAY	(602) 250-1000	4-15-2022
CENTURY LINK	DEBBIE RAMSEY	(602) 630-0492	4-15-2022
SOUTHWEST GAS	ZACH STEVENSON	(602) 484-5270	4-15-2022
COX COMMUNICATIONS	TMC (TRAFFIC MANAGEMENT CENTER)	(623) 322-7215	4-15-2022

* CONFLICTS ARISING DURING THE COURSE OF CONSTRUCTION FROM UNFORSEEN CIRCUMSTANCES SHALL BE REPORTED TO THE INTERESTED UTILITY COMPANY AND BE RESOLVED BY THEM AND THE DESIGN ENGINEER.

LED NOTE:
LED TECHNOLOGY IS CHANGING RAPIDLY. THE FIXTURES SHOWN ON THESE PLANS MAY NOT BE APPLICABLE AT TIME OF CONSTRUCTION. CONTRACTOR TO COORDINATE WITH APS AND UTILIZE THEIR CURRENT SPECIFICATIONS AT THE TIME OF BIDDING AND CONSTRUCTION.

STREETLIGHT NOTE:
ENSURE THERE IS A 1' CLEARANCE FROM THE EDGE OF THE SIDE WALK TO THE FACE OF THE POLE.

THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF PERMITS. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLIANCE APPROVAL SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTIONS OF ERRORS OR OMISSIONS IN PLANS FOUND TO BE IN VIOLATION OF LAW OR ORDINANCES.

CITY OF SURPRISE ENGINEER _____ DATE _____

EQUIPMENT LIST

ITEM #	SYMBOL	TYPE STREET:	QUANTITY	MOUNTING HEIGHT	POLE HEIGHT:	MAST ARM	LUMENS	TYPE	WATTAGE	VOLTAGE	C.C.T.	PHOTOMETRIC	LUMINAIRE
1A	■	COLLECTOR	13	31'-6"	38'-0"	4'-0"	11,500	LED	96W	120V	3000K	TYPE III	ERLH-0-11-C3-30-A-DKBZ
		ITEM DESCRIPTION											
2	∩	1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT.											
3	■	INSTALL AN APS JUNCTION BOX NEXT TO THE POLE PER JUNCTION BOX DETAIL.											

INDEX

1 ~ COVER SHEET
2 ~ LIGHTING LAYOUT
3 ~ PHOTOMETRICS

BONITA RANCH OFFSITE (147TH AVE)
COVER SHEET
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

NO.	REVISIONS	BY	DATE
7			
6			
5			
4			
3			
2			
1	CITY COMMENTS	DH	4/15/22

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG D. LARSON Date Signed 4/15/22 ARIZONA U.S.A.

SHEET 1 OF 3

Contact: Doug Horning/Greg Larson,P.E.

Horns Consulting Project #:	21SL121	
Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

FS22-0198

BONITA RANCH OFFSITE (147TH AVE)
STREETLIGHT PLANS
SURPRISE, ARIZONA
SITE A

DETAILS AND LEGEND FOR STREETLIGHTS:

- (1A) INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 2' BACK OF WALK.
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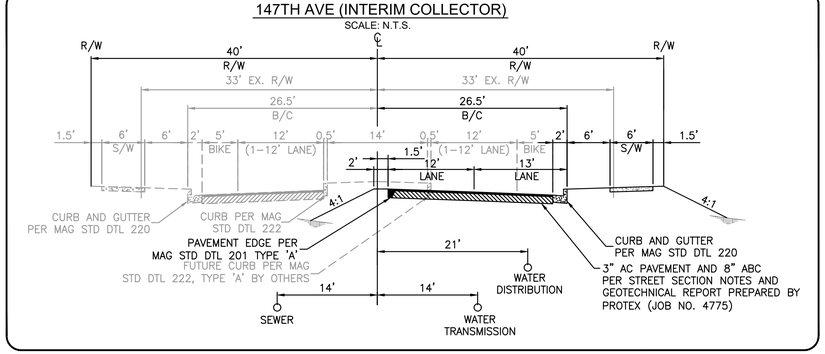
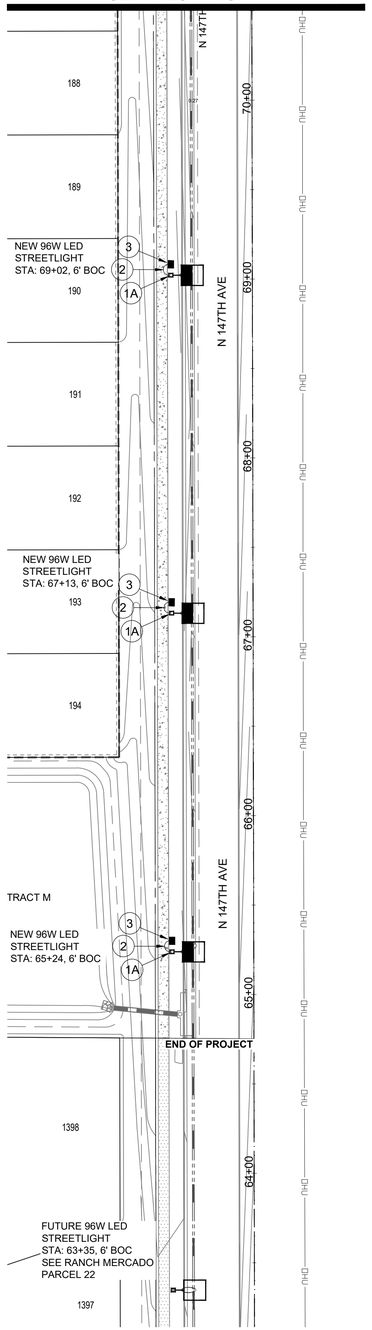
- FIRE HYDRANT LOCATION PER CIVIL PLANS

147TH AVE (INTERIM COLLECTOR)

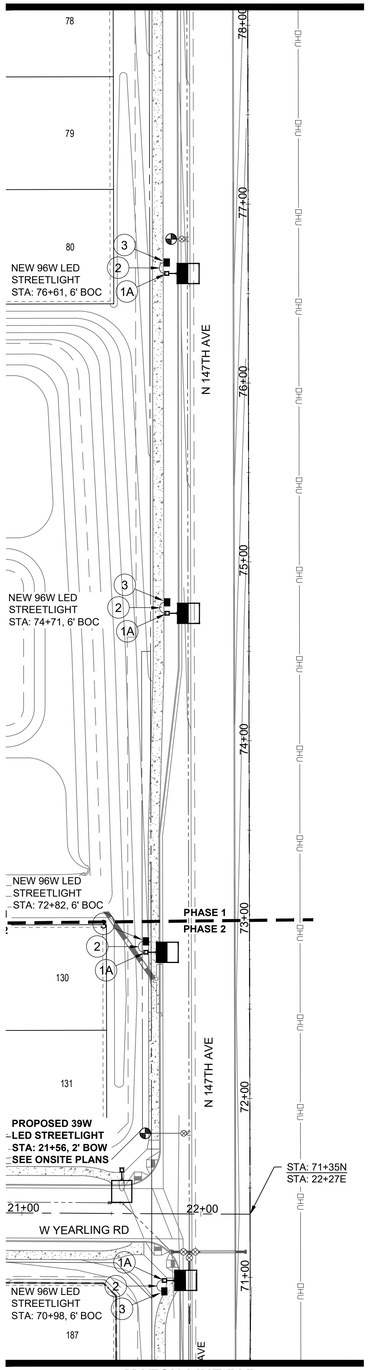
SCALE: N.T.S.



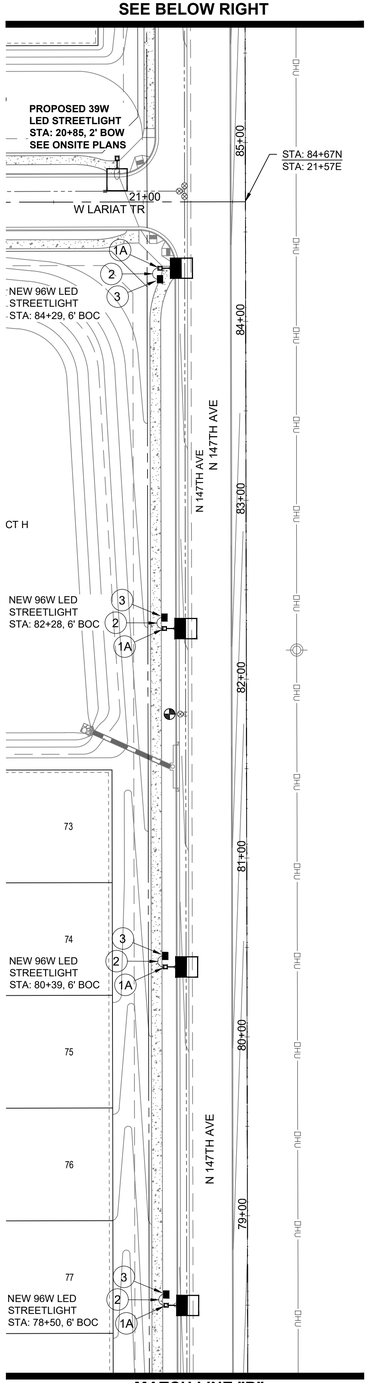
MATCH LINE "A" SEE BELOW RIGHT

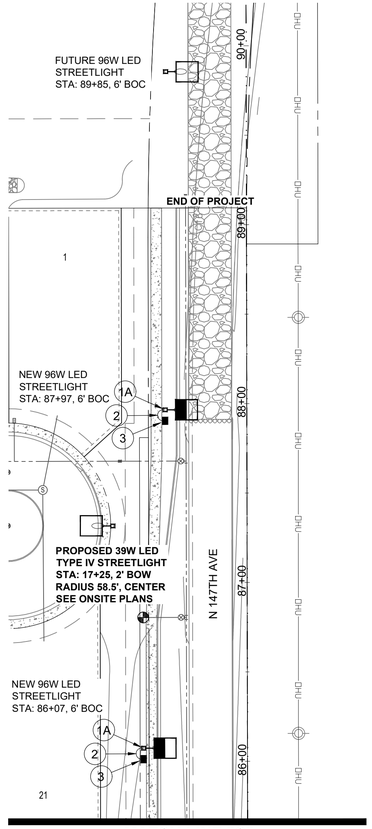


MATCH LINE "B" SEE BELOW RIGHT



MATCH LINE "C" SEE BELOW RIGHT

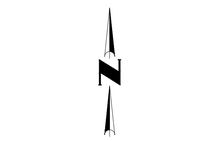




MATCH LINE "A" SEE ABOVE LEFT

MATCH LINE "B" SEE ABOVE LEFT

MATCH LINE "C" SEE ABOVE LEFT



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STREET LIGHT PLANS

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7			
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2			
1	CITY COMMENTS	DH	4/15/22

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG D. LARSON Expires 09/30/2022 ARIZONA, U.S.A.

SHEET 2 OF 3

Contact: Doug Horning/Greg Larson,P.E.

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Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

FS22-0198

BONITA RANCH OFFSITE (147TH AVE)
STREETLIGHT PLANS
SURPRISE, ARIZONA

DETAILS AND LEGEND FOR STREETLIGHTS:

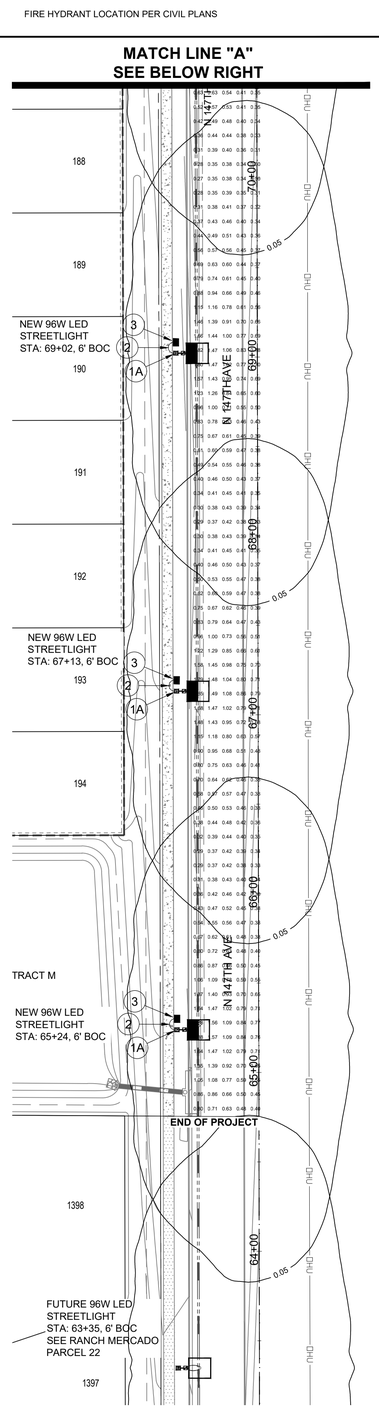
- 1A — INSTALL ONE 96W, 11500 LUMEN LED FIXTURES WITH PHOTOELECTRIC CONTROL ON A 38'-0" SQUARE POLE MOUNTED AT 31'-6" WITH ONE SINGLE 4'-0" MAST ARM, SEE DETAIL 1. POLE SHALL BE LOCATED 4' BACK OF CURB OR 2' BACK OF WALK.
- 2 — INSTALL 1" FLEX PVC W/2-#14 TYPE THHN/THWN AND 1-#14 BARE BOND FROM PULL BOX TO BUSSMAN FUSE HOLDER IN STREET LIGHT. SEE DETAIL 2.
- 3 — INSTALL AN APS JUNCTION BOX NEXT TO THE POLE (PER JUNCTION BOX DETAIL). SEE DETAIL 3.
- FUTURE / PROPOSED SINGLE LED FIXTURE ON SINGLE POLE AS SPECIFIED ON DESIGN. (NOT TO BE INSTALLED.)
- FIRE HYDRANT LOCATION PER CIVIL PLANS

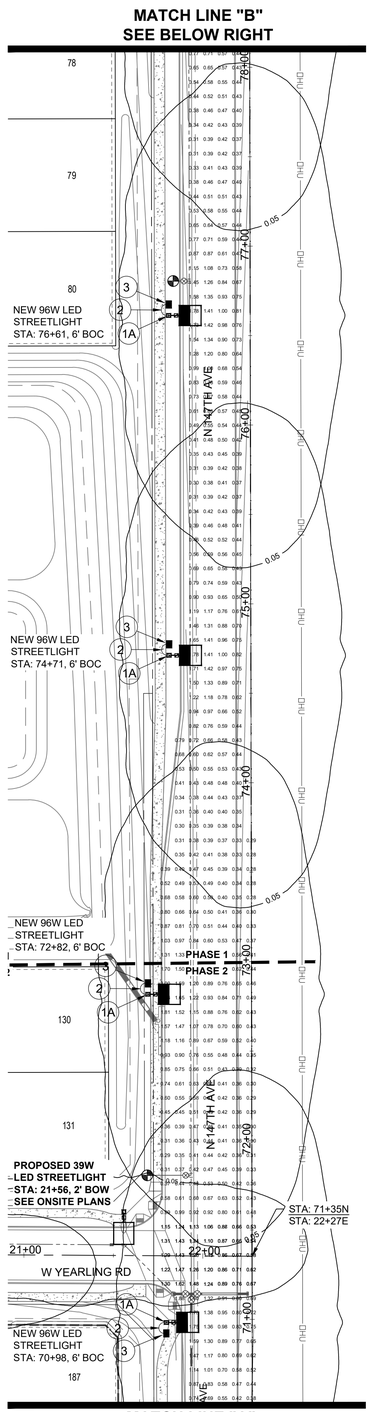
PHOTOMETRICS STUDIES

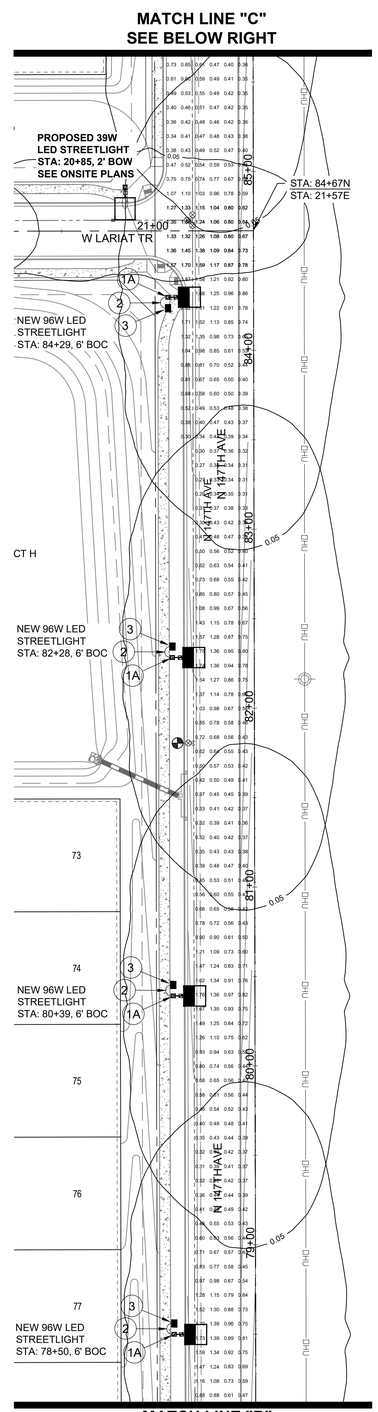
(Studies results is in illuminace)

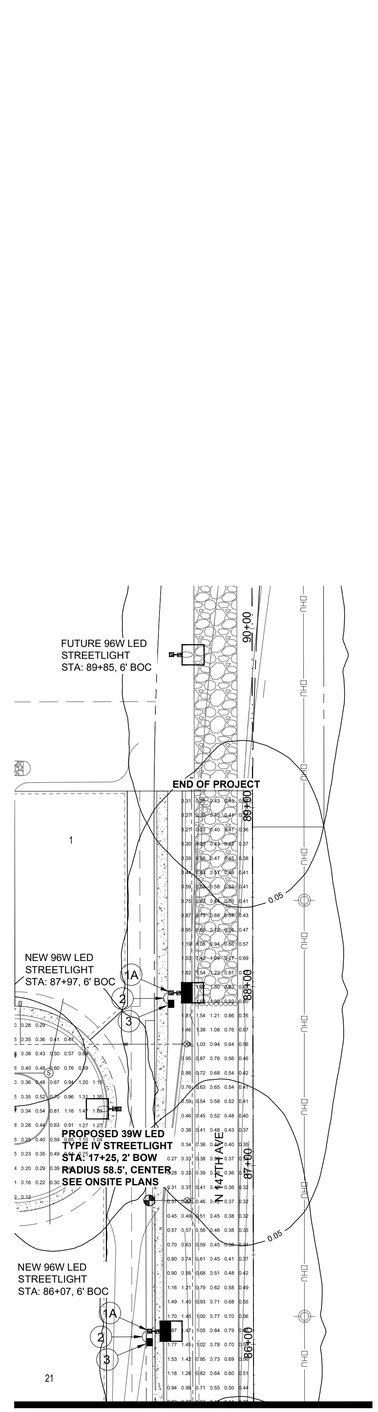
GE LIGHTING SOLUTIONS ERLH_11C330_____
GE LIGHTING SOLUTIONS-EAST CLEVELAND OH USA test report no.
17041221 17041321 17041322 17041323 17041324 17041325
lamp(s): LEDs E21A
candela file 'erlh_11c330_____tcm201-129274.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.900, watts per luminaire = 96
Outreach (from mounting axis to photometric center)= 48 in
mounting height= 31.5 ft
number locations= 13, number luminaires= 13
kw all locations= 1.2

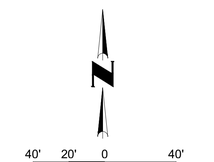
147TH AVENUE (FRONTAGE)		147TH AVE & LARIAT TR		147TH AVE & YEARING RD	
1501 points at z=0, sp 8ft by 8ft		30 points at z=0, sp 8ft by 8ft		35 points at z=0, sp 8ft by 8ft	
HORIZONTAL FOOTCANDLES		HORIZONTAL FOOTCANDLES		HORIZONTAL FOOTCANDLES	
Average	0.69	Average	1.12	Average	1.04
Maximum	2.11	Maximum	1.70	Maximum	1.62
Minimum	0.27	Minimum	0.62	Minimum	0.53
Avg:Min	2.56	Avg:Min	1.81	Avg:Min	1.96
Max:Min	7.81	Max:Min	2.74	Max:Min	3.06
Coef Var	0.53	Coef Var	0.27	Coef Var	0.30
UnifGrad	1.71	UnifGrad	1.36	UnifGrad	1.40











Call at least two full working days before you begin excavation.
ARIZONA 811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

BONITA RANCH OFFSITE (147TH AVE)
PHOTOMETRICS
STREET LIGHT PLANS

HORNS CONSULTING, LLC
1243 E. MURIEL DRIVE
PHOENIX, ARIZONA 85022
PHONE: (623) 256-8990
www.hornsconsulting.com

Registered Professional Engineer (Electrical) CERTIFICATE NO. 28582 GREG LARSON ARIZONA U.S.A.

NO.	REVISIONS	BY	DATE
1	CITY COMMENTS	DH	4/15/22

SHEET 3 OF 3

Contact: Doug Horning/Greg Larson,P.E.

Horns Consulting Project #:	21SL121	
Designed By:	DH	1/7/2022
Drawn By:	DH	1/7/2022
Reviewed By:	GL	1/7/2022

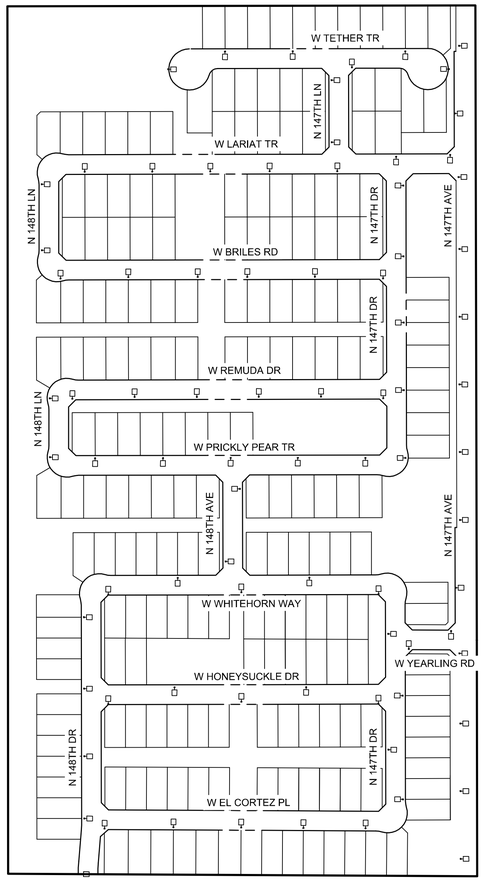
FS22-0198

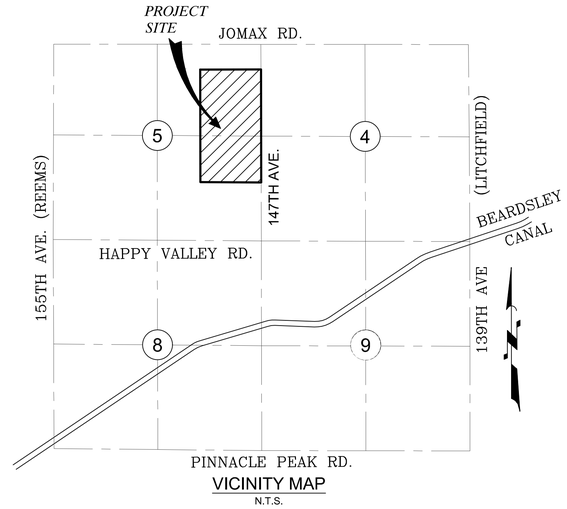
RECEIVED
02/02/2022

FS22-0198

PRELIMINARY EXHIBIT
STREET LIGHT IMPROVEMENT DISTRICT
BONITA RANCH

LOCATED IN A PORTION OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA





VICINITY MAP
N.T.S.

LEGEND

- S.L.I.D. BOUNDARY
- PARCEL LINE
- STREET LIGHT

STREET LIGHTS

82 POLES (ESTIMATED)

ACTUAL POLE NUMBERS MAY VARY ±10%

ATWELL
866.850.4200 www.atwell-group.com
4700 E. SOUTHERN AVENUE
MESA, AZ 85206
480.218.8831

COUNTY: MARICOPA
SECTION: 5
TOWNSHIP: 4 NORTH
RANGE: 1 WEST

PRELIMINARY EXHIBIT

BONITA RANCH
S.L.I.D.
CITY OF SURPRISE, ARIZONA

JANUARY 2022

REGISTERED PROFESSIONAL ENGINEER (CIVIL)
CERTIFICATE NO.
64583
MICHAEL J. PARK
Date Signed
ARIZONA U.S.A.

ATWELL

PM. J. SPRING
DR. JGT
JOB NO.
17002903

SCALE 0 100 200
1" = 200 FEET

17002903_PRELIMINARY SLID EXHIBIT.DWG

SHEET NO.
1 OF 1

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K:\17002903 - RANCHO MERCADO PARCELS A23, A24 AND A25 DUE DILLIGENCE\DWG\EXHIBITS\SLID EXHIBIT\17002903_PRELIMINARY SLID EXHIBIT.DWG SAVEDATE:11/16/2021 11:45 AM PLOTDATE:1/12/2022 12:30 PM

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022 Contact Person: Chris Sexton
Submitting Department: Community Development District: District 1
Staff Recommendations:

Consent: Yes Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action pertaining to approval of the Final Plat entitled, "Bonita Ranch" and received September 14, 2022, a property generally located south of Jomax Road and west of 147th Avenue.

Motion:
I move to approve the Final Plat entitled, "Bonita Ranch" and received September 14, 2022.

Background:
Michael Park of Atwell, on behalf of Mattamy Arizona LLC, seeks approval of a Final Plat covering Rancho Mercado Parcels A23 and A24 (Rancho Mercado Planned Area Development), as well as Bonita Ranch Parcels A, B, and C (all zoned RM-6 PUD). The applicant seeks to subdivide the subject property into 208 lots and 15 tracts over approximately 56 net acres, for a net density of 3.71 DU/AC.

Objective Analysis:
The subject Final Plat meets the requirements of the Rancho Mercado PAD and the Bonita Ranch PUD, in addition to other applicable City of Surprise regulations. All City reviewing departments have reviewed the request and expressed no concerns. Approval of the proposed Final Plat will allow the applicant to subdivide the property as proposed.

Policy Compliant:
The subject Final Plat is consistent with the Rancho Mercado PAD and the Bonita Ranch PUD and advances the goals and policies of the General Plan.

Financial Impact:
While this item does not have an immediate or direct financial impact, ongoing development activity in the City will inevitably have a future financial impact as additional resources are needed to provide City services.

Budget Impact:
There is no anticipated budget impact related to this item.

FTE Impact:

This item does not have an impact on current staff levels.

ATTACHMENTS:

1. 00 - FS22-0198 Bonita Ranch Final Plat - Staff Report
2. 01 - FS22-0198 Bonita Ranch Final Plat - Vicinity Map
3. 02 - FS22-00198 Bonita Ranch Final Plat - Zoning Map
4. 03- FS22-0198 Bonita Ranch Final Plat - Final Plat
5. 04 - FS22-0198 Bonita Ranch Final Plat - Preliminary Landscape Plan
6. 05 - FS22-0198 Bonita Ranch Final Plat - Luke AFB Letter
7. FS22-0198 Bonita Ranch Final Plat - Powerpoint

FINAL PLAT

REPORT TO THE CITY COUNCIL

Case: **FS22-0198**

Project Name: Bonita Ranch - Final Plat

Council District: 1 - Acacia

City Council Date: **November 15, 2022**

Planner: Chris Sexton, Planner II

Owner: Mattamy Arizona, LLC

Applicant: Michael Park with Atwell, LLC

Request: Final Plat for a 208-lot single-family residential subdivision

Site Location: Generally located south of Jomax Road and west of 147th Avenue

Site Size: 56 net acres (approx.)

Density: 3.71 DU/Ac

General Plan Conformance: The proposal is consistent with the Surprise General Plan 2035

Findings:

- The proposed Final Plat is consistent with the Rancho Mercado PAD and RM-6 PUD (Bonita Ranch) zoning districts.
- The proposed Final Plat is consistent with the Preliminary Plat approved under case FS20-823.
- The proposed Final Plat is consistent with the applicable City of Surprise regulations.
- The reviewing agencies have indicated no objections to the request.

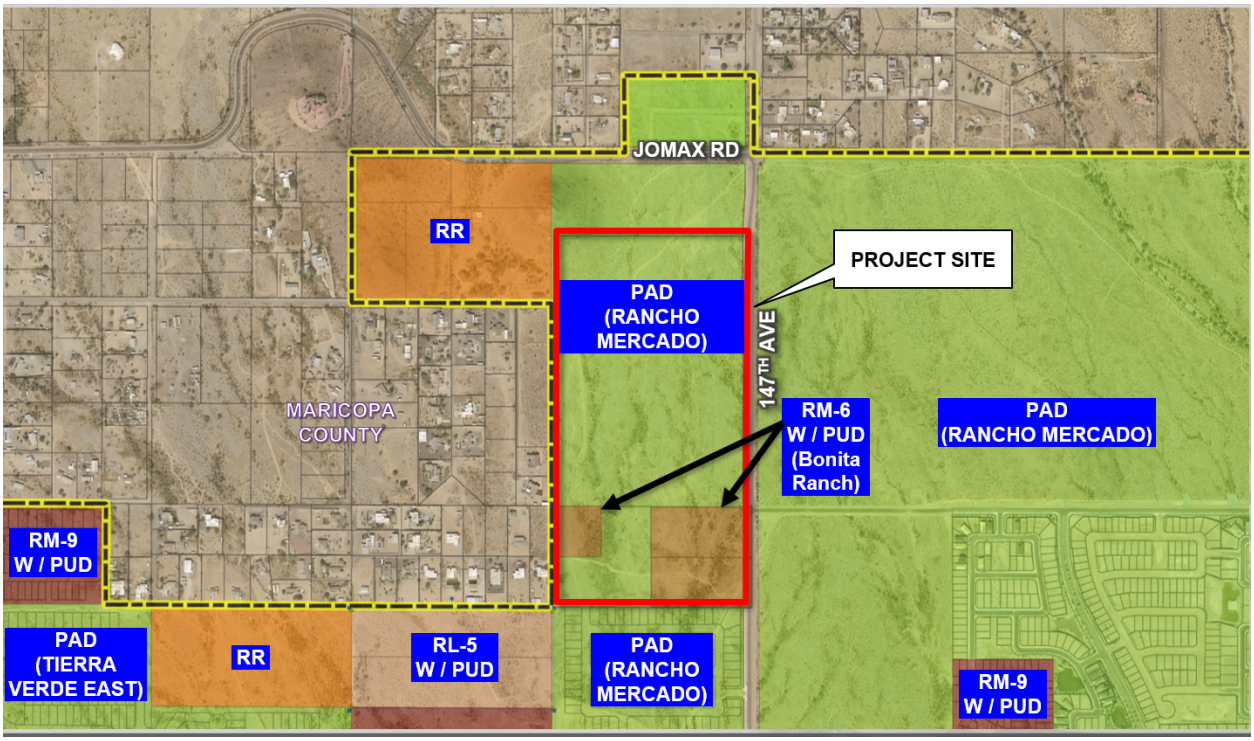
Alternative Actions: **Approve** – Approval of the proposed Final Plat will allow the applicant the ability to subdivide the property as proposed.
Deny – Denial of the requested Final Plat will prevent the applicant from subdividing the property as proposed.

PROJECT DESCRIPTION:

Michael Park of Atwell, on behalf of Mattamy Arizona LLC, seeks approval of a Final Plat covering Rancho Mercado Parcels A23 and A24 (Rancho Mercado Planned Area Development [PAD]), as well as Bonita Ranch Parcels A, B, and C (all zoned RM-6 PUD). The applicant seeks to subdivide the subject property into 208 lots and 15 tracts over approximately 56 net acres, for a net density of 3.71 DU/Ac.

SURROUNDING LAND ZONING:

The following map depicts the existing zoning of the subject site and its surrounds:



Rural Residential	Rancho Mercado PAD	Rancho Mercado PAD
Maricopa County	**Rancho Mercado PAD/RM-6 PUD (Bonita Ranch)**	Rancho Mercado PAD
Maricopa County	Rancho Mercado PAD	RM-9 with PUD

BACKGROUND:

July 11, 2006: The Maricopa County Board of Supervisors approved a request for a Development Master Plan (DMP) and associated Zone Change for the Rancho Mercado project in what was then unincorporated Maricopa County.

October 11, 2007: The Surprise City Council approved the Rancho Mercado PAD under case PAD06-276, Ordinance #2007-46.

November 10, 2007: The City Council approved the annexation of the Rancho Mercado property under Ordinance # 2007-47.

December 8, 2010: Staff approved a Minor Amendment to the Rancho Mercado PAD under FS10-210.

August 15, 2017: The City Council approved the annexation of Bonita Ranch Parcel A under case FS17-107.

August 15, 2017: The City Council approved the rezoning of Bonita Ranch Parcel A under case FS17-108.

August 15, 2017: The City Council approved the rezoning of Bonita Ranch Parcels B and C under case FS17-109.

September 16, 2021: The Planning and Zoning Commission approved the Preliminary Plat under case FS20-823.

October 19, 2021: The City Council approved the Preliminary Plat under case FS20-823.

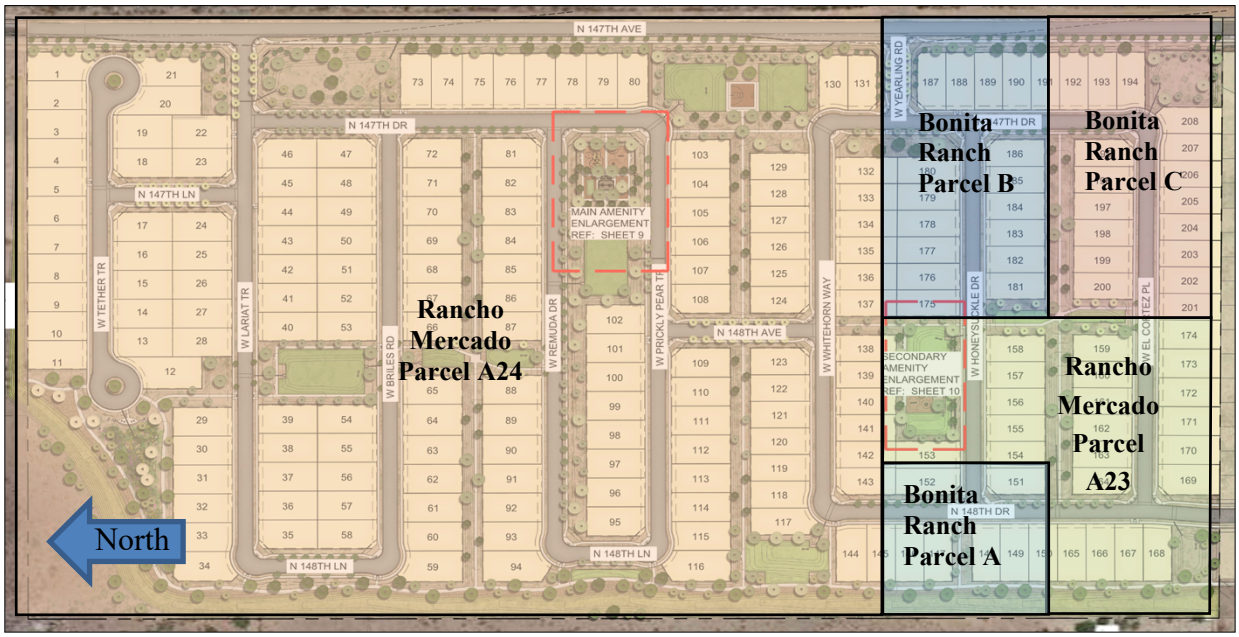
February 2, 2022: The applicant filed the subject request under case FS22-0198.

ANALYSIS AND DISCUSSION:

The subject request involves two (2) parcels within the Ranch Mercado PAD (Parcels A23 and A24) designated as single-family residential, as well as three (3) parcels zoned RM-6 with the Bonita Ranch PUD overlay. The proposed lots will range from a minimum 58' to 63' lot width and will range from 110' and 115' in depth. There are a total of 208 lots over approximately 56 net acres for a density of 3.71 DU/Ac. The approval of the Final Plat will tie all of the associated areas together.

Phasing

The site will be developed in two (2) phases as shown in the map below. The first phase will comprise of Rancho Mercado Parcel A23 together with Bonita Ranch Parcels A, B, and C. The second phase will comprise of Rancho Mercado A24.



Access

Access to the project will be via 147th Avenue located along the easterly portion of the site where there are two access points to serve Phase 1 and Phase 2. In addition, a third access point for Phase 1 is located along 148th Avenue located along the southerly portion of the project and connects to Parcel A22 of Rancho Mercado.

Open Space & Landscaping

The Rancho Mercado PAD, as well as the Bonita Ranch PUD, each requires no less than 15% open space. The applicant, overall, proposes 20.4 acres (29.3%) of open space, comprising of 7.2 acres of active open space, 8.5 acres of passive space and 4.8 acres of natural open space.

Amenities

Within the open space, the applicant proposes pocket parks, play areas, several tot lots, a half basketball court, game tables, ramadas with bbqs, picnic tables and trails throughout the project.

Walls

Primary Theme Walls will consist of 6' high smooth-face CMU panels with a split-face cap, punctuated by stone-veneer columns. View walls will consist of 6' high smooth-face CMU panels and split-face columns topped with wrought iron. There will also be several segments of 4' high split rail fencing providing visual interest. The plan also calls for three (3) 8' tall entry monuments to be located along the 147th Avenue frontage. These entry monuments will be located within the Rancho Mercado parcels. Section 3.a of the Rancho Mercado PAD which will allow the height of the entry features to be evaluated on a case-by-case basis and approved administratively if deemed appropriate.

Utility and Services Table:

Water:	City of Surprise
Wastewater:	City of Surprise
School District:	Dysart Unified

Conformance with Adopted Plans:

The Surprise General Plan 2035 shows the property lying within the Neighborhood Character Area, which supports residential development up to 8 DU/Ac or more.

Reviewing Agencies:

In addition to the standard city reviewing agencies, Maricopa County, Arizona Department of Transportation, Maricopa Water District, and Luke AFB were included in the routing of this request, who have indicated no objections to the request.

Summary:

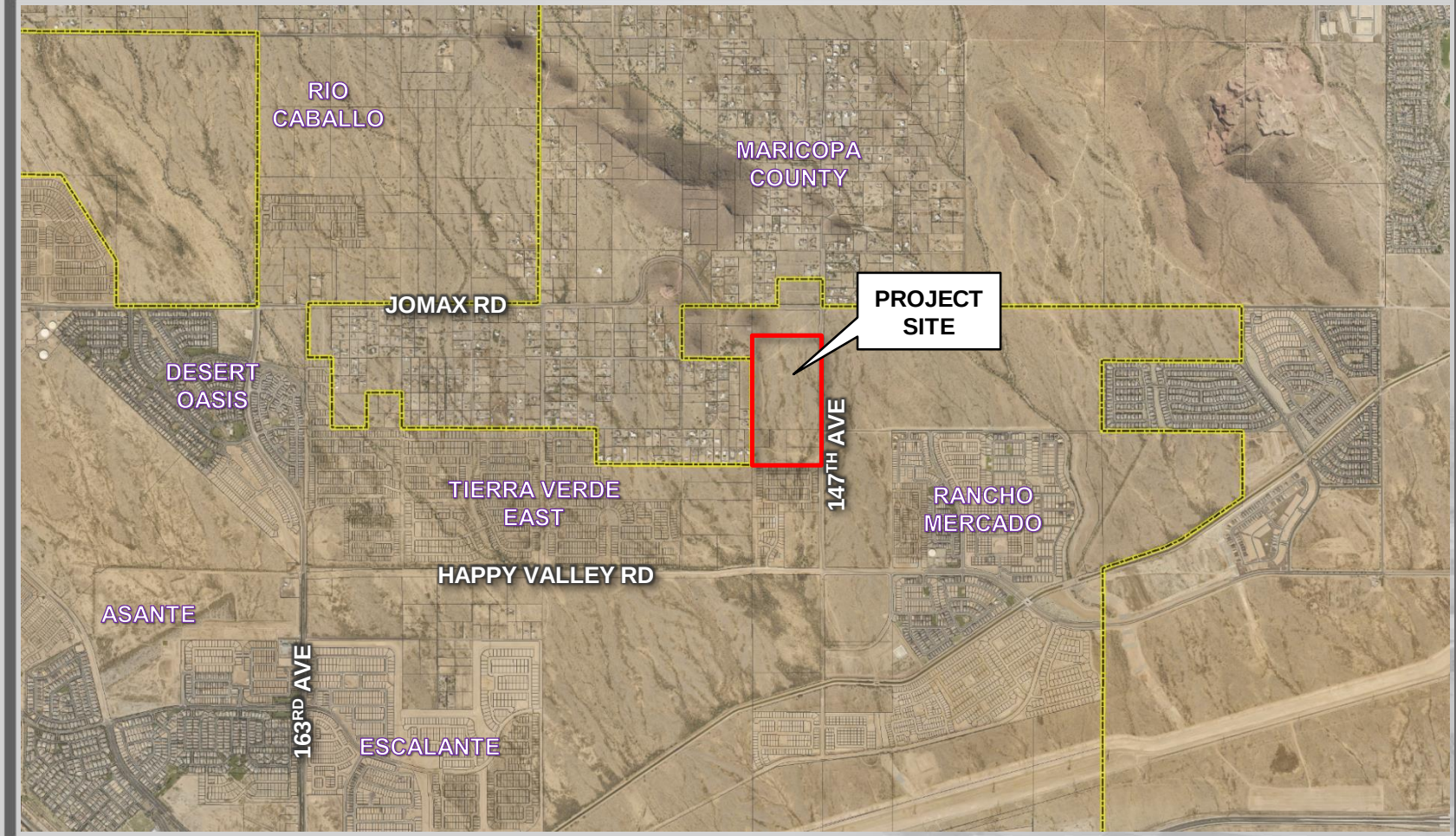
The applicant seeks a Final Plat across the subject property. The proposed development is compatible with the neighboring land uses and the amenities included will provide recreational opportunities for the neighborhood residents.

Findings:

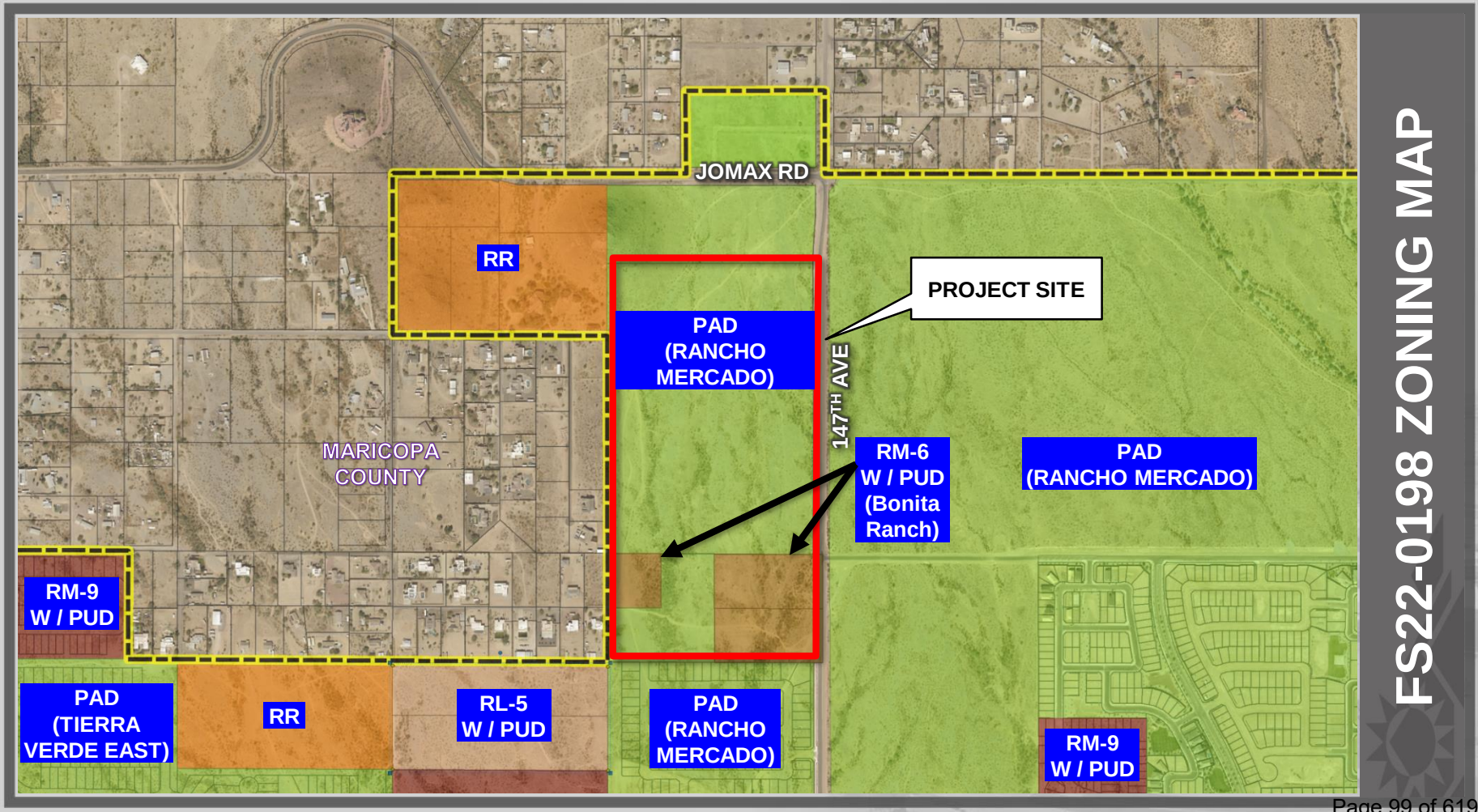
- The proposed Final Plat is consistent with the Rancho Mercado PAD and RM-6 PUD (Bonita Ranch) zoning districts.
- The proposed Final Plat is consistent with the Preliminary Plat approved under case FS20-823.
- The proposed Final Plat is consistent with the applicable City of Surprise regulations.
- The reviewing agencies have indicated no objections to the request.

Attachments:

01 Vicinity Map
02 Zoning Map
03 Final Plat
04 Preliminary Landscape Plan
05 Luke AFB comments



FS22-0198 VICINITY MAP


FS22-0198 ZONING MAP
JOMAX RD
RR
PAD (RANCHO MERCADO)
PROJECT SITE
147TH AVE
MARICOPA COUNTY
RM-6 W / PUD (Bonita Ranch)
PAD (RANCHO MERCADO)
RM-9 W / PUD
PAD (TIERRA VERDE EAST)
RR
RL-5 W / PUD
PAD (RANCHO MERCADO)
RM-9 W / PUD

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K:\17002903 - RANCHO MERCADO PARCELS A23, A24 AND A25 DUE DILLIGENCE\DWG\SURVEY\17002903 BONITA RANCH FP.DWG SAVEDATE:4/15/2022 1:48 PM PLOTDATE:4/19/2022 8:46 AM

FINAL PLAT
OF
BONITA RANCH
A PORTION OF THE EAST HALF OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, CITY OF SURPRISE, MARICOPA COUNTY, ARIZONA

DEDICATION

STATE OF ARIZONA:)
) SS
COUNTY OF MARICOPA:)

KNOW ALL PERSONS BY THESE PRESENTS:

1. THAT MATTAMY ARIZONA, LLC HEREINAFTER "OWNER", HAS SUBDIVIDED UNDER THE NAME "BONITA RANCH", LOCATED WITHIN A PORTION OF THE EAST HALF OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, CITY OF SURPRISE, MARICOPA COUNTY, ARIZONA AND DOES HEREBY DECLARE THAT THIS PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF EACH LOT, TRACT, STREET, AND EASEMENT CONSTITUTING SAME, AND THAT EACH LOT, TRACT, STREET, AND EASEMENT SHALL BE KNOWN BY THE NUMBER, LETTER, AND/OR NAME GIVEN TO EACH RESPECTIVELY AS SHOWN ON THIS FINAL PLAT.
2. "OWNER" HEREBY DEDICATES TO THE CITY OF SURPRISE FEE TITLE TO ALL PUBLIC RIGHTS-OF-WAY AS SHOWN ON THE FINAL PLAT.
3. ALL IMPROVEMENTS, FOR STREETS AND PUBLIC UTILITIES OWNED AND OPERATED BY THE CITY, INSTALLED OR CONSTRUCTED BY "OWNER" WITHIN THE PUBLIC RIGHTS-OF-WAY, THE EASEMENTS, OR ANY TRACTS OR PARCELS HEREBY DEDICATED TO THE CITY OF SURPRISE SHALL BE DEEMED TO HAVE BEEN DEDICATED BY OWNER TO THE CITY UPON THEIR COMPLETION; HOWEVER, SUCH TRANSFER SHALL NOT OCCUR UNTIL THE CITY COUNCIL FOR THE CITY OF SURPRISE MANIFESTS ITS ACCEPTANCE BY SEPARATE FORMAL COUNCIL ACTION.
4. "OWNER" HEREBY GRANTS TO THE PUBLIC A PERPETUAL NON-EXCLUSIVE EASEMENT IN, UPON, OVER, UNDER, THROUGH, AND ACROSS THE AREAS DESIGNATED AS PUBLIC UTILITY EASEMENTS AS SHOWN ON THE FINAL PLAT FOR THE PURPOSE OF ACCESSING, INSTALLING, CONSTRUCTING, MAINTAINING, REPAIRING, REPLACING AND UTILIZING PUBLIC UTILITIES.
5. "OWNER" HEREBY GRANTS TO THE UNITED STATES OF AMERICA DEPARTMENT OF THE AIR FORCE ("USAF") AN AVIGATION EASEMENT OVER AND ACROSS THIS FINAL PLAT AND EVERY LOT AND PARCEL THEREOF, WHICH EASEMENT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE RIGHT OF FLIGHT OF AIRCRAFT OVER THIS FINAL PLAT, TOGETHER WITH ITS ATTENDANT NOISE, VIBRATIONS, FUMES, DUST, FUEL AND LUBRICANT PARTICLES, AND ALL OTHER EFFECTS THAT MAY BE CAUSED BY THE OPERATION OF AIRCRAFT LANDING AT, OR TAKING OFF FROM, OR OPERATING AT OR ON LUKE AIR FORCE BASE AND AUXILIARY FIELD.
6. "OWNER" HEREBY GRANTS TO THE CITY OF SURPRISE AN ODOR EASEMENT OVER, UPON AND ACROSS THIS FINAL PLAT AND EVERY LOT AND PARCEL THEREOF, WHICH EASEMENT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE RIGHT TO INVADE WITH ODORS, FUMES, SMELLS, AND PHYSICAL AIRBORNE PARTICULATES CAUSED BY THE OPERATION AND MAINTENANCE OF THE CITY'S WATER RECLAMATION FACILITY.
7. THE EASEMENTS GRANTED WITHIN THIS DEDICATION ARE PERMANENT AND PERPETUAL AND SHALL RUN WITH THE LAND AND BE BINDING UPON OWNER AND ITS HEIRS, ASSIGNS, AND SUCCESSORS IN INTEREST TO THIS FINAL PLAT OR ANY PARCEL THEREOF.
8. "OWNER" HEREBY WARRANTS AND REPRESENTS TO THE CITY OF SURPRISE THAT IT IS THE SOLE OWNER OF THE PROPERTY COVERED BY THIS FINAL PLAT, AND THAT EVERY LENDER, EASEMENT HOLDER OR OTHER PERSON OR ENTITY HAVING ANY INTEREST THAT IS ADVERSE TO OR INCONSISTENT WITH THE FOREGOING DEDICATION, OR ANY OTHER REAL PROPERTY INTEREST CREATED OR TRANSFERRED BY THIS FINAL PLAT, HAS CONSENTED TO OR JOINED IN THIS FINAL PLAT AS EVIDENCED BY INSTRUMENTS WHICH ARE RECORDED WITH THE MARICOPA COUNTY RECORDERS OFFICE OR WHICH OWNER WILL RECORD NOT LATER THAN THE DATE ON WHICH THIS FINAL PLAT IS RECORDED.
9. "OWNER" HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL NON-EXCLUSIVE EASEMENT OVER, UPON AND ACROSS THE AREAS DESIGNATED AS SIGHT VISIBILITY TRIANGLES FOR THE PURPOSE OF ENSURING THAT THESE AREAS REMAIN FREE OF SIGHT VISIBILITY OBSTRUCTIONS.
10. THE VEHICULAR NON ACCESS EASEMENTS " VNAE " ARE HEREBY DEDICATED TO THE BONITA RANCH COMMUNITY ASSOCIATION, ITS SUCCESSORS AND ASSIGNS AND IS INTENDED TO PREVENT VEHICULAR TRAFFIC BETWEEN TRACTS AND LOTS WITH THE EXCEPTION OF PUBLIC UTILITY USES. SAID " VNAE " AS DEDICATED HEREON WILL CROSS PUBLIC UTILITY EASEMENTS "PUE" ALSO GRANTED HEREON, IN MULTIPLE LOCATIONS. THESE " VNAE " ARE NOT INTENDED TO PREVENT AUTHORIZED AGENTS OF THE PUBLIC UTILITY COMPANIES FROM CROSSING SAID " VNAE " DURING THE COURSE OF INSTALLATION, USE, MAINTENANCE AND REPAIR OF THE UTILITIES LOCATED IN SAID PUBLIC UTILITY EASEMENT "PUE".
11. ALL TRACTS ARE NOT DEDICATED TO THE PUBLIC, BUT ARE PLATTED AS COMMON PROPERTY FOR THE USE AND ENJOYMENT OF THE BONITA RANCH COMMUNITY ASSOCIATION, AS MORE FULLY SET FORTH IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS.
12. TRACTS PLATTED HEREON ARE DEDICATED FOR THE PURPOSES AS NOTED IN THE TRACT TABLE ON THIS FINAL PLAT AND SHALL BE MAINTAINED BY BONITA RANCH COMMUNITY ASSOCIATION.
13. "OWNER" HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL CROSS ACCESS EASEMENT ACROSS THE FINAL PLAT INCLUDING ROADS AND STREETS, OPEN SPACES, COMMUNITY FACILITIES, TRACTS, SIDEWALKS, DRAINAGE BASINS AND ANY PROPERTY WITHIN THE PLAT OWNED BY THE HOMEOWNERS ASSOCIATION FOR THE PURPOSE OF PROVIDING CONTINUOUS AND UNINTERRUPTED INGRESS AND EGRESS FOR EMERGENCY VEHICLES.
14. "OWNER" HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL EASEMENT ACROSS THE FINAL PLAT INCLUDING ROADS AND STREETS, OPEN SPACES, COMMUNITY FACILITIES, TRACTS, SIDEWALKS, DRAINAGE BASINS AND ANY PROPERTY WITHIN THE FINAL PLAT OWNED BY THE HOMEOWNERS ASSOCIATION FOR THE PURPOSE OF PROVIDING CONTINUOUS AND UNINTERRUPTED INGRESS AND EGRESS FOR TRASH COLLECTION VEHICLES.
15. "OWNER" HEREBY GRANTS TO THE CITY OF SURPRISE, A PUBLIC RECREATION/TRAIL EASEMENT FOR PEDESTRIAN ACCESS, EQUINE ACCESS, BICYCLING, AND OTHER NON-MOTORIZED FORMS OF ACCESS OVER AND ACROSS OWNER'S PROPERTY, INCLUDING THE RIGHT OF INGRESS AND EGRESS ALONG AND ACROSS THE EASEMENT PREMISES, AS SHOWN ON THIS PLAT.
16. "OWNER" HEREBY GRANTS TO THE PUBLIC AN EASEMENT FOR RECREATION OVER, UPON, AND ACROSS THOSE AREAS DESIGNATED AS RECREATION TRAILS OR AREAS FOR THE PURPOSE OF ALLOWING THE PUBLIC ACCESS TO THE TRAIL SYSTEM.
17. "OWNER" HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL NON- EXCLUSIVE PEDESTRIAN ACCESS AND SIDEWALK CONSTRUCTION AND MAINTENANCE EASEMENT OVER, UPON, AND ACROSS THE AREAS DESIGNATED AS SIDEWALK EASEMENTS AS SHOW N ON THE PLAT.
18. OWNER HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL NON-EXCLUSIVE EASEMENT OVER, UNDER, UPON, AND ACROSS ALL AREAS DESIGNATED ON THE PLAT AS WATER/SEWER LINES, MANHOLES, FIRE HYDRANTS AND WATER METERS FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, MAINTAINING, REPAIRING, REPLACING, AND UTILIZING THE WATER/SEWER LINES, MANHOLES, FIRE HYDRANTS AND WATER METERS.

IN WITNESS WHEREOF, OWNER HAS HEREUNTO CAUSED ITS CORPORATE NAME TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY THE UNDERSIGNED, DULY AUTHORIZED OFFICER THIS_____ DAY OF_____, 2022.

MATTAMY ARIZONA, LLC

BY: _____

ITS: _____

NOTARY ACKNOWLEDGEMENT

STATE OF _____)
) SS
COUNTY OF _____)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS_____ DAY OF_____, 2022,
BY _____, THE _____ OF MATTAMY ARIZONA, LLC
ON BEHALF OF THE COMPANY.

BY: _____ MY COMMISSION EXPIRES _____
NOTARY PUBLIC

BONITA RANCH COMMUNITY ASSOCIATION RATIFICATION

BY THIS RATIFICATION, _____, DULY ELECTED PRESIDENT OF THE BONITA RANCH COMMUNITY ASSOCIATION ACKNOWLEDGES THE RESPONSIBILITIES DEDICATED HEREON.

BY: _____ ITS _____

NOTARY ACKNOWLEDGEMENT

STATE OF ARIZONA:)
) SS
COUNTY OF MARICOPA:)

ON THIS _____ DAY OF _____, 2022, _____ PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, WHO ACKNOWLEDGED HIMSELF/HERSELF TO BE THE _____ OF THE BONITA RANCH COMMUNITY ASSOCIATION, AND THAT HE/SHE, AS _____, EXECUTED THIS INSTRUMENT FOR THE PURPOSES HEREIN CONTAINED.

IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND OFFICIAL SEAL.

BY: _____ MY COMMISSION EXPIRES _____
NOTARY PUBLIC DATE

APPROVALS

CITY OF SURPRISE ENGINEER APPROVAL

DATA ON THIS PLAT REVIEWED AND APPROVED THIS _____ DAY OF _____, 2022, BY THE CITY ENGINEER OF SURPRISE, ARIZONA.

APPROVED_____ _____
CITY ENGINEER DATE

CITY OF SURPRISE COUNCIL APPROVAL

APPROVED BY THE CITY COUNCIL OF THE CITY OF SURPRISE, ARIZONA.
THIS _____ DAY OF _____, 2022.

ATTEST:

_____ _____
MAYOR DATE

_____ _____
CITY CLERK DATE

AREA CALCULATIONS

TRACTS	891,431 SQ.FT.	20.465 AC
LOTS = 208	1,550,091 SQ.FT.	35.585 AC
RIGHT OF WAY	605,139 SQ.FT.	13.892 AC
TOTAL	3,046,661 SQ.FT.	69.942 AC

SHEET INDEX

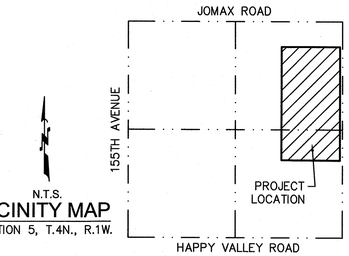
DESCRIPTION	SHEET NO
COVER SHEET	1
KEY MAP, LEGAL DESCRIPTION	2
PLAT SHEETS	3-10

PUBLIC NOTICE

THE LOTS DEPICTED ON THIS PLAT ARE LOCATED WITHIN THE VICINITY OF LUKE AIR FORCE BASE AND MAY BE SUBJECT TO OVERFLIGHTS BY JET AIRCRAFT. ALL STRUCTURES WITHIN THIS PLAT SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE SOUND ATTENUATION STANDARDS ADOPTED BY THE CITY OF SURPRISE. A MAP DEPICTING THE MOST CURRENT ADOPTED MAG NOISE CONTOURS IN RELATION TO THIS PLAT SHALL BE DISPLAYED IN ALL SALES OFFICES. ADDITIONAL INFORMATION MAY BE OBTAINED BY CONTACTING THE CITY OF SURPRISE COMMUNITY DEVELOPMENT DEPARTMENT.

OWNER

MATTAMY ARIZONA, LLC
9200 E. PIMA CENTER PARKWAY, SUITE 230
PHONE NO: 602-499-9305
CONTACT: KENT XANDER



N.T.S.
VICINITY MAP
SECTION 5, T.4N., R.1W.

RELEASE OF LIABILITY

1. MATTAMY ARIZONA, LLC "OWNER" DOES HEREBY (1) RELEASE AND DISCHARGE THE UNITED STATES OF AMERICA DEPARTMENT OF THE AIR FORCE (USAF) AND THE CITY OF SURPRISE, AND (2) INDEMNIFY, DEFEND, AND HOLD HARMLESS THE USAF AND THE CITY OF SURPRISE, OF AND FROM ANY LIABILITY FOR ANY AND ALL CLAIMS FOR DAMAGES OF ANY KIND TO PERSONS OR PROPERTY THAT MAY ARISE AT ANY TIME IN THE FUTURE OVER, OR IN CONNECTION WITH AIRCRAFT OVERFLIGHTS FROM AIRCRAFT UTILIZING LUKE AIR FORCE BASE, WHETHER SUCH DAMAGE SHALL ORIGINATE FROM NOISE, VIBRATION, FUMES, DUST, FUEL AND LUBRICANT PARTICLES, AND ALL OTHER EFFECTS THAT MAY BE CAUSED BY THE OPERATION OF AIRCRAFT LANDING AT, OR TAKING OFF FROM, OR OPERATING AT OR ON LUKE AIR FORCE BASE AND ITS AUXILIARY FIELDS. THIS INSTRUMENT SHALL RUN WITH THE LAND AND BE BINDING UPON OWNER AND ITS HEIRS, ASSIGNS, AND SUCCESSORS IN INTEREST TO THIS PLAT OR ANY PARCEL OR LOT THEREOF. THIS INSTRUMENT DOES NOT RELEASE THE USAF FROM LIABILITY FOR DAMAGE OR INJURY TO PERSON OR PROPERTY CAUSED BY FALLING AIRCRAFT OR FALLING PHYSICAL OBJECTS FROM AIRCRAFT, EXCEPT AS STATED HEREIN WITH RESPECT TO NOISE, FUMES, DUST, FUEL, AND LUBRICANT PARTICLES.
2. THE CITY OF SURPRISE AGREES TO INDEMNIFY MATTAMY ARIZONA, LLC, ITS OFFICERS, EMPLOYEES, AGENTS, CONTRACTORS OR THOSE OF AND ITS SUCCESSORS AND ASSIGNS, FOR ANY AND ALL DIRECT DAMAGES TO THE PERSONAL PROPERTY OR FOR PHYSICAL INJURY TO OR DEATH OF PERSONS OCCURRING ON THE AREA OF THIS EASEMENT CAUSED BY OR ARISING AS THE PROXIMATE RESULT OF THE ACTIVITIES OF THE CITY OF SURPRISE, EXCEPT FOR SUCH INJURY OR DAMAGES CAUSED BY OR ARISING SOLELY FROM THE NEGLIGENT, WILLFUL, MALICIOUS, OR GROSSLY NEGLIGENT CONDUCT OF MATTAMY ARIZONA, LLC, ITS OFFICERS, EMPLOYEES, AGENTS, CONTRACTORS, OR THOSE OF ITS SUCCESSORS AND ASSIGNS THAT WAS THE DIRECT CAUSE OF THE INJURY TO THE USER.
3. MATTAMY ARIZONA, LLC "OWNER" HEREBY FURTHER AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY OF SURPRISE FROM ANY AND ALL CLAIMS FOR DAMAGES OF ANY KIND TO PERSONS OR PROPERTY LOCATED WITHIN THE RIGHT OF WAY THAT MAY ARISE IN CONNECTION WITH THE USE OF THE SIDEWALKS LOCATED WITHIN THE RIGHT OF WAY, UNTIL SUCH TIME THE CITY OF SURPRISE HAS ACCEPTED THE SIDEWALKS.
4. MATTAMY ARIZONA, LLC "OWNER" DOES HEREBY (1) RELEASE AND DISCHARGE THE CITY OF SURPRISE, (2) INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY OF SURPRISE, OF AND FROM ANY LIABILITY FOR ANY AND ALL CLAIMS FOR DAMAGES OF ANY KIND TO PERSONS OR PROPERTY THAT MAY ARISE AT ANY TIME IN THE FUTURE OVER, OR IN CONNECTION WITH THE AREAS LOCATED WITHIN THE NEWLY DEDICATED RIGHT-OF-WAY AS DEPICTED ON THIS PLAT UNTIL SUCH TIME THE RIGHT-OF-WAY IS IMPROVED TO CITY STANDARDS AND THOSE IMPROVEMENTS ARE APPROVED AND ACCEPED BY THE CITY COUNCIL. THE MAINTENANCE OF THE AREA WITHIN ANY NEWLY DEDICATED RIGHT-OF-WAY AS SHOWN ON THIS PLAT SHALL BE THE RESPONSIBILITY OF THE ADJACENT OWNER/OR SUBSEQUENT ADJACENT OWNERS WITHIN THE BOUNDARY OF SAID PLAT UNTIL SUCH TIME THAT THE AREA WITHIN THE RIGHT-OF WAY IS IMPROVED TO CITY STANDARD AND ACCEPTED BY THE CITY OF SURPRISE.

100 YEAR ASSURED WATER SUPPLY LANGUAGE

THE AREA PLATTED HEREON LIES WITHIN THE DOMESTIC WATER SERVICE AREA OF CITY OF SURPRISE DESERT OASIS PUBLIC WATER SYSTEM 04-07-523 WHICH IS DESIGNATED AS HAVING AN ASSURED WATER SUPPLY PURSUANT A.R.S. § 45-576.

GENERAL NOTES

1. IN ACCORDANCE WITH A.R.S. § 9-461.07, THE CITY OF SURPRISE HAS DETERMINED THAT ALL DEDICATIONS OCCURRING WITH THIS FINAL PLAT ARE IN CONFORMANCE WITH THE CITY OF SURPRISE GENERAL PLAN.
2. PURSUANT TO A.R.S. § 42-11102, THE CITY OF SURPRISE, A POLITICAL SUBDIVISION OF THE STATE OF ARIZONA, IS EXEMPT FROM ALL TAXES AND ASSESSMENTS BASED ON ASSESSED VALUE EXCEPT FOR SPECIAL DISTRICTS #14751 AND #14710, WHEN APPLICABLE.
3. NO ON-SITE GRADING OR EXCAVATION SHALL OCCUR WITHOUT FIRST OBTAINING A PERMIT FROM THE CITY OF SURPRISE.
4. HAPPY VALLEY ROAD WILL BECOME A 6 LANE MAJOR ARTERIAL AT SOME FUTURE POINT.
5. SPRINKLERS ARE REQUIRED IN ALL ONE AND TWO FAMILY DWELLINGS BUILT IN AREAS WHICH DO NOT HAVE AN ADEQUATE WATER SUPPLY OF 2000 GPM @ 2 HOURS @ 20 PSI RESIDUAL.
6. THIS FINAL PLAT IS IN SUBSTANTIAL CONFORMANCE WITH THE PRELIMINARY PLAT APPROVED BY THE CITY OF SURPRISE UNDER CASE FS20-823.
7. THE PROPERTY IS LOCATED WITHIN AN AREA HAVING FLOOD ZONE "X" BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, ON FLOOD INSURANCE RATE MAP NO. 04013C1210L, PANEL 1210 SUFFIX L, WITH A DATE OF IDENTIFICATION OF EFFECTIVE DATE OCTOBER 16, 2013 FOR COMMUNITY NO. 040053, IN MARICOPA COUNTY, STATE OF ARIZONA, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PROPERTY IS SITUATED.
8. THE MAINTENANCE OF LANDSCAPING WITHIN THE OPEN SPACES, LANDSCAPED TRACTS, RETENTION BASINS, AND PARKS SHALL BE THE RESPONSIBILITY OF THE OWNER OR THE HOMEOWNERS' ASSOCIATION FORMED BY THE OWNER.
9. THE MAINTENANCE OF LANDSCAPING WITHIN THE ADJACENT PUBLIC RIGHTS-OF-WAY, INCLUDING LANDSCAPED MEDIANS WITHIN COLLECTORS AND LOCAL STREETS, AND LANDSCAPED AREAS BETWEEN THE CURB AND THE DETACHED SIDEWALK, SHALL BE THE RESPONSIBILITY OF THE ADJACENT PROPERTY OWNER OR THE HOMEOWNERS' ASSOCIATION FORMED BY THE ADJACENT PROPERTY.
10. DEVELOPMENT STANDARDS ARE PER CITY OF SURPRISE CASE FS10-210 OR AS SUBSEQUENTLY AMENDED.
11. LANDSCAPING MAINTENANCE OF THE MEDIANS WITHIN THE PUBLIC RIGHT-OF-WAY WITHIN ANY ARTERIAL OR PARKWAY STREET CLASSIFICATION SHALL BE THE RESPONSIBILITY OF THE CITY OF SURPRISE AFTER ACCEPTANCE.

BASIS OF BEARING

THE WEST-EAST, MID-SECTION LINE OF SECTION 4, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER MERIDIAN WHICH BEARS S89°46'48"E A DISTANCE OF 5255.54' THIS POSITION WAS DERIVED FROM THE ESTABLISHED NGS POINTS DV0080 & AJ3867. PROJECT THEN SCALED TO GROUND AT A COMBINED SCALE FACTOR OF 1.00013766895 AND VERIFIED AGAINST GDACS BOOK 834, PG 1. HORIZONTAL ERROR = (0.04') ANGLE ERROR = (00°00'01")

SURVEYOR'S CERTIFICATION

I, JAMES G. SPRING, PLS 22282, HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR IN THE STATE OF ARIZONA; THAT THIS PLAT CONSISTING OF TEN SHEETS REPRESENTS A SURVEY PREPARED UNDER MY SUPERVISION DURING THE MONTH OF APRIL, 2022; THAT THE SURVEY IS CORRECT AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF; THAT THE EXTERIOR BOUNDARY MONUMENTS ACTUALLY EXIST AS SHOWN AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

JAMES G. SPRING, PLS 22282
ATWELL, LLC
4700 EAST SOUTHERN AVENUE
MESA, ARIZONA 85206

NOTE:
A.R.S. § 32-151 STATES THAT THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" BY A PERSON OR FIRM THAT IS REGISTERED OR CERTIFIED BY THE BOARD IS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING FACTS OR FINDINGS THAT ARE SUBJECT OF THE CERTIFICATION AND DOES NOT CONSTITUTE AN EXPRESS OR IMPLIED WARRANTY OR GUARANTEE.

FS22-0198

ATWELL
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MESA, AZ 85206
480.218.8631

COUNTY: MARICOPA
SECTION: 5
TOWNSHIP: 5 NORTH
RANGE: 1 WEST

FINAL PLAT
BONITA RANCH
CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

ATWELL

PM. J. SPRING
DR. R. GILES
JOB NO. 17002903
N.T.S.
17002903 BONITA RANCH FP.DWG
SHEET NO. 1 OF 10

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LEGAL DESCRIPTION

LOCATED WITHIN A PORTION OF THE EAST HALF OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND 3-1/2 INCH ALUMINUM CAP STAMPED LS 33307, 2011, ACCEPTED AS THE SOUTHEAST CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST FROM WHICH A FOUND 2-INCH ALUMINUM CAP STAMPED RLS 35832, 2003, ACCEPTED AS THE EAST QUARTER CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 1 WEST, THEREOF BEARS N00°07'05"W A DISTANCE OF 2645.63 FEET;

THENCE, ALONG THE EAST LINE OF SAID SECTION 5, N00°07'05"W A DISTANCE OF 1985.61 FEET;

THENCE, LEAVING THE EAST LINE OF SAID SECTION 5, N89°41'23"W A DISTANCE OF 55.00 FEET TO THE POINT OF BEGINNING;

THENCE, N89°41'23"W A DISTANCE OF 1255.82 FEET;

THENCE, N00°02'30"W A DISTANCE OF 660.01 FEET;

THENCE, N00°02'42"W A DISTANCE OF 1322.04 FEET;

THENCE, N00°03'42"W A DISTANCE OF 442.34 FEET;

THENCE, N89°53'06"E A DISTANCE OF 1252.95 FEET TO THE BEGINNING OF A NON-TANGENT CURVE CONCAVE TO THE LEFT;

THENCE, SOUTHERLY ALONG SAID CURVE AN ARC LENGTH OF 16.32 FEET, WITH A RADIUS OF 2056.11 FEET AND THE RADIAL BEARING OF S89°39'37"E AND A CENTRAL ANGLE OF 00°27'17";

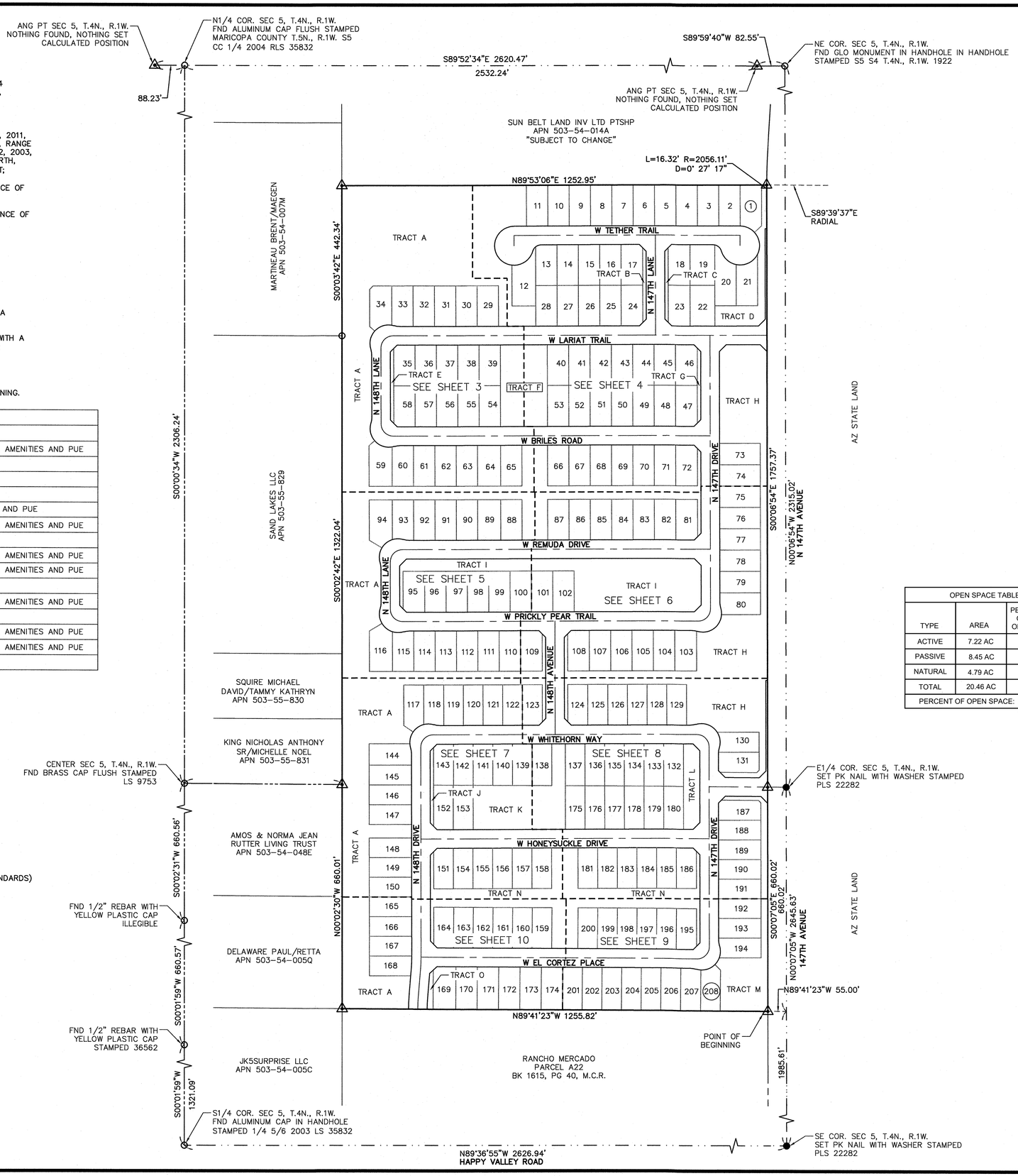
THENCE, S00°06'54"E A DISTANCE OF 1757.37 FEET;

THENCE, S00°07'05"E A DISTANCE OF 660.02 FEET TO THE POINT OF BEGINNING.

PARCEL TABLE			
TRACT	AREA SQ FT	AREA ACRES	USAGES
TRACT A	457,047	10.494	DRAINAGE, OPEN SPACE, UTILITIES, AMENITIES AND PUE
TRACT B	2,100	0.048	OPEN SPACE, UTILITIES AND PUE
TRACT C	2,100	0.048	OPEN SPACE, UTILITIES AND PUE
TRACT D	15,553	0.357	OPEN SPACE, UTILITIES AND PUE
TRACT E	2,100	0.048	DRAINAGE, OPEN SPACE, UTILITIES AND PUE
TRACT F	33,233	0.763	DRAINAGE, OPEN SPACE, UTILITIES, AMENITIES AND PUE
TRACT G	2,100	0.048	OPEN SPACE, UTILITIES AND PUE
TRACT H	143,180	3.287	DRAINAGE, OPEN SPACE, UTILITIES, AMENITIES AND PUE
TRACT I	77,601	1.781	DRAINAGE, OPEN SPACE, UTILITIES, AMENITIES AND PUE
TRACT J	2,210	0.051	OPEN SPACE, UTILITIES AND PUE
TRACT K	40,015	0.919	DRAINAGE, OPEN SPACE, UTILITIES, AMENITIES AND PUE
TRACT L	11,649	0.267	OPEN SPACE, UTILITIES AND PUE
TRACT M	32,842	0.754	DRAINAGE, OPEN SPACE, UTILITIES, AMENITIES AND PUE
TRACT N	68,102	1.563	DRAINAGE, OPEN SPACE, UTILITIES, AMENITIES AND PUE
TRACT O	1,599	0.037	OPEN SPACE, UTILITIES AND PUE
TOTAL	891,431	20.465	

LEGEND

	SUBDIVISION BOUNDARY
	RIGHT OF WAY LINE
	EXISTING RIGHT OF WAY LINE
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	SECTION LINE
	ALIQUOT SECTION LINE
▲	SUBDIVISION CORNER TO BE SET
○	FOUND MONUMENT AS NOTED
◉	CENTERLINE MONUMENT (TO BE SET BY CITY OF SURPRISE STANDARDS)
①	30'x30' SIGHT VISIBILITY EASEMENT
VNAE	VEHICULAR NON-ACCESS EASEMENT
PUE	PUBLIC UTILITY EASEMENT
M.O.D.	MAP OF DEDICATION
M.C.R.	MARICOPA COUNTY RECORDER
R/W	RIGHT-OF-WAY
FBSL	FRONT BUILDING SETBACK LINE
D	DELTA
C1	CURVE TABLE NUMBER
L1	LINE TABLE NUMBER
Ⓡ	RADIAL BEARING
FP	FINAL PLAT
DOC.	DOCUMENT



OPEN SPACE TABLE		
TYPE	AREA	PERCENTAGE OF TOTAL OPEN SPACE
ACTIVE	7.22 AC	35.29%
PASSIVE	8.45 AC	41.30%
NATURAL	4.79 AC	23.41%
TOTAL	20.46 AC	100.00%
PERCENT OF OPEN SPACE: 29.26%		

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COUNTY: MARICOPA
SECTION: 5
TOWNSHIP: 5 NORTH
RANGE: 1 WEST

FINAL PLAT

BONITA RANCH

CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

ATWELL

PM. J. SPRING
DR. R. GILES
JOB NO. 17002903
SCALE 0 75 150
1" = 150 FEET

17002903 BONITA RANCH FP.DWG

SHEET NO. 2 OF 10

FS22-0198

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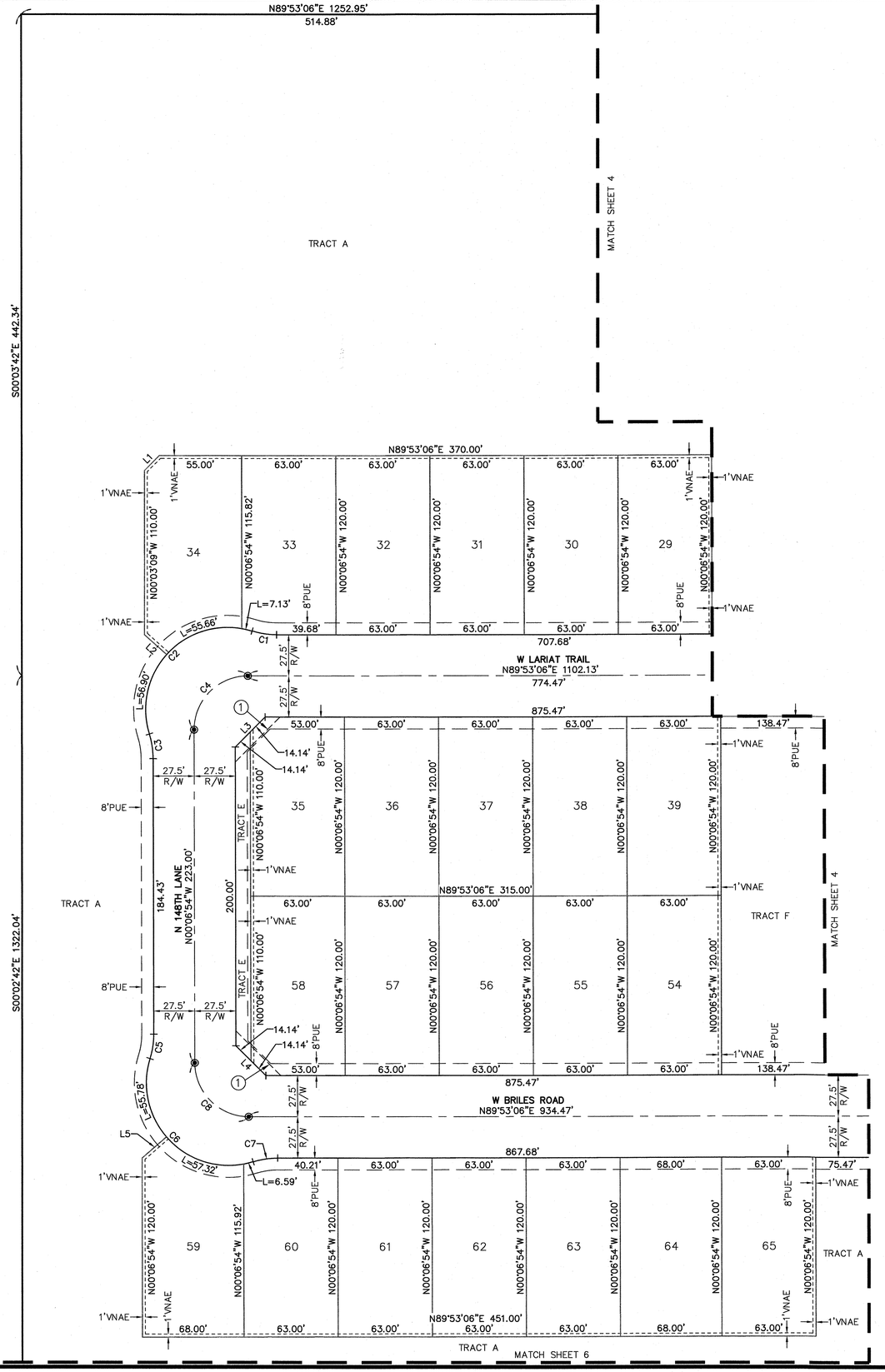

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
29	7560	0.174	63.0'	55	7560	0.174	63.0'
30	7560	0.174	63.0'	56	7560	0.174	63.0'
31	7560	0.174	63.0'	57	7560	0.174	63.0'
32	7560	0.174	63.0'	58	7510	0.172	63.0'
33	7523	0.173	63.0'	59	8263	0.190	68.0'
34	7836	0.180	65.1'	60	7525	0.173	63.0'
35	7510	0.172	63.0'	61	7560	0.174	63.0'
36	7560	0.174	63.0'	62	7560	0.174	63.0'
37	7560	0.174	63.0'	63	7560	0.174	63.0'
38	7560	0.174	63.0'	64	8160	0.187	68.0'
39	7560	0.174	63.0'	65	7560	0.174	63.0'
54	7560	0.174	63.0'				

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N44°54'59"E	14.15'
L2	N48°10'55"W	19.82'
L3	N44°53'06"E	28.28'
L4	N45°06'54"W	28.28'
L5	N49°07'17"E	21.58'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	16.65'	55.00'	017°20'29"
C2	119.69'	55.00'	124°40'58"
C3	16.65'	55.00'	017°20'29"
C4	56.55'	36.00'	090°00'00"
C5	16.65'	55.00'	017°20'29"
C6	119.69'	55.00'	124°40'58"
C7	16.65'	55.00'	017°20'29"
C8	56.55'	36.00'	090°00'00"

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COUNTY: MARICOPA
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TOWNSHIP: 5 NORTH
RANGE: 1 WEST

FINAL PLAT

BONITA RANCH
CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

ATWELL

PM. J. SPRING
DR. R. GILES
JOB NO. 17002903

SCALE 0 20 40
1" = 40 FEET

17002903 BONITA RANCH FP.DWG

SHEET NO. 3 OF 10

PROFESSIONAL LAND SURVEYOR
CERTIFICATE NO.
22282
JAMES G. SPRING
Date Signed 4/14/22
ARIZONA U.S.A.

FS22-0198

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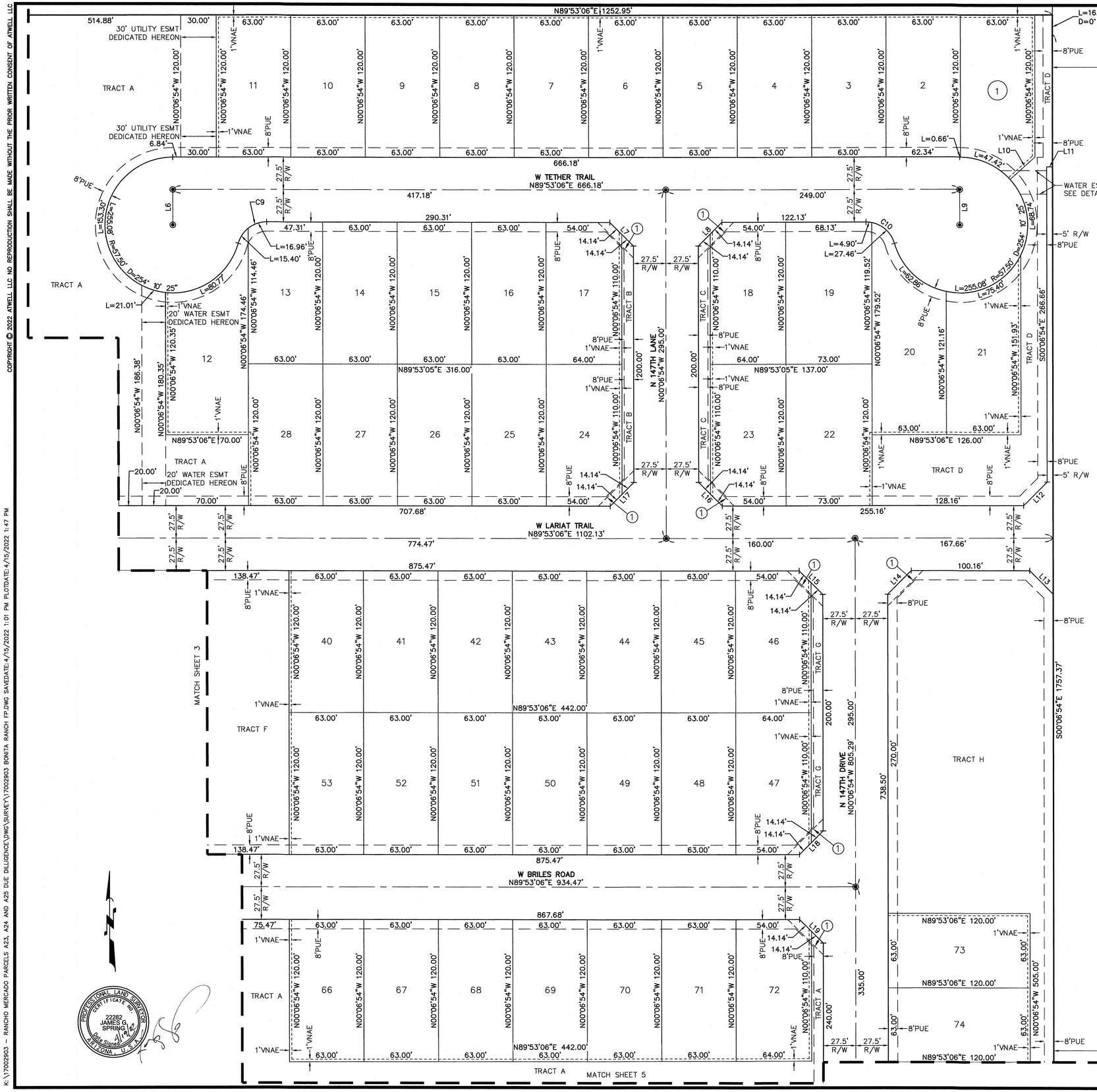

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
1	8008	0.184	63.0'	27	7560	0.174	63.0'
2	7560	0.174	63.0'	28	7560	0.174	63.0'
3	7560	0.174	63.0'	40	7560	0.174	63.0'
4	7560	0.174	63.0'	41	7560	0.174	63.0'
5	7560	0.174	63.0'	42	7560	0.174	63.0'
6	7560	0.174	63.0'	43	7560	0.174	63.0'
7	7560	0.174	63.0'	44	7560	0.174	63.0'
8	7560	0.174	63.0'	45	7560	0.174	63.0'
9	7560	0.174	63.0'	46	7630	0.175	64.0'
10	7560	0.174	63.0'	47	7630	0.175	64.0'
11	7560	0.174	63.0'	48	7560	0.174	63.0'
12	9422	0.216	70.0'	49	7560	0.174	63.0'
13	7532	0.173	63.0'	50	7560	0.174	63.0'
14	7560	0.174	63.0'	51	7560	0.174	63.0'
15	7560	0.174	63.0'	52	7560	0.174	63.0'
16	7560	0.174	63.0'	53	7560	0.174	63.0'
17	7630	0.175	64.0'	66	7560	0.174	63.0'
18	7630	0.175	64.0'	67	7560	0.174	63.0'
19	8759	0.201	73.0'	68	7560	0.174	63.0'
20	9199	0.211	63.0'	69	7560	0.174	63.0'
21	8032	0.184	63.0'	70	7560	0.174	63.0'
22	8760	0.201	73.0'	71	7560	0.174	63.0'
23	7630	0.175	64.0'	72	7630	0.175	64.0'
24	7630	0.175	64.0'	73	7560	0.174	63.0'
25	7560	0.174	63.0'	74	7560	0.174	63.0'
26	7560	0.174	63.0'				

LINE TABLE			LINE TABLE		
LINE #	DIRECTION	LENGTH	LINE #	DIRECTION	LENGTH
L6	N00°06'54"W	30.00'	L13	N45°06'54"W	28.28'
L7	N45°06'54"W	28.28'	L14	N44°53'06"E	28.28'
L8	N44°53'06"E	28.28'	L15	N45°06'54"W	28.28'
L9	N00°06'54"W	30.00'	L16	N45°06'54"W	28.28'
L10	N47°47'47"E	28.29'	L17	N44°53'06"E	28.28'
L11	S89°53'06"W	5.00'	L18	N44°53'06"E	28.28'
L12	N44°53'06"E	28.28'	L19	N45°06'54"W	28.28'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C9	32.36'	25.00'	074°10'24"
C10	32.36'	25.00'	074°10'24"

PROFESSIONAL LAND SURVEYOR CERTIFICATE NO. 22282 JAMES G. SPRING 4/15/22 Date Signed ARIZONA, U.S.A.

FS22-0198

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COUNTY: MARICOPA
SECTION: 5
TOWNSHIP: 5 NORTH
RANGE: 1 WEST

FINAL PLAT

BONITA RANCH

CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

ATWELL

PM. J. SPRING
DR. R. GILES
JOB NO. 17002903

SCALE 0 20 40
1" = 40 FEET

17002903 BONITA RANCH FP.DWG

SHEET NO. 4 OF 10

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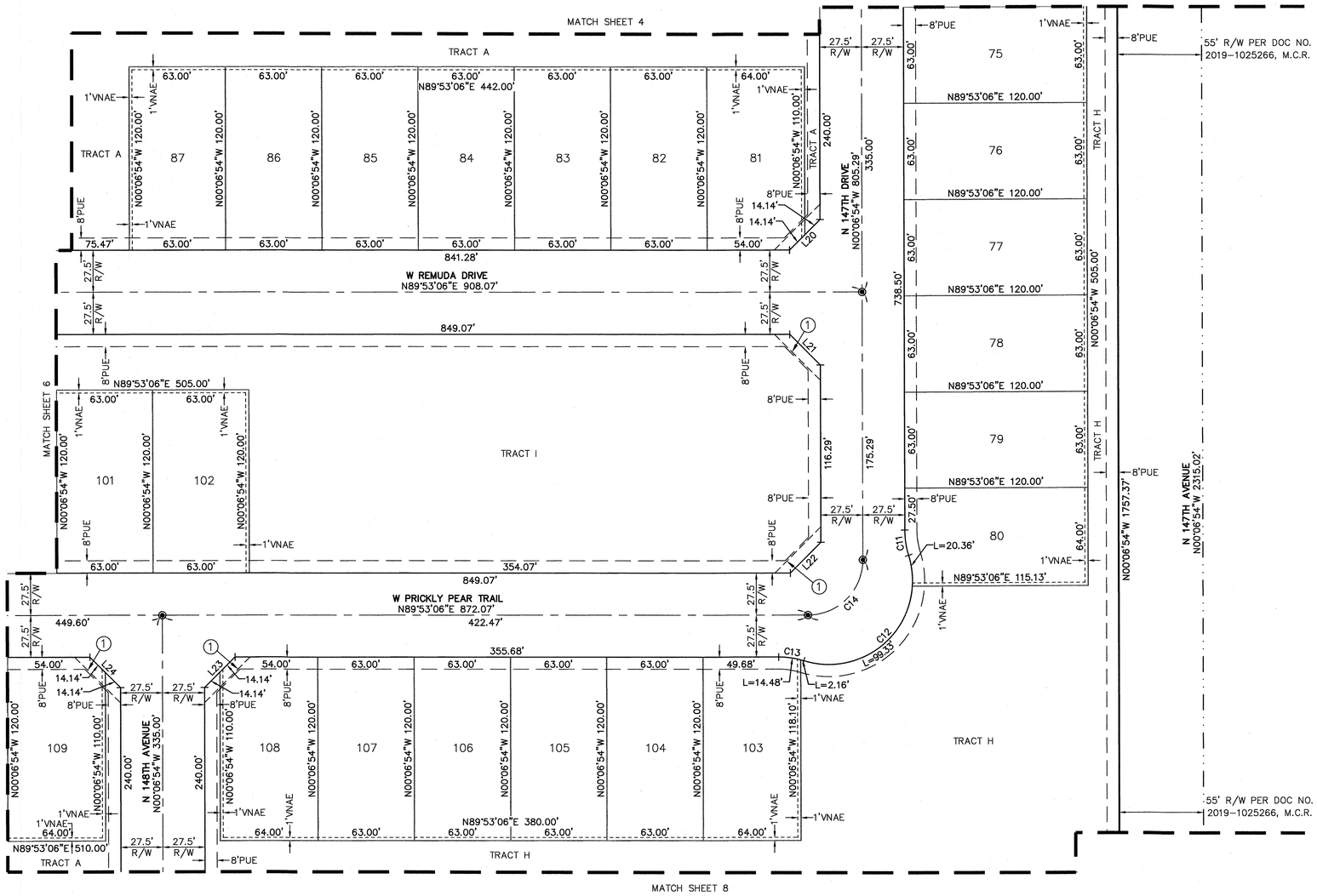

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
75	7560	0.174	63.0'	86	7560	0.174	63.0'
76	7560	0.174	63.0'	87	7560	0.174	63.0'
77	7560	0.174	63.0'	101	7560	0.174	63.0'
78	7560	0.174	63.0'	102	7560	0.174	63.0'
79	7560	0.174	63.0'	103	7671	0.176	64.0'
80	7580	0.174	64.0'	104	7560	0.174	63.0'
81	7630	0.175	64.0'	105	7560	0.174	63.0'
82	7560	0.174	63.0'	106	7560	0.174	63.0'
83	7560	0.174	63.0'	107	7560	0.174	63.0'
84	7560	0.174	63.0'	108	7630	0.175	64.0'
85	7560	0.174	63.0'	109	7630	0.175	64.0'

LINE TABLE		
LINE #	DIRECTION	LENGTH
L20	N44°53'06"E	28.28'
L21	S45°06'54"E	28.28'
L22	N44°53'06"E	28.28'
L23	N44°53'06"E	28.28'
L24	N45°06'54"W	28.28'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C11	16.65'	55.00'	017°20'29"
C12	119.69'	55.00'	124°40'58"
C13	16.65'	55.00'	017°20'29"
C14	56.55'	36.00'	090°00'00"

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TOWNSHIP: 5 NORTH
RANGE: 1 WEST

FINAL PLAT

BONITA RANCH

CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

ATWELL
PM. J. SPRING
DR. R. GILES

JOB NO. 17002903

SCALE 0 20 40
1" = 40 FEET

17002903 BONITA RANCH FP.DWG

SHEET NO. 5 OF 10

PROFESSIONAL LAND SURVEYOR
CERTIFICATE NO.
22282
JAMES G. SPRING
4/14/22
Date Signed
ARIZONA U.S.A.

FS22-0198

K:\17002903 - RANCHO MERCADO PARCELS A23, A24 AND A25 DUE DILLIGENCE\DWG\SURVEY\17002903 BONITA RANCH FP.DWG SAVEDATE-4/15/2022 1:01 PM PLOTDATE-4/15/2022 1:47 PM

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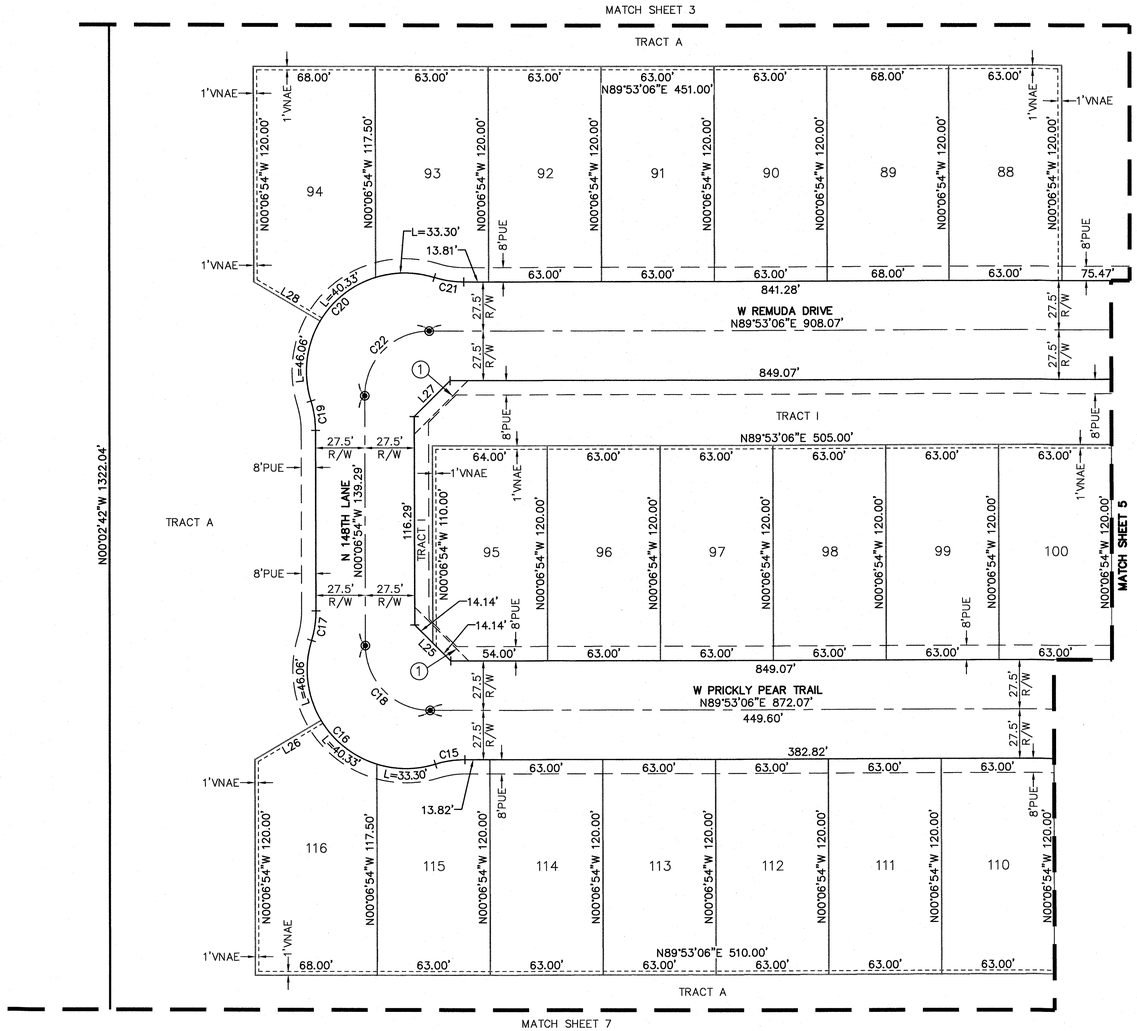

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
88	7560	0.174	63.0'	98	7560	0.174	63.0'
89	8160	0.187	68.0'	99	7560	0.174	63.0'
90	7560	0.174	63.0'	100	7560	0.174	63.0'
91	7560	0.174	63.0'	110	7560	0.174	63.0'
92	7560	0.174	63.0'	111	7560	0.174	63.0'
93	7410	0.170	63.0'	112	7560	0.174	63.0'
94	8772	0.201	68.0'	113	7560	0.174	63.0'
95	7630	0.175	64.0'	114	7560	0.174	63.0'
96	7560	0.174	63.0'	115	7410	0.170	63.0'
97	7560	0.174	63.0'	116	8772	0.201	68.0'

LINE TABLE		
LINE #	DIRECTION	LENGTH
L25	N45°06'54"W	28.28'
L26	N59°14'28"E	43.10'
L27	N44°53'06"E	28.28'
L28	N59°28'16"W	43.10'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C15	16.65'	55.00'	017°20'29"
C16	119.69'	55.00'	124°41'00"
C17	16.65'	55.00'	017°20'31"
C18	56.55'	36.00'	090°00'00"
C19	16.65'	55.00'	017°20'29"
C20	119.69'	55.00'	124°40'58"
C21	16.65'	55.00'	017°20'29"
C22	56.55'	36.00'	090°00'00"

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FINAL PLAT

BONITA RANCH

CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

ATWELL

PM. J. SPRING
DR. R. GILES
JOB NO. 17002903
SCALE 0 20 40
1" = 40 FEET
17002903 BONITA RANCH FP.DWG
SHEET NO. 6 OF 10

PROFESSIONAL LAND SURVEYOR CERTIFICATE NO. 22282 JAMES G. SPRING 4/19/22 Date Signed ARIZONA U.S.A.

FS22-0198

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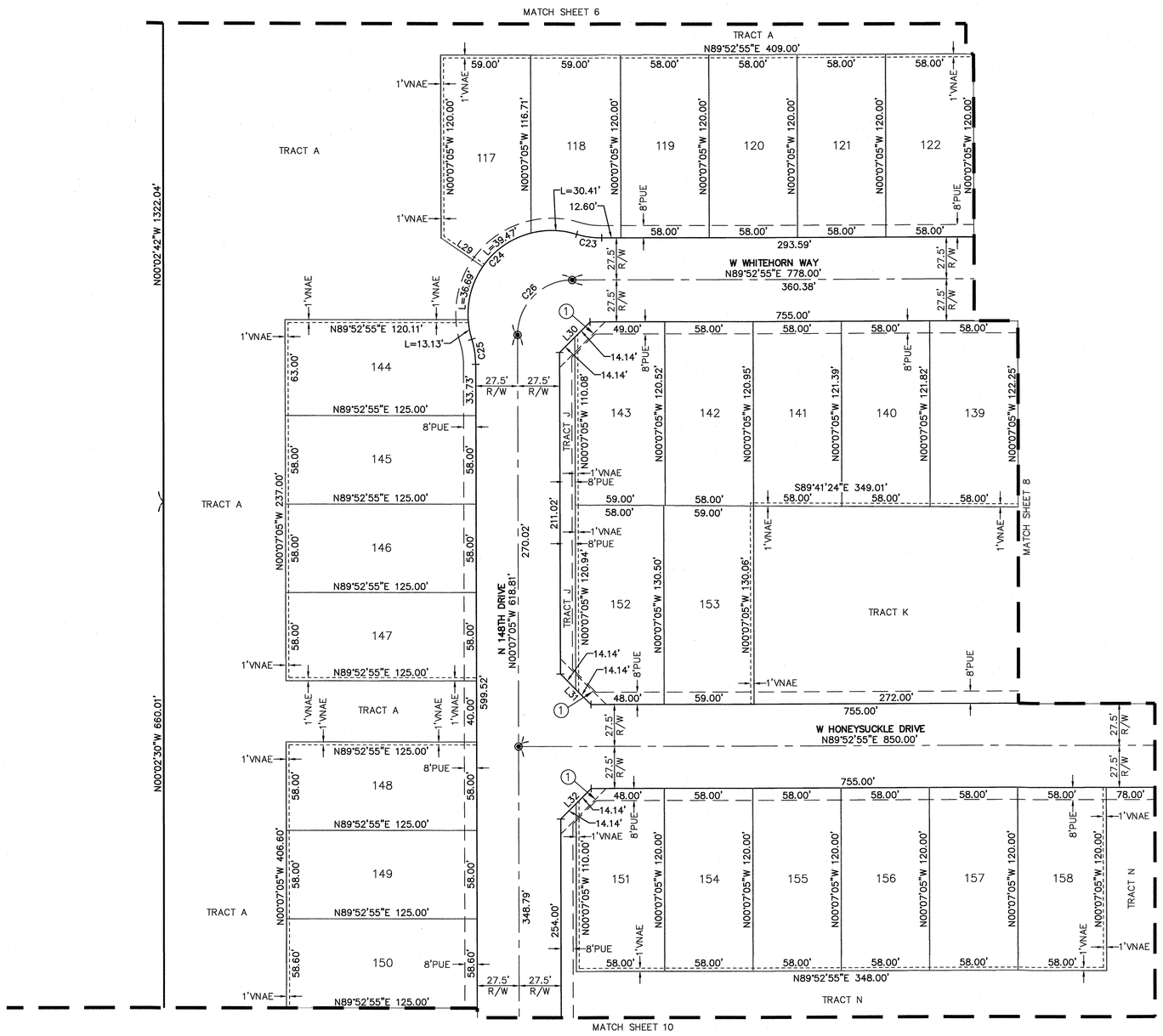

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
117	7492	0.172	59.0'	146	7250	0.166	58.0'
118	6938	0.159	59.0'	147	7250	0.166	58.0'
119	6960	0.160	58.0'	148	7250	0.166	58.0'
120	6960	0.160	58.0'	149	7250	0.166	58.0'
121	6960	0.160	58.0'	150	7325	0.168	58.6'
122	6960	0.160	58.0'	151	6910	0.159	58.0'
139	7078	0.162	59.0'	152	7532	0.173	58.0'
140	7053	0.162	58.0'	153	7687	0.176	59.0'
141	7028	0.161	58.0'	154	6960	0.160	58.0'
142	7003	0.161	58.0'	155	6960	0.160	58.0'
143	7048	0.162	59.0'	156	6960	0.160	58.0'
144	7811	0.179	63.0'	157	6960	0.160	58.0'
145	7250	0.166	58.0'	158	6960	0.160	58.0'

LINE TABLE		
LINE #	DIRECTION	LENGTH
L29	N55°34'06"W	33.16'
L30	N44°52'55"E	28.28'
L31	N45°07'05"W	28.28'
L32	N44°52'55"E	28.28'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C23	16.65'	55.00'	017°20'29"
C24	119.69'	55.00'	124°40'58"
C25	16.65'	55.00'	017°20'29"
C26	56.55'	36.00'	090°00'00"

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FINAL PLAT

BONITA RANCH
CITY OF SURPRISE, ARIZONA

APRIL 2022

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PM. J. SPRING
DR. R. GILES
JOB NO. 17002903
SCALE 0 20 40
1" = 40 FEET
17002903 BONITA RANCH FP.DWG
SHEET NO. 7 OF 10

PROFESSIONAL LAND SURVEYOR CERTIFICATE NO. 22262 JAMES G. SPRING Date Signed 4/14/22 ARIZONA U.S.A.

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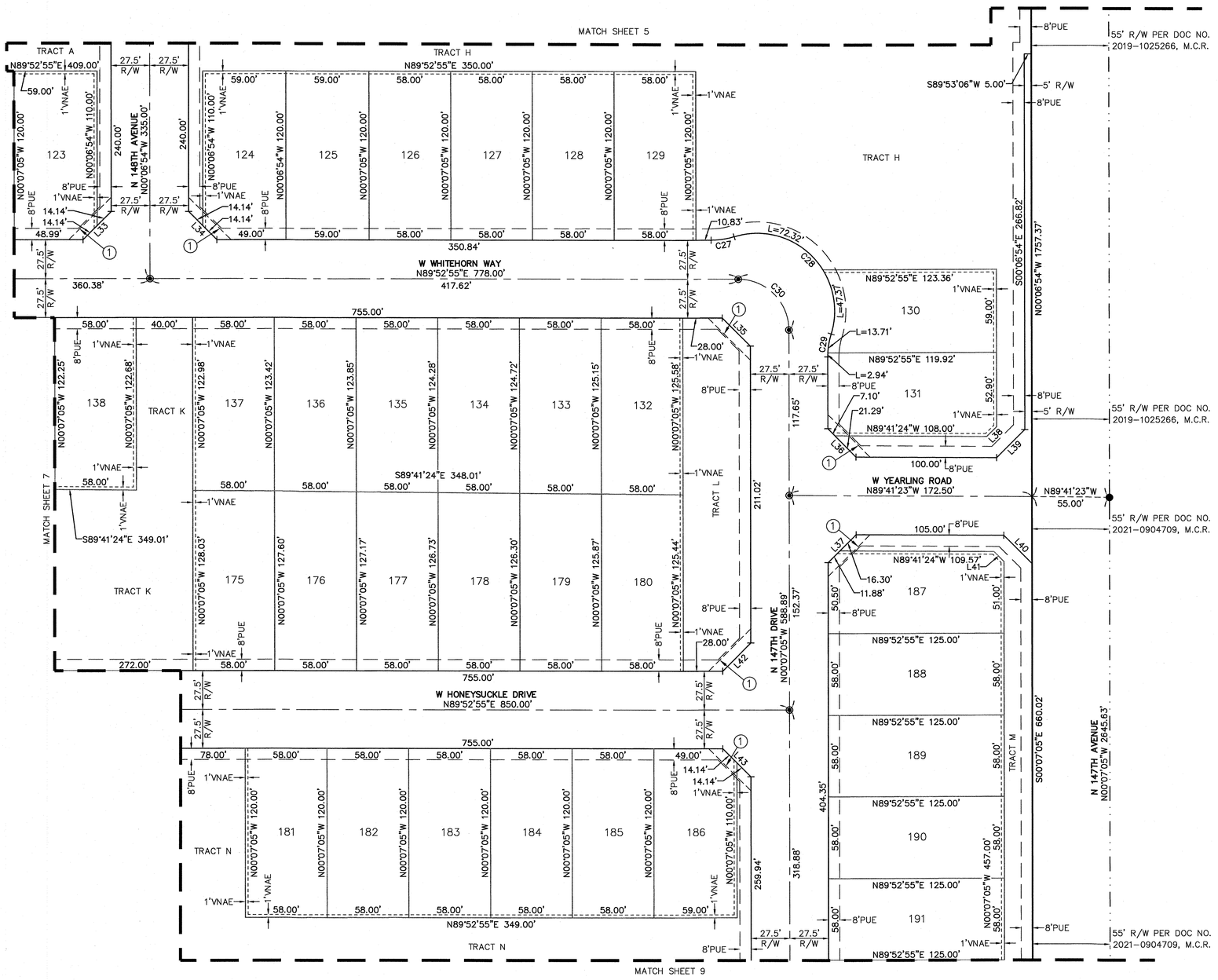

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
123	7030	0.161	59.0'	176	7388	0.170	58.0'
124	7030	0.161	59.0'	177	7363	0.169	58.0'
125	7080	0.163	59.0'	178	7338	0.168	58.0'
126	6960	0.160	58.0'	179	7313	0.168	58.0'
127	6960	0.160	58.0'	180	7288	0.167	58.0'
128	6960	0.160	58.0'	181	6960	0.160	58.0'
129	6960	0.160	58.0'	182	6960	0.160	58.0'
130	6931	0.159	59.0'	183	6960	0.160	58.0'
131	7097	0.163	59.1'	184	6960	0.160	58.0'
132	7271	0.167	58.0'	185	6960	0.160	58.0'
133	7246	0.166	58.0'	186	7030	0.161	59.0'
134	7221	0.166	58.0'	187	7248	0.166	58.8'
135	7196	0.165	58.0'	188	7250	0.166	58.0'
136	7171	0.165	58.0'	189	7250	0.166	58.0'
137	7146	0.164	58.0'	190	7250	0.166	58.0'
138	7103	0.163	58.0'	191	7250	0.166	58.0'
175	7413	0.170	58.0'				

LINE TABLE			LINE TABLE		
LINE #	DIRECTION	LENGTH	LINE #	DIRECTION	LENGTH
L33	N44°53'01"E	28.29'	L39	N45°05'51"E	28.18'
L34	N45°06'59"W	28.28'	L40	N44°54'14"W	28.39'
L35	N45°07'05"W	28.28'	L41	N44°54'14"W	9.94'
L36	N44°54'14"W	28.39'	L42	N44°52'55"E	28.28'
L37	N45°05'46"E	28.18'	L43	N45°07'05"W	28.28'
L38	N45°05'46"E	9.86'			

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C27	16.65'	55.00'	017°20'29"
C28	119.69'	55.00'	124°40'58"
C29	16.65'	55.00'	017°20'29"
C30	56.55'	36.00'	090°00'00"

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FINAL PLAT
BONITA RANCH
CITY OF SURPRISE, ARIZONA

APRIL 2022

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17002903 BONITA RANCH FP.DWG
SHEET NO. 8 OF 10

PROFESSIONAL LAND SURVEYOR CERTIFICATE NO. 22282 JAMES G. SPRING 4/19/22 Date Signed ARIZONA U.S.A.

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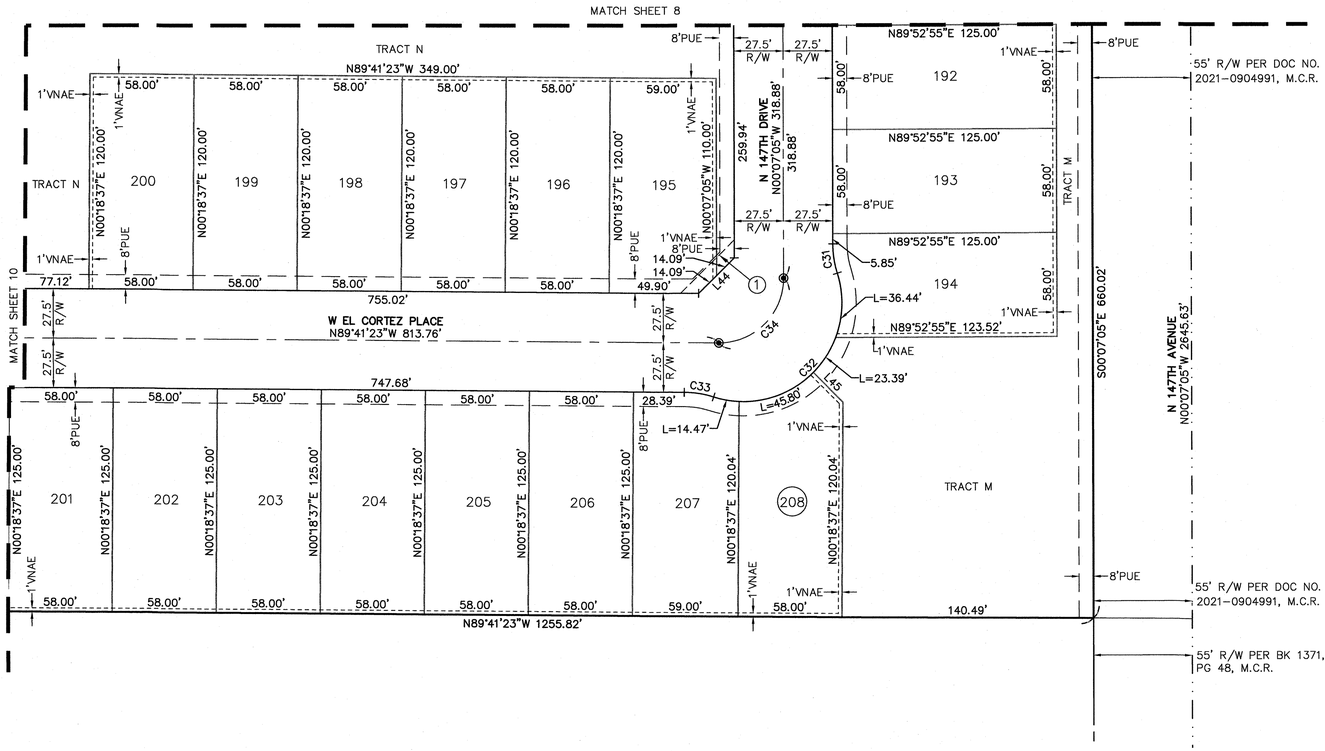

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
192	7250	0.166	58.0'	201	7250	0.166	58.0'
193	7250	0.166	58.0'	202	7250	0.166	58.0'
194	7094	0.163	58.0'	203	7250	0.166	58.0'
195	7084	0.163	59.8'	204	7250	0.166	58.0'
196	6960	0.160	58.0'	205	7250	0.166	58.0'
197	6960	0.160	58.0'	206	7250	0.166	58.0'
198	6960	0.160	58.0'	207	7304	0.168	59.0'
199	6960	0.160	58.0'	208	7297	0.168	58.0'
200	6960	0.160	58.0'				

LINE TABLE		
LINE #	DIRECTION	LENGTH
L44	N45°05'46"E	28.18'
L45	N45°08'17"W	23.34'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C31	16.65'	55.00'	017°20'29"
C32	120.10'	55.00'	125°06'40"
C33	16.65'	55.00'	017°20'29"
C34	56.82'	36.00'	090°25'41"

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FINAL PLAT

BONITA RANCH

CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

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PM. J. SPRING
DR. R. GILES
JOB NO. 17002903
SCALE 0 20 40
1" = 40 FEET
17002903 BONITA RANCH FP.DWG
SHEET NO. 9 OF 10

PROFESSIONAL LAND SURVEYOR CERTIFICATE NO. 22282 JAMES G. SPRING Date Signed 4/12/22 ARIZONA U.S.A.

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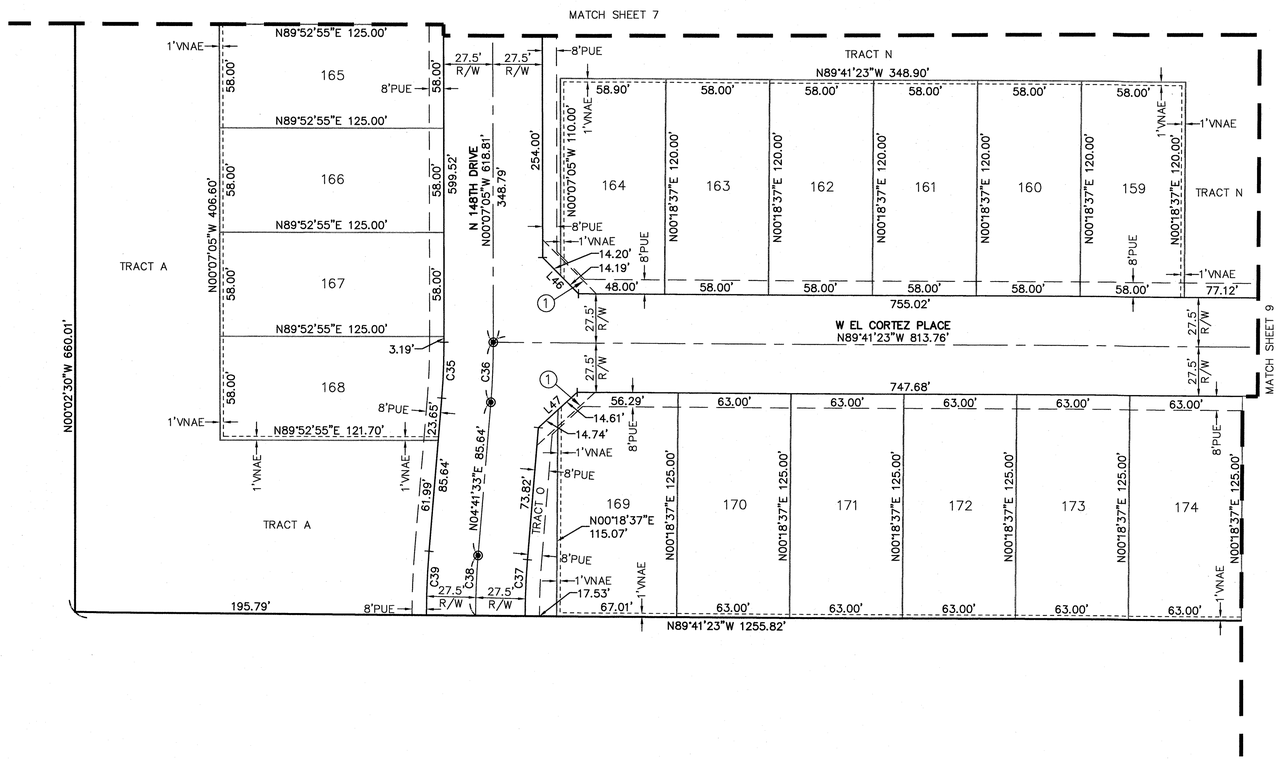

LOT TABLE\WIDTH BASED ON FBSL				LOT TABLE\WIDTH BASED ON FBSL			
LOT	AREA SQ FT	AREA ACRES	LOT WIDTH	LOT	AREA SQ FT	AREA ACRES	LOT WIDTH
159	6960	0.160	58.0'	167	7250	0.166	58.0'
160	6960	0.160	58.0'	168	7182	0.165	58.0'
161	6960	0.160	58.0'	169	8323	0.191	67.0'
162	6960	0.160	58.0'	170	7875	0.181	63.0'
163	6960	0.160	58.0'	171	7875	0.181	63.0'
164	6964	0.160	58.1'	172	7875	0.181	63.0'
165	7250	0.166	58.0'	173	7875	0.181	63.0'
166	7250	0.166	58.0'	174	7875	0.181	63.0'

LINE TABLE		
LINE #	DIRECTION	LENGTH
L46	N44°54'14"W	28.39'
L47	N47°30'05"E	29.34'

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C35	31.27'	372.50'	004°48'38"
C36	33.58'	400.00'	004°48'38"
C37	31.48'	372.50'	004°50'32"
C38	33.58'	400.00'	004°48'38"
C39	35.69'	427.50'	004°46'59"

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FINAL PLAT

BONITA RANCH

CITY OF SURPRISE, ARIZONA

APRIL 2022

REVISIONS:

ATWELL

PM. J. SPRING
DR. R. GILES

JOB NO.
17002903

SCALE 0 20 40
1" = 40 FEET

17002903 BONITA RANCH FP.DWG

SHEET NO.
10 OF 10

PROFESSIONAL LAND SURVEYOR
CERTIFICATE NO.
22282
JAMES G. SPRING
4/19/22
Date Signed
ARIZONA U.S.A.

FS22-0198

BONITA RANCH

PRELIMINARY LANDSCAPE SUBMITTAL

SURPRISE, ARIZONA

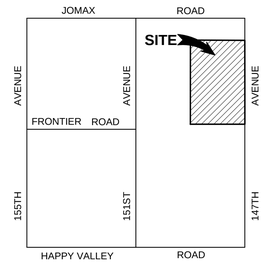
CONTACT INFO

OWNER
KAX GROUP
10973 N. 138th Way
Scottsdale, Arizona 85259
602.499.9305
Contact: Kent Xander

LANDSCAPE ARCHITECT
RVi PLANNING + LANDSCAPE ARCHITECTURE
120 S. Ash Avenue
Tempe, Arizona 85281
480.994.0994
Contact: Shawn Byron, PLA

CIVIL ENGINEER
ATWELL
4700 E. Southern Avenue
Mesa, Arizona 85206
480.218.8831
Contact: Mike Park, P.E.

VICINITY MAP



SITE DATA

PROJECT SIZE: 73.01 ACRES (3,180,315 sq. ft)
PROPOSED LOTS: 208 total Lots
PROPOSED DENSITY: 2.85 DU/AC
PROPOSED OPEN SPACE: 20.47 ACRES (903,434 sq. ft)
PERCENT OPEN SPACE: 29.3%
PROPOSED TURF AREA: 2.01 ACRES (87,577 sq. ft)
PROPOSED PERCENT TURF: 9.8%
AREA OF NON-TURF LANDSCAPE: 18.46 ACRES (804,117 sq. ft)
TURF PEAK SEASON DEMAND (GPD): 20,814 GPD
NON-TURF PEAK SEASON DEMAND (GPD): 53,412 GPD
ANNUAL TOTAL DEMAND (GALLONS): 16,295,592 GALLONS

SUBMITTAL HISTORY

DATE	DESCRIPTION / COMMENTS
12/22/2020	1ST PRELIMINARY PLAT
03/22/2021	2ND PRELIMINARY PLAT
05/25/2021	3RD PRELIMINARY PLAT
06/30/2021	4TH PRELIMINARY PLAT

Copyright RVi

Aerial Photography Date:

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

BONITA RANCH • **COVER**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
66017
BRITTANY
GEIST
Date Signed 06/30/2021

For Illustrative purposes only. Subject to change without notice.

FS20-823 3RD SUBMITTAL

L:\20001710-BONITA RANCH - LS\6-20001710-LANDSCAPE\2-2D\3-SHEETS\COVER.dwg

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Aerial Photography Date:

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

BONITA RANCH • **MASTER PLAN**

- SURPRISE, ARIZONA
- 06/30/2021
- # 20001710
- KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
66017
BRITTANY
GEIST
State of Arizona

0 50' 100' 200'
SCALE: 1" = 100'-0"

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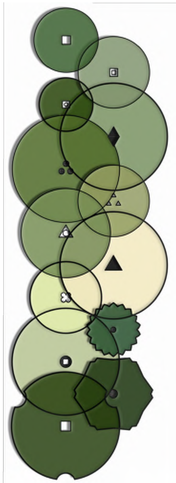
FS20-823 3RD SUBMITTAL

L:\20001710-BONITA RANCH - LS\6-20001710-LANDSCAPE\2-DD\3-SHEETS\COVER.dwg

LANDSCAPE MATERIAL SCHEDULE



OVERALL LANDSCAPE PALETTE

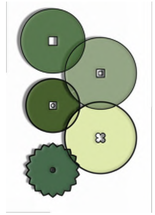
ITEM	SIZE
Acacia aneura MULGA	24" BOX
Acacia salicina WILLOW ACACIA	24" BOX
Acacia willardiana PALO BLANCO	24" BOX
Fraxinus velutina 'Rio Grande' FAN-TEX ASH	24" BOX
Parkinsonia florida BLUE PALO VERDE	24" BOX
Parkinsonia microphylla FOOTHILLS PALO VERDE	24" BOX
Prosopis velutina VELVET MESQUITE	24" BOX
Prosopis x 'AZT' AZT THORNLESS MESQUITE	24" BOX
Quercus virginiana LIVE OAK	24" BOX
Sophora secundiflora TEXAS MOUNTAIN LAUREL	24" BOX
Ulmus parvifolia EVERGREEN ELM	24" BOX
Vitex agnus-castus CHASTE TREE	24" BOX
Chitalpa x tashkentensis `Pink Dawn` PINK DAWN CHITALPA	24" BOX

DESERT SHRUB PALETTE

ITEM	SIZE
Agave spp. AGAVE	5 GAL.
Aloe spp. ALOE	5 GAL.
Ambrosia deltoidea BURSAGE	5 GAL.
Asclepias subulata DESERT MILKWEED	5 GAL.
Baccharis x 'Starn Thompson' DWARF COYOTE BUSH	5 GAL.
Bouteloua spp. GRAMA GRASS	5 GAL.
Calliandra spp. FAIRY DUSTER	5 GAL.
Caesalpinia spp. BIRD OF PARADISE	5 GAL.
Carnegia gigantea SAGUARO	SPEAR
Cordia parvifolia LITTLE LEAF CORDIA	5 GAL.
Dalea spp. DALEA	5 GAL.
Dasylirion spp. DESERT SPOON	5 GAL.
Dodonaea viscosa HOPBUSH	5 GAL.
Encelia farinosa BRITTLEBUSH	1 GAL.
Eremophila ssp. EMU BUSH	5 GAL.
Ericameria laricifolia 'Aguirre'™ TURPENTINE BUSH	5 GAL.
Esclepias subulata DESERT MILKWEED	5 GAL.
Euphorbia spp. GOPHER PLANT	5 GAL.
Ferocactus spp. BARRELL CACTUS	
Fouquieria splendens OCOTILLO	10' HT.
Hesperaloe spp. RED YUCCA	3 GAL.
Justicia californica CHUPAROSA	5 GAL.
Larrea tridentata CREOSOTE	5 GAL.
Leucophyllum spp. SAGE	5 GAL.
Muhlenbergia spp. MUHLY GRASS	5 GAL.
Nolina spp. BEAR GRASS	5 GAL.
Opuntia spp. PRICKLY PEAR	5 GAL.
Simmondsia chinensis JOJOBA	5 GAL.
Sphaeralcea ambigua GLOBEMALLOW	5 GAL.
Tecoma spp. YELLOW BELLS	5 GAL.
Yucca spp. YUCCA	5 GAL.

GROUNDCOVERS

ITEM	SIZE
Acacia spp. ACACIA	1 GAL.
Dalea spp. TRAILING INDIGO BUSH	1 GAL.
Eremophila spp. EMU BUSH	1 GAL.
Lantana spp. LANTANA	1 GAL.
Verbena spp. VERBENA	1 GAL.



STREET TREE PALETTE

ITEM	SIZE
Acacia aneura MULGA	24" BOX
Acacia salicina WILLOW ACACIA	24" BOX
Acacia willardiana PALO BLANCO	24" BOX
Quercus virginiana LIVE OAK	24" BOX
Sophora secundiflora TEXAS MOUNTAIN LAUREL	24" BOX

STREET SHRUB PALETTE

ITEM	SIZE
Aloe spp. ALOE	5 GAL.
Calliandra spp. FAIRY DUSTER	5 GAL.
Dalea spp. DALEA	5 GAL.
Eremophila ssp. EMU BUSH	5 GAL.
Euphorbia spp. GOPHER PLANT	5 GAL.
Hesperaloe spp. RED YUCCA	3 GAL.
Justicia californica CHUPAROSA	5 GAL.
Muhlenbergia spp. MUHLY GRASS	5 GAL.

GROUNDCOVERS

ITEM	SIZE
Acacia spp. ACACIA	1 GAL.
Dalea spp. TRAILING INDIGO BUSH	1 GAL.
Eremophila spp. EMU BUSH	1 GAL.
Lantana spp. LANTANA	1 GAL.
Verbena spp. VERBENA	1 GAL.

SONORAN DESERT WILDFLOWER MIX

BOTANICAL NAME	COMMON NAME	LBS/AC.	BOTANICAL NAME	COMMON NAME	LBS/AC.
ABRONIA VILLOSA	DESERT SAND VERBENA	0.5	LESQUERELLA GORDONII	GORDON'S BLADDERPOD	0.5
BAILEYA MULTIRADIATA	DESERT MARIGOLD	1.0	LUPINUS SUCCULENTUS	ARROYO LUPINE	2.0
CASSIA COVESII	DESERT SENNA	1.0	PENSTEMON EATONII	FIRECRACKER PENSTEMON	0.5
ENCELIA FARINOSA	BRITTLEBUSH	0.5	PENSTEMON PARRYI	PARRY'S PENSTEMON	0.5
ERICAMERIA LARICIFOLIA	TURPENTINE BUSH	0.5	PERITYLE EMORYI	EMORY'S ROCKDAISY	0.5
ESCHOLTZIA MEXICANA	MEXICAN POPPY	1.0	PHACELIA CAMPANULARIA	DESERT BLUEBELL	0.5
GAILLARDIA SP.	BLANKET FLOWER	1.0	SPHAERALCEA AMBIGUA	GLOBEMALLOW	1.0

NOTE:

SEED MIX SHALL BE PURE LIVE SEED. HYDRO MULCH SHALL BE GRADE A FIBER (NO PAPER) CONSISTING OF A SPECIALLY PREPARED VIRGIN WOOD FIBER PROCESSED TO CONTAIN NO GROWTH OR GERMINATION INHIBITING FACTORS. FURTHER, THE MULCH SHALL BE MANUFACTURED AND PROCESSED SO THE WOOD CELLULOSE FIBERS WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, 16-20-0 FERTILIZER (250 LBS./AC.), TACKIFIER (60 LBS./AC.), AND OTHER ADDITIVES TO FORM A HOMOGENOUS SLURRY. THE PROPOSED MULCH MATERIAL SHALL HAVE CHARACTERISTICS TO FORM A BLOTTER-LIKE GROUND COVER UPON APPLICATION, WITH MOISTURE AND PERCOLATION PROPERTIES AND THE ABILITY TO COVER AND HOLD SEED IN CONTACT WITH THE SOIL. HYDRO MULCH SHALL BE APPLIED AT 1,500 LBS./AC.

HYDROSEED SHRUB MIX SCHEDULE

BOTANICAL NAME	COMMON NAME	LBS/AC.	BOTANICAL NAME	COMMON NAME	LBS/AC.
ACACIA CONSTRICTA	WHITETHORN ACACIA	1.5	LARREA TRIDENTATA	CREOSOTE	4.0
ACACIA GREGGII	CATCLAW ACACIA	3.0	LUPINUS SPARSIFLORUS	DESERT LUPINE	2.0
AMBROSIA DELTOIDEA	BURSAGE	4.0	LYCIUM EXSERTUM	THORNBUSH	0.25
ARISTIDA PURPUREA	PURPLE THREE-AWN	1.0	PARKINSONIA FLORIDUM	BLUE PALO VERDE	3.0
ATRIPLEX CANESCENS	FOURWING SALTBUSH	1.0	PARKINSONIA MICROPHYLLUM	FOOTHILL PALO VERDE	3.0
BAILEYA MULTIRADIATA	DESERT MARIGOLD	1.0			
BOUTELOUA ARISTIDOIDES	DROPSEED GRAMA GRASS	1.0	OLNEYA TESOTA	IRONWOOD	2.0
CASSIA COVESII	DESERT SENNA	1.0	PENSTEMON PARRYI	PARRY'S PENSTEMON	0.5
ENCELIA FARINOSA	BRITTLEBUSH	0.5	PHACELIA CAMPANULARIA	DESERT BLUEBELL	0.5
ERICAMERIA LARICIFOLIA	TURPENTINE BUSH	0.5	PROSOPIS VELUTINA	VELVET MESQUITE	1.0
ERIOGONUM FASICULATUM	FLAT-TOP BUCKWHEAT	0.5	PLANTAGO INSULARIS	INDIAN WHEAT	5.0
ESCHOLTZIA MEXICANA	MEXICAN POPPY	1.0	SPHAERALCEA AMBIGUA	GLOBEMALLOW	1.0
			VIGUIERA DELTOIDEA	GOLDENEYE	0.25

NOTE:

SEED MIX SHALL BE PURE LIVE SEED. HYDRO MULCH SHALL BE GRADE A FIBER (NO PAPER) CONSISTING OF A SPECIALLY PREPARED VIRGIN WOOD FIBER PROCESSED TO CONTAIN NO GROWTH OR GERMINATION INHIBITING FACTORS. FURTHER, THE MULCH SHALL BE MANUFACTURED AND PROCESSED SO THE WOOD CELLULOSE FIBERS WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, 16-20-0 FERTILIZER (250 LBS./AC.), TACKIFIER (60 LBS./AC.), AND OTHER ADDITIVES TO FORM A HOMOGENOUS SLURRY. THE PROPOSED MULCH MATERIAL SHALL HAVE CHARACTERISTICS TO FORM A BLOTTER-LIKE GROUND COVER UPON APPLICATION, WITH MOISTURE AND PERCOLATION PROPERTIES AND THE ABILITY TO COVER AND HOLD SEED IN CONTACT WITH THE SOIL. HYDRO MULCH SHALL BE APPLIED AT 1,500 LBS./AC.

L:\20001710-BONITA RANCH - LS\6-20001710\1-LANDSCAPE\2-DD\3-SHEETS\COVER.dwg

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Tempe, Arizona 85281
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www.rviplanning.com

BONITA RANCH • **PLANT PALETTE**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24

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FS20-823 3RD SUBMITTAL

LANDSCAPE NOTES

1. SIGHT DISTANCE REQUIREMENTS ON ARTERIALS AND COLLECTORS WILL ADHERE TO SURPRISE DETAIL 4-01. SIGHT VISIBILITY WITH THE UNOBSTRUCTED VIEW EASEMENT AREA AND IN FRONT OF STOP SIGNS MUST MEET OR EXCEED REQUIREMENTS IN SURPRISE DETAILS 4-01 AND 4-02.
2. TREES, SHRUBS AND OTHER LANDSCAPING ARE PERMITTED WITHIN THE SIGHT VISIBILITY TRIANGLE PROVIDED LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ARE KEPT BELOW 30 INCHES OR ABOVE 84 INCHES, PER SURPRISE EDS DETAIL 4-01.
3. DEEP ROOT BARRIERS SHALL BE INSTALLED FOR ALL TREES BETWEEN THE SIDEWALK AND CURB AND FOLLOW CITY OF SURPRISE DETAIL EDS 8-14.
4. OPEN SPACE LIGHTING AND ELECTRICAL SHALL BE PROVIDED AT FINAL PLAT AND BE CONSISTENT WITH ALL CITY OF SURPRISE CODES AND ORDINANCES.
5. DOG WASTE STATIONS WILL BE PROVIDED ADJACENT TO TURF AREAS THROUGHOUT THE PROJECT AT THE TIME OF FINAL PLAT.
6. FINAL RETAINING WALL LOCATIONS SHALL BE PROVIDED AT FINAL PLAT AND SHALL MEET ALL CITY OF SURPRISE CODES AND ORDINANCES. HEIGHTS OF RETAINING WALLS SHALL NOT EXCEED 2FT IN HEIGHT.
7. FINAL PLANTING DESIGN FOR 147TH AVE SHALL MEET ALL REQUIREMENTS FOR THE CITY OF SURPRISE AND SHOULD RELATE TO THE EXISTING DESIGN WITHIN THE RANCHO MERCADO COMMUNITY.

MATCHLINE E, SEE SHEET 5

LANDSCAPE MATERIAL SCHEDULE

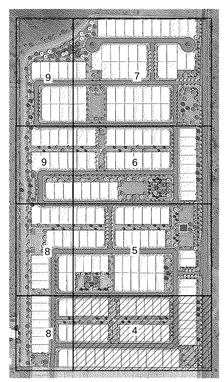
OVERALL LANDSCAPE PALETTE

ITEM	SIZE
Acacia aneura MULGA	24" BOX
Acacia salicina WILLOW ACACIA	24" BOX
Acacia willardiana PALO BLANCO	24" BOX
Fraxinus velutina 'Rio Grande' FAN-TEX ASH	24" BOX
Parkinsonia florida BLUE PALO VERDE	24" BOX
Parkinsonia microphylla FOOTHILLS PALO VERDE	24" BOX
Prosopis velutina VELVET MESQUITE	24" BOX
Prosopis x 'AZT' AZT THORNLESS MESQUITE	24" BOX
Quercus virginiana LIVE OAK	24" BOX
Sophora secundiflora TEXAS MOUNTAIN LAUREL	24" BOX
Ulmus parvifolia EVERGREEN ELM	24" BOX
Vitex agnus-castus CHASTE TREE	24" BOX
Chitalpa x tashkentensis `Pink Dawn` PINK DAWN CHITALPA	24" BOX

LANDSCAPE KEYNOTES

1. ENTRY MONUMENT
2. THEME WALL
3. PARTIAL VIEW WALL
4. CONCRETE HEADER
5. DECORATIVE COLUMN
6. DETENTION AREA
7. OPEN TURF
8. SEATING AREA
9. RAMADA
10. LANDSCAPE CONCRETE SIDEWALK
11. HALF BASKETBALL COURT
12. PRECAST CONCRETE RAIL FENCE
13. PLAYGROUND
14. TABLE TENNIS
15. BUTTERFLY GARDEN
16. DRAINAGE CHANNEL
17. VIEWING PLATFORM
18. DOOLEY WALL
19. SEATWALL
20. CORNHOLE COURTS
21. MAILBOX
22. DG TRAIL

KEY MAP



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BONITA RANCH • LANDSCAPE PLAN

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
66017
BRITTANY GEIST
DATE SIGNED 06/30/2021

0 20' 40' 80'
SCALE: 1" = 40'-0"

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FS20-823 3RD SUBMITTAL

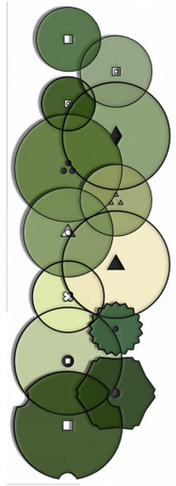
L:\20001710-BONITA RANCH -1-SI\-20001710-LANDSCAPE\2-DD\3-SHEETS\LANDSCAPE PLANS_L1.01-L1.06.dwg

MATCHLINE G, SEE SHEET 6

MATCHLINE B, SEE SHEET 8

MATCHLINE E, SEE SHEET 4

LANDSCAPE MATERIAL SCHEDULE



OVERALL LANDSCAPE PALETTE

ITEM	SIZE
Acacia aneura MULGA	24" BOX
Acacia salicina WILLOW ACACIA	24" BOX
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Vitex agnus-castus CHASTE TREE	24" BOX
Chitalpa x tashkentensis `Pink Dawn` PINK DAWN CHITALPA	24" BOX

LANDSCAPE KEYNOTES

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17. VIEWING PLATFORM
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20. CORNHOLE COURTS
21. MAILBOX
22. DG TRAIL

LANDSCAPE NOTES

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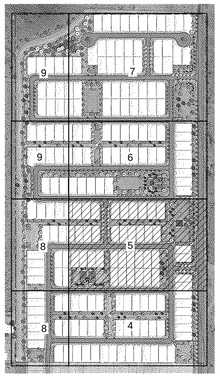
7. FINAL PLANTING DESIGN FOR 147TH AVE SHALL MEET ALL REQUIREMENTS FOR THE CITY OF SURPRISE AND SHOULD RELATE TO THE EXISTING DESIGN WITHIN THE RANCHO MERCADO COMMUNITY.

KEY MAP



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BONITA RANCH • LANDSCAPE PLAN

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
66017
BRITTANY GEIST

0 20' 40' 80'
SCALE: 1" = 40'-0"

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L:\20001710-BONITA RANCH - LS\6-20001710-LANDSCAPE\2-DD\3-SHEETS\LANDSCAPE PLANS_L1.01-L1.06.dwg

LANDSCAPE NOTES

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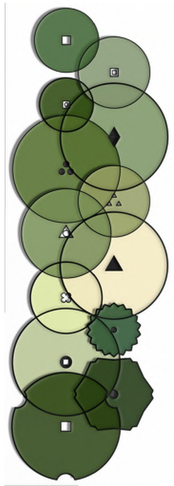
MATCHLINE I, SEE SHEET 7

LANDSCAPE MATERIAL SCHEDULE



OVERALL LANDSCAPE PALETTE

ITEM	SIZE
Acacia aneura MULGA	24" BOX
Acacia salicina WILLOW ACACIA	24" BOX
Acacia willardiana PALO BLANCO	24" BOX
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Chitalpa x tashkentensis `Pink Dawn` PINK DAWN CHITALPA	24" BOX

LANDSCAPE KEYNOTES

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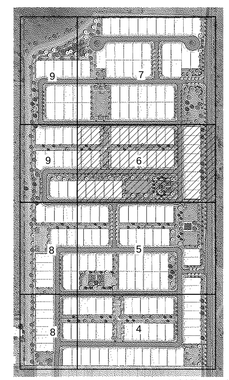
22. DG TRAIL

KEY MAP



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BONITA RANCH • LANDSCAPE PLAN

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
66017
BRITTANY GEIST
Date Signed 09/09/2022

0 20' 40' 80'
SCALE: 1" = 40'-0"

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FS20-823 3RD SUBMITTAL

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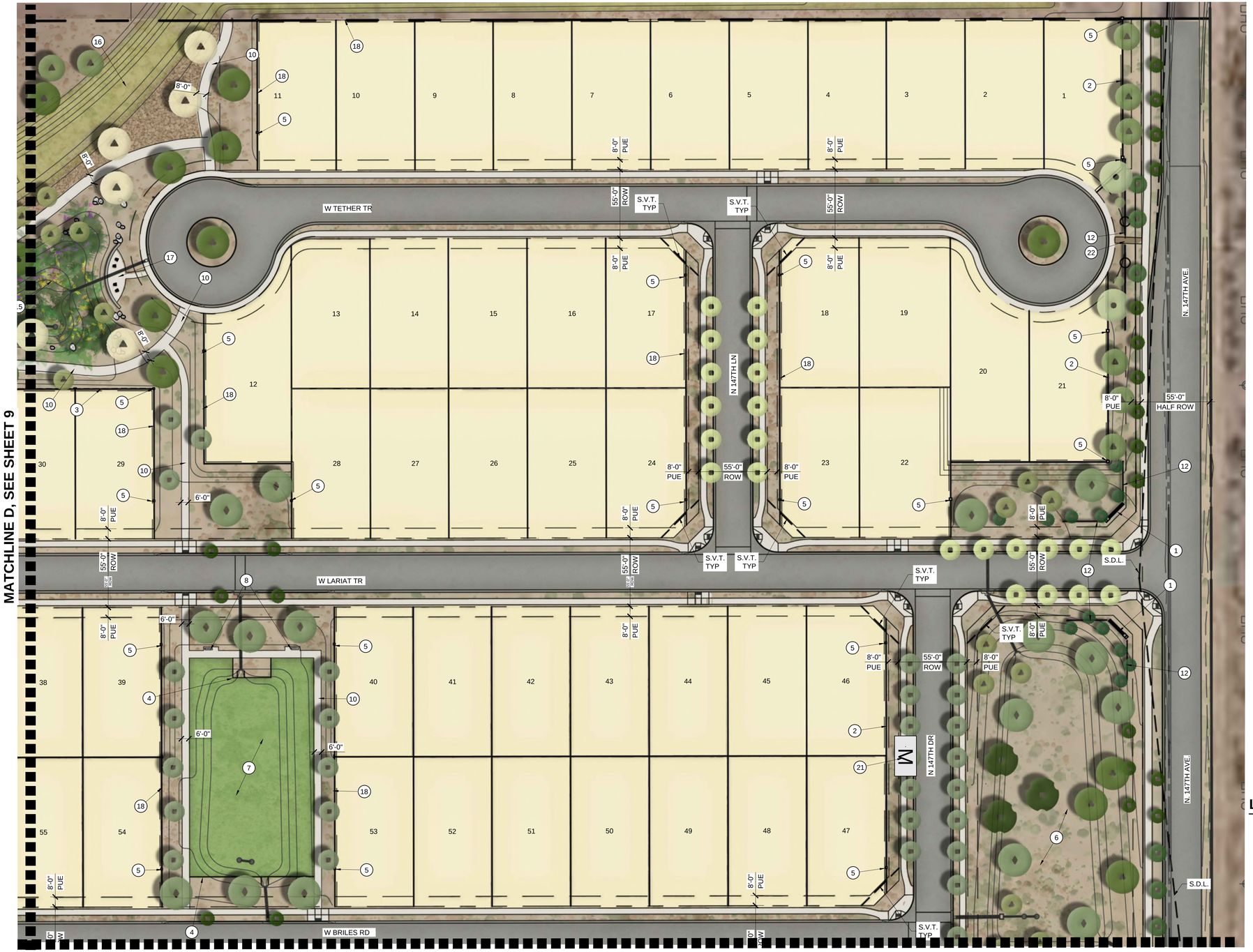
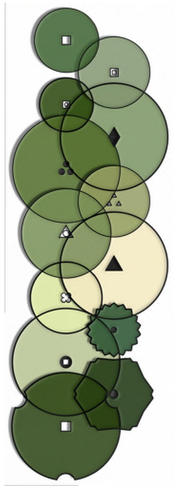


MATCHLINE D, SEE SHEET 9

MATCHLINE I, SEE SHEET 6

LANDSCAPE MATERIAL SCHEDULE



OVERALL LANDSCAPE PALETTE

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LANDSCAPE KEYNOTES

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LANDSCAPE NOTES

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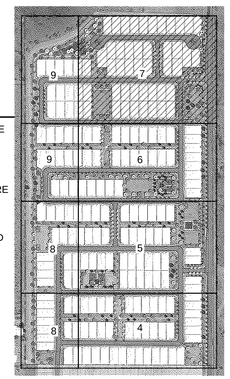
KEY MAP



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BONITA RANCH • LANDSCAPE PLAN

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
66017
BRITTANY GEIST
Date Signed 06/30/2021

0 20' 40' 80'
SCALE: 1" = 40'-0"

For Illustrative purposes only. Subject to change without notice.

FS20-823 3RD SUBMITTAL

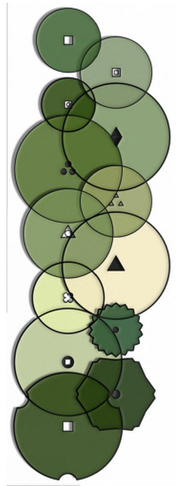
L:\20001710-BONITA RANCH - LS\6-20001710-LANDSCAPE\2-DD\3-SHEETS\LANDSCAPE PLANS_L1.01-L1.06.dwg

MATCHLINE F, SEE RIGHT BELOW

MATCHLINE H, SEE SHEET 9

MATCHLINE F, SEE ABOVE LEFT

LANDSCAPE MATERIAL SCHEDULE



OVERALL LANDSCAPE PALETTE ITEM	SIZE
Acacia aneura MULGA	24" BOX
Acacia salicina WILLOW ACACIA	24" BOX
Acacia willardiana PALO BLANCO	24" BOX
Fraxinus velutina 'Rio Grande' FAN-TEX ASH	24" BOX
Parkinsonia florida BLUE PALO VERDE	24" BOX
Parkinsonia microphylla FOOTHILLS PALO VERDE	24" BOX
Prosopis velutina VELVET MESQUITE	24" BOX
Prosopis x 'AZT' AZT THORNLESS MESQUITE	24" BOX
Quercus virginiana LIVE OAK	24" BOX
Sophora secundiflora TEXAS MOUNTAIN LAUREL	24" BOX
Ulmus parvifolia EVERGREEN ELM	24" BOX
Vitex agnus-castus CHASTE TREE	24" BOX
Chitalpa x tashkentensis `Pink Dawn` PINK DAWN CHITALPA	24" BOX

LANDSCAPE KEYNOTES

1. ENTRY MONUMENT
2. THEME WALL
3. PARTIAL VIEW WALL
4. CONCRETE HEADER
5. DECORATIVE COLUMN
6. DETENTION AREA
7. OPEN TURF
8. SEATING AREA
9. RAMADA
10. LANDSCAPE CONCRETE SIDEWALK
11. HALF BASKETBALL COURT
12. PRECAST CONCRETE RAIL FENCE
13. PLAYGROUND
14. TABLE TENNIS
15. BUTTERFLY GARDEN
16. DRAINAGE CHANNEL
17. VIEWING PLATFORM
18. DOOLEY WALL
19. SEATWALL
20. CORNHOLE COURTS
21. MAILBOX
22. DG TRAIL

LANDSCAPE NOTES

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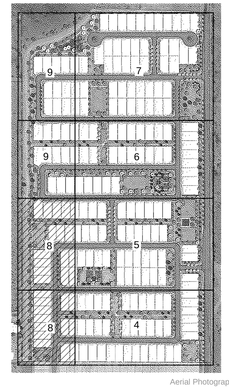
KEY MAP



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BONITA RANCH • LANDSCAPE PLAN

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
66017
BRITTANY GEIST

0 20' 40' 80'
SCALE: 1" = 40'-0"

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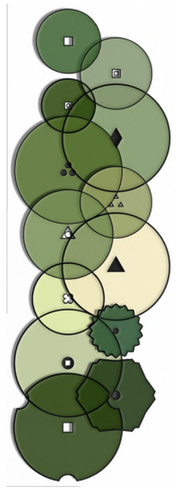
LANDSCAPE MATERIAL SCHEDULE



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LANDSCAPE NOTES

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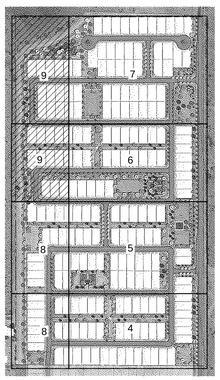

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BONITA RANCH • LANDSCAPE PLAN

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
66017
BRITTANY
GEIST
STATE OF ARIZONA

0 20' 40' 80'
SCALE: 1" = 40'-0"

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FS20-823 3RD SUBMITTAL

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LANDSCAPE KEYNOTES

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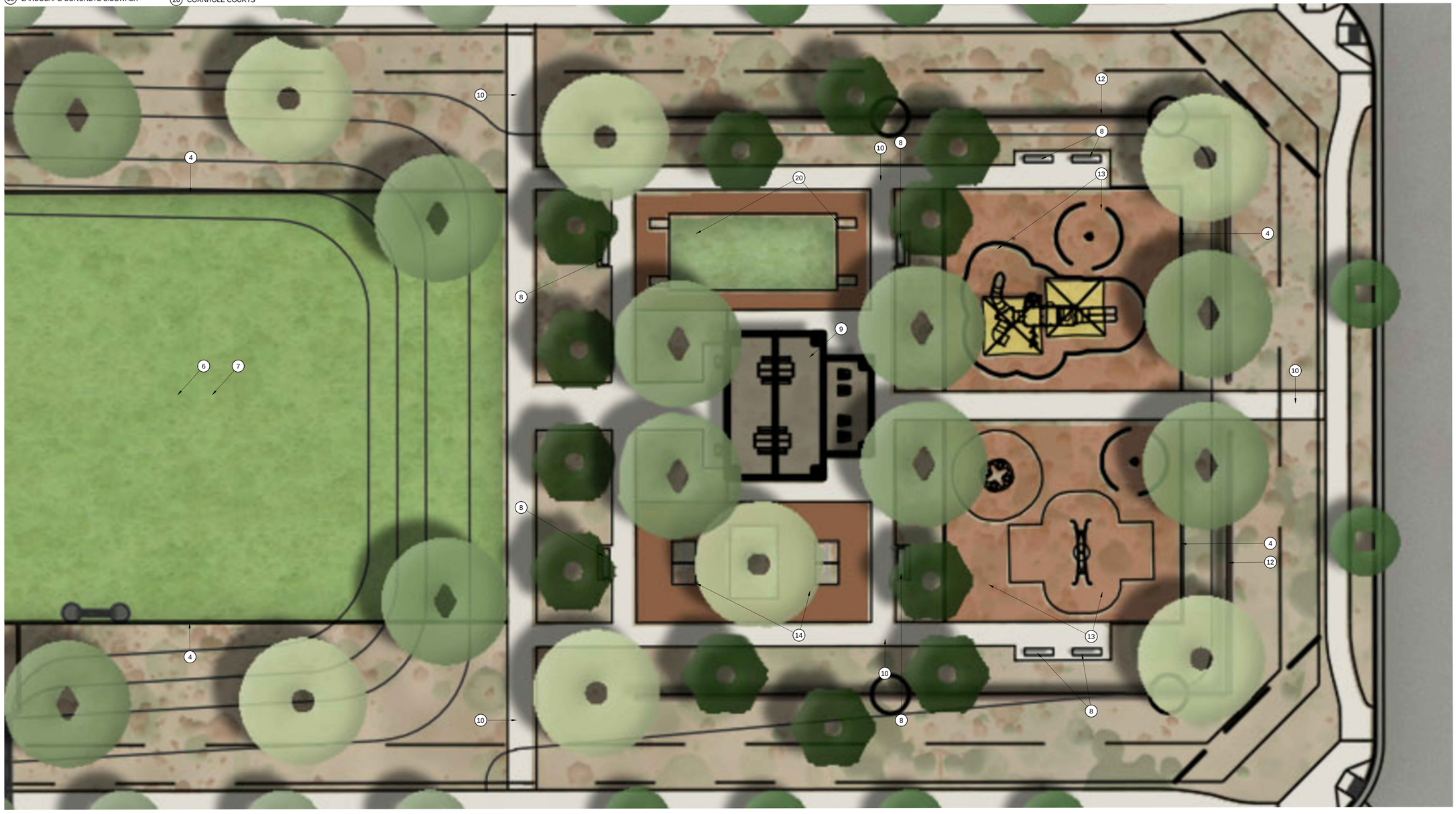
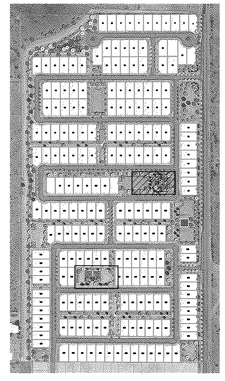


0 5' 10' 20'

SCALE: 1" = 10'-0"

KEY MAP



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BONITA RANCH • **MAIN AMENITY**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
66017
BRITTANY
GEIST
Date signed 06/30/2021

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LANDSCAPE KEYNOTES

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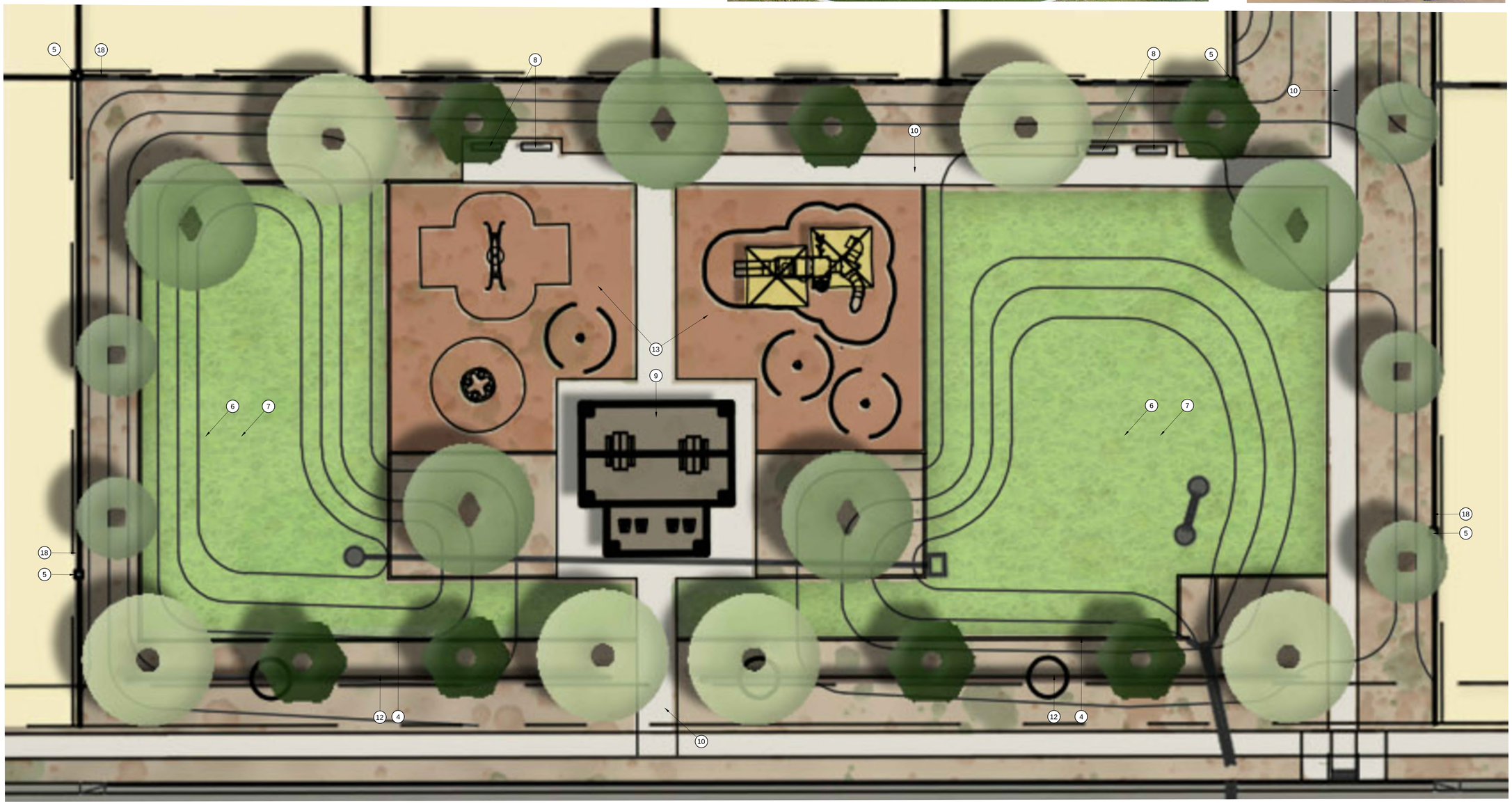
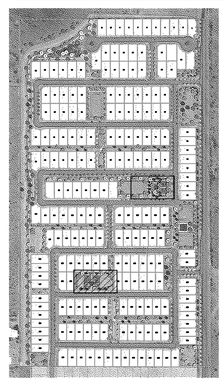


0 5' 10' 20'

SCALE: 1" = 10'-0"

KEY MAP



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BONITA RANCH • SECONDARY AMENITY

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
66017
BRITTANY
GEIST
DATE SIGNED 06/30/2021

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FS20-823 3RD SUBMITTAL

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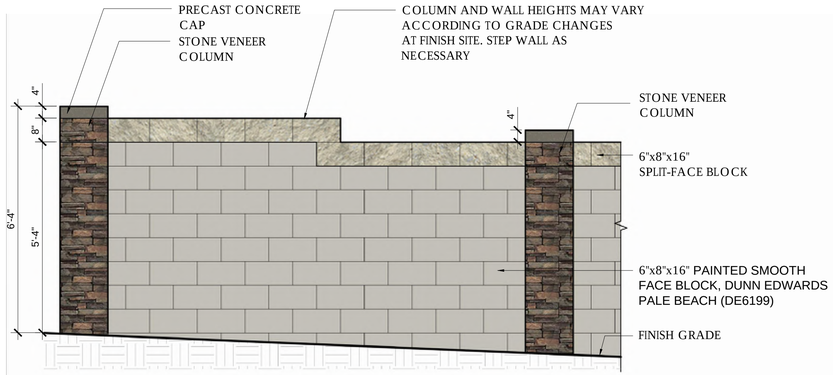
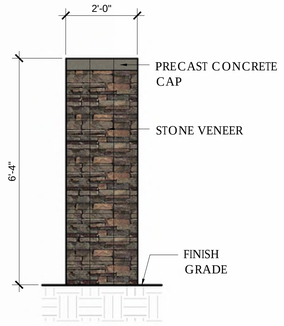


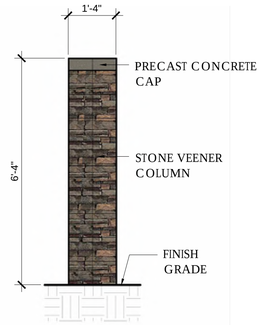
1 Theme Wall

SCALE: 1/2" = 1'-0"



2 Large Theme Column

SCALE: 1/2" = 1'-0"

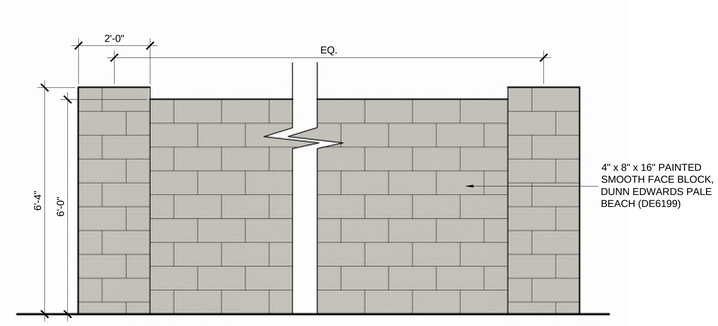


ELEVATION

NOTES:
1) SMALL THEME COLUMNS SHALL BE LOCATE AT ALL LOT LINES BETWEEN ADJACENT LOTS.

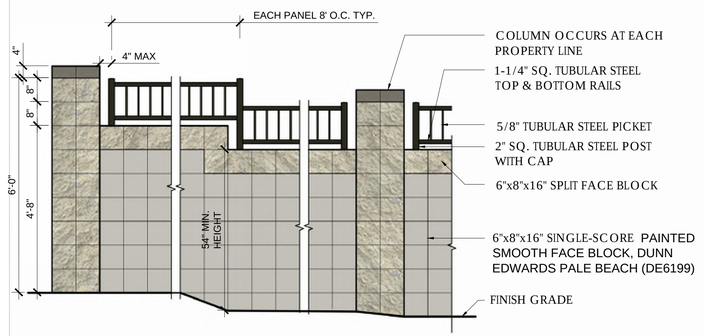
3 Small Theme Column

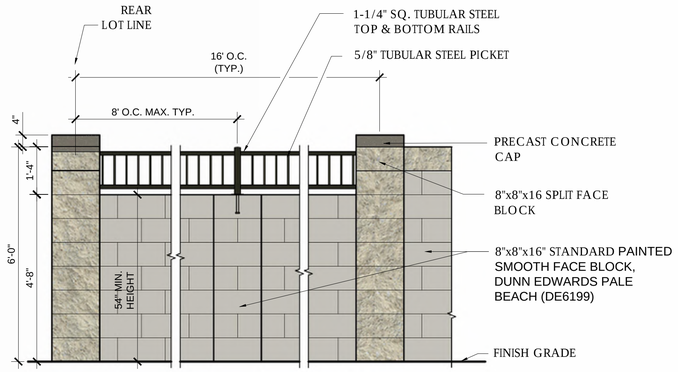
SCALE: 1/2" = 1'-0"



4 Painted Dooley Wall

SCALE: 1/2" = 1'-0"

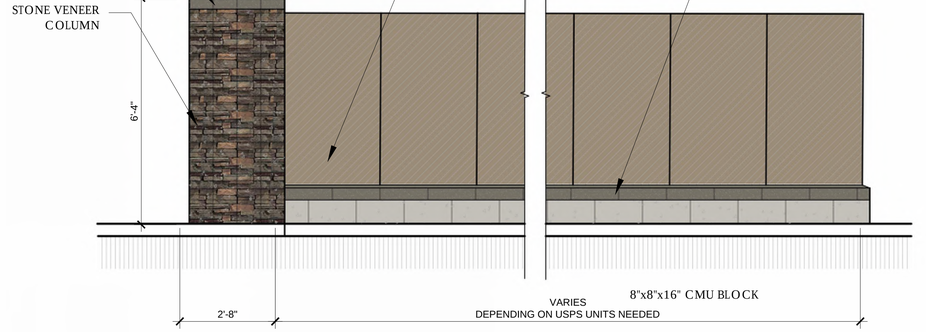




NOTE:
1) COLUMN AND WALL HEIGHTS WILL VARY ACCORDING TO GRADE CHANGES.

5 View Wall

SCALE: 1/2" = 1'-0"



ELEVATION

NOTE:
1. MAILBOX LOCATION PER UNITED STATES POSTAL SERVICE
2. ADEQUATE LIGHTING WILL BE PROVIDED IN MAILBOX LOCATION.
3. MAILBOX WILL BE ACCESSIBLE PER A.D.A. REQUIREMENTS.

6 Mail Box Cluster

SCALE: 1/2" = 1'-0"

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BONITA RANCH • HARDSCAPE DETAILS

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
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BRITTANY GEIST
Date Signed 06/30/2021

FS20-823 3RD SUBMITTAL

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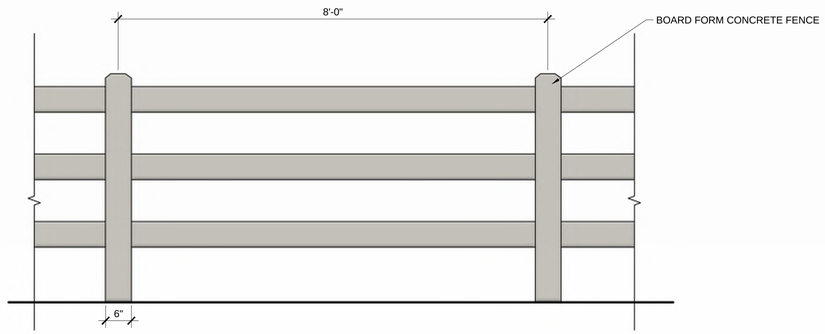
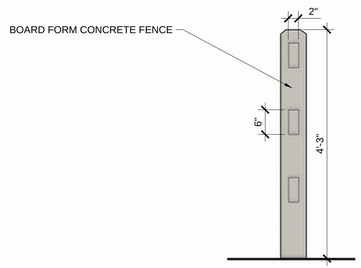


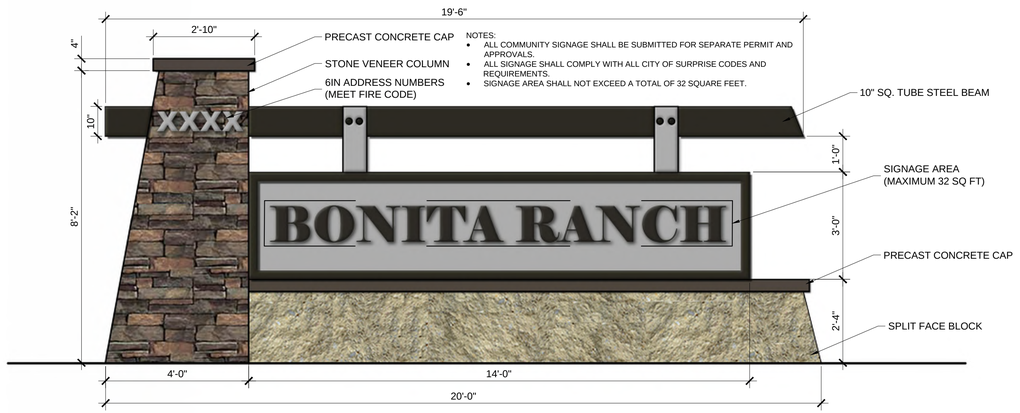
1 Rail Fence

SCALE: 3/4" = 1'-0"



2 Rail Fence Post

SCALE: 3/4" = 1'-0"



NOTES:
- ALL COMMUNITY SIGNAGE SHALL BE SUBMITTED FOR SEPARATE PERMIT AND APPROVALS.
- ALL SIGNAGE SHALL COMPLY WITH ALL CITY OF SURPRISE CODES AND REQUIREMENTS.
- SIGNAGE AREA SHALL NOT EXCEED A TOTAL OF 32 SQUARE FEET.

3 Entry Monument

SCALE: 1/2" = 1'-0"

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BONITA RANCH • **HARDSCAPE DETAILS**

SURPRISE, ARIZONA
06/30/2021
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LEGEND

- THEME WALL
- PRECAST CONCRETE RAIL FENCE
- PARTIAL VIEW WALL
- PAINTED DOOLEY WALL
- IN-LINE COLUMN
- COLUMN
- ENTRY MONUMENT
- M MAILBOX LOCATIONS

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BONITA RANCH • **WALL PLAN**

- SURPRISE, ARIZONA
- 06/30/2021
- # 20001710
- KAX GROUP

EXPIRES 03/31/24
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CERTIFICATE NO.
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BRITTANY
GEIST
STATE OF ARIZONA

0 50' 100' 200'
SCALE: 1" = 100'-0"

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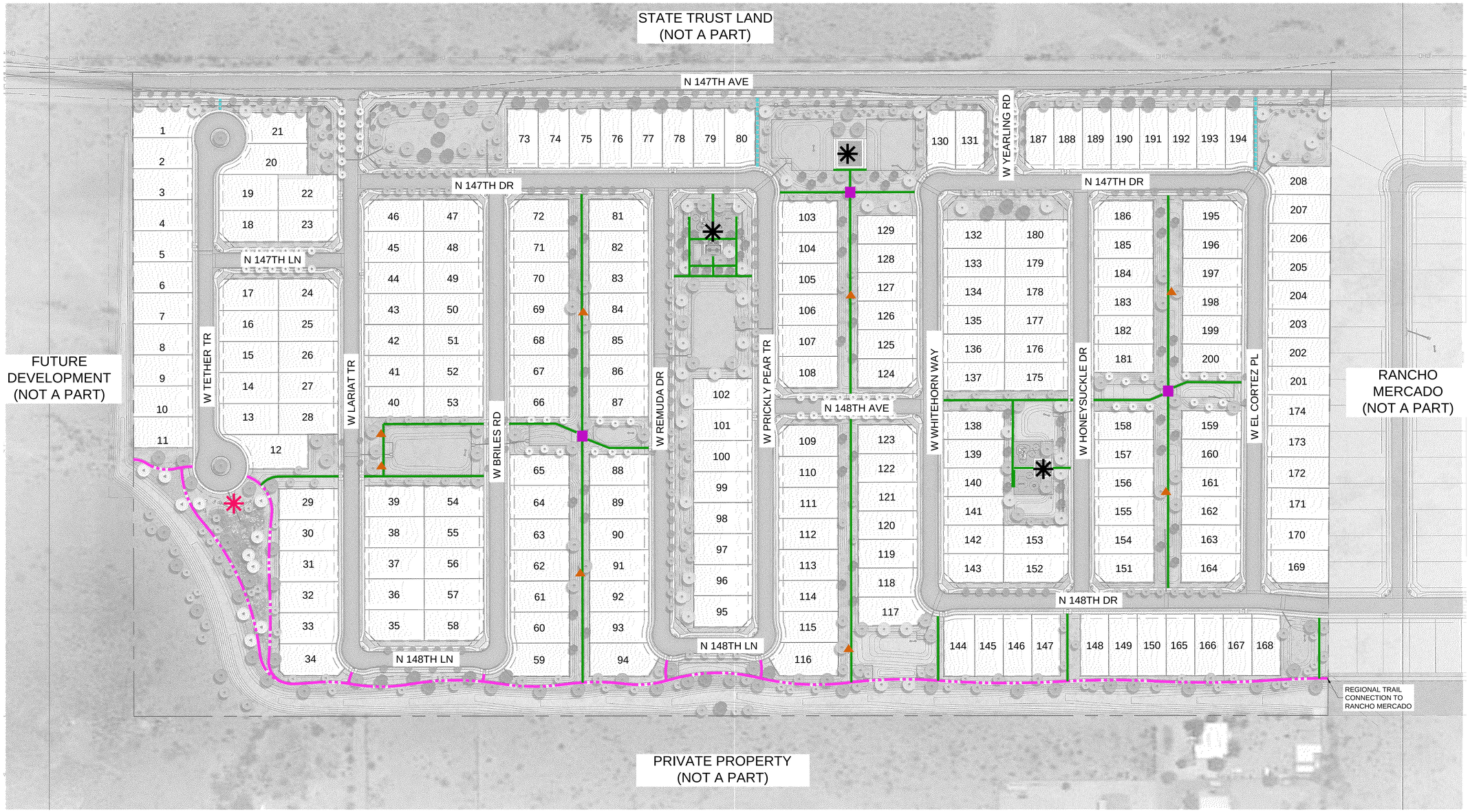
FS20-823 3RD SUBMITTAL



LEGEND

- ACTIVE AMENITY
- NATURE OVERLOOK AND BUTTERFLY GARDEN
- 6FT INTERNAL CONCRETE TRAIL
- 8FT REGIONAL CONCRETE TRAIL
- 8FT DG TRAIL
- TRAIL PLAZA
- SEATING NODES

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BONITA RANCH • **TRAIL SYSTEM**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
66017
BRITTANY GEIST
Date signed 06/30/2021

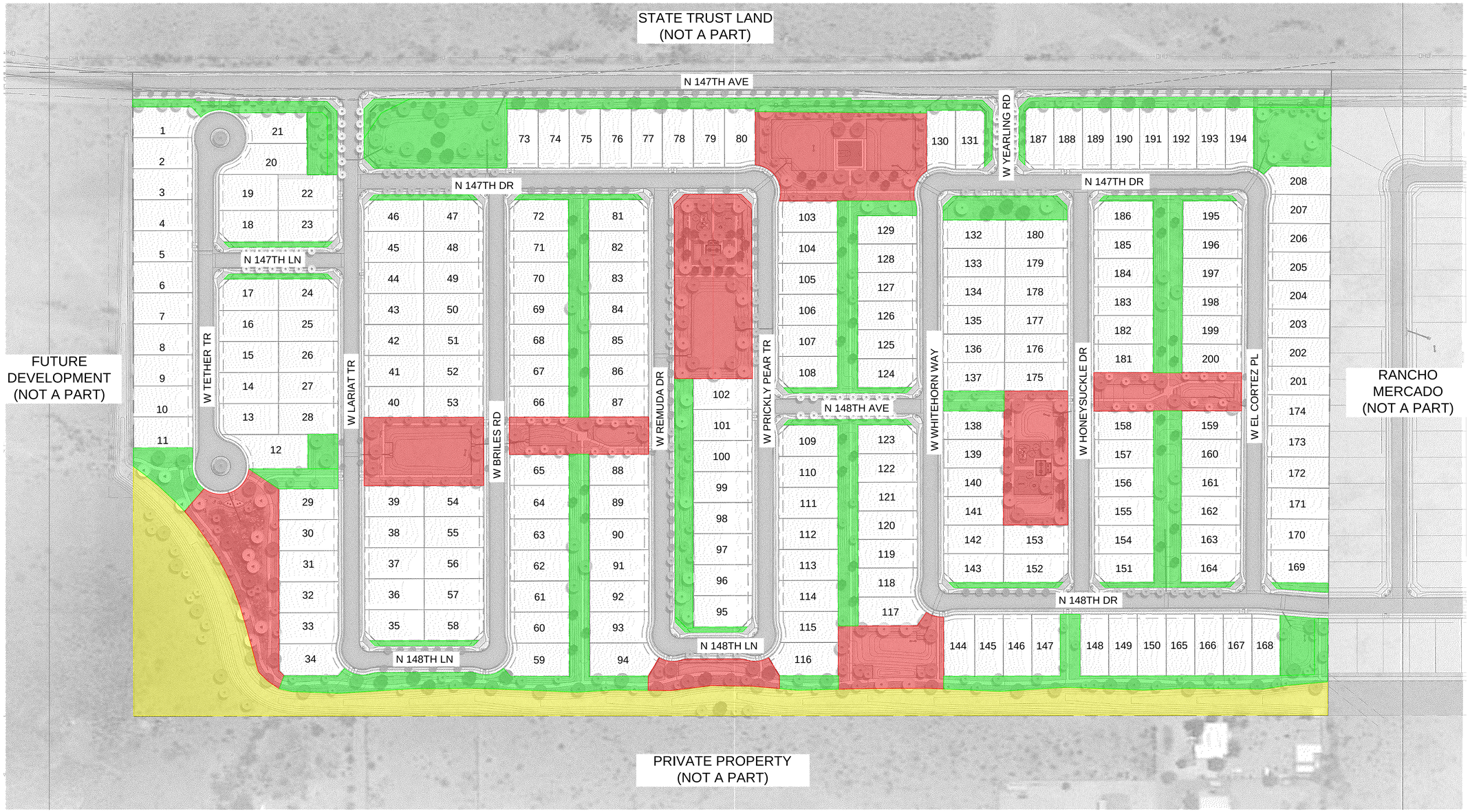
0 50' 100' 200'
SCALE: 1" = 100'-0"

For illustrative purposes only. Subject to change without notice.

FS20-823 3RD SUBMITTAL

LEGEND

	ACTIVE OPEN SPACE	7.23 AC	35%
	PASSIVE OPEN SPACE	8.45 AC	41%
	NATURAL OPEN SPACE	4.79 AC	23%
	TOTAL OPEN SPACE	20.47 AC	



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Aerial Photography Date:

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

BONITA RANCH • OPEN SPACE CALCULATIONS

- SURPRISE, ARIZONA
- 06/30/2021
- # 20001710
- KAX GROUP

EXPIRES 03/31/24
REGISTERED LANDSCAPE ARCHITECT
66017
BRITTANY
GEIST
DATE SIGNED 06/30/2021

0 50' 100' 200'
SCALE: 1" = 100'-0"

For Illustrative purposes only. Subject to change without notice.

FS20-823 3RD SUBMITTAL

L:\20001710-BONITA RANCH - LS\6-20001710-LANDSCAPE\2-DD\3-SHEETS\WALL PLAN.dwg

DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

25 October 2022

Mr. Christopher P. Toale
Director, Community Initiatives Team
56th Fighter Wing
14185 West Falcon Street
Luke AFB AZ 85309-1629

Ms. Christina Sexton
City of Surprise Planning Department
16000 N. Civic Center Plaza
Surprise AZ 85374

Re: FS22-0198; Bonita Ranch Final Plat (APN: 503-54-014B)

Dear Ms. Sexton

Thank you for the opportunity to provide comments on the Bonita Ranch Final Plat. The site is located south of the southwest corner of 147th Ave and Jomax Rd in Surprise, AZ. The final plat identifies 208 single family lots on approximately 72 acres for a 2.9 du/ac density. The site is located 5 miles outside of the Luke AFB Aux-1 2004 65 Ldn, "high noise or accident potential zone" as defined by A.R.S. § 28-8461 and is inside the "territory in the vicinity of a military airport" also defined by A.R.S. § 28-8461.

In an effort to promote a more compatible co-existence Luke AFB follows the guidelines in the Graduated Density Concept (GDC). The GDC proposes, in the absence of a more restrictive state, county or municipal general or comprehensive plan, graduating densities away from the 65 Ldn as follows: a maximum of 2 du/acre from the 65 Ldn to 1/2 mile, a maximum of 4 du/acre from 1/2 to 1 mile, and a maximum of 6 du/acre from 1 to 3 miles.

This project with a density of 2.9 du/ac falls within the above guidelines; therefore, will not negatively impact the flying operations at Luke AFB. If approved, Bonita Ranch will be located within the "territory in the vicinity of a military airport," and will be subjected to approximately 165 over flights a day. We recommend a strong notification program on the part of the applicant to inform potential residents about Luke AFB operations.

If there are any questions, please contact my Community Planner, Mr. Mark James at (623) 856-9981.

Sincerely

TOALE.CHRISTOPHER.P.1039696165 Digitally signed by TOALE.CHRISTOPHER.P.1039696165 Date: 2022.10.26 21:29:00 -07'00'

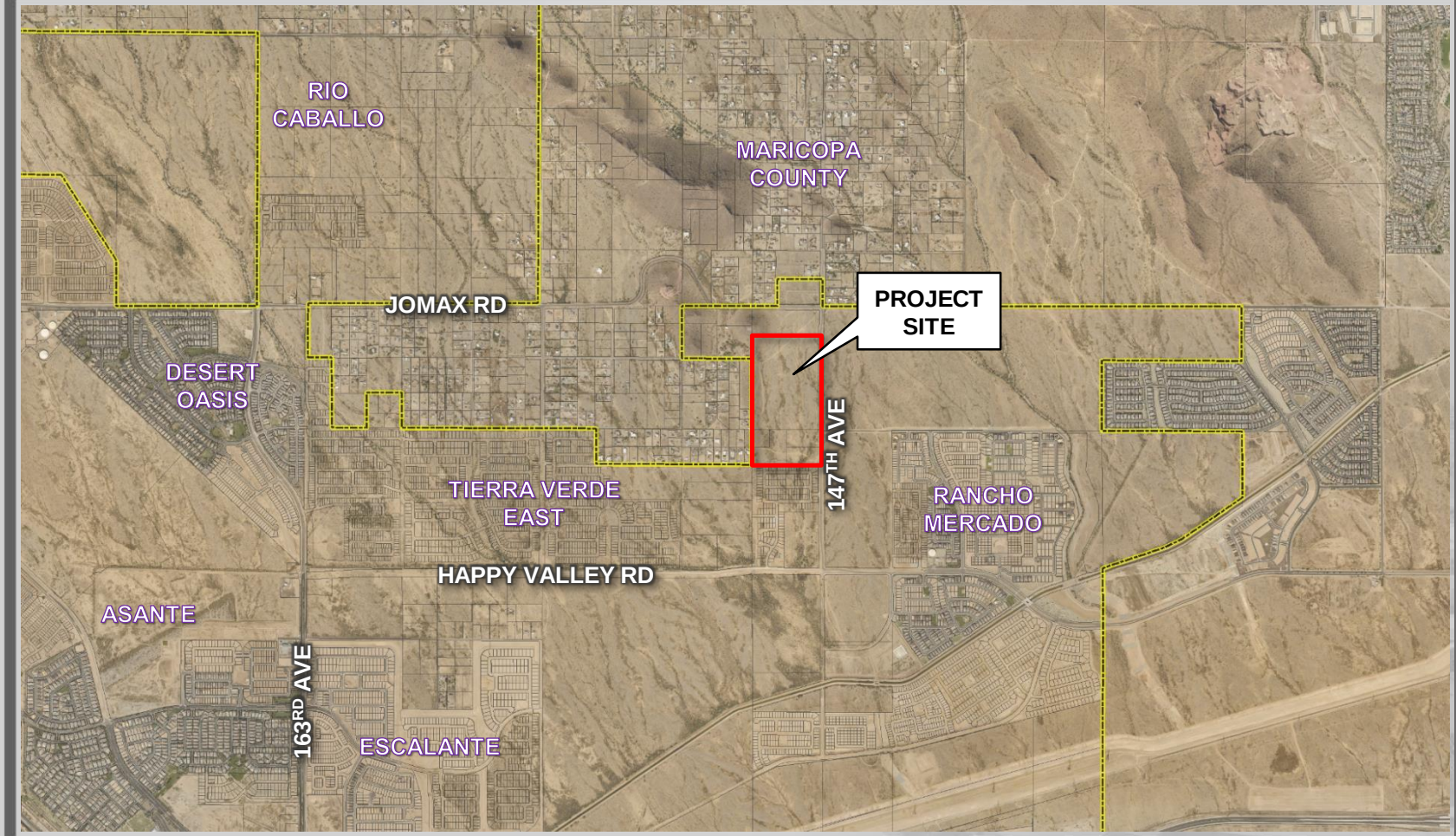
CHRISTOPHER P. TOALE

cc:
Colonel Keagan L. McLeese, Vice Commander, 56th Fighter Wing
Mr. Timothy A. Forero, GS-13, General Law Attorney, 56th Fighter Wing

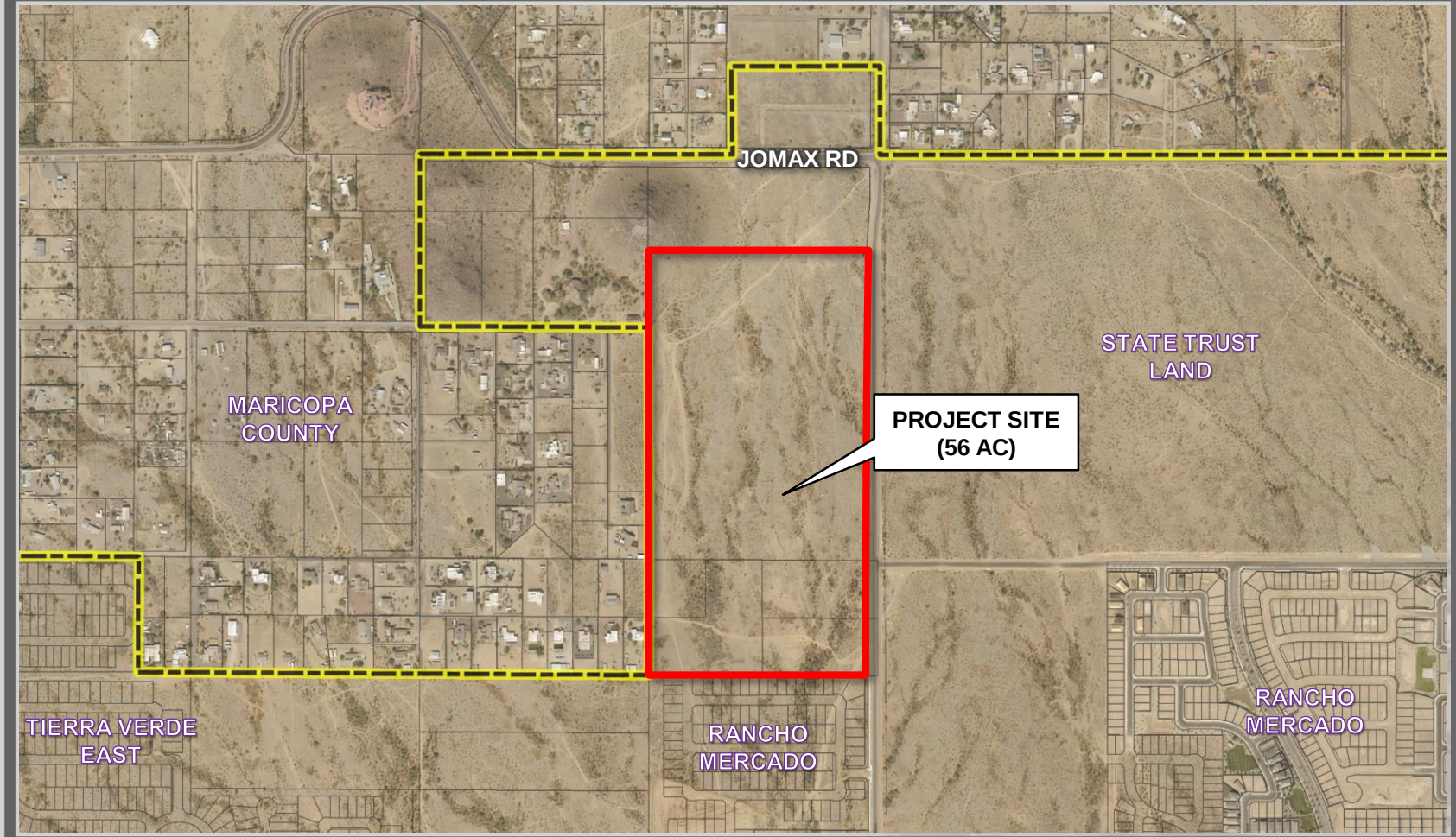
SURPRISE
ARIZONA

FS22-0198
Bonita Ranch Final Plat

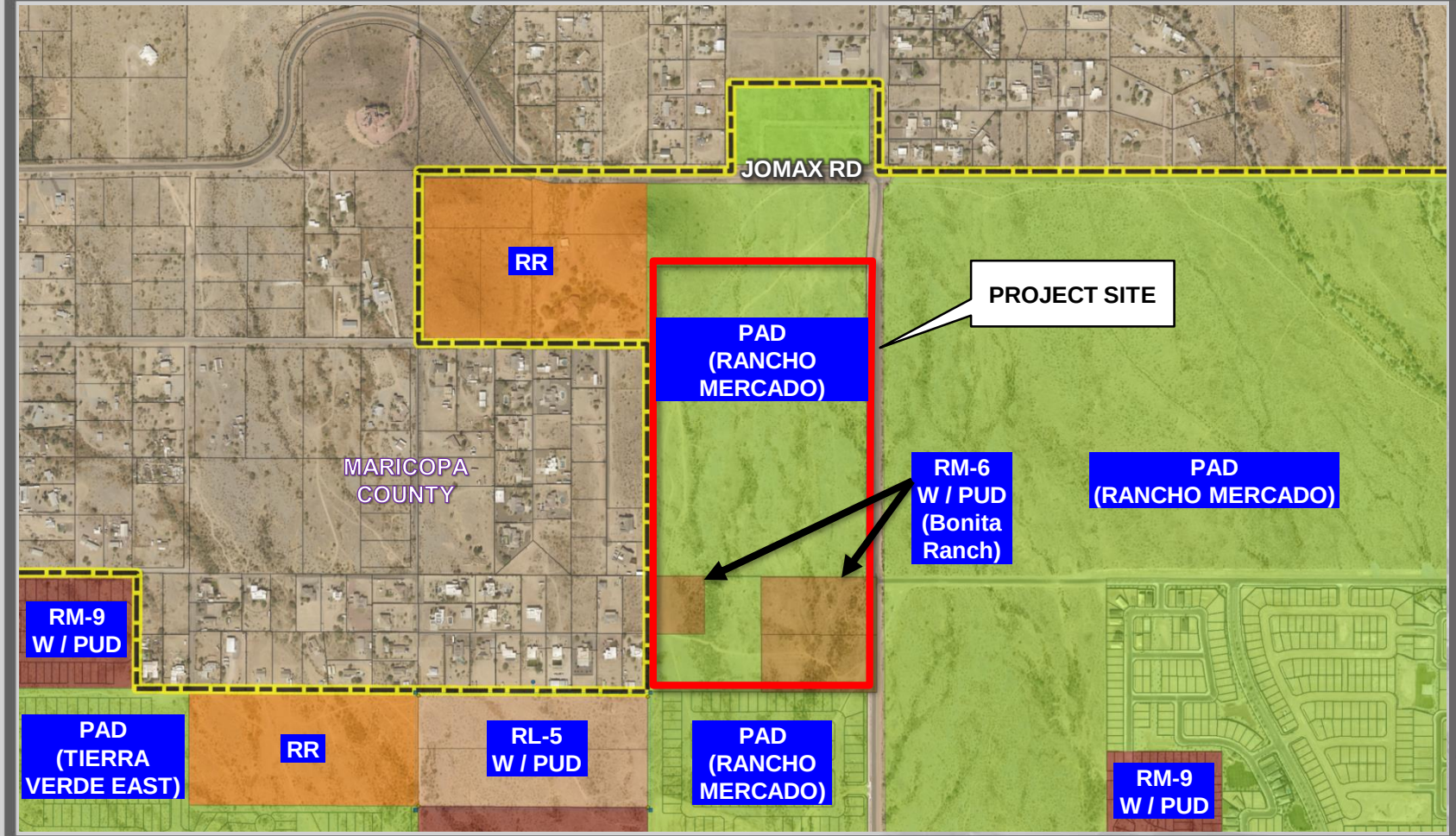
City Council – November 15, 2022



FS22-0198 VICINITY MAP

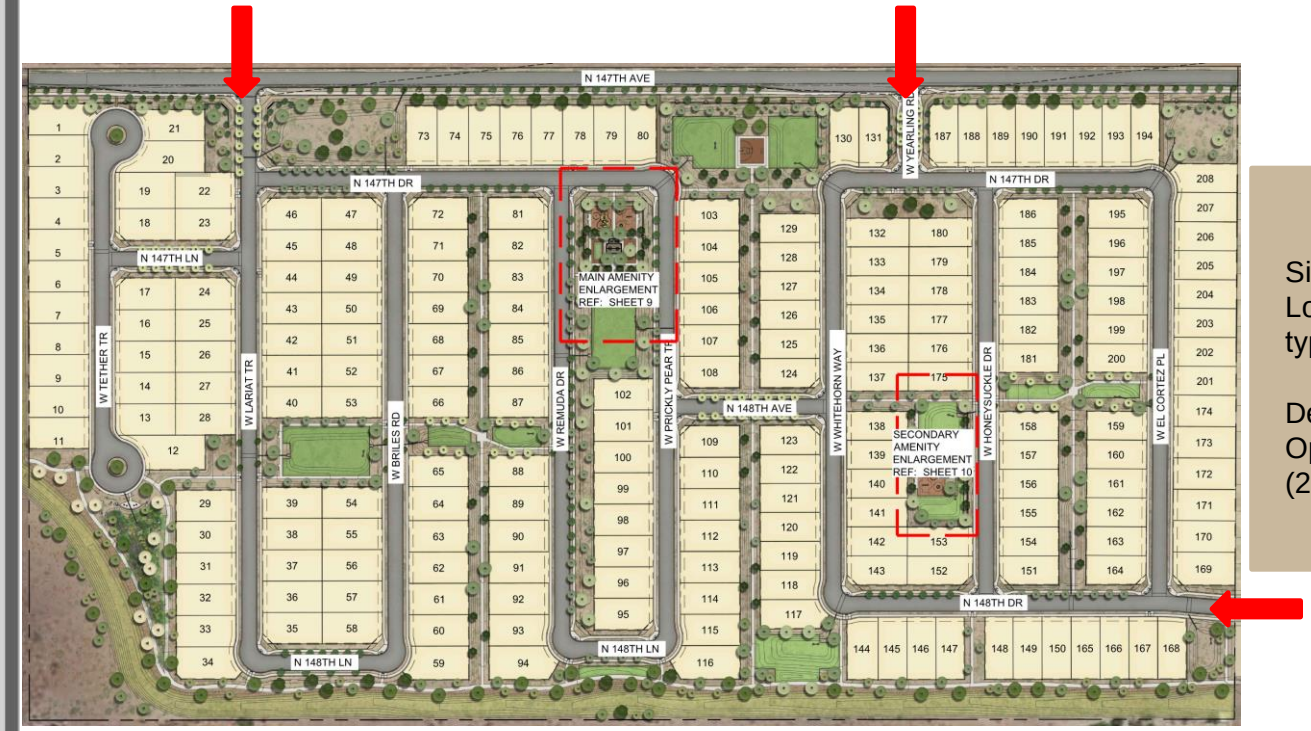


FS22-0198 VICINITY MAP



FS22-0198 ZONING MAP

FS22-0198 FINAL PLAT



Site: 56 net acres
Lots: 208
typical sizes 58’ x 110’
63’ x 115’
Density: 3.71 DU/Ac
Open Space: 20.4 ac (29.3%)

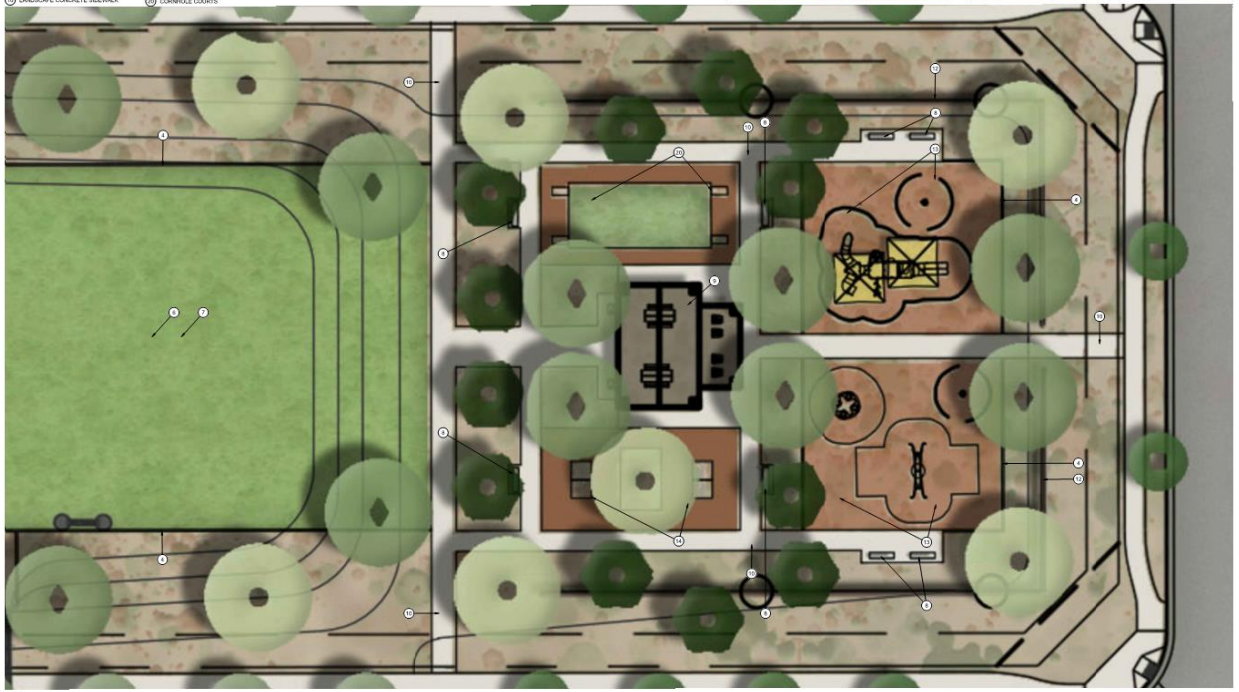
FS22-0198 OPEN SPACE

LEGEND

	ACTIVE OPEN SPACE	7.23 AC	35%
	PASSIVE OPEN SPACE	8.45 AC	41%
	NATURAL OPEN SPACE	4.79 AC	23%
	TOTAL OPEN SPACE	20.47 AC	

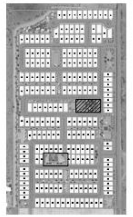
LANDSCAPE KEYNOTES

1. ENTRY MONUMENT
2. THEME WALL
3. PARTIAL VIEW WALL
4. CONCRETE HEADER
5. DECORATIVE COLUMN
6. DETENTION AREA
7. OPEN TURF
8. SEATING AREA
9. RAMADA
10. LANDSCAPE CONCRETE SIDEWALK
11. HALF BASKETBALL COURT
12. PRECAST CONCRETE RAIL FENCE
13. PLAYGROUND
14. TABLE TENNIS
15. BUTTERFLY GARDEN
16. DRAINAGE CHANNEL
17. VIEWING PLATFORM
18. DOOLEY WALL
19. SEATWALL
20. CORNHOLE COURTS



SCALE: 1" = 10'-0"

KEY MAP



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BONITA RANCH • **MAIN AMENITY**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24

For illustrative purposes only. Subject to change without notice.

FS22-623 3RD SUBMITTAL

FS22-0198 AMENITY SITE

LANDSCAPE KEYNOTES

1. ENTRY MONUMENT
2. THEME WALL
3. PARTIAL VIEW WALL
4. CONCRETE HEADER
5. DECORATIVE COLUMN
6. DETENTION AREA
7. OPEN TURF
8. SEATING AREA
9. RAMADA
10. LANDSCAPE CONCRETE SIDEWALK
11. HALF BASKETBALL COURT
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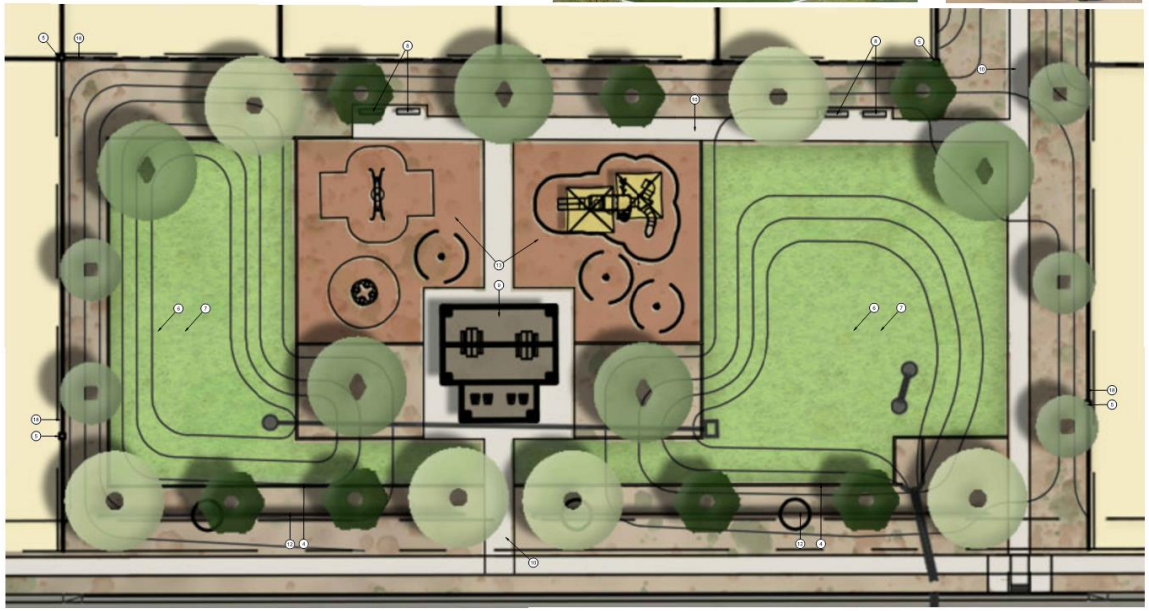
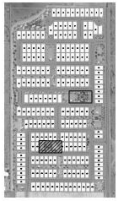


KEY MAP



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BONITA RANCH • **SECONDARY AMENITY**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24

FS22-0198 AMENITY SITE

FS20-823 3RD SUBMITTAL

FS22-0198 TRAIL SYSTEM

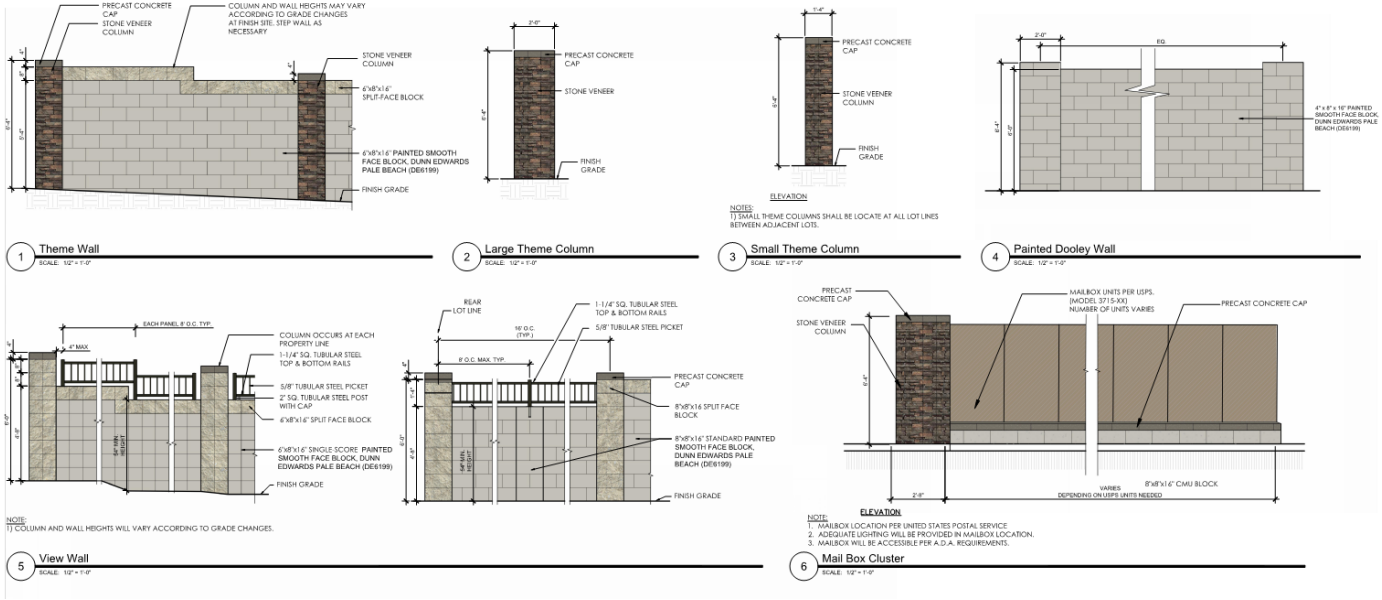
LEGEND

- ACTIVE AMENITY
- NATURE OVERLOOK AND BUTTERFLY GARDEN
- 6FT INTERNAL CONCRETE TRAIL
- 8FT REGIONAL CONCRETE TRAIL
- 8FT DG TRAIL
- TRAIL PLAZA
- SEATING NODES

FS22-0198 WALL PLAN

LEGEND

- THEME WALL
- PRECAST CONCRETE RAIL FENCE
- PARTIAL VIEW WALL
- PAINTED DOOLEY WALL
- IN-LINE COLUMN
- COLUMN
- ENTRY MONUMENT
- M — MAILBOX LOCATIONS



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BONITA RANCH • **HARDSCAPE DETAILS**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24

Aerial Photography Date

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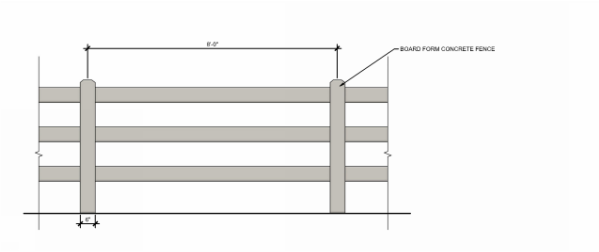
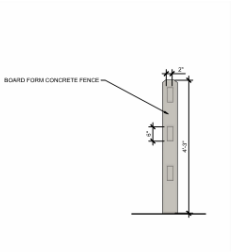
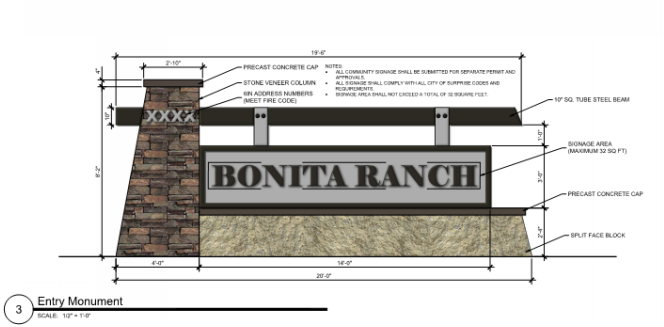
FS20-823 3RD SUBMITTAL



1 Rail Fence
SCALE: 3/4" = 1'-0"



2 Rail Fence Post
SCALE: 3/4" = 1'-0"



3 Entry Monument
SCALE: 1/2" = 1'-0"

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1315 W. 3rd Avenue
Mesa, Arizona 85201
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BONITA RANCH • **HARDSCAPE DETAILS**

SURPRISE, ARIZONA
06/30/2021
20001710
KAX GROUP

EXPIRES 03/31/24

FS22-0198 WALL DETAILS

SURPRISE
ARIZONA

QUESTIONS / COMMENTS?

Thank You

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022
Submitting Department: City Clerk
Staff Recommendations: None

Contact Person: Sherry Aguilar, City Clerk
District: Internal

Consent: No Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action to approve the Council Meeting dates for 2023.

Motion:
I move to approve the Council Meeting dates for 2023.

Background:

Objective Analysis:
This is an action that takes place every year to plan for the following year meeting dates.

Policy Compliant:
Yes

Financial Impact:
N/A

Budget Impact:
N/A

FTE Impact:

ATTACHMENTS:
1. 2023 AGENDA TIMELINE AND MEETINGS

2023 COUNCIL WORK SESSION/REGULAR MEETING DATES

TUESDAY, JANUARY 3, 2023

TUESDAY, JANUARY 17, 2023

TUESDAY, FEBRUARY 7, 2023

TUESDAY, FEBRUARY 21, 2023

TUESDAY, MARCH 7, 2023

TUESDAY, MARCH 21, 2023

TUESDAY, APRIL 4, 2023

TUESDAY, APRIL 18, 2023

TUESDAY, MAY 2, 2023

TUESDAY, MAY 16, 2023

TUESDAY, JUNE 6, 2023

TUESDAY, JUNE 20, 2023

NO MEETINGS IN JULY 2023 - SUMMER BREAK

TUESDAY, AUGUST 1, 2023

TUESDAY, AUGUST 15, 2023

TUESDAY, SEPTEMBER 5, 2023

TUESDAY, SEPTEMBER 19, 2023

TUESDAY, OCTOBER 3, 2023

TUESDAY, OCTOBER 17, 2023

TUESDAY, NOVEMBER 7, 2023

TUESDAY, NOVEMBER 21, 2023

TUESDAY, DECEMBER 5, 2023

TUESDAY, DECEMBER 19, 2023

Prepared by City Clerk, Sherry Ann Aguilar on 11/07/2022 - Pending Council approval.

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022 Contact Person: LESLIE CARNIE
Submitting Department: Community Development District: District 1
Staff Recommendations:

Consent: Yes Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action pertaining to approval of the Final Plat entitled, "Heritage Asante – Parcel 8 and dated September 2022, a property generally located west of Asante Blvd. and south of Pat Tillman Blvd; Case FS22-0590.

Motion:
I move to approve the Final Plat entitled, "Heritage Asante – Parcel 8" and dated September 2022.

Background:
The subject request involves a Final Plat for Heritage Asante Parcel 8. The proposed Final Plat will create 88 single-family lots. This final plat is consistent with the Preliminary Plat approved under FS21-330.

Objective Analysis:
The subject Final Plat meets the requirements of the Paradiso Asante PUD, in addition to other requirements as set forth in the City of Surprise LDO. All City reviewing departments have reviewed the request and expressed no concerns.

Policy Compliant:
The City of Surprise General Plan 2035 shows the subject property as lying within the Neighborhood Character Area, which supports residential development of up to 8 DU/Ac or more, provided appropriate transitions are made between the various neighborhood types included within the character area. At 4.3 DU/Ac, the project most closely aligns with the Suburban Neighborhood type and is consistent with the General Plan.

Financial Impact:
While this item does not have an immediate or direct financial impact, ongoing development activity in the City will inevitably have a future financial impact as additional resources are needed to provide City services.

Budget Impact:

There is no anticipated budget impact related to this item.

FTE Impact:

This item does not have an impact on current staff levels.

ATTACHMENTS:

1. 00 - FS22-0590 - Heritage Asante Parcel 8 - Staff Report
2. 01 – FS22-0590 Heritage Asante Parcel 8 – Vicinity Map
3. 02 – FS22-590 Heritage Asante Parcel 8 – Zoning Map
4. 03 – FS22-0590 Heritage Asante Parcel 8 – Final Plat
5. 04 – FS22-0590 Heritage Asante Parcel 8 – Landscape and Wall Plan
6. 05 – FS22-0590 Heritage Asante Parcel 8 – Luke AFB Letter
7. FS22-0590 Heritage Asante Parcel 8 - Presentation 111522 CC

SURPRISE
ARIZONA

FINAL PLAT

REPORT TO CITY COUNCIL

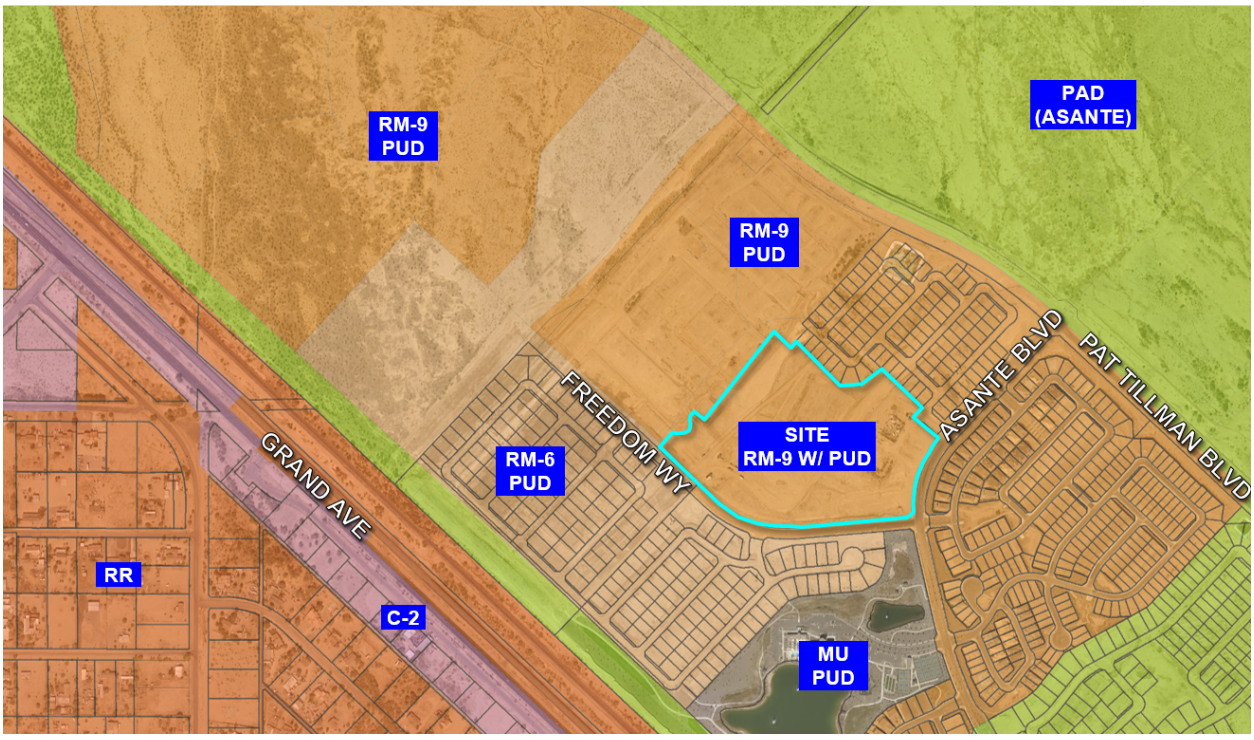
Case:	**FS22-0590**
Project Name:	Heritage Asante Parcel 8 – Final Plat
Council District:	1 - Acacia
City Council Date:	**November 15, 2022**
Planner:	Leslie Carnie, Planner II
Owner:	LCD Asante LLC
Applicant:	Diego Ortiz with Hilgart Wilson, LLC
Request:	Final Plat for an 88 single-family residential division within the Paradiso Asante (Heritage Asante) PUD
Site Location:	Located west of Asante Boulevard and south of Pat Tillman Boulevard.
Site Size:	20.6 acres
Net Density:	4.3 DU/Ac
General Plan Conformance:	The proposed Final Plat is consistent with the Surprise General Plan 2035.
Support Opposition:	None known

PROJECT DESCRIPTION:

The subject request involves a Final Plat for Paradiso (Heritage) Asante Parcel 8. The proposed Final Plat includes the subdivision of the 20.6 acre Parcel 8, of Paradiso (Heritage) Asante, into 88 single-family lots, for a density of 4.3 DU/Ac. The parcel is generally located west of Asante Blvd. and south of Pat Tillman Blvd.

SURROUNDING LAND ZONING:

The following map depicts the existing zoning of the subject site and its surrounds:



RM-9 with PUD Overlay	RM-9 with PUD Overlay	Asante PAD (M/HDR)
RM-6 with PUD Overlay	**RM-9 with PUD Overlay**	RM-9 with PUD Overlay
C-2	MU with PUD Overlay	RM-9 with PUD Overlay

BACKGROUND:

November 3, 1988: A portion of the Asante Planned Area Development was annexed into the City of Surprise by the Mayor and City Council.

October 14, 2004: Another portion of the Asante Planned Area Development was annexed into the City of Surprise by the Mayor and City Council.

November 24, 2004: The Mayor and City Council approved the Asante Planned Area Development.

July 27, 2006: The Asante North Planned Area Development was annexed into the City of Surprise by the Mayor and City Council.

July 27, 2006: The Mayor and City Council approved the Asante North Planned Area Development.

September 19, 2017: The Mayor and City Council approved the rezone for of the subject property for the Asante Paradiso Active Adult Community.

April 16, 2018: The Community Development Director approved a minor zoning amendment to revise the development standards for the subject site under case FS18-078.

February 18, 2022: The Community Development Director approved a minor zoning amendment to revise the development standards for the subject site under case FS21-1002.

April 21, 2022: The applicant filed a request for a Final Plat under case FS22-0590, the subject case.

May 5, 2022: Planning and Zoning Commission approved the Preliminary Plat for Parcels 8 and 10 under case FS21-330.

ANALYSIS AND DISCUSSION:

The proposed plat includes 88 single-family residential lots located within 20.6 acre subdivision within the Paradiso Asante (Heritage Asante) PUD. This equates to a density of 4.3 DU/Ac, which meets the PUD Overlay. The typical lot size in Parcel 8 is 43.5' X 100'.

Access

Primary access to Parcel 8 will be from Freedom Way, with a secondary ingress/egress onto Asante Blvd. through Parcel 9. Parcel 8 will also have a connection to the future Parcel 7 development.

Open Space & Landscaping

This parcel includes 6.34 acres of open space, which includes areas for recreation and trail connections to the overall Paradiso Asante development. Of the 6.34 acres of open space, 1.38 acres is active open space and 4.96 acres is passive open space. Residents of this subdivision also have access to the community pool and amenities in Parcel 4 of this development.

Walls

The wall plans for Parcel 8 are consistent with the Paradiso Asante Development, as are the colors and materials for the theme walls, view fencing, builder walls, and columns.

Utility and Services Table:

Water:	City of Surprise
Wastewater:	City of Surprise
School District:	Dysart Unified

Conformance with Adopted Plans:

The Surprise General Plan 2035 shows the subject property as lying within the Neighborhood Character Area, which supports residential development of up to 8 DU/Ac or more.

Reviewing Agencies:

In addition to the standard city reviewing agencies, who indicate no objections to the requests, Luke Air Force Base, Maricopa Water District, and Maricopa County Department of Transportation (MCDOT) were included in the routing of this case. These agencies also indicate no objections.

Summary:

The subject Final Plat meets the requirements of the Paradiso Asante PUD. All City reviewing departments have reviewed the request and expressed no concerns.

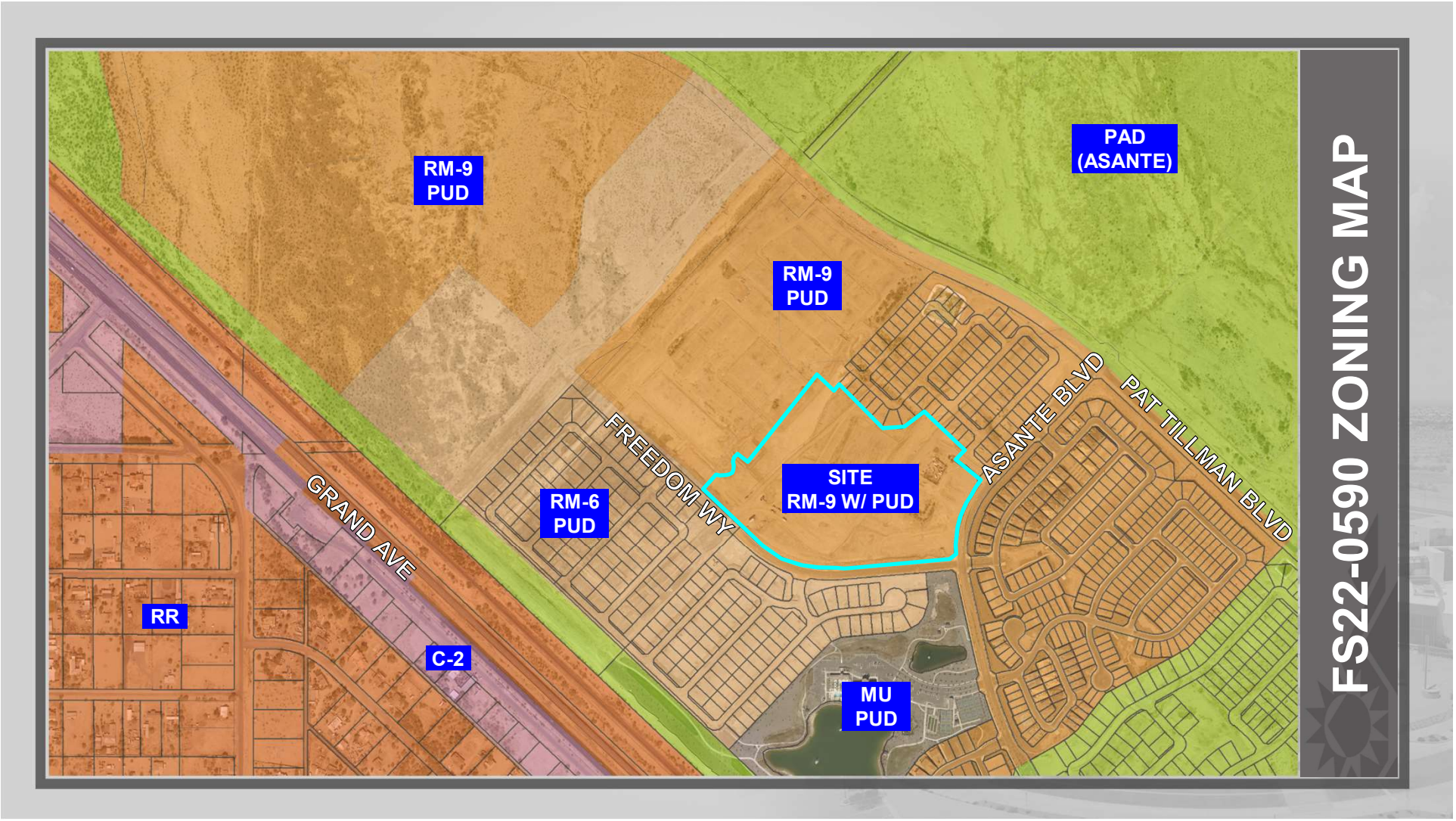
Findings:

- The proposed Final Plat is consistent with the Paradiso Asante PUD as amended under case FS21-1002.
- The proposed Final Plat is consistent with the Preliminary Plat, case FS21-330.
- The proposed Final Plat is consistent with the applicable City of Surprise regulations.
- The reviewing agencies have indicated no objections to the request.

Attachments:

01 Vicinity Map
02 Zoning Map
03 Final Plat
04 Landscape & Wall Plan
05 Luke AFB Letter

ASANTE NORTH
DESERT OASIS
RIO RANCHO
HAPPY VALLEY RD
SITE 20.6 AC
PAT TILLMAN BLVD
163RD AVE
ASANTE
ASANTE BLVD
GRAND AVE
AUSTIN RANCH
FS22-0590 VICINITY MAP


FS22-0590 ZONING MAP
RM-9
PUD
PAD
(ASANTE)
RM-9
PUD
ASANTE BLVD
PAT TILLMAN BLVD
FREEDOM WY
SITE
RM-9 W/ PUD
RM-6
PUD
GRAND AVE
RR
C-2
MU
PUD

FINAL PLAT
OF
HERITAGE ASANTE - PARCEL 8
SURPRISE, ARIZONA
A PORTION OF THE NORTH HALF OF SECTION 11 AND THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 NORTH, RANGE 2 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

DEDICATION

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

KNOW ALL PERSONS BY THESE PRESENTS:
THAT **DRP AZ 5, LLC, A DELAWARE LIMITED LIABILITY COMPANY**, AS OWNER, OF A SUBDIVISION WITHIN THE COUNTY OF MARICOPA, HAS SUBDIVIDED UNDER THE NAME OF **"HERITAGE ASANTE – PARCEL 8"**, BEING WITHIN A PORTION OF THE NORTH HALF OF SECTION 11 AND THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 NORTH, RANGE 2 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AS SHOWN AND PLATTED HEREON AND DOES HEREBY PUBLISH THIS PLAT AS AND FOR THE PLAT OF SAID **"HERITAGE ASANTE – PARCEL 8"** AND DECLARES THAT THIS PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF EACH LOT, TRACT, STREET, AND EASEMENTS CONSTITUTING SAME, AND THAT EACH LOT, TRACT, STREET, AND EASEMENT SHALL BE KNOWN BY THE NUMBER, LETTER, AND/OR NAME GIVEN TO EACH RESPECTIVELY AS SHOWN ON THIS PLAT.

TRACT A IS HEREBY DECLARED AS PRIVATE ACCESSWAY TO BE OWNED AND MAINTAINED BY **HERITAGE ASANTE HOME OWNERS ASSOCIATION, AN ARIZONA NON–PROFIT CORPORATION**, AN EASEMENT FOR PUBLIC WATER AND SEWER, REFUSE COLLECTION, DRAINAGE AND EMERGENCY AND SERVICE TYPE VEHICLE ACCESS IS HEREBY DEDICATED TO THE PUBLIC OVER TRACT A.

OWNER HEREBY GRANTS TO THE PUBLIC A PERPETUAL NON–EXCLUSIVE EASEMENT IN, UPON, OVER, UNDER, THROUGH, AND ACROSS THE AREAS DESIGNATED AS PUBLIC UTILITY EASEMENTS AS SHOWN ON THE PLAT FOR THE PURPOSE OF ACCESSING, INSTALLING, CONSTRUCTING, MAINTAINING, REPAIRING, REPLACING AND UTILIZING PUBLIC UTILITIES.

OWNER HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL NON–EXCLUSIVE EASEMENT OVER, UNDER, UPON AND ACROSS ALL AREAS DESIGNATED ON THE PLAT AS WATER/SEWER LINES, MANHOLES, FIRE HYDRANTS AND WATER METERS FOR THE PURPOSE OF INSTALLING, CONSTRUCTING, MAINTAINING, REPAIRING, REPLACING AND UTILIZING THE WATER/SEWER LINES, MANHOLES, FIRE HYDRANTS AND WATER METERS.

OWNER HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL NON–EXCLUSIVE EASEMENT OVER, UPON AND ACROSS THE AREAS DESIGNATED AS SIGHT VISIBILITY TRIANGLES FOR THE PURPOSE OF ENSURING THAT THESE AREAS REMAIN FREE OF SIGHT VISIBILITY OBSTRUCTIONS.

OWNER HEREBY GRANTS TO THE UNITED STATES OF AMERICA DEPARTMENT OF THE AIR FORCE ("USAF") AN AVIGATION EASEMENT OVER AND ACROSS THIS PLAT AND EVERY LOT AND PARCEL THEREOF, WHICH EASEMENT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE RIGHT OF FLIGHT OF AIRCRAFT OVER THIS PLAT, TOGETHER WITH ITS ATTENDANT NOISE, VIBRATIONS, FUMES, DUST, FUEL AND LUBRICANT PARTICLES, AND ALL OTHER EFFECTS THAT MAY BE CAUSED BY THE OPERATION OF AIRCRAFT LANDING AT, OR TAKING OFF FROM, OR OPERATING AT OR ON LUKE AIR FORCE BASE AND AUXILIARY FIELD.

OWNER HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL CROSS ACCESS EASEMENT ACROSS THE PLAT INCLUDING ROADS AND STREETS, OPEN SPACES, COMMUNITY FACILITIES, TRACTS, SIDEWALKS, DRAINAGE BASINS AND ANY PROPERTY WITHIN THE PLAT OWNED BY THE HOMEOWNERS ASSOCIATION FOR THE PURPOSES OF PROVIDING CONTINUOUS AND UNINTERRUPTED INGRESS AND EGRESS FOR EMERGENCY VEHICLES.

OWNER HEREBY GRANTS TO THE CITY OF SURPRISE A PERPETUAL EASEMENT ACROSS THE PLAT INCLUDING ROADS AND STREETS, OPEN SPACES, COMMUNITY FACILITIES, TRACTS, SIDEWALKS, DRAINAGE BASINS AND ANY PROPERTY WITHIN THE PLAT OWNED BY THE HOMEOWNERS ASSOCIATION FOR THE PURPOSE OF PROVIDING CONTINUOUS AND UNINTERRUPTED INGRESS AND EGRESS FOR TRASH COLLECTION VEHICLES.

OWNER HEREBY GRANTS TO THE CITY OF SURPRISE AN ODOR EASEMENT OVER, UPON AND ACROSS THIS PLAT AND EVERY LOT AND PARCEL THEREOF, WHICH EASEMENT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE RIGHT TO INVADE WITH ODORS, FUMES, SMELLS, AND PHYSICAL AIRBORNE PARTICULATES CAUSED BY THE OPERATION AND MAINTENANCE OF THE CITY'S WATER RECLAMATION FACILITIES.

ALL IMPROVEMENTS, FOR STREETS AND PUBLIC UTILITIES OWNED AND OPERATED BY THE CITY, INSTALLED OR CONSTRUCTED BY OWNER WITHIN THE PUBLIC RIGHTS–OF–WAY, THE EASEMENTS, OR ANY TRACTS OR PARCELS HEREBY DEDICATED TO THE CITY OF SURPRISE SHALL BE DEEMED TO HAVE BEEN DEDICATED BY OWNER TO THE CITY UPON THEIR COMPLETION; HOWEVER, SUCH TRANSFER SHALL NOT OCCUR UNTIL THE CITY COUNCIL FOR THE CITY OF SURPRISE MANIFESTS ITS ACCEPTANCE BY SEPARATE FORMAL COUNCIL ACTION.

THE EASEMENTS GRANTED WITHIN THIS DEDICATION ARE PERMANENT AND PERPETUAL AND SHALL RUN WITH THE LAND AND BE BINDING UPON OWNER AND ITS HEIRS, ASSIGNS, AND SUCCESSORS IN INTEREST TO THIS PLAT OR ANY PARCEL OR LOT THEREOF.

IN WITNESS WHEREOF:

DRP AZ 5, LLC, A DELAWARE LIMITED LIABILITY COMPANY, AS OWNER, HAS HEREUNTO CAUSED ITS CORPORATE NAME TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY THE UNDERSIGNED, DULY AUTHORIZED OFFICER THIS _____ DAY OF _____, 2022.

DRP AZ 5, LLC, A DELAWARE LIMITED LIABILITY COMPANY

BY: DW GENERAL PARTNERS, LLC

ITS: MANAGER

BY: _____

NAME: _____

ITS: AUTHORIZED SIGNATORY

ACKNOWLEDGMENT

STATE OF _____)
) SS
COUNTY OF _____)

ON THIS, THE ____ DAY OF _____2022, BEFORE ME APPEARED, _____ WHO ACKNOWLEDGED TO BE THE AUTHORIZED SIGNATORY OF **DW GENERAL PARTNER, LLC**, AS MEMBER OF **DRP AZ 5, LLC, A DELAWARE LIMITED LIABILITY COMPANY**, AND ACKNOWLEDGED THAT HE, AS SUCH AUTHORIZED SIGNATORY, BEING DULY AUTHORIZED SO TO DO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES CONTAINED THEREIN.

IN WITNESS WHEREOF:

I HEREUNTO SET MY HAND AND OFFICIAL SEAL:

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

COMMUNITY ASSOCIATION RATIFICATION

BY THIS RATIFICATION, _____, AS _____ OF **HERITAGE ASANTE HOME OWNERS ASSOCIATION, AN ARIZONA NON–PROFIT CORPORATION**, ACKNOWLEDGES THE RESPONSIBILITIES DEDICATED HEREIN.

BY: _____

TITLE: _____

PRINTED NAME: _____

ACKNOWLEDGMENT FOR RATIFICATION

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

ON THIS, THE _____ DAY OF _____, 2022, BEFORE ME, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED HIMSELF/HERSELF TO BE THE _____ OF THE ASSOCIATION AND ACKNOWLEDGED THAT HE/SHE AS _____ BEING DULY AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSE CONTAINED HEREIN, BY SIGNING IN THE NAME OF THE ASSOCIATION, BY HIMSELF/HERSELF AS, _____ .

IN WITNESS WHEREOF, I HEREBY SET MY HAND AND OFFICIAL SEAL:

BY: _____ DATE_____

LEGAL DESCRIPTION

A PORTION OF LAND LOCATED WITHIN THE NORTH HALF OF SECTION 11 AND THE SOUTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 NORTH, RANGE 2 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A FOUND MARICOPA COUNTY ALUMINUM CAP ACCEPTED AS THE EAST QUARTER CORNER OF SAID SECTION 11 FROM WHICH A FOUND MARICOPA COUNTY ALUMINUM CAP ACCEPTED AS THE SOUTHEAST CORNER OF SAID SECTION 11 THEREOF BEARS SOUTH 00°43'44" WEST, 2,644.11 FEET;
THENCE NORTH 00°42'32" EAST, 2095.72 FEET ALONG THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 11;
THENCE LEAVING SAID EAST LINE, NORTH 89°17'28" WEST, 1401.36 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF FAYE WAY AS RECORDED IN THE MASTER PLAT OF HERITAGE ASANTE PHASE 1 BOOK 1452, PAGE 20, MARICOPA COUNTY RECORDS, ARIZONA ALSO BEING THE **POINT OF BEGINNING;**
THENCE THE FOLLOW THREE (3) COURSES ALONG SAID NORTHERLY RIGHT OF WAY LINE:
THENCE SOUTH 42°17'25" WEST, 29.21 FEET;
THENCE SOUTH 85°30'15" WEST, 609.56 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 600.00 FEET;
THENCE NORTHWESTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 47°46'49", AN ARC LENGTH OF 500.35 FEET TO A TANGENT LINE;
THENCE NORTH 46°42'56" WEST, 232.03 FEET ALONG SAID NORTHERLY RIGHT OF WAY LINE AND THE NORTHWESTERLY PROLONGATION THEREOF;
THENCE NORTH 43°17'04" EAST, 133.06 FEET TO A NON–TANGENT CURVE, CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 55.00 FEET, THE CENTER OF WHICH BEARS NORTH 04°55'44" EAST;
THENCE NORTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 80°07'56", AN ARC LENGTH OF 76.92 FEET TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 55.00 FEET;
THENCE NORTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 12°16'09", AN ARC LENGTH OF 11.78 FEET TO A NON–TANGENT LINE;
THENCE NORTH 73°12'11" EAST, 26.98 FEET;
THENCE NORTH 31°46'29" EAST, 40.00 FEET TO A NON–TANGENT CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 620.00 FEET, THE CENTER OF WHICH BEARS SOUTH 31°46'29" WEST;
THENCE SOUTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 07°13'24", AN ARC LENGTH OF 78.16 FEET TO A NON–TANGENT LINE;
THENCE NORTH 38°59'53" EAST, 11.77 FEET;
THENCE NORTH 21°53'08" EAST, 633.17 FEET TO A NON–TANGENT CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 220.00 FEET, THE CENTER OF WHICH BEARS SOUTH 21°53'08" WEST;
THENCE SOUTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 24°32'51", AN ARC LENGTH OF 94.26 FEET TO THE BEGINNING OF A REVERSE CURVE, CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 55.00 FEET;
THENCE SOUTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 15°17'50", AN ARC LENGTH OF 14.68 FEET TO THE BEGINNING OF A REVERSE CURVE, CONCAVE SOUTHWESTERLY, HAVING A RADIUS OF 55.00 FEET;
THENCE SOUTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 19°32'46", AN ARC LENGTH OF 18.76 FEET TO A NON–TANGENT LINE;
THENCE NORTH 43°17'04" EAST, 24.97 FEET;
THENCE SOUTH 46°42'56" EAST, 250.00 FEET;
THENCE SOUTH 43°17'04" WEST, 5.00 FEET;
THENCE SOUTH 46°42'56" EAST, 91.38 FEET;
THENCE SOUTH 87°50'49" EAST, 103.08 FEET;
THENCE NORTH 49°51'36" EAST, 149.01 FEET;
THENCE SOUTH 46°28'39" EAST, 311.69 FEET;
THENCE SOUTH 43°31'21" WEST, 23.18 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 520.00 FEET;
THENCE SOUTHWESTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 06°34'08", AN ARC LENGTH OF 59.62 FEET TO A TANGENT LINE;
THENCE SOUTH 53°02'47" EAST, 52.17 FEET;
THENCE NORTH 85°50'06" EAST, 14.23 FEET;
THENCE SOUTH 46°28'39" EAST, 91.97 FEET;
THENCE SOUTH 03°28'55" EAST, 17.60 FEET;
THENCE SOUTH 46°28'39" EAST, 11.73 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF WEST ASANTE BOULEVARD OF SAID MASTER PLAT BEING A NON–TANGENT CURVE, CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 635.00 FEET, THE CENTER OF WHICH BEARS SOUTH 51°26'48" EAST;
THENCE ALONG SAID NORTHERLY RIGHT OF WAY LINE AND SOUTHWESTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 38°31'26", AN ARC LENGTH OF 426.95 FEET TO THE **POINT OF BEGINNING.**

BASIS OF BEARING

BASIS OF BEARING IS SOUTH 00°43'44" WEST ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 4 NORTH, RANGE 2 WEST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AS SHOWN ON THE MASTER PLAT, RECORDED IN BOOK 1452, PAGE 20, MARICOPA COUNTY RECORDERS.

100 YEAR ASSURED WATER SUPPLY

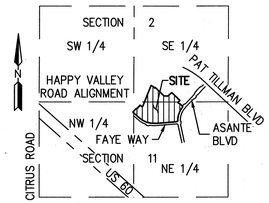
THE AREA PLATTED HEREON LIES WITHIN THE DOMESTIC WATER SERVICE AREA OF CITY OF SURPRISE DESERT OASIS PUBLIC WATER SYSTEM 04–07–523 WHICH IS DESIGNATED AS HAVING AN ASSURED WATER SUPPLY PURSUANT A.R.S. § 45–576.

OWNER

DRP AZ 5, LLC
1665 W ALAMEDA DR., SUITE 130
TEMPE, AZ 85282
PHONE: (480) 332–6674
CONTACT: JOAN SCARBROUGH

SURVEYOR

HILGARTWILSON, LLC
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, ARIZONA 85016
PHONE: (602) 490–0535
CONTACT: BRIAN J. BENEDICT, RLS



VICINITY MAP

NOT TO SCALE
T4N, R2W

SHEET INDEX

FP01	COVER SHEET
FP02	SHEET INDEX MAP, NOTES, LOT/TRACT AREA TABLE & VISIBILITY DETAIL
FP03–FP07	FINAL PLAT

PUBLIC NOTICE:

THE LOTS DEPICTED ON THIS PLAT ARE LOCATED WITHIN THE VICINITY OF LUKE AIR FORCE BASE AND MAY BE SUBJECT TO OVERFLIGHTS BY JET AIRCRAFT. ALL STRUCTURES WITHIN THIS PLAT SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE SOUND ATTENUATION STANDARDS ADOPTED BY THE CITY OF SURPRISE. A MAP DEPICTING THE MOST CURRENT ADOPTED MAG NOISE CONTOURS IN RELATION TO THIS PLAT SHALL BE DISPLAYED IN ALL SALES OFFICES. ADDITIONAL INFORMATION MAY BE OBTAINED BY CONTACTING THE CITY OF SURPRISE COMMUNITY DEVELOPMENT DEPARTMENT.

RELEASE OF LIABILITY

DRP AZ 5, LLC, A DELAWARE LIMITED LIABILITY COMPANY, ("OWNER"), DOES HEREBY (1) RELEASE AND DISCHARGE THE UNITED STATES OF AMERICA DEPARTMENT OF THE AIR FORCE (USAF) AND THE CITY OF SURPRISE, AND (2) INDEMNIFY, DEFEND, AND HOLD HARMLESS THE USAF AND THE CITY OF SURPRISE, OF AND FROM ANY LIABILITY FOR ANY AND ALL CLAIMS FOR DAMAGES OF ANY KIND TO PERSONS OR PROPERTY THAT MAY ARISE AT ANY TIME IN THE FUTURE OVER, OR IN CONNECTION WITH AIRCRAFT OVERFLIGHTS FROM AIRCRAFT UTILIZING LUKE AIR FORCE BASE, WHETHER SUCH DAMAGE SHALL ORIGINATE FROM NOISE, VIBRATION, FUMES, DUST, FUEL AND LUBRICANT PARTICLES, AND ALL OTHER EFFECTS THAT MAY BE CAUSED BY THE OPERATION OF AIRCRAFT LANDING AT, OR TAKING OFF FROM, OR OPERATING AT OR ON LUKE AIR FORCE BASE AND ITS AUXILIARY FIELDS. THIS INSTRUMENT SHALL RUN WITH THE LAND AND BE BINDING UPON OWNER AND ITS HEIRS, ASSIGNS, AND SUCCESSORS IN INTEREST TO THIS PLAT OR ANY PARCEL OR LOT THEREOF. THIS INSTRUMENT DOES NOT RELEASE THE USAF FROM LIABILITY FOR DAMAGE OR INJURY TO PERSON OR PROPERTY CAUSED BY FALLING AIRCRAFT OR FALLING PHYSICAL OBJECTS FROM AIRCRAFT, EXCEPT AS STATED HEREIN WITH RESPECT TO NOISE, FUMES, DUST, FUEL, AND LUBRICANT PARTICLES.

DRP AZ 5, LLC, A DELAWARE LIMITED LIABILITY COMPANY, ("OWNER"), DOES HEREBY (1) RELEASE AND DISCHARGE THE CITY OF SURPRISE, AND (2) INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY OF SURPRISE, OF AND FROM ANY LIABILITY FOR ANY AND ALL CLAIMS FOR DAMAGES OF ANY KIND TO PERSONS OR PROPERTY THAT MAY ARISE AT ANY TIME IN THE FUTURE OVER, OR IN CONNECTION WITH THE AREAS LOCATED WITHIN THE NEWLY DEDICATED RIGHT–OF–WAY AS DEPICTED ON THIS PLAT UNTIL SUCH TIME THE RIGHT–OF–WAY IS IMPROVED TO CITY STANDARDS AND THOSE IMPROVEMENTS ARE APPROVED AND ACCEPTED BY THE CITY COUNCIL. THE MAINTENANCE OF THE AREA WITHIN ANY NEWLY DEDICATED RIGHT–OF–WAY AS SHOWN ON THIS PLAT SHALL BE THE RESPONSIBILITY OF THE ADJACENT OWNER/OR SUBSEQUENT ADJACENT OWNERS WITHIN THE BOUNDARY OF SAID PLAT UNTIL SUCH TIME THAT THE AREA WITHIN THE RIGHT–OF–WAY IS IMPROVED TO CITY STANDARD AND ACCEPTED BY THE CITY OF SURPRISE.

THE CITY OF SURPRISE AGREES TO INDEMNIFY **DRP AZ 5, LLC, A DELAWARE LIMITED LIABILITY COMPANY**, ITS OFFICERS, EMPLOYEES, AGENTS, CONTRACTORS, OR THOSE OF ITS SUCCESSORS AND ASSIGNS FOR ANY AND ALL DIRECT DAMAGES TO THE PERSONAL PROPERTY OR FOR PHYSICAL INJURY TO OR DEATH OF PERSONS OCCURRING ON THE AREA OF THIS EASEMENT CAUSED BY OR ARISING SOLELY FROM THE NEGLIGENT, WILLFUL, MALICIOUS, OR GROSSLY NEGLIGENT CONDUCT OF THE CITY OF SURPRISE, ITS OFFICERS, EMPLOYEES, AGENTS, CONTRACTORS, OR THOSE OF ITS SUCCESSORS AND ASSIGNS THAT WAS THE DIRECT CAUSE OF THE DAMAGE, INJURY, OR DEATH.

OWNER HEREBY FURTHER AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS THE CITY OF SURPRISE FROM ANY AND ALL CLAIMS FOR DAMAGES OF ANY KIND TO PERSONS OR PROPERTY LOCATED WITHIN THE RIGHT OF WAY THAT MAY ARISE IN CONNECTION WITH THE USE OF THE SIDEWALKS LOCATED WITHIN THE RIGHT–OF–WAY, UNTIL SUCH TIME THE CITY OF SURPRISE HAS ACCEPTED THE SIDEWALKS.

CITY OF SURPRISE ENGINEER APPROVAL:

DATA ON THIS PLAT REVIEWED AND APPROVED THIS_____ DAY OF _____, 2022, BY THE CITY ENGINEER OF SURPRISE, ARIZONA.

APPROVED_____
CITY ENGINEER

CITY OF SURPRISE COUNCIL APPROVAL:

APPROVED BY THE CITY COUNCIL OF THE CITY OF SURPRISE, ARIZONA. THIS _____ DAY OF _____, 2022.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CERTIFICATION

THIS IS TO CERTIFY THAT THE SURVEY AND SUBDIVISION OF THE PREMISES DESCRIBED AND PLATTED HEREON WAS MADE UNDER MY DIRECTION DURING THE MONTH OF MARCH 2022; THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN; THAT THE EXTERIOR BOUNDARY MONUMENTS SHOWN ACTUALLY EXIST OR WILL BE SET AS SHOWN; THAT THEIR POSITIONS ARE CORRECTLY SHOWN; AND THAT SAID MONUMENTS ARE SUFFICIENT TO ENABLE THIS SURVEY TO BE RETRACED.

BRIAN J. BENEDICT
RLS 32222
HILGARTWILSON, LLC
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, ARIZONA 85016
P: 602.490.0535
bbenedict@hilgartwilson.com

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
32222
BRIAN J.
BENEDICT
Date Signed 3-31-22
ARIZONA, U.S.A.

NOTE:
A.R.S. 32–151 STATES THAT THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" BY A PERSON OR FIRM THAT IS REGISTERED OR CERTIFIED BY THE BOARD IS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING FACTS OR FINDINGS THAT ARE SUBJECT OF THE CERTIFICATION AND DOES NOT CONSTITUTE AN EXPRESS OR IMPLIED WARRANTY OR GUARANTEE.

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE
2141 E. HIGHLAND AVE., STE. 250 | P: 602.490.0535 / F: 602.368.2436
PHOENIX, AZ 85016 www.hilgartwilson.com

HERITAGE ASANTE - PARCEL 8
PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
SURPRISE, ARIZONA
FINAL PLAT

PROJ. NO.: 1909
STATUS:
DATE: SEPT 2022
SCALE: NONE
MUNICIPAL TRACKING NO:
DRAWN: GS
APPROVED: BJB

DWG. NO.
FP01
SHT. 1 OF 7

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U:\1900\1909\SURVEY\PLAT\HERITAGE ASANTE\PARCEL 8\1909-HA-P8-FP01.dwg 11/3/2022 3:03 PM

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 1	5,462	0.1254
LOT : 2	5,423	0.1245
LOT : 3	4,846	0.1112
LOT : 4	4,842	0.1112
LOT : 5	4,857	0.1115
LOT : 6	4,857	0.1115
LOT : 7	4,857	0.1115
LOT : 8	5,392	0.1238
LOT : 9	5,402	0.1240
LOT : 10	4,849	0.1113
LOT : 11	4,849	0.1113
LOT : 12	4,849	0.1113
LOT : 13	4,849	0.1113
LOT : 14	4,846	0.1112
LOT : 15	5,363	0.1231
LOT : 16	5,441	0.1249
LOT : 17	5,022	0.1153
LOT : 18	5,023	0.1153
LOT : 19	4,839	0.1111
LOT : 20	5,386	0.1236
LOT : 21	5,390	0.1237
LOT : 22	5,390	0.1237

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 23	4,830	0.1109
LOT : 24	4,830	0.1109
LOT : 25	4,830	0.1109
LOT : 26	4,830	0.1109
LOT : 27	5,130	0.1178
LOT : 28	5,302	0.1217
LOT : 29	6,647	0.1526
LOT : 30	4,830	0.1109
LOT : 31	4,830	0.1109
LOT : 32	4,830	0.1109
LOT : 33	4,830	0.1109
LOT : 34	4,830	0.1109
LOT : 35	4,830	0.1109
LOT : 36	4,830	0.1109
LOT : 37	4,830	0.1109
LOT : 38	4,830	0.1109
LOT : 39	4,830	0.1109
LOT : 40	6,884	0.1580
LOT : 41	4,830	0.1109
LOT : 42	4,830	0.1109
LOT : 43	4,830	0.1109
LOT : 44	4,830	0.1109

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 45	4,830	0.1109
LOT : 46	4,830	0.1109
LOT : 47	4,830	0.1109
LOT : 48	4,830	0.1109
LOT : 49	4,830	0.1109
LOT : 50	4,830	0.1109
LOT : 51	4,835	0.1110
LOT : 52	8,104	0.1860
LOT : 53	6,840	0.1570
LOT : 54	5,676	0.1303
LOT : 55	5,649	0.1297
LOT : 56	4,860	0.1116
LOT : 57	4,860	0.1116
LOT : 58	4,860	0.1116
LOT : 59	4,860	0.1116
LOT : 60	4,860	0.1116
LOT : 61	4,860	0.1116
LOT : 62	4,865	0.1117
LOT : 63	5,072	0.1164
LOT : 64	8,110	0.1862
LOT : 65	4,831	0.1109
LOT : 66	4,832	0.1109

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 67	4,832	0.1109
LOT : 68	4,832	0.1109
LOT : 69	5,553	0.1275
LOT : 70	6,134	0.1408
LOT : 71	4,891	0.1123
LOT : 72	4,841	0.1111
LOT : 73	5,066	0.1163
LOT : 74	5,488	0.1260
LOT : 75	5,454	0.1252
LOT : 76	5,262	0.1208
LOT : 77	4,966	0.1140
LOT : 78	4,966	0.1140
LOT : 79	4,966	0.1140
LOT : 80	4,982	0.1144
LOT : 81	4,996	0.1147
LOT : 82	6,627	0.1521
LOT : 83	7,498	0.1721
LOT : 84	7,416	0.1703
LOT : 85	5,001	0.1148
LOT : 86	5,060	0.1162
LOT : 87	4,830	0.1109
LOT : 88	4,780	0.1097

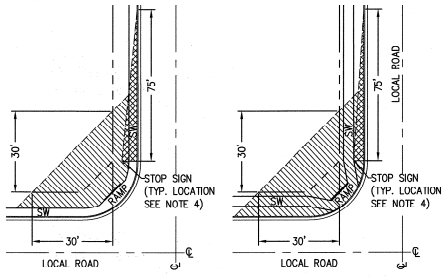
NOTES

1. NO PERMANENT STRUCTURE OF ANY KIND SHALL BE CONSTRUCTED ON, OVER OR PLACED WITHIN EASEMENTS. IT SHALL BE FURTHER UNDERSTOOD THAT THE CITY OF SURPRISE SHALL NOT BE REQUIRED TO REPLACE ANY OBSTRUCTIONS OR PLANTING THAT MUST BE REMOVED DURING THE COURSE OF MAINTENANCE, CONSTRUCTION, OR RECONSTRUCTION OF CITY UTILITIES.
2. ALL NEW OR RELOCATED UTILITIES WILL BE PLACED UNDERGROUND.
3. ALL STRUCTURES AND LANDSCAPING WITHIN THE 30'x30' VISIBILITY TRIANGLE ALONG THE PROPERTY LINES AT LOT CORNERS SHALL BE MAINTAINED AT A MAXIMUM HEIGHT OF 30" ABOVE GROUND LEVEL. (SEE DETAIL THIS SHEET)
4. ALL EXTERIOR SUBDIVISION BOUNDARY CORNERS ARE AS SHOWN PER THIS PLAT IN CONFORMANCE WITH ARIZONA STATUTE. ALL INTERIOR CORNERS AND MONUMENTS ARE TO BE SET BY THE SURVEYOR RESPONSIBLE FOR THE CONSTRUCTION SURVEY AND STAKING OF THIS PROJECT AND MUST BE IN CONFORMANCE WITH SAID ARIZONA STATUTORY REQUIREMENTS.
5. PROVISIONS SHALL BE MADE FOR DEVELOPMENT AND MAINTENANCE OF STREET LIGHTS THROUGH EITHER THE ASSOCIATION OR THROUGH THE CREATION OF A STREET LIGHT IMPROVEMENT DISTRICT (S.L.I.D.).
6. NO ON-SITE GRADING OR EXCAVATION SHALL OCCUR WITHOUT FIRST OBTAINING A PERMIT FROM THE CITY OF SURPRISE.
7. IN ACCORDANCE WITH ARS § 9-461.07, THE CITY OF SURPRISE HAS DETERMINED THAT ALL DEDICATIONS OCCURRING WITH THIS PLAT ARE IN CONFORMANCE WITH THE SURPRISE GENERAL PLAN.
8. PURSUANT TO A.R.S. § 42-1102, THE CITY OF SURPRISE, A POLITICAL SUBDIVISION OF THE STATE OF ARIZONA, IS EXEMPT FROM ALL TAXES AND ASSESSMENTS BASED ON ASSESSED VALUE EXCEPT FOR SPECIAL DISTRICTS # 14751 AND 14710, WHEN APPLICABLE.
9. THE ROADS DESIGNATED AS "PRIVATE" AND ANY APPURTENANCES INCLUDING BUT NOT LIMITED TO ROAD SIGNS, STRIPING, CURB AND GUTTER, AND SIDEWALKS ARE PRIVATE; SUCH ROADS AND APPURTENANCES ARE OWNED, MAINTAINED AND REPAIRED BY OWNER OR HOMEOWNER'S ASSOCIATION FORMED BY OWNER. THE CITY OF SURPRISE SHALL NOT MAINTAIN OR REPAIR ANY ROAD DESIGNATED AS "PRIVATE."
10. THE MAINTENANCE OF LANDSCAPING WITHIN THE OPEN SPACES, LANDSCAPED TRACTS, RETENTION BASINS, AND PARKS SHALL BE THE RESPONSIBILITY OF THE OWNER OR THE HOMEOWNERS' ASSOCIATION FORMED BY THE OWNER.
11. THE MAINTENANCE OF LANDSCAPING WITHIN THE ADJACENT PUBLIC RIGHTS-OF-WAY, INCLUDING LANDSCAPED MEDIANS WITHIN COLLECTORS AND LOCAL STREETS, AND LANDSCAPED AREAS BETWEEN THE CURB AND THE DETACHED SIDEWALK, SHALL BE THE RESPONSIBILITY OF THE ADJACENT PROPERTY OWNER OR THE HOMEOWNERS' ASSOCIATION FORMED BY THE ADJACENT PROPERTY.
12. LANDSCAPING MAINTENANCE OF THE MEDIANS WITHIN THE PUBLIC RIGHT-OF-WAY WITHIN ANY ARTERIAL OR PARKWAY STREET CLASSIFICATION SHALL BE RESPONSIBILITY OF THE CITY OF SURPRISE AFTER ACCEPTANCE.
13. THIS FINAL PLAT IS IN SUBSTANTIAL CONFORMANCE WITH THE PRELIMINARY PLAT APPROVED BY THE CITY OF SURPRISE UNDER CASE FS21-330.
14. DEVELOPMENT STANDARDS ARE PER THE CITY OF SURPRISE ZONING CASE FS21-1002 OR AS SUBSEQUENTLY AMENDED.

FLOOD ZONE DESIGNATION

THE FOLLOWING FLOOD PLAIN DESIGNATION AND ASSOCIATED COMMENTS ARE COPIED DIRECTLY FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WEBSITE. HILGARTWILSON, LLC AND THE UNDERSIGNED REGISTERED PROFESSIONAL LAND SURVEYOR MAKE NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE FOLLOWING FLOOD ZONE DESIGNATION STATEMENT.

THE PROPERTY IS LOCATED WITHIN AN AREA HAVING FLOOD ZONE "X" BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, ON FLOOD INSURANCE RATE MAP NO. 04013C1210L, WITH A DATE OF IDENTIFICATION OF OCTOBER 16, 2013, FOR COMMUNITY NO. 040053, IN MARICOPA COUNTY, STATE OF ARIZONA, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PROPERTY IS SITUATED.



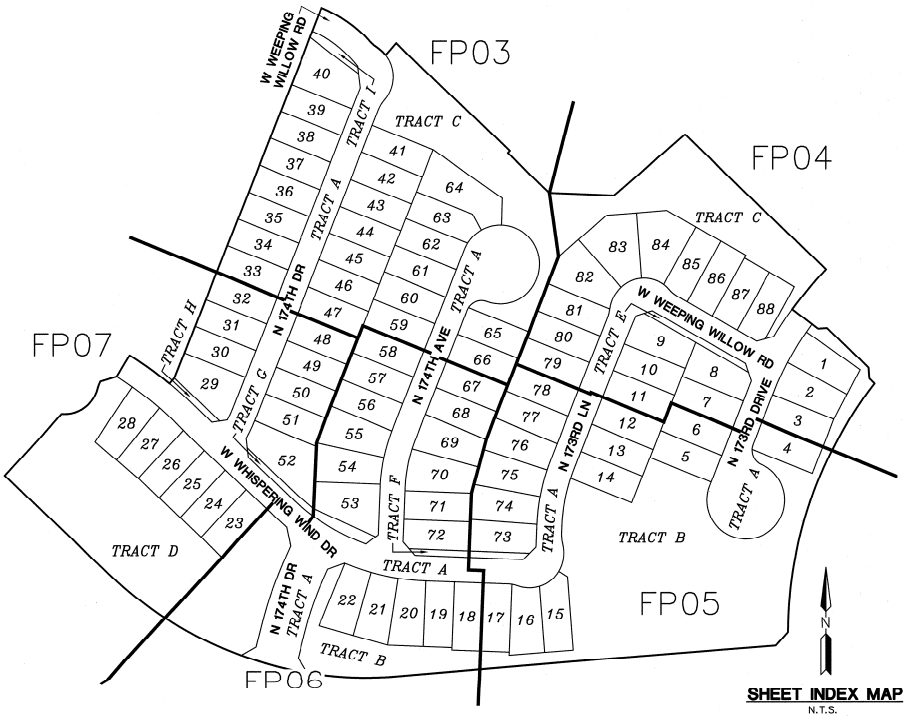
LOCAL STREET
SIGHT VISIBILITY TRIANGLES

NOTES:

1. SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES OR OTHER PLANTS, BUT EXCLUDING TREES OVER 30 INCHES IN HEIGHT SHALL NOT BE PERMITTED WITHIN THE RESTRICTED AREAS.
2. PLANTING WITHIN THE R/W IN VIEW EASEMENTS SHALL BE PER THE APPROVED TYPES AND DIMENSIONS AND SHALL NOT ENCROACH WITHIN THE SIGHT TRIANGLE PER AASHTO GUIDELINES.
3. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
   A. NO LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
   B. TREES SHALL NOT OBSTRUCT MORE THAN 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.
4. STOP SIGN SHALL BE INSTALLED AT 2' MINIMUM BEHIND BACK OF CURB.

UNCONSTRUCTED VIEW EASEMENT AREA (SEE NOTE #3)

NO VEGETATION OVER 30 INCHES IN HEIGHT



SHEET INDEX MAP
N.T.S.

TRACT TABLE		
TRACT	AREA (ACRES)	USE
TRACT A	3.7024	COMMON AREA, DRAINAGE, PUBLIC UTILITY EASEMENT & PRIVATE ACCESSWAY
TRACT B	2.7479	COMMON AREA & DRAINAGE
TRACT C	1.6548	COMMON AREA & DRAINAGE
TRACT D	1.7318	COMMON AREA & DRAINAGE
TRACT E	0.0417	COMMON AREA & DRAINAGE
TRACT F	0.0420	COMMON AREA & DRAINAGE
TRACT G	0.0709	COMMON AREA & DRAINAGE
TRACT H	0.0225	COMMON AREA & DRAINAGE
TRACT I	0.0282	COMMON AREA & DRAINAGE

1. COMMON AREAS MAY INCLUDE OPEN SPACE, LANDSCAPING, PEDESTRIAN PATHS AND/OR AMENITIES.
2. SPECIFIC EASEMENTS THAT ARE BEING DEDICATED AS PART OF THIS PLAT ARE FULLY DELINEATED ON THE FOLLOWING SHEETS.
3. THE USES SHOWN IN THE TRACT TABLE ABOVE DO NOT INTEND TO GRANT EASEMENTS THAT ARE BLANKET IN NATURE OVER THE ENTIRE TRACT.

AREAS

TRACT A AREA =	161,278 SQ. FT. 3.7024 ACRES
OPEN SPACE AREA (TRACTS B-I) =	276,169 SQ. FT. 6.3400 ACRES
LOT AREA =	458,335 SQ. FT. 10.5219 ACRES
GROSS AREA=	895,781 SQ. FT. 20.5643 ACRES
NET AREA =	734,503 SQ. FT. 16.8619 ACRES
DENSITY (GROSS) =	4.3 D.U. / ACRES
DENSITY (NET) =	5.2 D.U. / ACRES

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HERITAGE ASANTE - PARCEL 8
PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
SURPRISE, ARIZONA

FINAL PLAT

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PROJ. NO.: 1909	STATUS:
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SCALE: NONE	MUNICIPAL TRACKING NO:
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APPROVED: BJB	

DWG. NO.
FP02
SHT. 2 OF 7

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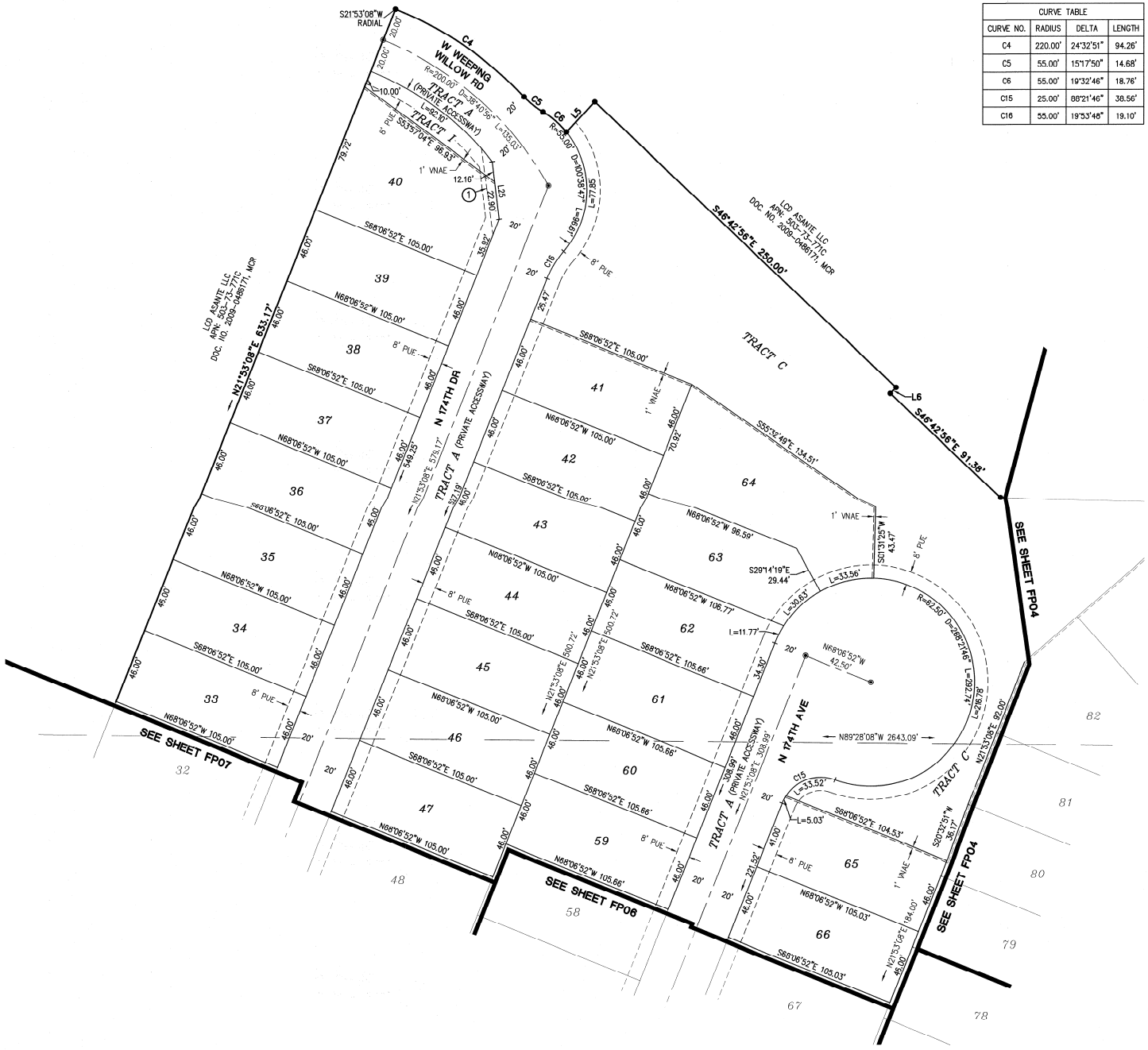
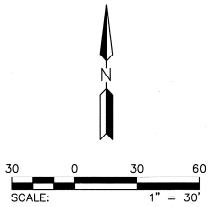


CURVE TABLE			
CURVE NO.	RADIUS	DELTA	LENGTH
C4	220.00'	24°32'51"	94.26'
C5	55.00'	15°17'50"	14.68'
C6	55.00'	19°32'46"	18.76'
C15	25.00'	88°21'46"	38.56'
C16	55.00'	19°53'48"	19.10'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L5	N43°17'04"E	24.97'
L6	S43°17'04"W	5.00'
L25	N06°51'51"W	35.07'

LEGEND

- FOUND MONUMENT AS NOTED
- FOUND BRASS CAP IN HAND HOLE
- FOUND BRASS CAP FLUSH
- SET 1/2" REBAR W/ CAP, RLS 32222 OR AS NOTED
- BRASS CAP, FLUSH PER MAG STD DTL 120 TYPE "B"
- BOUNDARY LINE
- SECTION LINE
- CENTER LINE
- RIGHT OF WAY
- PARCEL LINE
- EASEMENT LINE
- R/W — RIGHT-OF-WAY
- PUE — PUBLIC UTILITY EASEMENT
- VNAE — VEHICLE NON-ACCESS EASEMENT
- MCR — MARICOPA COUNTY RECORDS
- RLS — REGISTERED LAND SURVEYOR
- APN — ASSESSOR PARCEL NUMBER
- P.O.B. — POINT OF BEGINNING
- P.O.C. — POINT OF COMMENCEMENT
- ① — 30'X30' SITE VISIBILITY TRIANGLE EASEMENTS (SEE NOTE 3, PAGE 2)



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HERITAGE ASANTE - PARCEL 8

PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
SURPRISE, ARIZONA

FINAL PLAT

PROJ. NO.: 1909
DATE: SEPT 2022
SCALE: AS SHOWN
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STATUS:
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DWG. NO.
FP03
SHT. 3 OF 7

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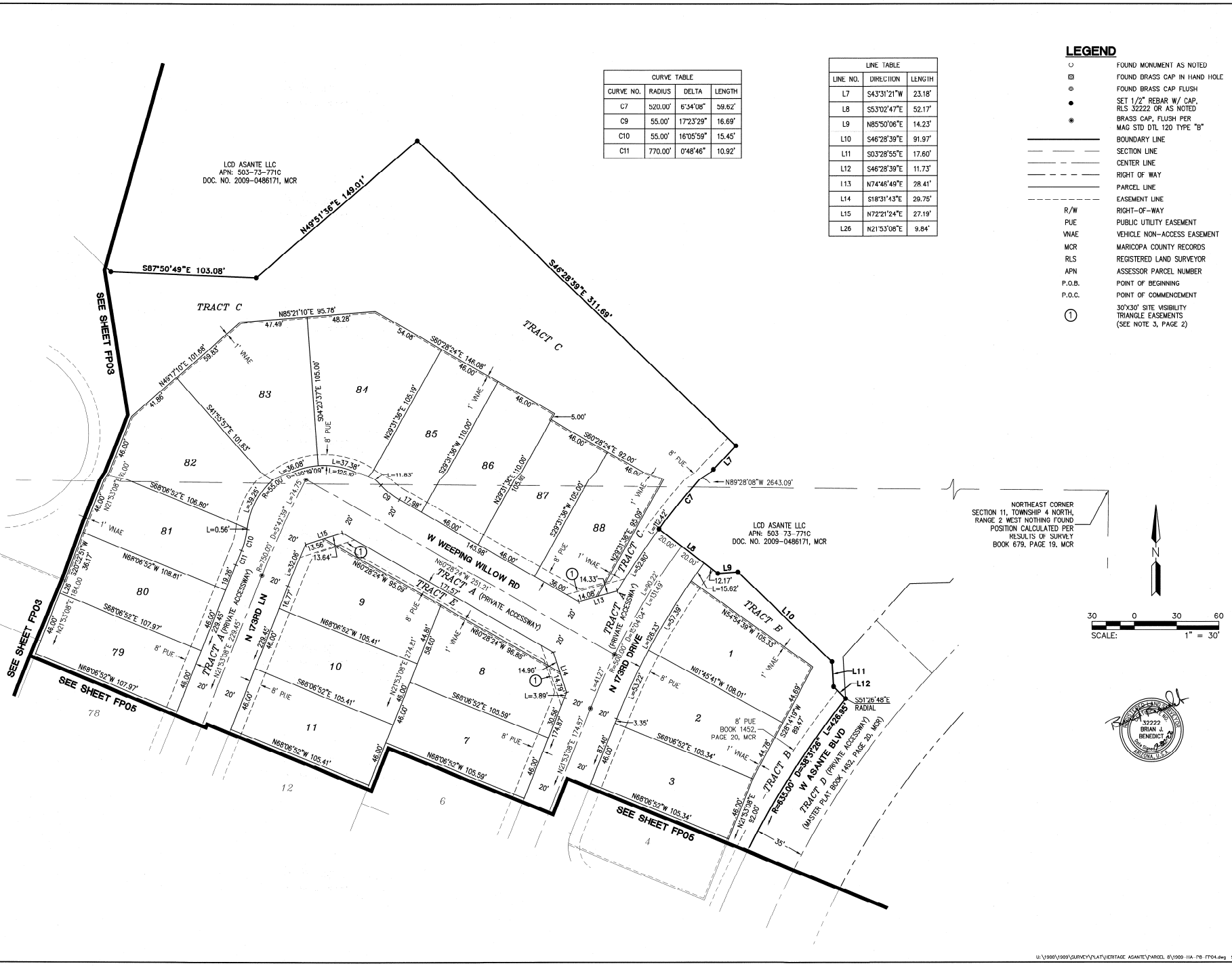

CURVE TABLE			
CURVE NO.	RADIUS	DELTA	LENGTH
C7	520.00'	6°34'08"	59.62'
C9	55.00'	17°23'29"	16.69'
C10	55.00'	16°05'59"	15.45'
C11	770.00'	0°48'46"	10.92'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L7	S43°31'21"W	23.18'
L8	S53°02'47"E	52.17'
L9	N85°50'06"E	14.23'
L10	S46°28'39"E	91.97'
L11	S03°28'55"E	17.60'
L12	S46°28'39"E	11.73'
L13	N74°46'49"E	28.41'
L14	S18°31'43"E	29.75'
L15	N72°21'24"E	27.19'
L26	N21°53'08"E	9.84'

LEGEND

○	FOUND MONUMENT AS NOTED
⊠	FOUND BRASS CAP IN HAND HOLE
⊙	FOUND BRASS CAP FLUSH
●	SET 1/2" REBAR W/ CAP, RLS 32222 OR AS NOTED
◉	BRASS CAP, FLUSH PER MAG STD DTL 120 TYPE "B"
———	BOUNDARY LINE
— — —	SECTION LINE
——— — ———	CENTER LINE
——— — — ———	RIGHT OF WAY
———	PARCEL LINE
- - - - - -	EASEMENT LINE
R/W	RIGHT-OF-WAY
PUE	PUBLIC UTILITY EASEMENT
VNAE	VEHICLE NON-ACCESS EASEMENT
MCR	MARICOPA COUNTY RECORDS
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P.O.C.	POINT OF COMMENCEMENT
①	30'X30' SITE VISIBILITY TRIANGLE EASEMENTS (SEE NOTE 3, PAGE 2)

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HERITAGE ASANTE - PARCEL 8

PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
SURPRISE, ARIZONA

FINAL PLAT

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DWG. NO.
FP04
SHT. 4 OF 7

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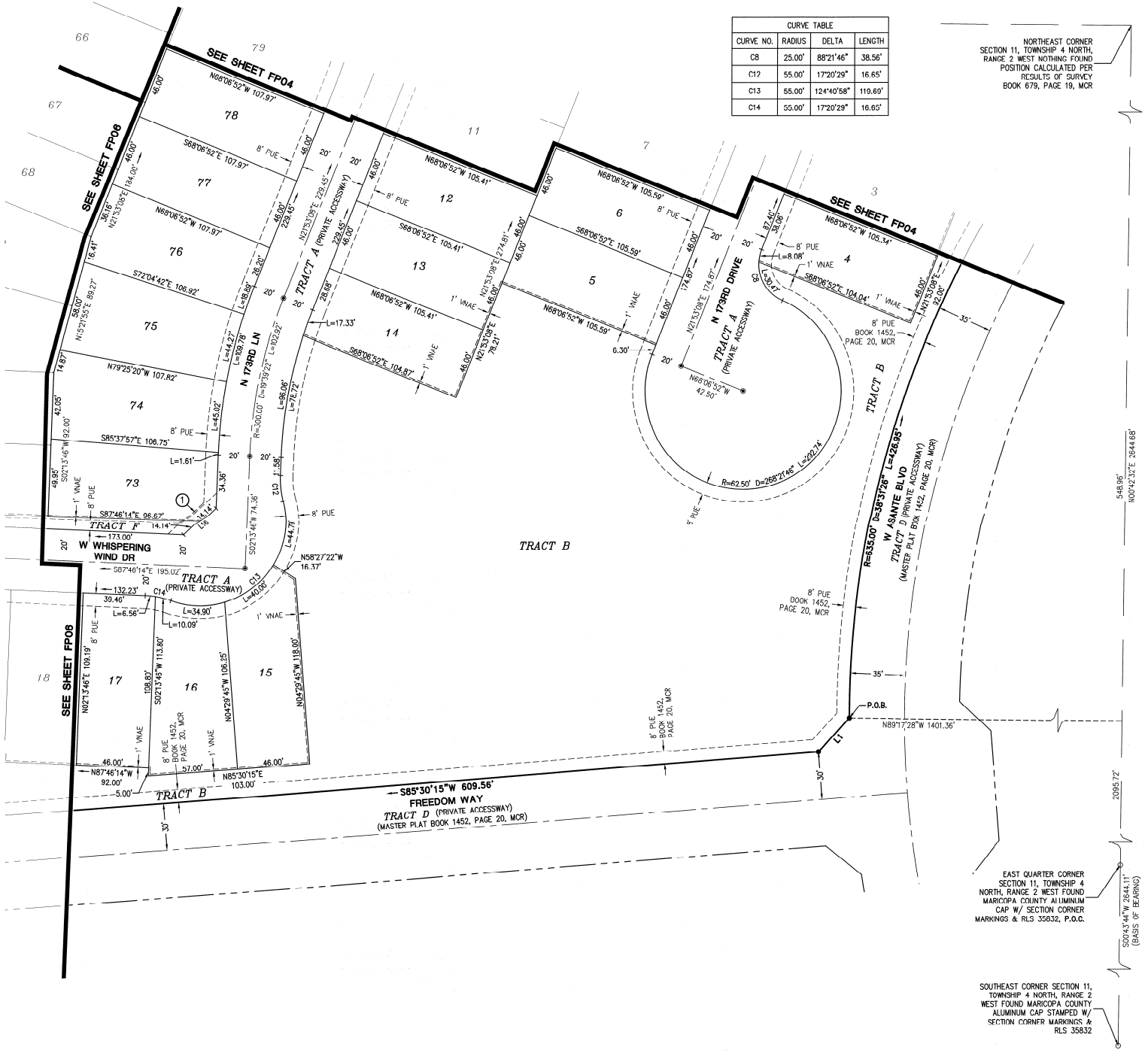

CURVE TABLE			
CURVE NO.	RADIUS	DELTA	LENGTH
C8	25.00'	88°21'46"	38.56'
C12	55.00'	17°20'29"	16.65'
C13	55.00'	124°40'58"	119.69'
C14	55.00'	17°20'29"	16.65'

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L1	S42°17'25"W	29.21'
L16	N47°13'46"E	28.28'

LEGEND

- FOUND MONUMENT AS NOTED
- FOUND BRASS CAP IN HAND HOLE
- FOUND BRASS CAP FLUSH
- SET 1/2" REBAR W/ CAP, RLS 32222 OR AS NOTED
- BRASS CAP, FLUSH PER MAG STD DTL 120 TYPE "B"
- BOUNDARY LINE
- SECTION LINE
- CENTER LINE
- RIGHT OF WAY
- PARCEL LINE
- EASEMENT LINE
- R/W — RIGHT-OF-WAY
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- APN — ASSESSOR PARCEL NUMBER
- P.O.B. — POINT OF BEGINNING
- P.O.C. — POINT OF COMMENCEMENT
- ① — 30'X30' SITE VISIBILITY TRIANGLE EASEMENTS (SEE NOTE 3, PAGE 2)

REGISTERED LAND SURVEYOR — 32222 — BRIAN J. BENEDICT — ARIZONA, U.S.A.

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HERITAGE ASANTE - PARCEL 8

PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
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FP05
SHT. 5 OF 7

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LEGEND

○	FOUND MONUMENT AS NOTED
▣	FOUND BRASS CAP IN HAND HOLE
◎	FOUND BRASS CAP FLUSH
●	SET 1/2" REBAR W/ CAP, RLS 32222 OR AS NOTED
◉	BRASS CAP, FLUSH PER MAG STD DTL 120 TYPE "B"
———	BOUNDARY LINE
— — —	SECTION LINE
— · —	CENTER LINE
— — —	RIGHT OF WAY
———	PARCEL LINE
- - -	EASEMENT LINE
R/W	RIGHT-OF-WAY
PUE	PUBLIC UTILITY EASEMENT
VNAE	VEHICLE NON-ACCESS EASEMENT
MCR	MARICOPA COUNTY RECORDS
RLS	REGISTERED LAND SURVEYOR
APN	ASSESSOR PARCEL NUMBER
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
①	30'X30' SITE VISIBILITY TRIANGLE EASEMENTS (SEE NOTE 3, PAGE 2)

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L17	S42°46'14"E	28.28'
L18	N54°55'54"E	24.24'
L19	N70°33'18"E	28.87'
L20	S12°12'19"E	30.88'
L21	S32°43'46"E	27.20'
L22	S61°34'10"W	27.20'
L27	N46°42'56"W	20.65'

N

30 0 30 60

SCALE: 1" = 30'

32222
BRIAN J.
BENEDICT
Date Signed 9-30-22
ARIZONA U.S.A.

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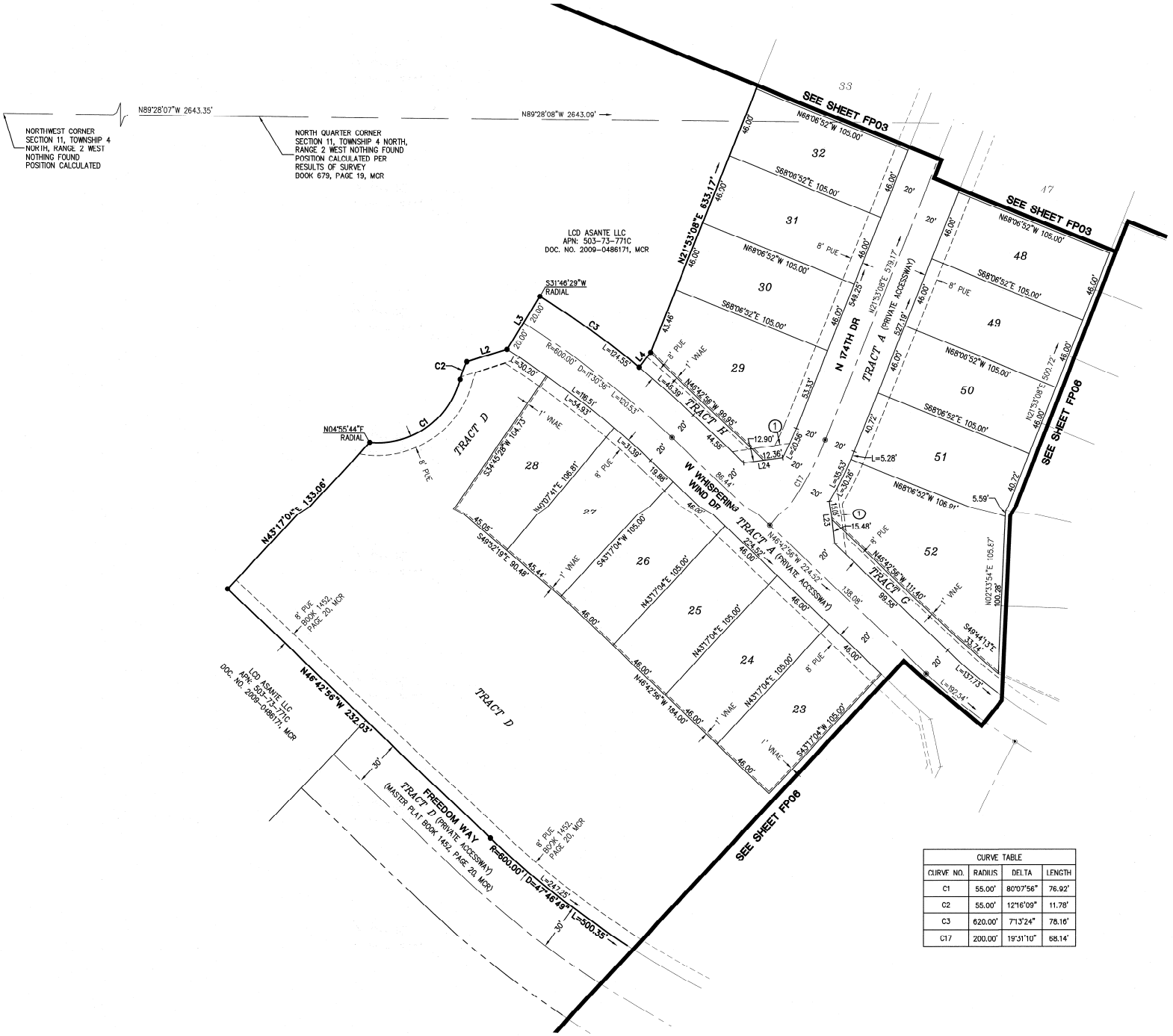

LEGEND

○	FOUND MONUMENT AS NOTED
⊠	FOUND BRASS CAP IN HAND HOLE
⊙	FOUND BRASS CAP FLUSH
●	SET 1/2" REBAR W/ CAP, RLS 32222 OR AS NOTED
◉	BRASS CAP, FLUSH PER MAG STD DTL 120 TYPE "B"
———	BOUNDARY LINE
— — —	SECTION LINE
——— ———	CENTER LINE
——— ———	RIGHT OF WAY
———	PARCEL LINE
- - - -	EASEMENT LINE
R/W	RIGHT-OF-WAY
PUE	PUBLIC UTILITY EASEMENT
VNAE	VEHICLE NON-ACCESS EASEMENT
MCR	MARICOPA COUNTY RECORDS
RLS	REGISTERED LAND SURVEYOR
APN	ASSESSOR PARCEL NUMBER
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
①	30'X30' SITE VISIBILITY TRIANGLE EASEMENTS (SEE NOTE 3, PAGE 2)

LINE TABLE		
LINE NO.	DIRECTION	LENGTH
L2	N73°12'11"E	26.98'
L3	N31°46'29"E	40.00'
L4	N38°59'53"E	11.77'
L23	S06°29'06"E	30.54'
L24	N82°26'58"E	25.26'

CURVE TABLE			
CURVE NO.	RADIUS	DELTA	LENGTH
C1	55.00'	80°07'56"	76.92'
C2	55.00'	12°16'09"	11.78'
C3	620.00'	7°13'24"	78.16'
C17	200.00'	19°31'10"	68.14'

30 0 30 60
SCALE: 1" = 30'

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
32222
BRIAN J.
DENDICKT
Date Signed 9-30-22
ARIZONA, U.S.A.

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PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
SURPRISE, ARIZONA

FINAL PLAT

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HERITAGE ASANTE

PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

OPEN SPACE SUMMARY TABLE	
	PARCEL 8
ACTIVE OPEN SPACE AREA (ACRES)	1.38
PASSIVE OPEN SPACE AREA (ACRES)	4.96
NATURAL OPEN SPACE AREA (ACRES)	0

REVISIONS

REV.	SHT.	DESCRIPTION	DATE	BY
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

SUBMITTED FOR APPROVAL _____

APPROVED _____

RELEASED FOR BID _____

CONSTRUCTION SET ISSUED

SMP
ENVIRONMENTAL DESIGN

SUMMERS/MURPHY & PARTNERS, INC.
7114 STETSON DRIVE, STE 350
SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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CONSTRUCTION NOTES AND LEGEND

NOTES

1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, TRANSPORTATION, MATERIALS, AND SERVICES NECESSARY TO FURNISH AND INSTALL ALL CONSTRUCTION ELEMENTS AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
2. ALL WORK SHALL BE PERFORMED BY AN ARIZONA LICENSED CONTRACTOR.
3. CONSTRUCTION AND INSTALLATION OF ALL LANDSCAPE ITEMS SHALL BE ACCORDING TO STATE, COUNTY AND LOCAL CODES, ORDINANCES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH THE NATURE AND LOCATION OF ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. THE CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ALL COSTS INCURRED DUE TO DAMAGE AND/OR REPLACEMENT OF SAID UTILITIES, INCLUDING DELAYS.
5. ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THE CONTRACT DOCUMENTS AND/OR THE DESIGN INTENT AFFECTING THE SUCCESSFUL COMPLETION AND COST OF THE PROJECT SHALL BE REPORTED TO THE OWNER (JOB SUPERINTENDENT) AND LANDSCAPE ARCHITECT IMMEDIATELY. ALL WORK RELATED TO THE PROBLEM AREA SHALL CEASE UNTIL THE DISCREPANCIES HAVE BEEN RESOLVED BY THE OWNER (JOB SUPERINTENDENT) OR LANDSCAPE ARCHITECT IN WRITING. ANY CONTINUATION OF WORK PRIOR TO THE RESOLUTION OF DISCREPANCIES IS AT THE CONTRACTOR'S RISK AND EXPENSE.

CITY OF SURPRISE GENERAL NOTES:

1. CONTRACTOR TO OBTAIN PERMITS FROM LOCAL AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION OVER SITE.
2. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO INSTALL THE WORK INDICATED ON THE LANDSCAPE DOCUMENTS. HE SHALL BE RESPONSIBLE FOR CAREFUL SITE INSPECTION. DETAILED REVIEW OF PLANS AND COORDINATION WITH OTHER CONTRACTORS ON-SITE PRIOR TO ANY INSTALLATION. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER'S AGENT.
3. ALL QUANTITIES PROVIDED ARE FOR BIDDING PURPOSES ONLY. LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADES IN LANDSCAPE AREAS. HE SHALL DETERMINE WITH THE GENERAL CONTRACTOR, THE EXTENT OF ROUGH GRADING AND/ OR FINE GRADING TO BE ESTABLISHED BY OTHERS.
5. ALL GRADING AND DRAINAGE SHALL BE IN ACCORDANCE WITH THE PLANS PREPARED BY THE DRAINAGE AWAY FROM ANY BUILDINGS IN ALL CONDITIONS. CONTRACTOR TO MEET ALL EXISTING GRADES AT PROJECT BOUNDARIES. FINISH GRADES OF LANDSCAPE AREAS SHALL BE 3" BELOW THE TOP OF ADJACENT WALKS AND CURBS PRIOR TO RECEIVING DECOMPOSED GRANITE OF GRASS SEED/ SOD.
6. ALL SIGNS AND SIGNAGE REQUIRE A CITY OF SURPRISE PERMIT.
7. SIGHT DISTANCE REQUIREMENTS ON ARTERIALS AND COLLECTORS WILL ADHERE TO SURPRISE DETAIL 4-01. SIGHT VISIBILITY WITHIN THE UNOBSTRUCTED VIEW EASEMENT AREA AND IN FRONT OF STOP SIGNS MUST MEET OR EXCEED REQUIREMENTS IN SURPRISE DETAILS 4-01 AND 4-02.
8. "SEE PARCEL 11 OFF-SITE IMPROVEMENT PLAN."
9. THE LOCATION AND HEIGHT OF PLANTS AND TREES SHALL COMPLY WITH CITY OF SURPRISE EDS DETAILS 4-01 AND 4-02.
10. MATURE PLANTS IN THE SIGHT VISIBILITY TRIANGLE WILL NOT BE OVER 30" IN HEIGHT.
11. TREE ROOT BARRIERS ARE REQUIRED PER EDS DETAIL 8-14 WHEN TREES ARE WITHIN 3' OF SIDEWALKS, CURBS, PAVEMENT, OR WALLS.
12. THE LANDSCAPE AND IRRIGATION DESIGN WILL COMPLY WITH CITY OF SURPRISE EDS PER CHAPTER 8.
13. THE REDUCED BACKFLOW PREVENTION ASSEMBLY WILL COMPLY WITH CITY OF SURPRISE EDS DETAIL 6-13.
14. ALL IRRIGATION SYSTEMS WILL BE INSTALLED WITH PURPLE PIPE

SPECIAL NOTES:

1. CONTRACTOR TO INSTALL ALL MATERIALS AS SPECIFIED IN THE PLAN SET, OR AN APPROVED EQUIVALENT BY THE OWNER/ LANDSCAPE ARCHITECT.
2. STREET TREES WILL BE LOCATED IN THE LANDSCAPED AREA BETWEEN THE SIDEWALKS AND CURB. COLLECTOR STREETS WILL HAVE A MINIMUM OF ONE 24-INCH BOX TREE AND FOUR FIVE-GALLON SHRUBS AND/ OR GROUND COVER PLANTS PER 25 LINEAR FEET.
3. TREE SPECIES PERMITTED WITHIN THE R.O.W:
   Willow acacia (Acacia Salicina)
   Palo Blanco (Acacia willardiana)
   Southern Live Oak (Quercus virginiana)
   Texas Mountain Laurel (Sophora Secundiflora)
   Desert Willow (Chilopsis Linearis)
   Ash (Fraxinus Greggii)
   African Sumac (Rhus lancea)
   Chineese Pistache (Pistacia Chinensis)
   Mesquite Thornless (Chilean)*
   Ironwood (Olneya Tesota) *
   Palo Verde (Parkinsonia Aculeata /florida)*
   Palo Verde Desert Museum*
4. TREES WITH THORNS ARE TO BE LOCATED A MINIMUM OF 10' FROM PEDESTRIAN ROUTES
5. "ANY RIP-RAP INSTALLED IN DRAINAGE AREAS BE INSTALLED IN SUCH A MANNER THAT ELIMNATES THE POSSIBILITY OF VOIDS THAT ALLOW WASPS TO BUILD NESTS."

LEGEND

ϕ	DIAMETER	(33.60)	EXISTING SPOT ELEVATION		ALIGN		DECK DRAIN
FF	FINISH FLOOR ELEVATION	33.60	PROPOSED SPOT ELEVATION	1.0%	GRADIENT IN PERCENTAGE		TURF DRAIN
GF	GARAGE FLOOR ELEVATION	HT	HEIGHT			33	PROPOSED CONTOUR
PE	PAD ELEVATION	BCR	BEGINNING OF CURB RADIUS	4:1	RATIO: 4' HORIZONTAL DISTANCE PER 1' OF VERTICAL HEIGHT	33	EXISTING CONTOUR
TW	TOP OF WALL	ECR	END OF CURB RADIUS	R	RIDGE		BERM - BUILT-UP LANDSCAPE GRADE
TF	TOP OF FOOTING ELEVATION	TC	TOP OF CURB	GB	GRADE BREAK		DETAIL REFERENCE
BW	BOTTOM OF WALL	BC	BOTTOM OF CURB		DIRECTION OF FLOW		SHEET LOCATION
TS	TOP OF STEP	EJ	EXPANSION JOINT		DRAINAGE PIPE		SECTION REFERENCE
BS	BOTTOM OF STEP	SJ	SCORE JOINT		ATRIUM DRAIN		SHEET LOCATION
CB	CATCH BASIN	SC	SAW CUT				
FG	FINISH GRADE	R	RADIUS				
FS	FINISH SURFACE	RDWD	REDWOOD				
HP	HIGH POINT	HDR	HEADER				
LP	LOW POINT	LA	LANDSCAPE ARCHITECT				
FL	FLOW LINE	MIN	MINIMUM				
OC	ON CENTER	MAX	MAXIMUM				
CB	CATCH BASIN	MJ	MASTIC JOINT				
TG	TOP OF GRATE ELEVATION	TYP	TYPICAL				
INV	INVERT ELEVATION	PA	PLANTING AREA				
BB	BOND BEAM ELEVATION						

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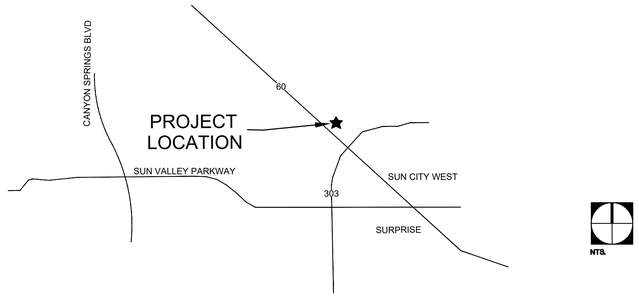
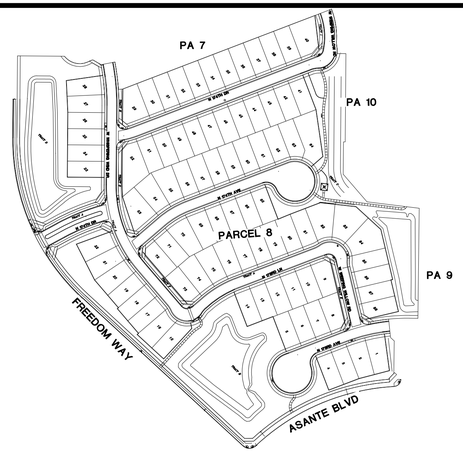
VICINITY MAP



NTS.

KEY MAP



KEY MAP
NTS.

CONSULTANTS

LANDSCAPE ARCHITECT

SUMMERS MURPHY & PARTNERS, INC.
7114 E. STETSON DRIVE, SUITE 350
SCOTTSDALE, ARIZONA 85251
PHONE: 949-443-1446 #283
CONTACT: DOUG BATES

ENGINEER

HILGART WILSON
2141 E. HIGHLAND AVE. #250
PHOENIX, AZ 85016
PHONE: 602-490-0535
CONTACT: DIEGO ORTIZ

IRRIGATION CONSULTANT

COATES IRRIGATION CONSULTANTS, INC
7114 E. STETSON DRIVE, SUITE 350
1420 S GREENFIELD RD, STE 103, GILBERT, AZ 85234
PHONE: (480) 481-0682
CONTACT: ALLEN GEORGE

APPLICANT

LENNAR HOMES

1655 W ALAMEDA DR, SUITE 130
TEMPE, ARIZONA 85282
PHONE: (480) 345-0077
CONTACT: JOAN SCARBROUGH

SHEET INDEX

SHEET NO.	SHEET DESCRIPTION
TL	TITLE SHEET
LP-01 - LP-10	PLANTING PLANS
WP-01-WP-10	WALL PLANS
LD-01 - LD-03	CONSTRUCTION DETAILS
PD-01	PLANTING DETAILS
LS-01	CONSTRUCTION SPECIFICATIONS
PS-01	PLANTING SPECIFICATIONS
FOR REFERENCE (COATES IRRIGATION)	
IR-01 - IR-10	IRRIGATION DESIGN SHEETS
IR-11 - IR-12	IRRIGATION DETAILS
IR-13	IRRIGATION SPECIFICATIONS

PLAN SET 'B'
DATED: 08-08-22
SMP PLAN CONTROL

DATE | REVISION

OWNER: LENNAR HOMES
1665 W ALAMEDA DR, SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT: HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION: TITLE SHEET

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	925_TL
SHEET NUMBER	TL
	OF 27

PARCEL 8

Irrigation Water Use Projections

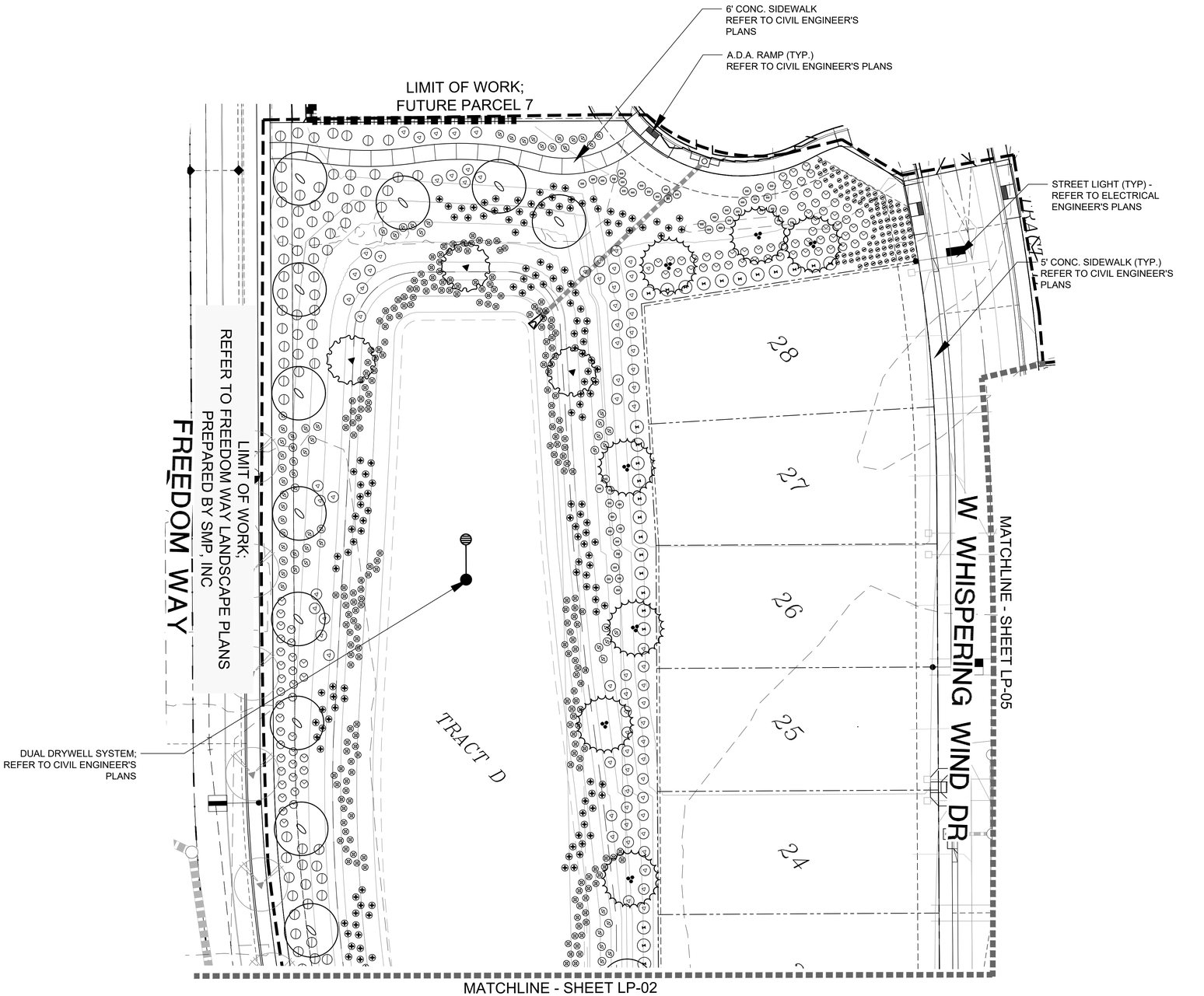
TOTAL ANNUAL WATER USE AND PEAK FLOW

Prepared by Coates Irrigation Consultants, Inc.
August 11, 2021

WATERING WINDOW	
TURF	SHRUBS/TREES
7 DAYS	7 DAYS
8.0 HOURS	9.0 HOURS

ESTIMATED RECLAIMED IRRIGATION WATER USE

Area Description	Total Area Irrigated (Acre)	Total Annual Req. (Ac. Ft.)	Peak Season Flow (GPM)	Peak Daily Gallons
Parcel 8				
TURF--PARCEL 8	0.24	1.19	7.15	1,930
DRIP--PARCEL 8	6.32	11.00	32.86	17,787
TOTAL	**6.56**	**12.20**	**40.02**	**19,716.75**
GRAND TOTAL	**6.56**	**12.20**	**40.02**	**19,716.75**



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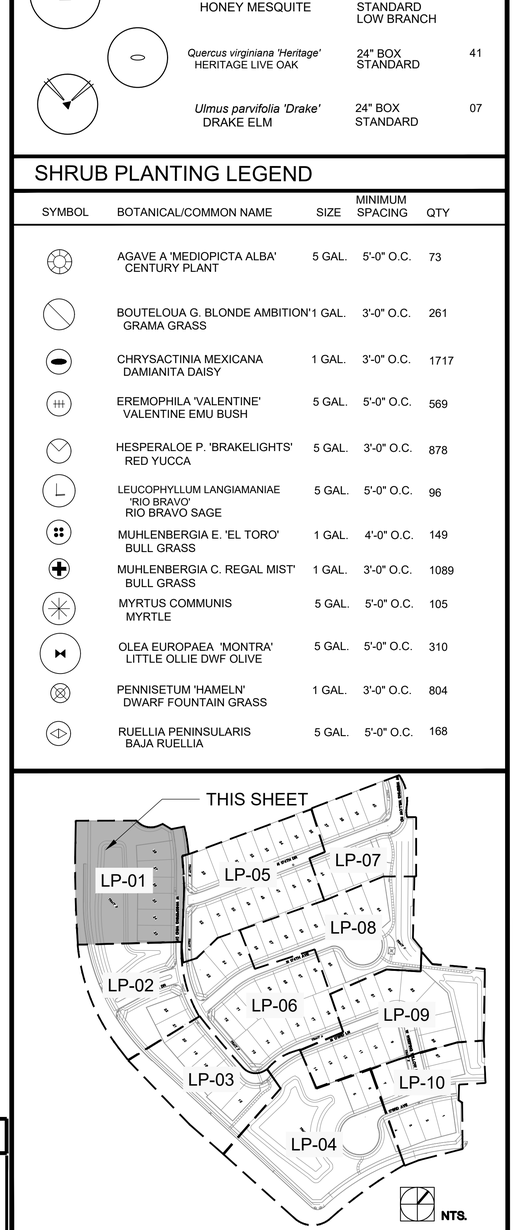
	CHRYSACTINIA MEXICANA DAMIANITA DAISY	1 GAL.	3'-0" O.C.	1717
	EREMOPHILA 'VALENTINE' VALENTINE EMU BUSH	5 GAL.	5'-0" O.C.	569
	HESPERALOE P. 'BRAKELIGHTS' RED YUCCA	5 GAL.	3'-0" O.C.	878
	LEUCOPHYLLUM LANGIAMANIAE 'RIO BRAVO' RIO BRAVO SAGE	5 GAL.	5'-0" O.C.	96
	MUHLENBERGIA E. 'EL TORO' BULL GRASS	1 GAL.	4'-0" O.C.	149
	MUHLENBERGIA C. REGAL MIST' BULL GRASS	1 GAL.	3'-0" O.C.	1089
	MYRTUS COMMUNIS MYRTLE	5 GAL.	5'-0" O.C.	105
	OLEA EUROPAEA 'MONTRA' LITTLE OLLIE DWF OLIVE	5 GAL.	5'-0" O.C.	310
	PENNISETUM 'HAMELN' DWARF FOUNTAIN GRASS	1 GAL.	3'-0" O.C.	804
	RUELLIA PENINSULARIS BAJA RUELLIA	5 GAL.	5'-0" O.C.	168



SHRUB PLANTING LEGEND (CON'T)

	SENNA ARTEMISIOIDES FEATHERY SENNA	5 GAL.	5'-0" O.C.	464
T	TEUCRIUM CHAMAEDRYS WALL GERMANDER	1 GAL.	24" O.C.	1108
	TURF MIDIRON SOD			
	DECOMPOSED GRANITE - 'DESERT VERDE' 3/4" SCREENED (BROWN TO MATCH ADJACENT SUBDIVISIONS)			

SVT = SIGHT VISIBILITY TRIANGLE

NORTH

SCALE: 1" = 20' - 0"

0 20 40 60 80

Notes:

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REGISTERED LANDSCAPE ARCHITECT
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

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1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

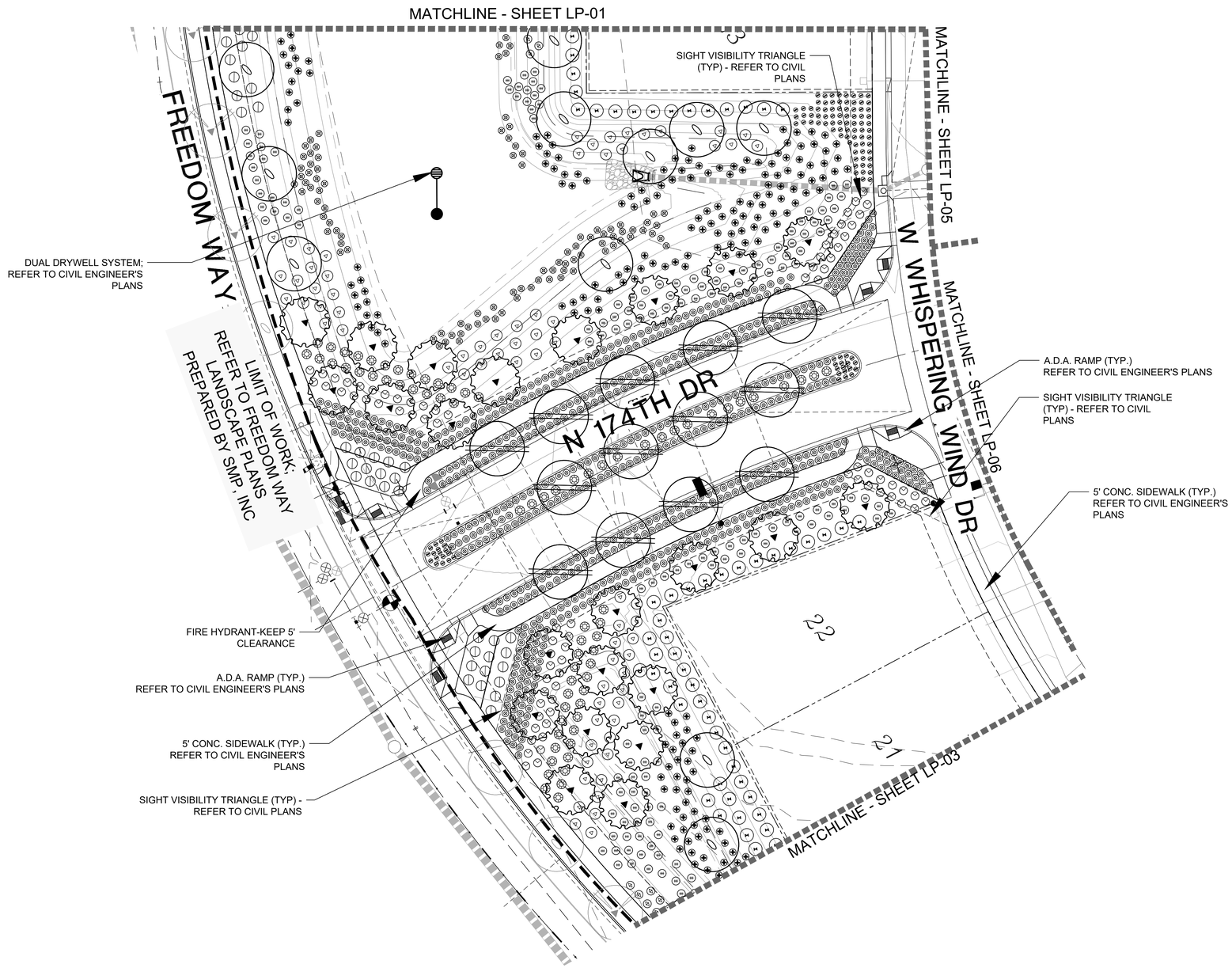
PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
PLANTING PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_LP

SHEET NUMBER
LP-01
OF 27

CASE # FS22-0590



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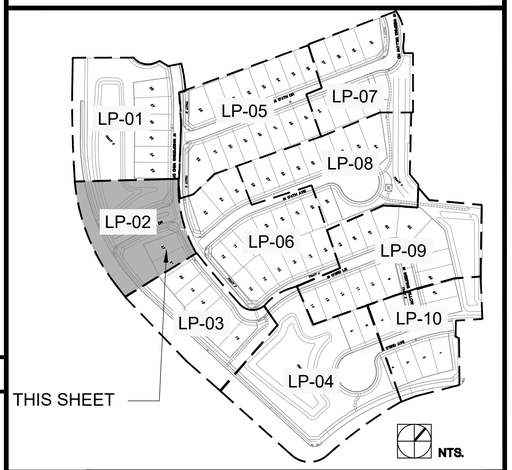

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PARCEL 8
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LANDSCAPE PLANS

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SHEET NUMBER
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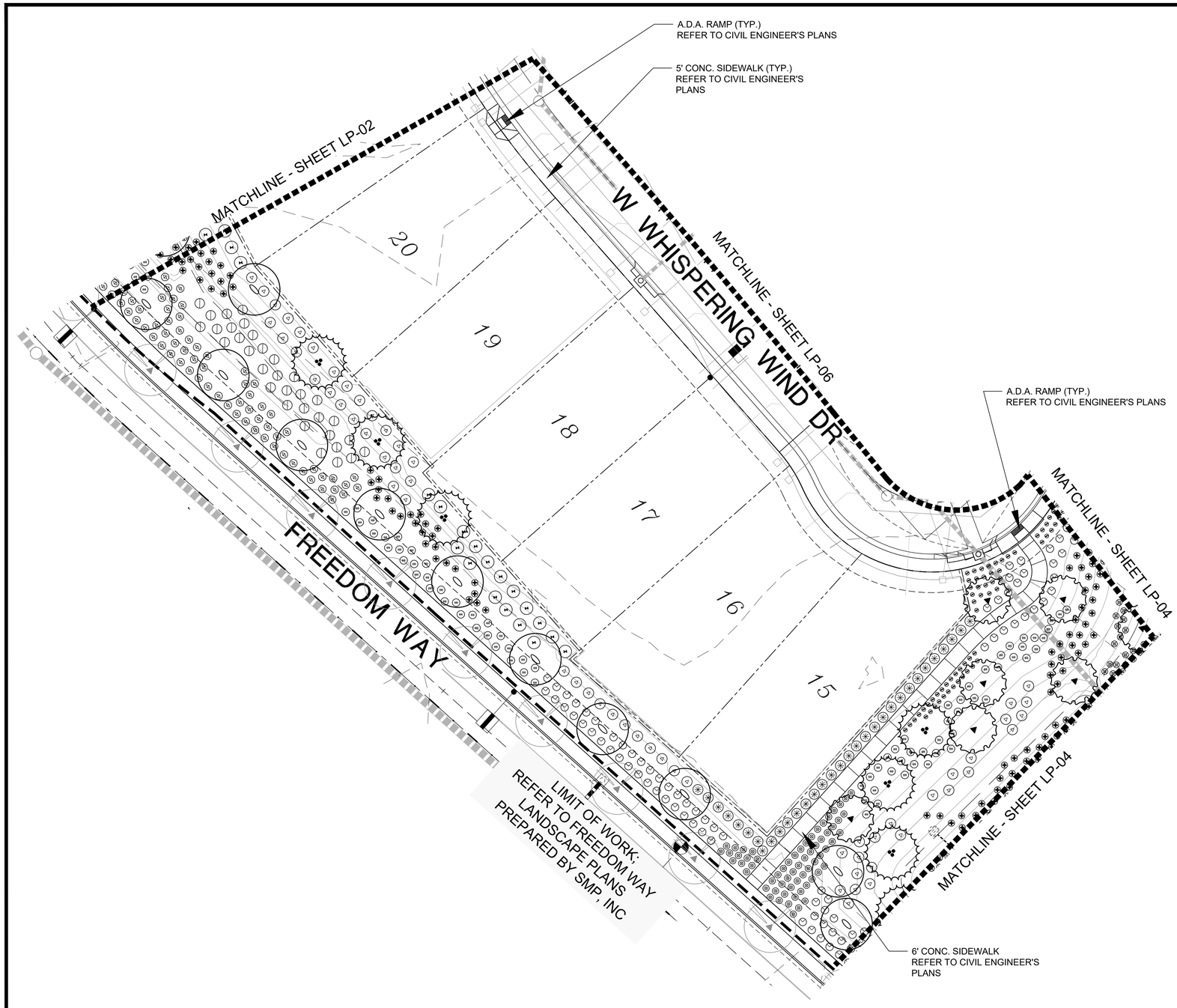

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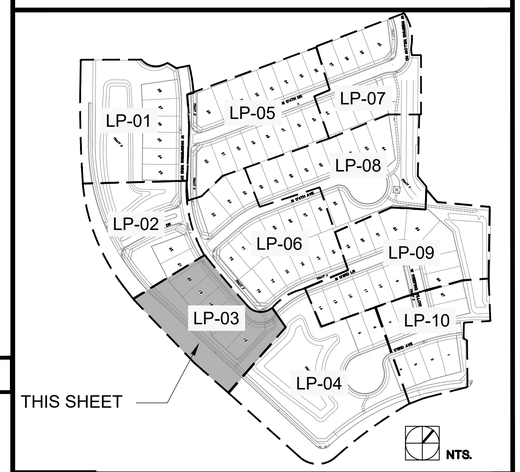

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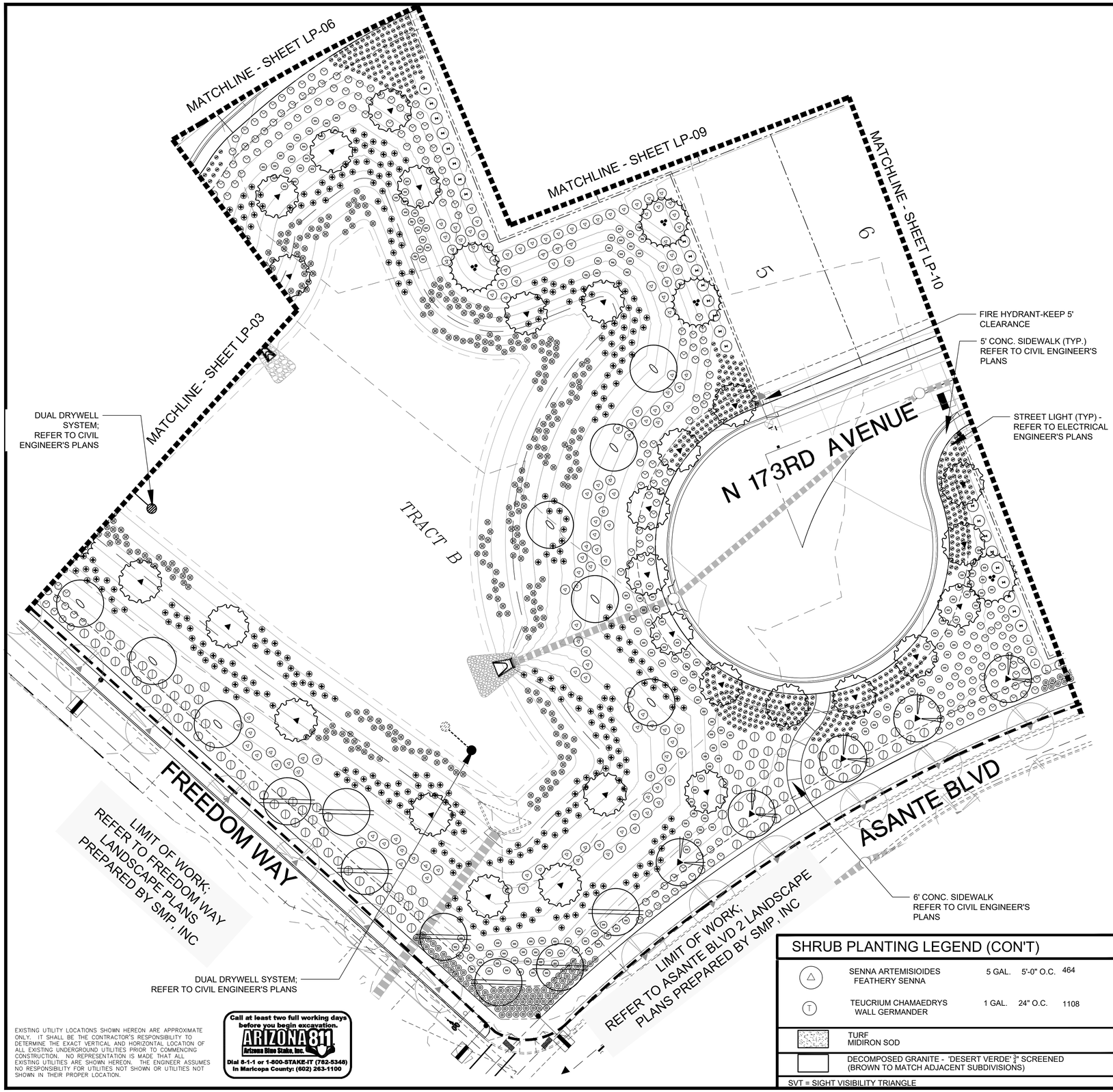

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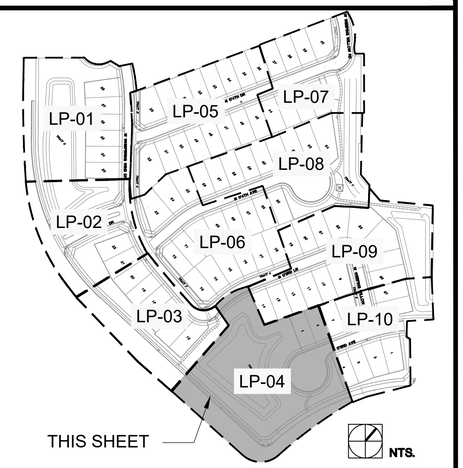
	CHRYSACTINIA MEXICANA DAMIANITA DAISY	1 GAL.	3'-0" O.C.	1717
	EREMOPHILA 'VALENTINE' VALENTINE EMU BUSH	5 GAL.	5'-0" O.C.	569
	HESPERALOE P. 'BRAKELIGHTS' RED YUCCA	5 GAL.	3'-0" O.C.	878
	LEUCOPHYLLUM LANGIAMANIAE 'RIO BRAVO' RIO BRAVO SAGE	5 GAL.	5'-0" O.C.	96
	MUHLENBERGIA E. 'EL TORO' BULL GRASS	1 GAL.	4'-0" O.C.	149
	MUHLENBERGIA C. REGAL MIST' BULL GRASS	1 GAL.	3'-0" O.C.	1089
	MYRTUS COMMUNIS MYRTLE	5 GAL.	5'-0" O.C.	105
	OLEA EUROPAEA 'MONTRA' LITTLE OLLIE DWF OLIVE	5 GAL.	5'-0" O.C.	310
	PENNISETUM 'HAMELN' DWARF FOUNTAIN GRASS	1 GAL.	3'-0" O.C.	804
	RUELLIA PENINSULARIS BAJA RUELLIA	5 GAL.	5'-0" O.C.	168

SHRUB PLANTING LEGEND (CON'T)

	SENNA ARTEMISIOIDES FEATHERY SENNA	5 GAL.	5'-0" O.C.	464
T	TEUCRIUM CHAMAEDRYS WALL GERMANDER	1 GAL.	24" O.C.	1108
	TURF MIDIRON SOD			
	DECOMPOSED GRANITE - 'DESERT VERDE' 3/4" SCREENED (BROWN TO MATCH ADJACENT SUBDIVISIONS)			

SVT = SIGHT VISIBILITY TRIANGLE



NORTH

SCALE: 1" = 20' - 0"

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SUMMERS/MURPHY & PARTNERS, INC.
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SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

OWNER:
LENNAR HOMES
1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

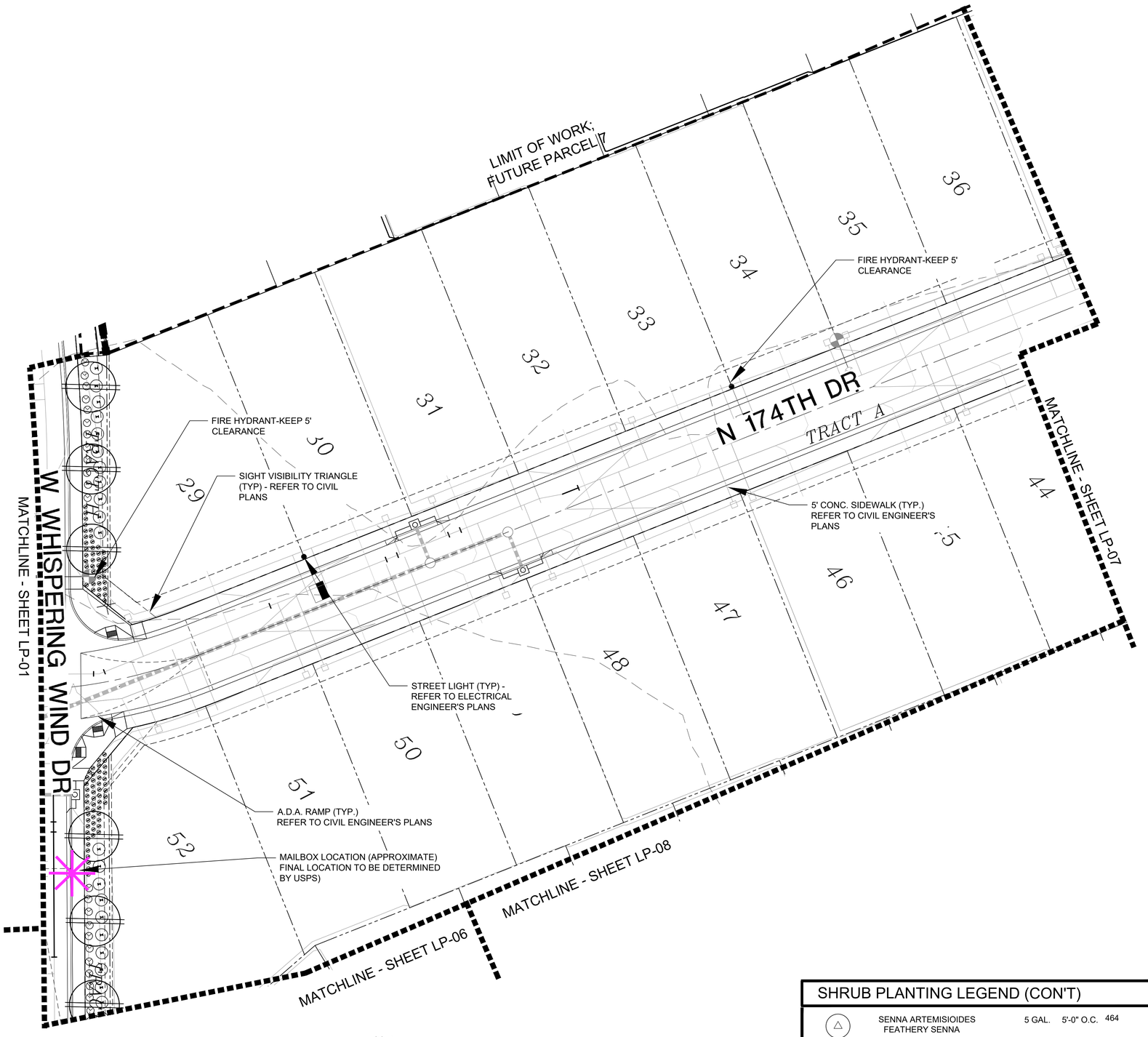
PROJECT:
HERITAGE ASANTE PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
PLANTING PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_LP

SHEET NUMBER
LP-04
OF 27

CASE # FS22-0590



TREE PLANTING LEGEND

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY
	Cercidium 'Desert Museum' PALO VERDE	36" BOX STANDARD	103
	Pinus eldarica MONDEL PINE	24" BOX STANDARD LOW BRANCH	38
	Pistacia c. 'Red Push' RED PUSH PISTACHE	24" BOX STANDARD LOW BRANCH	45
	Prosopis g. 'Maverick' HONEY MESQUITE	24" BOX STANDARD LOW BRANCH	06
	Quercus virginiana 'Heritage' HERITAGE LIVE OAK	24" BOX STANDARD	41
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	AGAVE A 'MEDIOPICTA ALBA' CENTURY PLANT	5 GAL.	5'-0" O.C.	73
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SHRUB PLANTING LEGEND (CON'T)

	SENNA ARTEMISIOIDES FEATHERY SENNA	5 GAL.	5'-0" O.C.	464
T	TEUCRIUM CHAMAEDRYS WALL GERMANDER	1 GAL.	24" O.C.	1108
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	DECOMPOSED GRANITE - 'DESERT VERDE' 3/4" SCREENED (BROWN TO MATCH ADJACENT SUBDIVISIONS)			

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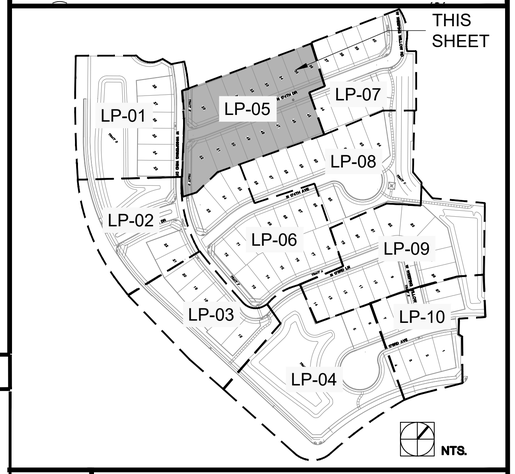

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PLANTING PLAN

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DRAWN	CN
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CAD FILE	8_LP
SHEET NUMBER	LP-05
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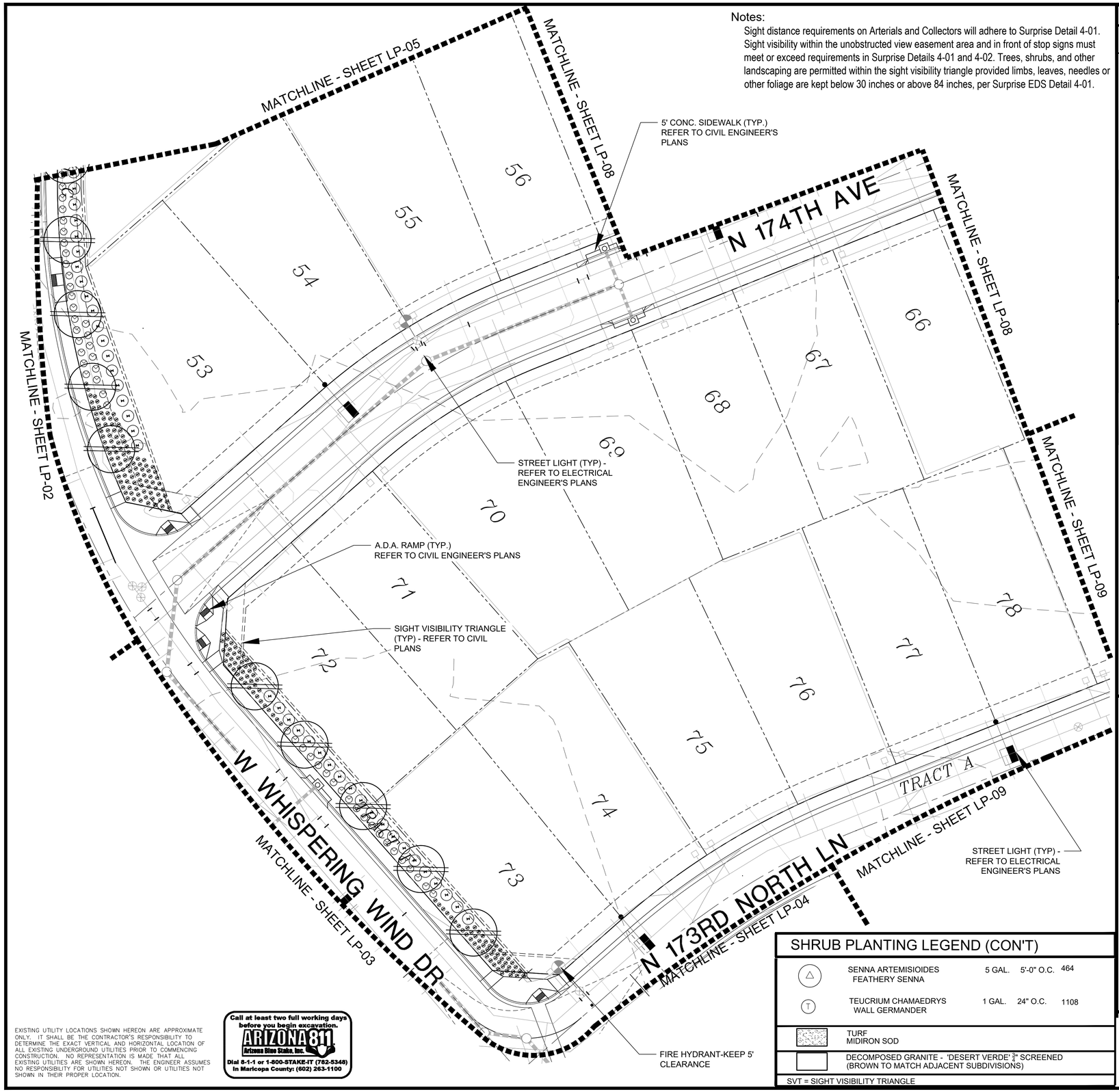
CASE # FS22-0590



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SHRUB PLANTING LEGEND (CON'T)

	SENNA ARTEMISIOIDES FEATHERY SENNA	5 GAL.	5'-0" O.C.	464
T	TEUCRIUM CHAMAEDRYS WALL GERMANDER	1 GAL.	24" O.C.	1108
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	DECOMPOSED GRANITE - 'DESERT VERDE' 3/4" SCREENED (BROWN TO MATCH ADJACENT SUBDIVISIONS)			

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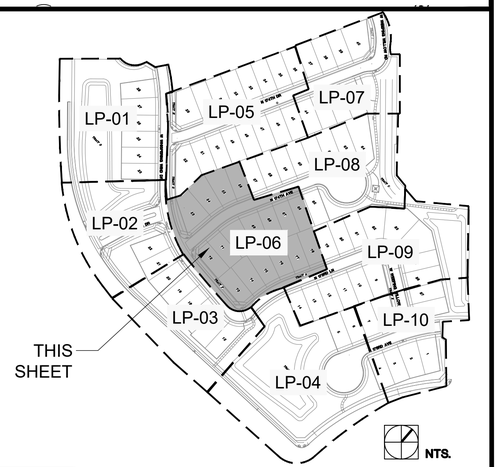

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SHEET DESCRIPTION
PLANTING PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_LP

SHEET NUMBER
LP-06
OF 27

CASE # FS22-0590

TREE PLANTING LEGEND

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY
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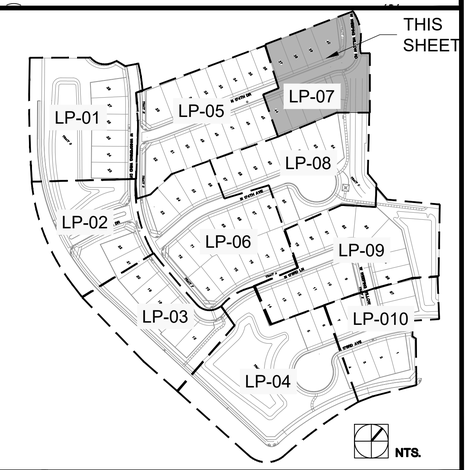

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PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION	
PLANTING PLAN	
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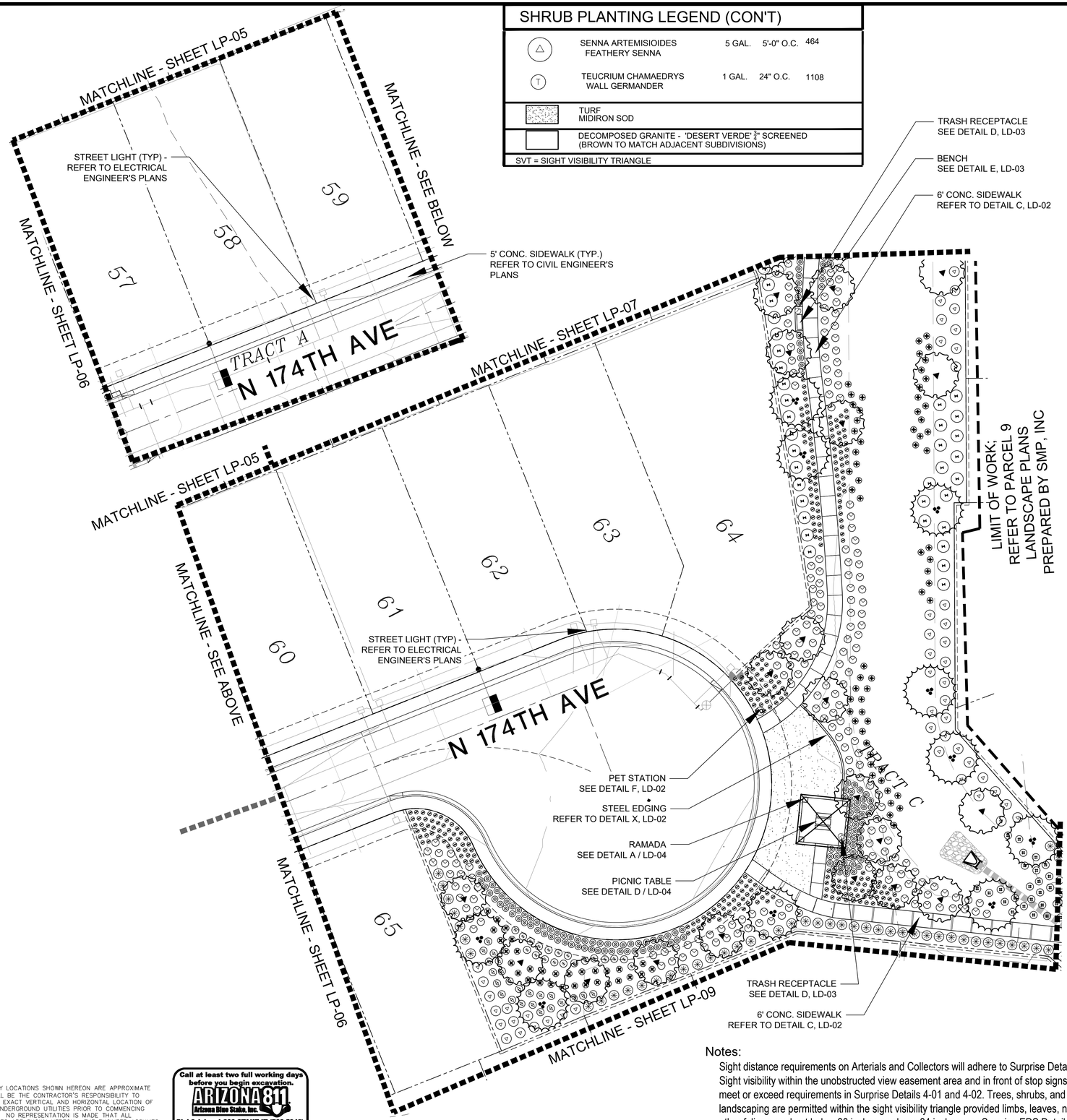

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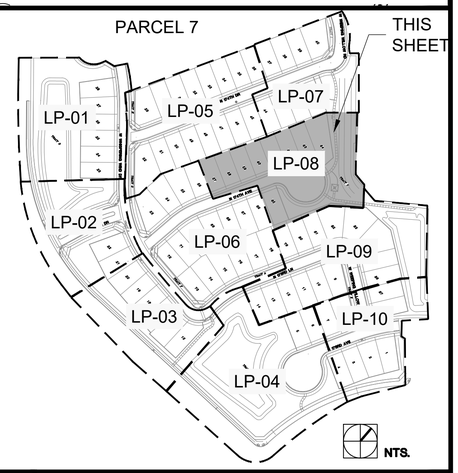

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DRAWN	CN
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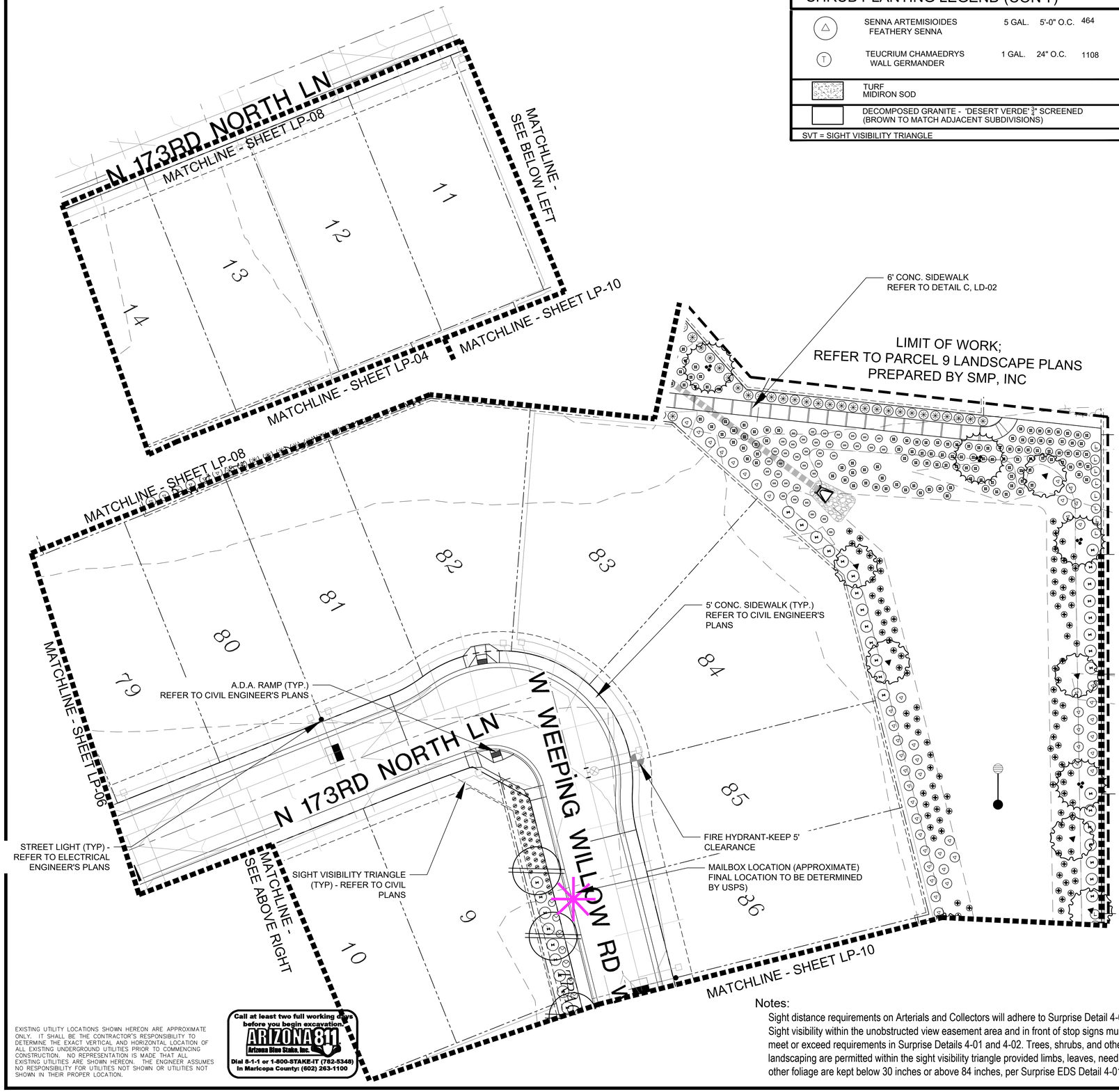
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_LP
SHEET NUMBER	

LP-08

OF 27

CASE # FS22-0590



SHRUB PLANTING LEGEND (CON'T)

△	SENNA ARTEMISIOIDES FEATHERY SENNA	5 GAL.	5'-0" O.C.	464
T	TEUCRIUM CHAMAEDRYS WALL GERMANDER	1 GAL.	24" O.C.	1108
	TURF MIDIRON SOD			
	DECOMPOSED GRANITE - 'DESERT VERDE' ¾" SCREENED (BROWN TO MATCH ADJACENT SUBDIVISIONS)			

SVT = SIGHT VISIBILITY TRIANGLE

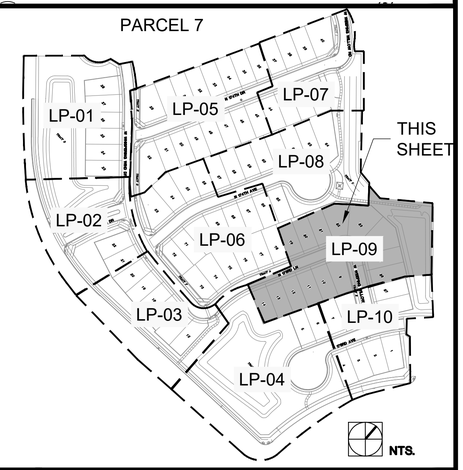
TREE PLANTING LEGEND

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY
♣ ▲	*Cercidium 'Desert Museum'* PALO VERDE	36" BOX **STANDARD**	103
	Pinus eldarica MONDEL PINE	24" BOX STANDARD LOW BRANCH	38
	Pistacia c. 'Red Push' RED PUSH PISTACHE	24" BOX STANDARD LOW BRANCH	45
□	*Prosopis g. 'Maverick'* HONEY MESQUITE	24" BOX STANDARD LOW BRANCH	06
○	*Quercus virginiana 'Heritage'* HERITAGE LIVE OAK	24" BOX STANDARD	41
	Ulmus parvifolia 'Drake' DRAKE ELM	24" BOX STANDARD	07

SHRUB PLANTING LEGEND

SYMBOL	BOTANICAL/COMMON NAME	SIZE	MINIMUM SPACING	QTY
	AGAVE A 'MEDIOPICTA ALBA' CENTURY PLANT	5 GAL.	5'-0" O.C.	73
	BOUTELOUA G. BLONDE AMBITION' GRAMA GRASS	1 GAL.	3'-0" O.C.	261
	CHRYSACTINIA MEXICANA DAMIANITA DAISY	1 GAL.	3'-0" O.C.	1717
	EREMOPHILA 'VALENTINE' VALENTINE EMU BUSH	5 GAL.	5'-0" O.C.	569
	HESPERALOE P. 'BRAKELIGHTS' RED YUCCA	5 GAL.	3'-0" O.C.	878
	LEUCOPHYLLUM LANGIAMANIAE 'RIO BRAVO' RIO BRAVO SAGE	5 GAL.	5'-0" O.C.	96
	MUHLENBERGIA E. 'EL TORO' BULL GRASS	1 GAL.	4'-0" O.C.	149
	MUHLENBERGIA C. REGAL MIST' BULL GRASS	1 GAL.	3'-0" O.C.	1089
	MYRTUS COMMUNIS MYRTLE	5 GAL.	5'-0" O.C.	105
	OLEA EUROPAEA 'MONTRA' LITTLE OLLIE DWF OLIVE	5 GAL.	5'-0" O.C.	310
	PENNISETUM 'HAMELN' DWARF FOUNTAIN GRASS	1 GAL.	3'-0" O.C.	804
	RUELLIA PENINSULARIS BAJA RUELLIA	5 GAL.	5'-0" O.C.	168

PARCEL 7



NTS.

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ARIZONA 811
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In Maricopa County: (602) 263-1100

Notes:

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NORTH

SCALE: 1" = 20' - 0"

0 20 40 60 80

SMP
ENVIRONMENTAL DESIGN
SUMMERS/MURPHY & PARTNERS, INC.
7114 STETSON DRIVE, STE 350
SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

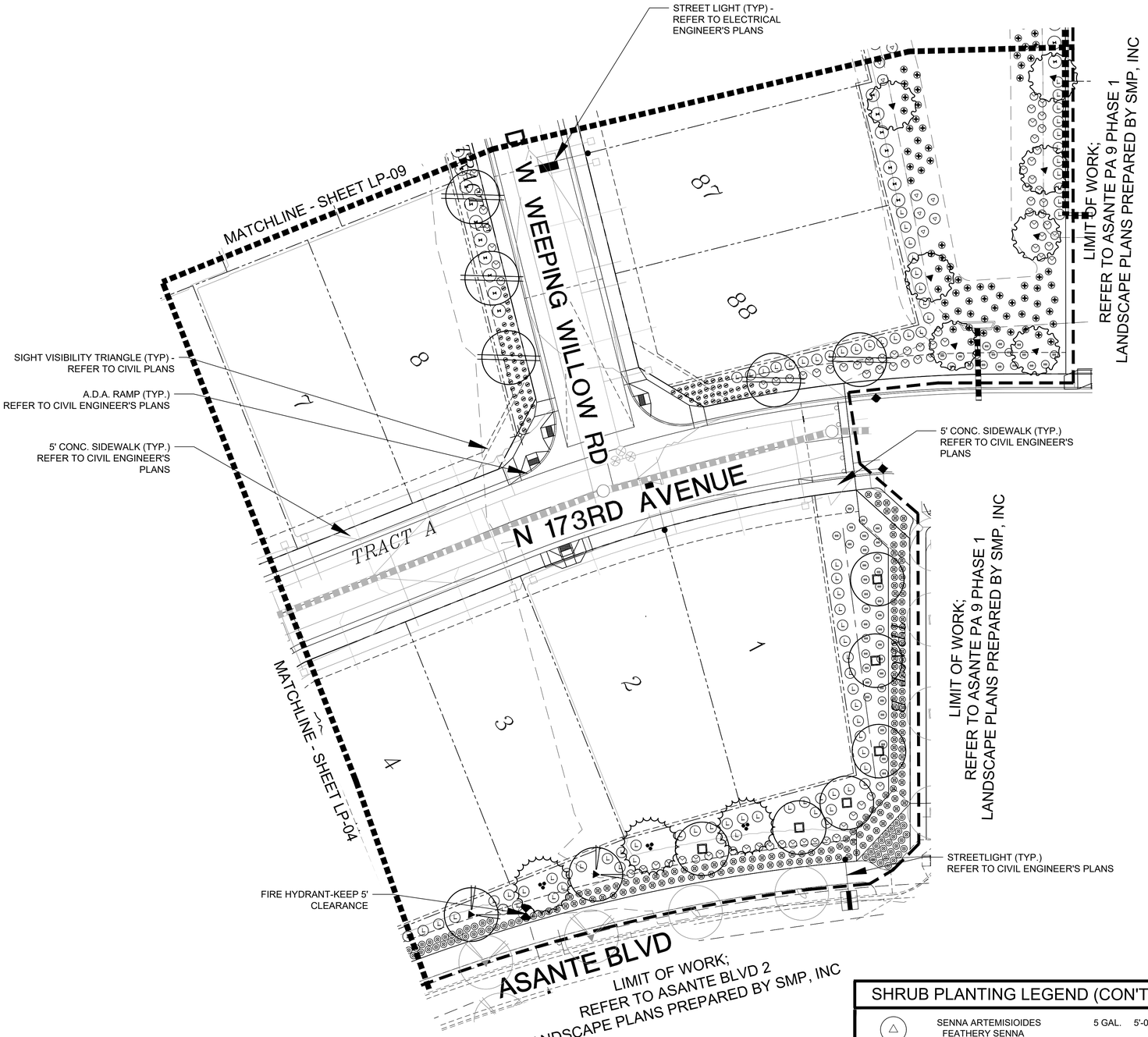
OWNER:
LENNAR HOMES
1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
PLANTING PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_LP
SHEET NUMBER	LP-09
	OF 27

CASE # FS22-0590



TREE PLANTING LEGEND

SYMBOL	BOTANICAL / COMMON NAME	SIZE	QTY
	Cercidium 'Desert Museum' PALO VERDE	36" BOX STANDARD	103
	Pinus eldarica MONDEL PINE	24" BOX STANDARD LOW BRANCH	38
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	SENNA ARTEMISIOIDES FEATHERY SENNA	5 GAL.	5'-0" O.C.	464
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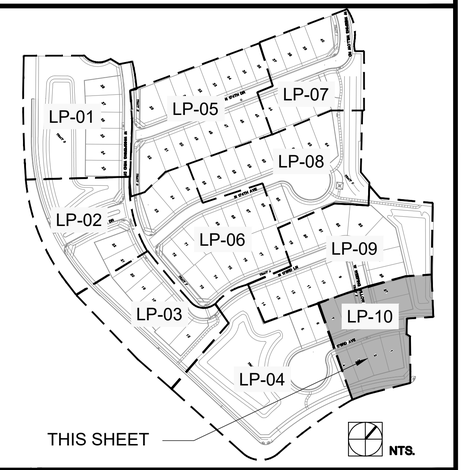
	TURF MIDIRON SOD			
	DECOMPOSED GRANITE - 'DESERT VERDE' ¾" SCREENED (BROWN TO MATCH ADJACENT SUBDIVISIONS)			

SVT = SIGHT VISIBILITY TRIANGLE



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NORTH

SCALE: 1" = 20' - 0"

0 20 40 60 80

SMP
ENVIRONMENTAL DESIGN
SUMMERS/MURPHY & PARTNERS, INC.
7114 STETSON DRIVE, STE 350
SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT 51638 PATRICK C.M. MURPHY ARIZONA U.S.A. EXP. 12-31-22

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DATE	REVISION

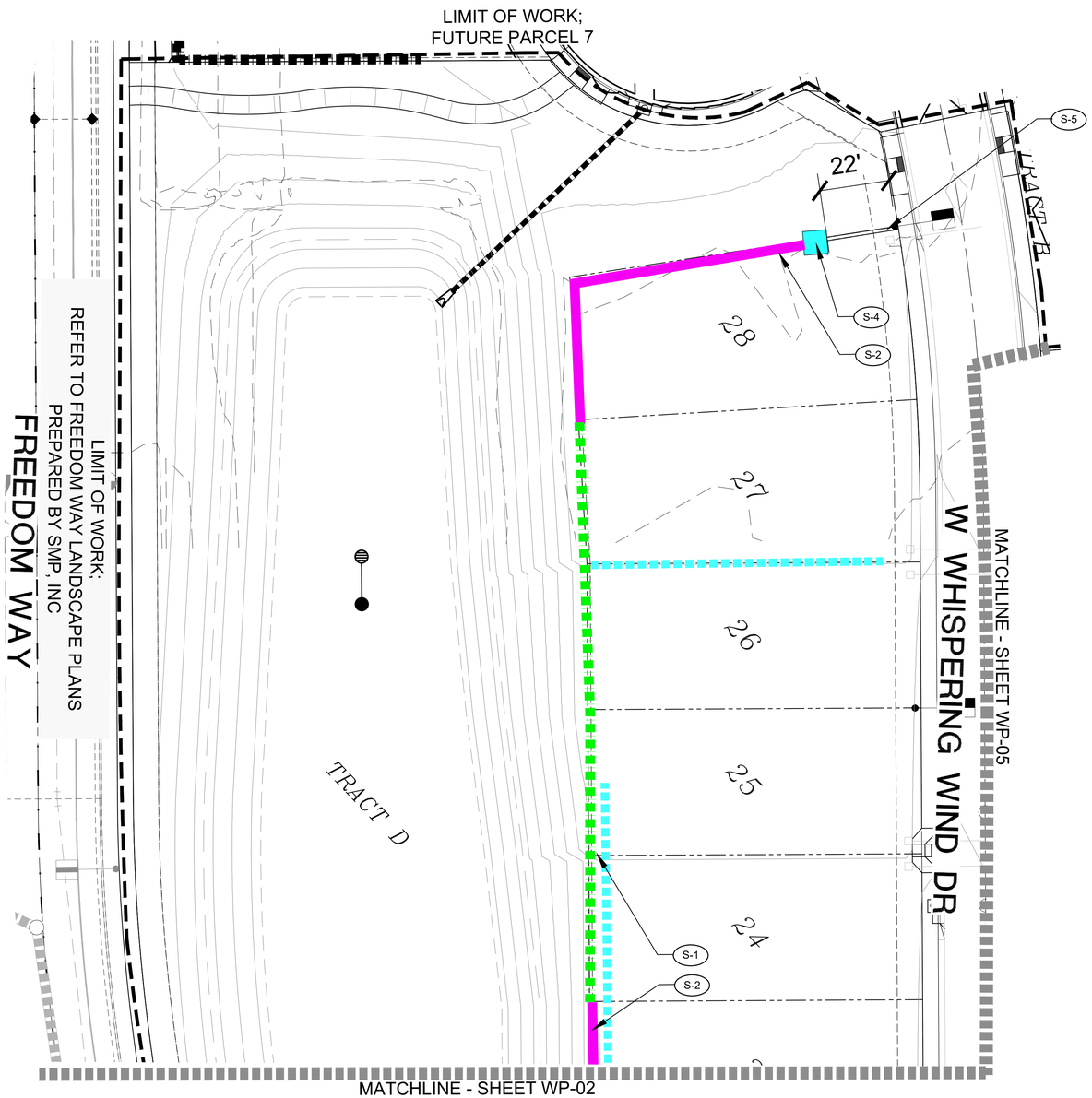
OWNER:
LENNAR HOMES
1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
PLANTING PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_LP
SHEET NUMBER	LP-10
	OF 27

CASE # FS22-0590



WALL AND FENCE LEGEND

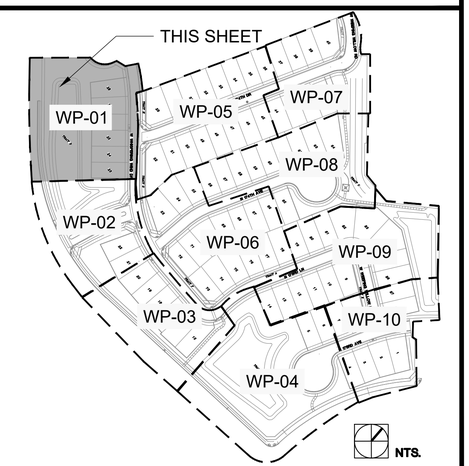
NO.	SYMBOL	DESCRIPTION	DETAIL / SHEET
S-1		PROJECT THEME WALL	A / LD-01
S-2		THEME WALL PANEL	A / LD-01
S-3		VIEW FENCE (6' HIGH)	C / LD-01
S-4		THEME COLUMN	C / LD-03
S-5		CONCRETE MOWCURB	A / LD-02
S-6		RETAINING WALL (BY CIVIL ENGINEER)	

NOTE:
NO WALLS TO BE GREATER THAN 8' INCLUDING THE HEIGHT OF THE RETAINING WALLS.

NOTE:
SIGHT DISTANCE REQUIREMENTS ON ARTERIALS AND COLLECTORS WILL ADHERE TO SURPRISE DETAIL 4-01. SIGHT VISIBILITY WITHIN THE UNOBSTRUCTED VIEW EASEMENT AREA AND IN FRONT OF STOP SIGNS MUST MEET OR EXCEED REQUIREMENTS IN SURPRISE DETAILS 4-01 AND 4-02

RETAINING WALL, SCREEN OR BUILDER WALL MATRIX

Lot	Location	Side	Exposed Wall Height
2	South	Interior of lot	6.00
3	North	Interior of lot	7.50
9	North	Interior of lot	7.50
9	South	Exterior at Tract	6.00
15	South	Interior of lot	6.00
15	North	Exterior at Tract	7.50
16	South	Interior of lot	6.00
16	North	Exterior at Tract	7.50
22	West	Interior of lot	7.50
22	East	Exterior at Tract	6.00
40	North	Interior of lot	7.50
40	South	Exterior at Tract	6.00
52	South	Interior of lot	6.00
52	North	Exterior at Tract	7.50
72	South	Interior of lot	6.00
72	North	Exterior at Tract	7.00
85	North	Interior of lot	6.00
85	South	Exterior at Tract	7.00
86	North	Interior of lot	6.00
86	South	Exterior at Tract	7.00
88	North	Interior of lot	6.00
88	South	Exterior at Tract	7.00



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SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
CORPORATE SEAL
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

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TEMPE, ARIZONA 85282
(480) 345-0077

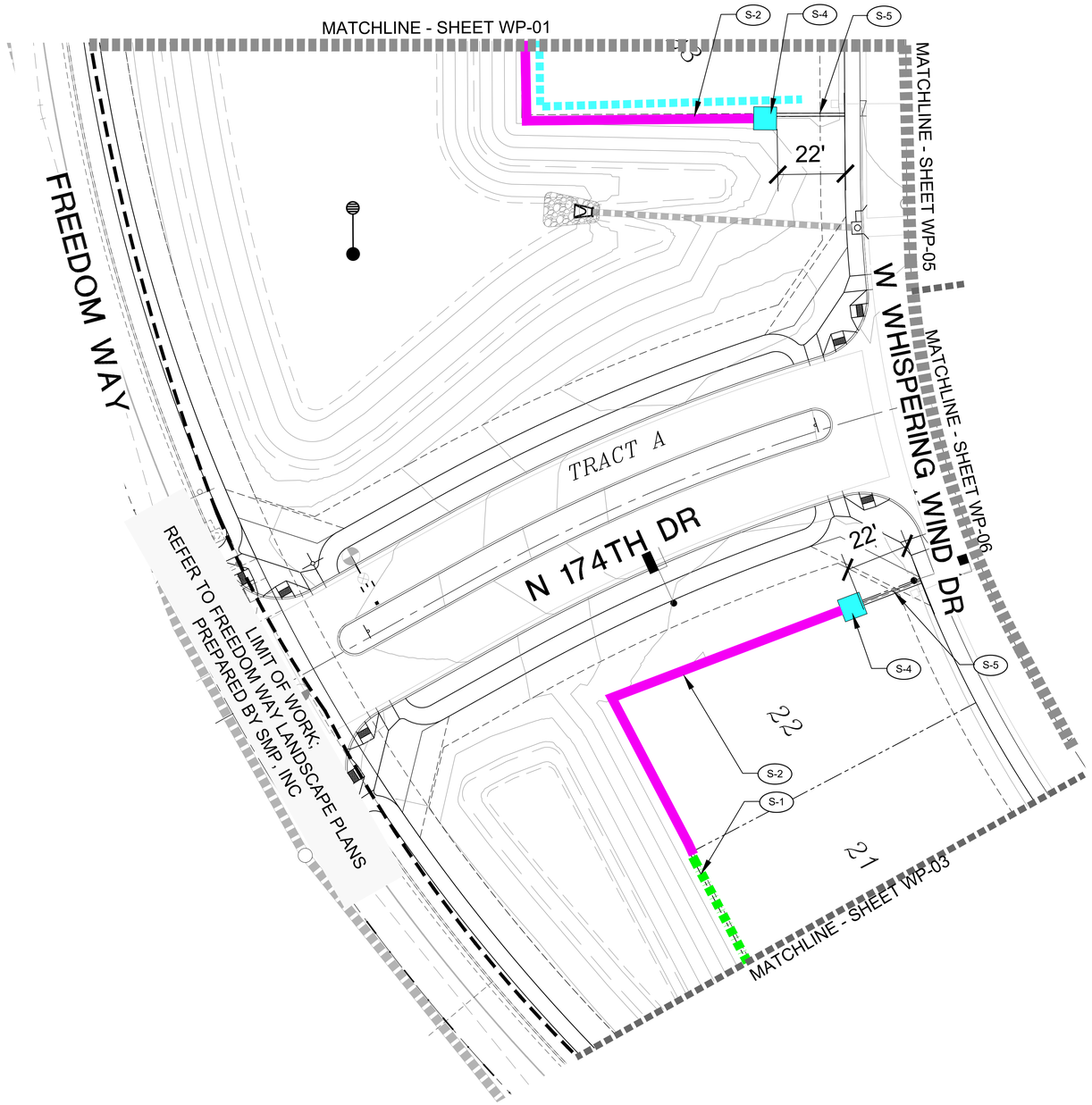
PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP

SHEET NUMBER
WP-01
OF 27

CASE # FS22-0590



WALL AND FENCE LEGEND

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S-1		PROJECT THEME WALL	A / LD-01
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S-4		THEME COLUMN	C / LD-03
S-5		CONCRETE MOWCURB	A / LD-02
S-6		RETAINING WALL (BY CIVIL ENGINEER)	

NOTE:
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NOTE:
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RETAINING WALL, SCREEN OR BUILDER WALL MATRIX

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2	South	Interior of lot	6.00
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9	North	Interior of lot	7.50
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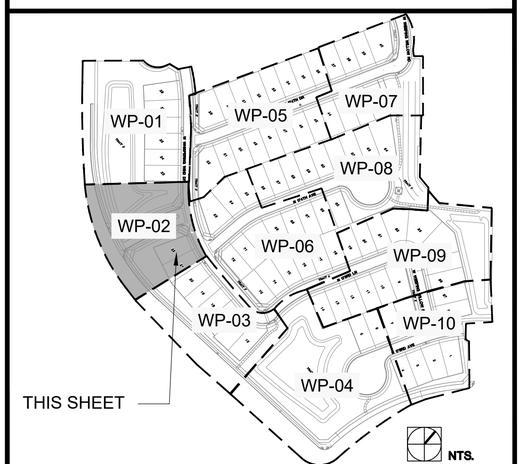

NORTH

SCALE: 1" = 20' - 0"
0 20 40 60 80

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REGISTERED LANDSCAPE ARCHITECT
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PATRICK C.M. MURPHY
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(480) 345-0077

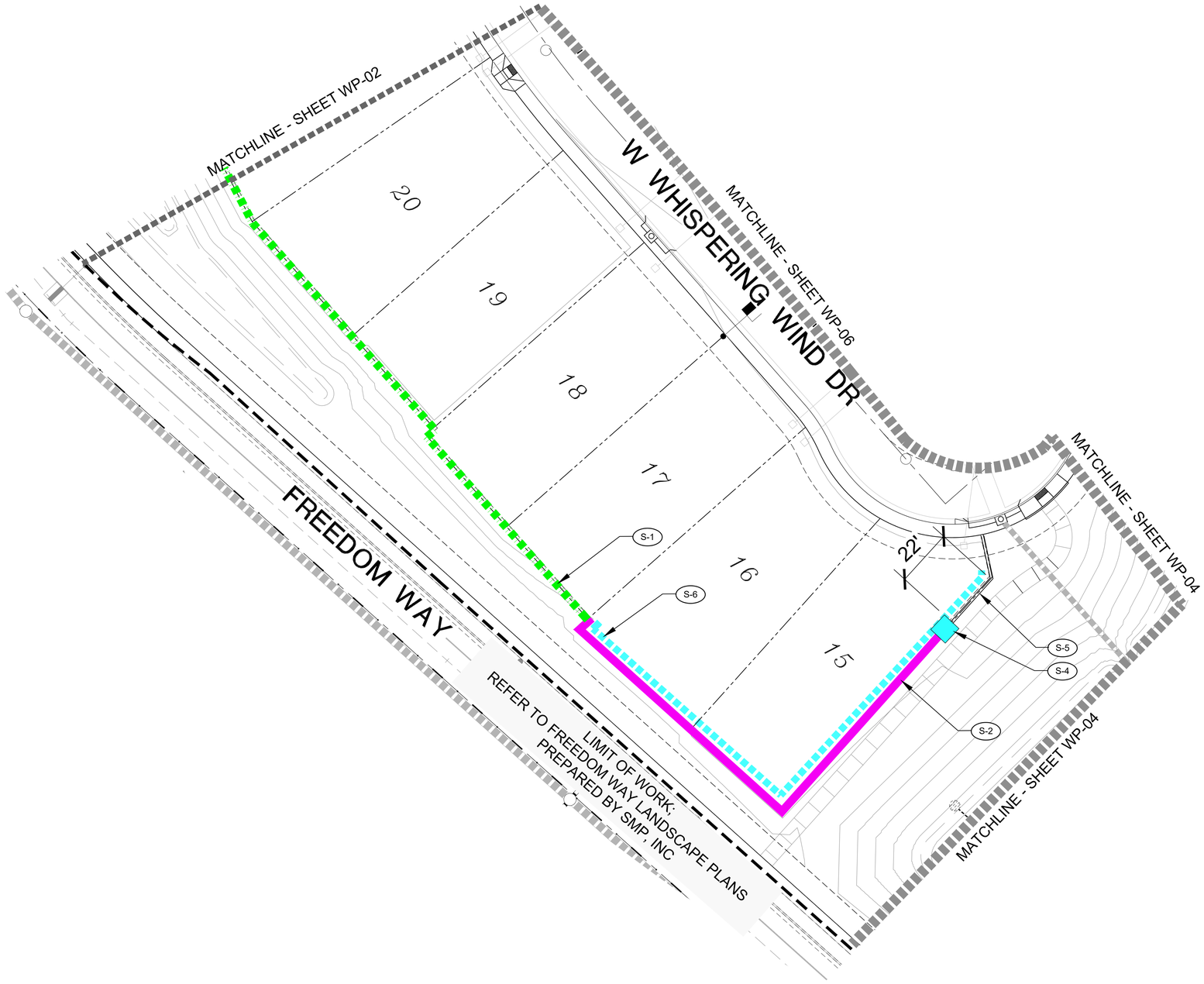
PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP

SHEET NUMBER
WP-02
OF 27

CASE # FS22-0590



WALL AND FENCE LEGEND

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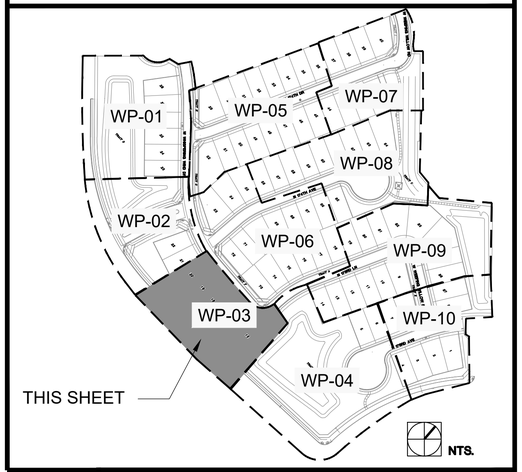

NORTH

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0 20 40 60 80

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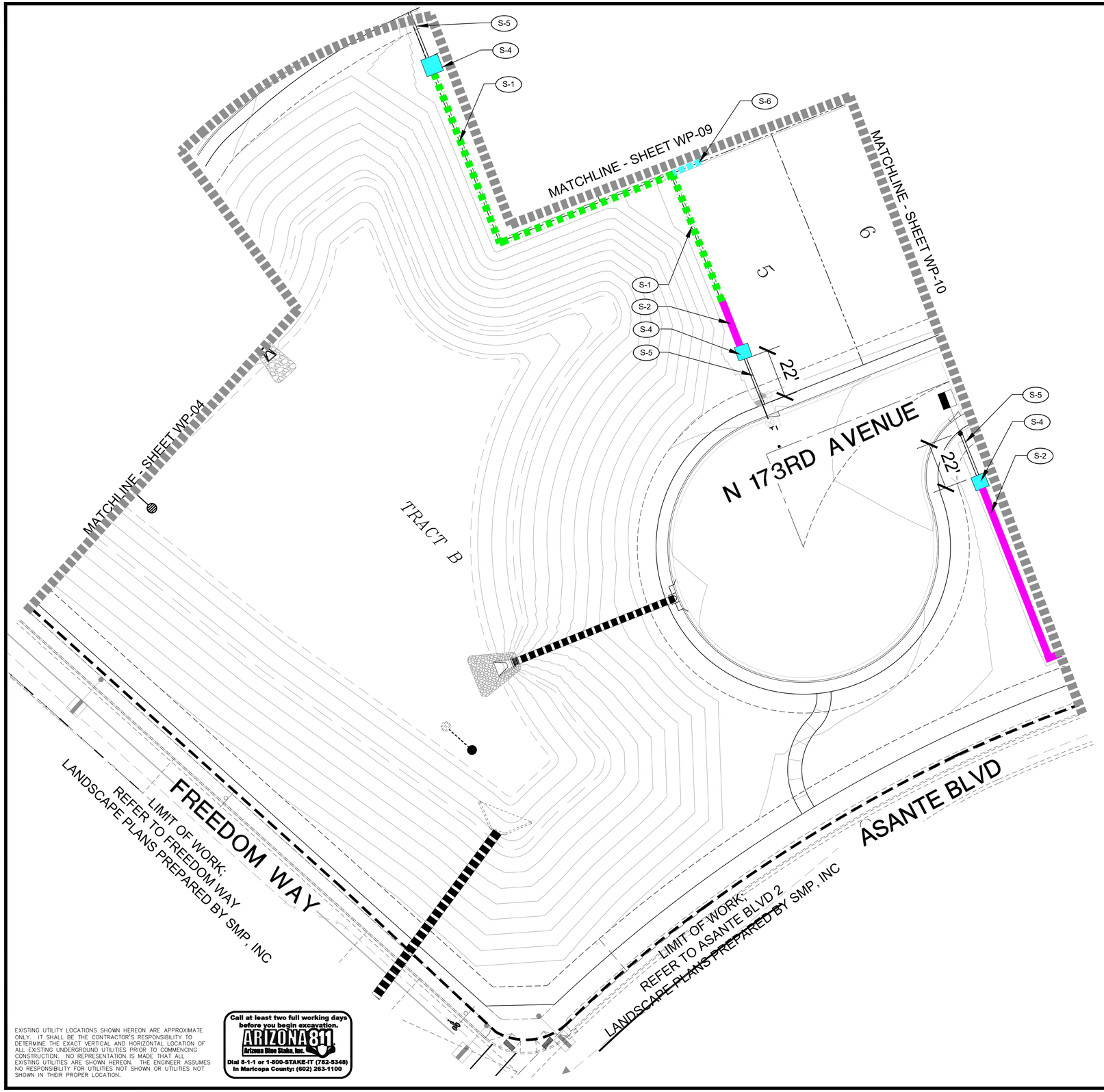
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP

SHEET NUMBER
WP-03
OF 27

CASE # FS22-0590



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ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

WALL AND FENCE LEGEND

NO.	SYMBOL	DESCRIPTION	DETAIL / SHEET
S-1		PROJECT THEME WALL	A / LD-01
S-2		THEME WALL PANEL	A / LD-01
S-3		VIEW FENCE (6' HIGH)	C / LD-01
S-4		THEME COLUMN	C / LD-03
S-5		CONCRETE MOWCURB	A / LD-02
S-6		RETAINING WALL (BY CIVIL ENGINEER)	

NOTE:
NO WALLS TO BE GREATER THAN 8' INCLUDING THE HEIGHT OF THE RETAINING WALLS.

NOTE:
SIGHT DISTANCE REQUIREMENTS ON ARTERIALS AND COLLECTORS WILL ADHERE TO SURPRISE DETAIL 4-01. SIGHT VISIBILITY WITHIN THE UNOBSTRUCTED VIEW EASEMENT AREA AND IN FRONT OF STOP SIGNS MUST MEET OR EXCEED REQUIREMENTS IN SURPRISE DETAILS 4-01 AND 4-02

RETAINING WALL, SCREEN OR BUILDER WALL MATRIX

Lot	Location	Side	Exposed Wall Height
2	South	Interior of lot	6.00
3	North	Interior of lot	7.50
9	North	Interior of lot	7.50
9	South	Exterior at Tract	6.00
15	South	Interior of lot	6.00
15	North	Exterior at Tract	7.50
16	South	Interior of lot	6.00
16	North	Exterior at Tract	7.50
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85	South	Exterior at Tract	7.00
86	North	Interior of lot	6.00
86	South	Exterior at Tract	7.00
88	North	Interior of lot	6.00
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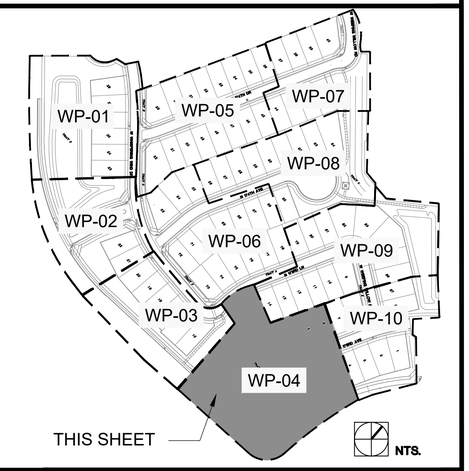

NORTH

SCALE: 1" = 20' - 0"
0 20 40 60 80

SMP
ENVIRONMENTAL DESIGN
SUMMERS/MURPHY & PARTNERS, INC.
7114 STETSON DRIVE, STE 350
SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

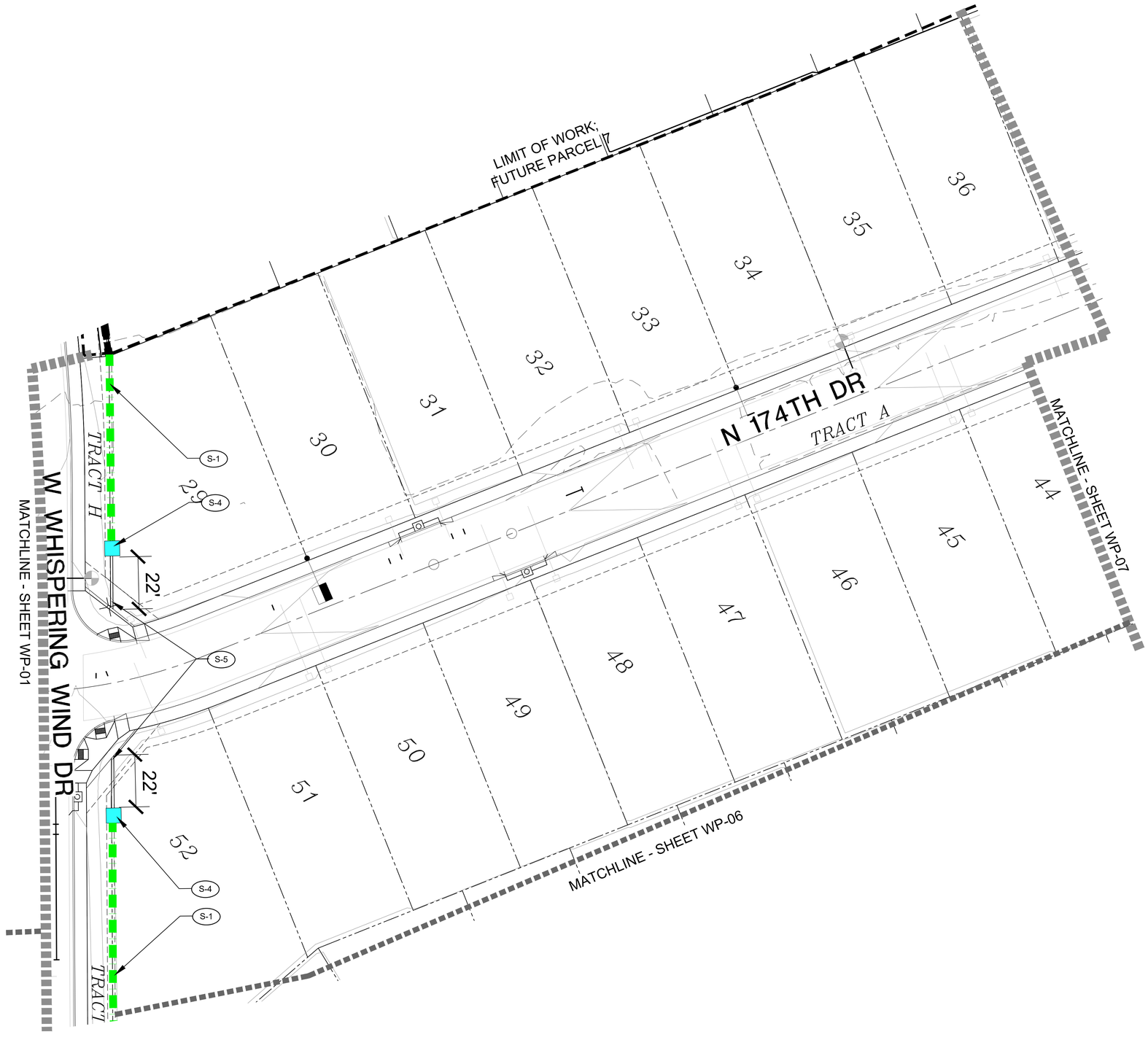
OWNER:
LENNAR HOMES
1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP
SHEET NUMBER	WP-04
	OF 27

CASE # FS22-0590



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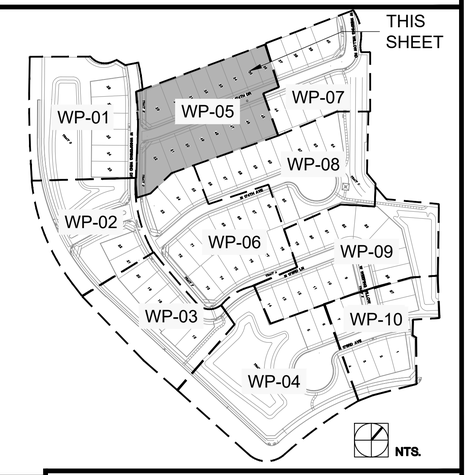

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DATE | REVISION

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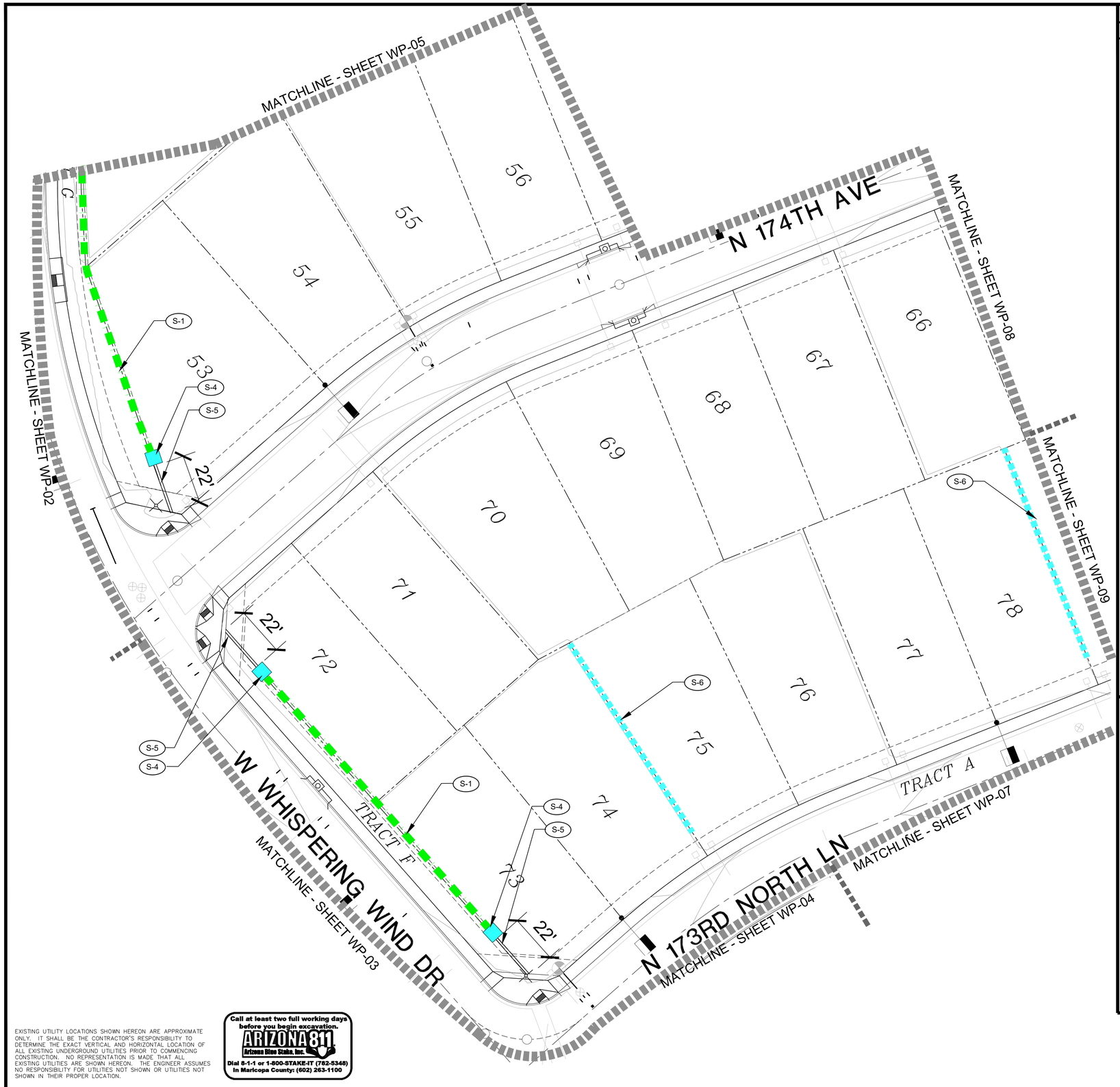
(480) 345-0077

PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP
SHEET NUMBER	WP-05
	OF 27

CASE # FS22-0590



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S-2		THEME WALL PANEL	A / LD-01
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S-5		CONCRETE MOWCURB	A / LD-02
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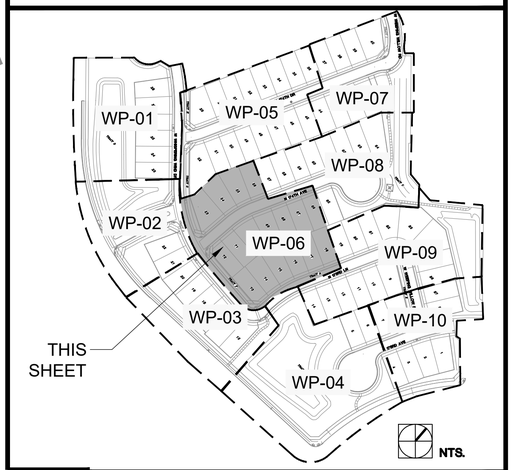

NORTH

SCALE: 1" = 20' - 0"

0 20 40 60 80

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TEMPE, ARIZONA 85282
(480) 345-0077

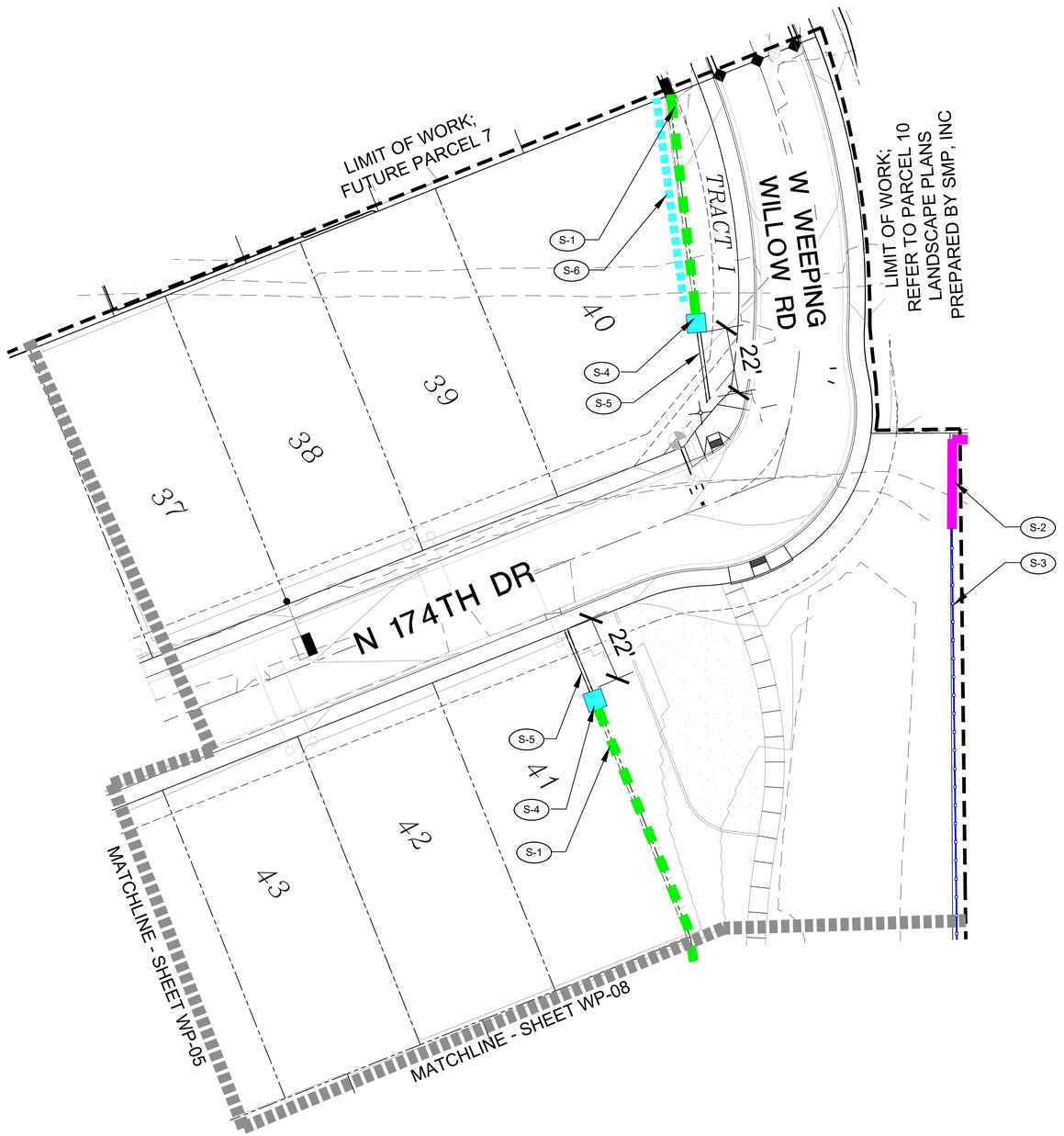
PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP

SHEET NUMBER
WP-06
OF 27

CASE # FS22-0590



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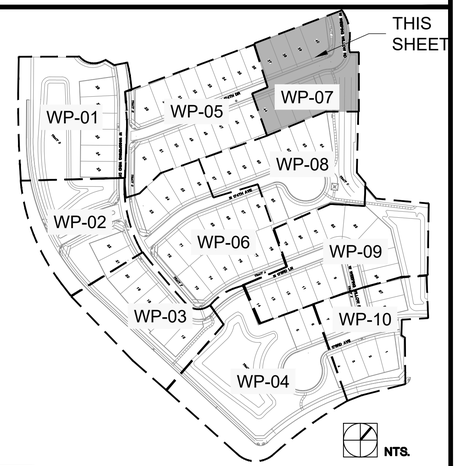

NORTH

SCALE: 1" = 20' - 0"

0 20 40 60 80

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TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP
SHEET NUMBER	WP-07
	OF 27

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Arizona Blue Stake, Inc.
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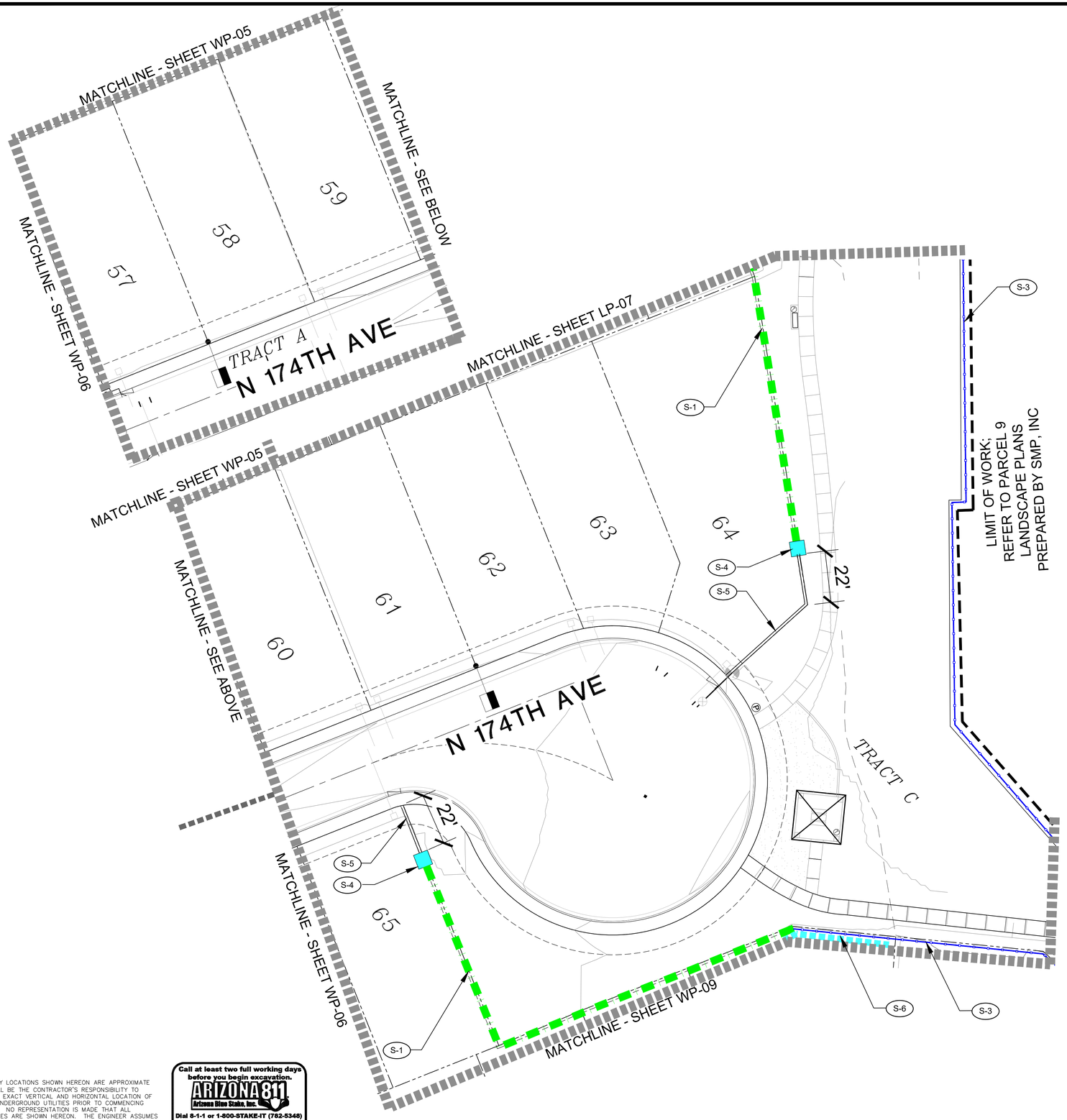
Notes:
Sight distance requirements on Arterials and Collectors will adhere to Surprise Detail 4-01. Sight visibility within the unobstructed view easement area and in front of stop signs must meet or exceed requirements in Surprise Details 4-01 and 4-02. Trees, shrubs, and other landscaping are permitted within the sight visibility triangle provided limbs, leaves, needles or other foliage are kept below 30 inches or above 84 inches, per Surprise EDS Detail 4-01.

CASE # FS22-0590



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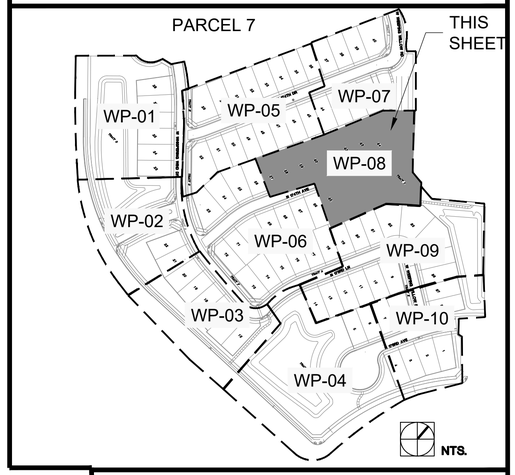

NORTH

SCALE: 1" = 20' - 0"
0 20 40 60 80

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TEMPE, ARIZONA 85282
(480) 345-0077

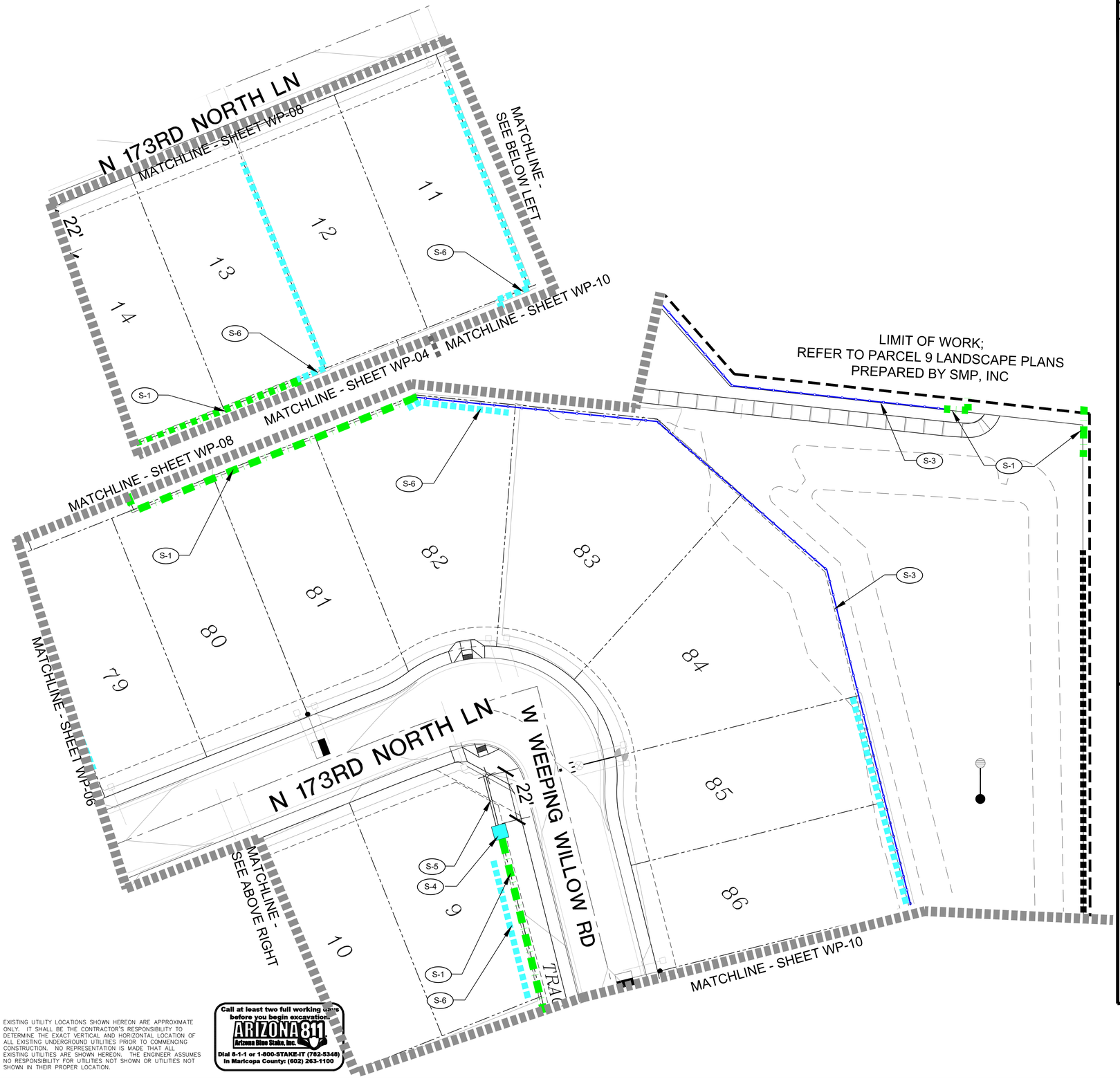
PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP
SHEET NUMBER	WP-08

OF 27

CASE # FS22-0590



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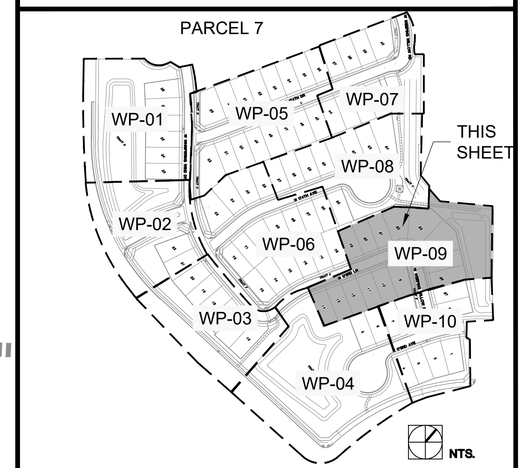
Lot	Location	Side	Exposed Wall Height
2	South	Interior of lot	6.00
3	North	Interior of lot	7.50
9	North	Interior of lot	7.50
9	South	Exterior at Tract	6.00
15	South	Interior of lot	6.00
15	North	Exterior at Tract	7.50
16	South	Interior of lot	6.00
16	North	Exterior at Tract	7.50
22	West	Interior of lot	7.50
22	East	Exterior at Tract	6.00
40	North	Interior of lot	7.50
40	South	Exterior at Tract	6.00
52	South	Interior of lot	6.00
52	North	Exterior at Tract	7.50
72	South	Interior of lot	6.00
72	North	Exterior at Tract	7.00
85	North	Interior of lot	6.00
85	South	Exterior at Tract	7.00
86	North	Interior of lot	6.00
86	South	Exterior at Tract	7.00
88	North	Interior of lot	6.00
88	South	Exterior at Tract	7.00



NORTH

SCALE: 1" = 20' - 0"
0 20 40 60 80

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ENVIRONMENTAL DESIGN
SUMMERS/MURPHY & PARTNERS, INC.
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SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

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TEMPE, ARIZONA 85282
(480) 345-0077

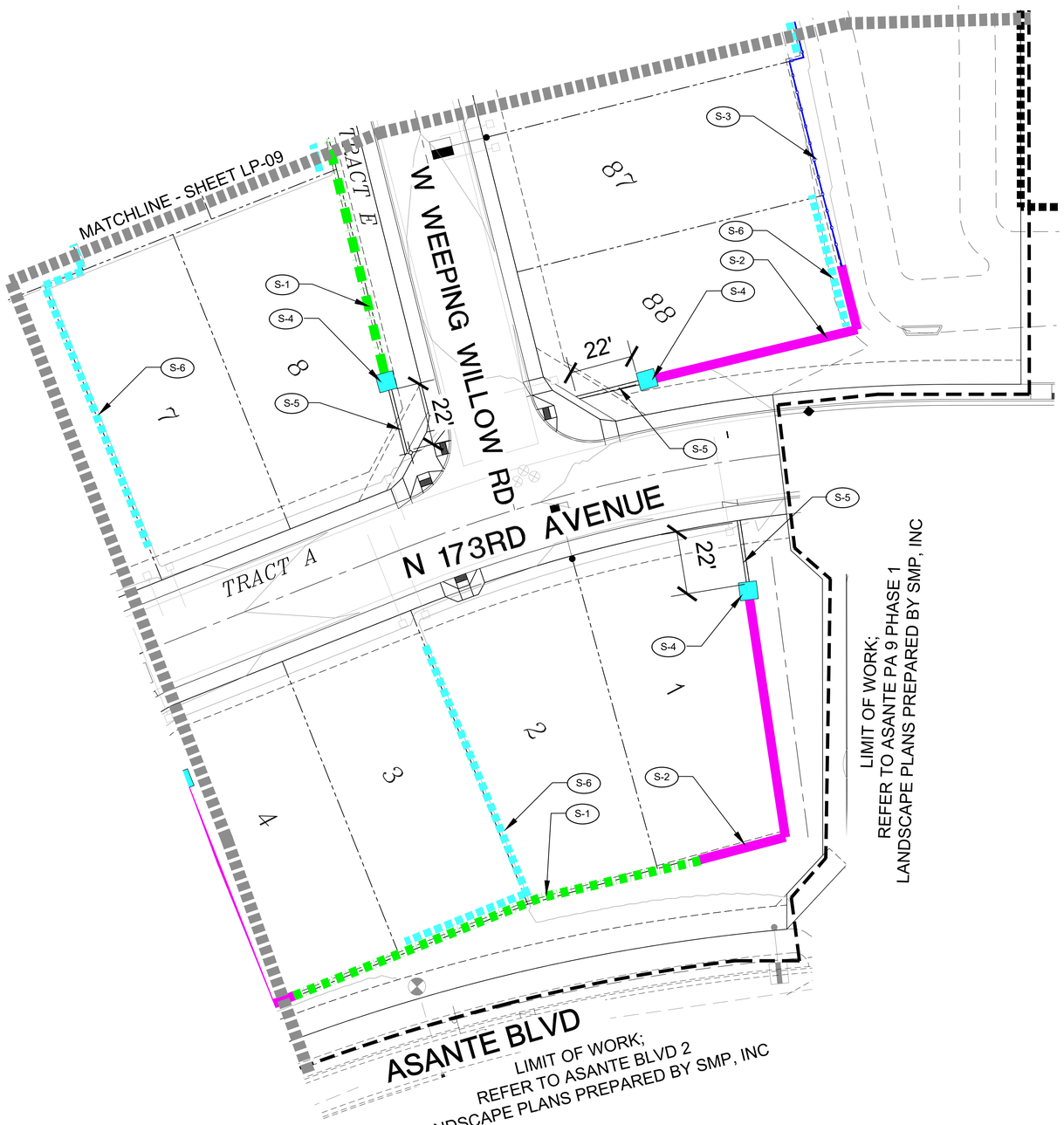
PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP

SHEET NUMBER
WP-09
OF 27

CASE # FS22-0590



WALL AND FENCE LEGEND

NO.	SYMBOL	DESCRIPTION	DETAIL / SHEET
S-1		PROJECT THEME WALL	A / LD-01
S-2		THEME WALL PANEL	A / LD-01
S-3		VIEW FENCE (6' HIGH)	C / LD-01
S-4		THEME COLUMN	C / LD-03
S-5		CONCRETE MOWCURB	A / LD-02
S-6		RETAINING WALL (BY CIVIL ENGINEER)	

NOTE:
NO WALLS TO BE GREATER THAN 8' INCLUDING THE HEIGHT OF THE RETAINING WALLS.

NOTE:
SIGHT DISTANCE REQUIREMENTS ON ARTERIALS AND COLLECTORS WILL ADHERE TO SURPRISE DETAIL 4-01. SIGHT VISIBILITY WITHIN THE UNOBSTRUCTED VIEW EASEMENT AREA AND IN FRONT OF STOP SIGNS MUST MEET OR EXCEED REQUIREMENTS IN SURPRISE DETAILS 4-01 AND 4-02

RETAINING WALL, SCREEN OR BUILDER WALL MATRIX

Lot	Location	Side	Exposed Wall Height
2	South	Interior of lot	6.00
3	North	Interior of lot	7.50
9	North	Interior of lot	7.50
9	South	Exterior at Tract	6.00
15	South	Interior of lot	6.00
15	North	Exterior at Tract	7.50
16	South	Interior of lot	6.00
16	North	Exterior at Tract	7.50
22	West	Interior of lot	7.50
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52	North	Exterior at Tract	7.50
72	South	Interior of lot	6.00
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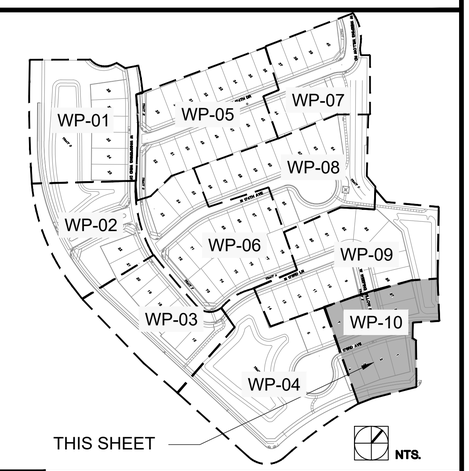
85	North	Interior of lot	6.00
85	South	Exterior at Tract	7.00
86	North	Interior of lot	6.00
86	South	Exterior at Tract	7.00
88	North	Interior of lot	6.00
88	South	Exterior at Tract	7.00



NORTH

SCALE: 1" = 20' - 0"
0 20 40 60 80

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
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HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
WALL AND FENCE PLAN

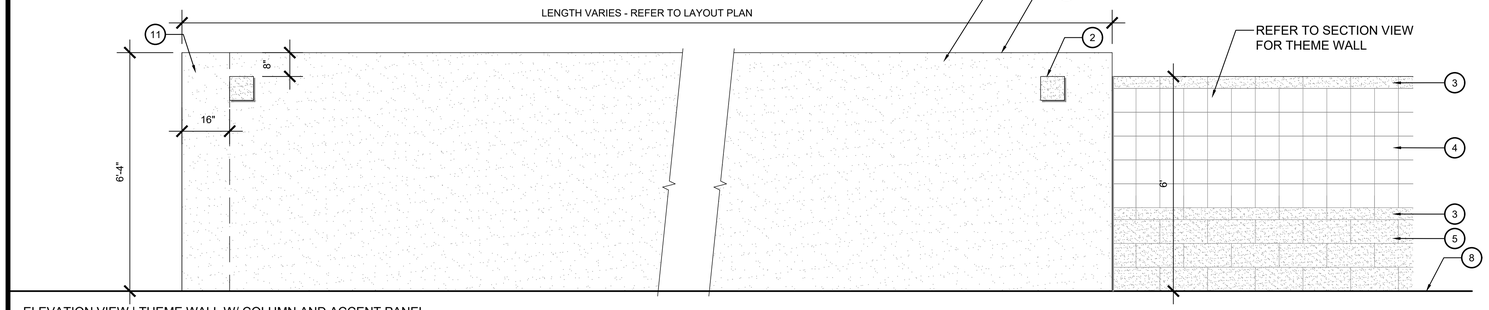
DESIGNED	RH
DRAWN	CN
CHECKED	DB
DATE	07-29-22
JOB NO.	110152
CAD FILE	8_WP
SHEET NUMBER	WP-10
	OF 27

CASE # FS22-0590

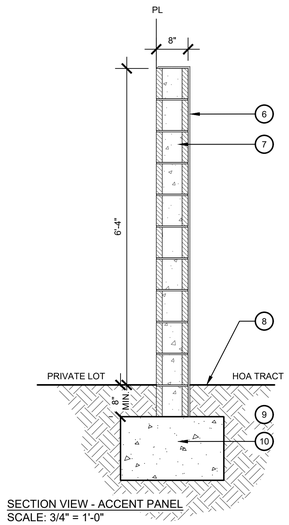
LEGEND

1. THEME WALL & ACCENT PANEL - SMOOTH STUCCO FINISH PAINTED "BREVITY BROWN" SW6068
2. 6"x8"x8" SPLIT-FACE CMU BLOCK, PAINTED "UTTERLY BEIGE" SW6080
3. 6"x4"x16" SOLID SPLIT-FACE CMU BLOCK PAINTED"UTTERLY BEIGE" SW6080
4. 6"x8"x16" SINGLE-SCORE SMOOTH FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
5. 6"x8"x16" SPLIT-FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
6. STUCCO FINISH - COMMON EXTERIOR FACE, TOP AND EXPOSED ENDS TO RECEIVE STUCCO
7. 8"x8"x16" SMOOTH FACE CMU BLOCK CONSTRUCTION, PRIVATE SIDE EXTERIOR FACE PAINTED "UTTERLY BEIGE" SW6080
8. FINISH GRADE
9. COMPACTED SUBGRADE
10. CONCRETE FOOTING WITH STEEL REINFORCEMENT PER STRUCTURAL ENGINEER'S DETAILS AND CALCS
11. THEME COLUMN-SMOOTH STUCCO FINISH PAINTED "BREVITY BROWN" SW6068; REFER TO DETAIL A, LD-03

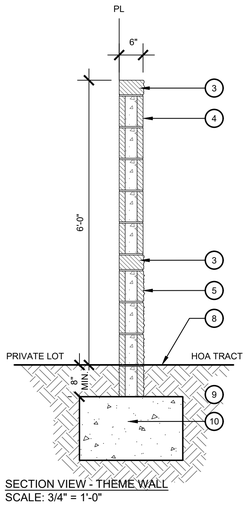
NOTES:
- REFER TO STRUCTURAL ENGINEER'S DETAILS & CALCULATIONS FOR ALL CONNECTIONS, FOOTINGS AND REINFORCING INFORMATION.



ELEVATION VIEW | THEME WALL W/ COLUMN AND ACCENT PANEL
SCALE: 1/2" = 1'-0"



SECTION VIEW - ACCENT PANEL
SCALE: 3/4" = 1'-0"



SECTION VIEW - THEME WALL
SCALE: 3/4" = 1'-0"

A | PERIMETER THEME WALL AND THEME WALL PANEL - TO BE CONSISTENT W/ WALL PLAN

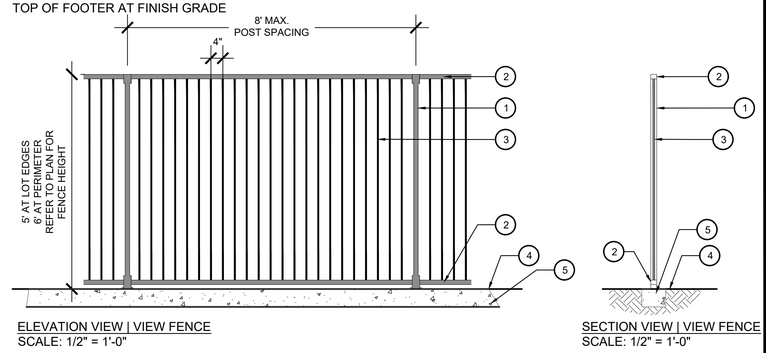
B | NOT USED

C | VIEW FENCE

LEGEND

1. 2" SQ. TUBE STEEL POST - WELD POST TO WELD PLATE
2. 1-1/4" SQ. TUBE STEEL RAIL - PROVIDED WELDED FLANGE FOR ATTACHMENT TO POST
3. 5/8" SQ. TUBE STEEL PICKET
4. FINISH GRADE
5. CONTINUOUS CONCRETE FOOTER TOP OF FOOTER AT FINISH GRADE

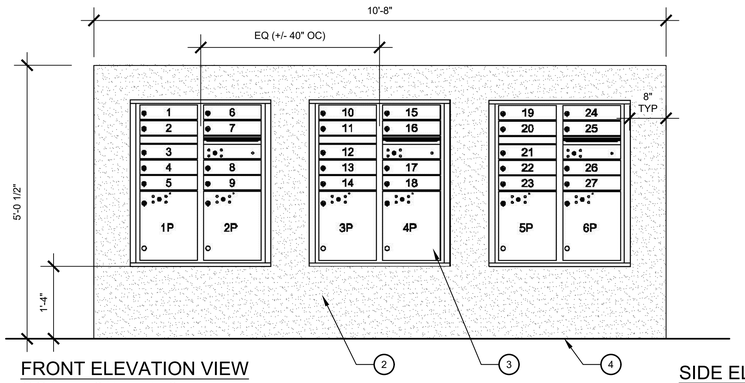
NOTES:
- REFER TO STRUCTURAL ENGINEER'S DETAILS & CALCULATIONS FOR ALL CONNECTIONS, FOOTINGS AND REINFORCING INFORMATION.
- ALL STEEL FENCING TO BE CARDINAL INDUSTRIES COLOR "TEXTURED RUST" BR-47



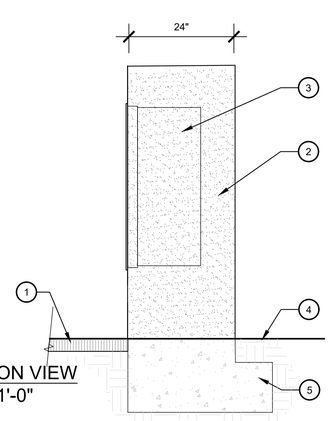
ELEVATION VIEW | VIEW FENCE
SCALE: 1/2" = 1'-0"

SECTION VIEW | VIEW FENCE
SCALE: 1/2" = 1'-0"

C | MAILBOX CLUSTER



FRONT ELEVATION VIEW
SCALE: 3/4" = 1'-0"



SIDE ELEVATION VIEW
SCALE: 3/4" = 1'-0"

LEGEND

1. CONCRETE SIDEWALK
2. 6"x8"x16" SMOOTH STUCCO FACE CMU BLOCK PAINTED "TEXTURED RUST" BR-47
3. VERSATILE 4C MAILBOX FRONT LOAD W/ 9 COMPARTMENTS (5)
4. FINISH GRADE - DECORATIVE GRAVEL
5. CONCRETE FOOTING - REFER TO STRUCTURAL ENGINEER'S PLANS

NOTES:
- REFER TO STRUCTURAL ENGINEER'S DETAILS & CALCULATIONS FOR ALL CONNECTIONS, FOOTINGS AND REINFORCING INFORMATION.
- MAILBOX CLUSTER LOCATIONS TO BE DETERMINED AND APPROVED BY USPS.
- MAILBOX STRUCTURE AND MAIL BOXES ARE TO BE CONSTRUCTED AND INSTALLED TO MEET USPS ADA REQUIREMENTS FOR 'PARCEL' MAILBOX. ICC/ANSI A117.1 2009 SECTION 308.2.1 OR 308.3.1

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CERTIFICATE NO.
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
CONSTRUCTION DETAILS

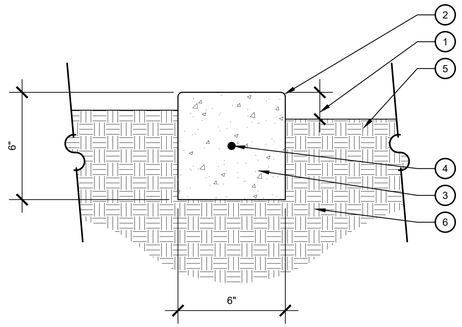
DESIGNED	SMP
DRAWN	SMP
CHECKED	SMP
DATE	07-29-22
JOB NO.	110152
CAD FILE	275

SHEET NUMBER
LD-01
OF 27

A CONCRETE CURB

LEGEND

1. 1.5" SHRUB AREA/ 1" TURF AREA
2. 1/4" RADIUS NOSE, TYP.
3. CONCRETE MOW CURB W/ MEDIUM BROOM FINISH, SCORE JOINTS @ 5' O.C. AND EXPANSION JOINTS @ 20' O.C.
4. #3 REBAR CONTINUOUS
5. FINISH GRADE
6. COMPACTED SUBGRADE

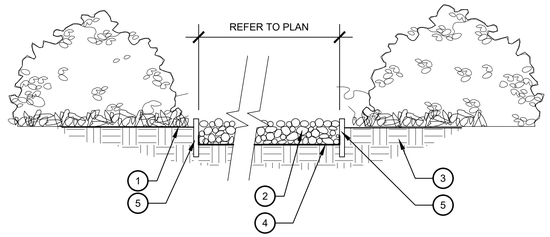


SECTION VIEW
SCALE: 3" = 1'-0"

B DECOMPOSED GRANITE

LEGEND

1. FINISH GRADE - PLANTING AREA
2. LOOSE PEBBLE / DECOMPOSED GRANITE WITH BINDER - REFER TO LAYOUT PLANS AND FINISH SCHEDULE
3. COMPACTED SUBGRADE - REFER TO SOILS REPORT
4. 10 ML VISQUEEN
5. METAL / PLASTIC EDGING - REFER TO FINISH SCHEDULE



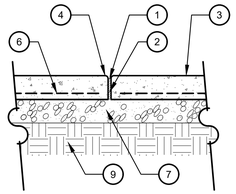
SECTION VIEW
SCALE: 1-1/2" = 1'-0"

C CONCRETE PAVING

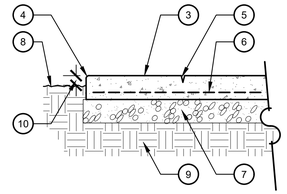
LEGEND

1. POLYSTYRENE JOINT CAP OVER EXPANSION BOARD. REMOVE TOP OF JOINT CAP PRIOR TO CAULKING. (SEE NOTE)
2. 3/8" WIDE FULL DEPTH ASPHALT SATURATED FIBER EXPANSION BOARD
3. CONCRETE PAVING - REFER TO FINISH SCHEDULE FOR COLOR, FINISH AND/OR PATTERN - REFER TO SOILS REPORT FOR THICKNESS
4. 1/4" RADIUS - ALL EDGES
5. 3/4" DEEP X 3/8" WIDE (MAX.) SCORE JOINT WITH 1/4" RADIUS EDGES WHERE OCCURS SEE CONSTRUCTION PLAN
6. REINFORCING STEEL - REFER TO SOILS REPORT FOR REQUIREMENTS
7. AGGREGATE SUB-BASE - REFER TO SOILS REPORT FOR DEPTH REQUIREMENTS
8. FINISH GRADE
9. COMPACTED SUBGRADE - REFER TO SOILS REPORT FOR REQUIREMENTS
10. 1" MINIMUM, 2" AT TURF AREAS

NOTE:
- APPLY 1/2" DEEP JOINT SEALANT (CAULKING) INTO GROOVE . SAND IN WITH #60 SILICA SAND. MATCH COLOR OF PAVING

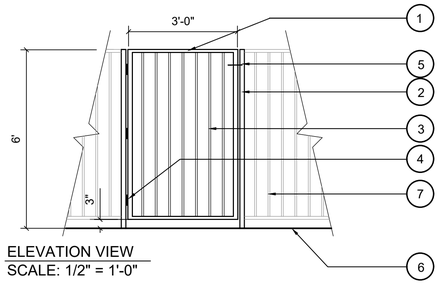


SECTION VIEW - EXPANSION JOINT
SCALE: 1" = 1'-0"



SECTION VIEW - SCORE JOINT
SCALE: 1" = 1'-0"

D PEDESTRIAN GATE



ELEVATION VIEW
SCALE: 1/2" = 1'-0"

LEGEND

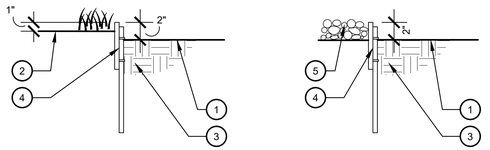
1. 2" X 1-1/2" TUBULAR STEEL GATE FRAME
2. 2" SQ. TUBULAR STEEL POSTS
3. 5/8" SQ. STEEL PICKETS @ 4-1/2" O.C.
4. SELF-CLOSING STEEL HINGE(S)
5. GATE LATCH; LOCKABLE
6. FINISH GRADE
7. TUBULAR STEEL FENCE; REFER TO DETAIL 1, SHEET LCD-04

NOTES:
- ALL SURFACES SHALL BE GROUND SMOOTH.
- TREAT ALL EXPOSED SURFACES W/ (2) COATS MOISTURE-PROOF PRIMER AND (2) COATS FINISH (COLOR BY OWNER).

E STEEL EDGING

LEGEND

1. FINISH GRADE -PLANTING AREA
2. FINISH GRADE -TURF AREA
3. COMPACTED SUBGRADE
4. METAL EDGING -REFER TO FINISH SCHEDULE
5. LOOSE PEBBLES -REFER TO FINISH SCHEDULE



SECTION VIEW
SCALE: 1-1/2" = 1'-0"

F PET STATIONS

DOGIPOT
2100 PRINCIPAL ROW, SUITE 405
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INCLUDES:
-ALUMINUM DOGIPOT PET SIGN, WITH MOUNTING HARDWARE
-ALUMINUM DOGIPOT JUNIOR BAG DISPENSER (ITEM #1002-2), WITH MOUNTING HARDWARE
-TWO KEYS FOR DISPENSER LOCKING FRONT ACCESS PANEL
-TWO ROLLS OF DOGIPOT LITTER PICK UP BAGS (ITEM #1-602), INSTALLED IN DOGIPOT JUNIOR BAG DISPENSER
-10 GALLON ALUMINUM TRASH RECEPTACLE (ITEM #1206A-L) WITH ATTACHED HINGED LID AND TRASH LINER BAG RETAINER BANDS, WITH MOUNTING HARDWARE
-ONE DOGIPOT LINER TRASH BAGS (ITEM #1404)
-2" X 2" X 4'-8" GALVANIZED STEEL TELESCOPIC MOUNTING POST, WITH INSTALLATION HARDWARE

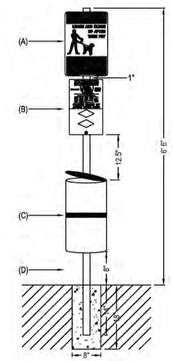
(A) DOGIPOT PET SIGN (ITEM #1203 / 1204) :
-H: 18" X W: 11.5"
-14 GAUGE REFLECTIVE ALUMINUM
-WEIGHT: 1.35 LBS
-FOREST GREEN ON WHITE

(B) DOGIPOT JUNIOR BAG DISPENSER (ITEM #1002-2):
-H: 15.5" X W: 9.4" X D: 3.25"
-12 GAUGE POWDER COATED FOREST GREEN ALUMINUM
-WEIGHT: 7 LBS.
-400 BAG CAPACITY
-TWO DIAMOND BAG DISPENSER SLOTS
-FRONT LOCKING ACCESS PANEL
-CLEARLY POSTED INSTRUCTIONS

(C) TRASH RECEPTACLE WITH LID (ITEM #1206A-L):
-H: 23" X 11.5" DIAMETER
-11 GAUGE POWDER COATED FOREST GREEN ALUMINUM
-WEIGHT: 9 LBS.
-10 GALLON CAPACITY WITH INTERIOR TRASH LINER BAG RETAINER BANDS
-ATTACHED ALUMINUM HINGED LID
-ONE BOX 50 COUNT DOGIPOT LINER TRASH BAGS (ITEM #1404)

(D) TELESCOPIC GALVANIZED STEEL MOUNTING POST (ITEM #1301-P):
-2" X 2" X 8'
-11 GAUGE GALVANIZED STEEL
-WEIGHT: 15 LBS.

HOLE:
-D: 18" X W: 8"
-FILL WITH 40 LBS. "READY TO USE: CEMENT



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 2635-004.

PET STATIONS
ALUMINUM DOGIPOT® PET STATION (1003A-L)

2635-004 REVISION DATE 04/05/2015

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Date Signed 06-29-22
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PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
CONSTRUCTION DETAILS

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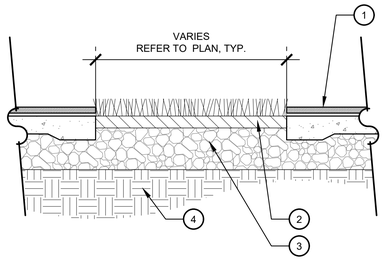
DRAWN	SMP
CHECKED	SMP
DATE	07-29-22
JOB NO.	110152
CAD FILE	275

SHEET NUMBER
LD-02
OF 27

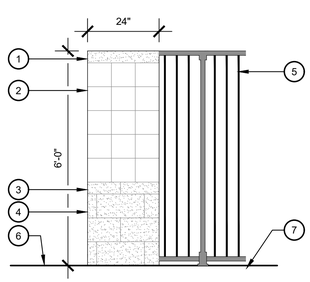
LEGEND

1. ADJACENT WALKWAY PAVING -REFER TO CONSTRUCTION LAYOUT PLAN
2. SYNTHETIC TURF - REFER TO FINISH SCHEDULE
3. SUB-BASE MATERIAL
4. COMPACTED SUBGRADE

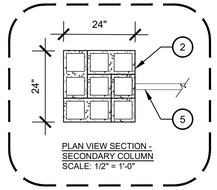
NOTES:
- REFER TO SOILS ENGINEER'S REPORT FOR MINIMUM THICKNESS OF CONCRETE, REINFORCING STEEL, COMPACTED SUBGRADE, AND SUB-BASE MATERIAL.



SECTION VIEW
SCALE: 1" = 1'-0"



ELEVATION VIEW -SECONDARY COLUMN
SCALE: 1/2" = 1'-0"

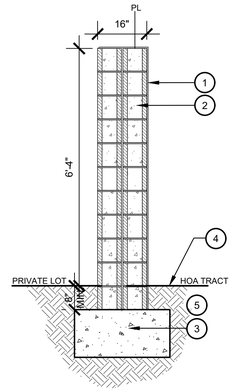


PLAN VIEW SECTION -
SECONDARY COLUMN
SCALE: 1/2" = 1'-0"

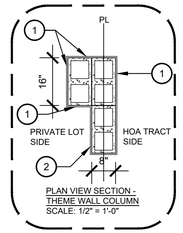
LEGEND

1. 8"x4"x16" SOLID SPLIT-FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
2. 8"x8"x16" SINGLE-SCORE SMOOTH FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
3. 8"x4"x16" SOLID SPLIT-FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
4. 8"x8"x16" SPLIT-FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
5. TUBE STEEL VIEW FENCE
6. FINISH GRADE
7. CONTINUOUS CONCRETE FOOTING TOP OF FOOTING AT FINISH GRADE

NOTES:
- REFER TO STRUCTURAL ENGINEER'S DETAILS & CALCULATIONS FOR ALL CONNECTIONS, FOOTINGS AND REINFORCING INFORMATION.
- ALL STEEL FENCING TO BE CARDINAL INDUSTRIES COLOR "TEXTURED RUST" BR-47



SECTION VIEW -THEME WALL COLUMN
SCALE: 1/2" = 1'-0"



PLAN VIEW SECTION -
THEME WALL COLUMN
SCALE: 1/2" = 1'-0"

LEGEND

1. STUCCO FINISH - COMMON EXTERIOR FACE, TOP AND EXPOSED ENDS TO RECEIVE STUCCO
2. 8"x8"x16" SMOOTH FACE CMU BLOCK CONSTRUCTION, PRIVATE SIDE EXTERIOR FACE PAINTED "UTTERLY BEIGE" SW6080
3. CONCRETE FOOTING WITH STEEL REINFORCEMENT PER STRUCTURAL ENGINEER'S DETAILS AND CALCS.
4. FINISH GRADE
5. COMPACTED SUBGRADE

NOTES:
- REFER TO STRUCTURAL ENGINEER'S DETAILS & CALCULATIONS FOR ALL CONNECTIONS, FOOTINGS AND REINFORCING INFORMATION.
- ALL STEEL FENCING TO BE CARDINAL INDUSTRIES COLOR "TEXTURED RUST" BR-47

A SYNTHETIC TURF

B SECONDARY COLUMN

-BENCH MODEL: BENCH 190, 6' STEEL
-COLOR: BRONZE
-AVAIL. FROM: DUMOR (www.dumor.com)

C THEME COLUMN

-MODEL: RECEPTACLE 432, 32 GALLON, RC TOP, STEEL
-COLOR: BRONZE
-AVAIL. FROM: DUMOR (www.dumor.com)

E BENCH

D TRASH RECEPTACLE

SMP
ENVIRONMENTAL DESIGN
SUMMERS/MURPHY & PARTNERS, INC.
7114 STETSON DRIVE, STE 350
SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

OWNER:
LENNAR HOMES
1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

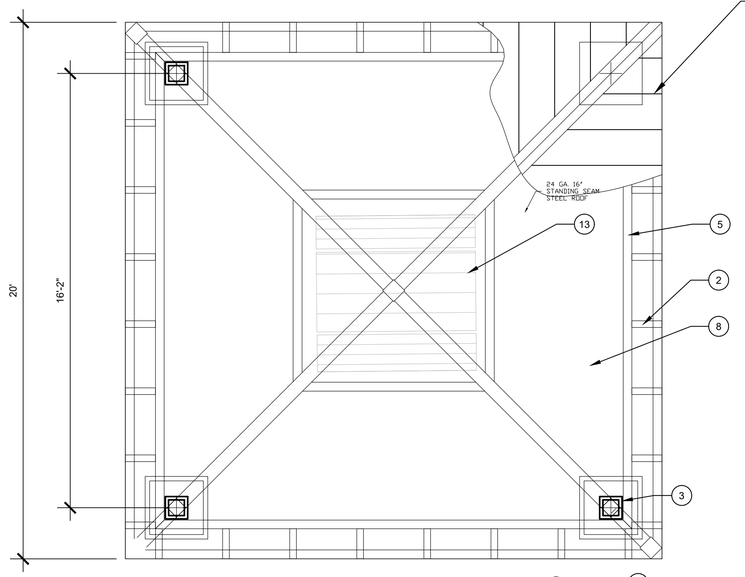
SHEET DESCRIPTION
CONSTRUCTION DETAILS

DESIGNED	SMP
DRAWN	SMP
CHECKED	SMP
DATE	07-29-22
JOB NO.	110152
CAD FILE	275

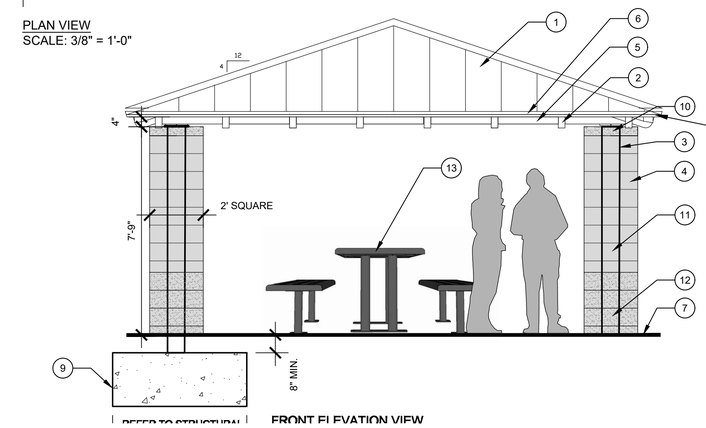
SHEET NUMBER
LD-03
OF 27

-TABLE MODEL: 298-60-2HS W/ STEEL SEATS
-COLOR: BRONZE
-AVAIL. FROM: DUMOR (www.dumor.com)

D | PICNIC TABLES UNDER RAMADA



PLAN VIEW
SCALE: 3/8" = 1'-0"



FRONT ELEVATION VIEW

A | RAMADA

OVERALL AREA
400 SQFT

LEGEND

1. 20'X20' "MESA" MODEL RAMADA, AVAIL. FROM CLASSIC RECREATION (www.classicrecreation.com)
2. RAFTER TAIL
3. 8"X8" STUB COLUMN ON TOP TRANSITION PLATE & ROTATED 8X8" COLUMN
4. COLUMN SURROUND (TO MATCH SECONDARY THEME COLUMNS - REFER TO WALL DETAILS)
5. PERIMETER BEAM
6. 2"X1" ROOF SUPPORT
7. FINISH SURFACE / FINISH GRADE
8. 24" GA. 16" STANDING SEAM STEEL ROOF
   COLOR: PATRICIAN BRONZE
9. REINFORCED CONCRETE FOOTING - REFER TO STRUCTURAL ENGINEER'S PLANS, TYP.
10. 6"x4"x16" SOLID SPLIT-FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
11. 6"x8"x16" SINGLE-SCORE SMOOTH FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
12. 6"x8"x16" SPLIT-FACE CMU BLOCK PAINTED "UTTERLY BEIGE" SW6080
13. SITE FURNITURE: PER PLAN

NOTES:

- REFER TO STRUCTURAL ENGINEER'S DETAILS AND CALCULATIONS FOR ALL CONNECTIONS, REINFORCING AND FOOTING INFORMATION.
- ALL CONNECTORS, FASTENERS AND OTHER HARDWARE TO BE HOT DIPPED GALVANIZED.
- ALL METAL WORK SHALL RECEIVE TWO (2) COATS OF MOISTURE-PROOF PRIMER AND TWO (2) FINISH COATS OF PAINT - REFER TO FINISH SCHEDULE FOR COLOR.

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SHEET DESCRIPTION
CONSTRUCTION DETAILS

DESIGNED	SMP
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DATE	07-29-22
JOB NO.	110152
CAD FILE	275

SHEET NUMBER
LD-04
OF 27

I. GENERAL

A. Contractual Relationship
In the performance of this contract, Contractor shall hold Landscape Architect and Owner harmless from any and all liability, costs and charges arising out of, or in connection with, contractors, employees, or it's agent's negligence, omissions, errors.

B. Errors or Conflicts
If any errors or conflicts are discovered in the plans or notes, they shall be interpreted so as to accomplish the real purpose of those plans and notes.

C. Additions, Deviations and Alterations
No deviations or alterations from the plans and specifications will be permitted unless authorized by the Owner or the Landscape Architect. Should deviation from plans and notes become necessary due to conflicting site conditions, Owner and Landscape Architect shall approve in advance any such deviation. No additional work will be authorized without the express written authorization from the Owner.

D. Interpretation
The Contractor shall comply with the obvious intent and meaning of these plans and specifications which shall be construed to include all labor, material, tools and equipment necessary to complete the work specified herein in a workmanlike manner in strict accordance with plans and notes. Should any questions arise as to the intent and interpretation of these plans and notes, Contractor shall refer to Owner and Landscape Architect whose decision thereon shall be final.

E. Observation and Rejection of Materials and Workmanship
All materials and workmanship furnished or performed by Contractor shall be subject to final observation and acceptance by Owner and Landscape Architect upon completion of all contract work whether previously paid for or not. At any and all times during the performance of this contract, Contractor shall make available for observation, test and approval, materials and workmanship. Failure of such observers to make observation, tests or approvals shall not prejudice the right of Landscape Architect or Owner on final observation. Contractor shall promptly replace any and all material, workmanship and equipment which does not conform to the plans and notes. All materials used on this contract shall be new and the best marked quality unless specified otherwise.

F. Samples
When so required by the Owner or Landscape Architect, Contractor shall submit for approval samples of the various materials, and specify finish thereon.

G. Local Codes
All construction shall conform to all local building codes and ordinances. It is Contractor's responsibility to verify all codes prior to commencing work.

H. Utilities
Contractor shall be responsible for verifying the location of all underground utilities, electric cables, conduits, sprinkler lines and all utility lines prior to any construction.

I. Removal of Debris and Clean-Up
Contractor shall thoroughly clean and keep free of debris and waste material entire construction area to the satisfaction of the Owner.

J. General
The general conditions and any special conditions that Owner may require shall apply with the same force and effect as though written in full herein for all construction sections.

II. SITE EXCAVATION AND ROUGH GRADING

Scope of Work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for the completion of all clearing, stripping, excavating, backfilling, grading and related work as shown on the drawings, including but not limited to the following:

A. Protection of all curbs, walks, walls, structures and other existing work which is to remain.

B. Clearing and stripping site of brush, debris and other foreign materials as outlined in the drawings.

C. Excavation for all foundations and footings to the dimension and depth shown on the drawings. Bottoms of excavations shall be smooth and level. All loose material shall be removed therefrom.

D. Subgrades shall be watered and compacted to a relative compaction of 95%.

E. Subgrades under all paving shall be true to grade and cross section, hard, uniform and smooth prior to placement of base material.

F. Backfilling of all excavations and trenches after placement of foundations, walls, walks, utilities, etc.,as outlined on the drawings. Compaction of backfill shall be in acceptance with Engineer's specifications.

G. Grading of areas indicated in the drawings including bringing existing grades to within 1/10 foot plus or minus. Final design grades as indicated on the drawings.

H. Stockpiling of excavation material or import top soil fill and sand shall be asoutlined on the drawings or as approved by Landscape Architect.

I. Clean up and remove all debris and surplus material and remove from site.

III. DRAINAGE
Scope of Work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for the completion of all drainage systems as shown on the drawings, including but not limited to the following:

A. Materials
1. Acrylonite Butalene - Styrene (ABS) Schedule 40 drain pipe, perforated or non-perforated in diameters shown on the drawings.
2. Basins and Drains - High impact plastic Styrene drain basins, catch basins with grates, high impact plastic Styrene deck drains, and/or precast concrete drain box and catch basins and cast iron grate in diameters and sizes as shown on the drawings. Stainless steel or brass deck drains in hardscape as shown on the drawings.

B. Trenching and Laying Pipe
1. Trenches to pitch a minimum of 1/8" per foot unless otherwise indicated on the drawings. Contractor to verify all invert elevations and trench depth prior to excavation.
2. Bottom of trench shall be smooth and continuous to flow direction. A hollow shall be made to receive bell of pipe so the joint will not bear upon the subgrade. Adjustments to line and grade shall be made by scraping away or filling in with backfill under the base of the pipe and not by wedging or blocking.
3. Trench material shall be used for backfill. However, no rocks or lumps shall be used. Welded joints shall be given at least 15 minutes setup before handling. Above the level of initial backfill, the trench may be backfilled with trench material.
4. Compaction - Compaction by tamping shall not be done in layers exceeding eight inches in loose depth with each layer thoroughly compacted between.

C. Clean-Up and Testing
1. Prior to covering of trenches, drain line and basins shall be checked to insure proper flow and water tightness.
2. The piping systems shall be flushed and cleaned prior to connecting to existing drain line, catch basin or storm drain systems.
3. Upon completion of work, remove debris, tools and surplus material from site.

IV. CONCRETE

Scope of work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for the completion of all concrete flatwork as shown on the drawings including but not limited to the following:

A. Materials
1. Cement - Standard Portland Cement, per designation C-150 of the ASTM Type II, III, or V, low alkali, single brand throughout. Refer to Soil Engineer's Report for Recommendations.
2. Aggregate - ASTM Specification C-33 3/4" maximum size. Decorative aggregates or pea rock as shown on drawings. Fine natural sand, well graded conforming to ASTM C-144.
3. Water - Water used shall be of potable quality.
4. Steel - Reinforcing steel for decks and walks to be intermediate grade deformed bars conforming to ASTM A-615 and/or Grade 40. Mesh ASTM A-496, size where shown on drawings.
5. Expansion Joints - Asphalt impregnated felt. Polyfelt Ethafoam as indicated on the drawings.
6. Control Joints - Saw cut joint 1/4 of slab thickness. Hand tooled score joints 1/4" deep minimum where shown on the drawings.
7. Cold Joints - Butt type, butt type with dowels. Screed key joint as indicated on the drawings.
8. Joint Sealant - Two parts Polysulfide sealant as manufactured by Thiokol, Class AS, self leveling or multi-part polyurethane construction sealant by L.M. Scofield, in matching color.
9. Curing Material - Hunts process MD7C. 'Lithochrome' color wax for color conditioned concrete by L.M. Scofield, in matching color of concrete as indicated on the drawings.
10. Color Conditioned Concrete - 'Chromix' admixtures for integral colored concrete by L.M. Scofield Company.
11. Dust-On Color - 'Lithochrome' color hardener by L.M. Scofield Company.
12. Surface Retardant - 'Lithotex' top surface retarder as menufactured by L.M. Scofield Company, or 'Sika' surface retardant or 'Rugesol' as manufactured by Sika Corporation.

B. Subgrade
1. Grade all subgrades to a uniform depth and compaction. Moisten all subgrades prior to pouring of concrete.
2. Cut all footings in undisturbed or compacted soil.
3. Place sand or aggregate base as shown on the drawings and as specified by a Soils Engineer.

C. Forms
1. Use only finished lumber. Set all forms true to grade and position.
2. Moisten all forms prior to pouring of concrete or use approved form release agents.

D. Expansion Joints
1. Place expansion joints in concrete at intersection of concrete and fixed structures, i.e., garage, walls, base of steps, pool bond beam as indicated on the drawings.
2. Place control joint in concrete not to exceed a horizontal spacing as specified by a soils engineer.
3. Place construction joints in concrete where casting on concrete is to be stopped and subsequent casting is to be started.

E. Concrete
1. Class A concrete shall contain not less than 5 sacks of cement per cubic yard and be proportioned to attain a maximum cylinder strength of 2,000 PSI in 28 days. Compressive strengths are to be determined in accordance with ASTM C-39. The slump shall not exceed 4".
2. Concrete mixing - All transit mixed concrete shall be mixed and delivered in accordance with the requirement of Standard Specifications for ready mixed concrete ASTM C-94.

F. Concrete Finishing
1. Broom Finish - Tamp fresh concrete with heavy metal grid. Screed with straight edge to remove all irregularities. Float to a smooth surface, steel trowel, and edge to an even hard surface. Score as indicated on drawings. Use a new manila hemp bristle broom. Brush markings on slab in uniform fashion as shown on the drawings.
2. Rock Salt Finish - Tamp fresh concrete with heavy metal grid. Screed with straight edge to remove all irregularities. Float to a smooth surface, steel trowel and edge to an even hard surface. Score as indicated on drawings. Hand broadcast rock salt in even distribution and tamp in. Wash off concrete with enough pressure to dissolve rock salt after concrete has set.
3. Pea Rock Retarded Finish - Tamp fresh concrete with heavy metal grid. Screed with straight edge to remove all irregularities. Float to a smooth surface, steel trowel and edge to an even hard surface. Apply surface retardant to finished surface, prior to initial set per manufacturer's recommendations, L.M. Scofield, using sprayer, providing even distribution. Reveal aggregate by using water jet and coarse fiber brush to remove retardant paste from surface, washing thoroughly until surface is clean and exposure is complete and uniform.
4. Hand Seeded Aggregate Finish - Tamp fresh concrete with heavy metal grid. Screed with straight edge to remove all irregularities. Float to a smooth surface. Hand seed surface in uniform fashion over entire area keeping stone 1/2" minimum from edges and expansion joints. Tamp aggregate to a uniform depth below concrete surface.
5. Stamped Concrete - Tamp fresh concrete with heavy metal grid. Screed with straight edge to remove all irregularities. Float to a smooth surface. Apply color hardener 'Lithochrome' by L.M. Scofield by the dry shake method using a minimum of 60 pounds per 100 square feet. Apply in 2 or more shakes and float after each shake. Trowel only after final floating while concrete is still plastic using imprinting tools to make pattern as shown on the drawings. Apply color curing compound 'Lithochrome' color wax by L.M. Scofield Company using roller or sprayer. If 'Bomacron' type surface is shown on drawings, a release agent must be applied prior to texturing the concrete. Color curing compound may be optional, as indicated on the drawings.
6. Sand Finish - Tamp fresh concrete with heavy metal grid. Screed with straight edge to remove all irregularities. Float to a smooth surface, steel trowel and edge to an even hard surface. Prior to set, lightly sponge surface to reveal small surface fines while not exposing aggregate. Alternate method, after initial set, surface to be washed with a diluted solution of muriatic acid and water, and brushed to reveal surface lines. Surface must be continuously wet to avoid acid burn.

G. Clean-Up
1. Upon completion of work, remove all forms, debris, material and tools from site.

V. BLOCK MASONRY

A. Materials
1. Slump block units meeting grade A, ASTM C-90, concrete block units Grade A, ASTM C-90.
2. Cement - Standard Portland Cement ASTM designation C-150 Type I or II, low alkali.
3. Sand - Clean, well graded ASTM designation C-144.

Scope of Work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for the completion of all block masonry as shown on the drawings, including but not limited to the following:

4. Water - Water used shall be of potable quality.
5. Steel - Reinforced steel for wall to be Grade 40 deformed bars ASTM designation A-165.
6. Concrete - Class A concrete minimum 2,000 PSI at 28 days.
7. Mortar - by volume, freshly prepared, uniformly mixed in ratio 1 part cement, 1/2 part lime putty, 4-1/4 parts sand, conforming to ASTM C-270. Omit lime putty if plastic cement is used.
8. Grout - by volume freshly prepared, uniformly mixed 1 part cement, 3 parts sand, 2 parts pea gravel.
1. Lay all masonry straight and true to line with vertical joints plumb over each other. Horizontal joints shall be level. Headers and corner units to show finished faces where exposed. Joints and bond pattern to be as shown on the drawings.

C. Reinforcing
1. All bars in masonry shall be lapped a minimum of 40 bar diameters. Dowels for walls and columns to be same size as wall reinforcing. Refer to Structural Engineer's specifications for all steel sizes and locations.

D. Cutting of Masonry
1. No cutting of masonry units shall be allowed unless shown on the drawings.

E. Grouting of Masonry
1. Grout all cells with vertical steel solid as shown on the drawings.
2. Grout all cells below grade solid.
3. Provide minimum 3/4" between steel reinforcing and blocks.

F. Weepholes
1. Open joint weep holes at 32" O.C. maximum on bottom course of retaining walls with 1 cubic foot gravel if shown on drawings or approved drainage system per Structural Engineer's specifications.

G. Expansion Joints
1. Provide vertical expansion joints in wall per local code and Structural Engineer's specifications.

H. Waterproofing
1. Waterproof all retaining walls below grade with asphalt emulsion, 2 coats.

I. Cleaning
1. Clean all masonry work, remove all mortar stains.
2. Upon completion of work, remove all mortar droppings, debris, materials and tools from site.

VI. BRICK MASONRY

Scope of Work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for the completion of all brick or stone masonry as shown on the drawings, including but not limited to the following:

A. Materials
1. Brick or stone conforming to ASTM A-62 grade MW as shown on the drawings.
2. Cement - Standard Portland Cement ASTM designation C-150, Type II, III, or V low alkali single brand throughout. Refer to Soils Engineer's report for recommendations.
3. Sand - Clean, well graded ASTM designation C-144.
4. Water - Water used shall be of potable quality.
5. Steel - Reinforced steel for walls to be Grade 40 deformed bars ASTM designation A-165.
6. Mortar - by volume, freshly prepared, uniformly mixed in ratio 1 part cement, 1/2 part lime putty, 3 parts sand, conforming to ASTM C-270. Omit lime putty if plastic cement is used.
7. Grout - by volume, freshly prepared, uniformly mixed in ratio 1 part cement, 3 parts sand or 1 part cement, 3 parts sand and 2 parts pea gravel.

B. Laying of Brick
1. Lay all masonry straight and true to line with brick vertical joints plumb over each other. Horizontal joints shall be level. Headers and corner units to show finished faces where exposed. Joints and bond pattern to be as shown on the drawings.

C. Reinforcing
1. All bars in masonry shall be lapped a minimum of 40 bar diameters. Dowels for walls and columns to be same size as wall reinforcing. Refer to Structural Engineer's specifications for all steel sizes and locations.

D. Cutting of Masonry
1. Use masonry saw for brick cuts unless specified otherwise. Bricks cut less than 1/2 length shall not be used. Stone to be cut with chisel and hammer.

E. Grouting of Masonry
1. Grout core walls solid as shown on the drawings.
2. Provide minimum of 2-1/2" grout space between double brick walls. Provide minimum 3/4" between steel reinforcing and brick.

H. Waterproofing
1. Waterproof all retaining walls below grade with asphalt emulsion, or other as specified by Soils Engineer.

I. Cleaning and Sealing
1. Clean all masonry work. Remove all mortar stains. Remove alkali with solution of muriatic acid and water. Apply clear sealer to exposed surfaces if shown on the drawings.
2. Upon completion of work, remove all mortar droppings, debris, materials and tools from site.

Scope of work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for completion of all carpentry as shown on the drawings, including but not limited to the following:

VII. CARPENTRY

A. Materials
1. Wood - rough sawn, resawn, surfaced 4 sides where shown on the drawings, straight, sound, free from marks, pin head knots, sap pockets, slivers, and checks. Select grade or better where shown on the drawings.
2. Douglas Fir, Redwood, Western Red Cedar or as shown on the drawings.
3. Posts, Plates and other at-grade connections to be Redwood, Western Red Cedar or pressure treated Douglas Fir as shown on the drawings.
4. Hardware - column bases - 'Simpson Strong Tie' or equal. Post caps and strap ties - 'Simpson Strong Tie' or equal. Joist hangers and heavy angles - 'Simpson Strong Tie' or equal. Screws, hinges, nails, bolts, and washers. All hardware material to be galvanized.
5. Stain and paint - as selected and shown on drawings.
6. Concrete - Class A minimum 2,000 PSI at 28 days.

B. Rough Carpentry
1. Set all posts, beams, rails and framing plumb and true to line as shown on the drawings.
2. Connections - make all connections as shown on the drawings.Splice lumber at posts only. Utilize all nail and/or bolt holes for all hardware.
3. Ease all top edges of exposed lumber for bench tops, low walls, etc., where surface contact is provided.
4. Post base - set post column base as shown on drawings, providing minimum 1" clear all sides from finished post base to top of paving.
5. Countersink nails and bolts in all locations where surface contact is provided, i.e., bench top etc.

C. Painting and Stain
1. Fill all seams and cracks with Latex caulk and/or wood dough to insure an even surface.
2. Sand smooth all exposed surfaces is specified as S4S.
3. Prime all painted surfaces with one coat primer.
4. Paint with minimum two finish coats for painted surfaces.
5. Stain with minimum two finish coats for stain surfaces.

D. Protection and Cleanup
1. Protect all existing work from paint overspray.
2. Upon completion of work, remove all scrap wood, debris, materials and tools from site.

VIII. METAL WORK
Scope of Work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for completion of all metal work where shown on the drawings, including but not limited to the following:

A. Materials
1. Steel tubing in sizes shown on the drawings ASTM designation 500 and/or hand forged, cold rolled wrought iron in sizes as shown on the drawings.
2. Hardware - hinges, latches, bolts, washers, screws, etc., to be heavy duty.
3. Concrete - Class A concrete minimum 2,000 PSI at 28 days and/or 'Por-Rock' as shown on the drawings.
4. Paint - Zinc Chromate primer, 'Rustoleum' finish surface coats or equal. 'Metalizing' or galvanizing or powder coating if shown on the drawings.

B. Fabrication and Installation
1. Contractor shall make all measurement for fabrication in field prior to starting work.
2. Horizontal bars to taper with grade or step with grade as shown on the drawings. Vertical bars to be plumb.

C. Welding
1. Welding to comply with the requirements of standard code for ARC and gas welding.
2. Weld to only clean, rust-free surface.
3. All welds to be continuous and free of cracks, craters and porosity. Tack welds not acceptable.
4. Grind smooth all exposed welds, match adjoining surfaces.
5. Plug all open ends and tops, and weld.

D. Painting
1. Prime all metal work with one coat Zinc Chromate primer.
2. Paint all metal work with 2 coats 'Rustoleum' in semi-gloss or flat as shown on the drawings. Paint to be 4 mils minimum dry thickness each.
3. Prime and paint per above, all field welds.

E. Protection and Cleanup
1. Protect all existing work from paint overspray.
2. Obtain Fire permit where required for on-site welding.
3. Upon completion of work, remove all scrap iron, debris, materials and tools from site.

VIII. LANDSCAPE LIGHTING

Scope of Work - Provide all labor, materials, tools, equipment, transportation and necessary incidentals for completion of all landscape lighting where shown on the drawings, including but not limited to the following:

A. Materials
1. Lighting fixtures - Landscape up-lights, pole mounted fixtures, wall mounted fixtures, and low voltage lighting as shown on the drawings and fixture schedule.
2. Conduit - Schedule 40 or better per local electrical code, wire and sizes per drawing and schedules and/or non-metallic direct burial sheathed cable as shown on the drawings.
3. Panels, breakers, meters, electrical service pedestals, time switches, photo cells and related hardware as shown the drawings.
4. Concrete - Class A concrete minimum 2,000 PSI at 28 days.

B. Lighting Fixture Installation
1. Provide all lighting fixtures with Underwriters Laboratories labeling and where exposed to weather 'damp area' labeling. Provide all fixtures, poles, etc. with permanent level or perpendicular support and guarantee to stay in alignment for a period of one year minimum. Posts to be direct burial or mounted to template base, all as shown on drawings and fixture schedules.

C. Underground Distribution
1. Provide plastic conduit and conductors in utility trenches per local code. The use of non metallic sheathed cable rated for underground use is approved (if allowed by local authority if suitably protected (i.e. in a trench with other piping with a concrete 3" cap or with buried Redwood planking.

D. Distribution Panel, Pedestal
1. Provide panels, breakers, electrical service pedestals as shown on the drawings complete with time switches, photo cells and related hardware as required.

CONSTRUCTION SPECIFICATIONS

SMP
ENVIRONMENTAL DESIGN
SUMMERS/MURPHY & PARTNERS, INC.
7114 STETSON DRIVE, STE 350
SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

OWNER:
LENNAR HOMES
1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
CONSTRUCTION SPECIFICATIONS

DESIGNED	SMP
DRAWN	SMP
CHECKED	SMP
DATE	07-29-22
JOB NO.	110152
CAD FILE	727_CS

SHEET NUMBER
LS-01
OF 27

I. GENERAL SITE PLANNING

The Owner shall have a soil analysis made after completion of the rough grading. The Contractor shall incorporate all soil amendments and fertilizers prescribed herein. The soil preparation specified below shall be adjusted according to the analysis, after approval from landscape architect.

A. Weed Control for Lawn, Shrub & Ground Cover Areas (Except Slopes)

1. Remove all existing weeds from surface. Remove all roots of Bermuda-Johnson Grass, etc. and dispose of off site.
2. Install irrigation.
3. Fertilize all shrub/ground cover areas. Apply 10 lbs. of 16-20-0 commercial fertilizer per 1,000 sq. ft. or as directed by soils report.
4. Water all shrub/ground cover areas for three (3) weeks to germinate weed seeds. Apply water at low rate to avoid erosion.
5. Licensed applicator shall apply systemic weed killer to all planting areas per manufacturer's specifications.

B. Soil Preparation & Finish Grading

1. Rough grade: Site to be received by Landscape Contractor to within 1/10 foot plus or minus by owner based upon Civil Engineer's grading plan.
2. Finish grade: Finish grading to consist of grading, raking and hand work necessary to achieve desired contour and flow line patterns, based upon Civil Engineer's plans, resulting in evenly finished surfaces free of debris and litter.
3. Spread over all lawn, shrub and ground cover areas, amendments and fertilizer prescribed in soils report. Thoroughly mix into soil to depth to of 6" or more and fine grade. Shape mounds as shown on plans. Contractor to import soil necessary to attain design grades and berms, all import soil shall be free of weeds, debris, and have balanced Ph. Smooth and even grading without depressions or high spots, to provide smooth and even surfaces for proper drainage. Final grade shall be 1" below walk/top of curb. Remove from the site all stones over 2" in size.

C. Planting

Plant trees, shrubs and ground cover as called for where indicated on Planting Plan and as detailed on Planting Detail sheet.

Substitutions of plants will not be accepted unless approved by Landscape Architect.

1. Ground Cover - Flats and/or Cuttings

   All plant materials specified as rooted cuttings or flat stock on Planting Plan shall remain in the flats until time of transplanting. The flat soil shall contain sufficient moisture so that soil does not fall apart when lifting plant from flat. Ground cover plants shall not allowed to dry out before or while being planted. Roots shall not be exposed to the air except while actually being planted. Wilted plants will not be accepted. At the time of planting, the soil around each plant shall be firmed sufficiently to force out air pockets. Plants to be planted in triangular spacing as specified O.C. (On Center). All cuttings shall be minimum of 6" long. Install plants in 6" X 6" planting pits. Water immediately after each planting until one inch of water penetration is obtained. Care shall be exercised at all times to protect the plants after planting. Any damage to plants by trampling or other operations of this contract shall be repaired immediately.

2. Shrub & Trees

   Plant all container-grown plants in planting pits, two (2) times wider and two (2) times deeper than the container, as directed on Planting Detail sheet. Thoroughly mix 1/3 organic backfill (Nitrolized Redwood Shavings or equal) and the amendments specified in the soils analysis with the site soil, prior to backfilling of planting pits. Install Plant Tablets, per the manufacturer's instructions and as detailed on Planting Detail Sheet. Contractor shall construct basins around all trees not in lawn areas; basins shall not exceed top of root ball crown.

3. Top Dressing

   Top dress all ground cover and shrub areas with 2" thick layer of OGC (Organic Ground Cover), to be specified on all planting plans.

4. Staking

   Stake all trees as detailed on Planting Detail Sheet.

D. Special Backfill Mixes

1. Azaleas - Use 80% coarse Peat Moss, and 20% clean top soil.
2. Camellias & Ferns - Use 50% Peat Moss, 25% Forest Humus and 25% Site Soil
3. Pots and Planters - Use Kellogg's Indoor Planter Mlx.

E. Sod - See Planting Details Sheet for sod type.

1. Areas shall have a smooth and continual grade between existing or fixed controls, such as: walks, curbs, catch basins. Roll, scarify, rake and level as necessary to obtain true, even soil structure.
2. Apply fertilizers as specified on Planting Detail Sheet and mix into the soil.
3. Sod shall be installed the same day it is delivered. Sod shall not be left on pallets in the hot sun. Contractor shall be responsible for any and all damage to sod not installed on day of delivery.
4. Unroll sod carefully and place in staggered pattern of strips. Sod shall be installed against adjacent strips to eliminate joints and edges.
5. Trim sod to conform to lawn shapes designated in the Planting Plan.
6. After sod is laid, it shall be irrigated thoroughly to provide moisture penetration to at least 6" into prepared soil.
7. All sod in sodded areas shall be handled and laid in a high standard workmanship manner. All ends, joints, and cuts shall fit tightly so that there are no voids and the final appearance is one of a continuous lawn. Sections of sod less than 18" long or 9" wide shall not be used.
8. No sod area will be accepted until approved by the Landscape Architect.

F. Hydroseed Turf

Hydroseed all areas designated as 'Hydroseeded Turf'. See Planting Detail Sheet for type and quality of seed mix, fertilizer and additional amendments.

1. Application

   a. Equipment: Hydraulic equipment used for the application of the fertilizer, seed, and fiber pulp, shall be of the 'Super Hydro-Seeder' type as approved by the Landscape Architect. This equipment shall have a built-in agitator system and operating capacity sufficient to agitate, suspend, and homogeneously mix a slurry containing not less than 40 lbs. of fiber mulch plus a combination of 7 lbs. fertilizer solids for each 100 gallons of water. The slurry distribution lines shall be large enough to prevent stoppage and shall be equipped with a set of hydraulic spray nozzles which shall place the slurry tank and spray nozzle within sufficient proximity to be seeded.

   b. Preparation: The slurry preparation shall take place at the site of work and shall begin by adding water to the tank when the engine is at half throttle. When the water level has reached the heights of the agitator shaft, good circulation shall be established and at this time the seed shall be added. Fertilizer shall then be added, followed by fiber mulch. The fiber mulch shall be added to the mixture after the seed and when the tank is at least one-third filled with water. All fiber mulch shall be added by the time the tank is two-thirds to three-fourths full. Spraying shall commence immediately when tank is full.

   c. Application: Apply hydro-mulch in the form of a slurry consisting of wood cellulose fiber, seed, chemical additives, commercial fertilizer and water. When hydraulically sprayed on the soil surgace, the hydromulching shall form a blotter-like ground cover impregnated uniformly with seed and fertilizer and shall allow the absorption of moisture and rain fall and percolation to the underlying soil. Remove construction. Leave site broom-clean.

II. GENERAL SLOPE PLANTING

The Owner shall have a soil analysis made after completion of rough grading. The Contractor shall incorporate all soil amendments and fertilizers prescribed herein. The soil preparation specified below shall be adjusted accordingly to the analysis after approval from the landscape architect.

A. Planting Preparation

1. Slope Texturing

   a. Cut Slopes: These surfaces shall be roughened in a horizontal direction following the contour of the slope. The roughened texture shall be made by hand raking or similar mechanical means.

   b. Fill Slopes: These surfaces shall be compacted and finished and also roughened in a horizontal direction following the contour of the slope. The roughened texture shall be made by hand raking or similar mechanical means.

2. Weed Eradication Procedures

   a. Manually remove all existing vegetation and dispose of it off-site.

   b. Fertilize all planting areas with fertilizer based on Soil Labs recommendations. (See Planting Detail Sheet). Add any and all soil amendments as required, per the soil analysis. Begin watering process to activate fertilizer and additive chemicals.

   c. Water all planting areas thoroughly and continuously for a period of two (2) consecutive weeks. The Landscape Architect shall approve specific watering duration and frequency program designed to germinate all residual weed seeds.

   d. Discontinue watering process for two (2) days, then apply recommendation by licensed applicator, if perennial weeds appear on the slopes. If annual weeds appear use straight contact herbicide as per the pest control advisor's recommendations. No water shall be applied for a minimum of four (4) days following application of contact weed killer.

   e. Allow sufficient period of time to insure that all weeds are dead.

   f. Water all planting areas thoroughly and continuously for a period of three (3) weeks. A shorter watering period may be permissible at the discretion of the Landscape Architect and/or the pest control advisor. Discontinue the watering process for one (1) day prior to the second application of the herbicide spraying. Re-apply the spraying operation with a straight contact weed killer, as per the pest control advisor's recommendations. Allow a minimum of four (4) days without irrigation, for effective final weed kill.

   g. Clear all desiccated weeds from the slopes to the finished grade.

   h. Water all planting areas on the regular irrigation controller schedule for three (3) consecutive days prior to the hydroseeding operation.

   i. Then allow planting area soil surface to dry out for one (1) day only, prior to the hydroseeding application. Care must be taken not to allow the soil surface to be super-saturated with water prior to the hydroseeding installation. At the same time, the soil surface should not be dry. There should be some residual moisture within the first 1/2" of soil surface.

   j. Begin the hydroseeding operation in all areas, as specified.

3. Planting

   Plant trees and shrubs as called out where indivated on Planting Plan and as detailed on Planting Detail Sheet. Substitutions of plants will not be accepted unless approved in writing by Landscape Architect. Install planting tablets as called for in legend. Plant all container grown plants in planting pits two (2) times wider and two (2) times deeper than the container. Thoroughly mix the specified materials found in the soil analysis and those specified in the Planting Detail Sheet, with the site soil, prior to backfilling of planting pits.

4. Planting Tablets (See Planting Detail Sheet)

5. Hydroseeding Specifications For Slope Areas

   Hydroseed mix and mulch shall be amended to suit specific site conditions. Verify hydroseed mix with the Landscape Architect and Soils Report, upon results of the soil analysis. The mix shall be applied to all slope areas directly after the installation of all plant materials as final dressing. See Planting Detail Sheet for type and quantity of seed mix, fertilizer, and additional amendments.

6. Application

   Refer to Hydroseed Lawn Notes for hydroseed application.

III. GENERAL NOTES

A. Clean-Up

1. After all installation operations have been completed, remove all rubbish, excess soil, empty plant container and trash from the site daily. All scars, ruts or other marks in the area caused by this work shall be repaired and the groundleft in a neat, orderly condition. Leave site in broom-clean condition at the end of each working day. Hose down all paved areas, including walks and patios, upon completion of all work.

B. Maintenance

1. The Contractor shall maintain during installation a sufficient number of men and adequate equipment to perform the work herein specified. Plant maintenance work shall consist of applying water, weeding, caring of plants, including ground covers, shrubs, vines and trees, edging and mowing lawns, fertilizing, control of pests and diseases, and maintaining walks free of debris and dirt. Upon completion of each area of installation, the Contractor, Landscape Architect and Owner shall conduct an inspection of completed area, along with the Owner's maintenance representative. At this time, a list of corrections, if any, shall be made which are the responsibility of the Contractor.
2. After all work has been completed, inspected and accepted, all areas will be maintained for a period of ninety (90) calendar days or as long as is necessary to establish thriving trees, shrubs, turf, and ground cover without bare spots.
3. Keep all areas weed-free, adequately watered, and neatly cultivated for the ninety (90) day period. Remove all debris from site and keep the entire site broom-clean. Mow turf areas weekly. Hydroseeded turf areas shall be irrigated after the slurry mulch has been applied and allowed to set for one (1) day. The soil surface must be kept moist at all times during the germination period to avoid desiccation of seedlings.
4. Re-seed all bare spots in turf areas at two (2) week intervals and maintain until an even stand of turf, without bare spots, is obtained. Re-seed all slope areas that fail to germinate evenly. Repair all eroded surfaces at no cost to the Owner.
5. Damage to any planted area shall be repaired immediately. Depressions caused by vehicles or foot traffic shall be filled with topsoil, leveled and replanted. Exterminate gophers, moles and repair damage.
6. The project shall be so cared for that a neat, clean condition will be presented at all times to the satisfaction of the Owner and Landscape Architect. The Landscape Contractor shall be expected to make a minimum of one weekly visit for maintenance purposes.
7. At the end of the maintenance period, all areas that have been planted shall be fertilized with commercial fertilizer, analysis and rate of application shall be per the soils report.
8. The Contractor shall request a final site visit seven (7) days prior to the end of the maintenance period. This request shall be written and directed to the Owner and the Landscape Architect. Upon written acceptance of the project, the Contractor shall be relieved of any further maintenance.

C. Guarantee

All turf, hand-planted and hydroseeded ground cover, and shrubs shall be guaranteed to live and grow to a period of ninety (90) days after installation and acceptance by the Owner. Trees shall be guaranteed for one year. Any material that fails to grow through the specified maintenance and guarantee period shall be replaced by the Contractor at no cost to the Owner.

D. Observation

1. Observation visits specified herein shall be made by the Landscape Architect or his representative. The Contractor shall request observation at least two (2) working days in advance of the time that the observation is requested.
2. Observation visits are suggested for the following parts of the work:
   a. Upon completion of grading and soil conditioning prior to planting.
   b. When trees are spotted for planting, but before planting holes are excavated.
   c. Written acceptance of the project to release the Contractor from further maintenance shall occur after Final Observation with the Owner or his representative at the end of the maintenance period.

E. Verification of Dimensions

1. All scaled dimensions are approximate. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions and quantities, and shall immediately notify the Landscape Architect of any discrepancy between the drawings and/or specifications and actual conditions. No work shall be done in any area where there is such a discrepancy until approval for same has been given by the Landscape Architect.

F. Utilities

1. The Contractor shall be responsible for verifying the location of all underground utility lines prior to any construction, so that proper precautions may be taken not to damage such lines and plant locations, promptly notify the Landscape Architect who will arrange for relocation of one or the other. Failure to follow this procedure places upon the Contractor the responsibility for, at his own expense, making any and all repairs for damages resulting from his work.

G. Existing Trees

1. Contractor is to insure the preservation of any existing trees on the site. Damage or loss of these trees will result in replacement of equal size by the Landscape Contractor.

H. See Planting Detail Sheet for additional notes.

SMP
ENVIRONMENTAL DESIGN
SUMMERS/MURPHY & PARTNERS, INC.
7114 STETSON DRIVE, STE 350
SCOTTSDALE, ARIZONA 85251
(480) 291-9240

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.
EXP. 12-31-22

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DATE	REVISION

OWNER:
LENNAR HOMES
1665 W ALAMEDA DR., SUITE 130
TEMPE, ARIZONA 85282
(480) 345-0077

PROJECT:
HERITAGE ASANTE
PARCEL 8
SURPRISE, ARIZONA
LANDSCAPE PLANS

SHEET DESCRIPTION
PLANTING SPECIFICATIONS

DESIGNED	SMP
DRAWN	SMP
CHECKED	SMP
DATE	07-29-22
JOB NO.	110152
CAD FILE	912_PS

SHEET NUMBER
PS-01
OF 27

Leslie Carnie

From: JAMES, MARK C GS-12 USAF AETC 56 FW/CVE <mark.james.14@us.af.mil>
Sent: Friday, April 29, 2022 9:28 AM
To: Nichole Flores
Cc: 56 FW/CIT Community Initiative
Subject: RE: FS22-0590 Heritage Asante Parcel 8 Final Plat - New Digital Submittal 04.22.22
Attachments: Heritage Asante Parcels 8 and 10 (FS21-330).pdf; smime.p7s; ATT00001.txt; ATT00002.htm

Nichole,

Thank you for the opportunity to provide comments on the Heritage Asante Parcel 8 Final Plat Project. The site is located on approximately 21 acres but is part of a larger 370 acre Paradiso Asante planned community located at Asante Blvd and Freedom Way in Surprise, AZ. The application is for development of 88 lots resulting in a density of 4.2. The site is approx. 2.2 miles outside the Aux-1 2004 65 Ldn, "high noise or accident potential zone" as identified by A.R.S. § 28-8461 and is within the "territory in the vicinity of a military airport" also defined by A.R.S. § 28-8461.

In an effort to promote a more compatible co-existence, Luke AFB follows the guidelines in the Graduated Density Concept (GDC). The GDC proposes, in the absence of a more restrictive state, county or municipal general or comprehensive plan, graduating densities away from the 65 Ldn as follows: a maximum of 2 du/ac from the 65 Ldn to 1/2 mile, a maximum of 4 du/ac from 1/2 to 1 mile, and a maximum of 6 du/ac from 1 to 3 miles. The proposal for the property as stated in the narrative, consisting of 4.2 du/ac on the property falls meets the GDC.

This project was previously commented on via "Heritage Asante Parcels 8 and 10 (FS21-330)" (attached) and these minor changes will not affect our previous input. As described, this project *will not negatively impact the flying operations at Luke AFB*. Since the site will be located within the "territory in the vicinity of a military airport," it will be subjected to approximately 170 over flights per day. We also recommend a strong notification program on the part of the applicant to inform any potential tenants about Luke AFB operations.

Respectfully,

Mark James
Planning Manager, Community Initiatives Team
Luke AFB AZ 85309
Office: 623-856-9981
DSN: 896-9981

From: Nichole Flores <Nichole.Flores@surpriseaz.gov>
Sent: Friday, April 22, 2022 6:45 AM
To: 56 FW/CIT Community Initiative <56FW.CIT.CommunityInitiative@us.af.mil>; Afshin Ahouraiyan (Flood Control District of Maricopa County) <Afshin.Ahouraiyan@Maricopa.Gov>; Alex Garza (Maricopa Assoc of Governments) <AGarza@azmag.gov>; Chris Cain (Maricopa Water District) <chrisc@mwdaz.com>; Debbie Trasancos (Maricopa Water District) <debbiet@mwdaz.com>; Ernest (USPS) <Ernest.L.James@usps.gov>; Eva Pierce <eva.pierce@dysart.org>; Ibeth - USPS <Ibeth.L.Roman@usps.gov>; Jerome Choy (ADOT) <jchoy@azdot.gov>; Kevin Shipman <kevin.shipman@dysart.org>; Leslie - MWD <lesliej@mwdaz.com>; Lynndsay ONeil <lynndsay.oneill@maricopa.gov>; Mark Frago <fragom@mail.maricopa.gov>; Mary Orta - Surprise Chamber <mary.orta@surpriseregionalchamber.com>; Raoul Sada - Surprise Chamber <raoul@surpriseregionalchamber.com>; Victor.Schaum <Victor.Schaum@cox.com>; Yvonne Aguirre <yvonne.aguirre@swgas.com>

Cc: Lorraine Nevarez <Lorraine.Nevarez@surpriseaz.gov>
Subject: [Non-DoD Source] FS22-0590 Heritage Asante Parcel 8 Final Plat - New Digital Submittal 04.22.22

Good morning,

Attached please find the **application**, **narrative**, and **final plat** for the above referenced project.

Please feel free to contact us with any questions.

Best regards,

Nichole Flores
Planning Project Coordinator
City of Surprise | Community Development
16000 N Civic Center Plz | Surprise AZ 85374
(623) 222-3244 Direct

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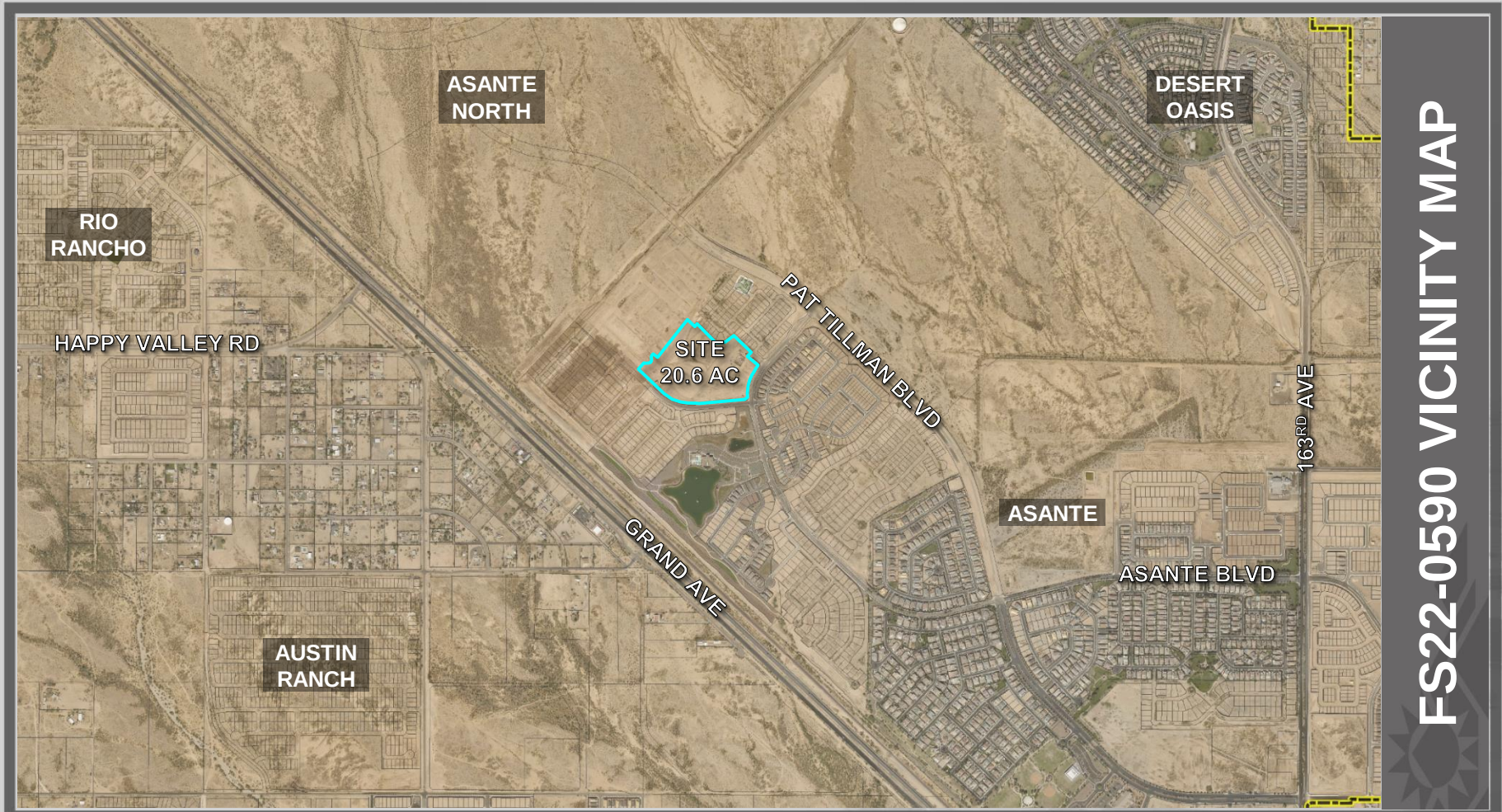
SURPRISE
ARIZONA

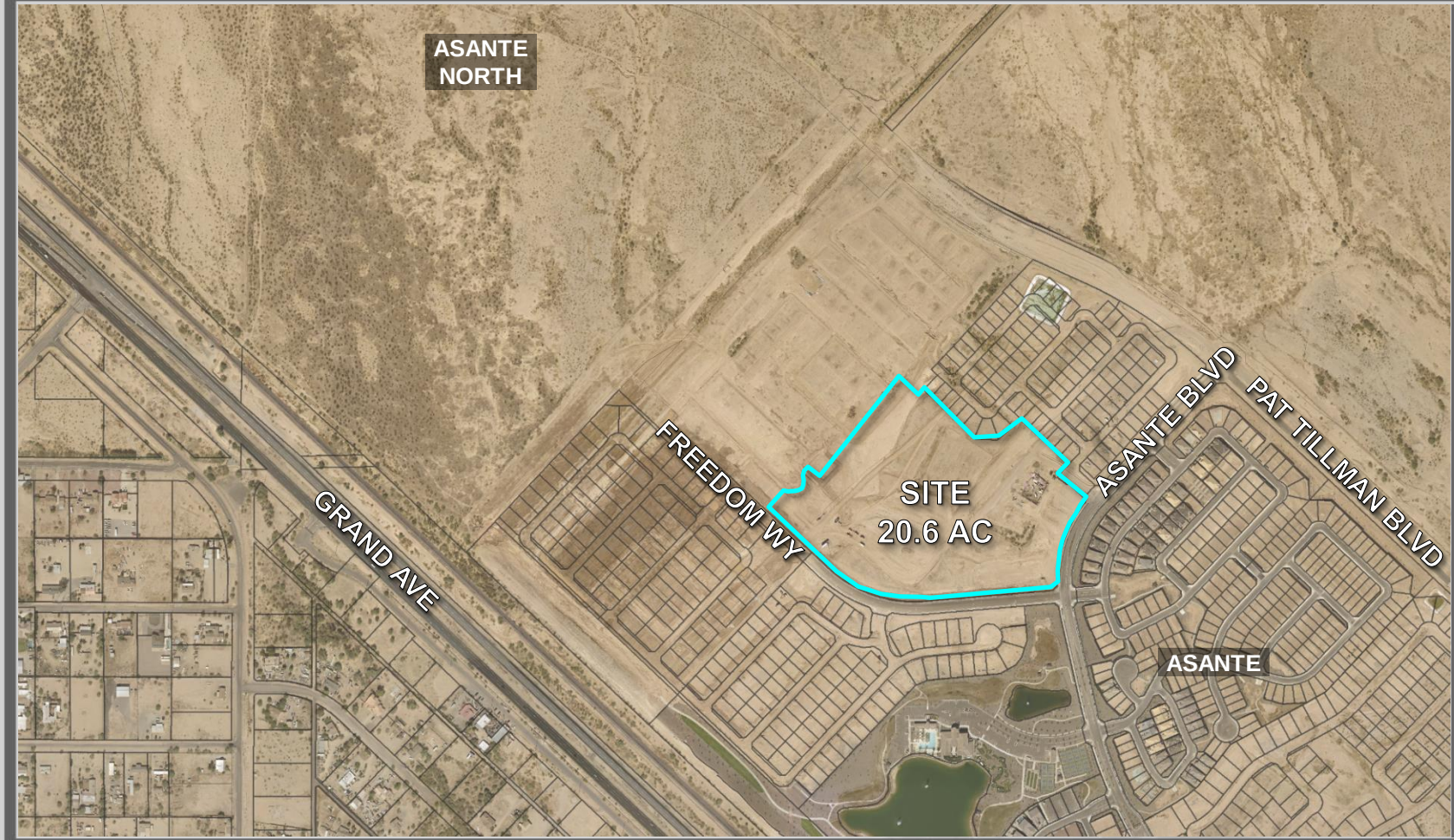
FS22-0590

Heritage Asante Parcel 8 Final Plat

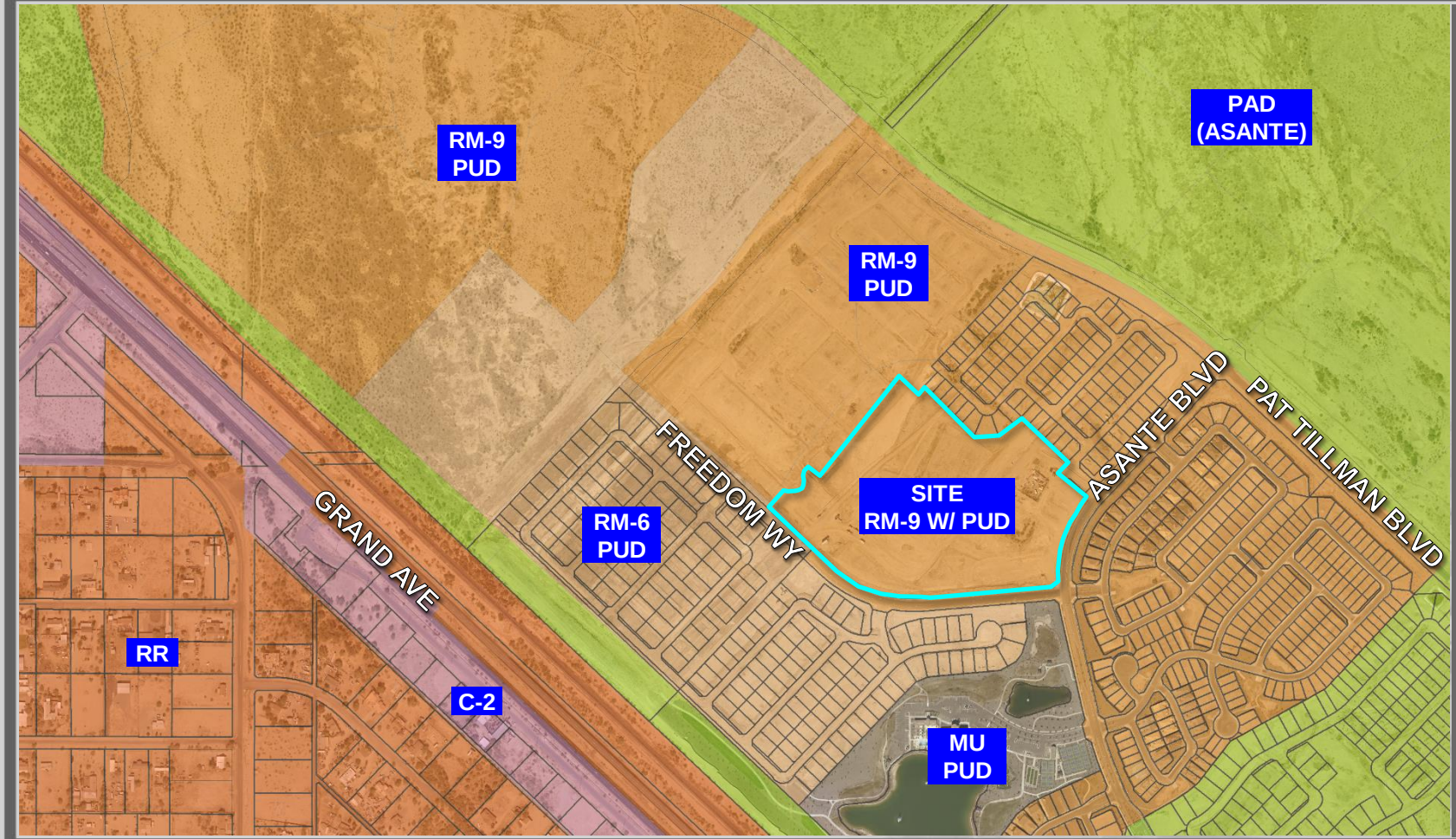
City Council

November 15, 2022


ASANTE NORTH
DESERT OASIS
RIO RANCHO
HAPPY VALLEY RD
SITE 20.6 AC
PAT TILLMAN BLVD
163RD AVE
ASANTE
ASANTE BLVD
GRAND AVE
AUSTIN RANCH
FS22-0590 VICINITY MAP



FS22-0590 VICINITY MAP



FS22-0590 ZONING MAP

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 1	5,462	0.1254
LOT : 2	5,423	0.1245
LOT : 3	4,846	0.1112
LOT : 4	4,842	0.1112
LOT : 5	4,857	0.1115
LOT : 6	4,857	0.1115
LOT : 7	4,857	0.1115
LOT : 8	5,392	0.1238
LOT : 9	5,402	0.1240
LOT : 10	4,849	0.1113
LOT : 11	4,849	0.1113
LOT : 12	4,849	0.1113
LOT : 13	4,849	0.1113
LOT : 14	4,846	0.1112
LOT : 15	5,363	0.1231
LOT : 16	5,441	0.1249
LOT : 17	5,022	0.1153
LOT : 18	5,023	0.1153
LOT : 19	4,839	0.1111
LOT : 20	5,386	0.1236
LOT : 21	5,390	0.1237
LOT : 22	5,390	0.1237

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 23	4,830	0.1109
LOT : 24	4,830	0.1109
LOT : 25	4,830	0.1109
LOT : 26	4,830	0.1109
LOT : 27	5,130	0.1178
LOT : 28	5,302	0.1217
LOT : 29	6,647	0.1526
LOT : 30	4,830	0.1109
LOT : 31	4,830	0.1109
LOT : 32	4,830	0.1109
LOT : 33	4,830	0.1109
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LOT : 41	4,830	0.1109
LOT : 42	4,830	0.1109
LOT : 43	4,830	0.1109
LOT : 44	4,830	0.1109

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 45	4,830	0.1109
LOT : 46	4,830	0.1109
LOT : 47	4,830	0.1109
LOT : 48	4,830	0.1109
LOT : 49	4,830	0.1109
LOT : 50	4,830	0.1109
LOT : 51	4,835	0.1110
LOT : 52	8,104	0.1860
LOT : 53	6,840	0.1570
LOT : 54	5,676	0.1303
LOT : 55	5,649	0.1297
LOT : 56	4,860	0.1116
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LOT : 58	4,860	0.1116
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LOT : 61	4,860	0.1116
LOT : 62	4,865	0.1117
LOT : 63	5,072	0.1164
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LOT : 65	4,831	0.1109
LOT : 66	4,832	0.1109

LOT TABLE		
LOT NO.	AREA (SQ.FT)	AREA (ACRES)
LOT : 67	4,832	0.1109
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LOT : 69	5,553	0.1275
LOT : 70	6,134	0.1408
LOT : 71	4,891	0.1123
LOT : 72	4,841	0.1111
LOT : 73	5,066	0.1163
LOT : 74	5,488	0.1260
LOT : 75	5,454	0.1252
LOT : 76	5,262	0.1208
LOT : 77	4,966	0.1140
LOT : 78	4,966	0.1140
LOT : 79	4,966	0.1140
LOT : 80	4,982	0.1144
LOT : 81	4,996	0.1147
LOT : 82	6,627	0.1521
LOT : 83	7,498	0.1721
LOT : 84	7,416	0.1703
LOT : 85	5,001	0.1148
LOT : 86	5,060	0.1162
LOT : 87	4,830	0.1109
LOT : 88	4,780	0.1097

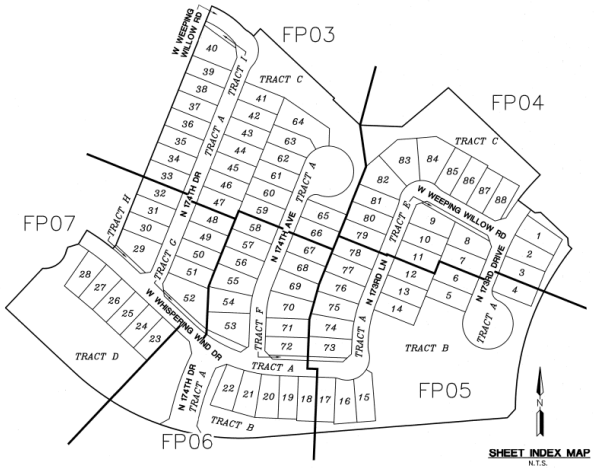
NOTES

1. NO PERMANENT STRUCTURE OF ANY KIND SHALL BE CONSTRUCTED ON, OVER OR PLACED WITHIN EASEMENTS. IT SHALL BE FURTHER UNDERSTOOD THAT THE CITY OF SURPRISE SHALL NOT BE REQUIRED TO REPLACE ANY OBSTRUCTIONS OR PLANTING THAT MUST BE REMOVED DURING THE COURSE OF MAINTENANCE, CONSTRUCTION, OR RECONSTRUCTION OF CITY UTILITIES.
2. ALL NEW OR RELOCATED UTILITIES WILL BE PLACED UNDERGROUND.
3. ALL STRUCTURES AND LANDSCAPING WITHIN THE 30'x30' VISIBILITY TRIANGLE ALONG THE PROPERTY LINES AT LOT CORNERS SHALL BE MAINTAINED AT A MAXIMUM HEIGHT OF 30" ABOVE GROUND LEVEL. (SEE DETAIL THIS SHEET)
4. ALL EXTERIOR SUBDIVISION BOUNDARY CORNERS ARE AS SHOWN PER THIS PLAT IN CONFORMANCE WITH ARIZONA STATUTE. ALL INTERIOR CORNERS AND MONUMENTS ARE TO BE SET BY THE SURVEYOR RESPONSIBLE FOR THE CONSTRUCTION SURVEY AND STAKING OF THIS PROJECT AND MUST BE IN CONFORMANCE WITH SAID ARIZONA STATUTORY REQUIREMENTS.
5. PROVISIONS SHALL BE MADE FOR DEVELOPMENT AND MAINTENANCE OF STREET LIGHTS THROUGH EITHER THE ASSOCIATION OR THROUGH THE CREATION OF A STREET LIGHT IMPROVEMENT DISTRICT (S.L.I.D.).
6. NO ON-SITE GRADING OR EXCAVATION SHALL OCCUR WITHOUT FIRST OBTAINING A PERMIT FROM THE CITY OF SURPRISE.
7. IN ACCORDANCE WITH ARS § 9-461.07, THE CITY OF SURPRISE HAS DETERMINED THAT ALL DEDICATIONS OCCURRING WITH THIS PLAT ARE IN CONFORMANCE WITH THE SURPRISE GENERAL PLAN.
8. PURSUANT TO A.R.S. § 42-1102, THE CITY OF SURPRISE, A POLITICAL SUBDIVISION OF THE STATE OF ARIZONA, IS EXEMPT FROM ALL TAXES AND ASSESSMENTS BASED ON ASSESSED VALUE EXCEPT FOR SPECIAL DISTRICTS # 14751 AND 14710, WHEN APPLICABLE.
9. THE ROADS DESIGNATED AS "PRIVATE" AND ANY APPURTENANCES INCLUDING BUT NOT LIMITED TO ROAD SIGNS, STRIPING, CURB AND GUTTER, AND SIDEWALKS ARE PRIVATE. SUCH ROADS AND APPURTENANCES ARE OWNED, MAINTAINED AND REPAIRED BY OWNER OR HOMEOWNER'S ASSOCIATION FORMED BY OWNER. THE CITY OF SURPRISE SHALL NOT MAINTAIN OR REPAIR ANY ROAD DESIGNATED AS "PRIVATE."
10. THE MAINTENANCE OF LANDSCAPING WITHIN THE OPEN SPACES, LANDSCAPED TRACTS, RETENTION BASINS, AND PARKS SHALL BE THE RESPONSIBILITY OF THE OWNER OR THE HOMEOWNERS' ASSOCIATION FORMED BY THE OWNER.
11. THE MAINTENANCE OF LANDSCAPING WITHIN THE ADJACENT PUBLIC RIGHTS-OF-WAY, INCLUDING LANDSCAPED MEDIANS WITHIN COLLECTORS AND LOCAL STREETS, AND LANDSCAPED AREAS BETWEEN THE CURB AND THE DETACHED SIDEWALK, SHALL BE THE RESPONSIBILITY OF THE ADJACENT PROPERTY OWNER OR THE HOMEOWNERS' ASSOCIATION FORMED BY THE ADJACENT PROPERTY.
12. LANDSCAPING MAINTENANCE OF THE MEDIANS WITHIN THE PUBLIC RIGHT-OF-WAY WITHIN ANY ARTERIAL OR PARKWAY STREET CLASSIFICATION SHALL BE RESPONSIBILITY OF THE CITY OF SURPRISE AFTER ACCEPTANCE.
13. THIS FINAL PLAT IS IN SUBSTANTIAL CONFORMANCE WITH THE PRELIMINARY PLAT APPROVED BY THE CITY OF SURPRISE UNDER CASE FS21-330.
14. DEVELOPMENT STANDARDS ARE PER THE CITY OF SURPRISE ZONING CASE FS21-1002 OR AS SUBSEQUENTLY AMENDED.

FLOOD ZONE DESIGNATION

THE FOLLOWING FLOOD PLAIN DESIGNATION AND ASSOCIATED COMMENTS ARE COPIED DIRECTLY FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WEBSITE. HILGARTWILSON, LLC AND THE UNDERSIGNED REGISTERED PROFESSIONAL LAND SURVEYOR MAKE NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE FOLLOWING FLOOD ZONE DESIGNATION STATEMENT.

THE PROPERTY IS LOCATED WITHIN AN AREA HAVING FLOOD ZONE "X" BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, ON FLOOD INSURANCE RATE MAP NO. 04013C1210L, WITH A DATE OF IDENTIFICATION OF OCTOBER 16, 2013, FOR COMMUNITY NO. 040053, IN MARICOPA COUNTY, STATE OF ARIZONA, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PROPERTY IS SITUATED.



SHEET INDEX MAP
N.T.S.

AREAS

TRACT A AREA =	161,278 SQ. FT. 3.7024 ACRES
OPEN SPACE AREA (TRACTS B-I) =	276,169 SQ. FT. 6.3400 ACRES
LOT AREA =	458,335 SQ. FT. 10.5219 ACRES
GROSS AREA=	895,781 SQ. FT. 20.5643 ACRES
NET AREA =	734,503 SQ. FT. 16.8619 ACRES
DENSITY (GROSS) =	4.3 D.U. / ACRES
DENSITY (NET) =	5.2 D.U. / ACRES

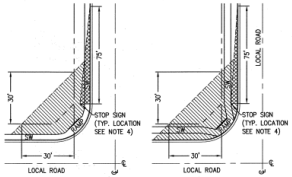
TRACT TABLE		
TRACT	AREA (ACRES)	USE
TRACT A	3.7024	COMMON AREA, DRAINAGE, PUBLIC UTILITY EASEMENT & PRIVATE ACCESSWAY
TRACT B	2.7479	COMMON AREA & DRAINAGE
TRACT C	1.6548	COMMON AREA & DRAINAGE
TRACT D	1.7318	COMMON AREA & DRAINAGE
TRACT E	0.0417	COMMON AREA & DRAINAGE
TRACT F	0.0420	COMMON AREA & DRAINAGE
TRACT G	0.0709	COMMON AREA & DRAINAGE
TRACT H	0.0225	COMMON AREA & DRAINAGE
TRACT I	0.0282	COMMON AREA & DRAINAGE

NOTES:

1. SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES OR OTHER PLANTS, BUT EXCLUDING TREES OVER 30 INCHES IN HEIGHT SHALL NOT BE PERMITTED WITHIN THE RESTRICTED AREAS.
2. PLANTING WITHIN THE R/W IN VIEW EASEMENTS SHALL BE PER THE APPROVED TYPES AND DIMENSIONS AND SHALL NOT ENCROACH WITHIN THE SIGHT TRIANGLE PER AASHTO GUIDELINES.
3. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
   A. NO LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
   B. TREES SHALL NOT OBSTRUCT MORE THAN 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.
4. STOP SIGN SHALL BE INSTALLED AT 2' MINIMUM BEHIND BACK OF CURB.

UNOBSTRUCTED VIEW EASEMENT AREA (SEE NOTE #3)

NO VEGETATION OVER 30 INCHES IN HEIGHT



LOCAL STREET
SIGHT VISIBILITY TRIANGLES

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PHOENIX, AZ 85016 | www.hilgartwilson.com

HERITAGE ASANTE - PARCEL 8
PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
SURPRISE, ARIZONA

FINAL PLAT

PROJ. NO.: 1909
DATE: SEPT. 2022
SCALE: NONE
DRAWN: DS
APPROVED: BJB

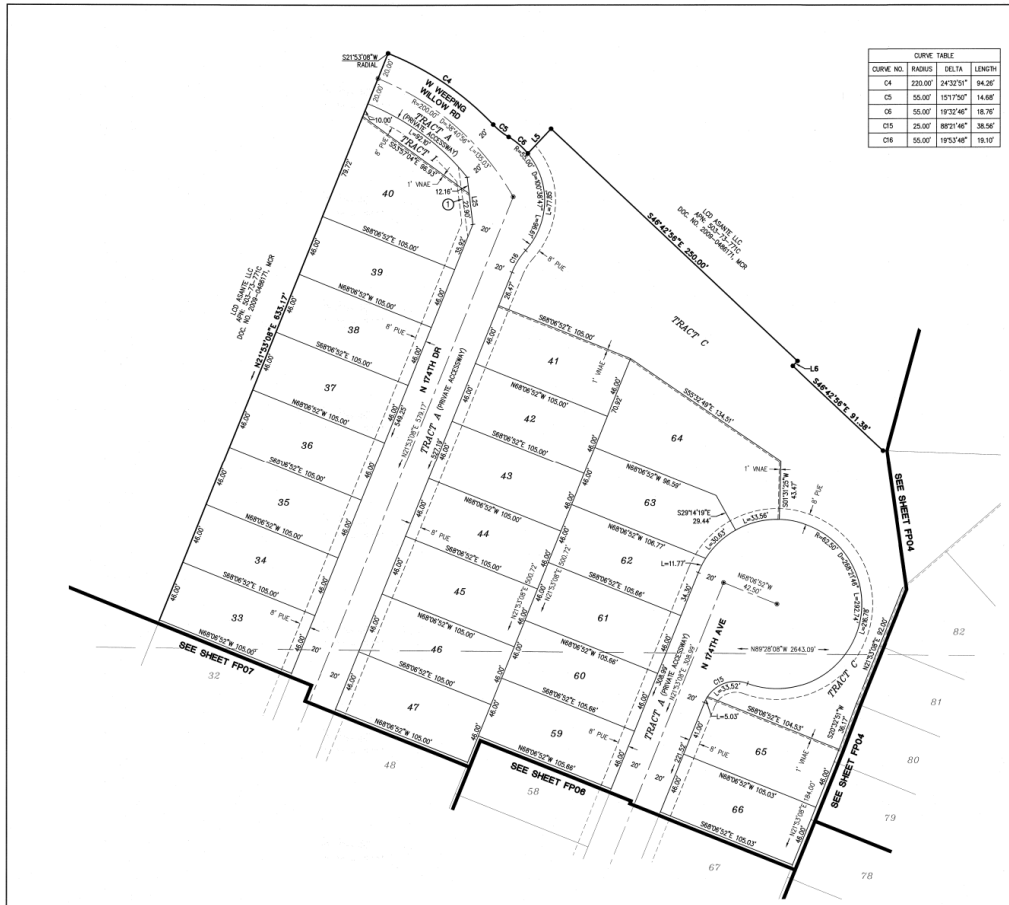
STATUS: MUNICIPAL TRACKING NO:

DWG. NO.
FP02
SHT. 2 OF 7

U:\1900\1909\SURVEY\PLAT\HERITAGE ASANTE\PARCEL 8\1909-HA-P8-FP02.dwg 9/30/2022 4:33 PM

FS22-0590

FS22-0590 FINAL PLAT


W WEEPING WILLOW RD
N 17TH DR
N 17TH AVE
TRACT A (PRIVATE ACCESSWAY)
TRACT C
LOT 40
LOT 39
LOT 38
LOT 37
LOT 36
LOT 35
LOT 34
LOT 33
LOT 41
LOT 42
LOT 43
LOT 44
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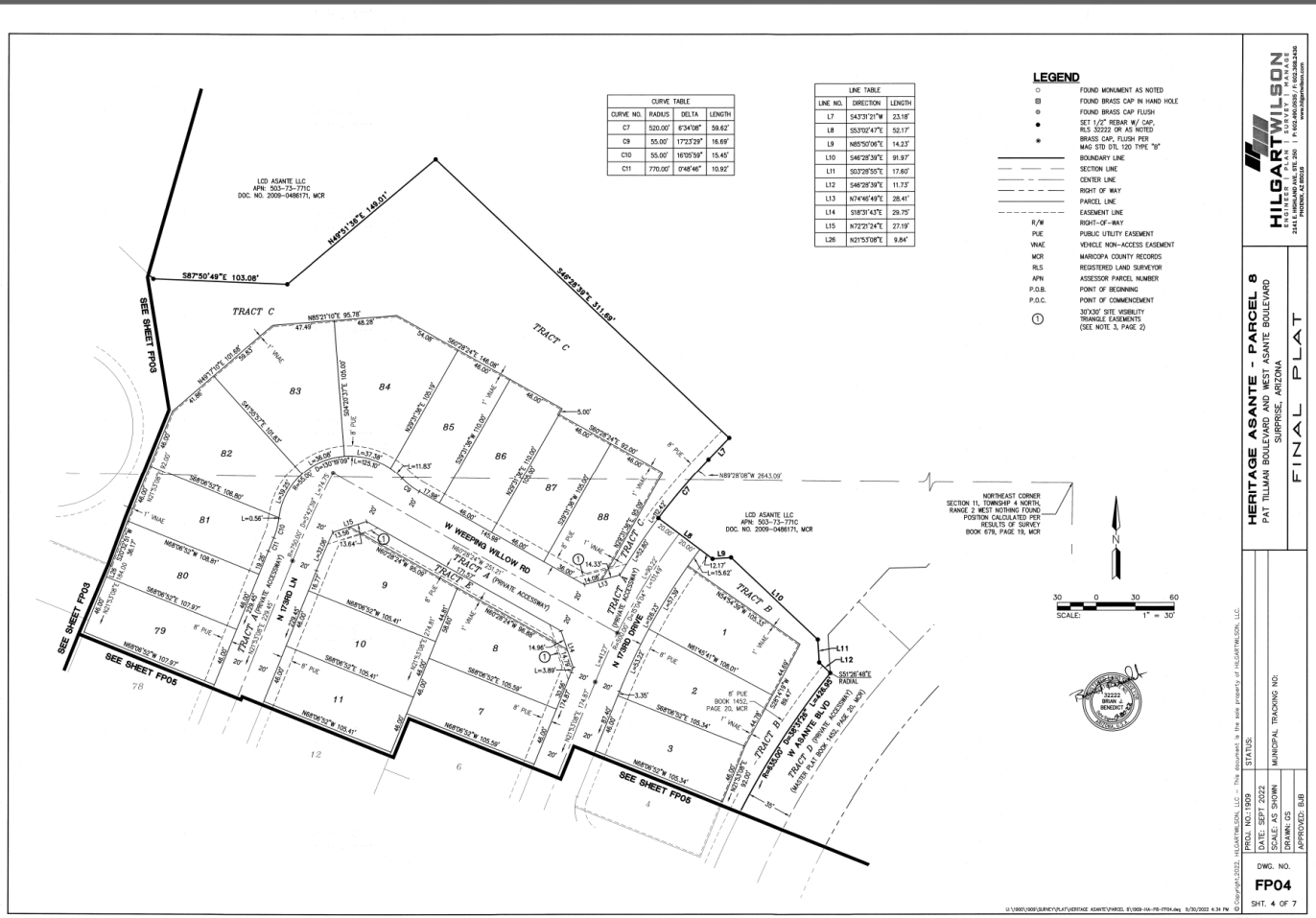
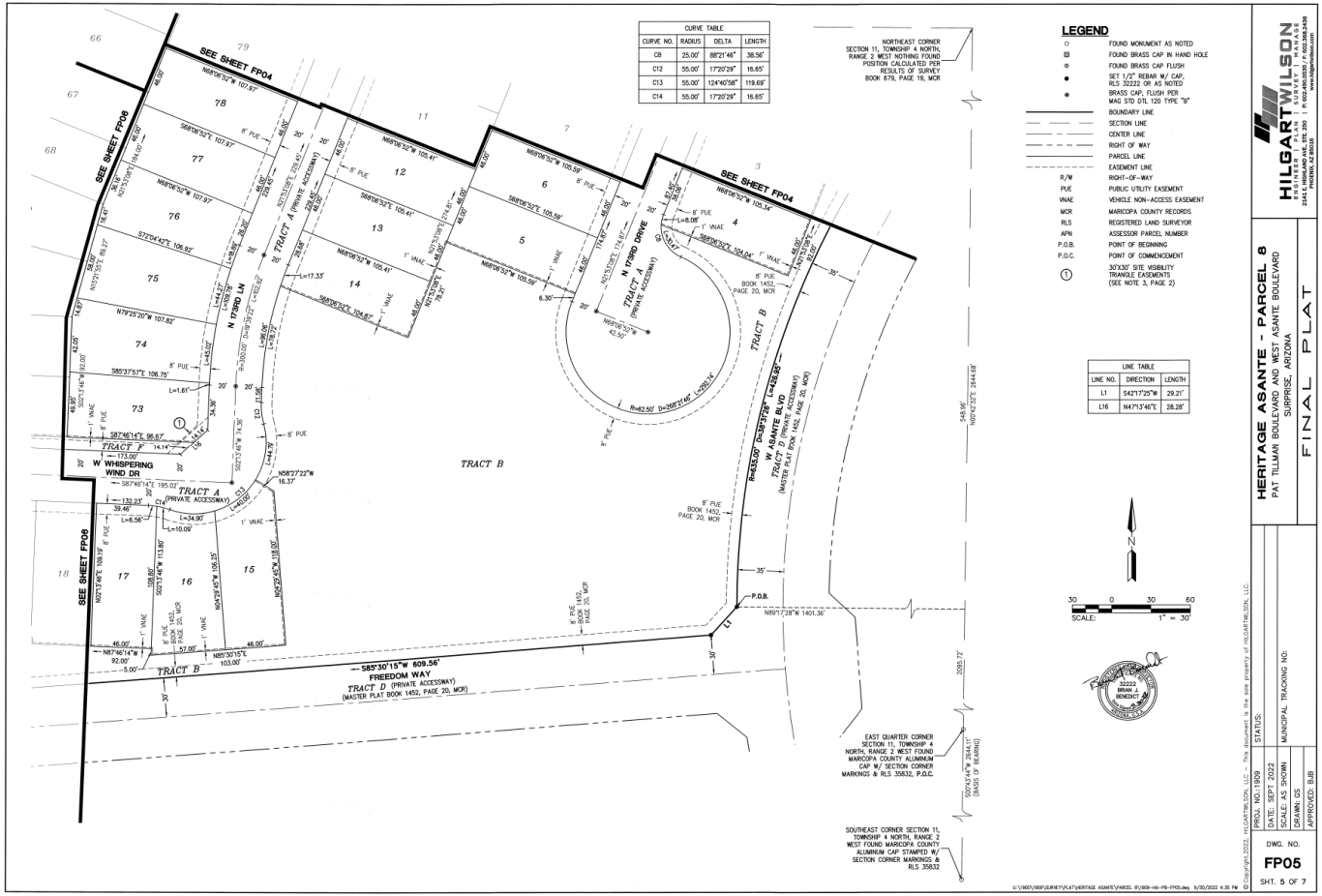
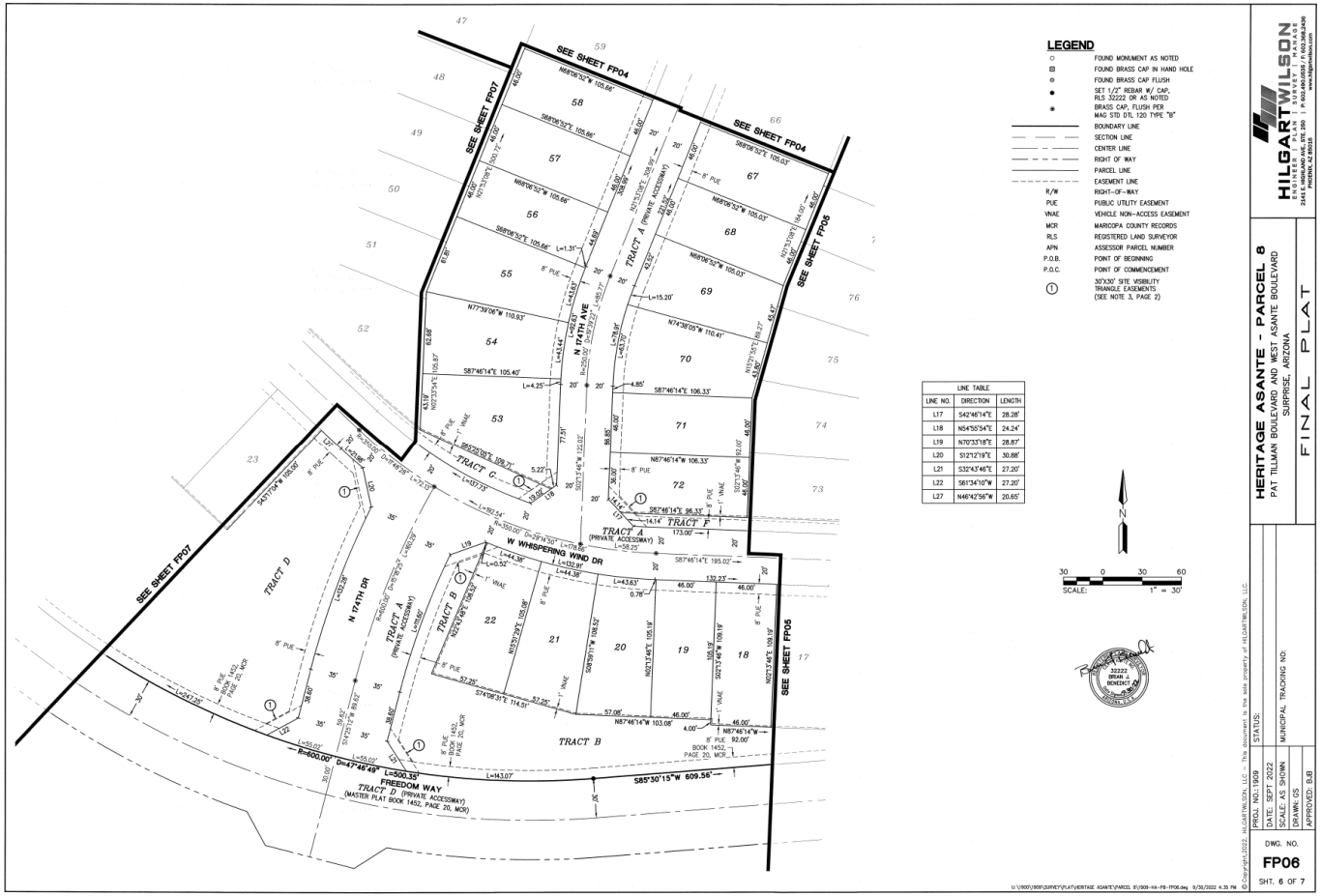
LOT 59
LOT 65
LOT 66
SEE SHEET FP07
SEE SHEET FP06
SEE SHEET FP04
SEE SHEET FP04
SEE SHEET FP04
LDI ASANTE LLC
APN 502-58-346T/C
DOC. NO. 2020-0486731, MCR
S46°42'56"E 250.00'
L5
S46°42'56"E 91.39'
N01°13'08"E 653.17'
S21°53'08"W RADIAL
C4
C5
C6
C15
C16
L5
L6
L25
1' VNAE
8' PUE
5' PUE
20' R/W
S88°16'52"E 105.00'
N88°16'52"W 105.00'
N88°16'52"W 106.77'
N88°16'52"W 98.56'
S88°16'52"E 105.66'
N88°16'52"W 105.66'
S88°16'52"E 104.53'
N88°16'52"W 105.03'
S88°16'52"E 105.03'
S29°14'19"E 29.44'
N89°25'08"W 264.53'
S00°33'52"E 124.97'
N00°33'52"W 124.97'
N00°33'52"W 43.47'
S00°33'52"E 83.00'
N00°33'52"W 83.00'
N00°33'52"W 41.50'
S00°33'52"E 41.50'
N00°33'52"W 41.50'
S00°33'52"E 41.50'
N00°33'52"W 41.50'
S00°33'52"E 41.50



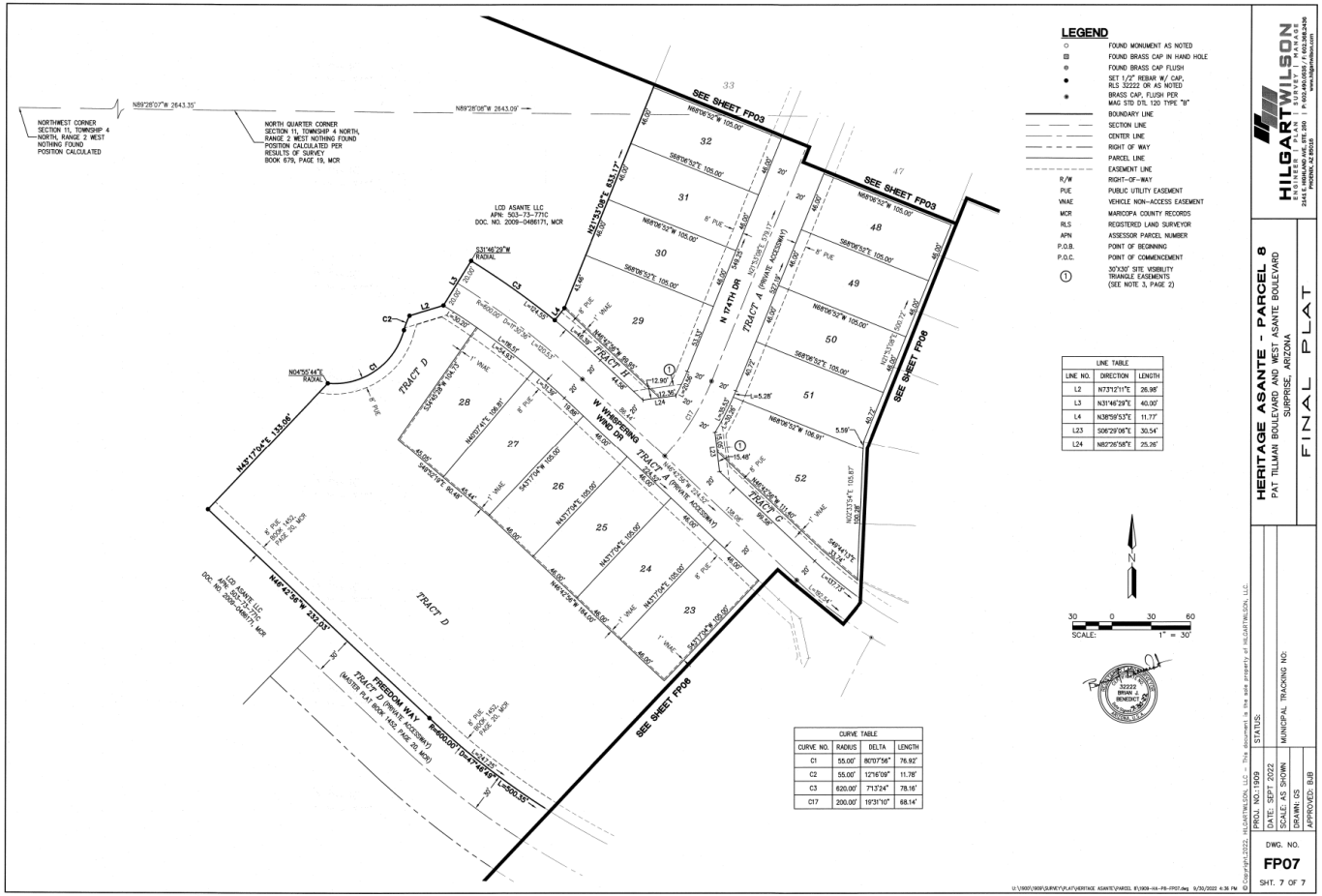
FS22-0590 FINAL PLAT



FS22-0590 FINAL PLAT



FS22-0590 FINAL PLAT



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HERITAGE ASANTE - PARCEL 8
PAT TILLMAN BOULEVARD AND WEST ASANTE BOULEVARD
SURPRISE, ARIZONA

FINAL PLAT

PROJ. NO.: 1909
DATE: SEPT. 2022
SCALE: AS SHOWN
DRAWN: CS
APPROVED: BJB
STATUS:
MUNICIPAL TRACKING NO:

DWG. NO.
FP07
SHT. 7 OF 7

FS22-0590

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FS22-0590 FINAL PLAT

TREE PLANTING LEGEND

SYMBOL	BOTANICAL/ COMMON NAME	SIZE
	Cercidium 'Desert Museum' PALO VERDE	36" BOX STANDARD
	Pinus eldarica MONDEL PINE	24" BOX STANDARD LOW BRANCH
	Pistacia c. 'Red Push' RED PUSH PISTACHE	24" BOX STANDARD
	Prosopis g. 'Maverick' HONEY MESQUITE	24" BOX STANDARD LOW BRANCH
	Quercus virginiana 'Heritage' HERITAGE LIVE OAK	24" BOX STANDARD
	Ulmus parvifolia 'Drake' DRAKE ELM	24" BOX STANDARD

SHRUB PLANTING LEGEND

SYMBOL	BOTANICAL/COMMON NAME	SIZE	MINIMUM SPACING
	AGAVE A 'MEDIOPICTA ALBA' CENTURY PLANT	5 GAL.	5'-0" O.C.
	BOUGAINVILLA 'TORCH GLOW' TORCH GLOW BOUGAINVILLA	5 GAL.	5'-0" O.C.
	BOUTELOUA G. 'BLONDE AMBITION' BLONDE AMBITION GRAMA GRASS	1 GAL.	3'-0" O.C.
	CAESALPINIA PULCHERRIMA MEXICAN BIRD OF PARADISE	5 GAL.	8'-0" O.C.
HB	EREMOPHILA 'VALENTINE' VALENTINE EMU BUSH	5 GAL.	5'-0" O.C.
	HESPERALOE PARVIFLORA RED YUCCA	5 GAL.	3'-0" O.C.
	LEUCOPHYLLUM LANGMANIAE 'RIO BRAVO' RIO BRAVO SAGE	5 GAL.	5'-0" O.C.
	MUHLENBERGIA C. 'REGAL MIST' BULL GRASS	1 GAL.	3'-0" O.C.
	MYRTUS COMMUNIS MYRTLE	5 GAL.	5'-0" O.C.
	OLEA EUROPAEA 'MONTRA' LITTLE OLLIE DWF OLIVE	5 GAL.	5'-0" O.C.
	PENNISETUM 'HAMELN' DWARF FOUNTAIN GRASS	1 GAL.	3'-0" O.C.
	RUELLIA PENINSULARIS BAJA RUELLIA	5 GAL.	5'-0" O.C.
	TEUCRIUM CHAMAEDRYS 'WALL GERMANDER'	1 GAL.	24" O.C.
	TURF MIDIRON SOD		
	DECOMPOSED GRANITE - "DESERT VERDE" 3" SCREENED (BROWN TO MATCH ADJACENT SUBDIVISIONS)		

SVT = SIGHT VISIBILITY TRIANGLE

IRRIGATION WATER SOURCE: HERITAGE ASANTE MASTER IRRIGATION SYSTEM (RECLAIMED WATER)

TURF PEAK SEASON DEMAND (GDP) = 1,930 gdp
NON-TURF PEAK SEASON DEMAND (GDP) = 17,787 gdp
TOTAL ANNUAL DEMAND = 12.20 AC-FT OR 3,975,382 gallons

TOTAL PROJECT AREA: 896,156 SQ FT (20.5 ACRES)
TOTAL PLANTING AREAS: 292,038 FT (32% OF PROJECT AREA)
TOTAL NON-TURF PLANTING AREA: 275,278 SQ FT
TOTAL TURF AREA : 3,760SQ FT (1.3% OF PLANTING AREAS)

51638
PATRICK C.M. MURPHY
ARIZONA U.S.A.

NORTH
SCALE: 1"=60'-0"

SMP
ENVIRONMENTAL DESIGN

HERITAGE ASANTE - PARCEL 8 Preliminary Landscape Plan

SURPRISE
ARIZONA

QUESTIONS OR COMMENTS?

Thank You

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022 Contact Person: LESLIE CARNIE
Submitting Department: Community Development District: District 5
Staff Recommendations:

Consent: No Regular: No Public Hearing: Yes Report/Discussion: No

Agenda Wording:
Consideration and action pertaining to a zone change from Community Commercial (C-2) to Residential High Density (R-3) on an approximately 12.82 acre property generally located on the southwest corner of Mountain View Blvd. and White Horse Trail; Ordinance # 2022-24.

Motion:
I move to approve Ordinance # 2022-24.

Background:
Carolyn Oberholtzer with Bergin, Frakes, Smalley, & Oberholtzer proposes to rezone approximately 12.82 acres from Community Commercial (C-2) to R-3 for a multi-family residential development on the southwest corner of Mountain View Blvd. and White Horse Trail.

Objective Analysis:
The rezone from C-2 to R-3 satisfies the requirements set forth in the City of Surprise Land Development Ordinance (LDO). All City reviewing departments have reviewed the request and expressed no concerns.

Policy Compliant:
The requested rezone is consistent with the Commerce and Office Character and Transit Orientated Development District areas of the General Plan.

Financial Impact:
While this item does not have an immediate or direct financial impact, ongoing development activity in the City will inevitably have a future financial impact as additional resources are needed to provide City services.

Budget Impact:
There is no anticipated budget impact related to this item.

FTE Impact:

This item does not have an impact on current staff levels.

ATTACHMENTS:

1. 00 – FS22-0588 Prose Apartments – Staff Report
2. 01-FS22-0588 Prose Apartments - Vicinity Map
3. 02-FS22-0588 Prose Apartments - Existing Zoning
4. 03-FS22-0588 Prose Apartments - Proposed Zoning
5. 04 – F22-0588 Prose Apartments – Zoning Document
6. 05 - FS22-0588 Prose Apartments - Conceptual Site Plan
7. 06– FS22-0588 Prose Apartments – Luke AFB Letter
8. 07 – FS22-0588 Prose Apartments – Affidavit of Site Posting
9. 08 – FS22-0588 Prose Apartments – Citizen Outreach Report_Redacted
10. 09 - FS22-0588 Prose Apartments - Support Opposition
11. 10 -FS22-0588 Prose Apartments - Market Analysis
12. 11 - FS22-0588 Prose Apartments - Traffic Impact Analysis
13. 12 - FS22-0588- Prose Apartments Rezone Ordinance
14. FS22-0588 Prose Apartments - CC Presentation

SURPRISE
ARIZONA

ZONE CHANGE

REPORT TO CITY COUNCIL

Case:	FS22-0588
Project Name:	Prose Apartments
Council District:	5 - Palm
Meeting Date:	November 15, 2022
Planner:	Leslie Carnie
Owner:	Who Dey II, LLC
Applicant:	Carolyn Oberholtzer with Bergin, Frakes, Smalley, & Oberholtzer PLLC (BFSO)
Request:	Zone Change from Community Commercial (C-2) to High Density Residential (R-3) to allow the development of a Multi-Family Residential
Site Location:	Generally located on the southwest corner of Mountain View Blvd. and White Horse Trail
Site Size:	12.82 Net acres (approx.)
Density:	23.34 DU/Ac
General Plan Conformance:	The proposal is consistent with the Surprise General Plan 2035.
Support/Opposition:	A Citizen Participation Meeting was held August 11, 2022. There were questions and opposition as specified in the Citizen Participation Report.
Commission Recommendation:	Planning and Zoning Commission Recommends **denial** of the subject Zone Change, Case # FS22-0588.

Project Description:

Carolyn Oberholtzer with BFSO, on behalf of, Who Dey II, LLC requests a zone change of approximately 12.82 acres from Community Commercial (C-2) to Residential High Density (R-3) for the development of a multi-family residential project. The site is generally located on the southwest corner of Mountain View Blvd. and White Horse Trail.

Background:

November 9, 1978: The subject parcels were annexed into the City under Ordinance 78-36.

January 13, 2022: A Concept Review meeting was held under case CR21-756.

April 21, 2022: The applicant filed a request for a Major Zoning Amendment, Site Plan and Final Plat under case FS21-0588.

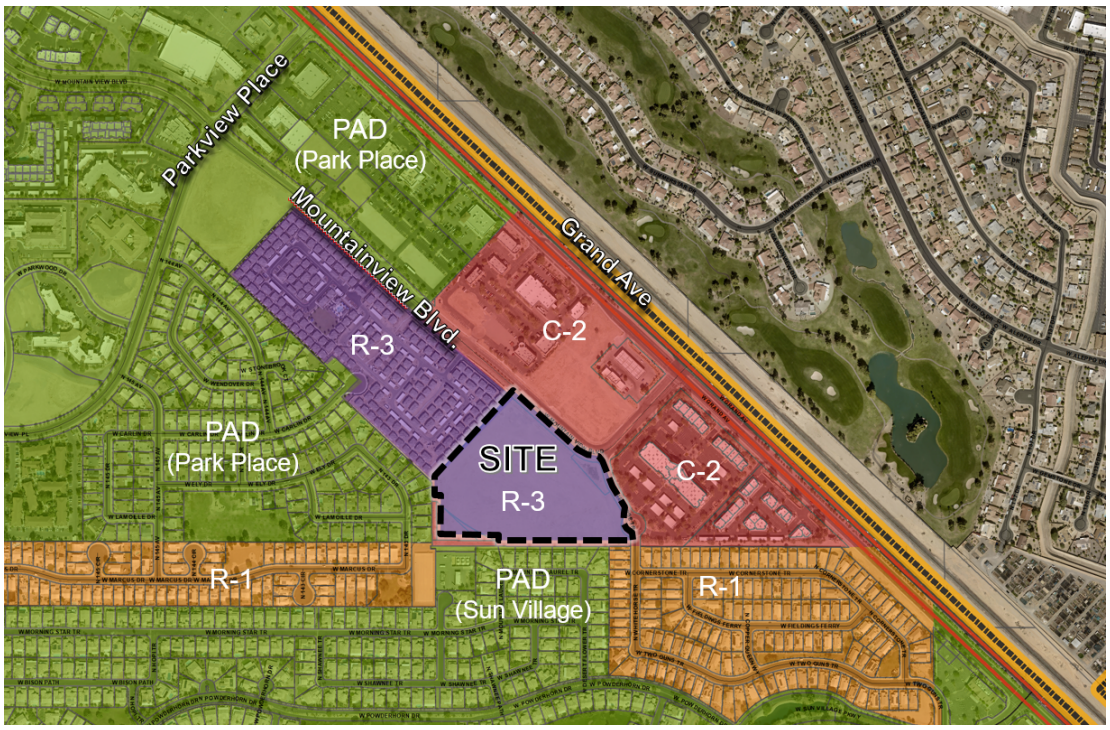
August 11, 2022: The applicant held a Citizen Outreach Meeting to discuss the project.

October 06, 2022: The Planning and Zoning Commission recommended denial of the subject Zone Change, case FS22-0588, to the City Council.

Analysis and Discussion:

The applicant requests a rezone of approximately 12.82 acres from Community Commercial (C-2) to Residential High Density (R-3) to accommodate a multi-family residential project. The proposed, for lease, apartment complex will have 274 units and a net density of 23.34 DU/Ac. The project is composed of both 2 and 3 story buildings. The two story buildings and increased setbacks are provided to buffer the adjacent single family residential homes from the 3 story buildings. Access to the site is provided off of Mountain View Blvd. via a gated full movement main entrance. A secondary gated driveway will be provided off of White Horse Trail for emergency vehicles only. A Site Plan and Final Plat are being reviewed concurrently under the same case number (FS22-0588).

Existing Zoning



Proposed Zoning

The development of the project site is subject to review and approval of a comprehensive site plan, in which the site design, architecture, parking, setbacks, and landscaping will be reviewed in accordance with the requirements prescribed by the City's aforementioned LDO requirements and the adopted Planning and Engineering Design Standards (PEDS). The table below reflects the current LDO requirements for the R-3 Zoning District.

Table 106-2e—Residential High Density (R-3) Zoning District			
Net Density (du/ac)	**8-11.9**	**12-14.9**	**15+**
Min. setback to arterial ROW (ft)[2]	20	20	20
Min. setback to collector and local ROW (ft)[2]	15	15	15
Min. setback adjacent to residential zoning (ft)	10	15	20
Min. setback adjacent to non-residential zoning (ft)	20	20	20
Max. bldg. height[1] (ft)	45	50	60
Open space (sf/du)	150	150	150

Notes:
1. The *height* of any *structure*, or portions thereof, shall not exceed 30 feet in *height* measured at the *setback* line when *adjacent* to *single-family*, *two-family*, *three-family development parcels.* The *height* of the *accessory structure* may increase at a ratio of one foot vertical for every one foot horizontal as measured relative to the property line to a maximum *height* equal to the *zoning*.
2. *Setback* may be reduced to ten feet along collector or local *right-of-way* for units that open to the *street* and exclude a perimeter wall.

Utility and Services Table:

Electric:	APS
Water:	EPCOR
School District	DYSART UNIFIED

Conformance with Adopted Plans:

The Surprise General Plan 2035 shows the subject property as lying within the Commerce and Office Character Area (CO) and is within the Transit Oriented Development District (TODD), which supports the development of high density residential projects. The CO Character Area permits both medium and high density residential projects with no limit on density. The proposed 23.34 DU/Ac is in conformance with the higher density housing that is encouraged in the CO Character Area and the TODD. The proposed Zone Change will allow for a high density residential development in close proximity to existing and future commercial development creating the desired large scale horizontal mixture of uses in the General Plan CO Character Area.

Reviewing Agencies:

In addition to the standard City internal reviewing departments and Luke Air Force Base, the Maricopa Water District, and ADOT were included in the routing of this request. None of the reviewing agencies indicated any concerns over the request.

Citizen Outreach:

On August 11, 2022, the applicant held a Neighborhood Meeting at "The Colonnade at Sun Health". The meeting was properly advertised per the requirements of the LDO. During this meeting, there were approximately 55 in-person attendees and 26 virtual attendees. In general, the residents brought forth concerns pertaining to traffic, building height, crime, and the type of residents the project would bring to the community. The developer addressed all concerns and questions and provided participants with the project website (www.alliancemountianview.com) where they were able to view more detailed information.

Summary:

As proposed the Zone Change is consistent with the manner and intent of the Surprise Municipal Code. If approved, the site will be allowed to be developed in accordance with the requirements of the City of Surprise.

Findings:

- The proposed Zone Change is consistent with the Surprise General Plan 2035.
- The proposed Zone Change demonstrates compliance with the criteria set forth in the Surprise Municipal Code
- The reviewing agencies have indicated no objections to the request.

Recommendation:

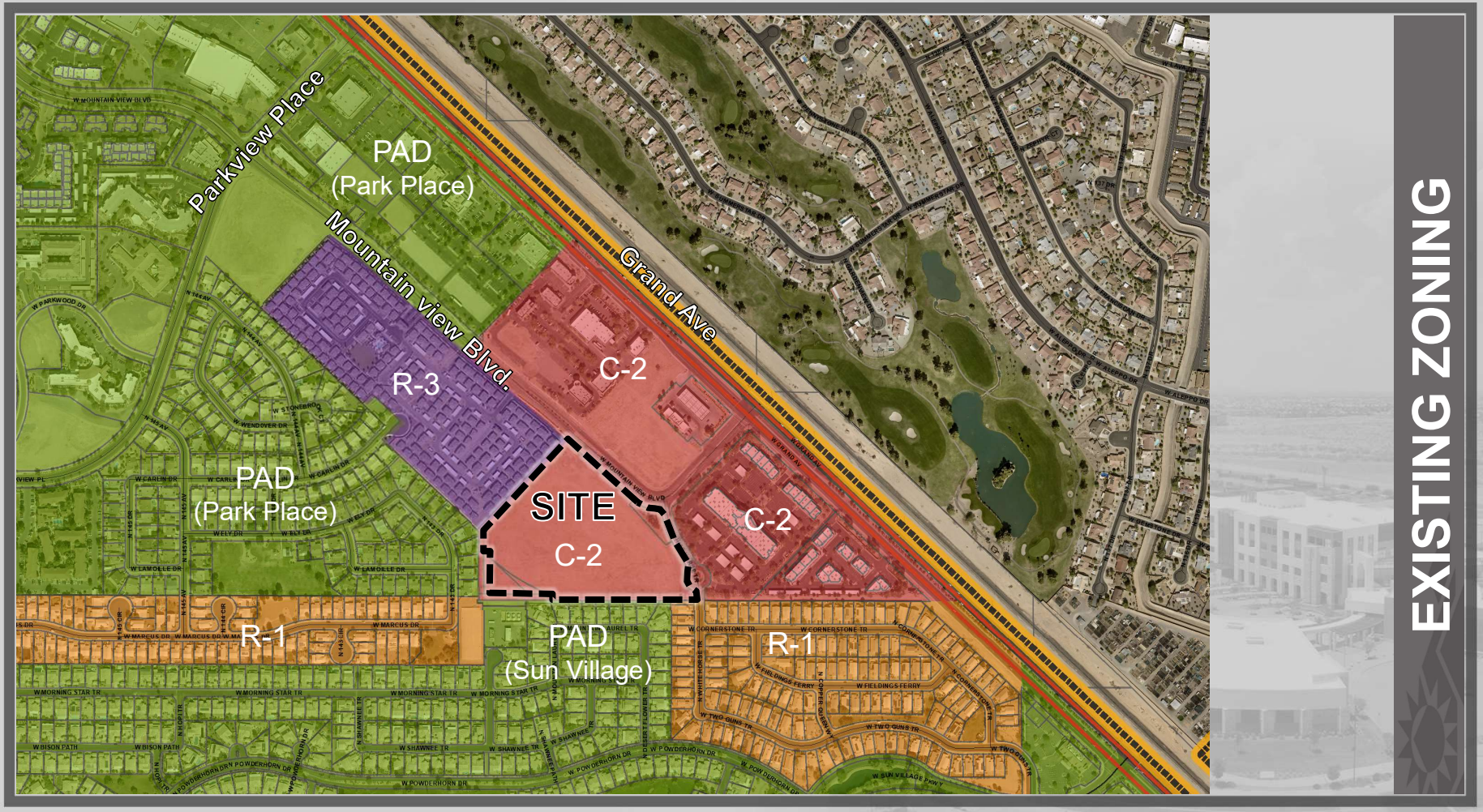
The Planning and Zoning Commission recommends the City Council **deny** the subject Zone Change.

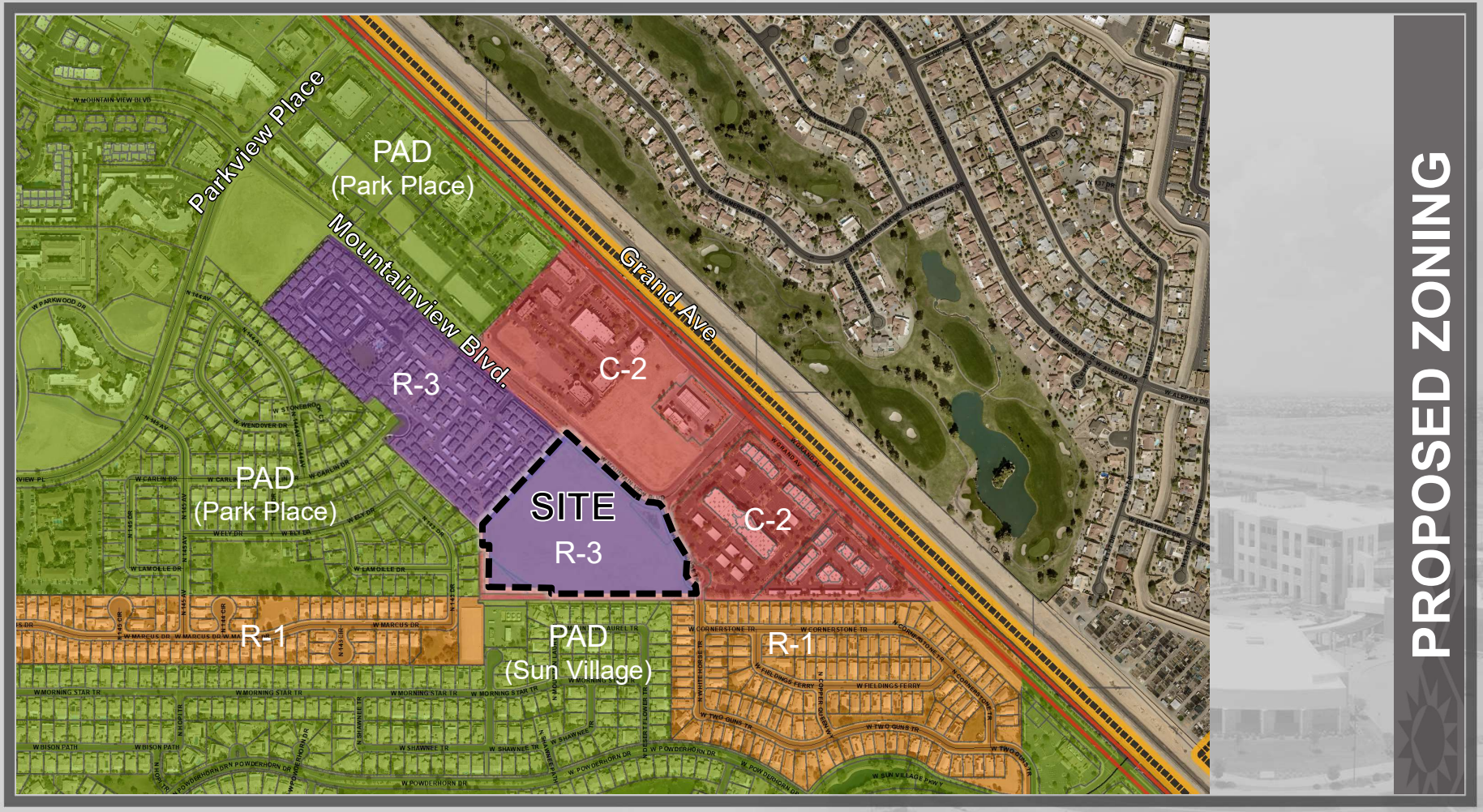
Attachments:

01 Vicinity Map
02 Existing Zoning Map
03 Proposed Zoning Map
04 Zoning Document
05 Conceptual Site Plan
06 Luke AFB comments

07 Affidavit of Site Posting
08 Citizen Outreach Report – REDACTED
09 Support/Opposition
10 Market Analysis
11 Traffic Impact Analysis
12 Ordinance
PPT

Parkview Place
Grand Village Center
Mountain view Blvd.
Grand Ave
Christopher Todd Communities
Stonebrooke
SITE
Ancona Professional Plaza
Sun Village
VICINITY MAP


EXISTING ZONING
Parkview Place
PAD
(Park Place)
Mountain view Blvd.
Grand Ave
R-3
C-2
PAD
(Park Place)
SITE
C-2
C-2
R-1
PAD
(Sun Village)
R-1


PROPOSED ZONING
Parkview Place
Mountainview Blvd.
Grand Ave
PAD
(Park Place)
R-3
C-2
SITE
R-3
C-2
PAD
(Park Place)
R-1
PAD
(Sun Village)
R-1

PROSE MOUNTAIN VIEW

SURPRISE

Rezone

Case File: FS22-0588

Community Commercial (C-2) to Residential High Density (R-3)

12.82 Gross Acres

Southwest corner of W. Mountain View Boulevard and N. White Horse Trail

Surprise, Arizona

Prepare by: BFSO

Submitted to: City of Surprise, Arizona

1st Submittal: April 20, 2022

2nd Submittal: July 25, 2022

3rd Submittal: August 18, 2022

Prose Mountain View Team

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    a. *Aerial Maps of Project Site related to the Surrounding Area*
    b. *Existing Zoning Map and Proposed Zoning Map*
    c. *General Plan 2035 Land Use Map*
    d. *Legal Description*

Introduction and Location

Alliance Residential Company is one of the largest and most active rental residential real estate developers in the United States. Headquartered in Scottsdale, with 19 regional offices, Alliance is focused on the development, construction and management of residential communities across 17 states and 33 metropolitan markets. Alliance develops high-end multifamily housing communities and is known for creating some of the most popular communities to live in in Arizona and beyond.

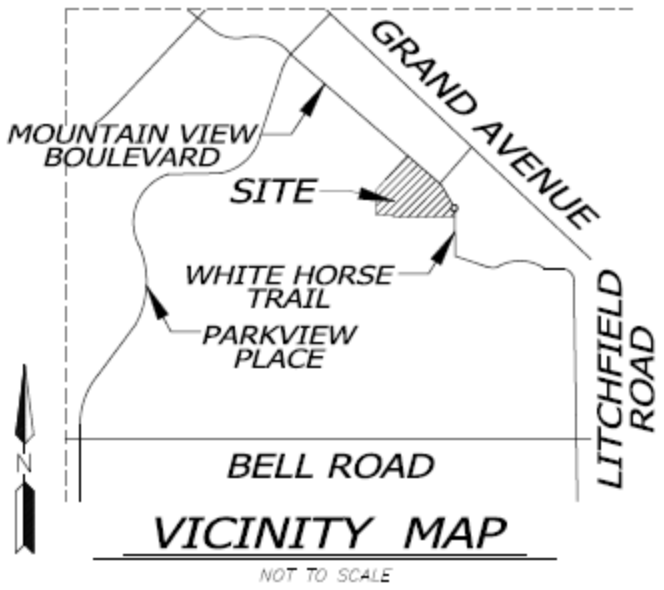
The planned Prose Mountain View Project ("Project") in Surprise seeks to bring a high-end apartment housing community to the Grand Avenue corridor that will provide multi-family options for residents in line with the vision of the Surprise General Plan.

The Vicinity Map identifies the Project generally located at 3134 E. Weldon Avenue, Surprise, AZ 85374 which encompasses the Maricopa County Parcel Numbers 503-98-917, 503-98-923, 503-59-031K, 503-59-031B (collectively, the "Property"). The Property is approximately 12.82 gross acres located at the southwest corner of W. Mountain View Boulevard and N. White Horse Trail within the City of Surprise, Arizona (the "City"). An aerial map is provided in Exhibit A.

The Property is effectively an infill development and this long-vacant property is ripe for residential to support the commercial uses in the area, which includes a grocery, drug store, multiple restaurants, retail stores, and an array of medical uses. The table below shows the surrounding current zoning and land uses.

Surrounding Land Use Table		
Direction	**Current Zoning**	**Current Land Use**
Project Site	C-2	Vacant Land
Northwest	R-3 with PUD Overlay	Detached Single-story Apartments: Christopher Todd Communities
North	C-2	Commercial
East	C-2	Commercial / Business Park
South & West Corner	C-2	Vacant Land (Owned by Maricopa County Water)
South	PAD	Single Family Residential
West	PAD	Single Family Residential

Vicinity Map:



Description of Request

The applicant is requesting a zone change of 12.82 gross acres from Community Commercial (C-2) to High Density Residential (R-3). See Exhibit B for Existing and Proposed Zoning Maps. The Project will comply with the development standards of the Land Development Ordinance (LDO) as shown in the Conceptual Site Plan, will exceed many of the applicable setbacks to ensure compatibility of land uses.

The proposed community consists of 274 residential units in a combination of 2 and 3 story buildings, including a mixture of carriage units and single-story garages. The community is built around a central amenity area that includes a clubhouse with fitness room, pool, play area, and dog park.

The Project will be accessed via a gated full movement main entry from W. Mountain View Ave. – utilizing the existing median break. A secondary gated driveway will be provided on N. White Horse Trail on the eastern edge of the property and be limited to emergency vehicles only. The configuration of this circulation will limit traffic into the neighboring community in a manner that is significantly less than what otherwise might occur under the C-2 zoning.

Development Standards

Table 106-2e below identifies the required development standards for the Residential High Density (R-3) *zoning district.*

Table 106-2e - Residential High Density (R-3) Zoning district			
Net Density (du/ac)	8-11.9	12-14.9	15+
Min. Setback to Arterial ROW (ft) [2]	20	20	20
Min. Setback to Collector and Local ROW (ft) [2]	15	15	15
Min. Setback Adjacent to Residential Zoning (ft)	10	15	20
Min. Setback Adjacent to Non-Residential Zoning (ft)	20	20	20
Max. Bldg. Height[1] (ft)	45	50	60
Open space (sf/du)	150	150	150

Notes:

1. The *height* of any *structure*, or portions thereof, shall not exceed thirty feet (30') in *height* measured at the *setback* line when *adjacent* to *Single-family, Two-family, Three-family development parcels*. The *height* of the *accessory structure* may increase at a ratio of one foot vertical for every one foot horizontal (1':1') as measured relative to the property line to a maximum *height* equal to the *zoning*
2. *Setback* may be reduced to 10' along Collector or Local *right-of-way* for units that open to the *street* and exclude a perimeter wall

All projects shall provide one hundred and fifty square feet (150 sf) of onsite *open space* per *dwelling unit*, which shall include surfacing and safety features such as lighting, and *amenities* that enable residents to use the *open space.* Acceptable types of *open space* are listed below.

Common open space (excluding *setbacks*) with a minimum dimension of fifteen feet (15') in any direction that is accessible to all *dwelling units* by sidewalks or local paths. The space shall be oriented maximize afternoon shade, unless site conditions such as topography warrant waiving this requirement by the Community Development Director or Designee.

Individual balconies or patios (excluding front stoops) may be used for up to twenty-five percent (25%) of the required *open space*. To qualify as *open space*, balconies or patios must be at least forty square feet (40 sf) with no dimension less than five feet (5').

Rooftop decks and terraces may be used to meet up to fifty percent (50%) of the required *open space*, provided the space provides *amenities* such as seating areas, barbeques, fireplaces, recreational spaces, shade, and landscaping.

On-site indoor recreation areas may be used to meet up to twenty-five percent (25%) of the required *open space* provided the space is designed for communal *use* by all residents and provides space for entertaining, gathering, or exercise equipment and fitness activities.

Environmentally sensitive areas may count toward *open space* requirements if integrated into the site design to be visible and usable by residents with features such as trails and benches. Sensitive or critical areas meeting these requirements may count for up to fifty percent (50%) of the required *open space*." LDO §106-2.5.

Conformance with the adopted Surprise General Plan 2035

The 2035 Surprise General Plan ("General Plan") includes the Property in the "Commerce and Office Character Area" ("CO") and it is within the Transit Oriented Development District ("TODD"). See Exhibit

C. The TODD includes sub-areas of the General Plan to "promote a higher intensification of residential and non-residential uses near existing and planned transit stops." General Plan, page 63. Throughout the CO Character Area "stand alone multi-family residential development" and "higher density housing" are permitted and "multi-family residential uses – such as condominiums and apartments" are typical. The CO Character Area allows the greatest diversity and intensity of land uses." General Plan, pages 44-47. The intended use of the Property should qualify as a "Mixed Use-Residential" [1] development within the General Plan CO Character Area because the Property is adjacent to commercial and as a result, will include a "horizontal mixture of residential and non-residential land uses." General Plan, page 46.

The following describes the Project's conformance with the general Goals and policies of the Land Use Element and other elements of the plan.

Housing Element:

Goal 1: Housing Stock

Policy 8: *Promote and facilitate the build out of vacant and underutilized land through infill, reuse, revitalization and redevelopment activities for appropriate rural, suburban or urban housing development.*

Growth Element:

Goal 1: Sustainable Growth

Policy 5: *Promote and provide incentives for infill development, redevelopment and growth in existing urbanized areas*

The Project will be constructed on a vacant parcel – currently underutilized in an area ripe for development. The Project will bring high quality construction and amenitized residences to a very connected area of the city. As an infill project, the density of the residences will provide a unique opportunity for residences to be adjacent to commerce and assist in a growth pattern consistent with the General Plan's goal of improving underutilized land within the city boundaries.

Land Use Element:

Goal 1: Unique Community

Policy 1: *The City will guide the pattern and scale of development that provides visual diversity, choice of lifestyle, opportunities for social interaction, and that respects desirable community character and context.*

The Project bring multi-family housing to an area in Surprise that will support housing diversity and living options for various lifestyles. In addition, the Project will include an array of amenities including a clubhouse with fitness room, pool, play area, and dog park that will provide opportunities for residents to interact and socialize within the community. In addition, the

[1] "Mixed Use – Residential Includes a vertical and or horizontal mixture of residential and non-residential land uses where the residential component of the project constitutes at least 75% of the overall square footage (vertical mixed use) or acreage (horizontal mixed use). The remaining 25% of the square footage or acreage would constitute commercial retail, office, education, medical, entertainment or civic related uses." General Plan, page 46.

adjacency of the Project to myriad commercial uses within the freeway corridor will allow for a horizonal integration of the residents into the larger community. The Project is located within walking distance of numerous grocery store, retailer, restaurant, and entertainment uses with the Grand Village Center.

Goal 4: Luke Air Force Base

Policy 1*: The City shall comply with all applicable statutes of the State of Arizona, applicable to territory within the vicinity of a military airport or ancillary military facility and land within the high noise and accident potential zones of Luke AFB or any ancillary military facility.*

Luke Air Force Base ("LAFB") has confirmed that the Project's proposed density is consistent with the LAFB graduated density standards.

Goal 6: Variety of Housing

Policy 1*: The City shall encourage development of neighborhoods that broaden the choice of type, size, and affordability of housing in Surprise.*

The multi-family design of the Project will help broaden the housing choices within Surprise. The housing options within the project will be attractive to people who are looking for this type of housing which is not currently available within the area. The nature of the Project's design will be attractive to young professionals, people locking to transition into the area, and others who are looking for affordable, but highly amenitized apartment living.

Policy 2*: The City shall promote various residential options that provide amenities and conveniences within the residence and surrounding community that is above the median housing mix.*

The Project will offer significant amenities and conveniences that will assist in elevating this community above the median housing mix of Surprise. The list of amenities includes a community clubhouse with a fitness room, a pool, a play area, and a dog park for the residents. These amenities will work cohesively to exceed the expectations of multi-family development within Surprise.

Policy 3*. The city shall strive to create a balanced housing mix of detached and attached housing that fosters an economically sustainable city.*

The Project will help diversify the housing mix available within the City. The surrounding area is largely developed with detached single-family housing. The Prose apartments will provide options to surprise residents that are interested in a community that offers a smaller and more intimate setting, while still offering high level amenities expected in larger communities.

Character Area Approach:

The Project is located within the Commerce and Office Character Area (CO) of the General Plan. The General Plan acknowledges the broad development potential of these areas and created this character area designation to encourage flexible land use. Higher density housing is noted specifically as an opportune use within these areas, and multi-family residential uses such as apartments and

condominiums are typical. At 23.24 units/acre, the Project is explicitly compatible with the vision of the general plan as it applies to this location within the city of Surprise.

Compatibility and Transition Measures:

The Project will consider compatibility and transition measures as laid out in the General Plan. On the southern edge of the Project, two 2 story units will transition from the single-family homes to the south – providing a longer setback to the 3 story units in the interior. A 30-foot-wide Maricopa County Water easement is present on the Southwest corner of the parcel and will help provide a transition buffer between two of the residential communities that abut the Project. A dog park is planned just west of a retention area on the Mountain View and White Horse Trail which combined will provide additional transition space between the higher density residential and neighboring commercial parcel. Furthermore, landscaped perimeter sidewalks will create a sense of transition between the neighboring land uses.

The Project will exceed the required R-3 building setback standards from streets, residential zoning and non-residential zoning (see table below).

Building Setbacks		
	Required	**Provided**
Street (Collector or Local)	15’-0”	25’-10”
To Residential Zoning	20‘-0”	22’-5”
To Non-Residential Zoning	20’-0”	24’-4”
3-Story to Single Family **	29’-0”	41’-5”

** 20’ + 1’ for every 1’ of building height

The Project will incorporate the following transition guidelines from the General Plan.

To help limit the impact on adjacent existing or potential uses and promote overall land use compatibility, new development should utilize the following transition measures at the neighborhood edge:

1. *Respect the context of adjacent building form and architectural style;*
    - The Prose buildings incorporate design elements reminiscent of the modern farmhouse style, such as prominent gable roofs with exposed beam ends, centered windows, and metal window shade awnings. The pitched roofs feature flat asphalt shingles with gable ends that accentuate vertical massing elements and provide varied roof lines.
2. *Adjust densities to provide a gradual transition to surrounding uses;*
3. *Step buildings (via building massing, footprint size, and height) to reduce the visual impact to surrounding uses;*
    - The two-story buildings along the southern property line (garages with carriage units above) incorporate similar architectural elements to the other Prose buildings, but at a more residential scale to create a transition to the single-family community to the south.
4. *Provide similar streetscape and landscape design to surrounding uses;*

- The included Landscape plans will include perimeter planting Cathedral Oaks and Elms that will create a cohesive landscape with the surrounding development.

5. *Utilize appropriate setbacks to blend and transition between surrounding uses; and/or*
    - As noted above, the provided building setbacks will exceed the R-3 standards in each category.
6. *Place enhanced landscape/open space buffers between uses; additional measures should be taken to emphasize transition through integration and encourage connectivity between new development and surrounding uses.*
    - For the 3-story buildings, the pedestrian scale is enhanced by elements such as recessed patios with low walls, textured stone veneer, and window awnings. Mechanical equipment will be roof mounted and fully screened from view, allowing for patios and landscaping around the building.

Additionally, the building architecture and design will incorporate a variety of exterior materials including stone veneer, standing seam metal awnings and wrought iron balcony rails complement the warm earth tone stucco. The design choices combined with the stepped densities and building height provide compatibility with the current surrounding uses, while providing transitionary measures in line with the tenets of the General Plan.

Transportation/Access/Utilities

A traffic impact study is submitted with the rezone application. The study has largely determined that the development of the project under the R-3 zoning standards will cause less trips than if developed as a commercial space as an office building or shopping center – both of which would be compatible uses under the property's General Plan designation and current zoning.

Primary access to the Project will be via a gated full movement main entry from W. Mountain View Ave. - utilizing the existing median break. A secondary gated driveway will be provided on N. White Horse Trail on the eastern edge of the property and be limited to emergency vehicles only.

The site will be serviced by two private water systems. One will be for domestic water and the other will be for fire hydrants and sprinkler feeds. The two systems will be run parallel through the site looping the site and connecting into the public water line in Mountain View Boulevard at two locations. The fire line will be an 8-inch main that connects to the system once at the main entrance to the site and a second time at the fire truck exit on White Horse Trail. The domestic system will also connect once to an existing 4-inch water stub from Mountain View and once from an 8-inch stub from White Horse Trail.

The site is serviced with 2 private sewer lines. One connects to the sewer main in Mountain View Boulevard at the North corner of the site. The second connects into White Horse Trail near the emergency entrance to the site. The 8-inch sewer mains run at a minimum slope of 0.55%. The 6-inch sewer services run at a minimum of 1% and the 4-inch services at a minimum of 2%.

The project site provides retention for the anticipated runoff from the 100-year 2-hour storm event for the site and the adjacent half street. Retention is provided in a combination of surface basins and underground retention vaults. Storm water is conveyed to the retention basins via surface flow and through a storm drain system around the site. The storm drain system will be sized for the peak runoff from the 100-year storm event. The storm water in the retention system will be dissipated using drywells.

Results of the Rezone

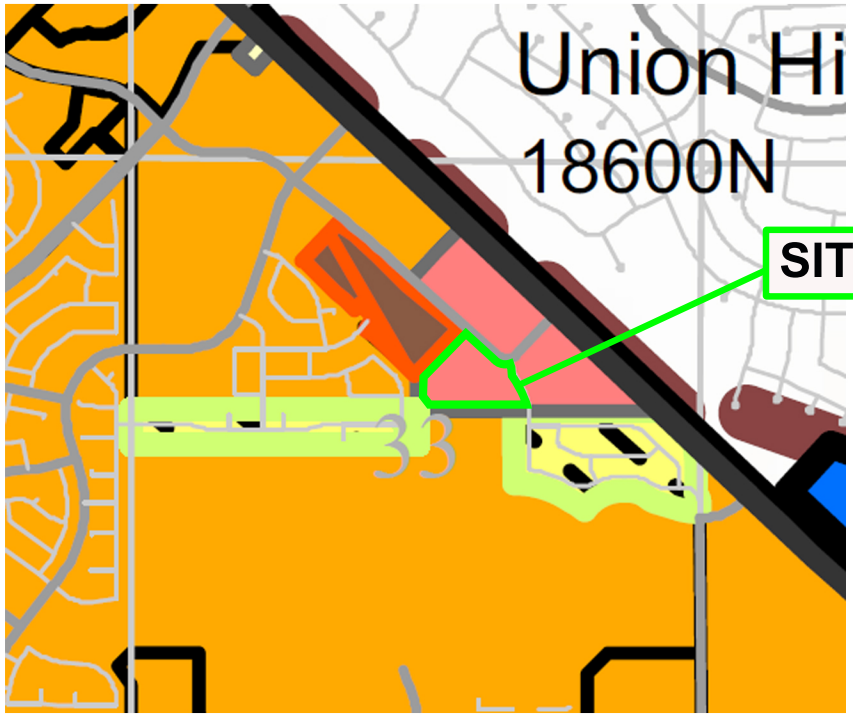
The Prose Mountain View Rezone will allow for an infill development on vacant land. This project will be in conformance with the Surprise General Plan and expand housing diversity within the community. The design standards and architectural plans of the Project will ensure cohesion with current adjacent land uses while providing high quality and amenitized housing opportunity within the City of Surprise.

Exhibit A

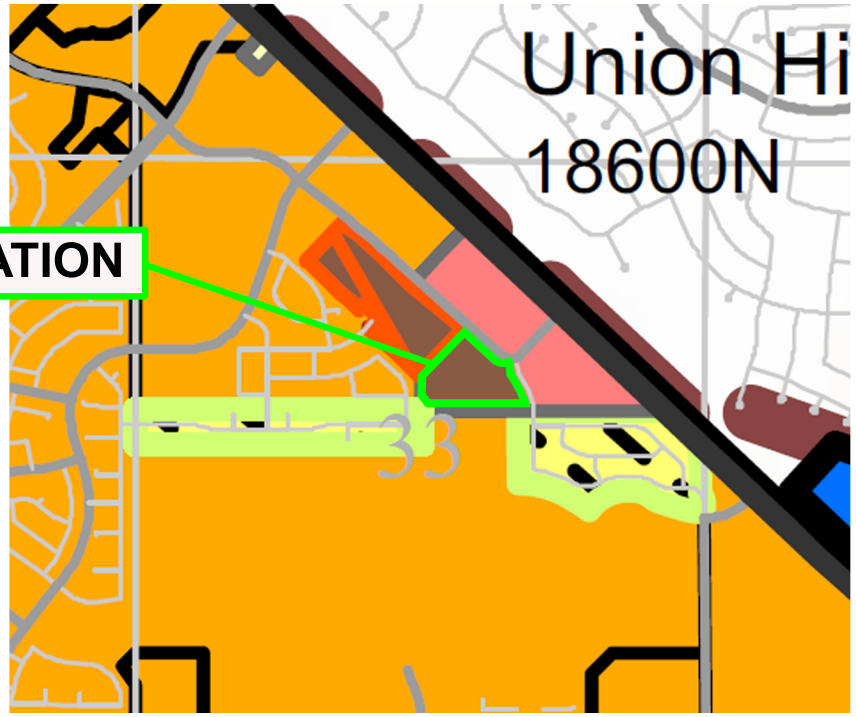
GRAND VILLAGE CENTER
MOUNTAINVIEW BLVD
CHRISTOPHER TOOD COMMUNITIES
GRAND AVE - US 60
ANCONA PROFESSIONAL PLAZA
PROJECT SITE
HILLVIEW BAPTIST CHURCH
STONEBROOK
SUN VILLAGE
WHITE HORSE TRAIL

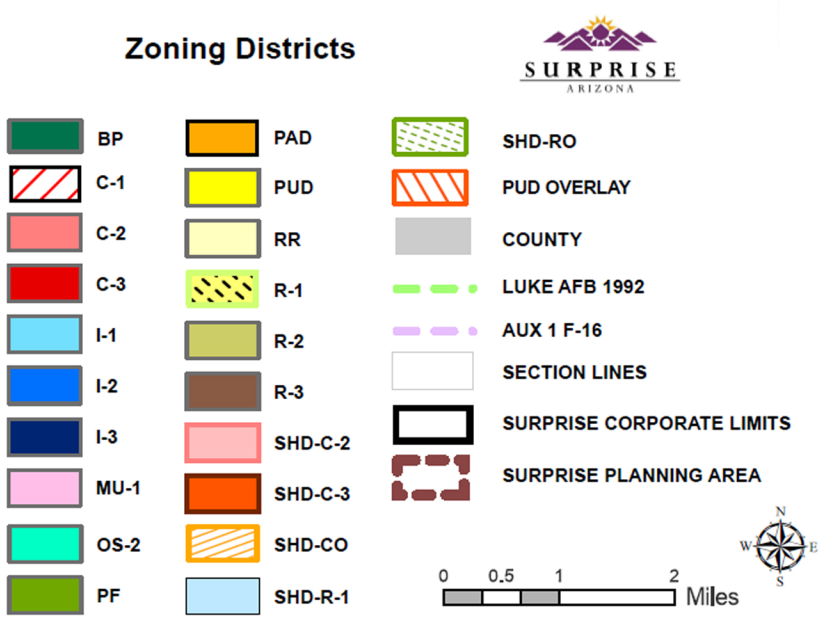
Exhibit B

Existing Zoning



Proposed Zoning





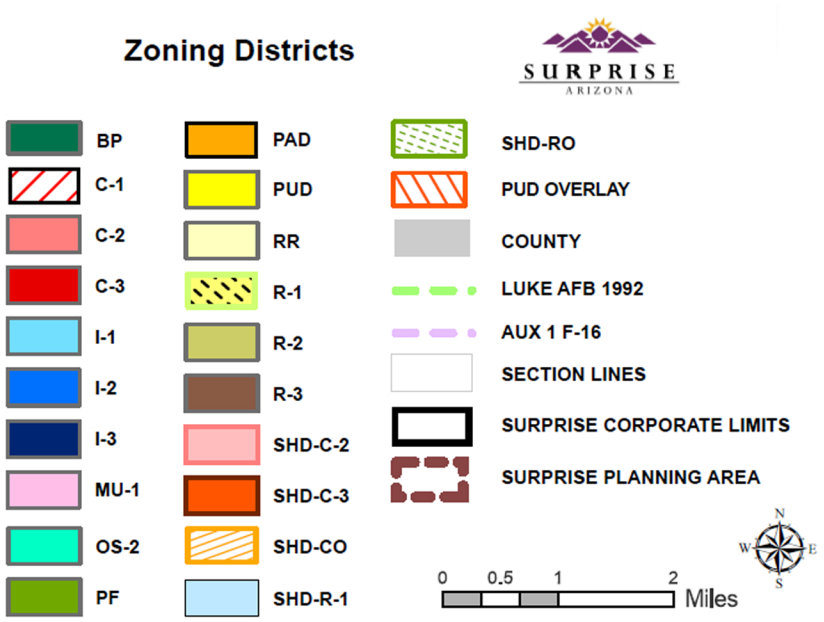
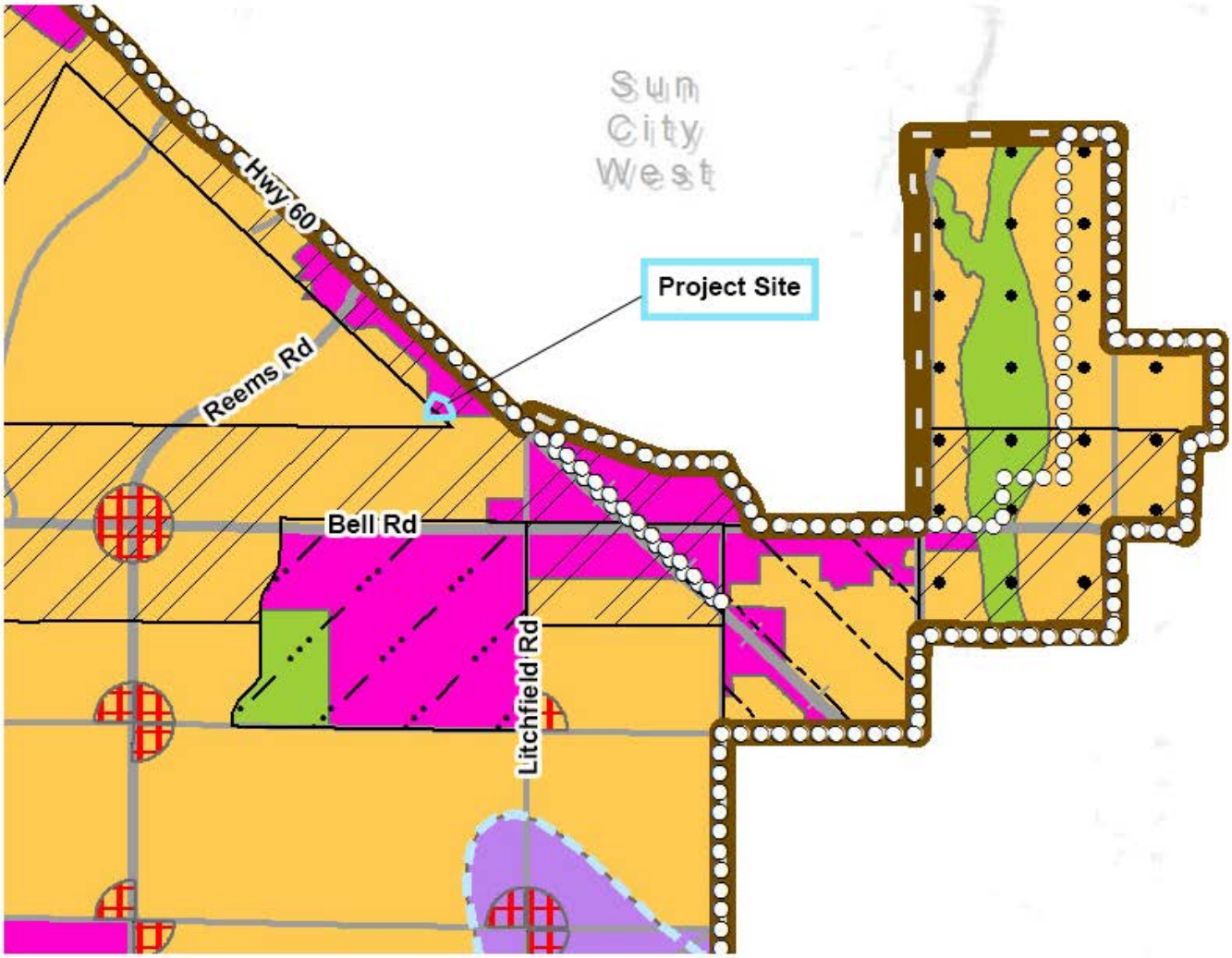


Exhibit C



Character Areas

- Neighborhood
  - *Rural*
  - *Suburban*
  - *Urban*
- Commerce & Office
  - *Mixed Use: Residential*
  - *Mixed Use: Commercial*
  - *Regional Commercial*
  - *Commercial Office*
- Employment
  - *Business Park*
  - *Industrial*
- Open Space
  (As described on page 53)

Sub Areas

- Luke Compatibility District
- Scenic Lands Development
- Surprise Center District
- Surprise Heritage District
- Transit Oriented Development District
- Aggregate Resource Areas

Features

- Planning Area
- Aux 1 Noise Contours
- Luke AFB Noise Contours
- Canals
- Military
- Existing Community Commercial
- Public Facility
- Mining

Circulation

- Freeway
- Parkway
- Major Arterial
- Minor Arterial
- BNSF Rail

N

0 1 2 Miles

Richard Baker INTERNATIONAL

SURPRISE ARIZONA

Parcel 1

LOT 3 AND TRACT C, OF GRAND AVENUE PROFESSIONAL PLAZA AMENDED, ACCORDING TO BOOK 652 OF MAPS, PAGE 29, RECORDS OF MARICOPA COUNTY, ARIZONA.

Parcel 2

THAT PART OF THE NORTHEAST QUARTER OF SECTION 33, TOWNSHIP 4 NORTH, RANGE 1 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

COMMENCING AT THE CENTER OF SECTION 33;

THENCE NORTH 00 DEGREES 10 MINUTES 20 SECONDS WEST, A DISTANCE OF 345.00 FEET;

THENCE SOUTH 89 DEGREES 45 MINUTES EAST, A DISTANCE OF 30.00 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 00 DEGREES 10 MINUTES 20 SECONDS WEST, A DISTANCE OF 200 FEET TO A POINT;

THENCE SOUTH 44 DEGREES 57 MINUTES 40 SECONDS EAST, A DISTANCE OF 283.88 FEET TO A POINT;

THENCE NORTH 89 DEGREES 45 MINUTES WEST, A DISTANCE OF 200 FEET TO THE POINT OF BEGINNING.

Parcel 3

THAT PART OF THE NORTHEAST QUARTER OF SECTION 33, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE CENTER OF SECTION 33; THENCE NORTH 00 DEGREES 10 MINUTES 20 SECONDS WEST (RECORDED) NORTH 00 DEGREES 09 MINUTES 44 SECONDS EAST (MEASURED) 345.00 FEET;

THENCE SOUTH 89 DEGREES 45 MINUTES EAST (RECORDED) SOUTH 89 DEGREES 24 MINUTES 36 SECONDS EAST (MEASURED) A DISTANCE OF 30 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 00 DEGREES 10 MINUTES 20 SECONDS WEST A DISTANCE OF 318.08 FEET (RECORDED) 336.03 FEET (MEASURED);

THENCE NORTH 43 DEGREES 29 MINUTES EAST, A DISTANCE OF 1202.96 FEET (RECORDED) NORTH 43 DEGREES 46 MINUTES 43 SECONDS EAST, A DISTANCE OF 1190.35 FEET (MEASURED) TO THE SOUTHWESTERLY RIGHT OF WAY LINE OF GRAND AVENUE;

THENCE SOUTH 46 DEGREES 31 MINUTES EAST (RECORDED) SOUTH 46 DEGREES 14 MINUTES 00 SECONDS EAST (MEASURED) ALONG SAID RIGHT OF WAY LINE A DISTANCE OF 531.71 FEET (RECORDED) 547.70 FEET (MEASURED);

THENCE SOUTH 43 DEGREES 29 MINUTES WEST, A DISTANCE OF 1139.33 FEET (RECORDED) SOUTH 43 DEGREES 49

ALLIANCE RESIDENTIAL COMPANY

Overall Site Plan

Prose Mountain View

0' 50' 100' 150'

scale: 1:50 date: 09.13.22

anderson
815 n. 1st avenue, suite 3
phoenix, az 85003

DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

10 May 2022

Mr. Christopher P. Toale
Director, Community Initiatives Team
56th Fighter Wing
14185 West Falcon St.
Luke AFB AZ 85309-1629

Ms. Nichole Flores
City of Surprise Planning Department
16000 North Civic Center Plaza
Surprise AZ 85374

Re: FS22-0588; Prose Apartments (APNs: 503-98-917 and 503-98-923)

Dear Ms. Flores

Thank you for allowing Luke AFB to make comments on the Prose Apartments Concept Review application. This concept review application proposes a 240-unit multi-family residential development on approximately 11.13 gross acres located at the intersection of Mountain View Boulevard and White Horse Trail within the City of Surprise. It is 2 miles outside the Luke AFB 1988 JLUS 65 Ldn, "high noise or accident potential zone" as defined by A.R.S. § 28-8461 and is inside the "territory in the vicinity of a military airport" also defined by A.R.S. § 28-8461.

In an effort to promote a more compatible co-existence Luke AFB follows the guidelines in the Graduated Density Concept (GDC). The GDC proposes, in the absence of a more restrictive state, county or municipal general or comprehensive plan, graduating densities away from the 65 Ldn as follows: a maximum of 2 du/ac from the 65 Ldn to 1/2 mile, a maximum of 4 du/ac from 1/2 to 1 mile, and a maximum of 6 du/ac from 1 to 3 miles. This project with a density of 21.5 du/ac does not fall within these guidelines however, when taking into consideration the entire Grand Avenue Professional Plaza approved site plan acreage of 47.9 acres, we find that the overall density will be below 6 du/ac and therefore will not have a negative impact on Luke AFB Flight Operations.

Since the site will be located inside the "territory in the vicinity of a military airport," it will be subjected to approximately 165 over flights per day, as low as 1,500 feet above the ground. We recommend you review the sound attenuation requirements found in A.R.S. § 28-8482. In addition, a strong notification program on the part of the applicant is essential to inform residents about Luke AFB operations.

If you have any questions, please contact my Community Planner, Mr. Mark James at (623) 856-6175.

Sincerely

TOALE.CHRISTOPHER.P.1039696165 Digitally signed by TOALE.CHRISTOPHER.P.1039696165 Date: 2022.05.10 14:32:56 -07'00'

CHRISTOPHER P. TOALE

cc:
Colonel Luke B. Casper, Vice Commander, 56th Fighter Wing
Mr. Anthony C. Avitable, GS-13, General Law Attorney, 56th Fighter Wing

CITY OF SURPRISE
Site posting Process

AFFIDAVIT OF POSTING

Application No: FS22-0588

Applicant Name: Bergin, Frakes, Smalley & Oberholtzer, PLLC

Location: SEC Mountain View Blvd & White Horse Trl

Date Site Posted: 09/02/22

In order to assist in providing adequate notice to interested parties, the applicant for any *type of public hearing* in the City of Surprise shall erect two (2) signs giving notice of the *date, time and place* of the scheduled hearings. These signs must be erected not less than **fifteen (15) days prior to** the date of the first hearing. The signs shall also include the nature of the request as contained on the formal zoning application. The size and format of this sign shall meet requirements established by the Planning and Zoning Department (see page 2).

Such notice shall be clearly legible and placed at a prominent location on the site – Generally adjacent and perpendicular to the public right-of-way. It shall be the *responsibility of the applicant* to erect and to maintain the sign on the subject property and to maintain the hearing information on the sign until final disposition of the case.

It shall also be the *responsibility of the applicant* to remove the signs within one week after the final disposition of the case.

I confirm that the site has been posted as required above, for the case noted above. A picture of the site posting, and photos of any subsequent changes/updates made to the sign, have also been submitted.

Meghan Liggett — 9/2/22

Applicant/Representative Signature — Date

This instrument was acknowledged before me on 09/02/22, by Meghan Liggett. I witness whereof I hereunto set my hand and official seal.

MARYBETH CONRAD
Notary Public - Arizona
Maricopa County
Commission # 591461
My Comm. Expires Oct 25, 2024

MaryBeth Conrad
Notary Public

10-25-24
My commission expires

*Return completed and notarized **affidavit** and all relevant **photos** to the Planning and Zoning Department at least fifteen (15) days **prior to** the scheduled meeting(s).*

Notice of Public Hearing
City of Surprise
Neighborhood Meeting
Date: August 11, 2022
Time: 6:00 P.M.
Location: The Colonnade at Sun Health Communities
The Sorrento Room
19116 N. Colonnade Way Surprise, AZ 85374
& via Zoom Meeting:
Join Zoom Meeting
https://us02web.zoom.us/j/87913499831
Meeting ID: 879 1349 9831 Join by phone: +1 346 248 7799
Planning & Zoning
Date: October 6, 2022
Time: 6:00 P.M.
Location: 16000 N Civic Center Plaza
Surprise, AZ 85374
City Council
Date: November 15, 2022
Time: 6:00 P.M.
Location: 16000 N Civic Center Plaza
Surprise, AZ 85374
PROJECT LOCATION
Case number FS22-0588. Alliance Residential Company is seeking a rezone from Community Commercial (C-2) toHigh Density Residential (R-3) for approximately 12.82 acres at the southwest corner of W. Mountain View Boulevard and N. White Horse Trail to accommodate the development of a high-end apartment housing community. The proposed community consists of 274 residential units in a combination of 2 and 3 story buildings built around a central amenity area that includes a clubhouse with fitness room, pool, play area and dog park.
Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Roadhouse
Trader Joe's
QuikTrip
60
Maps
Sep 02, 2022 11:29AM
17896 N White Horse Trail
Maricopa County

Notice of Public Hearing
City of Surprise
Neighborhood Meeting
Date: August 11, 2022
Time: 6:00 P.M.
Location: The Colonnade at Sun Health Communities
The Sorrento Room
19116 N. Colonnade Way Surprise, AZ 85374
& via Zoom Meeting:
Join Zoom Meeting
https://us02web.zoom.us/j/87913499831
Meeting ID: 879 1349 9831 Join by phone: +1 346 248 7799
Planning & Zoning
Date: October 6, 2022
Time: 6:00 P.M.
Location: 16000 N Civic Center Plaza
Surprise, AZ 85374
City Council
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Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Master Taco
Trader Joe's
QuikTrip
60
Maps
Sep 02, 2022 11:23AM
14000–14038 W Mountain View Blvd
Maricopa County

Notice of Public Hearing
City of Surprise
Neighborhood Meeting
Date: August 11, 2022
Time: 6:00 P.M.
Location: The Colonnade at Sun Health Communities
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Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Master Taco
Trader Joe's
QuikTrip
60
Maps
Sep 02, 2022 11:24AM
14000–14038 W Mountain View Blvd
Maricopa County

Prose Mountain View

Citizen Participation Report

Case Number: FS22-0588

Submitted to:

City of Surprise

Planning Department

16000 N. Civic Center Plaza

Surprise, AZ 85374

623 222-1000

Citizen Participation Report Submittal: September 2, 2022

Citizen Participation Report

Prose Mountain View
Case # FS22-0588

Introduction

Alliance Residential ("Applicant") is seeking a rezone from Community Commercial (C-2) to Residential High Density (R-3) for 12.82 acres on the southwest corner of W. Mountain View Boulevard and N. White Horse Trail in Surprise, AZ in order to develop a multi-family apartment project to be known as Prose Mountain View ("Project"). The Project encompasses the Maricopa County Parcel Numbers 503-98-917, 503-98-923, 503-59-031K, 503-59-031B (collectively, the "Property"). This report describes the public outreach completed by the Applicant for this Project.

Techniques Used to Involve the Public:

Website:

A website was created for the project – alliancemountainview.com. The project website had links to the rezoning application as well as a timeline of upcoming meetings and hearings for the project. A screenshot of the website is included as **Exhibit A**.

Correspondence:

Prior to this meeting, the Applicant received and responded to 19 emails from citizens voicing various concerns regarding the project. Some of these emails were received directly by the Applicant, and some were received by city staff and forwarded to the Applicant. After the meeting, the Applicant received two emails from residents in opposition to the project. In each case, the Applicant directed the citizens to the project website for more information.

Meetings:

A neighborhood meeting was held at "The Colonnade at Sun Health" at 19116 N. Colonnade Way, Surprise, AZ 85374 on Thursday, August 11, 2022, at 6:00 pm. The meeting was also hosted online via Zoom for those unable to attend in-person. A summary of the presentation given to attendees as well as the questions and concerns of the citizens is documented in **Exhibit B**. Included in this report is a redacted list of in-person and remote attendees (81 in total).

Notifications:

Notification letters and legal advertisements were arranged by the City of Surprise. The Applicant posted the site on July 26, 2022, with information about the neighborhood meeting. An affidavit of the site posting, and photos of the signs are included as **Exhibit C**. The site postings were updated on September 2, 2022, to add the upcoming dates for the Planning and Zoning Commission and City Council hearings. An affidavit of the site posting, and photos of the signs are included as **Exhibit D**.

Concerns, Issues, and problems the applicant is unwilling or unable to address and why:

Through the public participation process, the Applicant has communicated with the vocal community regarding their concerns and has addressed their problems. The Applicant is currently continuing to

work with the neighboring residents to provide visual exhibits to demonstrate the views of the project from their backyards.

Exhibits

A. Website Screen Shot
B. Neighborhood Meeting Summary – with redacted sign-in sheets
C. Affidavit of Posting for Neighborhood Meeting – with photos
D. Affidavit of Posting for Public Hearings – with photos

Exhibit A

PROSE MOUNTAIN VIEW

ALLIANCE RESIDENTIAL COMPANY

Surprise, AZ

Application

Exhibit B

Neighborhood Meeting Summary for

Prose Mountain View

FS22-0588

August 11, 2022, at 6:00 p.m.

The neighborhood meeting for a rezoning request for 12.82 acres located at the southwest corner of W. Mountain View Boulevard and N. White Horse Trail in Surprise, AZ was held at 6:00pm on Thursday, August 11, 2022. The meeting was held at "The Colonnade at Sun Health" located at 19116 N. Colonnade Way, Surprise, AZ 85374. Fifty-five (55) citizens attended the meeting in person and 26 attended the meeting remotely through a concurrently hosted Zoom meeting. A copy of the sign in sheet is included as Attachment A, and a copy of the Zoom attendee list is included as Attachment B.

Members of the development team present included:

Carolyn Oberholtzer – Bergin, Frakes, Smalley & Oberholtzer

Caleb Weeks – Bergin, Frakes, Smalley & Oberholtzer

Lauren Trobaugh – Bergin, Frakes, Smalley & Oberholtzer

Adam Pruett – Bergin, Frakes, Smalley & Oberholtzer

Jon Hanna – Tri Arc

Jon Garshick – Alliance

Zach McCarthy – Alliance

City Officials and Staff present:

Jack Hastings – Council Member

Lloyd Abrams – Assistant Director, Community Development

Trever Fleetham - Planner

Ms. Oberholtzer began the meeting at 6:00 pm. She introduced the project of Prose Mountain View as a rezone from C-2 (Community Commercial) to R-3 (High Density Residential). Ms. Oberholtzer proceeded to give a PowerPoint presentation to the attendees. A copy of this presentation is included as Attachment C.

Ms. Oberholtzer gave an overview of the applicant "Alliance Residential," explaining that they are one of the largest rental residential real estate developers in the US. She further explained their deep connection to the valley, with their office headquartered in Scottsdale. She explained that Alliance would not just be doing the rezoning, but would be overseeing the development, construction, and management of the rental units. Ms. Oberholtzer explained the context of the site along with the

current general plan designation, current zoning, and development plan for the site. She further explained the conceptual site plan, noting the full entry on W. Mountain View Blvd. and emergency access on N. White Horse Trail. She discussed the amenities that would be present on the property as well as the screening, setbacks and landscape plans – including the tree species that would be planted on the perimeter of the site to provide a buffer to the existing adjacent residential uses. Ms. Oberholtzer spent time discussing specific building setbacks that were proffered for the site – of note was their comparison to the R-3 requirements, and the C-2 setbacks that would apply if the property was developed under it's current zoning designation. She also addressed questions regarding the building heights and the orientation of the apartment buildings – noting the applicant's plan to place all significant windows and balconies inward facing to the project and away from the adjacent residential land uses.

Ms. Oberholtzer further detailed the various building types that were planned for the site, and the proposed mix of 1 bedroom and 2 bedroom units. She explained that the mixture of unit types was proposed by Alliance Residential to cater specifically to couples and singles making between $65k-90k per year. She noted that the tenants would undergo a criminal and financial background check. It was also noted that the apartments were Market Rate Class A Residential units and would not be subsidized housing. She noted that the homes were expected to appeal to healthcare, military and educational workers in Surprise – specifically pointing out the many health care employers within a one-mile radius of the site. Ms. Additionally discussed the traffic study that was part of the application, with an emphasis that the study showed very little traffic going south on White Horse Trail.

Ms. Oberholzer's presentation ended at 6:25 pm at which time she began taking questions from both the in-person and virtual attendees. A summary of the question-and-answer session follows:

A citizen asked where they could get more information on the traffic study that accompanied the application. Several citizens were concerned about traffic that would be generated from the project. Specifically, certain citizens were concerned about speeding and traffic volume south of the project on White Horse Trail. A citizen suggested that residents should not be allowed to drive on the streets south of the site.

Ms. Oberholtzer explained that there was a project website (www.alliancemountainview.com) where the traffic study was available for viewing. She explained that traffic study showed that only 1% of trips were expected to be South on White Horse Trail. She further explained that the expected trips generated from this residential use were significantly smaller that potential development of the site under its current C-2 zoning. Retail and General Office uses on the site were expected to general significantly more trips when compared to the proposed high density residential use. **Due to a number of residents expressing disbelief that only 1% of trips would be south from the site**, she explained the traffic studies are completed by licenses engineers and recommended that attendees review the traffic study and call or email her with further questions. In addition, she explained that public roads could not be exclusionary to residents of the development.

Several residents expressed concern about the space between the homes to the south of the site and the Project's boundaries. They were worried that a "no-mans-land" could become a place for trash to accumulate and homeless people to congregate.

Ms. Oberholtzer explained that while the MWD easement that created the no-mans-land was on the residentials property owner's property and thus was their responsibility to maintain, it would be in both Alliance and the homeowner's interest to keep the area secure and clean. She discussed that there would be coordination between Sun Village and Alliance to keep the area maintained. She further discussed that this area would be closed off and inaccessible to the public with gating. This would provide additional security to the Sun Village residents who stated that they have had vandals graffiti their block walls and intruders scale their block walls from the vacant lot.

An attendee questioned if children would be allowed to live in the development. A further attendee asked for a breakdown of singles, couples, and families that would live in the community.

Ms. Oberholtzer explained that while children could not be restricted from the development, families were not the target demographic reflected in the 1 and 2 bedroom unit design.

An attendee asked where Ms. Oberholtzer lived. Several attendees were inquisitive towards what types of developments were around her home and whether she would support such a project if she was in their shoes. A resident asked if she would feel more comfortable with her safety if she was adjacent to a multi-family development or a commercial area.

Ms .Oberholtzer responded candidly to the resident explaining her living conditions, and refocused the meeting on the project at hand. She said that while she could not speak to specifics regarding what type of development may lead to higher crime rates, she expected a gated residential apartment community to provide more security to the neighbors than the myriad of uses that could be allowed under the current commercial zoning of the site.

An attendee asked if the City of Surprise had given final approval for the project.

Ms. Oberholtzer informed the attendee that the project would go through a public hearing process with Planning Commission before it would be heard by City Council for approval or denial. She explained that these meetings were not yet scheduled. She additionally explained that the rezone was being processed concurrently with a site plan. She explained that construction could begin as early as the end of 2023, and that construction could take 2 years.

An attendee raised questions about the parking stalls within the development and questioned whether it would be enough to accommodate the residents of the apartments. They expressed concerns that if there wasn't enough parking that the residents would park on public streets.

Ms. Oberholtzer explained that the parking stalls exceeded the city standards at 456 spaces. She explained that the gated community would not generate additional street parking as the residents would be parking within the community.

One attendee asked if the tenant profile could change if there was a recession.

Ms. Oberholtzer explained that the client was intimately aware of the current economic realities affecting the national, regional, and local housing markets. She explained that they remained confident in this project and market and saw the site location as viable and not a risky proposition. She explained the growth of Surprise and many new employers coming into Surprise and the greater Phoenix metro area provided a need for more housing. Ms. Oberholtzer explained that even in a market downturn, the growth in Surprise necessitates more housing options – especially rental by design.

An attendee expressed concern about out of country residents not being in attendance. One member asked if the timing of the meeting was done on purpose to reduce attendance.

Ms. Oberholtzer explained that the application and timing of the meeting was in no way meant to exclude the public from the process. She affirmed that she would be available to meet with anyone not in attendance in an individual or group setting to explain the Prose Mountain View application and hear any concerns that they may have.

There were a number of concerns voiced about storm retention on site. Additionally, there were concerns about the grading of the site and the finished floor level of the parcels.

As the project engineer was not at the meeting, the applicant didn't have specific answers for the attendees, but confirmed that the drainage plans were an aspect of the site plan application and would be reviewed by city staff. Ms. Oberholtzer explained that the project largely was using underground retention for the Project. She encouraged the questioners to reach out to her after the meeting so that she could follow up with specific answers to their questions after consulting with the project engineer.

An attendee asked if the apartment unit count could increase or decrease based on citizen input.

Ms. Oberholtzer explained that it was unlikely at this point in the project that the density would change, considering how far along the project is within the design process.

An attendee asked what rent would cost for the units.

Ms. Oberholtzer explained, that since the Project's completion was years out, it was hard to know what market forces could influence, but at this time the expected rental range would be between $1,600 and $2,400 depending on the unit type.

There was a question raised about the tree planting on the south side of the Project. There were some concerns about trees being close to the existing residences walls.

Ms. Oberholtzer confirmed that all the site landscaping would be within the property line of the Project site - which was separated by the Projects wall plan, and the existing southern MWD easement.

A citizen asked how large trees would be when they were planted.

Ms. Oberholtzer referred to the landscaping plan and specifically discussed the planned tree species that was designated for the southern boundary to provide screening between Prose Mountain View and the adjacent residential uses.

An attendee asked questions about the mixed-use designation of the General Plan designation. She was concerned about the transition elements of the General Plan not being acknowledged in the transition from the single-family homes to the south of the project to the building heights within Prose Mountain View.

Ms. Oberholtzer explained that currently the parcel was zoned for commercial that allows 40' tall buildings. She explained that the project was using transition measures such as landscape buffers and stepped building heights to assist in the visual transitions on-site.

An attendee asked if there would be ADA access and considerations to the site.

Ms. Oberholtzer and Mr. Garshick explained that yes – per the Americans with Disabilities Act, there would ADA considerations provided on-site.

The meeting concluded at 7:10 p.m.

Attachment A

Neighborhood Meeting Sign-In Sheet

Prose Mountain View – Alliance Surprise
Case No. FS22-0588

Neighborhood Meeting – Thursday, August 11, 2022
City of Surprise
19116 N. Colonnade Way
Surprise, AZ 85374

Name	Address	City & Zip Code	Phone/E-Mail
FRED WINTERS	[redacted]		
JANICE JUELL			
Mangy Waddell			
Pat Waddell			
Doreen B.			
Candace Villamain			
Michael Villamain			
KELT PRICE			
Dorothy Lezzer			

Name	Address	City & Zip Code	Phone/E-Mail
Connie Eggleston	[redacted]		
Tony Hartzog			
Jack Mollett			
M Cuella			
M Post			
D McGill			
D McGill			
Brandy Dear			
Diane Venrick			
Renee M Soukup			
Zak Soukup			

Name	Address	City & Zip Code	Phone/E-Mail
Karen Coggins	[redacted]		
Bill Coggins			
Rick & Chris Cormier			
Doug & Sandra Weeks			
Cheryl Collins			
Sandra Erickson			
OJ Simpson			

Neighborhood Meeting Sign-In Sheet

Prose Mountain View – Alliance Surprise
Case No. FS22-0588

Neighborhood Meeting – Thursday, August 11, 2022
City of Surprise
19116 N. Colonnade Way
Surprise, AZ 85374

Name	Address	City & Zip Code	Phone/E-Mail
June Fine	[redacted]		
Val Warmoth			
Sandra Warmoth			
Nikki Migliorino			
Ron and Nancy Bennett			
Lenora Sudwitz			
Kim Drayden			
DeAnne Cooper			

Name	Address	City & Zip Code	Phone/E-Mail
Bill Horton	[redacted]		
Sylvia Horton			
Jeannie Endes			

Neighborhood Meeting Sign-In Sheet

Prose Mountain View – Alliance Surprise
Case No. FS22-0588

Neighborhood Meeting – Thursday, August 11, 2022
City of Surprise
19116 N. Colonnade Way
Surprise, AZ 85374

Name	Address	City & Zip Code	Phone/E-Mail
Jane Burrows	[redacted]		
Rob Boyer			
Sheri Barth			
Tim Barth			
Marilyn Mell			
Lee Murphy			
CAROLE HAHN			
Paula Heil			
Claudia O'Sullivan			

Name	Address	City & Zip Code	Phone/E-Mail
Gary + Linda Westmoreland	[redacted]		
Clarice Reed			
Carol & Chuck Wa			

Attachment B - Zoom Participant List

Meeting ID	Topic	Start Time	End Time
87913499831	Alliance Prose Mountain View Neighborhood Meeting	8/11/2022 17:18	8/11/2022 19:21

Name (Original Name)	User Email	Total Duration (Minutes)	Guest
Carolyn Oberholtzer	coberholtzer@bfsolaw.com	125	No
cindy		104	Yes
Havrilla Stephens		88	Yes
1303[redacted]		10	Yes
1602[redacted]		82	Yes
Jennifer Hacker# Sun Village AGM		84	Yes
1719[redacted]		85	Yes
Kathy Fry-Martin		69	Yes
1623[redacted]		22	Yes
1602[redacted]		7	Yes
1623[redacted]		67	Yes
Shelby		148	Yes
1925[redacted]		62	Yes
k_kel		79	Yes
1260[redacted]		77	Yes
T.W. Miller# PE		3	Yes
Chuck Bills		50	Yes
1206[redacted]		24	Yes
Thomas W. Miller# PE		70	Yes
Karen Weiser		64	Yes
1260[redacted]		63	Yes
dave's iPad		5	Yes
iPhonebriam		61	Yes
1480[redacted]		40	Yes
1253[redacted]		45	Yes
guest		14	Yes
1480[redacted]		4	Yes

Prose Mountain View Apartments

Case Number: FS22-0588

Rezone from C-2 (Community Commercial)

to R-3 (High Density Residential)

Neighborhood Meeting

August 11, 2022

Alliance Residential

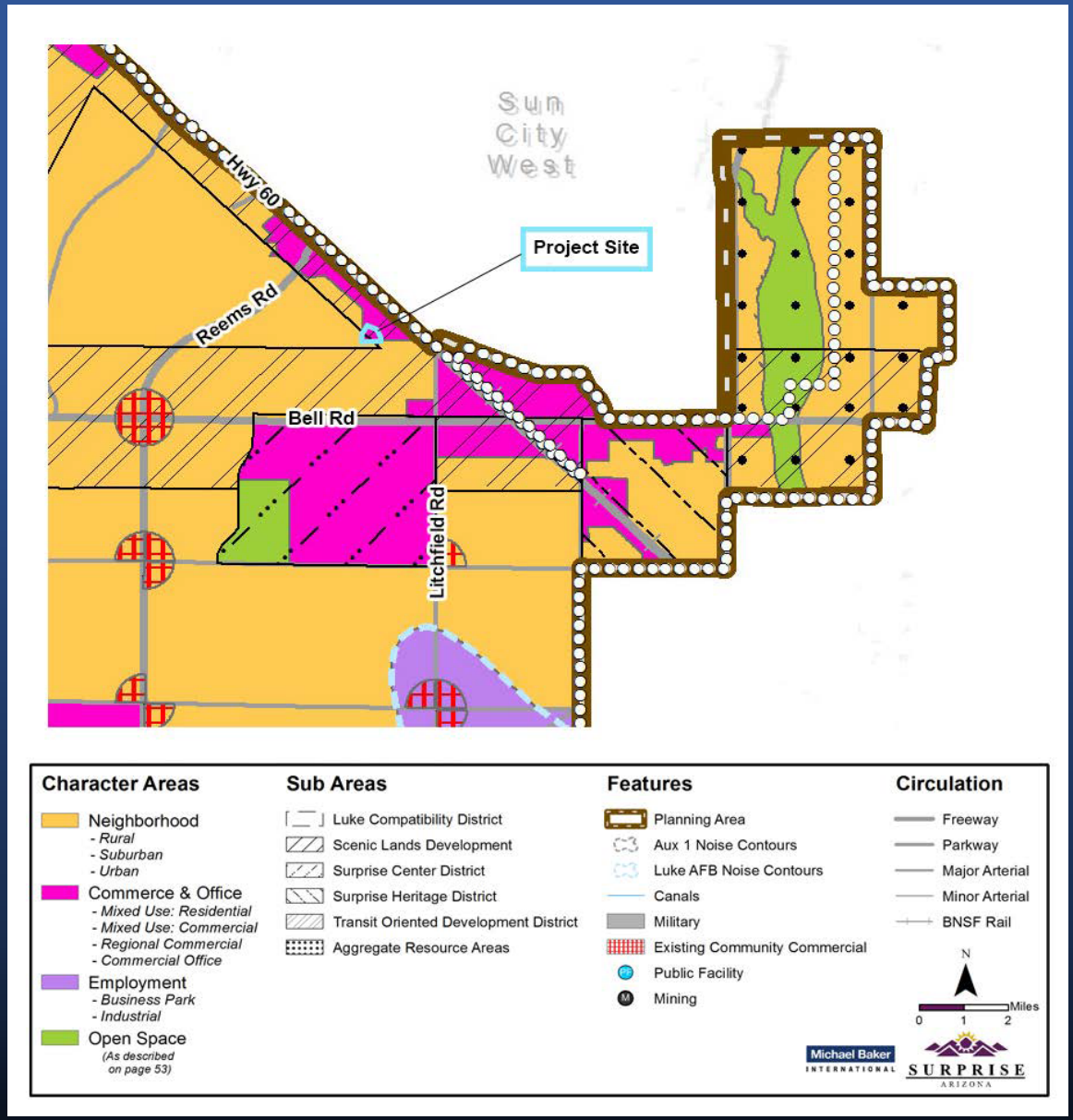
Alliance Residential Company is one of the largest and most active rental residential real estate developers in the United States. Headquartered in Scottsdale, with 19 regional offices, **Alliance is focused on the development, construction and management** of residential communities across 17 states and 33 metropolitan markets. Alliance **develops high-end multifamily housing communities** and is known for creating some of the most popular communities to live in in Arizona and beyond.

Project Location

- 274 Dwelling Units
- 12.82 Gross Acres

General Plan Designation

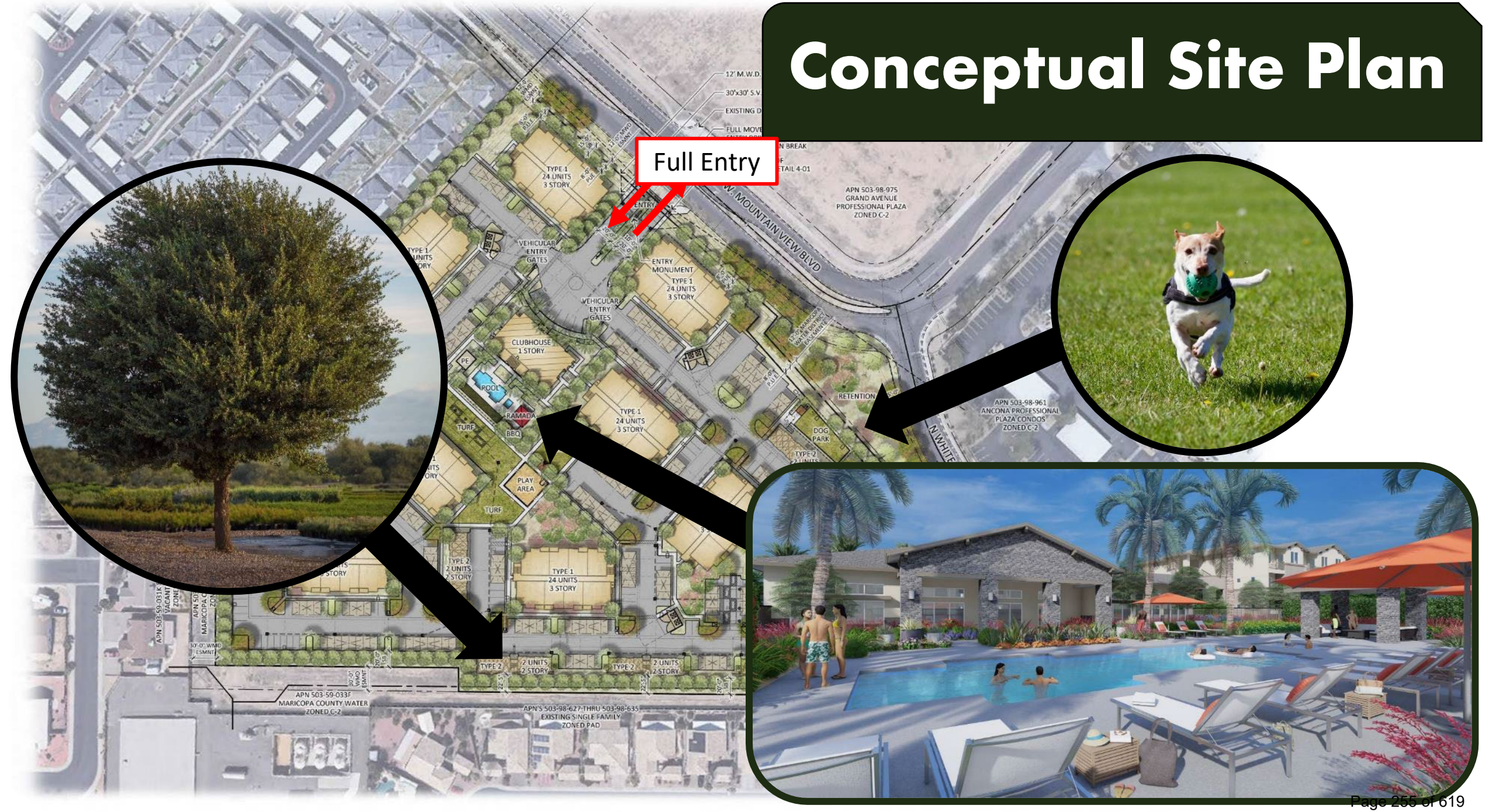
- Commerce & Office – allows for:
  - Mixed Use: **Residential**
  - Mixed Use: Commercial
  - Regional Commercial
  - Commercial Office



Current and Proposed Zoning

- **Currently Zoned C-2 (Community Commercial)**
- **Zoning change to R-3 (High Density Residential)**

Conceptual Site Plan



Conceptual Site Plan

BUILDING SETBACKS:

	REQUIRED	PROVIDED
STREET (COLLECTOR OR LOCAL)	15'-0"	25'-10"
TO RESIDENTIAL ZONING	20'-0"	22'-5"
TO NON-RESIDENTIAL ZONING	20'-0"	24'-4"
3-STORY TO SINGLE FAMILY **	29'-0" **	41'-5"

** 20' + 1' FOR EVERY 1' OF BLDG HEIGHT OVER 30'

Building Types

(11) Type 1 Buildings

(5) Type 2 Buildings

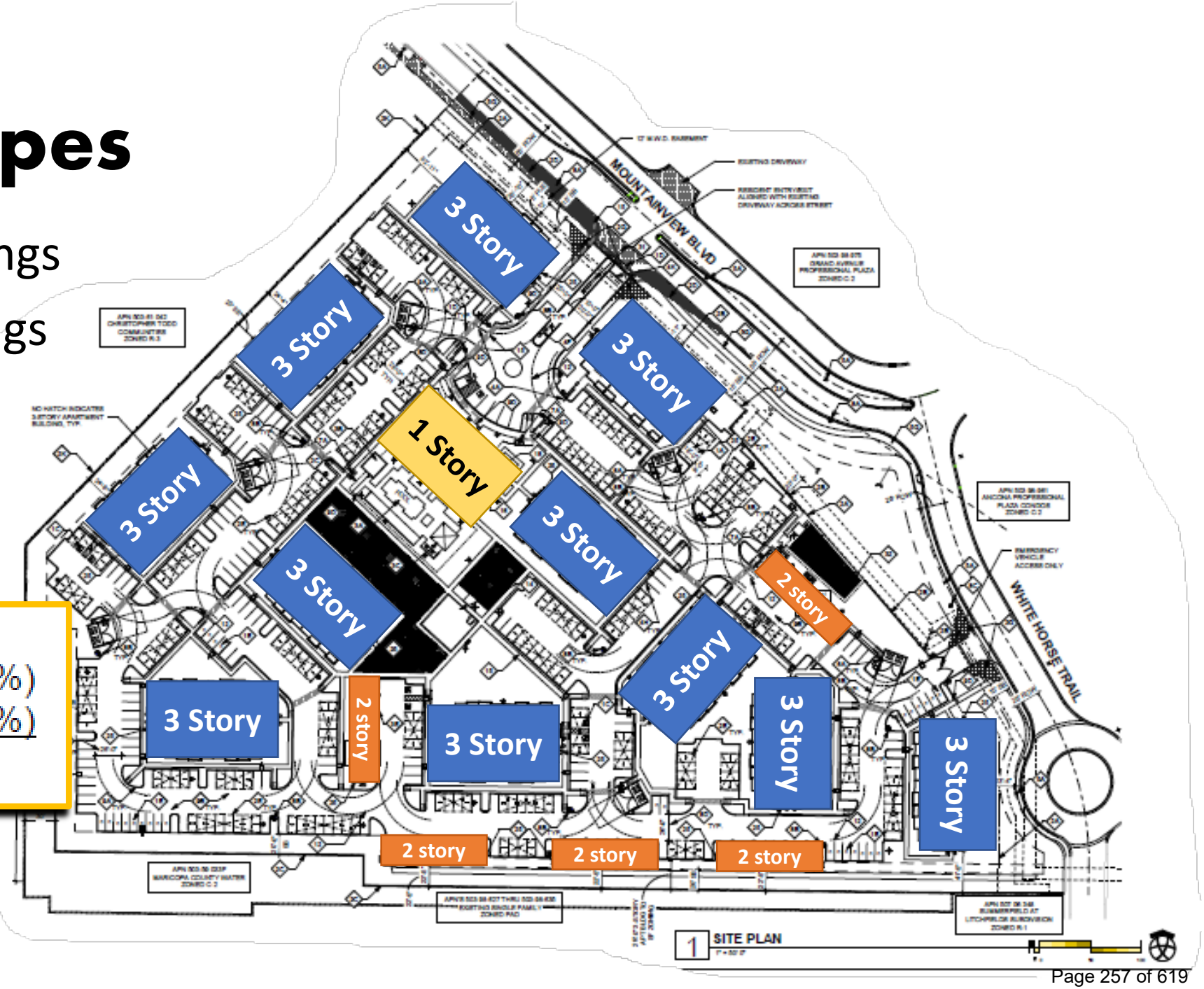
(1) Clubhouse

DWELLING UNIT MIX:

1 BEDROOM = 175 (64%)

2 BEDROOM = 99 (36%)

TOTAL UNITS = 274



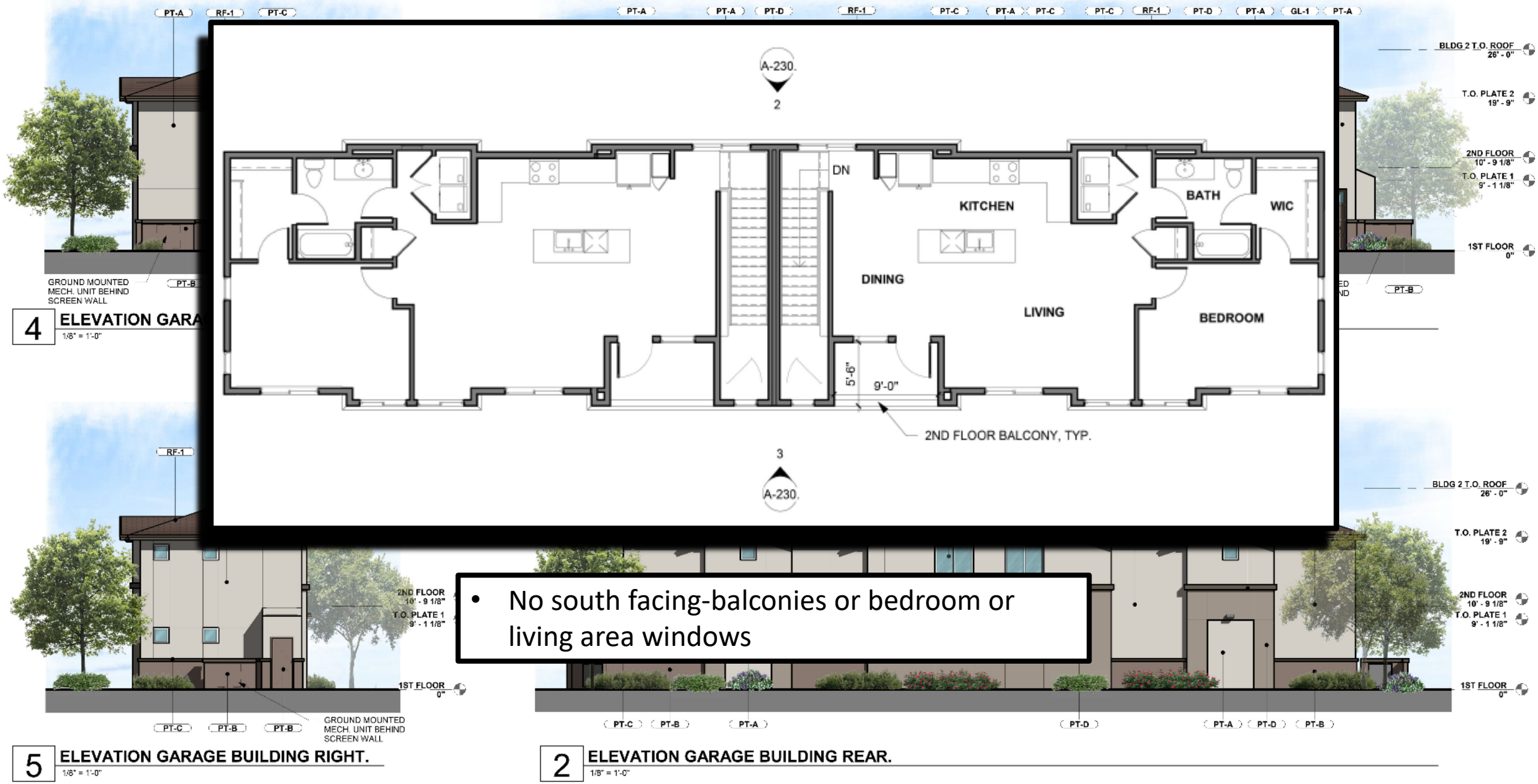
Building Elevations

1 ELEVATION CLUBHOUSE FRONT.
1/8" = 1'-0"

2 ELEVATION CLUBHOUSE RIGHT SIDE.
1/8" = 1'-0"

3 ELEVATION CLUBHOUSE REAR.
1/8" = 1'-0"

4 ELEVATION CLUBHOUSE LEFT SIDE.
1/8" = 1'-0"



- No south facing-balconies or bedroom or living area windows

EXTERIOR FINISH LEGEND

- PT-A — STUCCO, DUNN EDWARDS, DET798 "MINERS DUST"
- PT-B — STUCCO, DUNN EDWARDS, DET620 "BARNWOOD BRAY"
- PT-C — STUCCO, ACCENT, STAIR RAILING, DUNN EDWARDS, DET634 "DOWNING TO EARTH"
- GL-1 — WINDOWS: VINYL, DUAL PANE, LOW-E, FRAME COLOR: WHITE
- RF-1 — ROOF: ASPHALT SHINGLE, FLAT, OWENS CORNING, DIMENSIONAL "DRIFTWOOD"
- MTL-1 — AWNINGS, STANDING SEAM, "SILVER"
- MAS-1 — BRICK VENEER, CORONADO STONE "OLD WORLD LEDGE", COLOR: HURON

1 ELEVATION BLDG 1 - STREET FACING.

2 ELEVATION BLDG 1 - NON-STREET FACING.

4 ELEVATION BLDG 1 SIDE - NON-STREET FACING.

3 ELEVATION BLDG 1 SIDE - STREET FACING.

Tenant Profile

- Couples and singles, making between $65-90K/year
- Pass a criminal and financial background check
- Typically work in the area; healthcare, military, education
- Retirees; turn-key seasonal residents
- Market Rate **Class A** Residential

Health Care Employers in one mile radius from site

- Banner Health (Del E Webb Hospital)
- Sun Health Foundation
- Sonora Quest Laboratories
- Arizona Center for Hematology
- Sante of Surprise
- Sunrise Medical Center

Next Steps

- **Planning & Zoning Commission Hearing** - TBD
- **City Council Hearing** - TBD

THANK YOU

Project Website:

www.AllianceMountainView.com

coberholtzer@bfsolaw.com
602-888-7860

Traffic Analysis

Table 4 – Trip Generation

Land Use	ITE Code	ITE Land Use Name	Quantity	Units+	AM Distribution In	AM Distribution Out	PM Distribution In	PM Distribution Out
Existing Zoning								
Retail	820	Shopping Center	94.087	KSF	62%	38%	48%	52%
General Office	710	General Office Building	188.174	KSF	88%	12%	17%	83%
Proposed								
Apartments	220	Multifamily Housing (Low-Rise)	274	DUs	24%	76%	63%	37%

Land Use	ADT Avg. Rate*	ADT Total	AM Peak Hour Avg. Rate*	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour Avg. Rate*	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Existing Zoning										
Retail	37.01	3,482	0.84	49	30	79	3.40	154	166	320
Total		**3,482**		**49**	**30**	**79**		**154**	**166**	**320**
General Office	10.69	2,012	1.53	253	35	288	1.49	48	233	281
Total		**2,012**		**253**	**35**	**288**		**48**	**233**	**281**
Proposed										
Apartments	6.68	1,832	0.39	26	82	108	0.51	87	51	138
Totals Trips		**1,832**		**26**	**82**	**108**		**87**	**51**	**138**
Difference from Retail (Reduction)		**(-1,650)**		**(-23)**	**52**	**29**		**(-67)**	**(-115)**	**(-182)**
Difference from Offices (Reduction)		**(-180)**		**(-227)**	**47**	**(-180)**		**39**	**(-182)**	**(-143)**

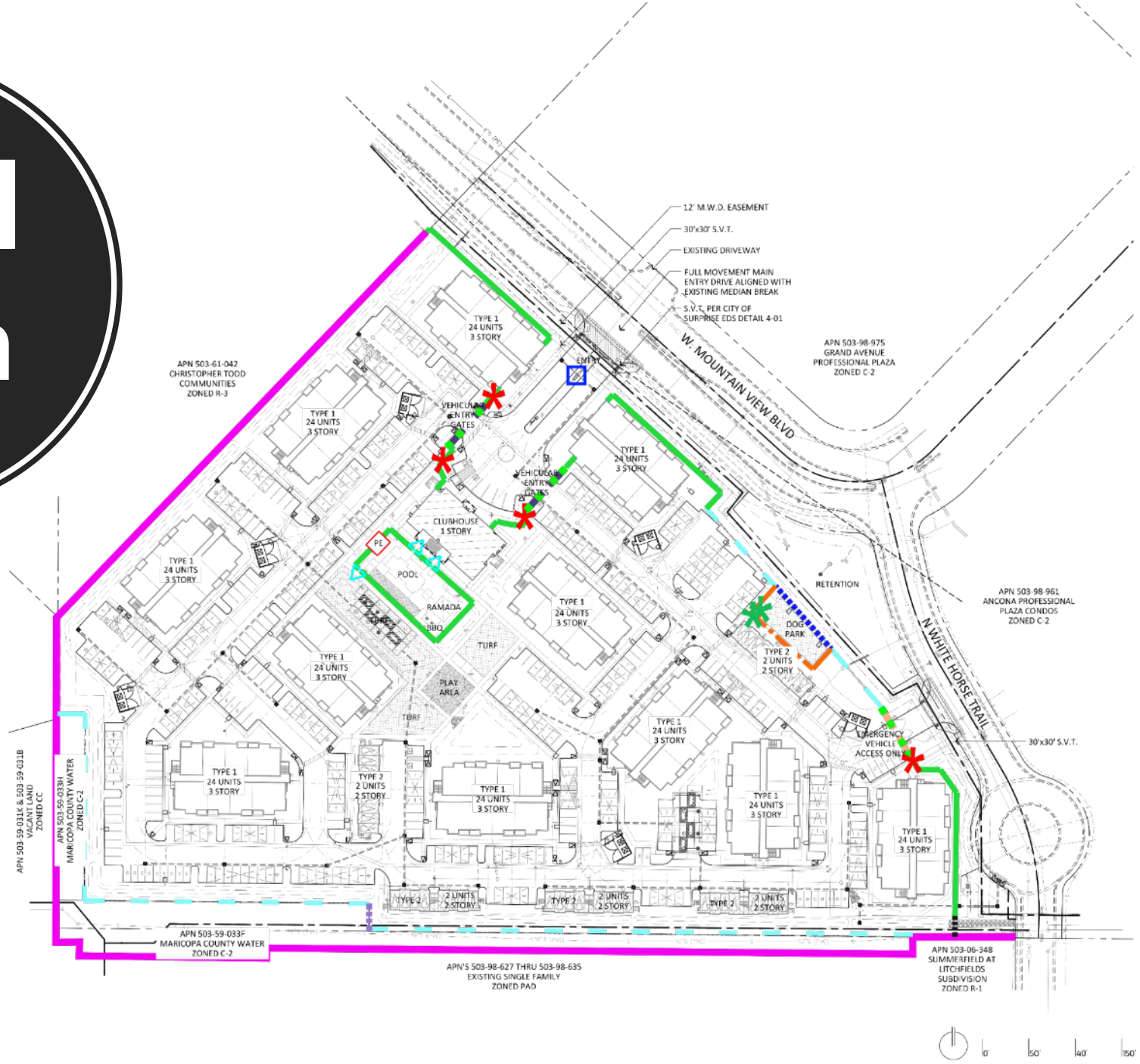
Notes: *All average rates were calculated by dividing total trips generated using regression equation by the number of dwelling units. (See below.)
+ DUs = Dwelling Units

Table 5 – Site Trip Distribution

Direction (To/From)	Percentage
Northwest on US-60 (northwest of Mountain View Boulevard)	32%
Southeast on Us-60 (southeast of Mountain View Boulevard)	57%
Northwest on Mountain View Boulevard (northwest of Apartments Driveway	10%
South on White Horse Trail (south of Roundabout)	1%
Total	**100%**

C
1008 - 1015
2008 - 2015
3008 - 3015

Wall Plan



WALL LEGEND

SYMBOL	DESCRIPTION	DETAIL	QTY.
	6'-0" PARTIAL VIEW WALL	DETAIL 3, SHEET L6.1	1316 LF
	6'-0" POOL EQUIPMENT WALL		
	6'-0" VIEW FENCE/POOL FENCE	DETAIL 2, SHEET L6.1	1,050 LF
	EASEMENT GATE	DETAIL 5, SHEET L6.2	1 EA
	UTILITY ACCESS FULL VIEW FENCE	DETAIL 5, SHEET L6.2	30 LF
	EXISTING PERIMETER WALL		APPROX. 2,000 LF
	6'-0" WELDED WIRE MESH VIEW FENCE	DETAIL 2, SHEET L6.3	91 LF
	DOG PARK FENCE	DETAIL 3, SHEET L6.3	171 LF
*	PEDESTRIAN GATE	DETAIL 4, SHEET L6.1	4 EA
*	DOG PARK GATE	DETAIL 5, SHEET L6.1	2 EA
△	POOL GATE	DETAIL 7, SHEET L6.1	3 EA
□	ENTRY MONUMENT LOCATION MONUMENT AND SIGNAGE UNDER SEPARATE SUBMITTAL		
	VEHICULAR ENTRY	DETAIL 1 & 2, SHEET L6.2	2 SETS
	EMERGENCY EXIT GATE	DETAIL 3, SHEET L6.2	1 SETS
	THEME COLUMN	DETAIL 4, SHEET L6.1	6 EA
	VEHICULAR GATE COLUMN	DETAIL 2, SHEET L6.2	6 EA

GENERAL WALL NOTES

1. QUANTITIES SHOWN ARE FOR BIDDING AND PERMITTING PURPOSES ONLY, CONTRACTOR TO VERIFY.

Key M

Exhibit: C

CITY OF SURPRISE
Site posting Process

AFFIDAVIT OF POSTING

Application No: FS22-0588

Applicant Name: Bergin, Frakes, Smalley & Oberholtzer, PLLC

Location: SEC Mountain View Blvd & White Horse Trl

Date Site Posted: 07/26/22

In order to assist in providing adequate notice to interested parties, the applicant for any *type of public hearing* in the City of Surprise shall erect two (2) signs giving notice of the *date, time and place* of the scheduled hearings. These signs must be erected not less than **fifteen (15) days prior to** the date of the first hearing. The signs shall also include the nature of the request as contained on the formal zoning application. The size and format of this sign shall meet requirements established by the Planning and Zoning Department (see page 2).

Such notice shall be clearly legible and placed at a prominent location on the site – Generally adjacent and perpendicular to the public right-of-way. It shall be the *responsibility of the applicant* to erect and to maintain the sign on the subject property and to maintain the hearing information on the sign until final disposition of the case.

It shall also be the *responsibility of the applicant* to remove the signs within one week after the final disposition of the case.

I confirm that the site has been posted as required above, for the case noted above. A picture of the site posting, and photos of any subsequent changes/updates made to the sign, have also been submitted.

Meghan Liggett — 7/26/22

Applicant/Representative Signature — Date

This instrument was acknowledged before me on 07/26/22, by Meghan Liggett. I witness whereof I hereunto set my hand and official seal.

MARYBETH CONRAD
Notary Public - Arizona
Maricopa County
Commission # 591461
My Comm. Expires Oct 25, 2024

Marybeth Conrad
Notary Public

10.25.24
My commission expires

*Return completed and notarized **affidavit** and all relevant **photos** to the Planning and Zoning Department at least fifteen (15) days **prior to** the scheduled meeting(s).*

Notice of Public Hearing
City of Surprise
Neighborhood Meeting
Date: August 11, 2022
Time: 6:00 P.M.
Location: The Colonnade at Sun Health Communities
The Sorrento Room
19116 N. Colonnade Way Surprise, AZ 85374
& via Zoom Meeting:
Join Zoom Meeting
https://us02web.zoom.us/j/87913499831
Meeting ID: 879 1349 9831 Join by phone: +1 346 248 7799
Planning & Zoning
Date: TBD
Time: 6:00 P.M.
Location: 16000 N Civic Center Plaza
Surprise, AZ 85374
City Council
Date: TBD
Time: 6:00 P.M.
Location: 16000 N Civic Center Plaza
Surprise, AZ 85374
PROJECT LOCATION
MOUNTAINVIEW BLVD
GRAND AVE - US 60
PROJECT LOCATION
WHITE HORSE TRAIL
Case number FS22-0588. Alliance Residential Company is seeking a rezone from Community Commercial (C-2) toHigh Density Residential (R-3) for approximately 12.82 acres at the southwest corner of W. Mountain View Boulevard and N. White Horse Trail to accommodate the development of a high-end apartment housing community. The proposed community consists of 274 residential units in a combination of 2 and 3 story buildings built around a central amenity area that includes a clubhouse with fitness room, pool, play area and dog park.
Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Roadhouse
Trader Joe's
60
Maps
Jul 26, 2022 09:58AM
17896 N White Horse Trail
Maricopa County

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Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Roadhouse
Trader Joe's
60
Maps
Jul 26, 2022 09:57AM
17896 N White Horse Trail
Maricopa County

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Surprise, AZ 85374
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Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Master Taco
Trader Joe's
W MOUNTAIN VIEW BLVD
60
Maps
Jul 26, 2022 09:29AM
14000–14038 W Mountain View Blvd
Maricopa County

Notice of Public Hearing
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Date: August 11, 2022
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Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Master Taco
Trader Joe's
Maps
Jul 26, 2022 09:28AM
14000–14038 W Mountain View Blvd
Maricopa County

Exhibit: D

CITY OF SURPRISE
Site posting Process

AFFIDAVIT OF POSTING

Application No: FS22-0588

Applicant Name: Bergin, Frakes, Smalley & Oberholtzer, PLLC

Location: SEC Mountain View Blvd & White Horse Trl

Date Site Posted: 09/02/22

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I confirm that the site has been posted as required above, for the case noted above. A picture of the site posting, and photos of any subsequent changes/updates made to the sign, have also been submitted.

Meghan Liggett — 9/2/22

Applicant/Representative Signature — Date

This instrument was acknowledged before me on 09/02/22, by Meghan Liggett. I witness whereof I hereunto set my hand and official seal.

MARYBETH CONRAD
Notary Public - Arizona
Maricopa County
Commission # 591461
My Comm. Expires Oct 25, 2024

marybeth conrad
Notary Public

10-25-24
My commission expires

*Return completed and notarized **affidavit** and all relevant **photos** to the Planning and Zoning Department at least fifteen (15) days **prior to** the scheduled meeting(s).*

Notice of Public Hearing
City of Surprise
Neighborhood Meeting
Date: August 11, 2022
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Location: The Colonnade at Sun Health Communities
The Sorrento Room
19116 N. Colonnade Way Surprise, AZ 85374
& via Zoom Meeting:
Join Zoom Meeting
https://us02web.zoom.us/j/87913499831
Meeting ID: 879 1349 9831 Join by phone: +1 346 248 7799
Planning & Zoning
Date: October 6, 2022
Time: 6:00 P.M.
Location: 16000 N Civic Center Plaza
Surprise, AZ 85374
City Council
Date: November 15, 2022
Time: 6:00 P.M.
Location: 16000 N Civic Center Plaza
Surprise, AZ 85374
PROJECT LOCATION
Case number FS22-0588. Alliance Residential Company is seeking a rezone from Community Commercial (C-2) toHigh Density Residential (R-3) for approximately 12.82 acres at the southwest corner of W. Mountain View Boulevard and N. White Horse Trail to accommodate the development of a high-end apartment housing community. The proposed community consists of 274 residential units in a combination of 2 and 3 story buildings built around a central amenity area that includes a clubhouse with fitness room, pool, play area and dog park.
Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Roadhouse
Trader Joe's
QuikTrip
60
Maps
Sep 02, 2022 11:29AM
17896 N White Horse Trail
Maricopa County

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Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Master Taco
Trader Joe's
QuikTrip
60
Maps
Sep 02, 2022 11:23AM
14000–14038 W Mountain View Blvd
Maricopa County

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Please call to confirm dates: 623- 222-3011 Surpriseaz.gov
Master Taco
Trader Joe's
QuikTrip
60
Maps
Sep 02, 2022 11:24AM
14000–14038 W Mountain View Blvd
Maricopa County

Leslie Carnie

From: DEAN MEEKINS[redacted]
Sent: Wednesday, August 10, 2022 7:41 PM
To: Trever Fleetham
Subject: Cade#FS22-0588

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

We are not in favor of this High Rise in our neighborhood.

Thanks for your consideration.

William & Ann Meekins

[redacted]

Surprise, AZ 85374

Leslie Carnie

From: Lynn Gillmore [redacted]
Sent: Thursday, August 11, 2022 6:58 AM
To: [redacted]
[redacted]

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

Good Morning::

I would like to take this opportunity to express our opinion on the above proposed project. We are against it for the following reasons:

1. A high density project in the proposed area will cause large traffic problems on already existing small roadways.
2. We live in a senior subdivision and we feel our security will be compromised with such a large influx of people.
3. Arizona is already in a water crisis. Our subdivision is being asked to reduce our water usage, possibly losing some of our beautiful greenbelts. As I understand this may be necessary to do our part to conserve, how can there then be enough water for such a large density project?

We understand that Surprise needs housing. However the proposed project in the proposed location we do not feel is appropriate.

Thank you,
Jimmy and Lynn Gillmore
[redacted]
Surprise, AZ 8574

Leslie Carnie

From: Cynthia Flaherty[redacted]
Sent: Friday, August 12, 2022 8:03 AM
To: Leslie Carnie; Trever Fleetham
Subject: Fwd: Case #FS22-0588 From Sun Village Resident

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

We are residents of Sun Village and own two properties there. We are surrounded by housing, retail, fast food, commercial buildings, and other growth that has increased tremendously throughout the past 10 years. Our quiet community of Sun Village is still somewhat intact, yet, traffic, noise, accidents, crime outside and within our gated walls, restricted water usage, have affected all of us, and are destroying the character of our community.

We are dismayed to learn that yet another development will border on our community…..this time high density three story housing will be squeezed into a lot surrounded by retail, commercial, one story housing, and our small retirement community of one story housing. For many reasons….we do not a support zoning change to this location!

Please support us by denying this zoning change!

Cynthia and Bob Flaherty, Sun Village residents

RECEIVED
AUG 15 2022
BY:

August 10, 2022

Mr. Lloyd Abrams
City of Surprise Planner
City of Surprise
16000 N Civic Center Plaza
Surprise, AZ 85374-7463

Dear Mr. Abrams,

This letter is to advise you of my opposition to the proposed zoning change on Mountain View Blvd fro Community Commercial to High Density Residential. (Planning Case FS 222-0588)

Sincerely,

Michael Villamaino

Michael Villamaino
[redacted]

RECEIVED
AUG 1 0 2022
BY:

August 10, 2022

Mr. Trever Fleetham
City of Surprise Planner
City of Surprise
16000 N Civic Center Plaza
Surprise, AZ 85374-7463

Dear Mr. Fleetham

This letter is to advise you of my opposition to the proposed zoning change on Mountain View Blvd fro Community Commercial to High Density Residential. (Planning Case FS 222-0588)

Sincerely,

Michael Villamaino

[redacted]

RECEIVED
AUG 15 2022
BY:

August 10, 2022

Ms. Chris Sexton
City of Surprise Planner
City of Surprise
16000 N Civic Center Plaza
Surprise, AZ 85374-7463

Dear Ms. Sexton,

This letter is to advise you of my opposition to the proposed zoning change on Mountain View Blvd fro Community Commercial to High Density Residential. (Planning Case FS 222-0588)

Sincerely,

Michael Villamaino

[redacted]

RECEIVED
AUG 15 2022
BY:

August 10, 2022

Ms. Leslie Carnie
City of Surprise Planner
City of Surprise
16000 N Civic Center Plaza
Surprise, AZ 85374-7463

Dear Ms. Carnie,

This letter is to advise you of my opposition to the proposed zoning change on Mountain View Blvd fro Community Commercial to High Density Residential. (Planning Case FS 222-0588)

Sincerely,

Michael Villamaino

[redacted]

Vurl and Sandy Warmoth

[redacted]

Surprise, AZ 85374

Leslie Carnie, City of Surprise Planner

RE: Surprise Planning Case #FS22-0588

Dear Ms. Carnie,

We are homeowners 1 house from the property abutting the area requesting a zone change. We are opposed to the rezoning to High Density Residential. The 11 buildings that are 3 stories high are a threat to our privacy. This proposed development has a negative impact both short and long term.

Short Term:

- My estimate is the age of the residents closest to this development are 70+ years old
- The dust can cause Valley Fever that makes these residents more vulnerable to the disease
- The noise pollution would affect our daily quiet existence which is one reason we moved here

Long Term

- The development will have a negative impact on the resale value of homes in Sun Village
- The development will cause us to lose privacy that we have now
- Safety has been a concern for this perimeter wall on a number of occasions that required the Surprise Police to be called because of vandals scaling the wall and homeless building shelters.
- The way the property is designed the easement for Maricopa Water will create an alley with 6 foot walls on both sides for all sorts of criminal activities to be done without being seen by either side.

Sandy and I will be in attendance at the meeting and hopefully a number of residents from Sun Village. This property is properly zoned as C-3 and should stay that way.

Sincerely,

Vurl Warmoth Sandy Warmoth

Vurl and Sandy Warmoth

[redacted]

Leslie Carnie

From: DIANE VENRICK [redacted]
Sent: Wednesday, August 10, 2022 6:06 PM
To: Leslie Carnie
Subject: (Surprise Planning Case #FS22-0588)

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

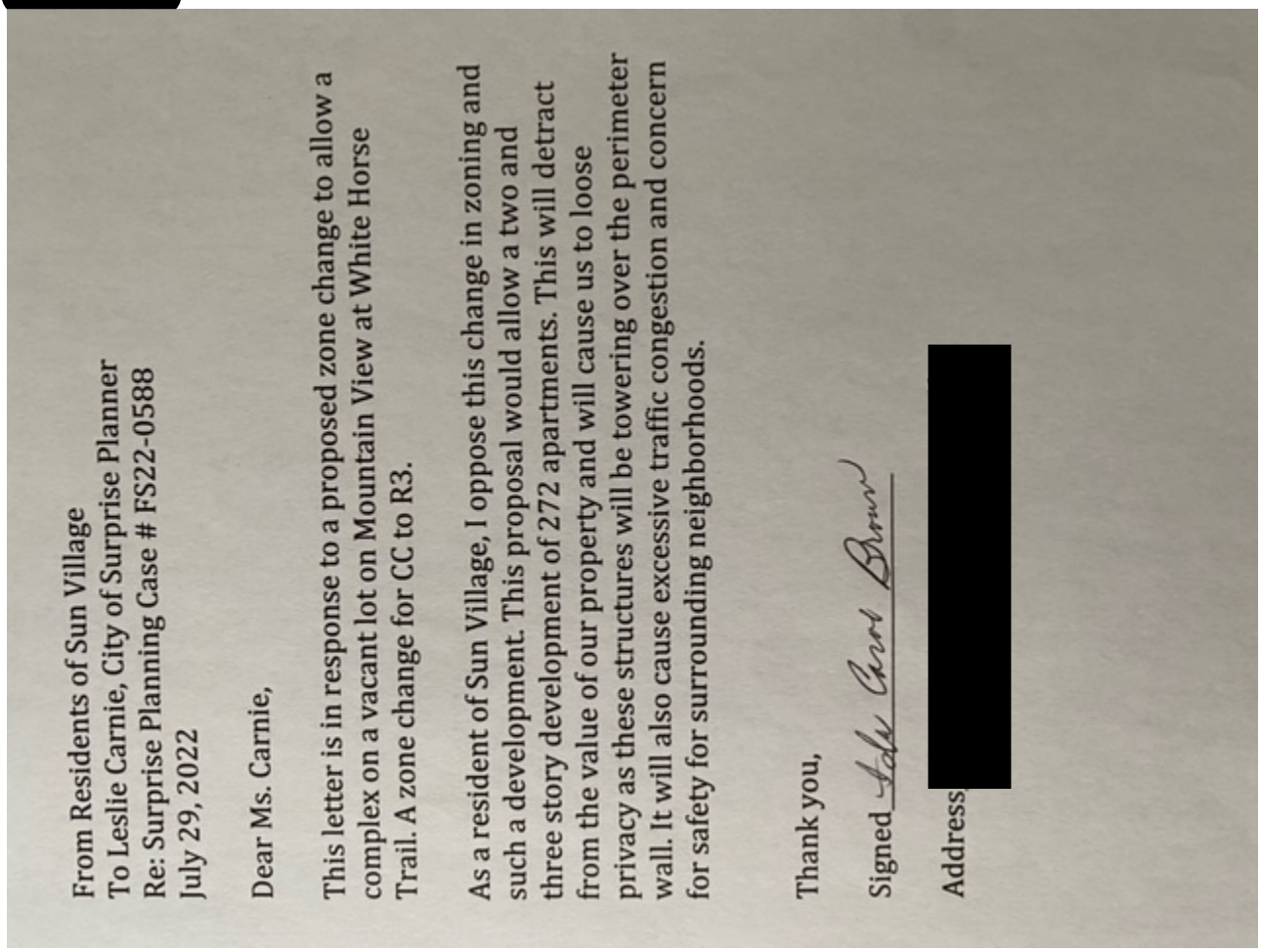
Good evening,
I am emailing to voice my opposition to this proposed zoning change from commercial to high density multi-family residential. (Surprise Planning Case #FS22-0588) The traffic in this area is already very heavy, especially when the snowbirds return in the fall and winter. The streets were designed for commercial development, not for the multitudes of families that will reside in the proposed multi-family housing development. This proposed zoning change will put so much more traffic on the already congested roads (Mountain View, Grand, Parkview, etc.). This will negatively impact our community of Sun Village because we travel those same roads everyday and will have to fight that traffic to go to the grocery store, drug store, church services, doctor appointments, etc. Please vote against this zoning change to preserve our quality of life.
Thank you,
Dr. Diane Venrick
[redacted]

Leslie Carnie

From: Michael Villamaino [redacted]
Sent: Monday, August 1, 2022 10:01 AM
To: Leslie Carnie
Subject: Surprise planning case FS22-0588

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Please accept this letter from my next door neighbor regarding the project as she will be attending the 8/11 neighborhood meeting.
Thank you,
Michael
[redacted]



From Residents of Sun Village
To Leslie Carnie, City of Surprise Planner
Re: Surprise Planning Case # FS22-0588
July 29, 2022

Dear Ms. Carnie,

This letter is in response to a proposed zone change to allow a complex on a vacant lot on Mountain View at White Horse Trail. A zone change for CC to R3.

As a resident of Sun Village, I oppose this change in zoning and such a development. This proposal would allow a two and three story development of 272 apartments. This will detract from the value of our property and will cause us to loose privacy as these structures will be towering over the perimeter wall. It will also cause excessive traffic congestion and concern for safety for surrounding neighborhoods.

Thank you,

Signed Julie Carol Brown

Address [redacted]

Sent from my iPhone

Leslie Carnie

From: Trever Fleetham
Sent: Tuesday, August 16, 2022 7:14 AM
To: Leslie Carnie
Subject: FW: Surprise Planning Case #FS22-0588
Attachments: 14. TIA - Prose Mountain View - Submittal 2.pdf

Leslie,

Forwarding this to you since it looks like they got your email wrong.

Trever Fleetham, AICP | Senior Planner
City of Surprise|Community Development
16000 N. Civic Center Plaza|Surprise, AZ 85374
Office: 623.222.3156| Main: 623-222-3000

SURPRISE
ARIZONA

From: Carolyn Oberholtzer [redacted]
Sent: Monday, August 15, 2022 10:50 AM
To: [redacted]
Subject: RE: Surprise Planning Case #FS22-0588

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

Barb,

Thanks for including me on your correspondence. We understand that traffic is a significant concern for residents in the vicinity of the proposed project. To that end, the project entrance was intentionally placed on Mountain View with an emergency-vehicle only gate onto White Horse. No resident traffic will go in or out at that location. Also, our traffic study compared the existing zoning to the proposed and concludes that the project will have fewer trips per day than both commercial and office uses. I have attached the study for your reference and would happy to have a follow-up conversation with you. Please also feel free to find out more about the project at www.alliancemountainview.com.

I appreciate you communicating your feedback to us so that to the extent possible, we can help to address your concerns.

Carolyn Oberholtzer
[redacted]

[redacted]

The information contained in this message is privileged and confidential. It is intended only to be read by the individual or entity named above or their designee. If the reader of this message is not the intended recipient, you are on notice that any distribution of this message, in any form is strictly prohibited. If you have received this message in error, please immediately notify the sender by telephone at 602.888.7860 or by fax at 602.888.7856 and delete or destroy any copy of this message. Thank you.

From: Barb Fularczyk[redacted]

To:[redacted]

Subject: Surprise Planning Case #FS22-0588

Good Morning,
We are residents of Sun Village:

Thomas & Barbara Fularczyk
[redacted]

We strongly object to the above mentioned addition to our neighborhood. We are currently dealing with an extraordinary amount of traffic in the area. There are already two newer developments in the same immediate area which have added to the existing traffic problem. That along with the need for more traffic control, police presence and basically just too many more people. Please do not allow this to happen to our community.

Thank you.

Tom and Barb Fularczyk

Leslie Carnie

From: Lloyd Abrams
Sent: Thursday, July 28, 2022 4:05 PM
To: Leslie Carnie
Cc: Jason Moquin
Subject: FW: Surprise Planning Case # FS22-0588

Leslie,

Please add this email to the case file.

Thank you,

Lloyd Abrams
Assistant Director
Community Development
City of Surprise
Office: 623-222-3021

-----Original Message-----
From: Mayor <Mayor@surpriseaz.gov>
Sent: Thursday, July 28, 2022 3:51 PM
To: Ashley Labhart <Ashley.Labhart@surpriseaz.gov>; Lloyd Abrams <Lloyd.Abrams@surpriseaz.gov>
Subject: FW: Surprise Planning Case # FS22-0588

For your records.

Best,

Jackie Moucheron
Assistant to the Council Sr.

City of Surprise | Mayor and Council
16000 N. Civic Center Plaza | Surprise, AZ 85374
Direct: 623.222.1332 | Office: 623.222.1300
Web: www.surpriseaz.gov
Proclamation Request: Proclamation Request Form

-----Original Message-----
From: Michael Villamaino[redacted]
Sent: Thursday, July 28, 2022 3:37 PM
To:[redacted]
Subject: Surprise Planning Case # FS22-0588

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Dear Mr. Hall and Mr. Hastings,
This email is in response to a proposed zone change to allow a complex on a vacant lot on Mountain View at White Horse Trail. A change from CC to R3.

I am a resident of Sun Village; our home is adjacent to the lot in question on Mountain View. This proposal would allow a two and three story development of over 270 apartments which will detract from the value of our property and will cause us to loose privacy as these structures will be towering over the perimeter wall.

Please cast your vote, use your effort, in opposition to such a development that will change the complexion of our neighborhood.

Sincerely,
Michael Villamaino
[redacted]
Sent from my iPhone

Leslie Carnie

From: [redacted]
Sent: Thursday, July 28, 2022 9:31 AM
To: [redacted]
[redacted]
Subject: Proposed zoning change - Surprise Planning Case # FS22-0588

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

Good day Ms. Carnie and Mr. Hastings. My wife and I would like to introduce ourselves to you and make you aware of our concerns regarding the proposed rezoning of the vacant lot at the southwest corner of Mountain View Boulevard and White Horse Trail from CC to R-3.

Our home is located directly adjacent to this lot, and we would suffer a significant impact should this project be approved, and an apartment building be erected at this location. The first and most immediate impact would be a loss of privacy to us and our neighbors on either side of us who live on the north side of West Mountain Laurel Trail. We live in Sun Village, which is a wonderful, quiet, retirement community. We moved here specifically for the privacy afforded to us in a gated community. Having a huge, imposing apartment building towering over our heretofore quiet and private backyard would destroy one of the key features of Sun Village that attracted us here in the first place.

Also, our experience with rental properties of any kind is that they quickly become crowded with vehicles, are noisy, and generally degrade the quality of life for any private homes in their vicinity. This would further erode our quality of life in Sun Village. We are all homeowners that take pride in the investment we have made in our homes. Renters, on the other hand, have no vested interest in the property they occupy. Our belief is that our property values would suffer irreparable harm should this project proceed. We are all retired and cannot afford such a huge financial setback to our primary investment at this stage of our lives.

Sun Village is in the process of relocating their main entrance from Bell Road to Litchfield Road. This will increase the traffic on Litchfield. If there is also a large apartment complex in the area, traffic congestion and the noise level would be even greater. We feel all rental properties including apartment buildings, would be better located south of Bell Road where there is already considerable development of rental properties in process, less private housing that would be impacted, and a system of roads better equipped to handle the traffic load.

We would ask the city council to deny this rezoning request and leave the lot in question zoned as Community Commercial which is more in line with the area as it is now developed.

Should you have any questions, please feel free to reach out to us at any time.

Thank you for your time in considering this matter.

Ron & Nancy Bennett
[redacted]

[redacted]

Leslie Carnie

From: Carolyn Oberholtzer[redacted]
Sent: Tuesday, August 2, 2022 9:22 AM
To: Rudy Dean
Cc: Leslie Carnie
Subject: RE: zoning change FS22-05888
Attachments: 07. Landscape Plan - Submittal 2.pdf

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Rudy – Thank you for reaching out. Will you be able to attend the community meeting next week? If not, I'm happy to schedule a time to review with you. In the meantime, I'd like the opportunity to clarify that the proposed project is market-rate project for well-qualified renters (not a tax-subsidized affordable housing project). The community is being developed by Alliance Residential- a Scottsdale-headquartered company and one of the most reputable and award-winning multi-family developers in the country. We anticipate strong tenant demand from area health-care employees and residents that desire luxury-level amenities and walking distance to the nearby retail and restaurants on Grande- the addition of nearby residences will support the local businesses.

I understand that you are concerned about the proximity of the project to your home and wanted to share the attached community plan which shows a significant setback to the homes on the other side of your wall. There is actually an additional 20 feet behind your wall that will separate the community further from you such that the separation between any units will be 40 feet or greater. Again- I'm happy to meet with you to talk about the project if you would like and hope this information has been helpful to allay your concerns.

I have also copied our City planner, Leslie Carnie, to ensure your message makes it to her.

Carolyn Oberholtzer
Bergin, Frakes, Smalley & Oberholtzer, PLLC
[redacted]

The information contained in this message is privileged and confidential. It is intended only to be read by the individual or entity named above or their designee. If the reader of this message is not the intended recipient, you are on notice that any distribution of this message, in any form is strictly prohibited. If you have received this message in error, please immediately notify the sender by telephone at 602.888.7860 or by fax at 602.888.7856 and delete or destroy any copy of this message. Thank you.

From: Rudy Dean [redacted]
Sent: Tuesday, August 2, 2022 7:37 AM
To: Carolyn Oberholtzer [redacted]
Subject: zoning change FS22-05888

Leslie,
!2 years ago we purchased our home on West Mountain Laurel Trail in Sun Village. This is the street that directly abuts the property that is seeking the zoning change from commercial to high density housing. We purchased our home knowing that we may at some time have one or two story commercial buildings on the other side of our wall and we were ok with that. A commercial neighbor would likely be quiet during the day and having no noise after business hours.
This plan for 274 units of three story low income housing with as many as six to seven hundred occupants just 30 feet from the back of our home is a nightmare for us. I think the noise problem would be the least of the problems that would be introduced into our community. For us personally, I think we would suffer a serious devaluation of our property values. Sun Village would also suffer by decreased property values and make it a much less desirable place to live.
This seems like a project to line someone's pockets at the expense of the two nearby retirement neighborhoods, neighborhoods of family homes and local businesses.
For the benefits of the surrounding communities my wife and I request that you deny the request submitted in case FS22-0588.
Rudy Dean

Leslie Carnie

From: Keli Price [redacted]
Sent: Thursday, July 28, 2022 11:36 AM
To: Jack Hastings; Leslie Carnie
Subject: RE opposed to Rezoning at Mtn View Blvd and White Horse Tr to R-3

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Dear City Planner Carnie and Councilman Hastings,

I am a resident of Sun Village and am opposed to the proposed rezoning of the vacant lot at Mountain View Blvd and White Horse Tr from CC to R-3.

Councilman Hastings, I remember how you walked Sun Village campaigning for your position, and you received much support from the community. This rezoning and subsequent building of a high sensity family complex would bring long term noise and destroy the privacy of people living on Mountain Laurel Tr and Desert Flower Tr, to the south of the planned development. This is one of the original senior communities in this area, and it is a small HOA and supportive neighborhood. When my parents moved here 25 years ago, as snowbirds, and then became permanent residents 10 years ago, it was wonderful to experience how peaceful it is and a good investment of their retirement years and funds. They have since purchased another home in Sun Village, and I live in (and will inherit) the residence on Mountain Laurel Tr in community with wonderful neighbors. I'm 64 and have been in this home eight years and still working as a nurse, but this is my forever home. I am sickened at the thought of high density apartments being across the street from me. If this goes in, my neighbors will most likely try to sell and all our property values will decrease.

With the Veterans Admin Health Center and other medical offices lining Grand Ave, Mountain View Blvd, and White Horse Tr area, it makes sense to keep it commercial and allow only one story commercial development on that lot.

I am concerned about how much more traffic could be generated at that roundabout when you already have much traffic heading into the VA. And people will zip through the neighborhood and past the Sun Village "back gate " which will hopefully soon become our main gate.

I am concerned about the noise coming from the apartments on a long term basis (and of course during construction), I also have concerns about the lack of air movement ... I know our temperatures on our lots will increase due to having large three story buildings right in our backyard. Additional heat due to high density housing is definitely not something we want to accept.

From a planning standpoint, to put two story buildings just 10 yards from the private residences of Sun Village border is not conventional city planning and not transitional housing by any measure. I do not know the Surprise building statutes, but in other communities where I have lived, there are "transitional" guidelines in place that gradually increase in density, not a massive increase in density just YARDS away over a retaining wall. There are sound reasons for transitional density increases; I'm sure you have studied them.

I implore that you inform the whole of City Council regarding Sun Village residents' requests to deny this rezoning request.

Thank you for your work and representation,

Keli Price

[redacted]

Keli Price

Societies grow great when old men plant trees whose shade they know they shall never sit in.
-Ancient Greek Proverb

Leslie Carnie

From: chuckbills[redacted]
Sent: Wednesday, July 27, 2022 12:58 PM
To: Leslie Carnie
Subject: Re: Planning case # FS22-0588

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Wow, thanks for your quick response! Much appreciated.

Apartments or Condo/SF ?

Is the city close in have more plans for more and more high density like this?
Don't take this the wrong way, but more apartments around the city center will negatively effect values and ownership desire as far as I have seen in 30 years of real estate.

Thanks!

Chuck

[redacted]

On Jul 27, 2022, at 12:52 PM, Leslie Carnie <Leslie.Carnie@surpriseaz.gov> wrote:

Hi Chuck,

They are planning on 274 units. R-3 development standards are below. Feel free to contact me if you have any additional questions.

<image003.jpg>

Best,

Leslie Carnie, Planner II
City of Surprise|Community Development
16000 N. Civic Center Plaza|Surprise, AZ 85374
Office: 623.222.3153| Fax: 623-222-3001
<image001.png>

From: chuckbills[redacted]
Sent: Wednesday, July 27, 2022 7:48 AM

To: Leslie Carnie <Leslie.Carnie@surpriseaz.gov>
Subject: Planning case # FS22-0588

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

PROJECT DESCRIPTION:
Alliance Residential at the southwest corner of Mountain View and White Horse Trail, just north of Sun Village.
A zone change of 12.82 gross acres from Community Commercial (CC) to High-Density Residential (R-3) to allow the development of a Multi-Family Residential project for a site generally located on the southwest corner of Mountain View Blvd and White Horse Trail.

Could you please tell me if you know what the total number of units would be on this project? It backs up right to my neighborhood where I live.

Is R-3 high density 8 du/ac ? Or is it 22 du/ac with 25% open?

Thanks!

Chuck

<image002.png>

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0.1

Leslie Carnie

From: Tim Barth [redacted]
Sent: Thursday, August 11, 2022 10:45 AM
To: Leslie Carnie
Subject: SURPRISE PLANNING / ZONING CASE # FS22-0588

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

PLEASE LEAVE COMMERCIAL ZONING

Leslie Carnie

From: Michael Villamaino[redacted]
Sent: Thursday, July 28, 2022 3:54 PM
To: Leslie Carnie
Subject: Surprise Planning Case # FS22-0588

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Dear Ms. Carnie,
Thank you for your time in returning my phone call on Tuesday.
I am writing to let you know my opposition to the zone change and development of a multi level apartment complex on Mountain View Blvd.; and that I will be present at meeting on August 11, 2022.

Sincerely,
Michael Villamaino
[redacted]

Sent from my iPhone

Leslie Carnie

From: Karen Lemay <[redacted]
Sent: Thursday, August 11, 2022 10:17 AM
To: Leslie Carnie; Trever Fleetham
Cc: Mayor
Subject: SURPRISE PLANNING CASE #FS22-0588. I object to the requested change in zoning

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

I am **not** in favor of the proposal in Surprise Planning Case FS22-0588, which is asking for a zone change from Community Commercial (CC) to high-Density Residential (R-3).

Karen LeMay Coggins
[redacted]

SENT FROM OFFICE 365

The content of this email is confidential and intended for the recipient specified in message only. It is strictly forbidden to share any part of this message with any third party, without a written consent of the sender. If you received this message by mistake, please reply to this message and follow with its deletion, so that we can ensure such a mistake does not occur in the future.

Leslie Carnie

From: wendy bills[redacted]
Sent: Wednesday, August 10, 2022 8:37 PM
To: Leslie Carnie
Subject: Surprise Planning Case #FS22-0588

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

My husband and I reside in Sun Village. We moved there 5 years ago…one of the big draws being a secluded "piece of paradise" in the city.

By allowing the above mentioned project to proceed, our quiet little neighborhood will suffer the effects increased noise, traffic on Litchfield and Grand as well as through our adjacent neighborhood.

Additionally, while Sun Village is a gated community with monitored access control, we have been subject to crimes committed by trespassers in our community. This is a concern with allowing this proposed project to proceed - an increase in potential crimes.

Thank you for taking the time to listen to our concerns!

Wendy Bills

Sent from me! (on my iPhone)

Leslie Carnie

From: Fred Winters [redacted]
Sent: Thursday, August 11, 2022 12:41 PM
To: Leslie Carnie
Subject: Surprise Planning Case FS22-0588

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Having a high density complex the is 2 and 3 story high next to owner occupied, single level homes is not to anyones advantage, except for the developers. Request your support in stopping this development. Sincerely Fred Winters

Fred

Leslie Carnie

From: Loueen Burrows [redacted]
Sent: Monday, August 1, 2022 3:55 PM
To: Leslie Carnie
Subject: Surprise Planning Case FS22-0588

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

Hello Ms. Carnie,

This letter is in response to a proposed rezoning change on the vacant lot on Mountain View Boulevard and White Horse Trail from CC to R-3.

As a resident of Sun Village I oppose this zoning change and the proposed development. The proposal would allow for two and three story apartment buildings which will tower over my wall and I will lose all privacy. Additionally there could be a decrease in my property value as historically renters have no vested interest in the property they occupy.

I would like to ask the city council to deny this rezoning request and leave the above lot zoned as a community commercial.

Thanking you in advance,

Loueen Burrows
[redacted]

Leslie Carnie

From: Y! Mail [redacted]
Sent: Tuesday, August 2, 2022 11:08 AM
To: Leslie Carnie
Subject: Zone change from CC Community Commerical to R-3 High-density Residential

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

City Planner Leslie Carnie,
Re: FS22-0588

Please consider the negative impact of the addition of a high density community to this area of Surprise. This proposal is situated in an area between two over 55 retirement communities, and two single family additions.

We purchased our home in 2009 in Sun Village, and we live on the north wall that directly abuts this proposed development. We understood that this land just over our back wall was zoned commercial and we were comfortable with potential quiet neighbors. This proposal would add eleven 3 story buildings with 24 units each plus a couple smaller units. That's easily 600 to 700 residents. That means no privacy or peace for us or our neighbors. Our property values would seriously decrease and quality of life would be negatively impacted.

My husband and I request that you deny this request FS22-0588.

Thank you!
Bonnie Dean

Leslie Carnie

From: Dick Lyda [redacted]
Sent: Friday, August 5, 2022 12:15 PM
To: Leslie Carnie
Subject: zone change

The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.

Mountain View and White Horse trail

Thursday, August 11, 2022, there is a meeting regarding the zone change to allow multi-family residential project.
My concern is the fact that they continue to add more and more new construction in Surprise, at the same time we are told we must start conserving the water available to this area as the future looks bleak regarding a large influx of water required to maintain the current population. Why would the planning development meeting continue to approve large multi-family construction when we are in this condition?
I was just reading that unless the involved states start addressing this problem the Feds will get involved. I am sure this would only help California as the politicians would get involved.
Please consider the importance of protecting the city from outside intervention and caring for the current citizens.
Thank you for your time in reading this.

Richard W. Lyda Sr.
Surprise Az.

Leslie Carnie

From: chuck bills <[redacted]
Sent: Wednesday, August 10, 2022 8:25 PM
To: Leslie Carnie
Subject: Zoning to 3-story, High-Density Apartments Surprise Planning Case #FS22-0588

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

As a resident of Sun Village, I would like to send my concern of the proposed zoning change.

I do not think that anything above a single story structure fits into the neighborhood area.
1. Visually it will not fit and the upper stories will look over neighboring homes.
2. High number of people traveling through the back neighborhood and increased traffic on Litchfield.
3. I believe that there are other areas with this zoning where this can be built.

Concerned neighbor

Thanks!

Chuck

[redacted]

Leslie Carnie

From: Kate Kelsay [redacted]
Sent: Tuesday, October 4, 2022 8:34 PM
To: Leslie Carnie
Subject: Surprise Planning Case #FS22-0588

******The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.******

I am writing as a Sun Village resident regarding the rezoning of the land at Mountain View Blvd and White Horse. I am in favor of the rezoning, feeling it will bring needed sales tax revenue to the city and patrons to encourage businesses to set up shop along the Grand Ave. business corridor. The developer has taken great care to mitigate any problems related to the neighborhoods already in the area. I believe this apartment complex would be an asset to our community.

Please consider approving the rezoning request.

Thank you

Kate Kelsay
[redacted]

Retail & Residential Market Analysis
3134 E Weldon Avenue
North of NWC Grand Avenue & Bell Road
Surprise, Arizona

Prepared for:

Alliance Residential

September 2022

Prepared by:

Elliott D. Pollack & Company
7505 East 6th Avenue, Suite 100
Scottsdale, Arizona 85251

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Executive Summary

Key Findings

- The brick-and-mortar retail landscape has shifted dramatically over the last ten years, and new store locations are not as prevalent as they were before. E-commerce continues to gain market share, a trend that is expected to continue for the foreseeable future.

- Based on the relationship between expected residential growth and the amount of retail that will be demanded, the subject site's primary market area has a substantial oversupply of vacant commercial land. Many of the sites will not be needed for future commercial development.

- The location and shape of the subject site place it at a substantial disadvantage competitively with alternative vacant retail land locations within the primary market area.

    - The site is missing critical retail site location characteristics. It is an interior location with no frontage or visibility to either Grand Avenue or Bell Road, two of the region's major transportation corridors, and no hard corner on any major intersection. The site is located behind a gas station, office buildings and planned retail stores fronting Grand Avenue. The property has frontage along Mountain View Boulevard and White Horse Trail, with just a fraction of the vehicle traffic compared to Grand Avenue.

    - The size of the site at approximately 11.76 acres, would potentially accommodate up to 76,000 square feet of commercial space, the equivalent of a small neighborhood center. However, it's site characteristics disqualify it from ever competing for that type of retail offering.

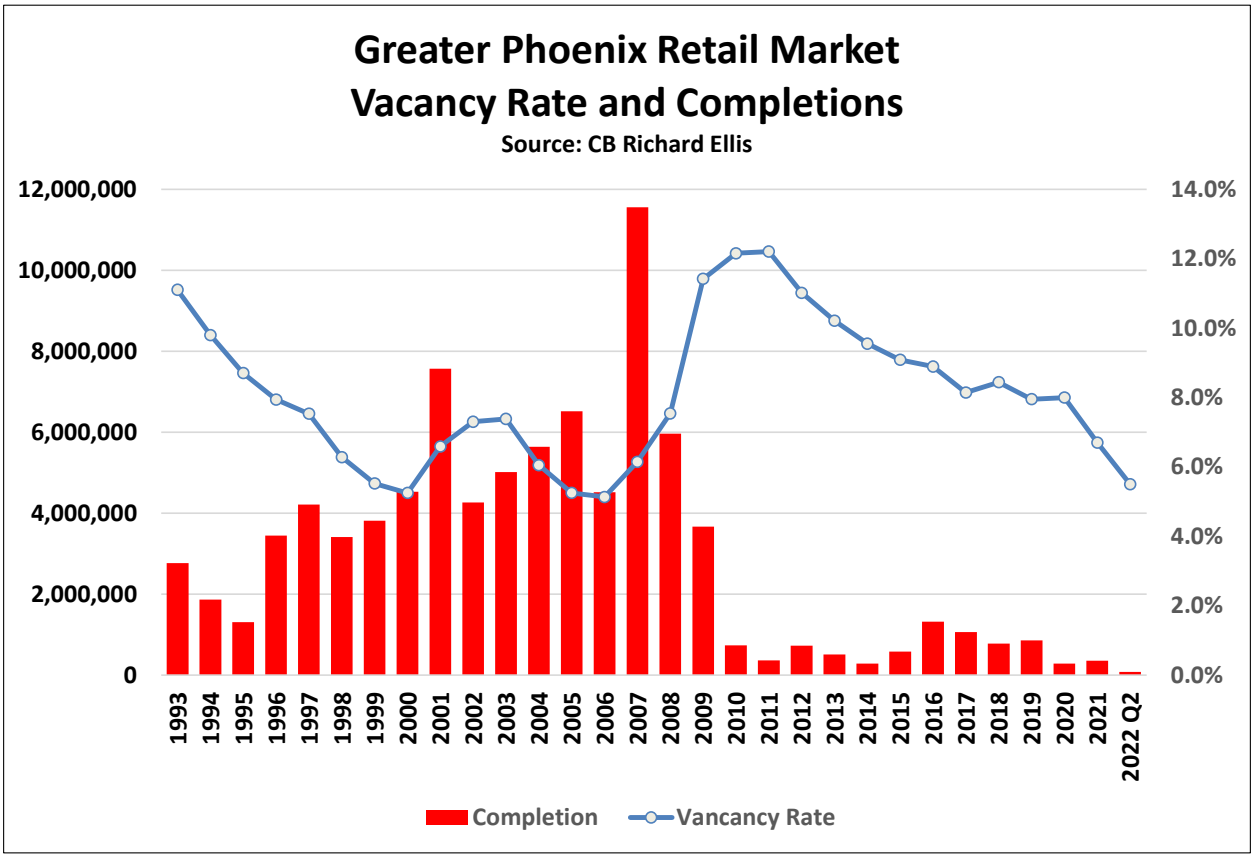
- Because there is an oversupply of commercial sites, converting the site to multifamily will not result in any lost opportunities for future retail development. To the contrary, new multifamily development will help balance the region's land uses and help to attract new retail to the area. In total, residents that will come to live in the proposed new residential community will be comprised of household incomes averaging $60,000 to $85,000 or more which will be attractive to restaurateurs and retailers. **An estimated total of $5.1 million in annual disposable income spending on retail goods and services will be added to the area from the proposed community**. This includes demand for retail shopping, restaurant spending, and spending on a wide variety of services such as vehicle repair, healthcare, insurance, utilities, and other personal services. **Based on retail spending alone, the proposed developments will create demand for nearly 12,000 square feet of retail space**.

- Greater Phoenix is facing a substantial housing shortage of both ownership and rental inventory which has caused housing prices and rent to spike. Resale home prices rose 40% and rents have increased over 38%% in the last 24 months. There is huge demand and a dire need for new residential housing in all asset classes, especially multifamily.

Report Summary

Elliott D. Pollack & Company was retained to conduct an economic analysis of a proposed rezoning of a vacant 11.76-acre parcel located north of the northeast corner of Grand Avenue and Bell Road in Surprise, Arizona, from commercial to residential uses. The scope of this engagement is to evaluate the various economic and real estate aspects of the proposed change and its impact on future local serving retail development.

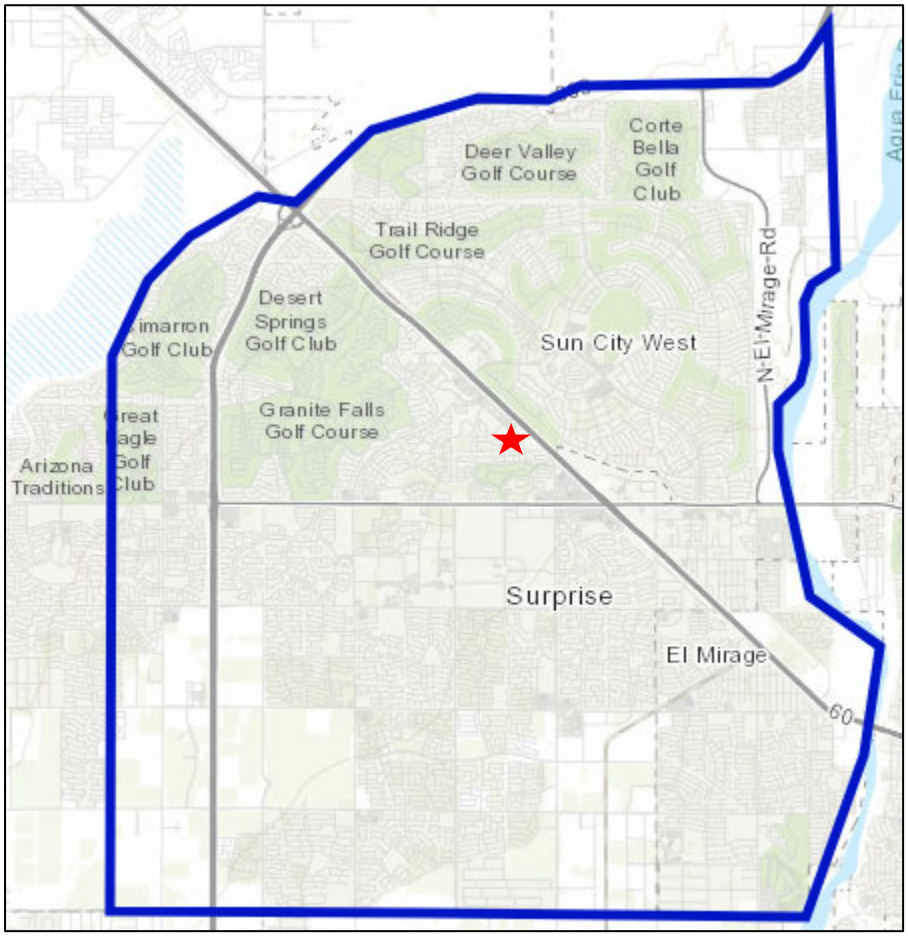
The retail marketplace has been significantly impacted by recent business cycles, e-commerce, and the rise of supercenters and warehouse clubs. Retailers have become much more cautious planning for new stores. Now more than ten years after the end of the Great Recession, retail development remains muted and nowhere near prior construction levels. This trend is likely to continue for the foreseeable future, especially with recent impacts related to COVID-19. This will negatively impact properties currently designated for commercial development.



The City of Surprise and the Primary Market Area is also well represented by major retailers such as Target, Lowe's, Home Depot, Walmart, Bed Bath & Beyond, Ross, Costco, Sam's Club, WinCo, and many neighborhood centers anchored by grocery stores, pharmacies, and fitness centers such as Fry's, Albertson's, Safeway, Walgreens, CVS, Mountainside Fitness, EOS, and others.

A Primary Market Area (PMA) is defined as "a division of a total market that reflects the preferences of a particular set of buyers and sellers."[1] it is the geographic area from which demand for a particular real estate product will arise and contains similar and, therefore, directly competitive real estate projects. The following map illustrates the subject site's PMA.

Primary Market Area Map



An important question related to a change in land use is its potential impact on the inventory of land available for future retail development. Adjusting retail vacancy from the current 2.5% to 5% representing a stabilized market, the PMA reports unmet demand for retail of approximately 185,200 square feet. The latest forecast for population growth in the PMA concludes that demand for additional retail land will total an additional 406,500 square feet for a total of 591,700 square feet, or the equivalent of 87.6 acres over the next 33 years (through 2055).

Forecasted retail demand is substantially lower than the estimated 6.0 million square feet of availability (combining 161,800 square feet of available space in existing centers and 877 acres of vacant commercial land) within the PMA. Compared to available vacant space and available commercial land, there is far too much land in the PMA designated for future retail development.

[1] *The Dictionary of Real Estate Appraisal,* Third Addition published by the Appraisal Institute.

Retail Supply/Demand Forecast N of NEC Grand Avenue & Bell Road Primary Market Area					
	Current Unmet Demand	2030	2040	2055	33-Year Total
Household Growth		4,786	1,967	2,161	**8,913**
New Retail Demand (SF)	185,160	218,261	89,703	98,557	**591,681**
New Retail Demand (acres)	27.4	32.3	13.3	14.6	**87.6**
Supply (Available for Additional Retail Development)					
				Acres	**SF**
Existing Retail Centers					161,755
Vacant Land				877	5,800,160
TOTAL					**5,961,915**
Sources: MAG, 2019; U.S. Consumer Expenditure Survey; AZ DOR; Maricopa County Assessor; City of Surprise; Elliott D. Pollack & Company					

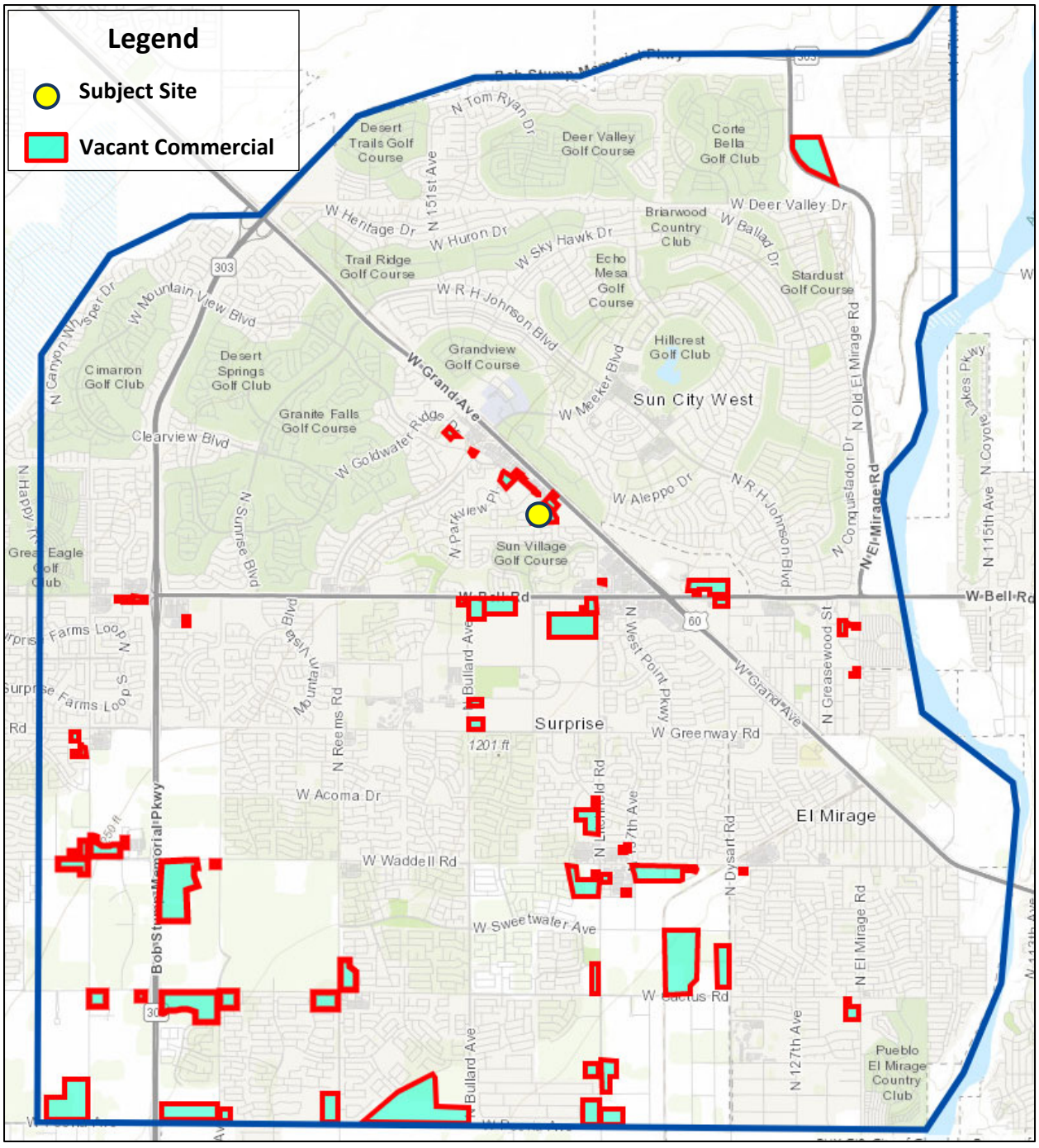
Current unmet demand will also soon be offset by retail development occurring throughout the PMA totaling nearly 872,200 square feet. The 700,000 square feet at Village at Prasada represents the vast majority of retail space under construction. This power center is nearly 100% pre-leased and includes notable tenants such as Sprouts, TJ Maxx, Home Goods, PetSmart, Fat Cats, Floor and Décor, Hobby Lobby, and many more.

Retail Development Pipeline - Under Construction N of NWC Grand Avenue & Bell Road Market Area		
Property Address	**Property Type**	**SF**
13020 Bell	Retail	6,111
13636 SW Waddell Rd & Litchfield Rd	Retail (Strip Center)	27,000
W Waddell Rd	Retail (Power Center)	700,000
14025 W Grand Ave	Retail	8,000
13550 N Litchfield Rd	Retail (Strip Center)	29,125
13630 N Litchfield Rd	Retail (Strip Center)	9,372
NWC Peoria & Cotton Ln	Retail (Strip Center)	63,290
13670 Waddell Rd & Litchfield Rd	Retail (Strip Center)	29,294
TOTAL		**872,192**
Source: Elliott D. Pollack & Company; Velocity Retail Group; Phoenix Commercial Advisors; Western Retail Advisors; Phoenix West Commercial; SRS Real Estate Partners; ZELL Commercial Real Estate Services; Cushman & Wakefield		

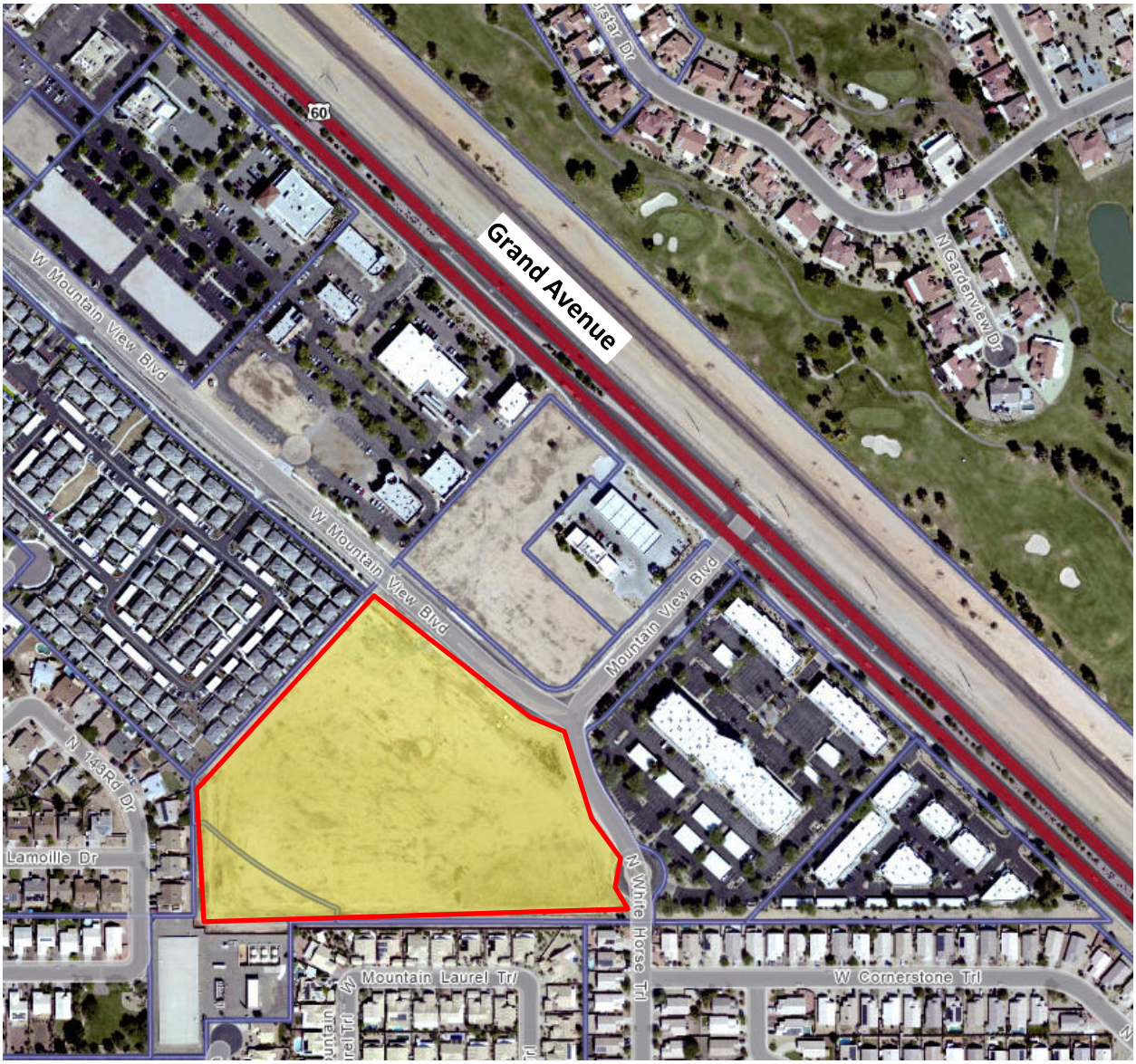
In addition, there are 18 other planned retail developments in the PMA which would create nearly 1.1 million square feet of space. In total, there is over 1.9 million square feet of commercial space either under construction or planned in the PMA.

The map below displays the supply of available commercial land in proximity to the subject site. There are numerous commercial sites located along Loop 303, Peoria Avenue, Cactus Road, Waddell Road, Surprise City Center, and Grand Avenue. Every one of these sites are competing with the subject site to attract commercial development. Additionally, compared to expected demand, commercial land in the area is considered excessively oversupplied. Many of the sites will not be needed for commercial development.

Commercial Supply Map – Primary Market Area



The subject site is at a disadvantage competitively with many of alternative sites with frontage and access along major arterials or the Loop 303 freeway. These sites enjoy better visibility, superior access, more traditional parcel shapes, and substantially higher traffic volumes. In contrast, the subject site is an irregular shape and located such that there is no visibility from Grand Avenue. It does not provide an intersection corner or frontage on a major arterial, but is instead an interior location, with the only frontage along Mountain View Boulevard (a collector street). Retailers have not shown interest in interior locations, especially with significant retail development so close along Grand Avenue and Bell Road.

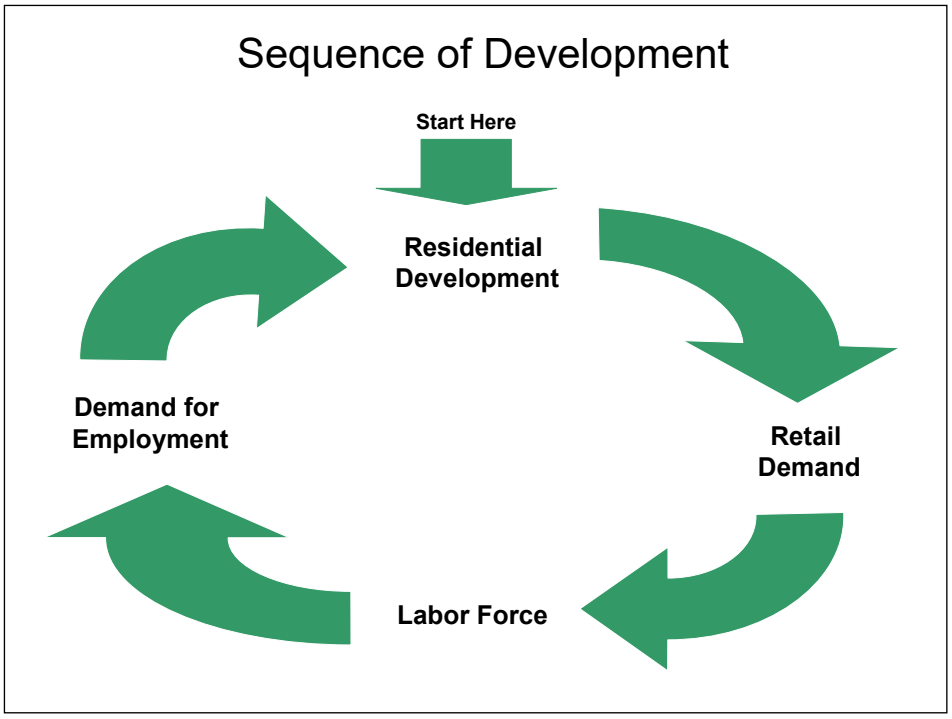


The subject site's disadvantages to competing sites identified above, combined with the fact that there is an excess of commercial land in the area, bodes poorly for the subject site's prospects to generate retail or other commercial development interest.

As mentioned previously, despite the fact that there are voids in the retail landscape locally, the study illustrates the difficulties facing brick-and-mortar retail, such as continuing growth in e-commerce and retailers pulling back on new store locations. In addition, the large amount of retail space already under construction, totaling nearly 872,200 square feet, represents an enormous influx of retail supply. Based on future population growth, the retail space currently under construction will provide sufficient retail space for decades of future growth in the primary market area.

A change to residential development will help support future retail assets within the City of Surprise. Each new additional resident will create demand for additional local serving retail. In total, residents that will come to live in the proposed new residential community will be comprised of household incomes that will be attractive to restaurateurs and retailers, averaging between $60,000 to $85,000 or more. **An estimated total of $5.1 million in annual disposable income spending on retail goods and services will be added to the area from the proposed community**. This includes demand for retail shopping, restaurant spending, and spending on a wide variety of services such as vehicle repair, healthcare, insurance, utilities, and other personal services. **Based on retail spending alone, the proposed developments will create demand for nearly 12,000 square feet of retail space**.

Continued residential development in all forms within the market area will be critical to the eventual success of existing retail assets and additional commercial development. As the graphic helps to illustrate, local residents will be the main source of retail demand. This residential development must come first, eventually building to a critical mass of residents to attract additional retailers.



In our opinion, the rezoning of the subject site to residential uses will not affect the region's efforts to continue to attract new commercial development to the community. The area has a significant inventory of commercial land that will provide for the long-term economic health of the community. Additionally, as a residential project, new residents will support existing and planned commercial development. Overall, the proposed change for residential uses:

1. Is compatible for the site given its characteristics, neighboring developments, and location.

2. Will accommodate new resident growth which will support existing and planned commercial development.

3. Will not harm the city's efforts to continue to attract new commercial development based on available land compared to expected demand.

4. Recognizes that many alternative sites have competitive advantages over the subject site in terms of location, visibility, access, and interest from retailers.

1.0 Purpose of Study

The purpose of this analysis is to determine the current and future demand for local and regional serving retail (including restaurants) in the market area surrounding the 11.76-acre subject site located north of the northwest corner of Grand Avenue and Bell Road. Our analysis consists of evaluating the current size of the Primary Market Area, its potential development capacity, the supply of retail and available land, as well as the demand for commercial uses based on the surrounding market area population, the demographic characteristics of that population, and future growth.

1.1 Report Outline

Our study will consist of the following tasks.

1. Identification of the market area surrounding the subject site that would provide most of the demand for the project.
2. A summary of the demographic characteristics of the population in the market area.
3. Current and forecasted population growth estimates for the market area.
4. Supply of available retail space and land in the market area.
5. A forecast and summary of recommendations on the potential demand for commercial uses within the Primary Market Area based on market conditions.
6. A calculation of local retail demand that would be created from the proposed residential community.
7. A residential analysis of the supply and demand characteristics in the primary market area.

1.2 Limiting Conditions

This study prepared by Elliott D. Pollack & Company is subject to the following considerations and limiting conditions.

- It is our understanding that this study is for the client's due diligence and other planning purposes.
- The reported recommendation(s) represent the considered judgment of Elliott D. Pollack and Company based on the facts, analyses and methodologies described in the report.

- Except as specifically stated to the contrary, this study does 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 user of this study will be responsible for making his/her own determination about the impact, if any, of these matters.

- This study is intended to be read and used as a whole and not in parts.

- Our analysis is based on currently available information and estimates and assumptions about long-term future development trends. Such estimates and assumptions are subject to uncertainty and variation. Accordingly, we do not represent them as results that will be achieved. Some assumptions inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, the actual results achieved may vary materially from the forecasted results. The assumptions disclosed in this analysis are those that are believed to be significant to the projections of future results.

2.0 Retail Market Overview

Market conditions existing today in the retail real estate sector have been severely affected by the growth of E-Commerce, the Great Recession, and most recently the economic shutdowns created by the COVID-19 pandemic. The last business cycle (2009-2020) exposed significant longer-term challenges for the brick-and-mortar retail market in Greater Phoenix and across the country. Compounding those issues, the COVID-19 pandemic suppressed local retail shopping in all but the most popular warehouse stores and grocers and shifted shopping patterns to online retailers. Future changes in shopping trends that will affect how the market performs over the long term. Following are some of those trends and challenges.

- **Domination:** The market has become dominated by big box retailers and power/community shopping centers.
- **Obsolescence**: Retailing is constantly changing resulting in some companies going out of business as others are entering the marketplace. Part of the problem for companies that are experiencing difficulties is the inability to anticipate trends in shopping patterns and the impact of alternative methods of purchasing goods and services. Currently, restaurants and value-oriented retail such as Walmart, Target, Ross, TJ Maxx, and others are the most viable in the market and actively expanding. The list of retailers and restaurants that are in bankruptcy or have been in bankruptcy is extensive and include:
  - Sears
  - Toys "R" Us
  - Sport Authority
  - Aeropostale
  - Beauty Brands
  - Shopko
  - Gymboree
  - Charlotte Russe
  - Payless Shoe Source
  - Diesel
  - Z Gallerie
  - Kona Grill
  - Perkins and Marie Callender's
  - Barneys New York
  - Forever 21
  - Destination Maternity
  - Avenue
  - Pier One
  - Charming Charlie
  - FTD
  - David's Bridal
  - Mattress Firm
  - Gump's
  - Brookstone
  - Rockport
  - Nine West
  - Claire's
  - Winn-Dixie
  - Bon-Ton
  - Rue21
  - BCBG Maxazria
  - Wet Seal
  - The Limited

The types of retailers that have experienced bankruptcies fall into a few categories. Bookstores long ago experienced significant declines in sales. More recently, clothing and accessory retailers, including shoe retailers, have experienced the most difficulties along with department stores and grocery chains. Department store sales have been declining for decades with the growth of low-cost supercenters and warehouse outlets. Grocery stores have come under attack from a wide range of retailers that have moved into the grocery business.

The traditional department store will continue to likely see declining sales. Macy's and Kohl's have reported sales slumps. JC Penney recently emerged from bankruptcy after being purchased by Simon Property Group (SPG) and Brookfield Asset Management.

- **Greater Phoenix is Over-Retailed:** Because of the Greater Phoenix region's tremendous history of growth, virtually all national retail chains want to be here, resulting in more retail space than is demanded by the population. According to the Lincoln Institute of Land Policy, the U.S. has 8.5 billion square feet of retail shopping center space or 24.5 square feet per person. By comparison, Maricopa County's population of more than 4.4 million has 34 square feet of retail space or 38% more than the national average. In the past, many national retail chains built stores in advance of growth to establish their market area. When growth slowed during the Great Recession, many planned stores were put on hold or abandoned. The coronavirus pandemic has further disrupted the growth of retail centers across the country and in Greater Phoenix.

- **Consolidation:** As retail market conditions change, consolidation of companies within the industry occurs. This trend has been particularly evident in the grocery store sector as chains try to compete with Walmart, Target and Costco. Local grocer Bashas' has been through bankruptcy and is likely still vulnerable.

- **Internet or E-Commerce Sales**: The long-term threat to brick-and-mortar retailing (and shifts from retail development to warehousing and distribution) is E-Commerce. Within the last 15 years, the market has seen seismic shifts in the manner in which people purchase retail goods and services. The COVID-19 pandemic has further pushed consumers towards internet-based purchases. Certain segments of the retail market have been particularly hard hit. A later section of this report will provide further information on the E-Commerce trend.

In summary, there are two major trends that have had a significant impact the retail market:

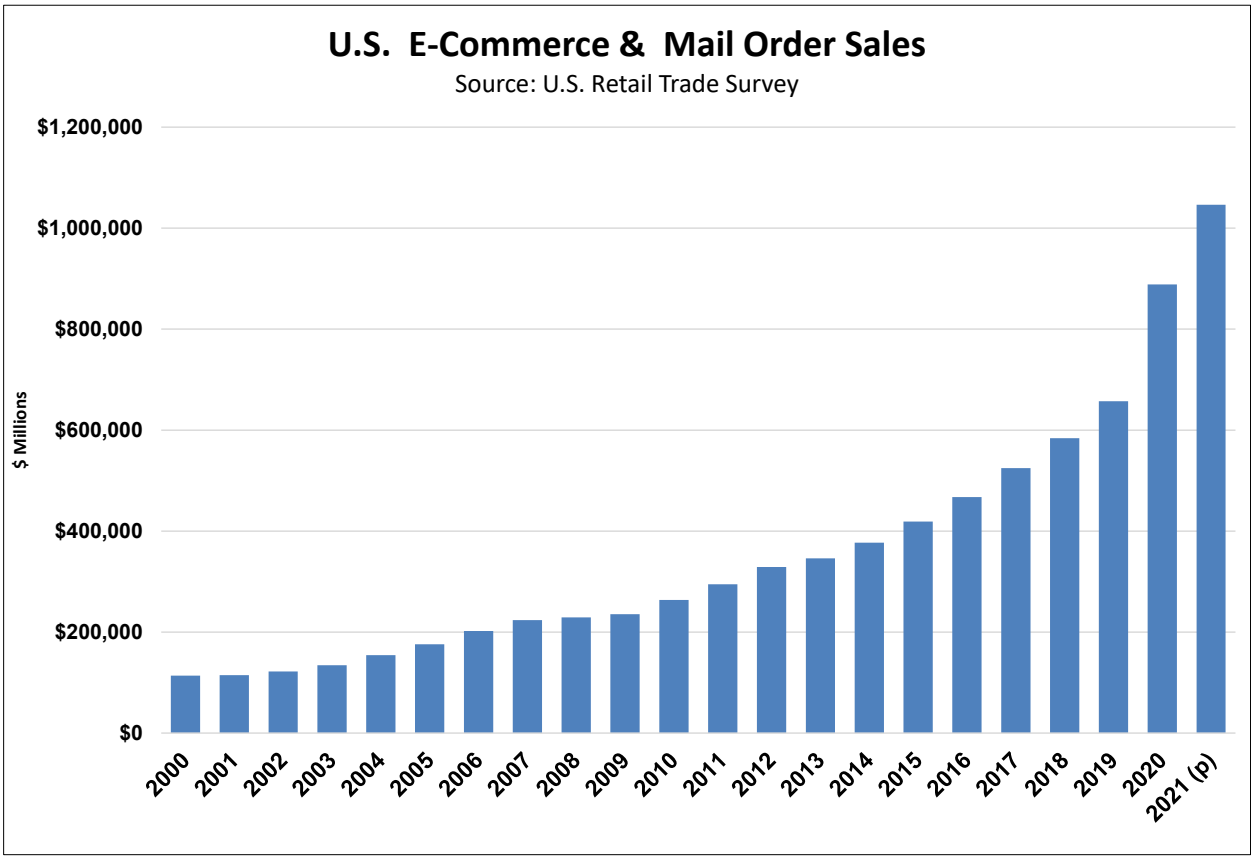
1. E-Commerce and
2. The rise of off-price retailers and low-price supercenters and warehouse outlets.

2.1 Impacts of E-Commerce

The U.S. Census defines E-commerce as "sales of goods and services where the buyer places an order, or the price and terms of the sale are negotiated, over an Internet, mobile device, extranet, Electronic Data Interchange (EDI) network, electronic mail, or other comparable online system. Payment may or may not be made online".

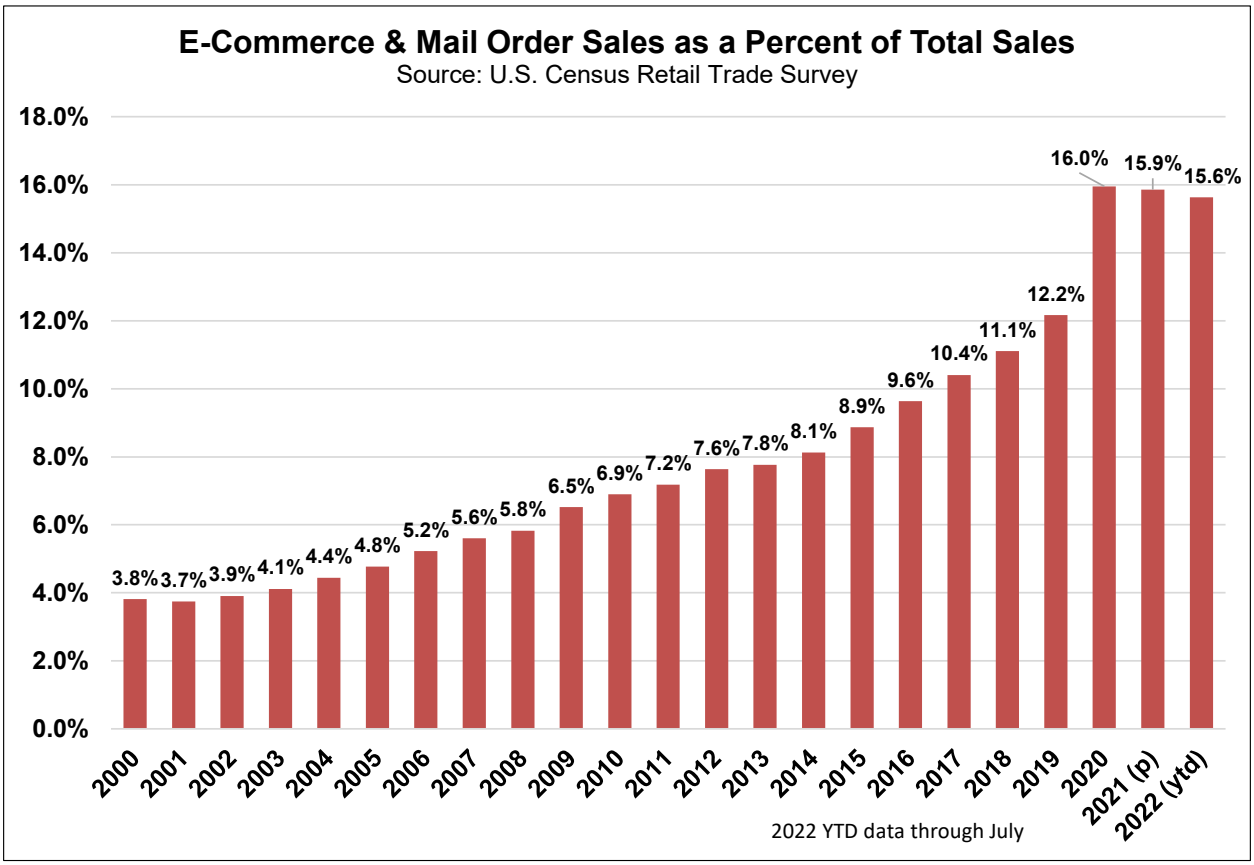
The above definition technically excludes mail order sales from catalogs or other mail-order businesses. It does not include such businesses as mail-order book clubs. However, most catalog and book club purchases today are made over the internet and should properly be categorized as E-Commerce. For this study, mail order sales will be included in E-Commerce sales data.

Between 2000 and 2021, E-Commerce sales have grown by over nine-fold to $1.04 trillion, accounting for 15.9% of all retail sales in 2021. The coronavirus pandemic had a significant impact on retail sales patterns pushing normal in-store purchases to online. Preliminary data for 2021 from the U.S. Census shows that 2021 E-Commerce sales have increased by 17.8% over 2020. This follows an annual increase of 35.2% in 2020.



1.

Comparing preliminary 2021 data and 2022 data through July, E-Commerce sales comprised 15.9% of total sales in 2021 and 15.6% of sales through the first seven months of this year. Due to the shutdown of the economy in March 2020 and peoples' desires to avoid crowds through the rest of the year, an above trendline portion of retail sales went to electronic shopping in 2020, jumping from 12.2% of sales in 2019 to 16.0% of sales in 2020. It appears that despite the decline in COVID cases, increased vaccination rates, and a return to more normal working conditions, the return to in-store shopping did not fully materialize and online shopping has largely maintained the jump in market share.



2.2 Impact of Superstores and Warehouse Clubs

In addition to the impact of E-Commerce on brick-and-mortar outlets, the expansion of superstores, such as Target and Walmart, and warehouse clubs, such as Costco, has resulted in a shift of retail spending from traditional department stores and small retailers. Off-price and value-oriented retailing has become the driving force in the retail sector. The following chart illustrates the shift in spending.

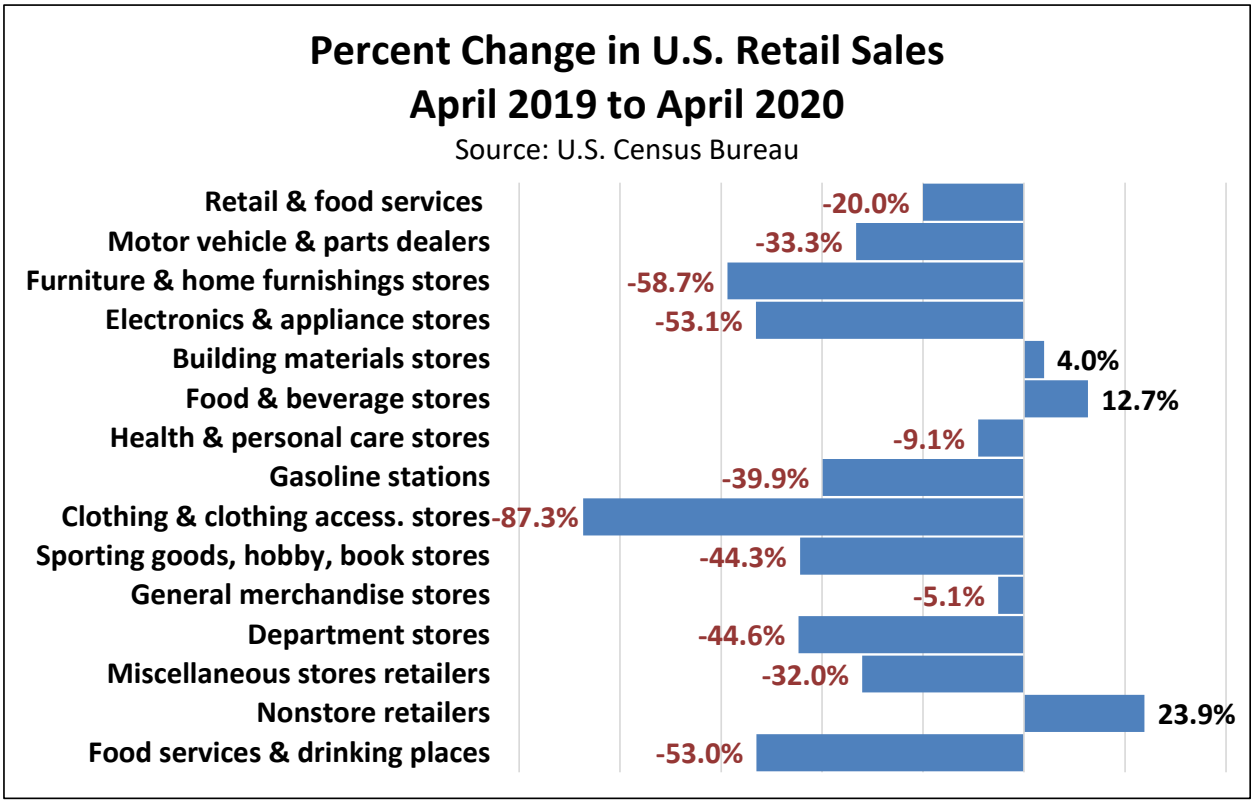
In 2000, spending at traditional department stores in the U.S. totaled more than $96 billion. Today, that spending has declined to less than $31 billion, resulting in the closure of many national and regional department store chains and bankruptcies such as Sears. By comparison, spending at supercenters and warehouse clubs ballooned from $140 billion in 2000 to $575 billion in 2021. Power centers anchored by Walmart, Target, Home Depot, Lowes and similar big-box retailers have become the primary outlets for retail sales.

2.3 COVID-19 Impacts

The trend away from consumer spending in department stores has been occurring over the past 20 years and is likely now accelerated due to COVID-19. Retailers that fared well during the pandemic include Walmart, Target, Home Depot, and a variety of grocery store chains. However, there were declines in sales at many other retailers. Restaurants and bars sustained significant reductions, as did fitness centers. The timing and extent of the reopening of the economy allowed these establishments to offset some losses, but some portion has been lost permanently.

The following chart provides some insight into retail sales patterns due to the pandemic. The data compares U.S. spending in April 2020 to April 2019. Virtually all retail sectors experienced

substantial losses, especially clothing, furniture, motor vehicles, sporting goods, department stores, and restaurants and bars. The winners in April were building materials, groceries, and non-store retailers (E-Commerce). Even general merchandise stores, which includes Walmart, Costco, and Target, show a loss of sales in April. Preliminary data shows these three retailers experienced growth in sales in April, but it was not enough to offset the losses of other general merchandise operators. Non-store retailers, primarily comprised of E-Commerce retailers, were the clear winners in April. The data shows the consumer's preferences for essential purchases while honoring stay-at-home recommendations. Non-essential purchases have shifted to E-Commerce to avoid travel and congregating in crowds to socially distance.

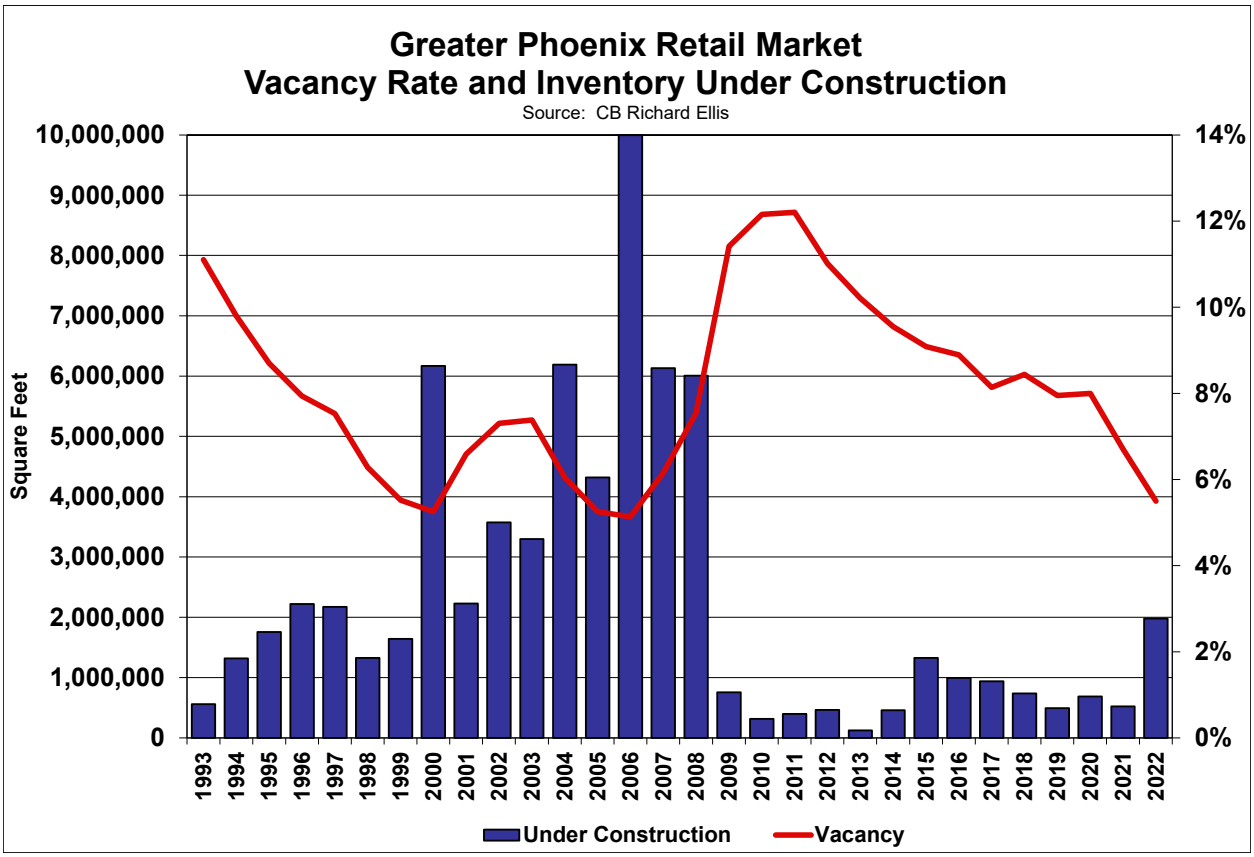


2.4 Greater Phoenix Retail Market

The Greater Phoenix retail vacancy rate has experienced a gradual decline over the last decade from its previous peak of over 12% to 5.5% in the second quarter 2022. However, even with the tightening of the market, new construction activity remains disciplined. During this time, construction activity has been dominated by grocery-anchored projects with Sprouts, Fry's and Whole Foods as primary tenants. Power center development has largely been absent from the market until recently with the Village at Prasada in Surprise under construction totaling 700,000 square feet and a few more in the planning stages.

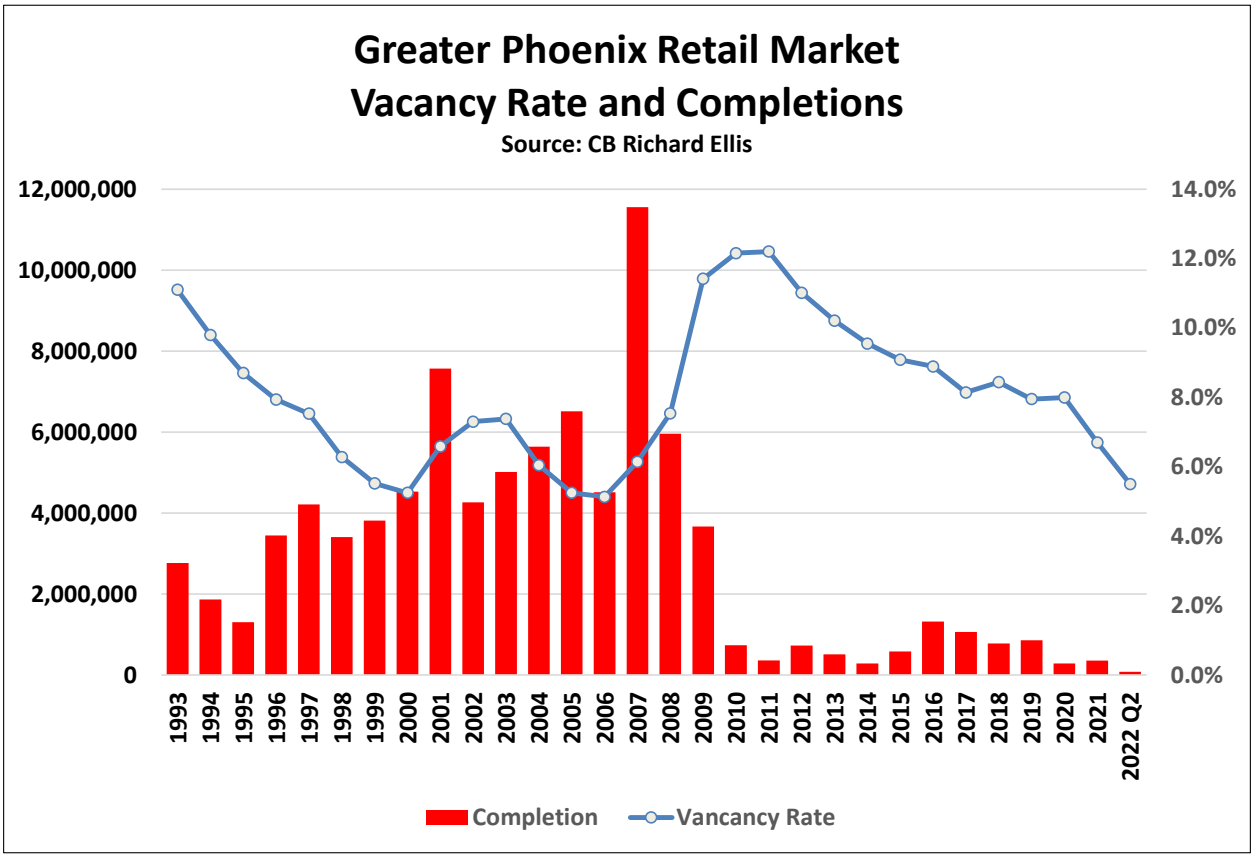
Much of the absorption of space in Greater Phoenix over the past few years has been due to fitness and entertainment users backfilling vacant big-box and grocery store space. Since 2016, fitness users have absorbed 35 big-box spaces totaling over 1.0 million square feet. Due to demand for affordable fitness concepts, users like EoS Fitness, Planet Fitness, and LA Fitness are adding to their existing footprints. Newcomers include Crunch Fitness and VASA Fitness.

With the population and employment growth of Greater Phoenix area over the past two years, in addition to the muted construction activity of the past 10 years, the retail market is now responding with more construction activity, with nearly 2 million square feet under construction. This is still far below development activity prior to 2010 but a significant uptick from recent years.



Greater Phoenix is in the top three metro areas in the country in job and population growth. Delivered retail space still is well below historic levels. Once again, E-Commerce and the popularity of supercenters and warehouse outlets is limiting extensive development of new retail space.

Since 2010, retail space delivered to the market has averaged 650,000 square feet annually or the equivalent of three to four neighborhood shopping centers each year. In 2020, only 286,300 square feet of retail space was delivered, and 355,500 square feet was delivered in 2021. Deliveries through the second quarter of 2022 total just 77,100 square feet, well below the already modest 10-year average. Deliveries should increase by the end of the year.

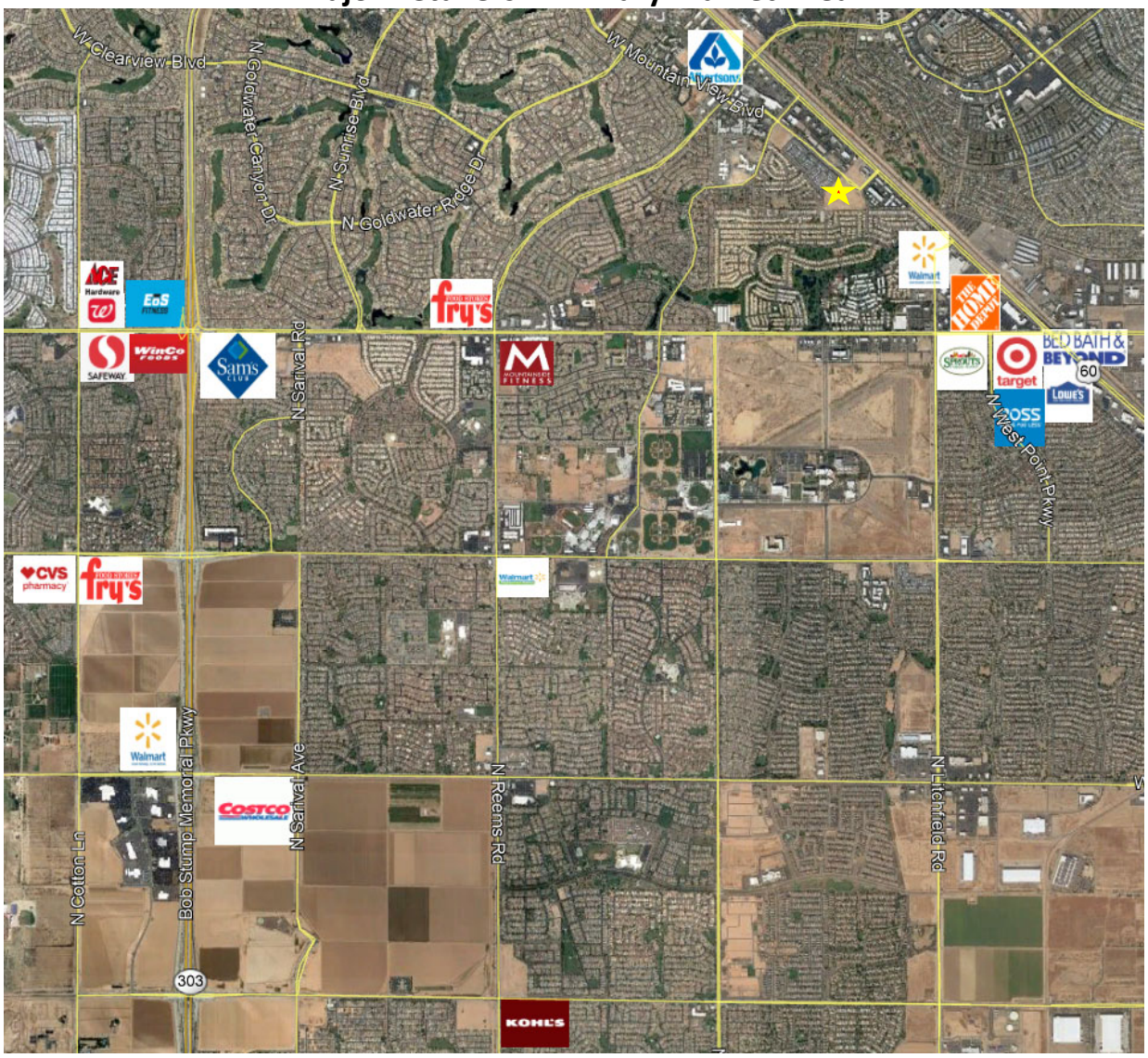


2.5 Surprise/PMA Retail Market

The Loop 303 corridor between Cactus and Bell as well as the Bell Road corridor from Cotton Lane to Grand Avenue have a significant mix of retail development including a large power center. The range of types of retail outlets and merchandisers is extensive and provides for the daily needs of residents. A number of grocery retailers are also located in the area.

An aerial photo of the primary anchor tenants in relation to the subject site's Primary Market Area is provided on the following page.

Major Retailers – Primary Market Area



The PMA currently has an estimated 7.5 million square feet of retail space and current vacancy is only 2.5% compared to the county average of 5.5%, indicating pent up demand. Adjusting vacancy to balanced market conditions, the PMA could accommodate an additional 185,200 square feet.

In terms of pipeline, there is currently a substantial amount of retail construction in the PMA totaling nearly 872,200 square feet. The 700,000 square feet at Village at Prasada represents the vast majority of retail space under construction. This power center is nearly 100% pre-leased and includes notable tenants such as Sprouts, TJ Maxx, Home Goods, PetSmart, Fat Cats, Floor and Décor, Hobby Lobby, and many more. These developments will satisfy current unmet needs.

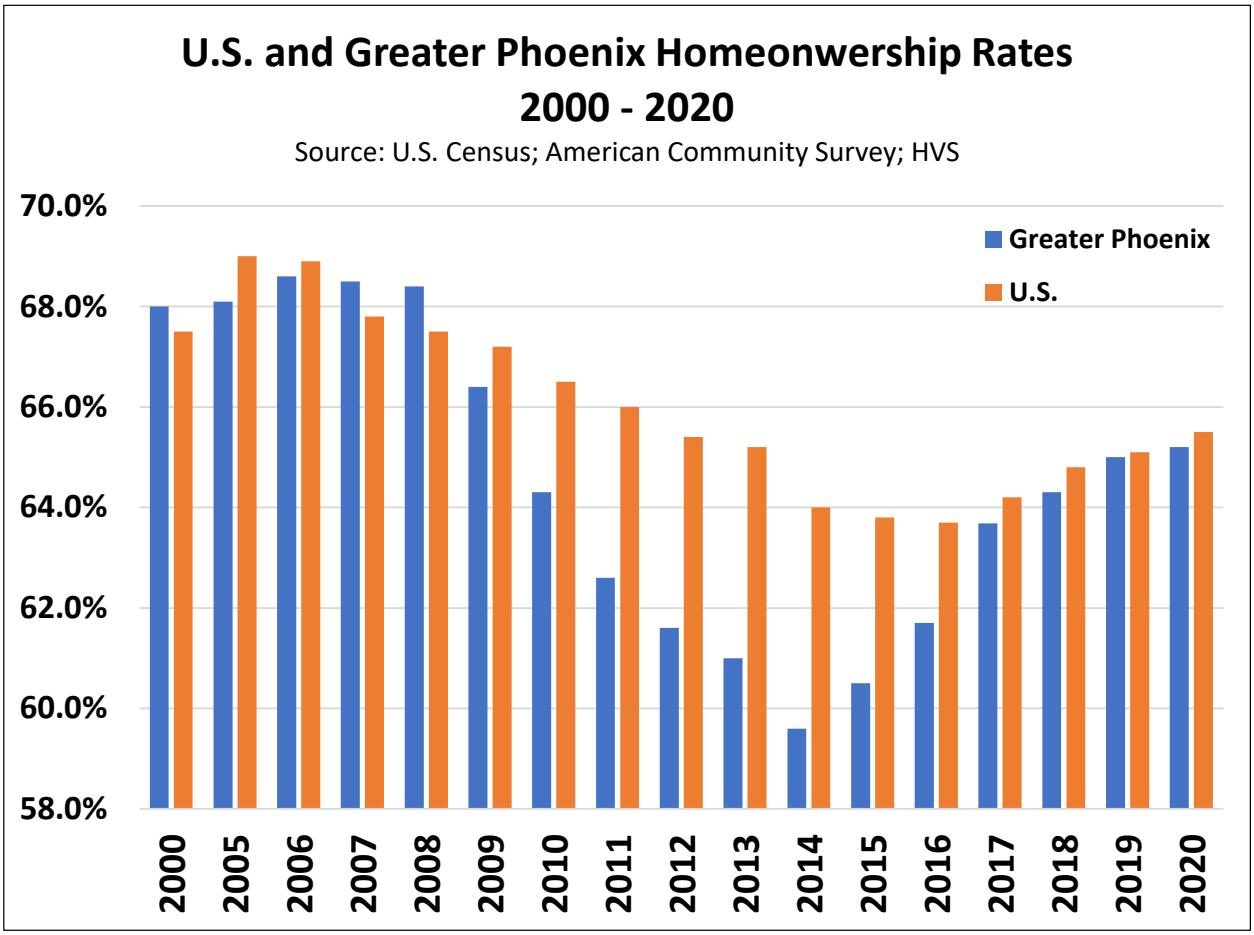
Retail Development Pipeline - Under Construction N of NWC Grand Avenue & Bell Road Market Area		
Property Address	**Property Type**	**SF**
13020 Bell	Retail	6,111
13636 SW Waddell Rd & Litchfield Rd	Retail (Strip Center)	27,000
W Waddell Rd	Retail (Power Center)	700,000
14025 W Grand Ave	Retail	8,000
13550 N Litchfield Rd	Retail (Strip Center)	29,125
13630 N Litchfield Rd	Retail (Strip Center)	9,372
NWC Peoria & Cotton Ln	Retail (Strip Center)	63,290
13670 Waddell Rd & Litchfield Rd	Retail (Strip Center)	29,294
TOTAL		**872,192**
Source: Elliott D. Pollack & Company; Velocity Retail Group; Phoenix Commercial Advisors; Western Retail Advisors; Phoenix West Commercial; SRS Real Estate Partners; ZELL Commercial Real Estate Services; Cushman & Wakefield		

In addition, there are 18 other planned retail developments in the PMA which would create nearly 1.1 million square feet of space. In total, there is over 1.9 million square feet of commercial space either under construction or planned in the PMA.

3.0 Residential Market Overview

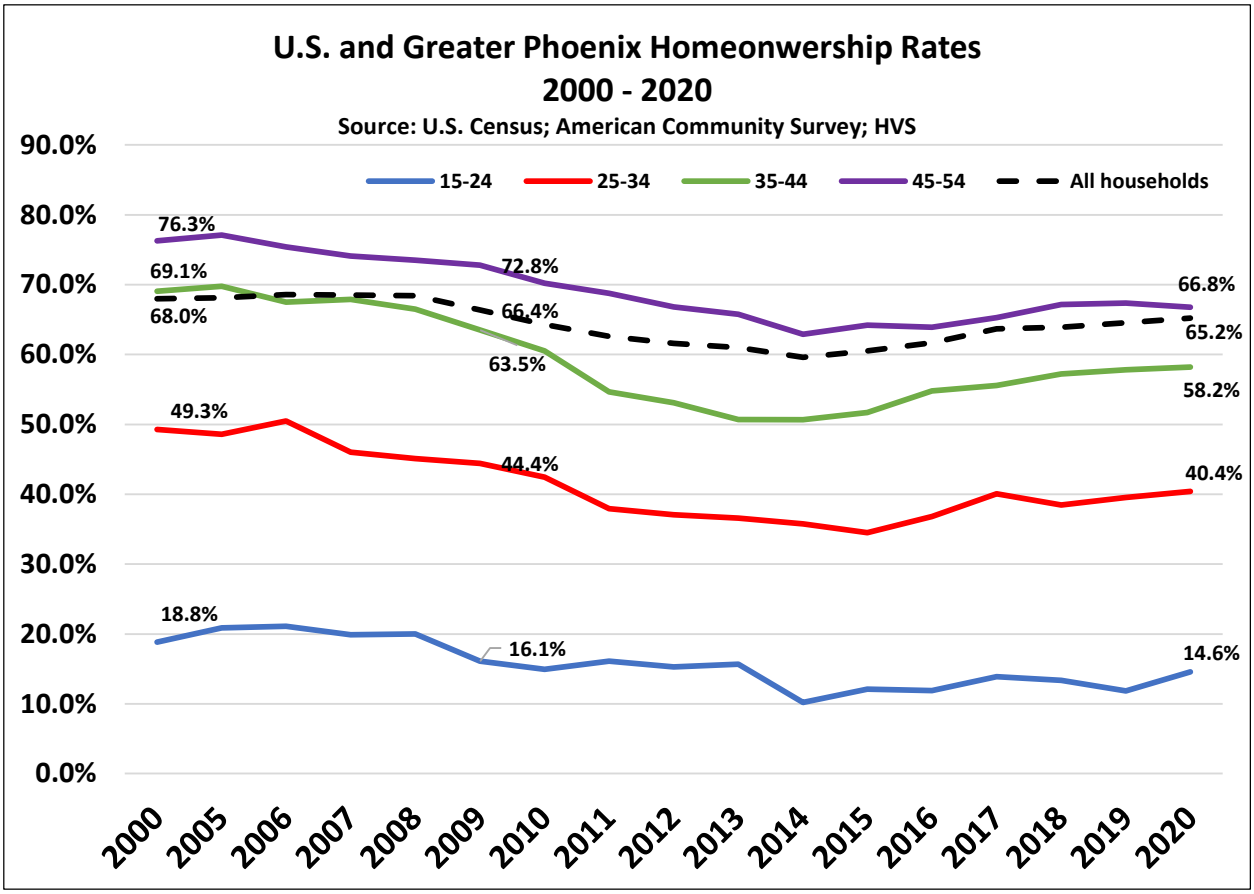
During the Great Recession, Greater Phoenix experienced a downturn that was more severe than in other metropolitan areas of the country, a result of overbuilding in both the single family and commercial real estate sectors. Real estate market downturns have occurred before in Greater Phoenix but not to this extent. However, excess inventories have all been absorbed and the area now faces a shortage of housing.

Homeownership rates in Greater Phoenix fell to historic lows between 2006 and 2014, declining to 59.6%. Comparatively, the homeownership rate for the U.S. only declined approximately five percentage points between 2005 and 2016. Greater Phoenix has made a significant recovery with its homeownership rate and is now essentially equal to the U.S. rate just above 65%. While homeownership in Greater Phoenix and the country is improving, it still has not recovered to pre-recession levels. This means that there are a higher percentage of renters in the marketplace.



One factor driving the demand for the multi-family market is the Millennial population. Millennials have delayed purchasing homes and forming families as they struggle with student debt and the psychological effects of the Great Recession. The homeownership rate for the 25-

to 34-year-old age group, which includes most Millennials, declined from near 50% in 2000 (before the housing bubble) to 35% in 2015. The homeownership rate for all age groups is now rising but is still below pre-recession levels. As a result, the demand for multi-family units has increased significantly over the past several years to accommodate this demand for housing.



Over the past 12 months, Greater Phoenix reported 23,783 new single family home sales. Over this same time period, median new home prices have increased 30.6% year over year. The median new home price across the Valley is now $478,600 compared to $366,500 one year ago.

New home permits in Greater Phoenix have totaled 27,462 permits over the last 12 months. The discrepancy between permit activity and closings highlights the issues builders are facing to complete homes due to a lack of labor and supply chain disruptions. Permit activity has also been declining since February and has now reached 36% below same month last year. Year-to-date permits are now down 16.2% compared to last year.

Resale activity in 2021 increased nearly 15% year over year. However, that trend has reversed in 2022 and sales activity is down nearly 15% year to date. Resale price appreciation is still overwhelmingly positive on a year over year basis at 10.0%. The median resale home price across the Valley is now $440,000 compared to $400,000 12 months ago. However, resale pricing peaked in May at $470,000 and has declined 6.4% over the last two months.

SUMMARY OF METRO PHOENIX HOUSING MARKET ACTIVITY THROUGH AUGUST 2022
GREATER PHOENIX METROPOLITAN STATISTICAL AREA

	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
NEW HOME CLOSINGS													
CLOSINGS BY MONTH	1,982	2,257	1,794	1,842	2,502	1,434	1,726	2,190	1,785	2,213	2,115	1,737	2,188
SAME MO LAST YEAR	2,107	2,250	2,212	2,009	2,496	1,497	1,780	2,274	1,960	2,273	2,151	1,727	1,982
PERCENT CHG	-5.9%	0.3%	-18.9%	-8.3%	0.2%	-4.2%	-3.0%	-3.7%	-8.9%	-2.6%	-1.7%	0.6%	10.4%
YTD CLOSINGS	15,644	17,901	19,695	21,537	24,039	1,434	3,160	5,350	7,135	9,348	11,463	13,200	15,388
YTD CLOSINGS LAST YR	15,396	17,646	19,858	21,867	24,363	1,497	3,277	5,551	7,511	9,784	11,935	13,662	15,644
PERCENT CHG	1.6%	1.4%	-0.8%	-1.5%	-1.3%	-4.2%	-3.6%	-3.6%	-5.0%	-4.5%	-4.0%	-3.4%	-1.6%
MED NEW PRICE	$366,476	$392,989	$415,179	$382,232	$420,505	$437,769	$448,237	$455,382	$455,403	$467,990	$470,490	$478,844	$478,603
MED PRICE % CHANGE	-6.34%	7.23%	5.65%	-7.94%	10.01%	4.11%	2.39%	1.59%	0.00%	2.76%	0.53%	1.78%	-0.05%
NEW HOME PERMITS													
PERMITS BY MONTH	2,283	2,178	2,044	2,045	2,529	2,540	2,764	3,267	2,549	2,377	2,031	1,677	1,461
SAME MO LAST YR	2,537	2,993	2,912	2,489	2,698	2,509	2,776	3,480	3,159	2,578	2,578	2,691	2,283
PERCENT CHG	-10.0%	-27.2%	-29.8%	-17.8%	-6.3%	1.2%	-0.4%	-6.1%	-19.3%	-7.8%	-27.5%	-37.7%	-36.0%
YTD PERMITS	22,273	24,451	26,495	28,540	31,069	2,509	5,273	8,540	11,111	13,488	15,519	17,196	18,657
LAST YTD PERMIT	17,873	20,866	23,778	26,267	28,965	2,182	5,285	8,765	11,918	14,496	17,299	19,990	22,273
PERCENT CHG	24.6%	17.2%	11.4%	8.7%	7.3%	15.0%	-0.2%	-2.6%	-6.8%	-7.0%	-10.3%	-14.0%	-16.2%
RESALES													
RESALE COE BY MONTH	10,670	10,929	10,929	10,190	10,144	8,136	8,965	11,522	10,718	10,443	9,303	6,886	6,645
SAME MO LAST YR	9,390	10,034	10,745	9,560	10,811	8,152	8,882	11,727	11,896	11,048	11,048	10,797	10,670
PERCENT CHG	13.6%	8.9%	1.7%	6.6%	-6.2%	-0.2%	0.9%	-1.7%	-9.9%	-5.5%	-15.8%	-36.2%	-37.7%
YTD RESALES	85,183	96,112	107,041	117,231	127,375	8,152	17,101	28,623	39,341	49,784	59,087	65,973	72,618
LAST YTD RESALES	69,847	79,881	90,626	100,186	110,997	7,534	17,034	28,761	40,657	51,705	51,705	74,513	85,183
PERCENT CHG	22.0%	20.3%	18.1%	17.0%	14.8%	8.2%	0.4%	-0.5%	-3.2%	-3.7%	14.3%	-11.5%	-14.8%
MED RES PRICE	$400,000	$405,400	$410,000	$418,000	$420,000	$425,000	$440,000	$450,000	$461,000	$470,000	$470,000	$451,825	$440,000
MED PRICE % CHANGE	0.25%	1.35%	1.13%	1.95%	0.48%	1.19%	3.53%	2.77%	2.44%	1.95%	0.00%	-3.87%	-2.62%

Source: RLBrownReports.com

Rent and vacancy data was obtained from RealData, a multi-family data vendor that compiles information on all multi-family communities with at least 50 units. According to RealData, at the end of 2021, there were approximately 338,563 conventional multi-family units in 1,624 communities. An additional 6,712 units have been delivered in 2022. Since the end of the recession in 2009, an estimated 89,044 units have been built, a 35% increase in total inventory.

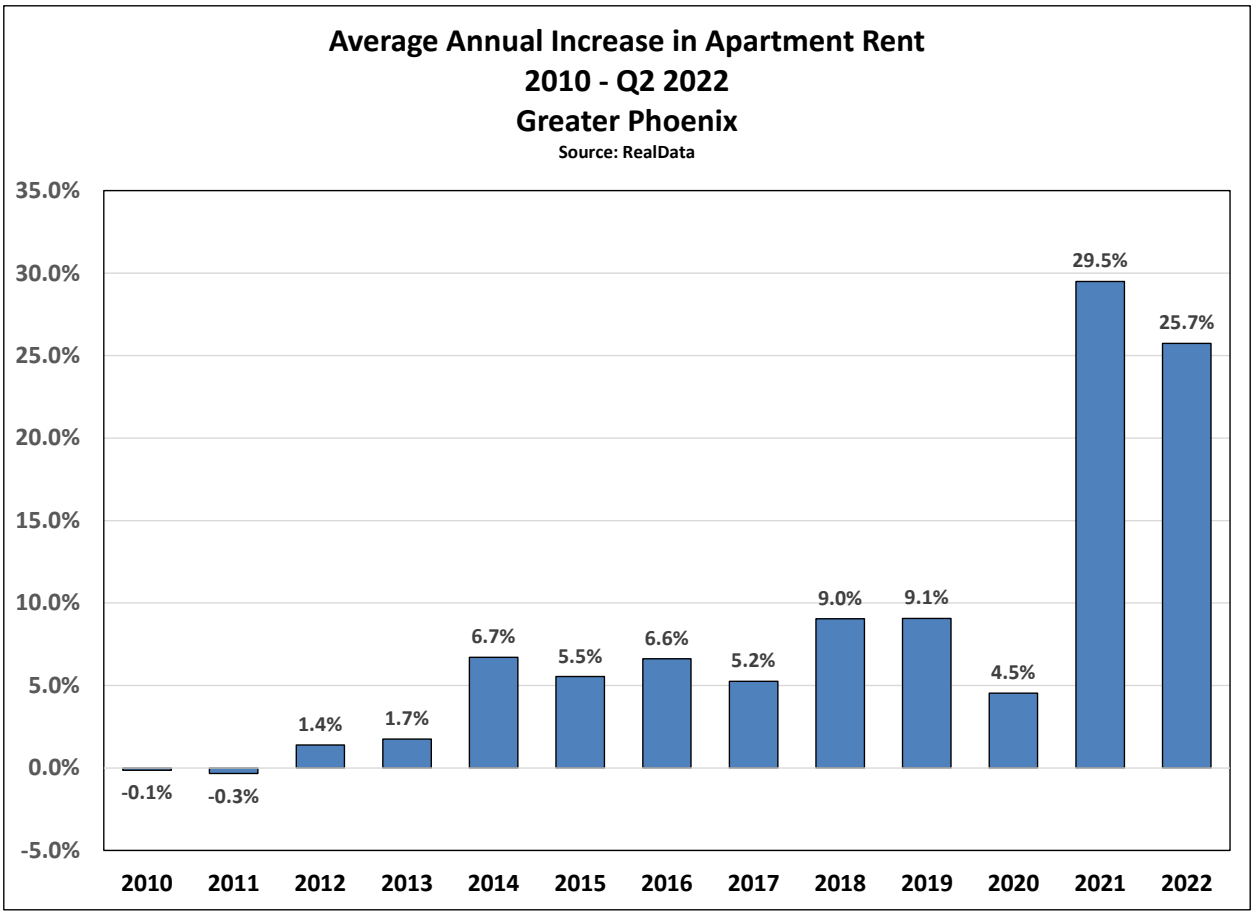
Vacancy rates peaked in 2009 at 14.9% as more units were brought to the market during a time of weak absorption. That trend ended in 2010 with reported absorption of nearly 11,000 units, lowering the average county vacancy rate to 11.2%. Very weak construction activity followed from 2010 to 2013, but in 2014 the supply of multi-family units began to increase rising to more than 10,000 newly constructed units in 2017. In the last two and a half years a total of 32,800 units have been delivered. However, the Valley remains substantially undersupplied.

Monthly rents have risen by $697 since 2016 or an average of 13.9% each year. In 2021, the average rent increased to $1,531 per month or $1.82 per square foot of livable area. This is a substantial jump from the year prior, a 29.5% increase in rent and 28.8% increase in price per square foot. In the second quarter of 2022, rents have increased 25.7% year over year to $1,601 or $1.91 per square foot. This again reiterates the substantial undersupply of units in the market.

Greater Phoenix Apartment Market Trends
2009 - Q2 2022

Year	Communities	Units	Change in Inventory	Average Rent/Unit	Average Rent/SF	Vacancy Rate
2009	1,231	256,231	-	$733	$0.90	14.9%
2010	1,244	257,672	1,441	$732	$0.90	11.2%
2011	1,251	258,896	1,224	$729	$0.90	9.8%
2012	1,259	260,469	1,573	$740	$0.91	8.8%
2013	1,278	264,299	3,830	$753	$0.92	7.9%
2014	1,305	266,747	2,448	$803	$0.97	7.4%
2015	1,331	277,454	10,707	$847	$1.03	7.3%
2016	1,374	285,472	8,018	$904	$1.09	7.3%
2017	1,421	295,505	10,033	$951	$1.15	7.9%
2018	1,457	303,967	8,462	$1,037	$1.24	7.3%
2019	1,494	312,464	8,497	$1,131	$1.35	7.0%
2020	1,549	323,480	11,016	$1,182	$1.42	6.7%
2021	1,624	338,563	15,083	$1,531	$1.82	6.9%
2022	1,651	345,275	6,712	$1,601	$1.91	7.9%

Source: RealData

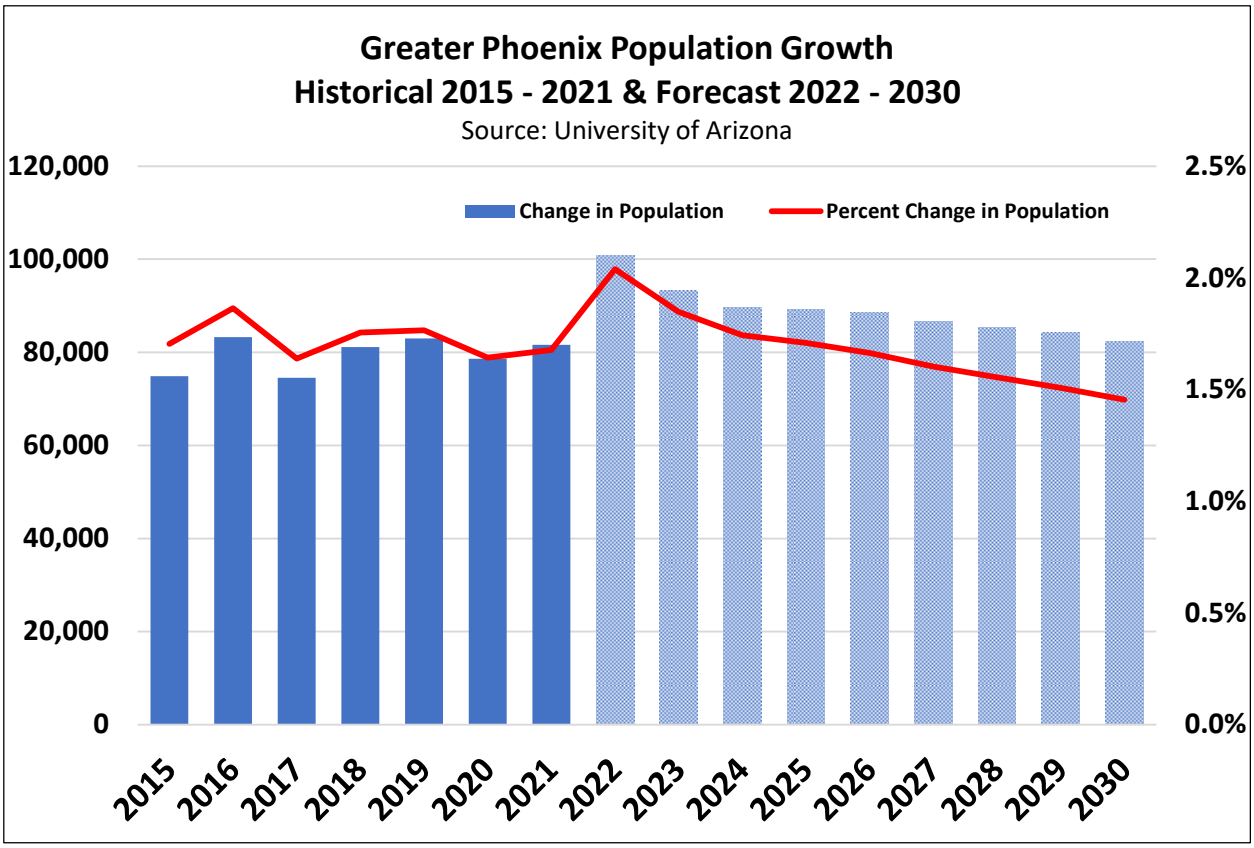


3.1 Forecasts

Employment and population growth forecasted for the Greater Phoenix area will continue to create demand for new residential units. Prior to the recession, Greater Phoenix historically grew in population at an average rate of 3.5% per year. Since that time, the percentage growth in population has only exceeded 2.0% in one year – 2017. The reduction in the growth rate is partly due to the fact that Greater Phoenix has become a large metro area with just under 5 million persons.

The latest forecast from the University of Arizona (Q3 2022) suggests a slowing of population growth occurred for 2020 with a slight rebound in 2021 and a large jump in 2022 as the impact of the pandemic diminished.

There is still a great amount of risk and uncertainty in the forecast with a projected recession that could occur in 2023. However, Arizona and Greater Phoenix thus far have outperformed the country in unemployment trends and rebounds in employment growth in past business cycles.



While mobility across the U.S. has decreased since the Great Recession, Greater Phoenix has attracted a significant number of new residents over the last few years. In 2018 and 2019, the region was one of the leaders in population growth in the nation. According to the U.S. Census, Greater Phoenix was the second fastest growing metro area in terms of absolute population increase with nearly 100,000 new residents each year (Note: the U.S. Census estimates vary from estimates from the University of Arizona that are cited in the above chart). Because of its overall size at more than 4.9 million persons, Greater Phoenix ranks third in percentage growth in 2019 behind only Austin and Raleigh which are much smaller metro areas.

One of the drivers of Arizona's economy is population growth. In 2019, Arizona was the second highest destination for people moving in the U.S. from one state to another. With the pandemic, people aren't moving as much right now. However, over the long term, in-migration to Arizona should return, creating demand for both single family and multifamily housing. In fact, the pandemic may benefit Arizona as people and companies choose to relocate to less dense environments that are more suburban in character.

Greater Phoenix is also a top 10 metro area in employment growth. In 2018, 68,100 jobs were created, second only to the Dallas-Fort Worth area. On a percentage basis, Greater Phoenix

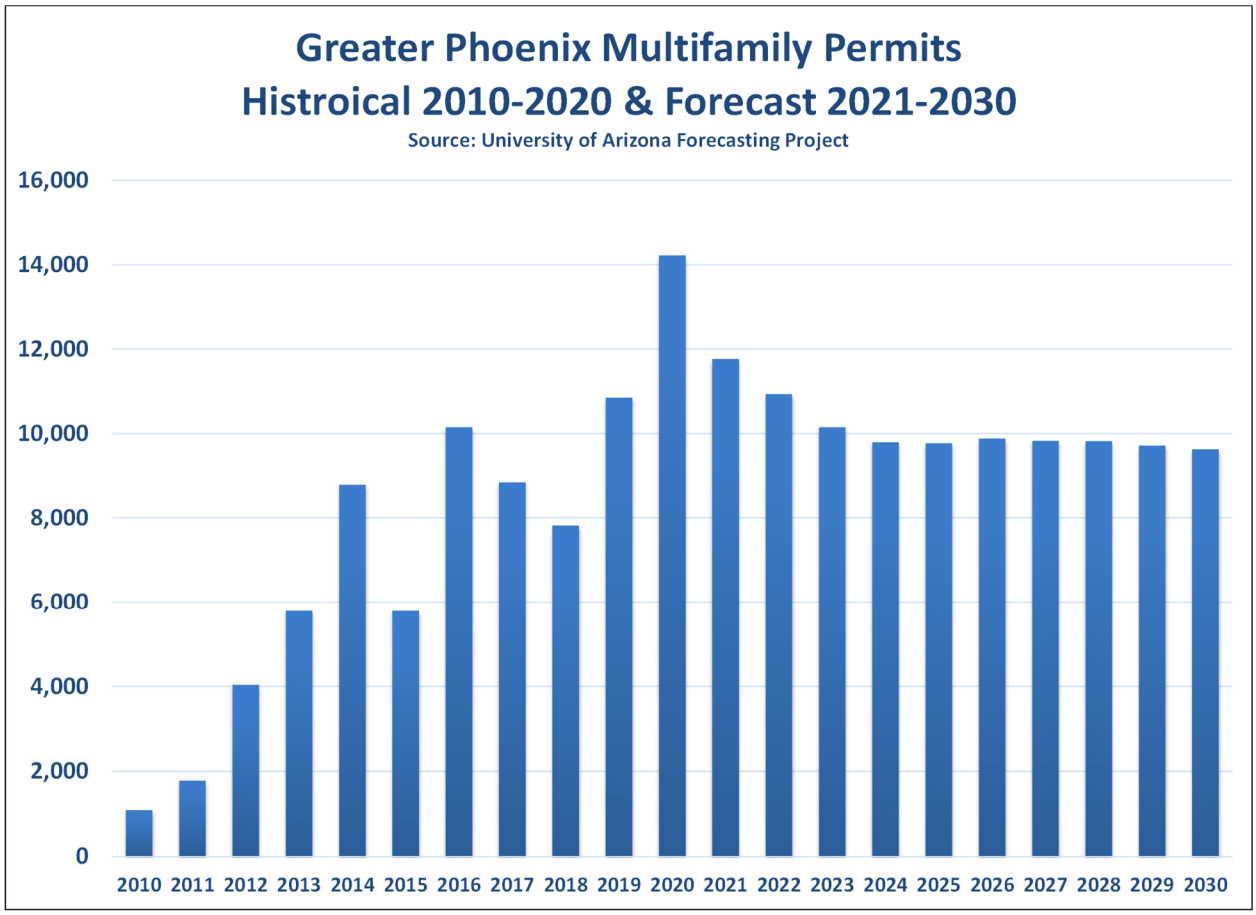
ended with a job increase of 3.34% for the year. The increase in job growth was replicated in 2019 but on a percentage growth basis, Greater Phoenix ranked fifth.

Prior to the pandemic, Greater Phoenix had fully recovered from the Great Recession. After losing 239,800 jobs in the recession, it has regained another 443,500 jobs (185% of jobs lost) since the bottom of the job market in September 2010.

The outlook for job growth in Greater Phoenix over the next two years is still uncertain due to the pandemic. The University of Arizona's current estimate reports a loss of between 42,500 jobs in 2020. These numbers represent the average loss of jobs during the year and do not take into account the large job losses that occurred in March and subsequently recovered through the rest of the year. The most likely forecast suggests a recovery and increase in jobs in 2021 (39,300 over 2019 peak), while the pessimistic forecast also expects the full recovery to occur in 2021 but with fewer gains (8,785 over 2019 peak).

With the growth in population forecasted for Greater Phoenix, housing will continue to be in demand for the foreseeable future. Although employment in certain sectors suffered in 2020, job growth has returned and will continue in 2021 with an estimated growth rate of 4.0%. The region is expected to exceed that growth in 2022 (5.3%) and 2023 (4.3%).

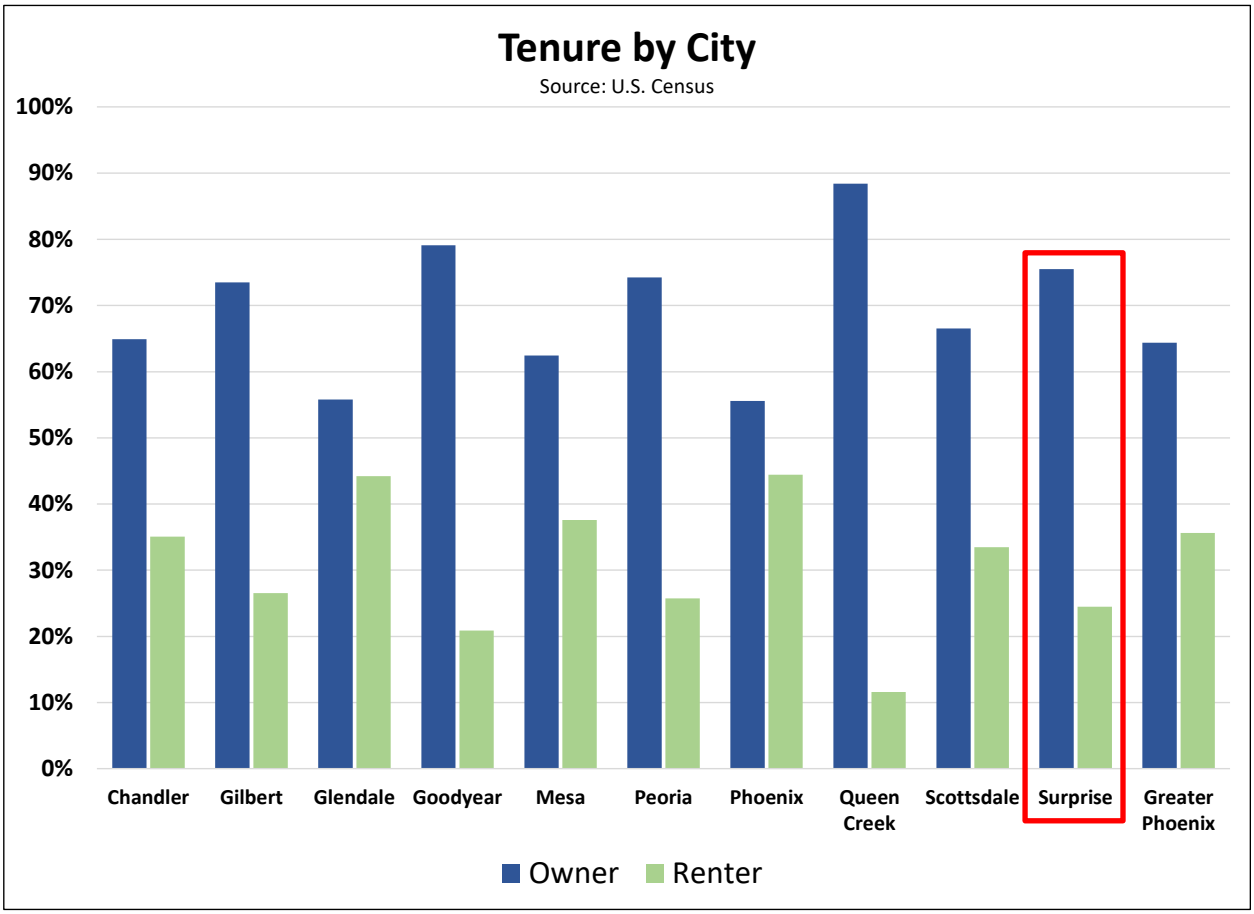
In order to accommodate the influx of new residents to Greater Phoenix, University of Arizona forecasts approximately 10,100 multifamily units to be built each year over the next ten years, representing 26%-28% of all new residential units. The University of Arizona's most likely forecast calls for 101,300 new multifamily permits through 2030. The pessimistic forecast is slightly lower at 90,300 permits.



Due to the dramatic rise in home prices, it is likely that the percentage of renter households will increase over time. With that dynamic and the current undersupply of rental units in the market today, it would not be unreasonable to expect as many as 15,000 rental units demanded per year. It is uncertain whether or not the construction industry has the capacity to deliver that volume of units.

3.2 Residential Inventory

City of Surprise is currently overweighted in terms of single family detached product and owner-occupied units. The following chart illustrates the mix of owners and renters throughout Greater Phoenix. Surprise, at 24%, is at the lower end of the range for renter occupied units. Municipalities with relatively low percentages of renter occupied units are largely still growing, such as Goodyear, Gilbert, Queen Creek, and Surprise, while more mature cities have a much higher renter population, such as Chandler, Phoenix, Mesa, and Scottsdale. The Greater Phoenix average is 36% renter occupied.



The lack of housing variety is even more stark when observing actual housing type by municipality. As the following table illustrates, Surprise has one of the highest percentages of single family detached homes and a low percentage of attached housing, including apartments.

Units in Structure by City					
	1, detached	1, attached	Multifamily	Other	Total
Chandler	69,948	4,148	23,878	2,293	**100,267**
	69.8%	4.1%	23.8%	2.3%	
Gilbert	71,717	2,774	9,635	311	**84,437**
	84.9%	3.3%	11.4%	0.4%	
Glendale	52,959	3,892	26,893	5,412	**89,156**
	59.4%	4.4%	30.2%	6.1%	
Goodyear	27,016	564	2,719	221	**30,520**
	88.5%	1.8%	8.9%	0.7%	
Mesa	117,634	12,565	54,435	30,197	**214,831**
	54.8%	5.8%	25.3%	14.1%	
Peoria	50,299	3,361	10,225	4,264	**68,149**
	73.8%	4.9%	15.0%	6.3%	
Phoenix	381,833	29,211	196,271	19,662	**626,977**
	60.9%	4.7%	31.3%	3.1%	
Queen Creek	16,431	151	629	234	**17,445**
	94.2%	0.9%	3.6%	1.3%	
Scottsdale	74,956	15,437	47,323	1,473	**139,189**
	53.9%	11.1%	34.0%	1.1%	
Surprise	48,621	980	4,058	2,973	**56,632**
	85.9%	1.7%	7.2%	5.2%	
Tempe	33,102	6,777	40,431	2,729	**83,039**
	39.9%	8.2%	48.7%	3.3%	
Tolleson	1,365	26	865	71	**2,327**
	58.7%	1.1%	37.2%	3.1%	
Greater Phoenix	1,268,686	98,894	448,096	128,137	**1,943,813**
	65.3%	5.1%	23.1%	6.6%	
Source: U.S. Census, ACS 2020 5-year Estimates					

According to a simple static calculation, Surprise would need to add at nearly 8,700 new rental units to approach the Greater Phoenix average for renters. With growth in single family development expected to continue, renter unit growth would need to surpass those estimates. The area could accommodate several new apartment communities without risk of oversaturation. This would also allow more household types, such as single person households, young professionals, renters by choice, empty nesters, and others to be able to choose Surprise as their place of residence.

3.3 Multi-Family Pipeline

Information from City of Surprise, City of El Mirage, RealData, Inc., CBRE and ABI Multifamily was reviewed as part of this study regarding any new apartment complexes that are being planned or were in the primary market area's entitlement process.

Fifteen market rate apartment projects were identified totaling 3,055 units under construction or planned within the PMA. One additional subsidized workforce housing community was identified totaling 613 units.

The single-family rental segment represents 10 of the fifteen market rate communities and 1,890 of the 3,055 total units. Two communities are under construction totaling 381 units with the remainder planned with no construction date established. The following table illustrates the details of the identified pipeline of multi-family units.

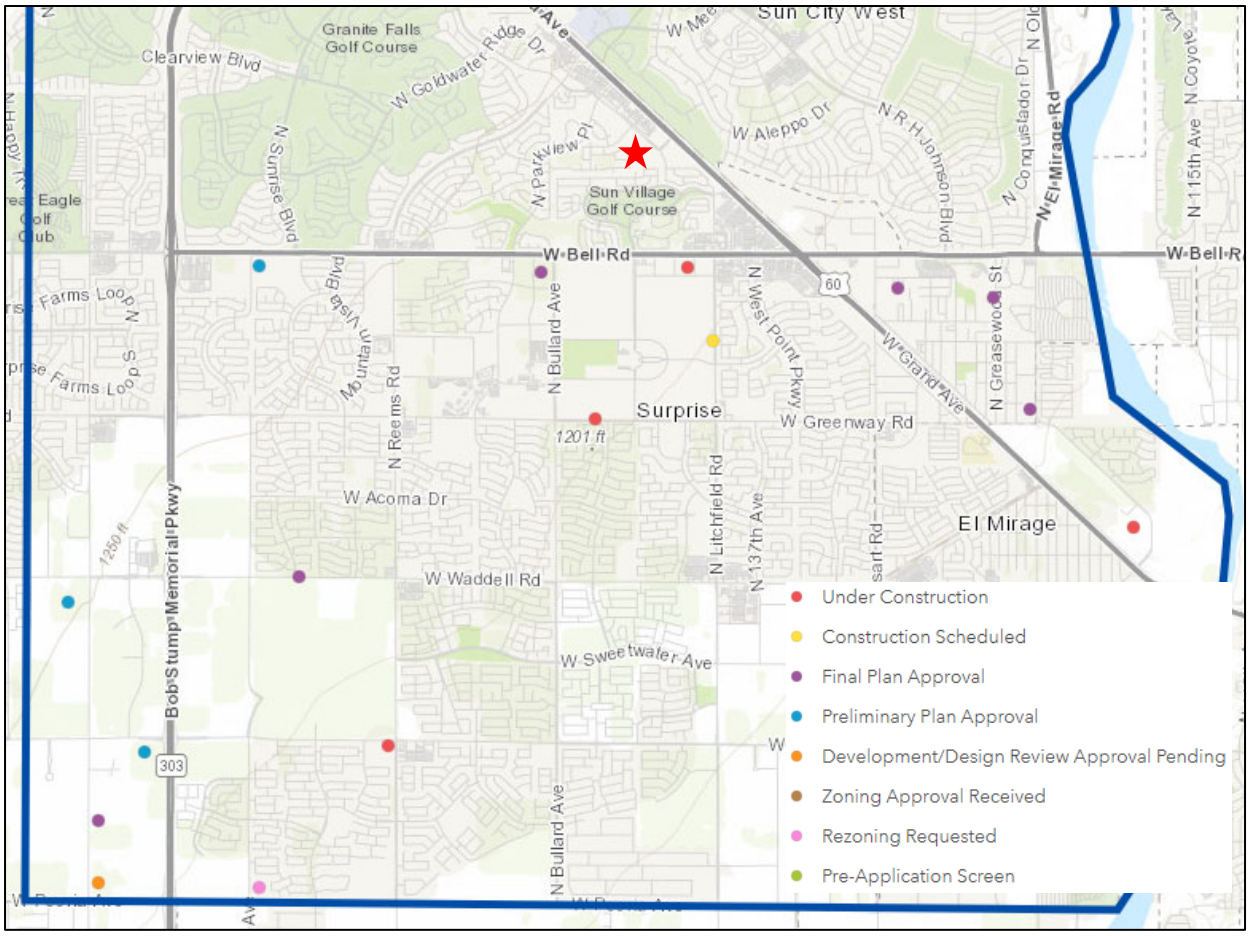
Planned Rental Communitiess - Primary Market Area

Name	Address	Units	Status
Under Construction - Market Rate			
Ridgehouse at Surprise Center	14560 W Greenway Road	240	Under Construction; Opening Mar 2024
Sobremesa Villas	15549 W Cactus Road	150	Under Construction; Opening May 2023
Alta Surprise	16230 N Litchfield Road	312	Under Construction
Total		**702**	
Planned			
Springs at Stadium Village	SWC Bell Road & Bullard Ave	204	Final Plan Approval
Liv Surprise	10711 N Cotton Lane	259	Design Review Approval Pending
Total		**463**	
Single Family Rental			
Avilla Grand	11755 W Thompson Ranch Rd	267	Under Construction; Opening Sep 2022
Town at Surprise	16830 N 141st Avenue	114	Under Construction; Opening Dec 2022
CTC at Paradisi	SEC Cactus Road & Cotton Ln	192	Final Plan Approval
Hancock at Prasada	15901 W Waddell Road	331	Final Plan Approval
Heritage on Dysart	123939 W Elm Street	120	Final Plan Approval
Sunnyside Townhomes	16520 N Greasewood Street	148	Final Plan Approval
Villas at Vesta Views	15431 N El Mirage Road	72	Final Plan Approval
BTR Paradisi	SWC Cactus Rd & Loop 303	194	Preliminary Plan Approval
Bungalows on Sarival, The	SEC W Bell Rd & N Sarival Ave	338	Preliminary Plan Approval
Bungalows at Greer Ranch	NEC Peoria & Sarival Avenues	114	Rezoning Requested
Total		**1,890**	
Workforce Housing			
Truman Ranch Marketplace	SWC Waddell Rd & Cotton Ln	613	Preliminary Plan Approval
Total		**613**	

Source: CBRE; ABI Multi-Famly; RealData, Inc.; City of Phoenix; City of Surprise

The following map illustrates the location of each apartment community, categorized by development status.

Multi-Family Pipeline Map



3.4 Multi-Family Absorption

Absorption data for recently completed properties offers some valuable insight as to how absorption may perform at the proposed apartment site. Of the newly built communities, average monthly lease-up rates ranged from 11.6 units per month (CTC at Marley Park) to 16.7 units per month (Heritage at Surprise). The cumulative average lease up rate of all properties is 14.5 units per month.

The absorption of apartment units over the past three years has far surpassed the existing forecasts of future renters. ESRI forecasts approximately 65 new renter households per year over the next 5 years, or 323 total new renters. In 2019, there were 200 apartment units absorbed in the primary market area. In 2020 there were 274 new rental units absorbed. In 2021, the primary market area absorbed 235 units and 37 units have been absorbed so far in 2022 and the vacancy

rate is currently 4.7% which is well below a balanced market vacancy of 7%. Thus, recent performance of new rental units being absorbed has significantly outperformed expectations by many multiples.

Assuming that the rent structure and amenities for the proposed apartments meets market demand, based on the absorption history of other properties and the site's location, the proposed apartments should reasonably expect an absorption rate of 12 to 18 units per month, equating to a healthy lease up period (14-22 months or less).

Absorption History

Primary Market Area Properties

Historical Vacancy Rates

Property	Open Date	Total Units	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2
Avilla Meadows	Mar-19	127	50%	10%	3%	14%	9%	8%	4%	1%	2%	1%	2%	5%
CTC at Marley Park	Jul-19	173	84%	39%	15%	11%	6%	3%	8%	5%	8%	8%	6%	8%
Heritage @ Surprise	Mar-20	100				16%	0%	0%	4%	2%	2%	4%	0%	6%
CTC on Mountain View	Aug-20	217						73%	24%	14%	6%	8%	4%	8%
Mera City Center	Jun-21	193									69%	45%	22%	14%

Occupied Units

Property	Open Date	Total Units	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2
Avilla Meadows	Mar-19	127	64	114	123	109	116	117	122	126	124	126	124	121
CTC at Marley Park	Jul-19	173	28	106	147	154	163	168	159	164	159	159	163	159
Heritage @ Surprise	Mar-20	100				84	100	100	96	98	98	96	100	94
CTC on Mountain View	Aug-20	217						59	165	187	200	200	208	200
Mera City Center	Jun-21	193									60	106	151	166

Avg Monthly Absorption Rate

Property	Open Date	Total Units	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	Lease up Avg
Avilla Meadows	Mar-19	127	21	17	3	-	-	-	-	-	-	-	-	-	**13.7**
CTC at Marley Park	Jul-19	173	14	26	14	2	3	-	-	-	-	-	-	-	**11.6**
Heritage @ Surprise	Mar-20	100				28	5	-	-	-	-	-	-	-	**16.7**
CTC on Mountain View	Aug-20	217						20	35	7	4	-	-	-	**16.6**
Mera City Center	Jun-21	193									20	15	15	5	**13.8**

Source: RealData, Elliott D. Pollack & Company

4.0 Market Area Overview

4.1 Market Area Description

The Primary Market Area (PMA) is defined as the geographic area from which demand for a particular real estate product will arise. It is also the area containing similar and, therefore, directly competitive real estate projects. For this analysis, the focus of the primary market area surrounding the subject site is for local-serving, neighborhood retail development. For purposes of this report, the competitive market area will be called the Primary Market Area (PMA).

When conducting a market study, one of the most important steps is defining the project's primary trade, or market area. The first step in evaluating an appropriate market area is to analyze the characteristics of the neighborhoods immediately adjacent to the subject property. Typically, the market area includes the property three to five miles from the subject site, adjusted for the real estate product (in this case local serving retail such as grocery, personal and household services, restaurants, etc.), geographic features, socioeconomic conditions or economic circumstances.

It is common to utilize major freeways, or roads near major freeways, as market area borders since they often define neighborhoods within which people reside, shop and recreate. People become accustomed to residing in a particular part of the metro area and often do not stray far from those areas when relocating their place of residence. Natural topographic features are also a factor that affects people's living preferences and habits.

Based on analysis of the geographic features of the area and the layout of census tracts, existing neighborhood retail assets, preferable drive time for neighborhood retail, interviews with developers and economic development experts, as well as the experience of this firm in conducting market studies for neighborhood retail developments, it is the professional opinion of this firm that the primary market area is identified by the following: Loop 303 to the north; Agua Fria River to the east; Peoria Avenue to the south; and just west of Cotton Lane to the west.

The following map illustrates the PMA. Total area is approximately 54 square miles.

Primary Market Area

4.2 Population & Households

The following table shows the estimated population of the PMA, Surprise, and Maricopa County. The PMA grew an average of 1.3% in the decade from 2010 to 2020, compared to City of Surprise at 2% average annual growth and Maricopa County at 1.5% annual growth. In the last two years, the PMA and City of Surprise have maintained an average growth rate of 1.4% and 2.4%, respectively per year compared to 1.6% in the county. There are an estimated 2.56 persons per household within the Primary Market Area.

Population Estimates

	Market Area		Surprise		Maricopa County	
	Persons	Annual Percent Growth	Persons	Annual Percent Growth	Persons	Annual Percent Growth
2010	155,886		117,769		3,817,117	
2020	176,585	1.3%	143,148	2.0%	4,420,568	1.5%
2022	181,050	1.4%	153,334	2.4%	4,567,502	1.6%

Source: ESRI Business Analyst, U.S. Census Bureau, Census 2010, Esri forecasts for 2022 and 2027.

Income

Household incomes in the Primary Market Area are slightly more modest compared to Maricopa County and City of Surprise incomes. Median incomes are typically used to judge the well-being of a geographic area since they represent the mid-point of the range of incomes. It will also be utilized in terms of the PMA's ability to support retail development.

The overall Primary Market Area median income is lower than both the City of Surprise and Maricopa County. Median income in the PMA is an estimated $71,143 per household versus $79,097 for all of Surprise and $76,671 across Maricopa County. This data indicates there is average spending power due to slightly below average disposable incomes among current residents.

Household Income - 2022			
	Market Area	Surprise	Maricopa County
Total households	**70,044**	**55,655**	**1,699,321**
Less than $15,000	4.9%	3.9%	6.4%
$15,000 to $24,999	5.4%	3.8%	6.0%
$25,000 to $34,999	7.6%	5.8%	6.5%
$35,000 to $49,999	12.8%	11.2%	11.7%
$50,000 to $74,999	21.7%	21.3%	18.2%
$75,000 to $99,999	17.4%	18.3%	14.3%
$100,000 to $149,999	19.4%	22.1%	18.8%
$150,000 to $199,999	6.3%	7.8%	8.7%
$200,000 or more	4.4%	5.8%	9.5%
Median Income	**$71,143**	**$79,097**	**$76,671**
Avg Income	**$90,574**	**$99,638**	**$106,865**

Source: ESRI Business Analyst, U.S. Census Bureau, Census 2010, Esri forecasts for 2022 and 2027.

Age

The average age of Market Area residents is 42.2 years compared to 38.2 for Surprise and 36.5 for Maricopa County. The age demographics are consistent with the incomes found in the area.

Population by Age - 2022						
	Market Area		Surprise		Maricopa County	
Under 5 years	11,949	6.6%	11,040	7.2%	306,023	6.7%
5 to 9 years	11,949	6.6%	11,193	7.3%	310,590	6.8%
10 to 14 years	11,225	6.2%	10,580	6.9%	301,455	6.6%
15 to 24 years	18,286	10.1%	17,020	11.1%	593,775	13.0%
25 to 34 years	21,183	11.7%	19,780	12.9%	680,558	14.9%
35 to 44 years	21,726	12.0%	21,007	13.7%	602,910	13.2%
45 to 54 years	16,295	9.0%	16,100	10.5%	525,263	11.5%
55 to 64 years	15,389	8.5%	13,800	9.0%	511,560	11.2%
65 to 74 years	25,166	13.9%	18,860	12.3%	429,345	9.4%
75 to 84 years	19,372	10.7%	11,040	7.2%	223,808	4.9%
85 years and over	8,328	4.6%	2,760	1.8%	86,783	1.9%
TOTAL	**181,050**		**153,334**		**4,567,502**	
Median Age	**42.2**		**38.2**		**36.5**	

Source: ESRI Business Analyst, U.S. Census Bureau, Census 2010, Esri forecasts for 2022 and 2027.

Educational Attainment

Educational attainment among the residents of the Primary Market Area nearly matches the City Surprise and is comparable to County averages. There is a lower level of bachelor's degrees

compared to Surprise and the County and higher rates of residents with a high school diploma. Graduate and professional degrees match the citywide average. This is again consistent with household income results.

Educational Attainment						
	Market Area		Surprise		Maricopa County	
Highest Educational Level	Persons	Percent	Persons	Percent	Persons	Percent
Population 25 years and over	**127,604**		**103,397**		**3,021,269**	
Less than 9th grade	3,318	2.6%	1,861	1.8%	154,085	5.1%
9th to 12th grade, no diploma	6,763	5.3%	5,066	4.9%	196,382	6.5%
High school graduate/GED	33,432	26.2%	26,159	25.3%	664,679	22.0%
Some college, no degree	32,667	25.6%	27,193	26.3%	722,083	23.9%
Associate's degree	12,760	10.0%	11,063	10.7%	259,829	8.6%
Bachelor's degree	25,266	19.8%	21,196	20.5%	652,594	21.6%
Graduate or professional degree	13,398	10.5%	10,857	10.5%	374,637	12.4%

Source: ESRI Business Analyst, U.S. Census Bureau, Census 2010, Esri forecasts for 2022 and 2027.

Tenure

Approximately 64% of all housing units in Maricopa County are owner occupied with 36% renter occupied. In the PMA, the percentage of owners is substantially higher at 74% owners with 26% renters. This mix of tenure is indicative of the maturity of the real estate market in the Primary Market Area. Renter households are expected to increase their market share of total residents over time.

Tenure - Occupied Housing						
	Market Area		Surprise		Maricopa County	
Total:	70,044		55,655		1,699,321	
Owner occupied	51,847	74.0%	41,625	74.8%	1,087,565	64.0%
Renter occupied	18,197	26.0%	14,030	25.2%	611,756	36.0%

Source: U.S. Census; ESRI

The breakdown of renter household income is provided in the following table. An estimated 48.5% of current renter households make $50,000 or more, which is the lower income threshold

for new market rate rental units. An estimated 27.5% of renter households make $75,000 or more.

Renter Household Income						
	Market Area		Surprise		Maricopa County	
Total households	**18,197**		**14,030**		**611,756**	
Less than $5,000	531	2.9%	3,456	2.2%	31,594	5.2%
$5,000 to $9,999	481	2.6%	3,188	1.9%	24,559	4.0%
$10,000 to $14,999	1,050	5.8%	5,101	4.7%	32,683	5.3%
$15,000 to $19,999	997	5.5%	4,419	4.6%	33,767	5.5%
$20,000 to $24,999	1,045	5.7%	5,610	5.4%	38,994	6.4%
$25,000 to $34,999	2,659	14.6%	10,513	12.7%	74,884	12.2%
$35,000 to $49,999	2,616	14.4%	13,098	13.2%	101,713	16.6%
$50,000 to $74,999	3,815	21.0%	13,157	24.4%	120,286	19.7%
$75,000 to $99,999	2,622	14.4%	6,307	16.4%	67,139	11.0%
$100,000 to $149,999	1,920	10.6%	4,344	11.0%	57,533	9.4%
$150,000 or more	460	2.5%	1,589	3.5%	28,604	4.7%
Median Income	**$48,353**		**$55,437**		**$45,194**	
Renters with Income $50,000+	**8,818**	**48.5%**	**25,397**	**181.0%**	**153,276**	**25.1%**

Source: U.S. Census 2016-2020 American Community Survey 5-Year Estimates; ESRI; Elliott D. Pollack & Co.

4.3 Forecasts

Forecasts for the Primary Market Area from the Maricopa Association of Governments (MAG) are shown on the following table. The entire Primary Market Area population is expected to grow by nearly 13,200 persons over the next ten years (4,786 new households) equating to a 0.7% annual growth rate. The decade following between 2030 and 2040 is expected to bring an additional 5,300 residents (1,967 new households), or 0.3% growth per year. From 2040 to 2055 the Primary Market Area is expected to increase by 5,900 residents (2,161 new households), or 0.2% per year.

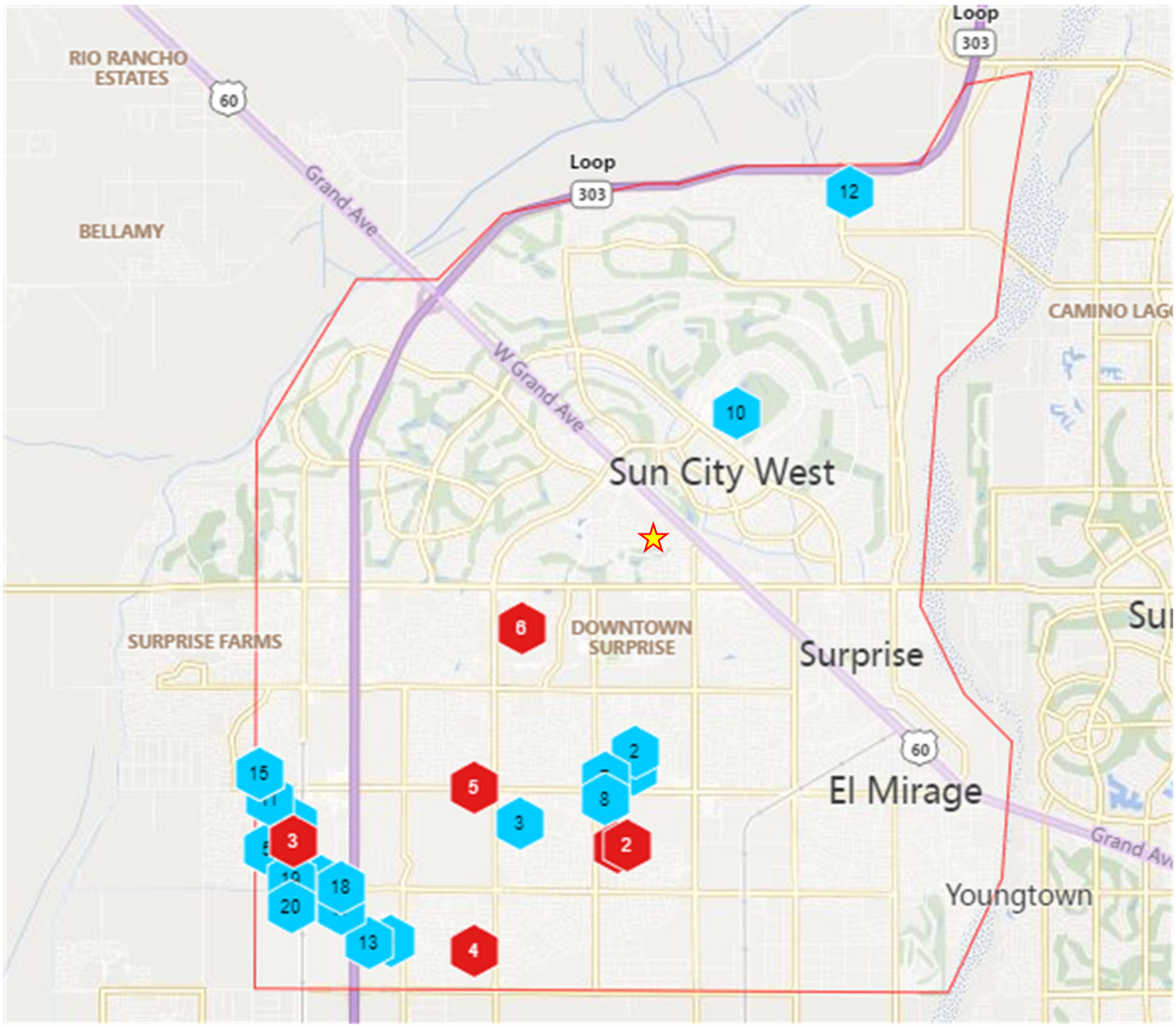
Employment in the market area is anticipated to grow 3.7% per year from 2020 to 2030 which would add 13,500 new employees to the area. Jobs are expected to increase by another 11,200 over the following decade (2030-2040) and by an additional 12,600 jobs from 2040 to 2055.

Primary Market Area Forecasts 2020-2055					
	2020	2030	2040	2050	2055
Population					
Total Population	169,017	182,189	187,531	191,345	193,429
Household Population	167,893	180,144	185,179	188,740	190,711
Households	65,583	70,369	72,336	73,727	74,496
Household Growth		4,786	1,967	1,391	770
Avg Annual % Growth		0.7%	0.3%	0.2%	0.2%
Employment					
Total Employment	30,390	43,889	55,104	62,870	67,753
Employment Growth		13,499	11,215	7,766	4,883
Avg Annual % Growth		3.7%	2.3%	1.3%	1.5%

Source: Maricopa Association of Governments Socioeconomic Projections, 2019

Within the PMA, areas in the northern section where the subject site is located are largely built out. New population within the PMA will concentrate around the Prasada master plan area south of Greenway down to Cactus as well as on large vacant and agricultural parcels found between Peoria Avenue and Cactus Road. This includes several master planned developments including Prasada, Marley Park, Greer Ranch, Sycamore Farms, and Sierra Sky. For perspective, the following map illustrates currently active new home subdivisions within the PMA.

Active New Home Subdivisions



Source: RL Brown

4.4 Summary

The population of the Market Area today is estimated at 181,050 persons. The Primary Market Area is expected to increase by nearly 6,500 new households between 2020 and 2030. Household incomes are slightly above the City and County medians. Residents have above average levels of education which is also consistent with resident incomes. Overall, we conclude that the Primary Market Area should continue to experience moderate growth trends with a forecasted average annual increase in population of 650 households per year over the coming decade.

5.0 Retail Supply & Demand Analysis

5.1 Market Area Retail Demand

The current population of the Primary Market Area is estimated at 181,050 persons. This population level is considered sufficient to provide support for a robust level of commercial retail development.

As previously mentioned, there is currently a substantial amount of retail development totaling 872,200 square feet. Once these developments are completed and occupied, the Primary Market Area will need to continue to increase in population before additional retail development will occur. Some retailers, such as Walmart, are highly aggressive in establishing their market territory based on growth prospects, even though the current population may not provide optimum demand levels. There are already three existing Walmart locations within the PMA and there isn't any likelihood that an additional location in the region is warranted. Additionally, the presence of the Target, Sam's Club, and Costco provide ample regional serving retail superstores.

Grocery stores are an important anchor for local-serving retail shopping centers, drawing shoppers to the center and creating foot traffic for smaller retailers who occupy the inline shops. From a demand perspective, across the Greater Phoenix area, there are approximately 22,200 persons for every traditional grocery chain (Fry's, Safeway, Bashas' and Albertson's). When natural food stores (Whole Foods and Sprouts) and specialty stores such as AJ's and Trader Joe's are added to the total, the demand level declines to 18,400 persons per store. The ratio of persons per grocery store has been growing over the last 20 years due to increased competition from major chains such as Walmart, Target, and Costco, to name a few. This has resulted in consolidation in the grocery industry, the latest of which is the purchase of the Safeway chain by Albertson's.

At a population of 181,050 persons, the Primary Market Area today can support between eight and 10 grocery stores. However, there are already 16 grocery stores in the PMA. Assuming the market is at equilibrium, based on MAG forecasts by 2050, one additional store could be supported. Additional population growth through 2055 is not likely sufficient to attract another grocery store.

The existing supply of grocery stores appears to satisfy much of the future demand for decades. One additional store location may be warranted over the next 30 years in the PMA.

Prior to the Great Recession, retailers were very aggressive in forward planning for store locations based on expectations of population growth. Greater Phoenix, with its tremendous history of rapid growth, is one region that historically has seen retailers anticipate where demand will develop and then enter the market in advance of that demand. The impact of the Great Recession, however, has resulted in the delay or cancellation of planned retail centers. Many of these planned centers have still not come to fruition. Retailers are also much more cautious today given the impact of online sales and slower population growth across the country.

E-Commerce has had a significant impact on the development of brick-and-mortar retail centers. In 2021, E-Commerce accounted for 15.9% of all retail sales in the U.S., up from just 1.1% in 2001. Since 2010, E-Commerce has been growing at an average rate of 13.6% per year. The country has witnessed the loss of traditional shopping center retailers such as bookstores, shoe stores, sporting goods stores, toy stores, and florists. The consolidation of businesses has also occurred in many segments of the market (groceries, office supplies, electronics). As a result, retailers have become much more cautious in planning for new outlets unless there are significant signs of demand and/or population growth.

Based on the ratios of persons per retail store, we can conclude that the demand for retail services in the Primary Market Area is likely satisfied by the current level of retail development, including inventory under construction, in the community.

A second method of determining demand for commercial development is to evaluate the spending potential of the Primary Market Area population based on the U.S. Consumer Expenditure Survey (CES). The Survey is a long-term nationwide household survey conducted by the U.S. Bureau of Labor Statistics (BLS) to find out how Americans spend their money. It is the only federal government survey that provides information on the complete range of consumers' expenditures as well as their incomes and demographic characteristics. The CES is used by analysts to determine the demand for retail goods and services based on household income levels.

As noted previously, the 2022 median income of Primary Market Area residents is estimated at $71,143 based on U.S. Census data. An economic model was prepared for this study to estimate the amount of retail and restaurant spending that may be derived from residents living in the Primary Market Area.

The following table outlines the spending that may be generated from the Market Area. Area residents would be expected to spend approximately 27.9% of gross income or $19,850 per household on retail goods and services and restaurants, excluding spending on the purchase of a

vehicle. Retail spending is then divided into two groups: local-serving retail spending and regional-serving retail spending. Local-serving spending includes groceries and other convenience goods and services (medical prescriptions, household supplies, tobacco products, and personal care products and services). Regional-serving spending is related to big-ticket items that typically are sold in large-format retail centers such as furniture, electronics, appliances, flooring, and apparel.

The following table shows that the typical Primary Market Area household is expected to spend an estimated $8,752 on local-serving retail items and $7,811 on regional-serving items. The remaining $3,282 is spent in restaurants and bars. Local-serving retail spending is then divided into grocery spending and non-grocery spending (household goods, day care, medical prescriptions and supplies, personal care products, etc.)

The lower part of the table converts the local-serving spending to potential retail square footage. For instance, grocery spending in the Primary Market Area is estimated at $302.2 million for the 70,044 households. At an average retail sales rate of $500 per square foot for a supermarket, the Primary Market Area can justify 604,400 square feet of grocery store space. Likewise, non-grocery, local retail spending of $4,438 per household will generate demand for just over 1.0 million square feet of additional retail space at $300 per square foot retail sales. Regional retail of 1.1 million square feet can also be supported by the local population. Restaurant spending supports another 459,800 square feet of space. Together, an estimated 3.2 million square feet of retail space can be supported in the Primary Market Area based on the current population.

2022 Retail Spending Analysis
N of NEC Grand Avenue & Bell Road Primary Market Area

Income & Spending Assumptions	Dollars	Percent of Income
Market Area Median Household Income 2022	$71,143	
Total Retail Spending/HH (Excluding vehicles)	$19,846	27.9%
Local-Serving Retail Spending	**$8,752**	**12.3%**
Grocery Spending/HH	$4,314	6.1%
Other Non-Grocery Local-Serving Retail Spending/HH	$4,438	6.2%
Regional-Serving Retail Spending/HH	**$7,811**	**11.0%**
Restaurant Spending/HH	**$3,282**	**4.6%**
2022 Population	181,050	
Households	70,044	

Supportable Local-Serving Retail Demand	Retail Demand
Total Grocery Spending	$302,198,447
Supportable SF at $500 Per SF in Sales	604,397
Other Local-Serving Retail Spending (excluding Groceries)	$310,857,006
Supportable SF at $300 Per SF in Sales	1,036,190
Restaurant Spending	$229,885,631
Supportable SF at $500 Per SF in Sales	459,771
Regional Serving Retail Spending	$547,119,693
Supportable SF at $500 Per SF in Sales	1,094,239
TOTAL RETAIL DEMAND	**3,194,598**

Sources: U.S. Consumer Expenditure Survey; AZ DOA; Elliott D. Pollack & Company

Today, the total estimated retail space within the PMA is approximately 7.5 million square feet which far exceeds the calculated local demand within the Primary Market Area. This confirms that the presence of regional serving retailers import shoppers from outside of the PMA currently. Given the currently low vacancy rate of 2.5%, it appears that the area has an unmet demand of retail space totaling approximately 185,200 square feet.

The calculated unmet demand will also soon be significantly offset by retail development occurring within the PMA, most notably the 700,000 square foot power center located at the

Loop 303 and Waddell Road. This power center is nearly 100% pre-leased and includes notable tenants such as Sprouts, TJ Maxx, Home Goods, PetSmart, Fat Cats, Floor and Décor, Hobby Lobby, and many more.

Beyond the retail space under construction, future retail development will be heavily dependent on new residential growth in the area to spur new construction.

5.2 Retail Forecast

The most recent population forecast for the Primary Market Area is for growth of 4,786 new households over the next ten years. In addition, the longer-term forecast anticipates 1.967 new households between 2030 and 2040 as well as 2,161 new households from 2040 to 2055. Total household growth over the next 33 years in the Primary Market Area is approximately 8,913 households.

Based on the above analysis, a 33-year forecast for retail demand was prepared for the Primary Market Area for the timeframe from 2022 to 2055. Including the calculation of current unmet demand (185,160 square feet), the forecast concludes that the demand for local and regional serving retail within the Primary Market Area will total approximately 87.6 acres, or 591,700 square feet of building space through 2055.

Retail Demand Forecast
N of NEC Grand Avenue & Bell Road Primary Market Area

	Current Unmet Demand	2030	2040	2055	-Year Total
Household Growth		4,786	1,967	2,161	**8,913**
New Retail Demand (SF)	185,160	218,261	89,703	98,557	**591,681**
New Retail Demand (acres)	27.4	32.3	13.3	14.6	**87.6**

Sources: MAG, 2019; U.S. Consumer Expenditure Survey; AZ DOR; Maricopa County Assessor; City of Surprise; Elliott D. Pollack & Company

5.3 Supply

The supply of future available retail space can be found within existing retail or mixed-use developments as well as parcels of land currently planned for commercial uses. The following is a summary of available inventory located within the Primary Market Area.

There were 28 existing retail developments identified in the Primary Market Area that have vacant space. Vacancy within these developments is as small as one shop totaling 1,179 square feet up to a significant amount of vacancy as a percent of the total center. Total vacant/available space among these developments is 161,755 square feet.

Commercial Real Estate Availability
N of NWC Grand Avenue & Bell Road Market Area

Property Address	Property Name	Property Type	SF	Total Available Space (SF)
15278 W Bell Rd	Bell Festival Center	Retail (Strip Center)	17,578	1,179
13864 W Bell Rd	Surprise Village	Retail (Neighborhood Center)	6,035	1,600
12301 W Bell Rd	Village Tower	Retail (Strip Center)	23,470	1,718
19423 N R H Johnson Blvd	Sundome Plaza	Retail (Community Center)	10,000	1,800
13681 N Litchfield Rd	Bldg B	Retail (Community Center)	6,417	2,000
14515 W Grand Ave	Shops	Retail (Community Center)	9,000	2,107
17058-17092 W Bell Rd	Shops West	Retail (Neighborhood Center)	21,890	2,600
13980 W Bell Rd	The Village at Surprise	Retail (Strip Center)	31,077	2,851
13576 W Camino Del Sol	West Building	Retail (Neighborhood Center)	10,700	3,100
13065-13073 W Grand Ave	Butler's Corner Plaza	Retail (Strip Center)	22,962	3,275
14545-14551 W Grand Ave		Retail (Neighborhood Center)	82,604	3,300
14155 W Bell Rd	SW Bell & Litchfield	Retail (Strip Center)	12,947	3,529
13839 W Bell Rd	Bldg D	Retail (Neighborhood Center)	23,450	3,596
16772 W Bell Rd	NWC of Bell & Loop 303	Retail (Neighborhood Center)	15,300	3,600
17063 W Greenway Rd		Retail (Neighborhood Center)	3,804	3,804
15643 N Reems Rd	Bldg D	Retail (Strip Center)	18,000	4,200
W Waddell & Litchfield Rd	Pad B	Retail (Neighborhood Center)	7,000	4,340
SWC Bell Rd & Loop 303		Retail (Strip Center)	5,000	4,600
13926 W Bell Rd	Bank Building	Retail	6,035	4,722
14455 W Grand Ave		Retail (Community Center)	9,000	4,849
19403 N RH Johnson Blvd	Sundome Crossing	Retail	6,000	6,000
16551 N Dysart Rd	Grand Bell Plaza	Retail (Neighborhood Center)	27,451	6,133
13706-13732 W Bell Rd	Shops C	Retail (Power Center)	100,979	7,782
12100 N Dysart Rd	Skyway Commons	Retail	16,835	8,200
13503-13595 E Camino Del Sol		Retail (Community Center)	190,259	8,787
13437 N Litchfield Rd	Boulevard Pointe	Retail (Community Center)	15,566	15,566
12751-12875 W Bell Rd		Retail (Community Center)	154,529	16,917
13794-13856 W Waddell Rd	Surprise Crossing	Retail (Neighborhood Center)	106,120	29,600
TOTAL				**161,755**

Source: Elliott D. Pollack & Company; Velocity Retail Group; Phoenix Commercial Advisors; Western Retail Advisors; Phoenix West Commercial; SRS Real Estate Partners; ZELL Commercial Real Estate Services; Cushman & Wakefield

Through the course of this research, an estimated 1.9 million square feet of retail space has been identified in the development pipeline within 26 projects. Eight projects are currently under construction totaling 872,200 square feet. The remaining developments totaling nearly 1.1 million square feet have uncertain development timelines.

Retail Development Pipeline - Under Construction
N of NWC Grand Avenue & Bell Road Market Area

Property Address	Property Type	SF
13020 Bell	Retail	6,111
13636 SW Waddell Rd & Litchfield Rd	Retail (Strip Center)	27,000
W Waddell Rd	Retail (Power Center)	700,000
14025 W Grand Ave	Retail	8,000
13550 N Litchfield Rd	Retail (Strip Center)	29,125
13630 N Litchfield Rd	Retail (Strip Center)	9,372
NWC Peoria & Cotton Ln	Retail (Strip Center)	63,290
13670 Waddell Rd & Litchfield Rd	Retail (Strip Center)	29,294
TOTAL		**872,192**

Source: Elliott D. Pollack & Company; Velocity Retail Group; Phoenix Commercial Advisors; Western Retail Advisors; Phoenix West Commercial; SRS Real Estate Partners; ZELL Commercial Real Estate Services; Cushman & Wakefield

Retail Development Pipeline - Planned
N of NWC Grand Avenue & Bell Road Market Area

Property Address	Property Type	SF
13426 N Litchfield Rd	Retail (Strip Center)	4,600
13595 E Camino Del Sol	Retail	1,350
13828 W Waddell Rd	Retail (Neighborhood Center)	25,380
13925 W Acoma	Retail	733,227
16995 W Greenway Rd	Retail (Neighborhood Center)	16,068
17122 W Peoria Ave	Retail (Strip Center)	7,750
NEC Cactus Rd & Loop 303	Retail	10,500
NEC Greenway & Bullard Ave	Retail	11,900
NWC Cotton Lane & Waddell Rd	Retail	15,650
NWC Peoria & Cotton Ln	Retail (Strip Center)	39,500
Peoria Ave	Retail (Strip Center)	26,500
SEC Of Cactus Rd & Sarival Ave	Retail (Strip Center)	52,010
SWC Bell Rd & Loop 303	Retail (Strip Center)	8,655
SWC Cactus Road and N El Mirage Rd	Retail (Neighborhood Center)	42,305
SWC Cotton Ln & Waddell Rd	Retail (Community Center)	21,533
SWC Greenway & Litchfield	Retail	40,755
W Grand Ave	Retail	5,000
W Waddell & Litchfield Rd	Retail (Neighborhood Center)	4,450
TOTAL		**1,067,133**

Source: Elliott D. Pollack & Company; Velocity Retail Group; Phoenix Commercial Advisors; Western Retail Advisors; Phoenix West Commercial; SRS Real Estate Partners; ZELL Commercial Real Estate Services; Cushman & Wakefield

Available Vacant Retail Land

In addition to existing centers with available space, 44 vacant retail parcels were located within the Primary Market Area, including the subject site. Combined, these vacant parcels total 877 acres. Utilizing a typical range of Floor Area Ratio (FAR) from .09 to .18, these parcels could accommodate over 5.8 million square feet of future retail or commercial development (under construction and proposed projects are included in this amount).

In total, there is nearly 6.0 million square feet of vacant space or land available for future retail development within the Primary Market Area.

Commercial Real Estate Assets
N of NEC Grand Aven & Bell Road Primary Market Area

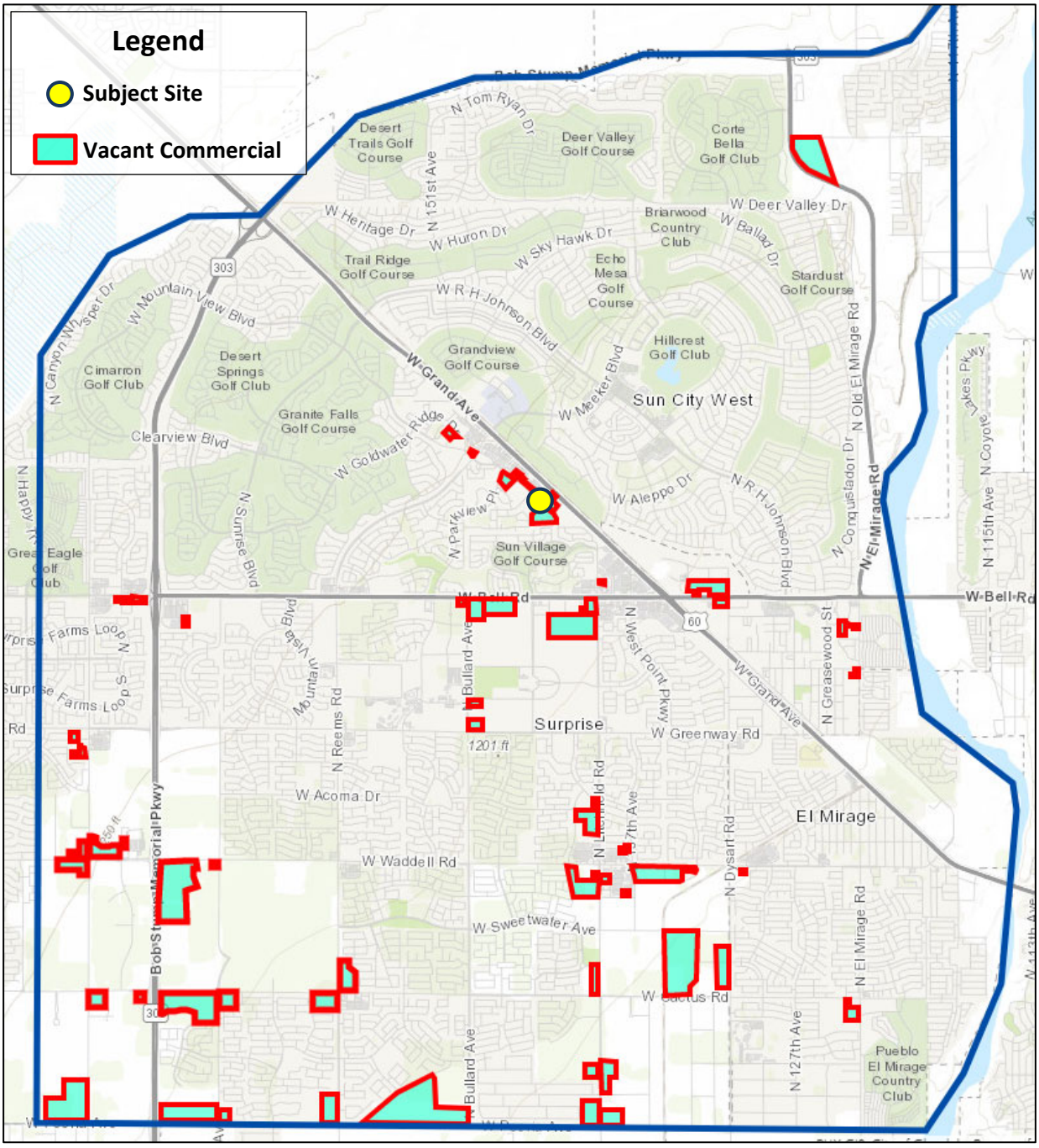
Commercial Land Parcels	Acres
NWC Peoria & Cotton	48
NWC Peoria & Sarival	30
NEC Peoria & Sarival	6
NWC Peoria & Reems	17
NWC Peoria & Bullard	101
NWC Peoria & Litchfield	15
NEC Peoria & Litchfield	12
NWC Litchfield & Desert Cove	20
NEC Litchfield & Desert Cove	6
SEC Cactus & Cotton	19
SWC Cactus & 303	21
SEC Cactus & 303	47
SEC Cactus & Sarival	10
SWC Cactus & Reems	15
NEC Reems & Cactus	15
NWC Cactus & Litchfield	8
NWC Cactus & Dysart	92
SWC Cactus & El Mirage	7
SEC Waddell & 303	71.5
NWC Waddell & Cotton	7
SWC Waddell & Cotton	12
NEC Waddell & Cotton	15
NEC Waddell & Hearn	1.5
SWC Waddell & Litchfield	26
SEC Waddell & Litchfield	5
NEC Waddell & Litchfield	4
NWC Waddell & Litchfield	17
SEC Waddell & 137th Ave	27
SWC Greenway & Cotton	6.0
NEC Greenway & Bullard	12.0
SWC Grand & Mountain View	6.0
SEC Mountain View & Parkview	4.8
SWC Mountain View & Grand	3.9
SWC Mountain View & White Horse (Subject)	11.8
NWC Reems & Mountain View	3.6
SEC El Mirage & Williams	42.0
NEC Bell & Grand	17.7
SEC Bell & Grand	3.5
SWC Bell & El Mirage	4.0
SWC Paradise Ln & El Mirage	1.0
SWC Bell & 303	4.5
SWC Bell & Litchfield	49.0
SWC Bell & Bullard	2.0
SEC Bell & Bullard	30.0
Total Acres	**876.8**
Gross SF	38,194,440
Yield SF (0.09-.18 FAR)	**5,800,160**

Source: Elliott D. Pollack & Company; City of Surprise; Maricopa Association of Governments; Maricopa County Assessor; Velocity Retail Group; Phoenix Commercial Advisors; Western Retail Advisors; Phoenix West Commercial; SRS Real Estate Partners; ZELL Commercial Real Estate Services; Cushman & Wakefield

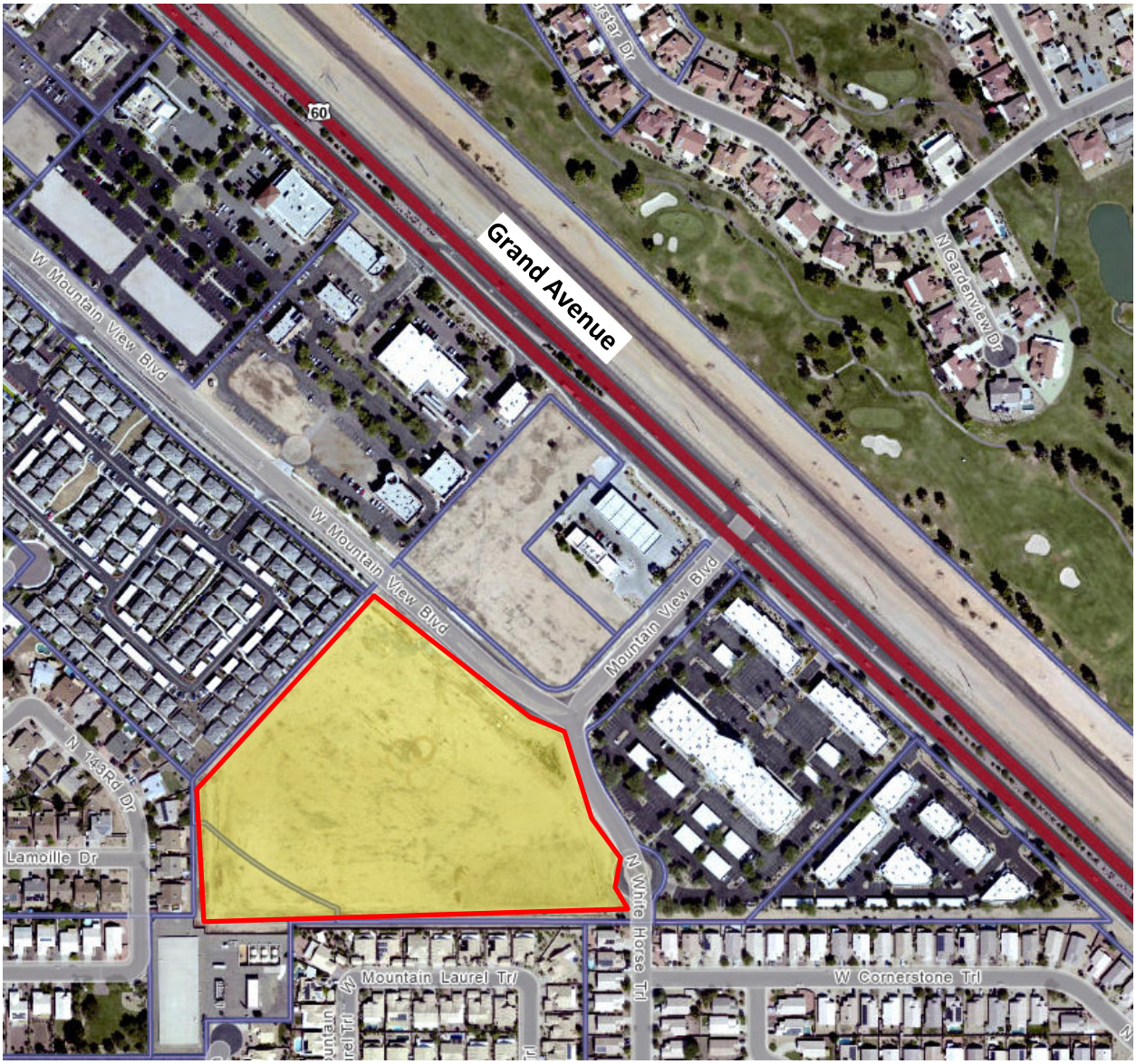
5.4 Site Comparison

The map below displays the supply of available commercial land in proximity to the subject site. There are numerous commercial sites located along Loop 303, Peoria Avenue, Cactus Road, Waddell Road, Surprise City Center, and Grand Avenue. Every one of these sites are competing with the subject site to attract commercial development. Additionally, compared to expected demand, commercial land in the area is considered excessively oversupplied. Many of the sites will not be needed for commercial development.

Commercial Supply Map – Primary Market Area



The subject site is at a disadvantage competitively with many of alternative sites with frontage and access along major arterials or the Loop 303 freeway. These sites enjoy better visibility, superior access, more traditional parcel shapes, and substantially higher traffic volumes. In contrast, the subject site is an irregular shape and located such that there is no visibility from Grand Avenue. It does not provide an intersection corner or frontage on a major arterial, but is instead an interior location, with the only frontage along Mountain View Boulevard (a collector street). Retailers have not shown interest in interior locations, especially with significant retail development so close along Grand Avenue and Bell Road.



The subject site's disadvantages to competing sites identified above, combined with the fact that there is an excess of commercial land in the area, bodes poorly for the subject site's prospects to generate retail or other commercial development interest.

5.5 Summary

The forecasted retail demand of 591,700 square feet (gross land demand of 87.6 acres) is substantially lower than the estimated 6.0 million square feet of availability (combining 161,800 square feet of available space and land within existing centers and 877 acres of vacant commercial land) within the Primary Market Area. Compared to the available vacant space and available commercial land, there is far too much land in the Primary Market Area designated for future retail development.

Retail Supply/Demand Forecast
N of NEC Grand Avenue & Bell Road Primary Market Area

	Current Unmet Demand	2030	2040	2055	33-Year Total
Household Growth		4,786	1,967	2,161	**8,913**
New Retail Demand (SF)	185,160	218,261	89,703	98,557	**591,681**
New Retail Demand (acres)	27.4	32.3	13.3	14.6	**87.6**
Supply (Available for Additional Retail Development)					
				Acres	**SF**
Existing Retail Centers					161,755
Vacant Land				877	5,800,160
TOTAL					**5,961,915**

Sources: MAG, 2019; U.S. Consumer Expenditure Survey; AZ DOR; Maricopa County Assessor; City of Surprise; Elliott D. Pollack & Company

6.0 Retail Demand from Proposed Residential

The following summary calculates retail and restaurant demand that will be generated by new residential development at the subject site. Prose Surprise Apartments would consist of 274 housing units with a mix of one- and two-bedroom floor plans. It is expected that rents will be set in line with comparable new rental communities and household incomes are expected to match or exceed the median household income in the PMA.

The proposed residential developments will help to incrementally support existing retail assets within the area and will help induce new commercial development. Each additional resident will create demand for local serving retail and restaurants. Continued residential development in all forms within the market area will be critical to the eventual success of existing retail assets, additional commercial development, and the overall redevelopment efforts for this area.

After factoring in a stabilized vacancy rate for the proposed 274-unit multi-family community, Prose Surprise Apartments will introduce an estimated 260 new households with average household incomes of nearly $70,000. The new community would represent nearly $18.2 million of new household income, equating to over $5.1 million in disposable income spending based on the U.S. Consumer Expenditure Survey that can be captured locally. This includes retail shopping, restaurant spending, and spending on a wide variety of services such as vehicle repair, healthcare, insurance, utilities, and other personal services.

Based on retail spending alone, the proposed development will create demand for nearly 12,000 square feet of retail space. By category, this includes the following:

- 2,200 square feet of grocery store space
- 1,700 square feet of restaurant space
- 3,800 square feet of other local-serving retail (household and personal services, household supplies, vehicle maintenance and repair, medical supplies, medication, books, etc.)
- 4,000 square feet of regional-serving retail space (clothing, household furniture and equipment, entertainment, etc.)

Retail Demand Analysis
Proposed 274-Unit Prose Surprise Multifamily Community

Income & Spending Assumptions	Dollars	Percent of Income
Projected Household Income	$69,737	
Total Retail Spending/HH (Excluding vehicles)	$19,664	28.2%
Local-Serving Retail Spending	**$8,690**	**12.5%**
Grocery Spending/HH	$4,290	6.2%
Other Non-Grocery Local-Serving Retail Spending/HH	$4,400	6.3%
Regional-Serving Retail Spending/HH	**$7,725**	**11.1%**
Restaurant Spending/HH	**$3,249**	**4.7%**
New Households	260	

Supportable Local-Serving Retail Demand	Retail Demand
Total Grocery Spending	$1,116,674
Supportable SF at $500 Per SF in Sales	2,233
Other Local-Serving Retail Spending (excluding Groceries)	$1,145,322
Supportable SF at $300 Per SF in Sales	3,818
Restaurant Spending	$845,794
Supportable SF at $500 Per SF in Sales	1,692
Regional Serving Retail Spending	$2,010,875
Supportable SF at $500 Per SF in Sales	4,022
TOTAL RETAIL DEMAND	**11,800**

Sources: U.S. Consumer Expenditure Survey; AZ DOA; Elliott D. Pollack & Company

7.0 Conclusions & Recommendations

- The retail marketplace has been significantly impacted by recent recessions (both the Great Recession and COVID-19), e-commerce and the rise of supercenters and warehouse clubs.
    - For the Greater Phoenix area, the Great Recession resulted in much slower population and employment growth and retailers have become much more cautious planning for new stores. Some ten years after the end of the recession, retail development has not returned to prior construction levels. This trend may continue for the foreseeable future, especially with the recent impacts of the COVID-19 pandemic and will impact properties currently designated for commercial development.
    - Virtually all retail sectors experienced substantial losses due to the COVID-19 pandemic, especially clothing, furniture, motor vehicles, sporting goods, department stores, and restaurants and bars. The winners in April were building materials, groceries, and e-commerce. Sales data reflects consumers' preferences for just essential local purchases while honoring stay-at-home recommendations. Non-essential purchases shifted to e-commerce to avoid travel and congregating in crowds to socially distance.
    - It remains to be seen whether or not the pandemic has permanently shifted consumer behavior more heavily toward e-commerce. Preliminary data indicates that e-commerce has maintained its jump in market share. This could have material impacts on future commercial development and investment. Regardless, the shift toward online shopping will continue.
- The latest forecast for population growth in the Primary Market Area concludes that the demand for additional local serving retail land will total approximately 591,700 square feet or the equivalent of 87.6 acres over the next 33 years (through 2055). However, there is nearly 6.0 million square feet acres of available retail space and land (877 acres) within the Primary Market Area. There is far too much land in the Primary Market Area designated for future retail development compared to forecasted demand.
- There are at least 44 available commercial sites located within the subject site's primary market area. Every one of these sites are competing with the subject site property to attract retail development. Many of these sites, such as those with frontage and access along major freeways or arterials each have competitive advantages over the subject site in terms of location, major arterial frontage, a hard corner, parcel shape, and interest from retailers. These sites enjoy better visibility, access, and substantially higher traffic volumes compared

to the subject site. The subject site is an irregular shape and located such that there is no visibility from Grand Avenue. It does not provide an intersection corner or frontage on a major arterial, but is instead an interior location, with the only frontage along Mountain View Boulevard (a collector street). Retailers have not shown interest in interior locations, especially with significant retail development so close along Grand Avenue and Bell Road.

- The disadvantages compared to competing sites, combined with the fact that there is an excess of commercial land in the area, bodes poorly for the subject site's prospects to generate retail development interest.

- There are already sufficient neighborhood retail centers anchored by grocery stores for the market area's current and future population. One new grocery store may be justified with sufficient new population growth over the next 20 years, but the subject site would not be a preferred site, located in close proximity to four existing grocery stores.

- Despite the fact that there are voids in the retail landscape locally, the study illustrates the difficulties facing brick-and-mortar retail, such as continuing growth in e-commerce and retailers pulling back on new store locations as mentioned above. In terms of retail potential, our analysis concluded that demand for retail within the PMA is insufficient to trigger significant new retail projects *without new residential growth*.

- The proposed residential development will help to support existing retail assets within Surprise. Each new additional resident will create demand for additional local serving retail and restaurants. Residents that will be income-qualified to live in the proposed new residential community will be comprised of household incomes that will be attractive to restaurateurs and retailers, averaging $60,000 to $85,000 or more. **An estimated total of $5.1 million in annual disposable income spending on retail goods and services will be added to the area from the proposed community**. This includes demand for retail shopping, restaurant spending, and spending on a wide variety of services such as vehicle repair, healthcare, insurance, utilities, and other personal services. **Based on retail spending alone, the proposed developments will create demand for nearly 12,000 square feet of retail space**.

- Continued residential development in all forms within the market area will be critical to the eventual success of existing retail assets and additional commercial development. Local residents will be the main source of retail demand and also provide a local workforce for office development. This residential development must come first, eventually building to a critical mass of residents to attract additional retailers.

- Greater Phoenix is facing a substantial housing shortage of both ownership and rental inventory which has caused housing prices and rent to spike. Resale home prices rose 40%

and rents have increased over 38%% in the last 24 months. There is huge demand and a dire need for new residential housing in all asset classes, especially multifamily.

- Surprise generally has a lack of housing diversity beyond mostly single family detached housing and contains very little attached housing or traditional multifamily housing compared to the broader metro area, which limits who can live in the area. Renters make up only 24% of the population, compared to 36% in Greater Phoenix. Only 7.2% of the housing stock is multifamily units, compared to 23.1% in Greater Phoenix. Surprise would need at least 8,700 new rental units to reach the metro average. The proposed project would add 274 units of much needed multifamily rental stock.

- In our opinion, the rezoning of the subject site to residential uses will not affect the area's efforts to continue to attract new commercial development to the community. The region has a significant inventory of commercial land that will provide for the long-term economic health of the community. Additionally, as a residential project, new residents will support existing and planned commercial development.

Alliance Surprise

Traffic Impact Analysis
3rd Submittal

Southwest Corner of White Horse Trail
and Mountain View Boulevard
in Surprise, Arizona

November 2022
Project No. 22-0100

Prepared For:

Alliance Residential Company
7135 East Camelback Road, Suite 360
Scottsdale, Arizona 85251

For Submittal to:

City of Surprise

Prepared By:

CivTech

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Scottsdale, Arizona 85260
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SURPRISE APPROVAL

This report has been reviewed for compliance with City Requirements prior to issuance of Permits. The City neither Accepts nor assumes any liability for errors or omissions. This compliance approval shall not prevent the City Engineer from requiring corrections of errors or omissions in reports found to be in violation of Laws or Ordinances.

_____
City of Surprise Engineer

_____
Date

ALLIANCE SURPRISE
TRAFFIC IMPACT ANALYSIS
3RD SUBMITTAL

Southwest Corner of White Horse Trail and Mountain View Boulevard in Surprise, Arizona

Prepared for:
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November 2022

CivTech Project No. 22-0100

FS22-0588

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EXECUTIVE SUMMARY

Alliance Residential proposes a development of approximately 274 dwelling units (DUs) of multifamily (low-rise) residential land use on approximately 11.74 net acres of undeveloped land located at the southwest corner of White Horse Trail and Mountain View Boulevard in Surprise, Arizona. The parcel is currently zoned as Community Commercial (CC) and would be rezoned to Residential High Density (R-3). There will be two (2) access points, with one (1) existing driveway on Mountain View Boulevard for resident and visitor access and one (1) new gated driveway on White Horse Trail limited to emergency vehicles only.

CivTech, Inc. has been retained by Alliance Residential Company to perform the traffic impact analysis (TIA) for the proposed development. The purpose of this assessment is to address the traffic and transportation impacts of the proposed development on the surrounding streets and intersections.

The following conclusions have been documented in this study:

GENERAL

- The proposed development is anticipated to generate 1,832 weekday daily trips, with 108 trips (26 in/82 out) during the AM peak hour, and 138 trips (87 in/51 out) during the PM peak hour.

- Under existing zoning, if constructed as a shopping center the parcel could have generated approximately 3,482 daily trips with 79 new trips in the AM peak hour (49 in/30 out) and 320 new trips in the PM peak hour (154 in/166 out). This represents that a shopping center would generate 1,650 more daily trips with 29 less trips during the AM peak hour and 182 more trips during the PM peak hour than the proposed residential development.

- Under existing zoning, if constructed as an office building the parcel could have generated approximately 2,012 daily trips with 288 new trips in the AM peak hour (253 in/35 out) and 281 new trips in the PM peak hour (48 in/233 out). This represents that an office would generate 180 more daily trips with 180 more trips during the AM peak hour and 143 more trips during the PM peak hour than the proposed residential development.

- Under existing zoning, if constructed as a medical office building the parcel could have generated approximately 6,774 daily trips with 583 new trips in the AM peak hour (461 in/122 out) and 740 new trips in the PM peak hour (222 in/518 out). This represents that a medical office would generate 4,942 more daily trips with 475 more trips during the AM peak hour and 602 more trips during the PM peak hour than the proposed residential development.

EXISTING

- The results of the existing conditions analysis indicate that all study intersections operate with acceptable levels of service (LOS D or better).

OPENING YEAR

- The results of the Synchro analysis indicate that all study intersections operate with overall acceptable levels of service (LOS D or better).

QUEUE STORAGE

- The recommended storage lengths are provided for study horizon year 2023 using the total traffic projections. The City of Surprise has a minimum queue storage length for a turn of 160-feet with a 100-feet taper.

SIGHT DISTANCE

- The contractor should ensure that sight visibility is provided at all driveways according to the distances calculated. All vegetation and trees should be maintained according to City of Surprise regulations. Sight visibility should be in accordance to the City of Surprise *Standard Details 4-01 and 4-02*.

INTRODUCTION

Alliance Residential proposes a development of approximately 274 dwelling units (DUs) of multifamily (low-rise) residential land use on approximately 11.74 net acres of undeveloped land located at the southwest corner of White Horse Trail and Mountain View Boulevard in Surprise, Arizona. The parcel is currently zoned as Community Commercial (CC) and would be rezoned to Residential High Density (R-3). There will be two (2) access points, with one (1) existing driveway on Mountain View Boulevard for resident and visitor access and one (1) new gated driveway on White Horse Trail limited to emergency vehicles only. The vicinity of the site is provided in **Figure 1**.

CivTech, Inc. has been retained by Alliance Residential Company to perform the traffic impact analysis (TIA) for the proposed development. The purpose of this assessment is to address the traffic and transportation impacts of the proposed development on the surrounding streets and intersections.

STUDY REQUIREMENTS

This study analyzes the traffic impact due to the proposed complex on the surrounding street network. The study has been prepared in conformance with the *City of Surprise Engineering Development Procedures, Chapter 4 Traffic Engineering Standards*, August 2021. The specific objectives of the study are:

- To determine whether the planned street system in the vicinity of the site is adequate to accommodate the increased traffic that results from the proposed development.
- To recommend additional street improvements or traffic control devices, where necessary, to mitigate the additional site-generated traffic; and,
- Evaluate the internal site circulation and provide recommendations if necessary.

STUDY AREA

The study area has been defined as including the following intersections:

- Mountain View Boulevard & Apartments Driveway
- Mountain View Boulevard & QT Driveway
- White Horse Trail & Healthcare Clinic Driveway
- White Horse Trail & Mountain View Boulevard
- Mountain View Boulevard & US-60

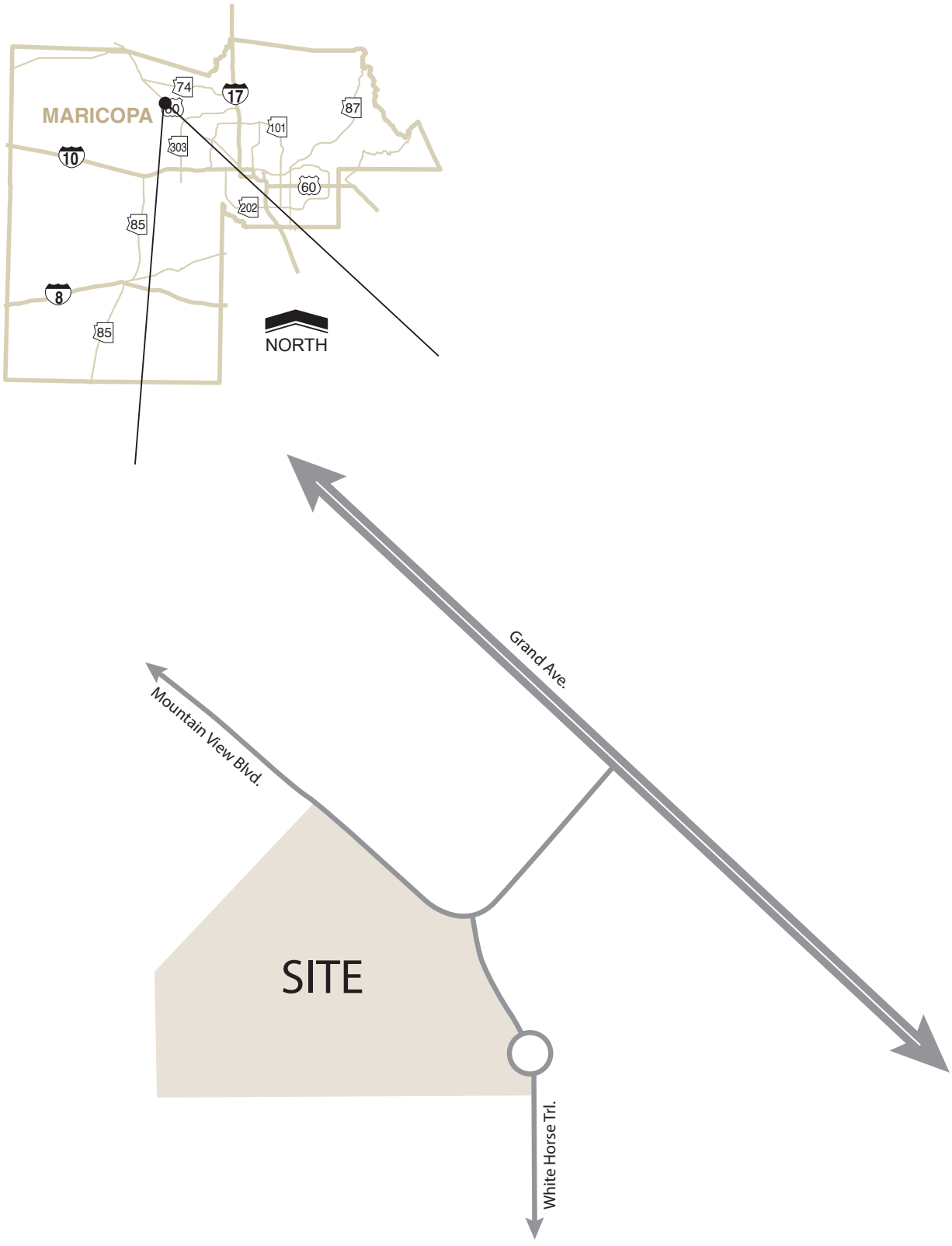


Figure 1: Vicinity Map

HORIZON YEARS

This study has been conducted to conform to the *Engineering Development Procedures, Chapter 4 Traffic Engineering Standards*, prepared by the City of Surprise Transportation Department in August 2021. The proposed development is anticipated to generate more than 99 trips and less than 500 trips and during the highest peak hour. Therefore, the City of Surprise requires the TIA for this development to evaluate the build-out year. It is assumed that the complex will open near the end of 2023.

The study intersections and the site accesses will be analyzed for the AM and PM peak hours to determine the recommended intersection lane configuration, intersection stop control, turn lane storage requirements, and roadway typical sections for the development.

EXISTING CONDITIONS

EXISTING LAND USE

The existing land is currently undeveloped.

SURROUNDING LAND USE

The proposed project is surrounded by single family homes, apartments, offices, medical clinics, and other commercial land uses. United States Route 60 (US-60), an Arizona Department of Transportation (ADOT) Facility that runs northwest-southeast, is located approximately 600 feet northeast of the project. On the southwest side of US-60 is a Quick Trip gas station and convenience store, Trader Joe's, Goodwill, Sherwin-Williams Paint Store, and Texas Roadhouse. South and west of the site are residential homes. East of the site are medical offices.

EXISTING ROADWAY NETWORK

The existing roadway network within the study area includes Mountain View Boulevard, White Horse Trail, and US-60. The roadway classifications were obtained from the City of Surprise *General Plan 2035 Roadway Functional Classification Plan*.

Mountain View Boulevard is a two (2) lane collector road with one (1) lane of travel in each direction and a raised median within the vicinity of the site. West of the site, Mountain View Boulevard runs parallel to US-60 (northwest-southeast). At White Horse Trail, Mountain View Boulevard curves 90 degrees to the north and then runs southwest-northeast. The roadway begins at US-60 and extends to the northwest eventually becoming Clearview Boulevard just west of State Route 303 (SR-303L). The posted speed limit is 25 miles per hour (mph) within the vicinity of the site.

White Horse Trail is a north-south unstriped two (2) lane local roadway with one (1) lane of travel in each direction. The roadway begins at Mountain View Blvd and ends at Two Guns Trail in a residential neighborhood. There is no posted speed limit within the vicinity of the site.

US-60 / Grand Avenue is a northwest-southeast six (6) lane major arterial with three (3) lanes of travel in each direction and a raised median. US-60 begins at an interchange on Interstate 10 (I-10) southwest of Brenda, Arizona and runs east-west through several states, ending in Virginia Beach, Virginia. US-60 provides access to I-10, State Route 71 (SR-71), State Route 74 (SR-74), State Route

93 (SR-93), SR-303L, State Route 101 (SR-101L), and Interstate 17 (I-17). The posted speed limit is 50 mph within the vicinity of the site.

EXISTING INTERSECTION CONFIGURATION

Note that three (3) of the study area roadways are at an angle to the cardinal compass directions. The figures in this study show the proper orientation of each roadway. The descriptions below explain how each intersection was treated in the capacity analysis.

The intersection of **Mountain View Boulevard and Existing Apartments Driveway** four-legged intersection with stop control in the northeastbound and southwestbound approaches. For the purpose of this study, Mountain View Boulevard will be analyzed as the northbound/southbound approaches. The northbound approach consists of a shared through/right turn lane and a bike lane. The southbound approach consists of an exclusive left turn lane, a through lane, and a bike lane. The eastbound approach is exit only and consists of a shared left/through/right. The westbound approach each consists of a shared left/right turn lane.

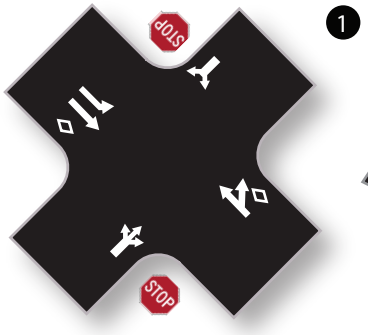
The intersection of **Mountain View Boulevard and White Horse Trail** operates as a "T" intersection with stop control on the northbound approach. At this location, Mountain View Boulevard is analyzed as the eastbound/westbound approaches. The northbound approach consists of a shared left/right-turn lane. The eastbound approach consists of a shared through/right-turn lane. The westbound approach consists of an exclusive left-turn lane and one (1) through lane.

The intersection of **Mountain View Boulevard and QT Driveway** operates as an unsignalized intersection with stop control in the southeastbound and northwestbound approaches. For the purpose of this study, Mountain View Boulevard will be analyzed as the northbound/southbound approaches. The northbound approach consists of an exclusive left-turn lane and a shared through/right-turn lane. The southbound approach consists of a shared left/through lane, one (1) through lane, and an exclusive right turn lane. The eastbound approach consists of an exclusive left-turn lane and an exclusive right-turn lane. The westbound approach consists of a shared left/through/right-turn lane.

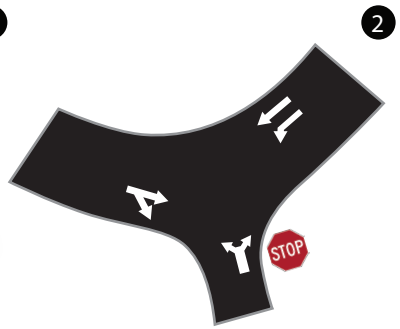
The intersection of **Mountain View Boulevard and US-60** operates as a "T" intersection with stop control in the northbound approach. For the purpose of this study, Mountain View Boulevard will be analyzed as the northbound approach. The northbound approach consists of dual left turn lanes and an exclusive right-turn lane. The eastbound approach consists of an exclusive left-turn lane to allow U-Turns movement, three (3) through lanes and an exclusive right-turn lane. The westbound approach consists of dual left-turn lanes and three (3) through lanes. A designated crosswalk if provided in the south leg of the intersection

The intersection of **White Horse Trial and Healthcare Clinic Driveway** operates as three-legged a roundabout with yield control in all approaches. All three approaches have one entry lane.

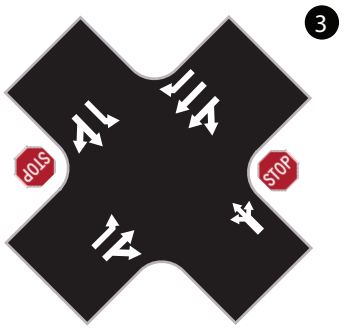
The existing intersection lane configurations and traffic control is illustrated in **Figure 2**.



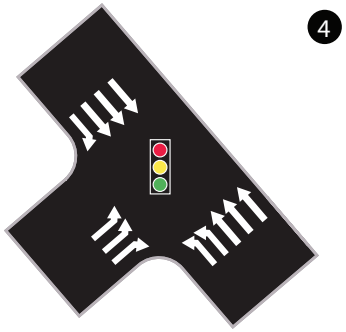
Mountain View Blvd. & Apartments Drwy.



White Horse Trl. & Mountain View Blvd.



Mountain View Blvd. & QT Drwy.



Mountain View Blvd. & US-60

White Horse Trl. & Health Clinic Drwy.

LEGEND

NORTH

- Thru or Turning
- Two-Way Left Turn-Lane
- Raised Median
- Bike Lane
- Traffic Signal
- Stop Sign
- Speed Limit

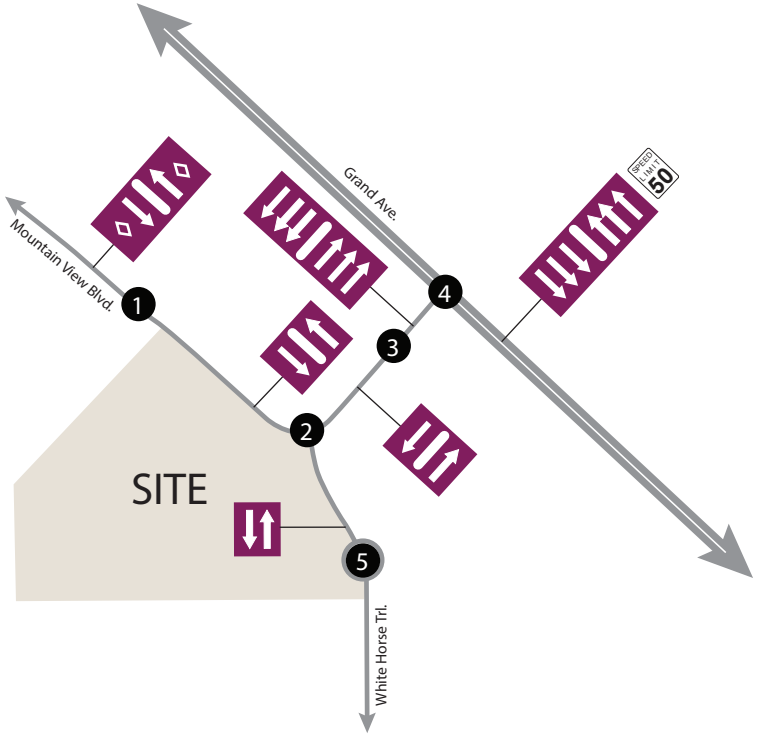


Figure 2: Existing Lane Configurations and Traffic Controls

TRANSIT SERVICE

There are no existing transit stops along the three (3) study roadways within the vicinity of the site. The City of Surprise Park and Ride facility servicing the Valley Metro Route 571 Surprise Express is located approximately one-mile travel distance away, on the south side of Bell Road and east of US-60.

PEDESTRIAN AND BICYCLE FACILITIES

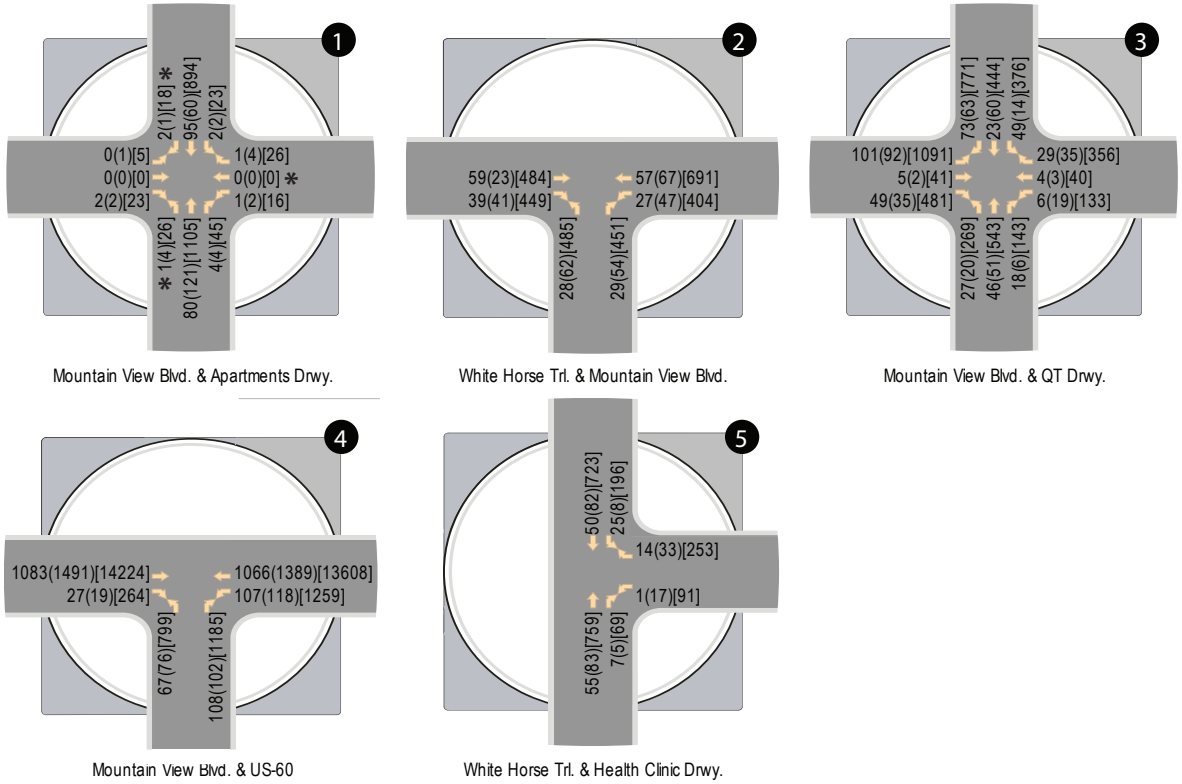
There are existing sidewalks along both directions of travel on Mountain View Boulevard; as well as, northwest of the intersection of Mountain View Boulevard and Apartments Driveway, there are bicycle lanes along both directions of travel. Sidewalks are provided on the west side of US-60 and on both sides of White Horse Trail. There is a crosswalk provided on the south leg of the intersection of Mountain View Boulevard and US-60.

EXISTING TRAFFIC VOLUMES

CivTech engaged Field Data Services of Arizona, Inc. to record traffic volumes at five (5) study intersections within the project vicinity. Peak hour volume turning movement counts were performed from 7:00-9:00 AM and 4:00-6:00 PM on Tuesday, January 11, 2022. Peak hour turning movement counts were conducted at the following study intersections:

- Mountain View Boulevard & Apartments Driveway
- Mountain View Boulevard & QT Driveway
- White Horse Trail & Healthcare Clinic Driveway
- White Horse Trail & Mountain View Boulevard
- Mountain View Boulevard & US-60

The existing traffic volumes observed for this study are presented in **Figure 3** for the weekday AM and PM peak hours. Traffic volume data obtained for this study have been included in **Appendix B**.



LEGEND

NORTH

XX(XX)[XX] - AM(PM) Peak Hour Traffic Volumes, [XX] ADT

* Entry is not allow, however, existing counts indicated that vehicles are still making the movement.

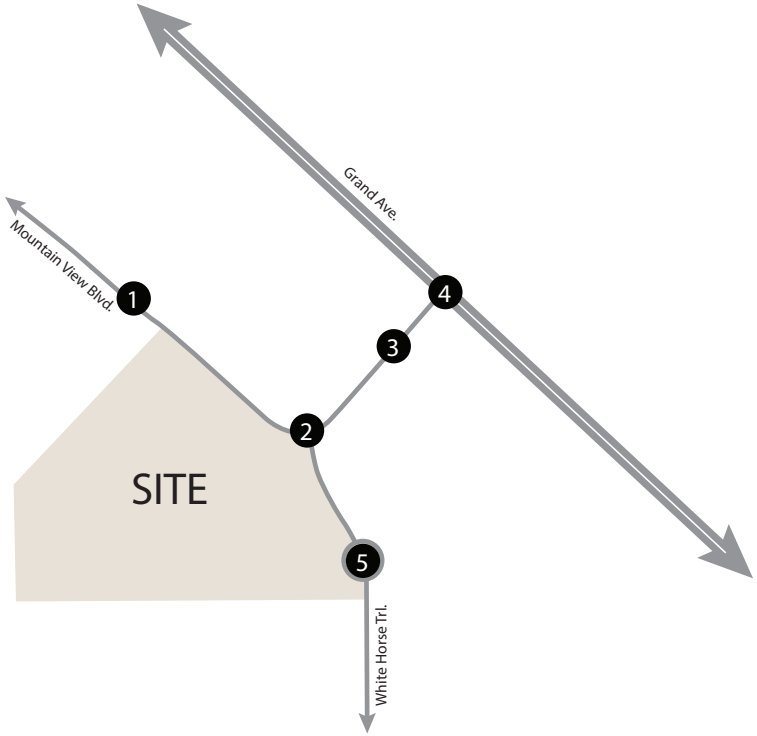


Figure 3: Existing Traffic Volumes

EXISTING CAPACITY ANALYSIS

Peak hour capacity analyses have been conducted for the study intersections based on existing intersection configurations and traffic volumes. All intersections have been analyzed using the methodologies presented in the *Highway Capacity Manual (HCM), Special Report 209,* and Updated 2016 and using Synchro software, version 11.0 under the HCM 6th edition (2016) methodology.

The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within the traffic stream. The individual levels of service are described by factors that include speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations A through F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions. Levels of service for intersections are defined within ranges of average control delay per vehicle, the number of seconds a vehicle can expect to wait due to the presence of a traffic control device. **Table 1** lists the level of service criteria for signalized and unsignalized intersections, respectively.

Table 1 – Level of Service Criteria for Controlled Intersections

Level-of-Service	Signalized Control Delay (sec/veh)	Unsignalized Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80 (or v/c > 1)	> 50 (or v/c > 1)

Source: Exhibits 19-8, 20-2, 21-8, and 22-8, Highway Capacity Manual, 6th Edition (2016)

Synchro 11.0 software calculates the LOS per the HCM 6th edition (2016) methodology. The 6th edition HCM documents the signalized LOS calculation methodology which takes into account lane geometry, traffic volumes and cycle length/phasing to compute LOS. Synchro analysis worksheets report individual movement delay/LOS and overall delay/LOS for signalized intersections; unsignalized intersection worksheets report the worst-case delay/LOS and the average overall intersection delay. Signal timing at the intersection of Mountain View Boulevard and US-60 were provided by the Arizona Department of Transportation (ADOT). Results of the existing level of service analyses are shown in **Table 2** for both AM and PM peak hours. The existing conditions analysis worksheets have been included in **Appendix C**.

Table 2 – Existing Peak Hour Levels of Service

ID	Intersection	Intersection Control	Approach/ Movement	Existing LOS AM (PM)
1	Mountain View Blvd. & Apartments Drwy. (NB-SB & EB-WB)	2-Way Stop (EB/WB)	NB Shared SB Left EB Shared WB Shared	A (A) A (A) A (A) A (A)
2	White Horse Trl. & Mountain View Blvd. (NB & EB-WB)	1-Way Stop (NB)	NB Shared WB Left	A (B) A (A)
3	Mountain View Blvd. & QT Drwy. (NB-SB & EB-WB)	2-Way Stop (EB/WB)	NB Left SB Shared EB Left EB Right WB Shared	A (A) A (A) B (B) A (A) A (A)
4	Mountain View Blvd & US-60 (NB & EB-WB)	Signal	NB Left NB Right EB Thru EB Right WB Left WB Thru **Overall**	C (C) C (D) B (B) A (A) C (C) A (A) **A (A)**
5	White Horse Trl. & Health Clinic Drwy. (NB–SB & WB)	Roundabout	NB SB WB	A (A) A (A) A (A)

The results of the existing conditions analysis summarized in **Table 2** indicate that all study intersections currently operate with acceptable levels of service (LOS D or better).

FUTURE ROADWAY IMPROVEMENTS

CivTech searched the City of Surprise both *General Plan 2035* and *Capital Improvement Plan* and neither indicated that there will be any future improvements along Mountain view Boulevard fronting the proposed site.

CRASH HISTORY

Crash data for the study area was obtained from ADOT for the latest three (3) years of continuous data. In total, there were 5 incidents within the study area since in the years of 2018-2020. There were 3 intersections incidents; 2 were at the intersection of Mountain View Boulevard & US-60 and 1 at the intersection of White Horse Trail & Mountain View Boulevard. The remaining 2 incidents are segment crashes; 1 on Mountain View Boulevard just southwest of Mountain View Boulevard & US-60 and 1 on White Horse Trail just south of the White Horse Trail & Clinic Driveway roundabout. The summary of intersection crash data is presented in **Table 3**.

Table 3 – Intersection Crash Data Summary

Intersection	Total	2020	2019	2018	Injury	Fatality	Angle	Left Turn	Rear End	Head On	Sideswipe	Other
(1)Mountain View Blvd. & US-60	**2**	1	0	1	1	0	0	0	1	0	0	1
White Horse Trl. & Mountain View Blvd.	**1**	0	1	0	0	0	0	0	0	0	0	1

(1) The crash data identified this intersection as White Horse Trail & Grand Avenue

Of all of the crashes listed in the tables above, none involved a fatality. The highest percentage of accidents at most intersections is single vehicle collisions and the lowest percentage of accidents being angle and rear end collisions. Crash analysis worksheets are included in **Appendix D**.

PROPOSED DEVELOPMENT

SITE LOCATION

Alliance Residential proposes a development of approximately 274 dwelling units (DUs) of multifamily (low-rise) residential land use on approximately 11.74 net acres of undeveloped land located at the southwest corner of White Horse Trail and Mountain View Boulevard in Surprise, Arizona. The development will provide 10 DUs of two-story apartments and 264 DUs of three-story apartments.

SITE ACCESS

There is a total of two (2) proposed access points.

- *Access A* – will be a full movement access and the only access provided for tenants and visitors. Access A is located on Mountain View Boulevard aligning with the existing median break approximately 350-feet northwest of White Horse Trail.

- *Access B* – will be restricted to emergency vehicles only. Access B is located on White Horse Trail approximately 150-feet south of Mountain View Boulevard.

The proposed development site plans are provided in **Figure 4**.

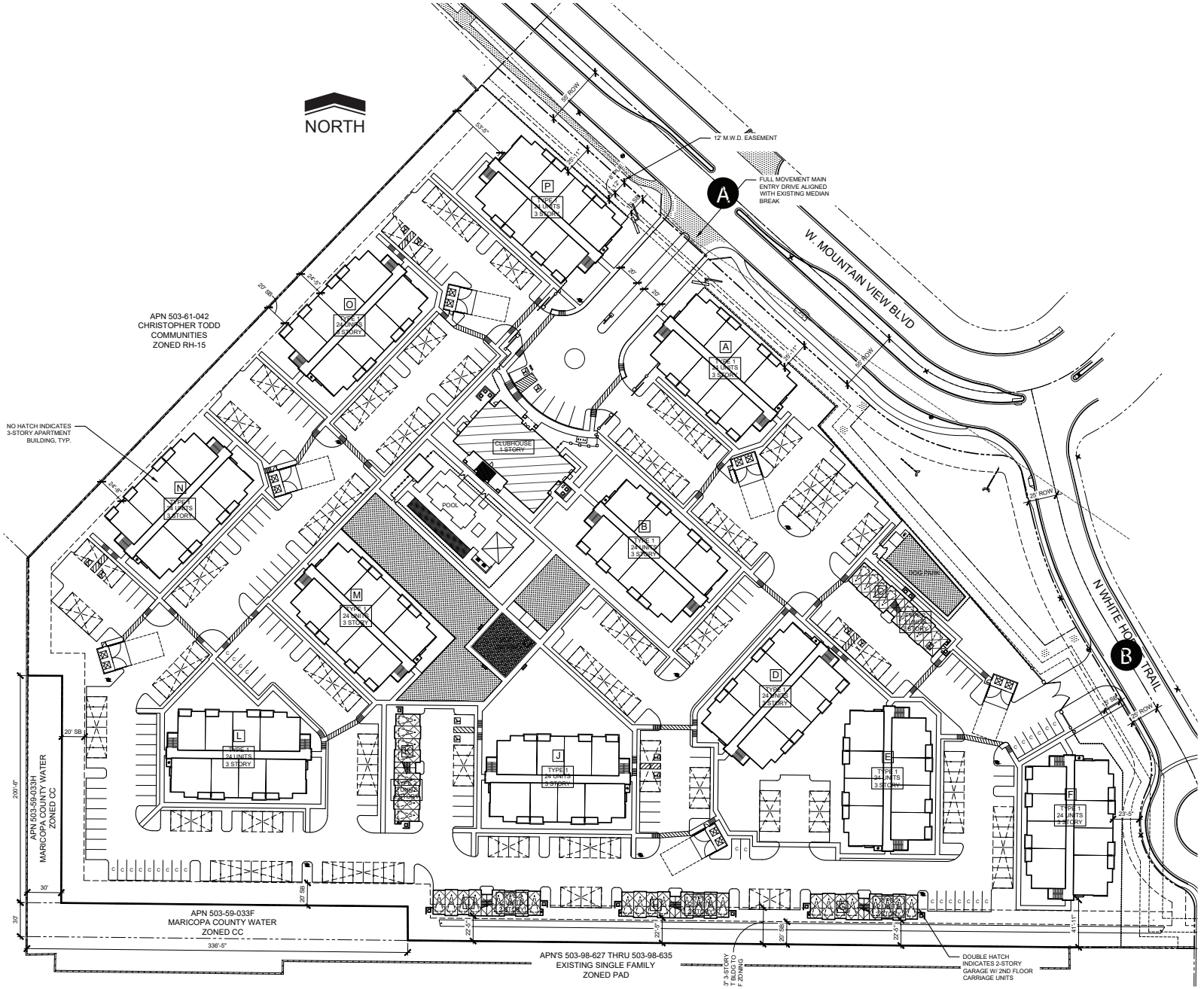


Figure 4: Site and Access

TRIP GENERATION COMPARISON

EXISTING LAND USES

The parcel is currently zoned as Community Commercial (CC or C-2) with a lot size of 470,434 square feet (SF). Per the City of Surprise *Land Development Ordinance*, the land use CC or C-2 provides for retail, office, or service activities to satisfy the needs of the community. Per Table 106-6a – Commercial Zoning Districts indicates that the minimum set back of adjacent to a residential zoning is 30-feet. The maximum building height of is 40-feet; however, if the development is adjacent to a Rural Residential (RR), Residential Low Density (R-1), and Residential Medium Density (R-2) zoning, then the maximum building height is 30-feet.

CivTech assumed three (3) scenarios that could have been constructed under the existing zoning; single story retail, two-story general office, and two-story medical office with each having and floor-area-ratio of 20%. This results in either 94,087 SF of retail or 188,174 SF of offices or medical offices.

PROPOSED LAND USE

The potential trip generation for the proposed development was estimated utilizing the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition.* The ITE *Trip Generation Manual* contains data collected by various transportation professionals for a wide range of different land uses. The data are summarized in the report and average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized land use. The report provides information for daily and peak hour trips. The 11th Edition categorized a three-story residential building under the land use code 220 (LUC) Multi-Family Housing (Low Rise).

The anticipated trip generation based on the existing zoning compared to the proposed land use is summarized in **Table 4**. Detailed trip generation calculations are provided in **Appendix E**.

Table 4 – Trip Generation

Land Use	ITE Code	ITE Land Use Name	Quantity	Units+	AM Distribution		PM Distribution	
					In	Out	In	Out
Existing Zoning								
Retail	820	Shopping Center	94.087	KSF	62%	38%	48%	52%
General Office	710	General Office Building	188.174	KSF	88%	12%	17%	83%
Medical, Dental or Health Office Buildings and Clinics	720	Medical-Dental Office Building	188.174	KSF	79%	21%	30%	70%
Proposed								
Apartments	220	Multifamily Housing (Low-Rise)	274	DUs	24%	76%	63%	37%

Land Use	ADT		AM Peak Hour				PM Peak Hour			
	Avg. Rate*	Total	Avg. Rate*	In	Out	Total	Avg. Rate*	In	Out	Total
Existing Zoning										
Retail	37.01	3,482	0.84	49	30	79	3.40	154	166	320
Total		**3,482**		**49**	**30**	**79**		**154**	**166**	**320**
General Office	10.69	2,012	1.53	253	35	288	1.49	48	233	281
Total		**2,012**		**253**	**35**	**288**		**48**	**233**	**281**
Medical, Dental or Health Office Buildings and Clinics	36.00	6,774	3.10	461	122	583	3.93	222	518	740
Total		**6,774**		**461**	**122**	**583**		**222**	**518**	**740**
Proposed										
Apartments	6.68	1,832	0.39	26	82	108	0.51	87	51	138
Totals Trips		**1,832**		**26**	**82**	**108**		**87**	**51**	**138**
Difference from Retail (Reduction)		**(-1,650)**		**(-23)**	**52**	**29**		**(-67)**	**(-115)**	**(-182)**
Difference from Offices (Reduction)		**(-180)**		**(-227)**	**47**	**(-180)**		**39**	**(-182)**	**(-143)**
Difference from Medical, Dental or Health Office Buildings and Clinics (Reduction)		**(-4,942)**		**(-435)**	**(-40)**	**(-475)**		**(-135)**	**(-467)**	**(-602)**

Notes: *All average rates were calculated by dividing total trips generated using regression equation by the number of dwelling units. (See below.)
+ DUs = Dwelling Units

CALCULATIONS (Equations shown only where applicable)			
Land Use [Units]	*Daily*	*AM Peak Hour*	*PM Peak Hour*
Existing Zoning			
Retail [94.087 KSF]	WA: T=X*37.0 [37.01]	WA: T=X*0.84 [0.84]	WA: T=X*3.4 [3.40]
General Office [188.174 KSF]	FC: LN(T)=0.87*LN(X)+3.05 [10.69]	FC: LN(T)=0.86*LN(X)+1.16 [1.53]	FC: LN(T)=0.83*LN(X)+1.29 [1.49]
Medical, Dental or Health Office Buildings and Clinics [188.174 KSF]	WA: T=X*36.0 [36.00]	WA: T=X*3.1 [3.10]	WA: T=X*3.93 [3.93]
Proposed			
Apartments [274 DUs]	FC: T=6.41*X + 75.31 [6.68]	FC: T=0.31*X + 22.85 [0.39]	FC: T=0.43*X + 20.55 [0.51]

The proposed development is anticipated to generate 1,832 weekday daily trips, with 108 trips (26 in/82 out) during the AM peak hour, and 138 trips (87 in/51 out) during the PM peak hour.

Under existing zoning, if constructed as a shopping center the parcel could have generated approximately 3,482 daily trips with 79 new trips in the AM peak hour (49 in/30 out) and 320 new trips in the PM peak hour (154 in/166 out). This represents that a shopping center would generate 1,650 more daily trips with 29 less trips during the AM peak hour and 182 more trips during the PM peak hour than the proposed residential development.

Under existing zoning, if constructed as an office building the parcel could have generated approximately 2,012 daily trips with 288 new trips in the AM peak hour (253 in/35 out) and 281 new trips in the PM peak hour (48 in/233 out). This represents that an office would generate 180 more daily trips with 180 more trips during the AM peak hour and 143 more trips during the PM peak hour than the proposed residential development.

Under existing zoning, if constructed as a medical office building the parcel could have generated approximately 6,774 daily trips with 583 new trips in the AM peak hour (461 in/122 out) and 740 new trips in the PM peak hour (222 in/518 out). This represents that a medical office would generate 4,942 more daily trips with 475 more trips during the AM peak hour and 602 more trips during the PM peak hour than the proposed residential development.

VEHICLE TRIP DISTRIBUTION AND ASSIGNMENT

A single trip distribution pattern was assumed for the proposed development. It is expected that the proposed development will generate trips based on future employment/population within a 5-mile radius of the site. Future total employment within a 5-mile radius of the site, as projected by the 2030 socio-economic data compiled by the Maricopa Association of Governments (MAG), was used as a basis to estimate trip distribution. CivTech also contacted the City of Surprise Engineer for approval of the trip distribution assumptions. The resulting trip distribution percentages for the study area are shown in **Table 5**. The trip distribution calculations are included in **Appendix F**.

Table 5 – Site Trip Distribution

Direction (To/From)	Percentage
Northwest on US-60 (northwest of Mountain View Boulevard)	32%
Southeast on Us-60 (southeast of Mountain View Boulevard)	57%
Northwest on Mountain View Boulevard (northwest of Apartments Driveway	10%
South on White Horse Trail (south of Roundabout)	1%
Total	**100%**

Figure 5 illustrates the trip distribution percentages noted in **Table 5** on the roadway network within the study area. The percentages presented in **Figure 5** were applied to the site trips generated to determine the AM and PM peak hour site traffic at the intersections within the study area. **Figure 6** presents the resulting site generated traffic for the proposed development.

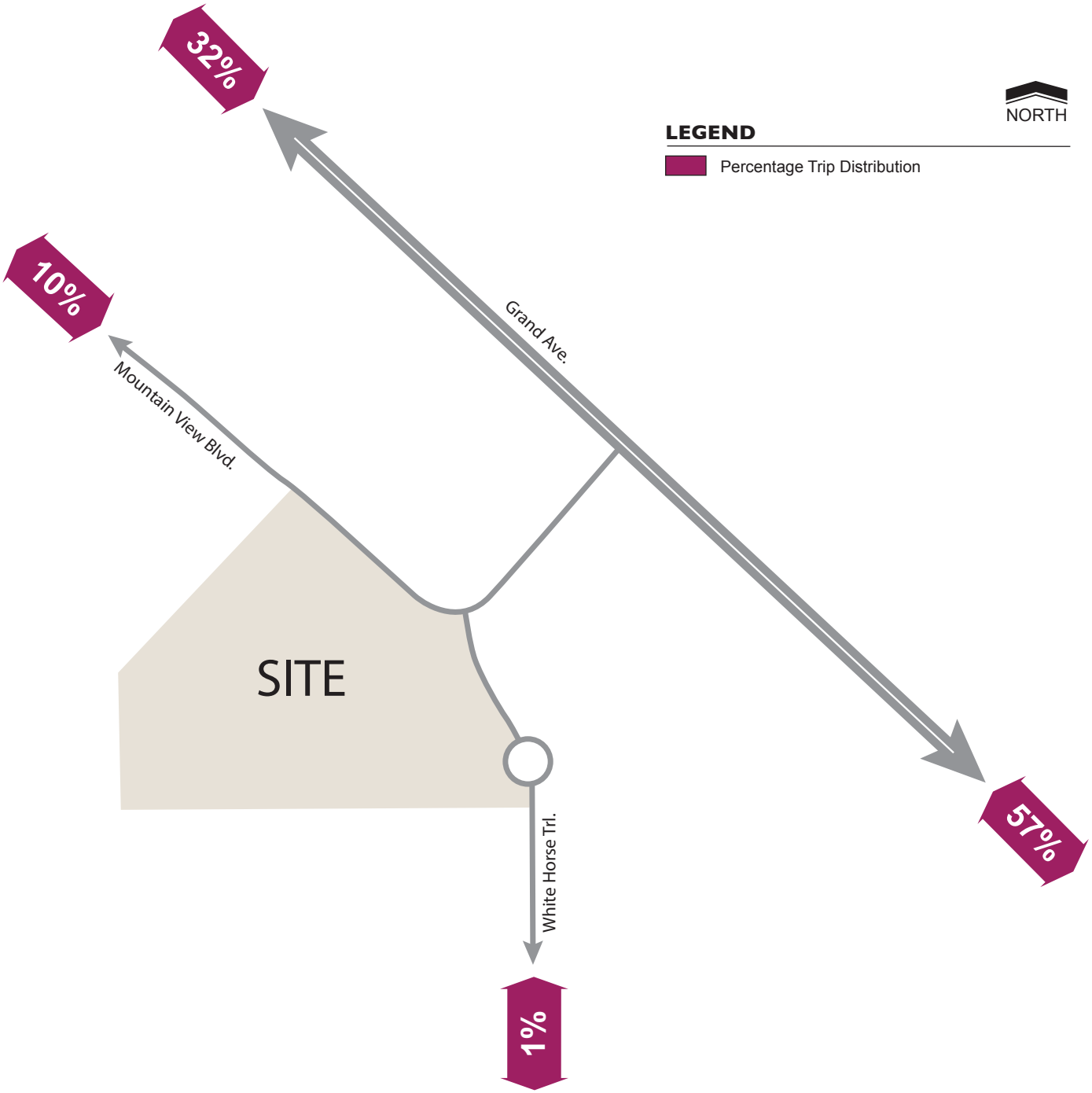


Figure 5: Trip Distribution

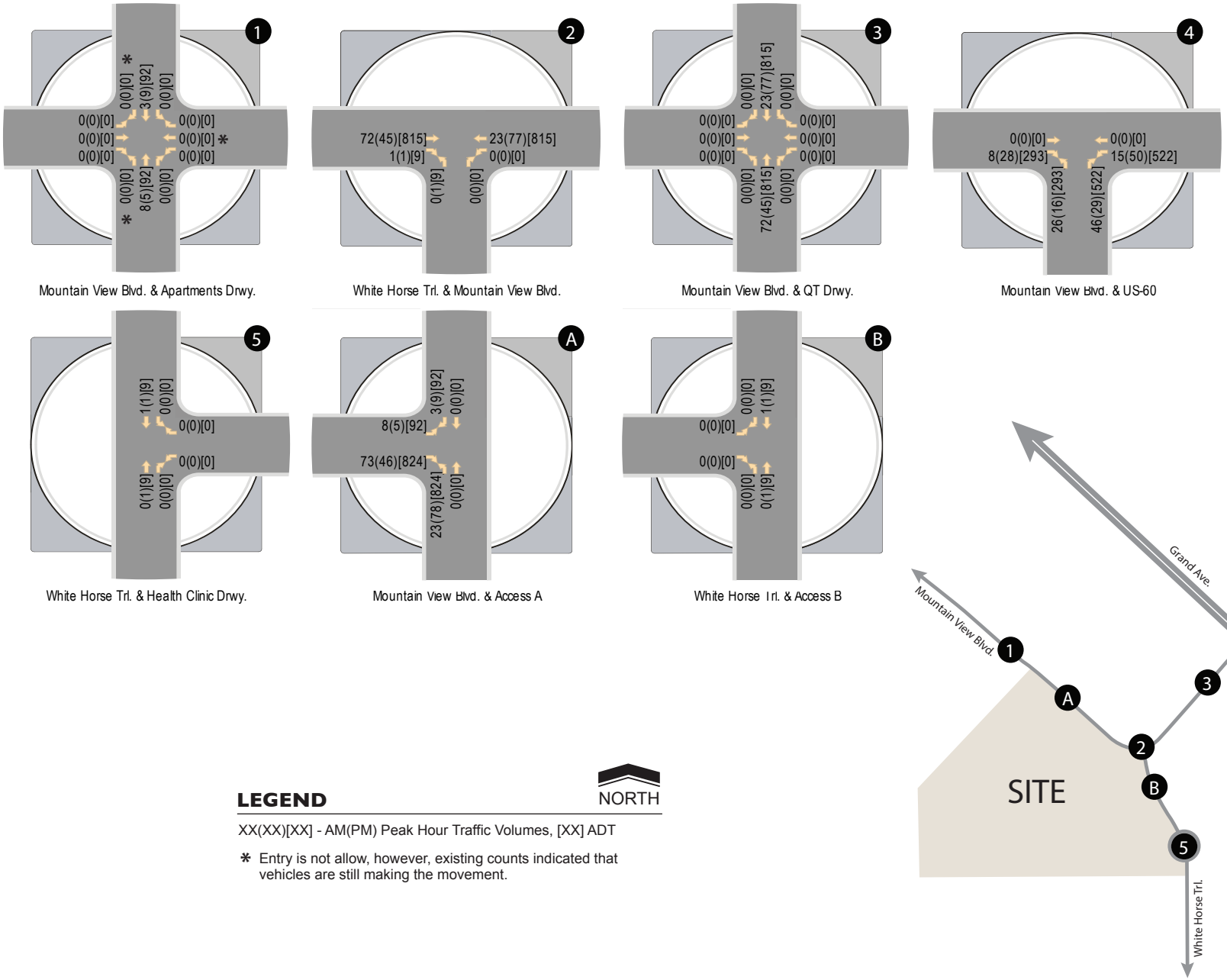


Figure 6: 2023 Site Traffic Volumes

FUTURE BACKGROUND TRAFFIC

CivTech utilized ADOT's online interactive GIS maps for the historical daily traffic volumes on US-60 southeast of Mountain View Boulevard to estimate an average annual growth rate. The location experienced an inconsistency of average annual increase and decrease between 2018-2021. CivTech consulted with the City of Surprise Engineer and a recommended 4.0% annual growth rate for the analysis and the annual expansion factor of 1.040 (for opening year 2023) was applied to the volumes at the study intersections to obtain the future background traffic volumes.

The background volumes for the opening year of 2023 are presented in **Figure 7**. Background traffic calculations are located within **Appendix G**.

TOTAL TRAFFIC

Total traffic was determined by adding the site generated traffic to the estimated projected background traffic. Total peak hour traffic volumes for the opening year of 2023 are shown in **Figure 8**.

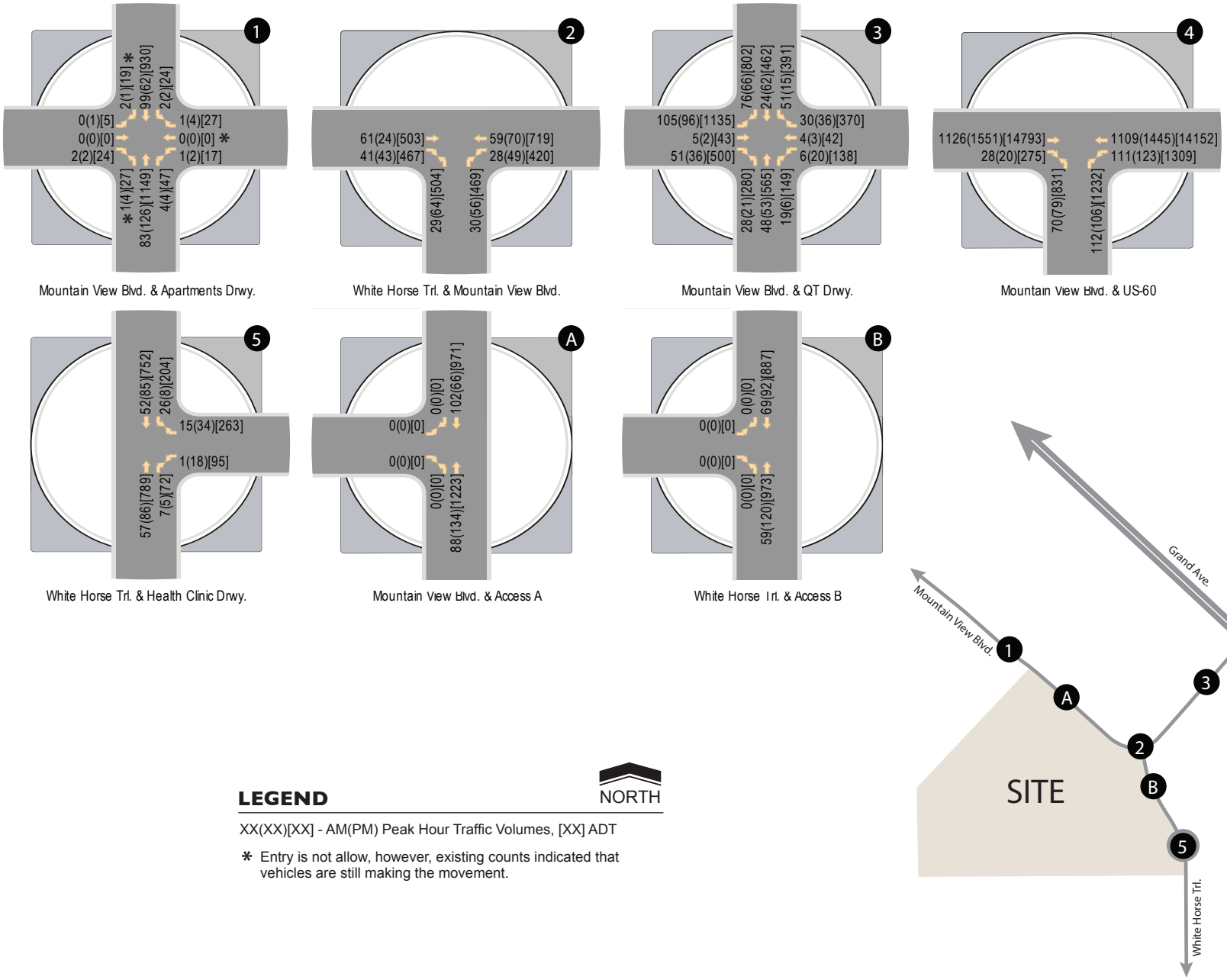


Figure 7: 2023 Background Traffic Volumes

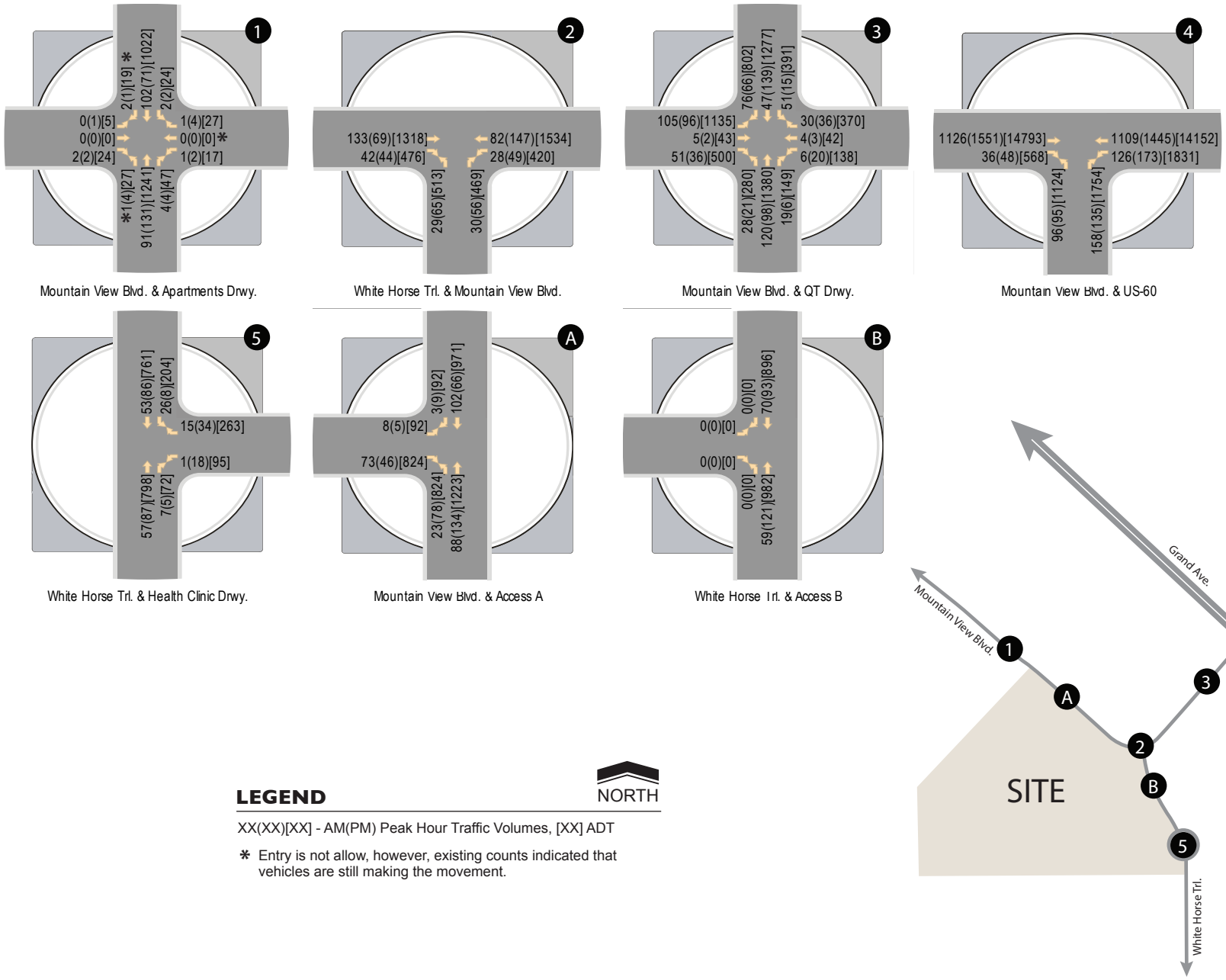


Figure 8: 2023 Total Traffic Volumes

TRAFFIC AND IMPROVEMENT ANALYSIS

The overall intersection and approach levels of service are summarized in **Table 6** for the 2023 background and total traffic conditions. Detailed analysis worksheets for the 2023 background analysis can be found in **Appendix H**, worksheets for the 2023 total traffic analysis can be found in **Appendix I**.

Table 6 – Peak Hour Levels of Service

ID	Intersection	Intersection Control	Approach/ Movement	2023	
				No Build	Build
				AM (PM)	AM(PM)
1	Mountain View Boulevard & Apartments Driveway (NB-SB & EB-WB)	2-Way Stop (EB/WB)	NB Shared SB Left EB Shared WB Shared	A (A) A (A) A (A) A (A)	A (A) A (A) A (A) A (A)
2	White Horse Trail & Mountain View Boulevard (NB & EB-WB)	1-Way Stop (NB)	NB Shared WB Left	A (B) A (A)	B (B) A (A)
3	Mountain View Boulevard & QT Driveway (NB-SB & EB-WB)	2-Way Stop (EB/WB)	NB Left SB Shared EB Left EB Right WB Shared	A (A) A (A) B (B) A (A) A (A)	A (A) A (A) B (B) A (A) B (B)
4	Mountain View Boulevard & US-60 (NB & EB-WB)	Signal	NB Left NB Right EB Thru EB Right WB Left WB Thru	C (C) C (D) B (B) A (A) C (C) A (A)	C (C) D (D) B (B) A (A) C (D) A (A)
			Overall	**B (B)**	**B (B)**
5	White Horse Trail & Health Clinic Driveway (NB-SB & WB)	Roundabout	NB SB WB	A (A) A (A) A (A)	A (A) A (A) A (A)
A	Mountain View Boulevard & Access A (NB-SB & EB)	1-Way Stop (EB)	NB Left EB Shared	-	A (A) A (A)
B	White Horse Trail & Access B (NB-SB & EB)	1-Way Stop (EB)	NB Shared EB Shared	-	A (A) A (A)

The results of the Synchro analysis summarized in **Table 6** indicate that all study intersections are predicted to operate with overall acceptable levels of service (LOS D) or better both without and with the Project.

TURN LANE WARRANTING AND QUEUE LENGTH ANALYSIS

RIGHT-TURN DECELERATION LANES

The City of Surprise does not have specific warrants for the installation of dedicated right-turn lanes; however, the City does require that a minimum of 160-feet of queue storage length with 100-feet taper at all right turn lanes warranted on arterial and collector roads. CivTech deferred to section 7.15 of the *MCDOT Roadway Design Manual*, which requires a driveway right-turn deceleration lane to be provided when either of the following is met:

- The outside lane has an expected volume of 250 vph or greater and the right-turn volume is greater than 55 vph.
- Any three of the below criteria are met:
  A. At least 5,000 vehicles per day (vpd) are using or are expected to be using the adjacent street.
  B. The roadway's posted speed limit is greater than 35 mph.
  C. At least 1,000 vpd are using or are expected to use the driveway.
  D. At least 30 vehicles are expected to make right-turns into the driveway within a one-hour period.

Table 7 is a summary of the 2022 peak hour right-turn volumes from the adjacent street onto the proposed driveways:

Table 7 – Right-turn Deceleration Lane Warranting Criteria

Access	Criterion 1	Criterion 2			
		a.	b.	c.	d.
Mountain view Boulevard & Access A	No	No	No	Yes	No

The results presented in **Table 7** indicate that the criteria for a southbound right-turn deceleration lane at Mountain View Boulevard and Access A is not met.

LEFT-TURN LANES

The intersection of Mountain View Boulevard and Access A provides an existing median break with an exclusive left turn lane. The Project will utilize the existing left turn lane to access the site.

QUEUE STORAGE

A queuing analysis was performed for all warranted/recommended and existing intersection turn lanes where site traffic is expected as well as left-turn lanes adjacent to the site using the methodology documented on pages 9-96 through 9-99 of the latest (7th) edition of the American Association of Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets* (the AASHTO "Green Book"). The Green Book indicates that, "A deceleration lane should be sufficiently long to store the number of vehicles likely to accumulate in a queue during a critical period."

For a right turn lane at an unsignalized driveway or intersection, the critical period has typically been two minutes and the storage length estimated as the length required to hold the average number of arriving vehicles per a two-minute period, of which there are 30 per hour. Thus, for unsignalized driveways and intersections, the storage length for a right-turn lane can be calculated by use of the following formula:

Storage Length = $\left\{\frac{(veh/hr)}{(30\ periods/hr)}\right\} \times VL$, where *VL* is an assumed average Vehicle Length of 25 feet.

For unsignalized intersections, the storage length for a left-turn lane is determined by the use of Equations 9-3 and 9-4 of the Green Book.

Storage Length = $\left\{\frac{\ln[P(n>N)]}{\ln\frac{v}{c}} - 1\right\} \times VL$ [9-4], where $c = \frac{V_0 e^{-V_0 t_c/3600}}{1-e^{-V_0 t_c/3600}}$ [9-3] and *VL* is 25 feet.

Where signalized, the critical period per the Green Book is one-and-a-half to two signal cycles.[1] The equation used to calculate the queue storage for a right- *or* left-turn lane using AASHTO methodology is thus:

$$\text{Storage Length} = \left\{\frac{1.5\ x\ (veh/hr)}{(cycles/hr)}\right\} \times VL, \text{ where } VL \text{ is, again, 25 feet.}$$

The 2023 total projected traffic volumes were utilized for the calculations. From this, the resulting turn lane storage for turn movements using AASHTO guidelines were calculated and are summarized in **Table 8**. Calculations for the AASHTO queue storage length recommendations and the 95th percentile HCM 2016 queue storage length recommendations are provided in **Appendix J**. The 95th percentile HCM 2016 queue storage lengths are given in vehicles and multiplied by 25 feet per vehicle to determine the storage length.

[1] AASHTO, under Section 9.7.2.2 (page 9-96) of the Green Book, indicates that storage length for a turn lane, exclusive of taper, "should usually be based on 1.5 to 2 times the average number of vehicles that would need to be stored per signal cycle" at a signalized intersection.

Table 8 – Queue Storage Lengths

ID	Intersection	Intersection Control	Movement	Queue Storage			
				Existing(1)	AASHTO	HCM(2)	Recommended
4	Mountain View Boulevard & US-60 (NB & EB-WB)	Signal	NB Left WB Left NB Right EB Right	(3)240′ (3)740′ 120′ 385′	(3)125′ (3)225′ 200′ 75′	45′ 85′ <25′ 25′	No Change No Change (4)No Change No Change
A	Mountain View Boulevard & Access A (NB-SB & EB)	1-Way Stop (EB)	NB Left	40′	25′	25′	No Change

(1) Measured from beginning of stop bar
(2) HCM 95th percentile queue reported in vehicles/lane, assuming 1 vehicle ~ 25 feet.
(3) Queue reported is the sum of dual turn lanes.
(4) Intersection does not provide enough space to extend NBR queue storage length.

The recommended storage lengths in **Table 8** are provided for study horizon year 2023 using the total traffic projections.

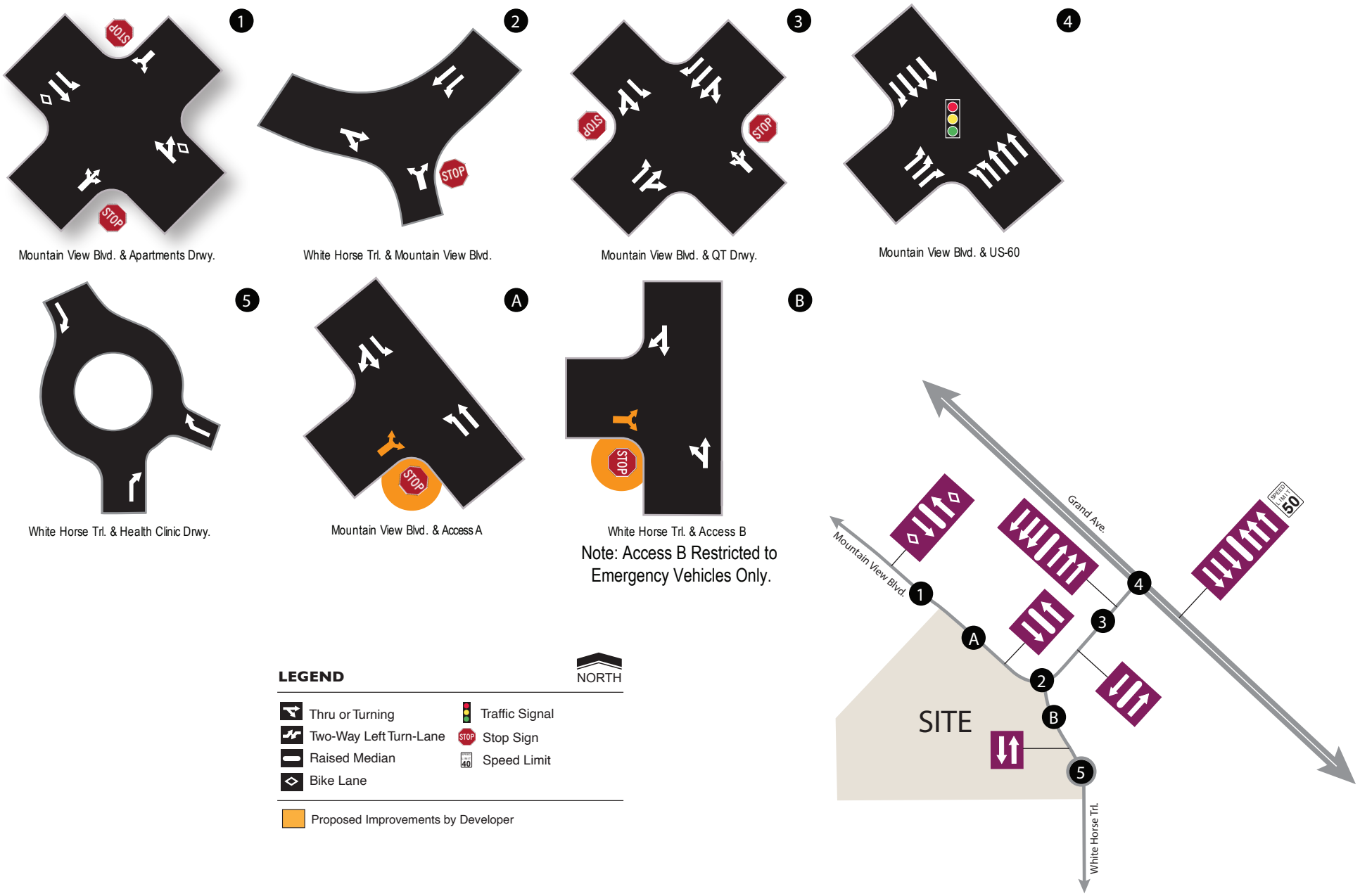


Figure 9: Proposed Lane Configurations and Traffic Controls

SIGHT DISTANCE ANALYSIS

Adequate sight distance must be provided at intersections and site access driveways to allow safe turning movements. There must be sufficient unobstructed sight distance along both approaches of a street/driveway intersection and across their included corners to allow operators of vehicles to see each other in time to prevent a collision.

The City of Surprise maintains sight distance requirements within their City Code, standard details and development services guidelines. The City of Surprise measures sight distance using AASHTO methodology except that the sight triangle from the driveway is measured from the center of the egress lane, 18 feet back from the curb line. Sight distance requirements according to Table A in the City of Surprise *Detail 4-01 Sight Distance Requirements for Arterial & Collector Streets* are summarized in **Table 9**.

Table 9 – Sight Distance Requirements

Roadway	Street Classification	Sight Distance Along Roadway	
		Left of Driveway (Dimension C)	Right of Driveway (Dimension B)
Mountain View Boulevard	Residential Collector	385′	470′

The contractor should ensure that sight visibility is provided at all driveways according to the distances shown in **Table 9** and that sight distance will meet COS DTLs 4-01 and 4-02. All vegetation and trees should be maintained according to City of Surprise regulations. Sight distance worksheets have been included within **Appendix K**.

ON SITE CIRCULATION EVALUATION

The planned proposed site access will be aligned with the existing median break which provide existing left turn storage for vehicles to enter the site. Access A will be the only point of access for vehicles to enter and exit the site. The access provided on White Horse Trail south of Mountain View Boulevard will allow full movements for emergency vehicles only.

CONCLUSIONS

The following conclusions have been documented in this study:

GENERAL

- The proposed development is anticipated to generate 1,832 weekday daily trips, with 108 trips (26 in/82 out) during the AM peak hour, and 138 trips (87 in/51 out) during the PM peak hour.

- Under existing zoning, if constructed as a shopping center the parcel could have generated approximately 3,482 daily trips with 79 new trips in the AM peak hour (49 in/30 out) and 320 new trips in the PM peak hour (154 in/166 out). This represents that a shopping center would generate 1,650 more daily trips with 29 less trips during the AM peak hour and 182 more trips during the PM peak hour than the proposed residential development.

- Under existing zoning, if constructed as an office building the parcel could have generated approximately 2,012 daily trips with 288 new trips in the AM peak hour (253 in/35 out) and 281 new trips in the PM peak hour (48 in/233 out). This represents that an office would generate 180 more daily trips with 180 more trips during the AM peak hour and 143 more trips during the PM peak hour than the proposed residential development.

- Under existing zoning, if constructed as a medical office building the parcel could have generated approximately 6,774 daily trips with 583 new trips in the AM peak hour (461 in/122 out) and 740 new trips in the PM peak hour (222 in/518 out). This represents that a medical office would generate 4,942 more daily trips with 475 more trips during the AM peak hour and 602 more trips during the PM peak hour than the proposed residential development.

EXISTING

- The results of the existing conditions analysis indicate that all study intersections operate with acceptable levels of service (LOS D or better).

OPENING YEAR

- The results of the Synchro analysis indicate that all study intersections operate with overall acceptable levels of service (LOS D or better).

QUEUE STORAGE

- The recommended storage lengths are provided for study horizon year 2023 using the total traffic projections. The City of Surprise has a minimum queue storage length for a turn of 160-feet with a 100-feet taper.

SIGHT DISTANCE

- The contractor should ensure that sight visibility is provided at all driveways according to the distances calculated. All vegetation and trees should be maintained according to City of

Surprise regulations. Sight visibility should be in accordance to the City of Surprise *Standard Details 4-01 and 4-02*.

LIST OF REFERENCES

Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis. Transportation Research Board, Washington, D.C., 2018.

Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, Washington, D.C., 2021.

Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers, Washington, D.C., 2014.

Engineering Development Standards, Chapter 4 Traffic Engineering Standards, City of Surprise, Arizona, August 2021.

Planning and Design Guidelines Manual, City of Surprise, Arizona, July 2002.

TECHNICAL APPENDICES

APPENDIX A: REVIEW COMMENTS AND RESPONSES

APPENDIX B: EXISTING TRAFFIC COUNTS

APPENDIX C: EXISTING PEAK HOUR ANALYSIS

APPENDIX D: CRASH ANALYSIS WORKSHEETS

APPENDIX E: TRIP GENERATION CALCULATIONS

APPENDIX F: TRIP DISTRIBUTION CALCULATIONS

APPENDIX G: BACKGROUND GROWTH CALCULATIONS

APPENDIX H: 2023 NO BUILD PEAK HOUR ANALYSIS

APPENDIX I: 2023 BUILD PEAK HOUR ANALYSIS

APPENDIX J: QUEUE STORAGE ANALYSIS

APPENDIX K: SIGHT DISTANCE ANALYSIS

APPENDIX A

REVIEW COMMENTS AND RESPONSES

Disposition Codes: (1) Will Comply (2) Will Evaluate (3) Delete Comment (4) Defer to Consultant/Owner

Reviewer Name, Agency: **Johnathan Futch, Stephen Chang - City of Surprise**

Item	Review Comment	(Code) & Response
1.	**Figures 2 & 9 - At the roundabout at White Horse Trail & Health Clinic driveway, do not show left turn arrows. Only show right turn arrows at all three approaches. -Repeat Comment**	(1) Will Comply - Updated all three approaches to be single right turn movement.
2.	**Figure 9 - Add a note to Access B that it is for "Emergency Vehicle Access Only". -Repeat Comment**	(1) Will Comply - Added note to figure.

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ARIZONA

ENGINEERING DEVELOPMENT SERVICES
PUBLIC WORKS
CITY OF SURPRISE
16000 N. CIVIC CENTER PLAZA
SURPRISE, AZ 85374
T. 623·222·6150

PROJECT SUBMITTAL DATA:

Project Name	Prose Apartments
Project Location	SWC Mountain View and White Horse Trail
Submittal Type	TIA - 3rd Review
Case Number	FS22-0588
Date	10/24/2022
Reviewed By	Johnathan Futch, Stephen Chang
Contact Info	623-222-6149, -3136

GENERAL

- Return the following at next submittal (failure to provide items listed below may delay review timelines for the next submittal):
  a. Original redlines and written response to comments
  b. Two (2) revised hard copies of plans and reports
  c. A pdf of all updated plans and reports on CD
  d. Current CAD (base) files on CD

Disposition Codes
A *=Will Comply,* ***B*** *=Designer to Evaluate,* ***C*** *=City of Surprise to Evaluate,* ***D*** *= No further Action Required*

#	Sheet or Sec	Reviewer's Comment	Initial Disp.	Designer's Response/Comment	Final Disp.
1	**Figures 2 & 9**	At the roundabout at White Horse Trail & Health Clinic driveway, do not show left turn arrows. Only show right turn arrows at all three approaches. **-Repeat Comment**			
2	**Figure 9**	Add a note to Access B that it is for "Emergency Vehicle Access Only". **- Repeat Comment**			

1st Submittal

Disposition Codes: (1) Will Comply (2) Will Evaluate (3) Delete Comment (4) Defer to Consultant/Owner

Reviewer Name, Agency: **Johnathan Futch, Stephen Chang - City of Surprise**

Item	Review Comment	(Code) & Response
1.	**General - Add the FS case number to the bottom right corner of all the sheets.**	(1) Will Comply - Added case number.
2.	**General - Insert the following approval block on the cover sheet.**	(1) Will Comply - Added approval block.
3.	**Pages 1, 15 - A shopping center would generation 28 LESS morning trips and 182 MORE evening trips than the proposed residential development.**	(1) Will Comply - Revised statement.
4.	**Pages 1, 15 - An office building would generate 143 MORE evening trips than the proposed residential development.**	(1) Will Comply - Revised statement.
5.	**Page 1 - Queue Storage: Add in a statement that the minimum storage is 160' for a turn lane with a 100' taper.**	(1) Will Comply - Added statement.
6.	**Page 2 - Sight Distance: Add in that City of Surprise Standard Detail 4-01 and 4-02 will be met for sight visibility.**	(1) Will Comply - Added statement.
7.	**Page 5 - The City recently updated their standards from 2016 to 2021. Update the reference.**	(1) Will Comply - Updated reference.
8.	**Page 5 - Grand Avenue is classified as a Major Arterial in this vicinity, not a Parkway.**	(1) Will Comply - Revised text.
9.	**Page 6, Figure 2 - Mountain View Blvd at Existing Apartment driveway: Entry is not permitted at this driveway. Remove entry arrows from Figure 2.**	(1) Will Comply - Revised figure.
10.	**Page 6, Figure 2, Figure 9 - White Horse Trail and Healthcare Clinic driveway is a roundabout. All three approaches have one entry lane. Do not refer to the westbound approach as having a shared left/right turn lane.**	(1) Will Comply - Updated the westbound approach to be a roundabout right turn entry lane.
11.	**Figure 5 - Does not match or line up with table 5.**	(1) Will Comply - Figure 5 has been updated to match Table 5.
12.	**Page 23 - The City does have a requirement that all arterials and collectors require 160' storage and 100' taper at all access points.**	(1) Will Comply - Verbiage added to the section.

1st Submittal

Disposition Codes: (1) Will Comply (2) Will Evaluate (3) Delete Comment (4) Defer to Consultant/Owner

Reviewer Name, Agency: **Johnathan Futch, Stephen Chang - City of Surprise**

Item	Review Comment	(Code) & Response
13.	**Figure 9 - Access A: Northbound left turn lane on Mountain View Blvd is existing. Exclusive southbound right turn lane at Access A is not warranted or required, therefore, do not show as a proposed improvement.**	(1) Will Comply - Updated to show white entry arrows without improvements needed.
14.	**Figure 9 - Access B: Dedicated northbound left turnlane and southboun right turn lanes are not warranted or required, therefore, do not show as proposed improvements.**	(1) Will Comply - Updated to show white entry arrows without improvements needed.
15.	**Page 28 - Update Conclusions as necessary.**	(1) Will Comply - Updated conclusions.
16.	**List of References - Update the COS to meet the current date of 2021 not 2016.**	(1) Will Comply - Updated references.

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ENGINEERING DEVELOPMENT SERVICES
PUBLIC WORKS
CITY OF SURPRISE
16000 N. CIVIC CENTER PLAZA
SURPRISE, AZ 85374
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PROJECT SUBMITTAL DATA:

Project Name	Prose Apartments
Project Location	SWC Mountain View and White Horse Trail
Submittal Type	TIA - 1st Review
Case Number	FS22-0588
Date	6/7/2022
Reviewed By	Johnathan Futch, Stephen Chang
Contact Info	623-222-6149, -3136

GENERAL

- Return the following at next submittal (failure to provide items listed below may delay review timelines for the next submittal):
  a. Original redlines and written response to comments
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  c. A pdf of all updated plans and reports on CD
  d. Current CAD (base) files on CD

Disposition Codes
A *=Will Comply,* ***B*** *=Designer to Evaluate,* ***C*** *=City of Surprise to Evaluate,* ***D*** *= No further Action Required*

#	Sheet or Sec	Reviewer's Comment	Initial Disp.	Designer's Response/Comment	Final Disp.
1	**General**	Add the FS case number to the bottom right corner of all the sheets.			
2	**General**	Insert the following approval block on the cover sheet. SURPRISE APPROVAL THIS REPORT HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF PERMITS. THE CITY NEITHER ACCEPTS NOR ASSUMES ANY LIABILITY FOR ERRORS OR OMISSIONS. THIS COMPLIANCE APPROVAL SHALL NOT PREVENT THE CITY ENGINEER FROM REQUIRING CORRECTIONS OF ERRORS OR OMISSIONS IN REPORTS FOUND TO BE IN VIOLATION OF LAWS OR ORDINANCES. _____CITY OF SURPRISE ENGINEER _____ DATE			
3	**Pages 1, 15**	A shopping center would generation 28 LESS morning trips and 182 MORE evening trips than the proposed residential development.			

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#	Sheet or Sec	Reviewer's Comment	Initial Disp.	Designer's Response/Comment	Final Disp.
4	**Pages 1, 15**	An office building would generate 143 MORE evening trips than the proposed residential development.			
5	**Page 1**	Queue Storage: Add in a statement that the minimum storage is 160' for a turn lane with a 100' taper.			
6	**Page 2**	Sight Distance: Add in that City of Surprise Standard Detail 4-01 and 4-02 will be met for sight visibility.			
7	**Page 5**	The City recently updated their standards from 2016 to 2021. update the reference.			
8	**Page 5**	Grand Avenue is classified as a Major Arterial in this vicinity, not a Parkway.			
9	**Page 6, Figure 2**	Mountain View Blvd at Existing Apartment driveway: Entry is not permitted at this driveway. Remove entry arrows from Figure 2.			
10	**Page 6, Figure 2, Figure 9**	White Horse Trail and Healthcare Clinic driveway is a roundabout. All three approaches have one entry lane. Do not refer to the westbound approach as having a shared left/right turn lane.			
11	**Figure 5**	Does not match or line up with table 5.			
12	**Page 23**	The City does have a requirement that all arterials and collectors require 160' storage and 100' taper at all access points.			
13	**Figure 9**	Access A: Northbound left turn lane on Mountain View Blvd is existing. Exclusive southbound right turn lane at Access A is not warranted or required, therefore, do not show as a proposed improvement.			

ENGINEERING DEVELOPMENT SERVICES
PUBLIC WORKS
CITY OF SURPRISE
16000 N. CIVIC CENTER PLAZA
SURPRISE, AZ 85374
T. 623·222·6150

#	Sheet or Sec	Reviewer's Comment	Initial Disp.	Designer's Response/Comment	Final Disp.
14	**Figure 9**	Access B: Dedicated northbound left turn and southbound right turn lanes are not warranted or required, therefore, do not show as proposed improvements.			
14	**Page 28**	Update Conclusions as necessary.			
15	**List of References**	Update the COS to meet the current date of 2021 not 2016.			

Notice of Proposed Development: FS22-0588 Prose Apartments in City of Surprise

jchoy@azdot.gov
Jun 8, 2022 3:58 PM
to: coberholtzer@bfsolaw.com, pfehlman@azdot.gov, cweeks@bfsolaw.com, bmartinez@azdot.gov, agerard@azdot.gov

Encrypted

Good afternoon Carolyn,

Please find the accepted TIA on attachment. According to the submitted TIA, the proposed development does not have a significant impact on our facilities.

Thanks,

Jerome Choy, P.E.

Regional Traffic Engineering Group (Central)

1615 W Jackson St

Phoenix AZ, 85007

602-908-3525 (Cell)

www.azdot.gov (http://www.azdot.gov/)

Current work schedule:

Mon - Thu: 6am to 4:30pm

On Wed, May 25, 2022 at 2:51 PM Carolyn Oberholtzer <coberholtzer@bfsolaw.com> wrote:

Thanks, Peggy.

From: Peggy Fehlman <pfehlman@azdot.gov (mailto:pfehlman@azdot.gov)>
Sent: Wednesday, May 25, 2022 10:36 AM
To: Carolyn Oberholtzer <coberholtzer@bfsolaw.com (mailto:coberholtzer@bfsolaw.com)>
Cc: Caleb Weeks <cweeks@bfsolaw.com (mailto:cweeks@bfsolaw.com)>; Bernadette Martinez <bmartinez@azdot.gov (mailto:bmartinez@azdot.gov)>; Jerome Choy <jchoy@azdot.gov (mailto:jchoy@azdot.gov)>
Subject: Re: Notice of Proposed Development: FS22-0588 Prose Apartments in City of Surprise

Thank You Carolyn,

We have received the Alliance Surprise TIA and it typically takes 4 weeks for a first review.
We appreciate receiving the site plan for Prose Surprise Alliance Residential.

At this time we do not require any other information from you.

Kind Regards,

Peggy Fehlman
Right of Way Coordinator
ADOT Central District
2140 W. Hilton Avenue
Phoenix, AZ 85009
(602)712-6622 Office
www.azdot.gov (https://urldefense.proofpoint.com/v2/url?u=http-

3A__www.azdot.gov_&d=DwMFaQ&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=uglCb7hUu5XX56pk0fpLjfagc93r6F4pCmSsvp4qSYg&m=Bul-z6jWKREMCYL_ROsXggY66EArvYvYANmGIfKiB3w&s=7vdnPQMucRAMHEGZCxYhD3ugcEqYfVzYUKl0kzMTS10&e=)

On Tue, May 24, 2022 at 1:54 PM Carolyn Oberholtzer <coberholtzer@bfsolaw.com (mailto:coberholtzer@bfsolaw.com)> wrote:

To whom it may concern-

We have applied for a rezoning and site plan for the property shown in the attached site plan at the SWC of Mountain View and White Horse Trail in Surprise, AZ. Please advise as to any other documents necessary to complete the Red Letter Process.

Carolyn Oberholtzer

Bergin, Frakes, Smalley & Oberholtzer, PLLC

4343 East Camelback Road, Suite 210

Phoenix, Arizona 85018

Direct: 602.888.7860

Cell: 602.300.2560

Fax: 602.888.7856

Visit us at www.bfsolaw.com (https://urldefense.proofpoint.com/v2/url?u=http-3A__www.bfsolaw.com&d=DwMFaQ&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=uglCb7hUu5XX56pk0fpLjfagc93r6F4pCmSsvp4qSYg&m=Bul-z6jWKREMCYL_ROsXggY66EArvYvYANmGIfKiB3w&s=sZre7H-q_p7ufwEmw1cewCr8GcpdDpYPG0JulS_CKgI&e=)

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Alliance Surprise FINA... pdf.tdf
2.4 Mb

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APPENDIX B

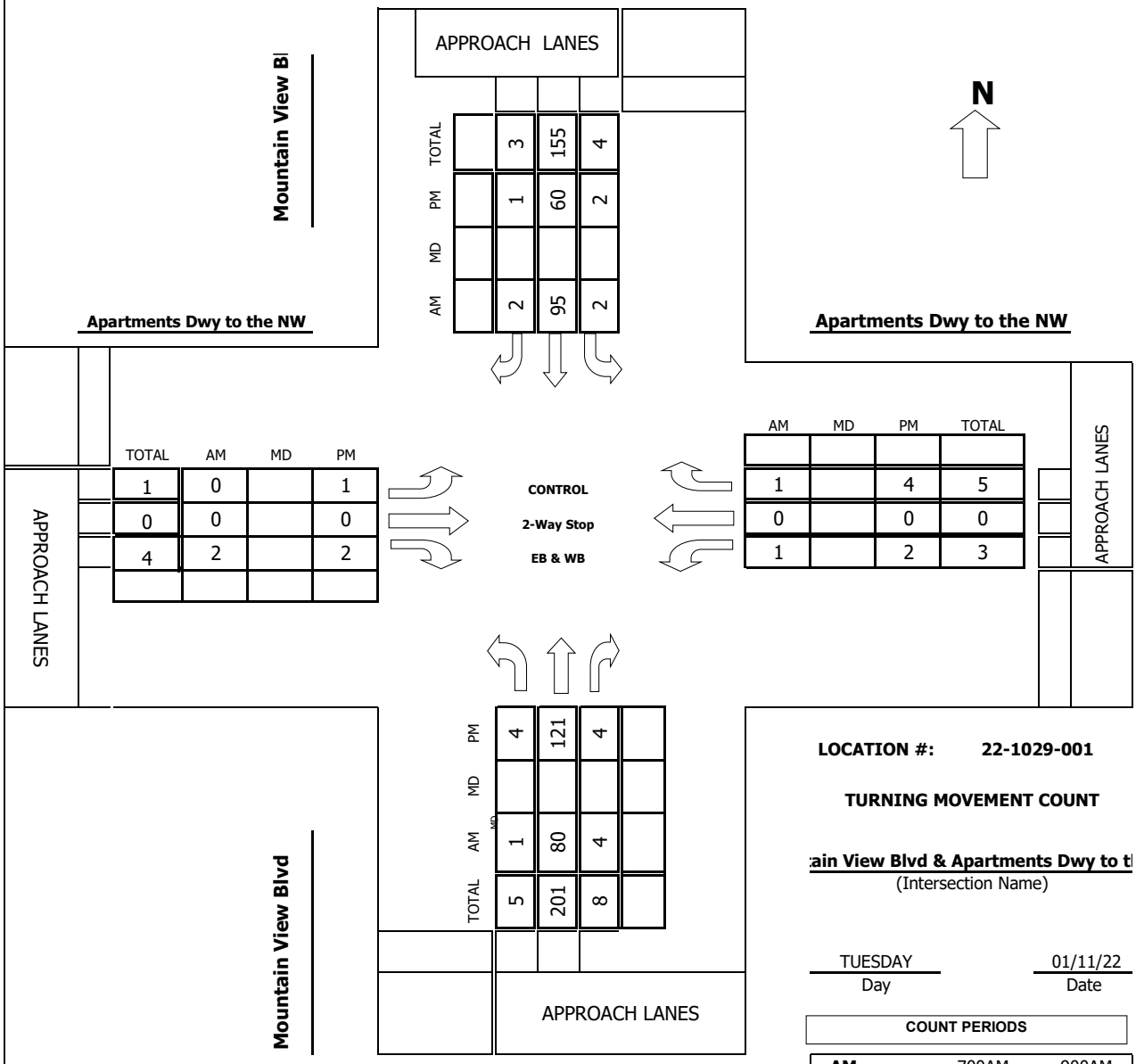
EXISTING TRAFFIC COUNTS

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 22-1029-001

TMC SUMMARY OF Mountain View Blvd & Apartments Dwy to the NW



LOCATION #: 22-1029-001

TURNING MOVEMENT COUNT

ain View Blvd & Apartments Dwy to t
(Intersection Name)

TUESDAY (Day) 01/11/22 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Mountain View Blvd	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Apartments Dwy to the NW	DAY:	TUESDAY	PROJECT#	22-1029-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	20	0	1	21	0	0	0	0	1	0	1	44
7:15 AM	1	17	1	0	19	0	1	0	0	0	0	0	39
7:30 AM	1	9	1	0	21	0	0	0	2	0	0	0	34
7:45 AM	0	27	1	1	26	1	0	0	1	0	0	1	58
8:00 AM	0	13	0	0	21	1	0	0	1	1	0	0	37
8:15 AM	0	28	1	0	23	0	0	0	0	0	0	0	52
8:30 AM	1	12	2	1	25	0	0	0	0	0	0	0	41
8:45 AM	0	23	1	0	22	1	0	0	1	1	0	0	49
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	3	149	7	3	178	3	1	0	5	3	0	2	354
Approach %	1.89	93.71	4.40	1.63	96.74	1.63	16.67	0.00	83.33	60.00	0.00	40.00	
App/Depart	159	/	152	184	/	186	6	/	10	5	/	6	

AM Peak Hr Begins at: 745 AM

PEAK													
Volumes	1	80	4	2	95	2	0	0	2	1	0	1	188
Approach %	1.18	94.12	4.71	2.02	95.96	2.02	0.00	0.00	100.00	50.00	0.00	50.00	
PEAK HR. FACTOR:		0.733			0.884			0.500			0.500		0.810

CONTROL: 2-Way Stop (EB & WB)
COMMENT 1:
GPS: 33.649576, -112.367574

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	Mountain View Blvd 0	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Apartments Dwy to the NW	DAY:	TUESDAY	PROJECT#	22-1029-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	1	41	0	0	14	0	1	0	0	1	0	0	58
4:15 PM	0	43	3	1	9	0	0	0	1	0	0	1	58
4:30 PM	1	29	0	0	17	1	0	0	1	0	0	2	51
4:45 PM	2	8	1	1	20	0	0	0	0	1	0	1	34
5:00 PM	0	25	2	0	13	0	0	0	0	0	0	0	40
5:15 PM	0	24	1	0	7	2	1	0	2	0	0	1	38
5:30 PM	1	14	0	1	15	0	0	1	0	1	0	0	33
5:45 PM	0	17	1	0	14	1	0	0	1	0	0	0	34
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	5	201	8	3	109	4	2	1	5	3	0	5	346
Approach %	2.34	93.93	3.74	2.59	93.97	3.45	25.00	12.50	62.50	37.50	0.00	62.50	
App/Depart	214	/	208	116	/	117	8	/	12	8	/	9	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	4	121	4	2	60	1	1	0	2	2	0	4	201
Approach %	3.10	93.80	3.10	3.17	95.24	1.59	33.33	0.00	66.67	33.33	0.00	66.67	
PEAK HR. FACTOR:		0.701			0.750			0.750			0.750		0.866

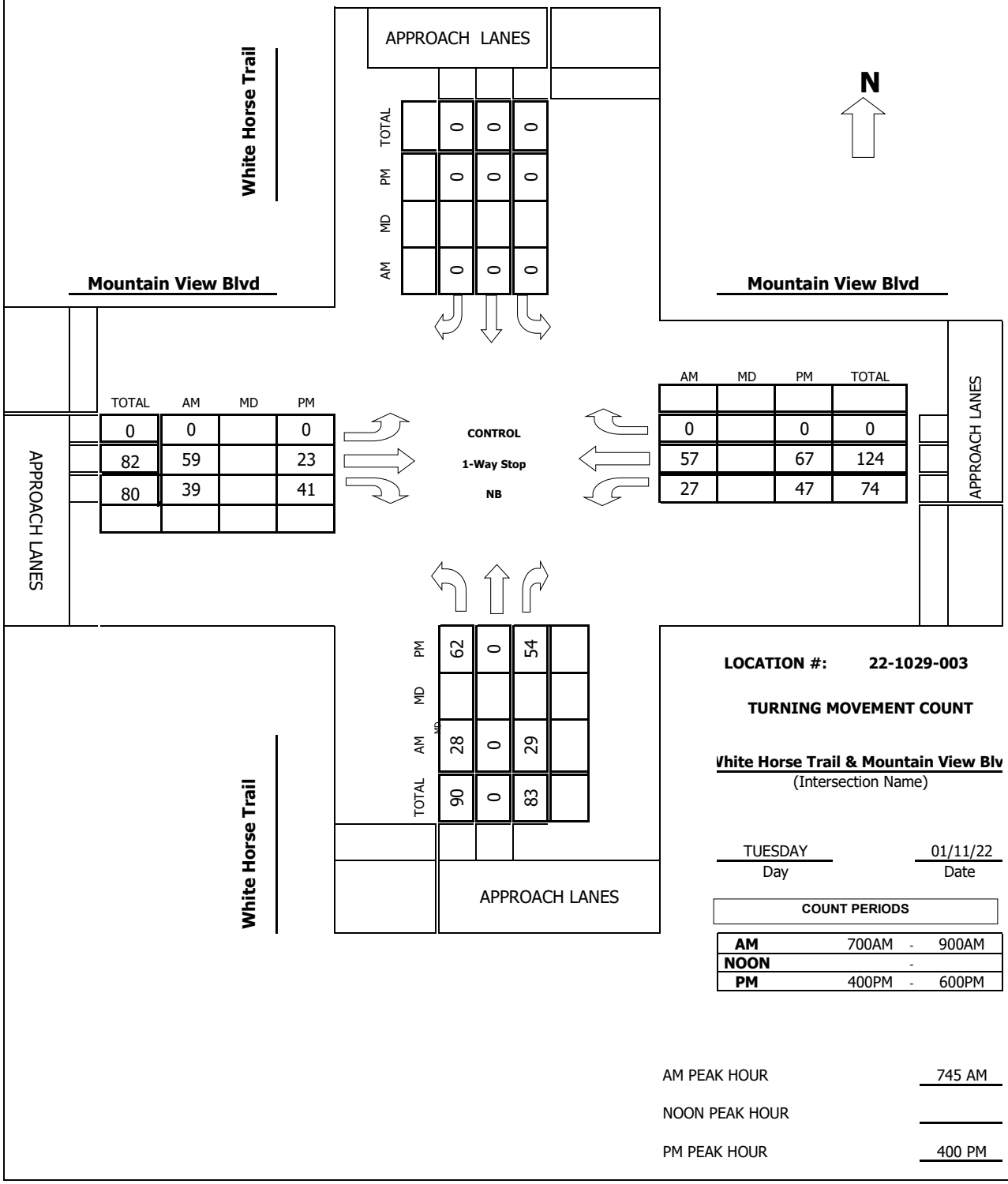
CONTROL: 2-Way Stop (EB & WB)
COMMENT 1: 0
GPS: 33.649576, -112.367574

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 22-1029-003

TMC SUMMARY OF White Horse Trail & Mountain View Blvd



LOCATION #: 22-1029-003

TURNING MOVEMENT COUNT

Vhite Horse Trail & Mountain View Blv
(Intersection Name)

TUESDAY
Day

01/11/22
Date

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	White Horse Trail	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Mountain View Blvd	DAY:	TUESDAY	PROJECT#	22-1029-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	1	0	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	8	0	4	0	0	0	0	17	5	5	12	0	51
7:15 AM	7	0	12	0	0	0	0	7	12	6	12	0	56
7:30 AM	4	0	7	0	0	0	0	16	7	6	7	0	47
7:45 AM	9	0	8	0	0	0	0	16	11	5	19	0	68
8:00 AM	5	0	8	0	0	0	0	16	7	5	8	0	49
8:15 AM	8	0	5	0	0	0	0	15	8	7	21	0	64
8:30 AM	6	0	8	0	0	0	0	12	13	10	9	0	58
8:45 AM	19	0	10	0	0	0	0	10	14	9	5	0	67
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	66	0	62	0	0	0	0	109	77	53	93	0	460
Approach %	51.56	0.00	48.44	####	####	####	0.00	58.60	41.40	36.30	63.70	0.00	
App/Depart	128	/	0	0	/	130	186	/	171	146	/	159	

AM Peak Hr Begins at: 745 AM

PEAK													
Volumes	28	0	29	0	0	0	0	59	39	27	57	0	239
Approach %	49.12	0.00	50.88	####	####	####	0.00	60.20	39.80	32.14	67.86	0.00	
PEAK HR. FACTOR:	0.838			0.000			0.907			0.750			0.879

CONTROL: 1-Way Stop (NB)
COMMENT 1:
GPS: 33.648113, -112.365250

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	White Horse Trail 0	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Mountain View Blvd	DAY:	TUESDAY	PROJECT#	22-1029-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	1	0	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	19	0	14	0	0	0	0	4	11	9	23	0	80
4:15 PM	17	0	18	0	0	0	0	4	6	5	29	0	79
4:30 PM	18	0	10	0	0	0	0	5	13	19	12	0	77
4:45 PM	8	0	12	0	0	0	0	10	11	14	3	0	58
5:00 PM	18	0	12	0	0	0	0	6	7	7	9	0	59
5:15 PM	7	0	11	0	0	0	0	2	7	8	18	0	53
5:30 PM	7	0	10	0	0	0	0	5	11	9	8	0	50
5:45 PM	14	0	10	0	0	0	0	4	11	10	4	0	53
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	108	0	97	0	0	0	0	40	77	81	106	0	509
Approach %	52.68	0.00	47.32	####	####	####	0.00	34.19	65.81	43.32	56.68	0.00	
App/Depart	205	/	0	0	/	158	117	/	137	187	/	214	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	62	0	54	0	0	0	0	23	41	47	67	0	294
Approach %	53.45	0.00	46.55	####	####	####	0.00	35.94	64.06	41.23	58.77	0.00	
PEAK HR. FACTOR:	0.829			0.000			0.762			0.838			0.919

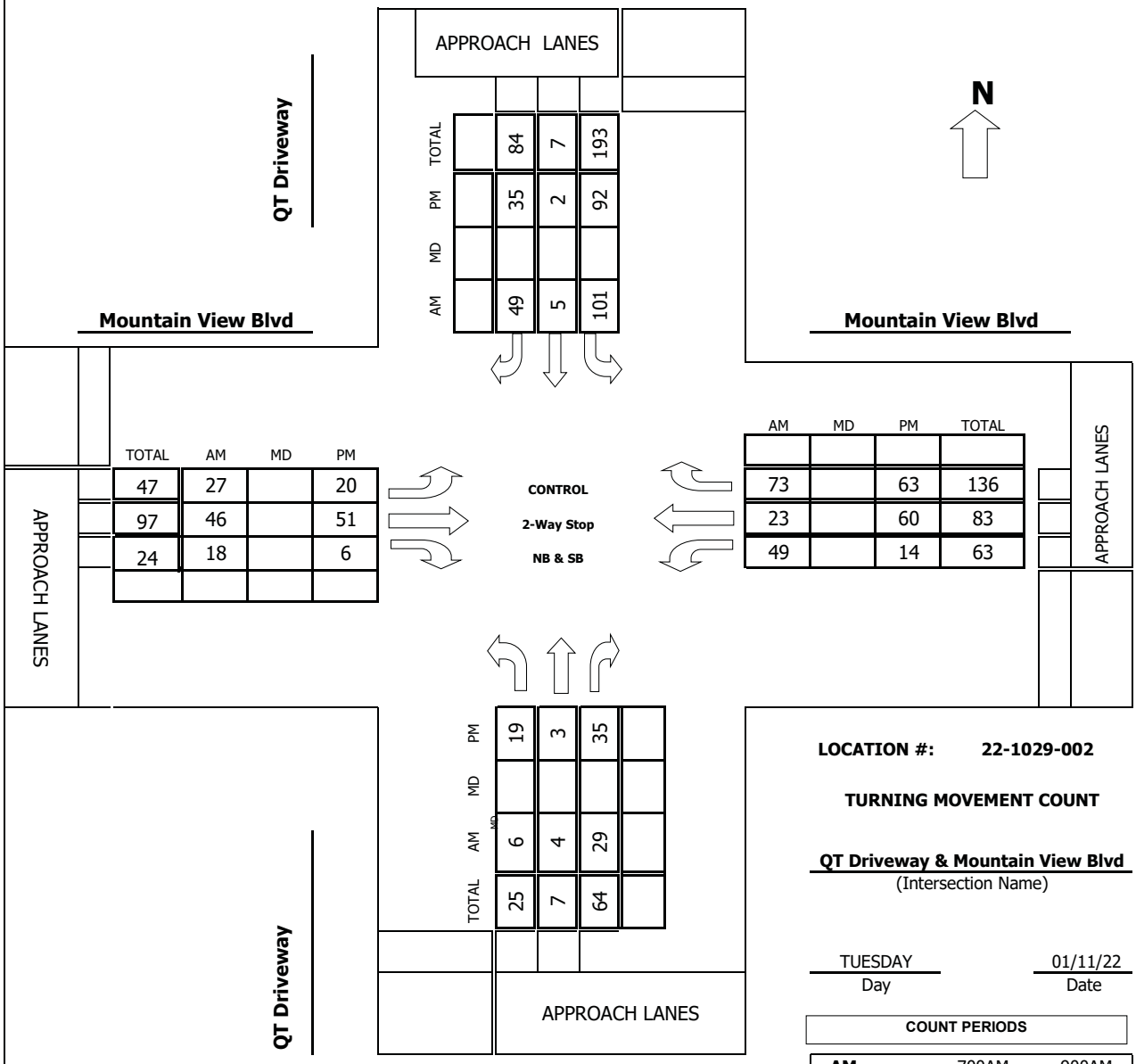
CONTROL:	1-Way Stop (NB)
COMMENT 1:	0
GPS:	33.648113, -112.365250

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 22-1029-002

TMC SUMMARY OF QT Driveway & Mountain View Blvd



LOCATION #: 22-1029-002

TURNING MOVEMENT COUNT

QT Driveway & Mountain View Blvd
(Intersection Name)

TUESDAY (Day) 01/11/22 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 730 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	QT Driveway	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Mountain View Blvd	DAY:	TUESDAY	PROJECT#	22-1029-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	0	1	1	1	0	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	5	29	2	13	6	13	2	13	4	23	110
7:15 AM	2	0	4	33	1	11	10	8	1	17	5	18	110
7:30 AM	1	2	8	19	1	7	9	8	6	20	5	18	104
7:45 AM	1	1	6	23	2	15	7	14	3	8	8	18	106
8:00 AM	1	0	6	27	2	9	6	14	4	5	3	22	99
8:15 AM	3	1	9	32	0	18	5	10	5	16	7	15	121
8:30 AM	2	0	5	19	1	10	8	10	2	11	7	14	89
8:45 AM	3	1	8	33	0	7	9	8	3	22	4	9	107
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	13	5	51	215	9	90	60	85	26	112	43	137	846
Approach %	18.84	7.25	73.91	68.47	2.87	28.66	35.09	49.71	15.20	38.36	14.73	46.92	
App/Depart	69	/	202	314	/	147	171	/	351	292	/	146	

AM Peak Hr Begins at: 730 AM

PEAK													
Volumes	6	4	29	101	5	49	27	46	18	49	23	73	430
Approach %	15.38	10.26	74.36	65.16	3.23	31.61	29.67	50.55	19.78	33.79	15.86	50.34	
PEAK HR. FACTOR:		0.750			0.775			0.948			0.843		0.888

CONTROL: 2-Way Stop (NB & SB)
COMMENT 1:
GPS: 33.648763, -112.364535

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	QT Driveway 0	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Mountain View Blvd	DAY:	TUESDAY	PROJECT#	22-1029-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	0	1	1	1	0	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	8	2	11	27	1	9	6	11	1	7	15	13	111
4:15 PM	6	0	9	22	1	10	2	18	2	5	18	16	109
4:30 PM	3	1	6	22	0	10	5	8	2	2	18	15	92
4:45 PM	2	0	9	21	0	6	7	14	1	0	9	19	88
5:00 PM	1	1	4	33	0	7	5	13	0	2	8	12	86
5:15 PM	0	2	3	20	0	14	6	7	0	1	12	8	73
5:30 PM	2	0	2	12	2	8	7	7	1	1	7	12	61
5:45 PM	2	0	4	27	0	3	6	8	0	2	9	19	80
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	24	6	48	184	4	67	44	86	7	20	96	114	700
Approach %	30.77	7.69	61.54	72.16	1.57	26.27	32.12	62.77	5.11	8.70	41.74	49.57	
App/Depart	78	/	164	255	/	31	137	/	318	230	/	187	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	19	3	35	92	2	35	20	51	6	14	60	63	400
Approach %	33.33	5.26	61.40	71.32	1.55	27.13	25.97	66.23	7.79	10.22	43.80	45.99	
PEAK HR. FACTOR:		0.679			0.872			0.875			0.878		0.901

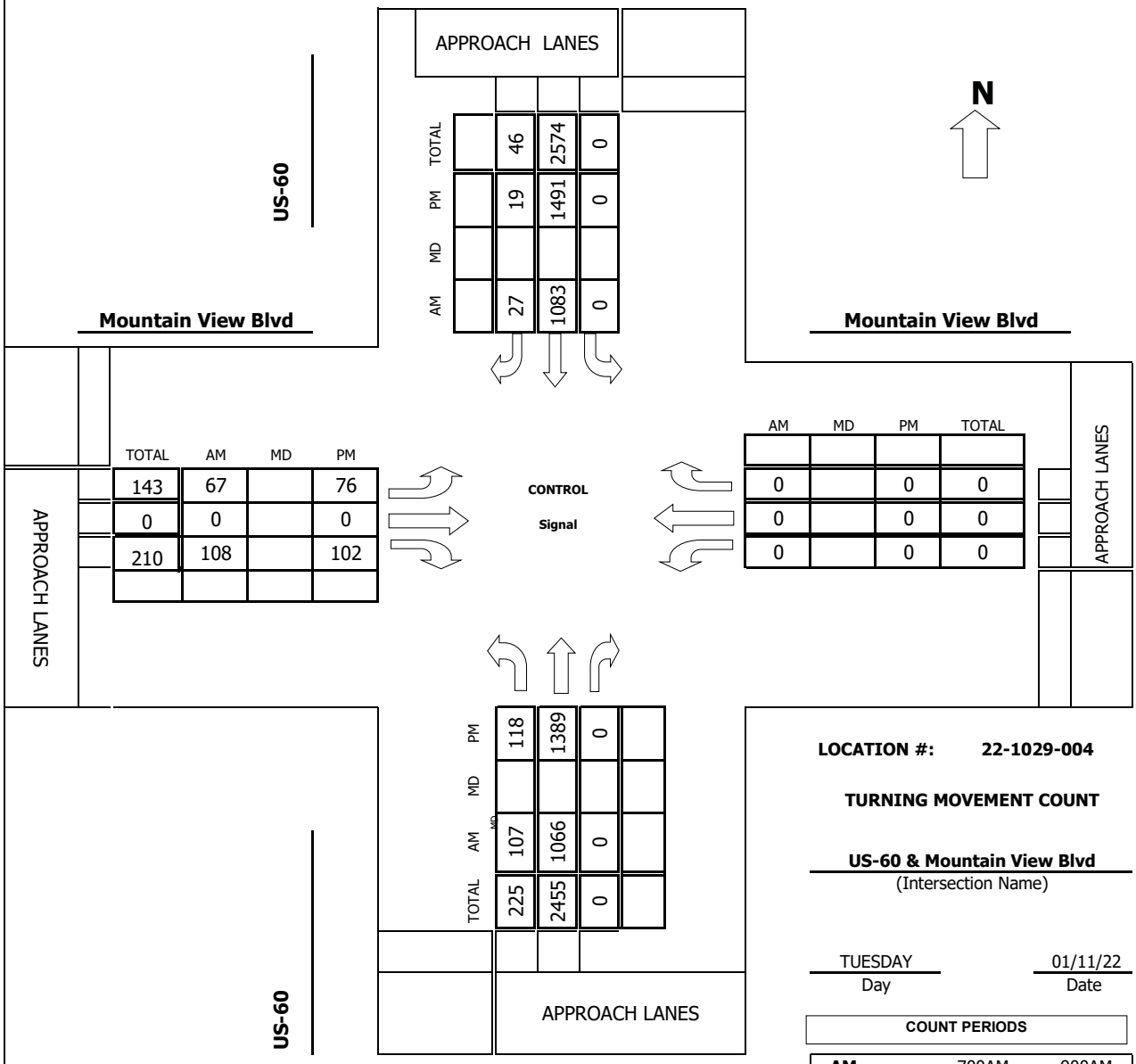
CONTROL:	2-Way Stop (NB & SB)
COMMENT 1:	0
GPS:	33.648763, -112.364535

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 22-1029-004

TMC SUMMARY OF US-60 & Mountain View Blvd



LOCATION #: 22-1029-004

TURNING MOVEMENT COUNT

US-60 & Mountain View Blvd
(Intersection Name)

TUESDAY (Day) 01/11/22 (Date)

COUNT PERIODS

AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 745 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	US-60	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Mountain View Blvd	DAY:	TUESDAY	PROJECT#	22-1029-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	1	3	1	2	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	32	181	0	0	182	8	23	0	24	0	0	0	450
7:15 AM	34	231	0	0	233	6	17	0	28	0	0	0	549
7:30 AM	32	217	0	0	276	11	21	0	14	0	0	0	571
7:45 AM	28	307	0	0	271	6	17	0	26	0	0	0	655
8:00 AM	28	269	0	0	249	2	19	0	28	0	0	0	595
8:15 AM	29	234	0	0	245	9	14	0	37	0	0	0	568
8:30 AM	22	256	0	0	318	10	17	0	17	0	0	0	640
8:45 AM	25	284	0	0	276	10	22	0	27	0	0	0	644
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	230	1979	0	0	2050	62	150	0	201	0	0	0	4672
Approach %	10.41	89.59	0.00	0.00	97.06	2.94	42.74	0.00	57.26	####	####	####	
App/Depart	2209	/	2129	2112	/	2251	351	/	0	0	/	292	

AM Peak Hr Begins at: 745 AM

PEAK													
Volumes	107	1066	0	0	1083	27	67	0	108	0	0	0	2458
Approach %	9.12	90.88	0.00	0.00	97.57	2.43	38.29	0.00	61.71	####	####	####	
PEAK HR. FACTOR:		0.875			0.846			0.858			0.000		0.938

CONTROL: Signal
COMMENT 1:
GPS: 33.649253, -112.363943

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	US-60 0	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Mountain View Blvd	DAY:	TUESDAY	PROJECT#	22-1029-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	3	0	1	3	1	2	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	31	373	0	0	350	4	21	0	28	0	0	0	807
4:15 PM	33	341	0	0	407	6	14	0	35	0	0	0	836
4:30 PM	31	331	0	0	392	4	21	0	15	0	0	0	794
4:45 PM	23	344	0	0	342	5	20	0	24	0	0	0	758
5:00 PM	21	332	0	0	376	1	21	0	29	0	0	0	780
5:15 PM	18	334	0	0	312	3	19	0	11	0	0	0	697
5:30 PM	13	339	0	0	309	7	10	0	11	0	0	0	689
5:45 PM	24	274	0	0	274	6	10	0	29	0	0	0	617
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	194	2668	0	0	2762	36	136	0	182	0	0	0	5978
Approach %	6.78	93.22	0.00	0.00	98.71	1.29	42.77	0.00	57.23	####	####	####	
App/Depart	2862	/	2804	2798	/	2944	318	/	0	0	/	230	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	118	1389	0	0	1491	19	76	0	102	0	0	0	3195
Approach %	7.83	92.17	0.00	0.00	98.74	1.26	42.70	0.00	57.30	####	####	####	
PEAK HR. FACTOR:		0.933			0.914			0.908			0.000		0.955

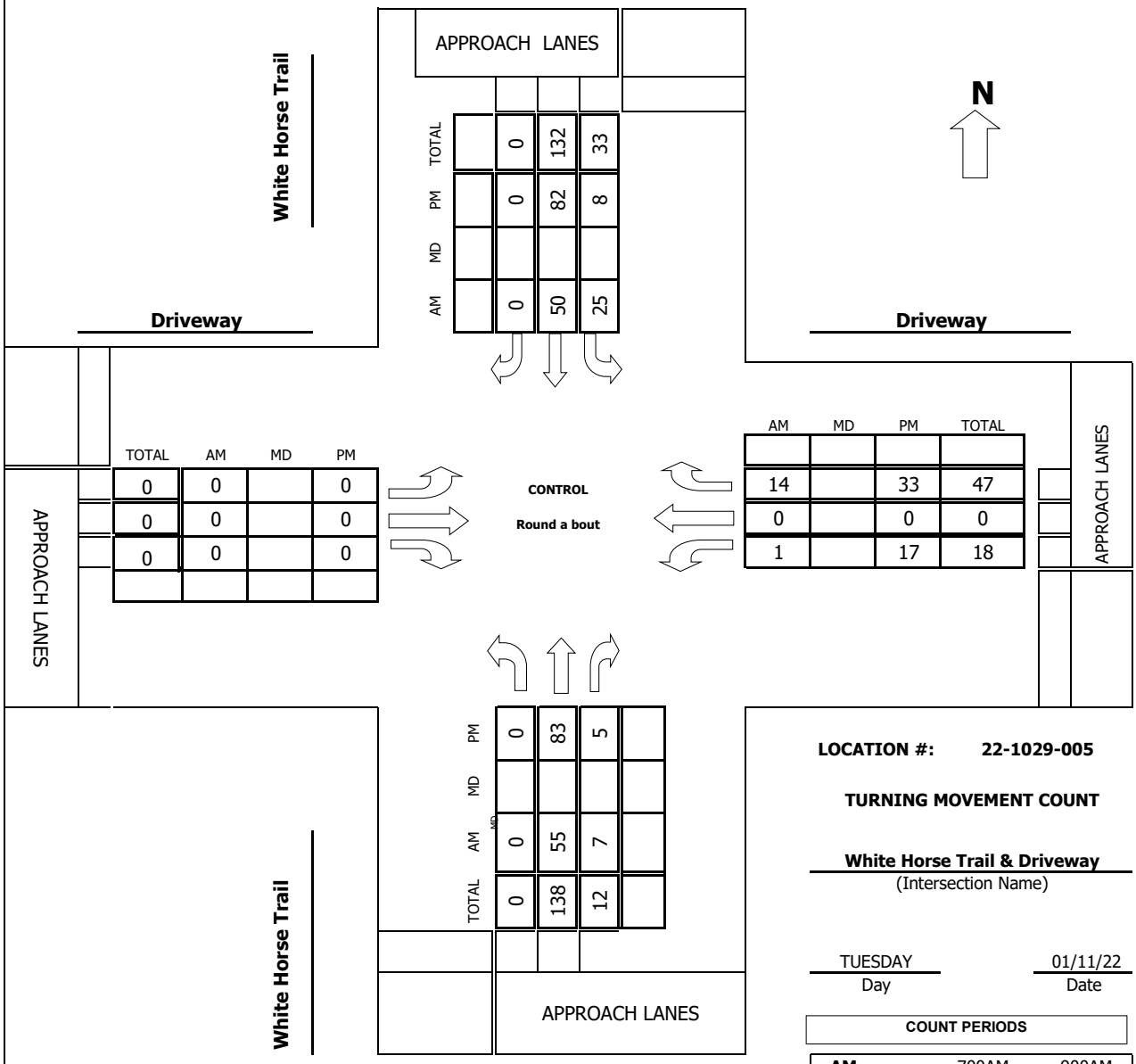
CONTROL: Signal
COMMENT 1: 0
GPS: 33.649253, -112.363943

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

Project #: 22-1029-005

TMC SUMMARY OF White Horse Trail & Driveway



LOCATION #: 22-1029-005

TURNING MOVEMENT COUNT

White Horse Trail & Driveway
(Intersection Name)

TUESDAY (Day) 01/11/22 (Date)

COUNT PERIODS			
AM	700AM	-	900AM
NOON		-	
PM	400PM	-	600PM

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 400 PM

Intersection Turning Movement
Prepared by:

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	White Horse Trail	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Driveway	DAY:	TUESDAY	PROJECT#	22-1029-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	0	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	12	2	7	3	0	0	0	0	0	0	0	24
7:15 AM	0	16	4	10	8	0	0	0	0	0	0	3	41
7:30 AM	0	11	6	6	7	0	0	0	0	0	0	0	30
7:45 AM	0	17	7	6	10	0	0	0	0	2	0	0	42
8:00 AM	0	12	1	5	9	0	0	0	0	0	0	1	28
8:15 AM	0	9	2	5	10	0	0	0	0	0	0	4	30
8:30 AM	0	11	1	9	14	0	0	0	0	1	0	3	39
8:45 AM	0	23	3	6	17	0	0	0	0	0	0	6	55
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	111	26	54	78	0	0	0	0	3	0	17	289
Approach %	0.00	81.02	18.98	40.91	59.09	0.00	####	####	####	15.00	0.00	85.00	
App/Depart	137	/	128	132	/	81	0	/	80	20	/	0	

AM Peak Hr Begins at: 800 AM

PEAK													
Volumes	0	55	7	25	50	0	0	0	0	1	0	14	152
Approach %	0.00	88.71	11.29	33.33	66.67	0.00	####	####	####	6.67	0.00	93.33	
PEAK HR. FACTOR:		0.596			0.815			0.000			0.625		0.691

CONTROL: Round a bout
COMMENT 1:
GPS: 33.647066, -112.364727

Intersection Turning Movement

FIELD DATA SERVICES OF ARIZONA, INC.
520.316.6745

veracitytrafficgroup

N-S STREET:	White Horse Trail 0	DATE:	01/11/22	LOCATION:	Surprise
E-W STREET:	Driveway	DAY:	TUESDAY	PROJECT#	22-1029-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	0	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	22	2	4	16	0	0	0	0	2	0	11	57
4:15 PM	0	24	3	2	11	0	0	0	0	8	0	11	59
4:30 PM	0	19	0	0	32	0	0	0	0	2	0	9	62
4:45 PM	0	18	0	2	23	0	0	0	0	5	0	2	50
5:00 PM	0	26	0	0	14	0	0	0	0	3	0	4	47
5:15 PM	0	16	0	0	15	0	0	0	0	2	0	2	35
5:30 PM	0	15	1	0	20	0	0	0	0	0	0	2	38
5:45 PM	0	19	1	0	21	0	0	0	0	1	0	5	47
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
Volumes	0	159	7	8	152	0	0	0	0	23	0	46	395
Approach %	0.00	95.78	4.22	5.00	95.00	0.00	####	####	####	33.33	0.00	66.67	
App/Depart	166	/	205	160	/	175	0	/	15	69	/	0	

PM Peak Hr Begins at: 400 PM

PEAK													
Volumes	0	83	5	8	82	0	0	0	0	17	0	33	228
Approach %	0.00	94.32	5.68	8.89	91.11	0.00	####	####	####	34.00	0.00	66.00	
PEAK HR. FACTOR:		0.815			0.703			0.000			0.658		0.919

CONTROL: Round a bout
COMMENT 1: 0
GPS: 33.647066, -112.364727

APPENDIX C

EXISTING PEAK HOUR ANALYSIS

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	0	0	2	1	0	1	1	80	4	2	95	2
Future Vol, veh/h	0	0	2	1	0	1	1	80	4	2	95	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	2	1	0	1	1	99	5	2	117	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	226	228	118	227	227	102	119	0	0	104	0	0
Stage 1	122	122	-	104	104	-	-	-	-	-	-	-
Stage 2	104	106	-	123	123	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	729	671	934	728	672	953	1469	-	-	1488	-	-
Stage 1	882	795	-	902	809	-	-	-	-	-	-	-
Stage 2	902	807	-	881	794	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	727	670	934	725	671	953	1469	-	-	1488	-	-
Mov Cap-2 Maneuver	727	670	-	725	671	-	-	-	-	-	-	-
Stage 1	881	794	-	901	808	-	-	-	-	-	-	-
Stage 2	900	806	-	877	793	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	9.4	0.1	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1469	-	-	934	824	1488	-	-
HCM Lane V/C Ratio	0.001	-	-	0.003	0.003	0.002	-	-
HCM Control Delay (s)	7.5	0	-	8.9	9.4	7.4	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	1	0	2	2	0	4	4	121	4	2	60	1
Future Vol, veh/h	1	0	2	2	0	4	4	121	4	2	60	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	2	2	0	5	5	139	5	2	69	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	228	228	70	227	226	142	70	0	0	144	0	0
Stage 1	74	74	-	152	152	-	-	-	-	-	-	-
Stage 2	154	154	-	75	74	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	727	671	993	728	673	906	1531	-	-	1438	-	-
Stage 1	935	833	-	850	772	-	-	-	-	-	-	-
Stage 2	848	770	-	934	833	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	720	668	993	724	670	906	1531	-	-	1438	-	-
Mov Cap-2 Maneuver	720	668	-	724	670	-	-	-	-	-	-	-
Stage 1	931	832	-	847	769	-	-	-	-	-	-	-
Stage 2	840	767	-	931	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.3	0.2	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1531	-	-	882	836	1438	-	-
HCM Lane V/C Ratio	0.003	-	-	0.004	0.008	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.1	9.3	7.5	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	59	39	27	57	28	29
Future Vol, veh/h	59	39	27	57	28	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	60	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	44	31	65	32	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	111	0	216	89
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	127	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	772	969
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	756	969
Mov Cap-2 Maneuver	-	-	-	-	756	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	880	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	851	-	-	1479	-
HCM Lane V/C Ratio	0.076	-	-	0.021	-
HCM Control Delay (s)	9.6	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	41	47	67	62	54
Future Vol, veh/h	23	41	47	67	62	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	60	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	45	51	73	67	59

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	70	0	223	48
Stage 1	-	-	-	-	48	-
Stage 2	-	-	-	-	175	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1531	-	765	1021
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1531	-	740	1021
Mov Cap-2 Maneuver	-	-	-	-	740	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	849	-	-	1531	-
HCM Lane V/C Ratio	0.149	-	-	0.033	-
HCM Control Delay (s)	10	-	-	7.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	101	5	49	6	4	29	27	46	18	49	23	73
Future Vol, veh/h	101	5	49	6	4	29	27	46	18	49	23	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	35	-	0	-	-	-	35	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	113	6	55	7	4	33	30	52	20	55	26	82

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	277	268	13	248	340	62	108	0	0	72	0	0
Stage 1	136	136	-	122	122	-	-	-	-	-	-	-
Stage 2	141	132	-	126	218	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	664	637	1064	695	581	1002	1482	-	-	1527	-	-
Stage 1	854	783	-	882	794	-	-	-	-	-	-	-
Stage 2	861	787	-	865	722	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	610	600	1064	625	547	1002	1482	-	-	1527	-	-
Mov Cap-2 Maneuver	610	600	-	625	547	-	-	-	-	-	-	-
Stage 1	837	752	-	864	778	-	-	-	-	-	-	-
Stage 2	811	771	-	782	694	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	9.5	2.2	2.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1482	-	-	610	1064	851	1527	-	-
HCM Lane V/C Ratio	0.02	-	-	0.186	0.052	0.051	0.036	-	-
HCM Control Delay (s)	7.5	-	-	12.2	8.6	9.5	7.4	0	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.2	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	2	35	19	3	35	20	51	6	14	60	63
Future Vol, veh/h	92	2	35	19	3	35	20	51	6	14	60	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	35	-	0	-	-	-	35	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	2	39	21	3	39	22	57	7	16	67	70

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	225	207	34	172	274	61	137	0	0	64	0	0
Stage 1	99	99	-	105	105	-	-	-	-	-	-	-
Stage 2	126	108	-	67	169	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	721	689	1032	783	633	1004	1446	-	-	1537	-	-
Stage 1	897	813	-	900	808	-	-	-	-	-	-	-
Stage 2	877	805	-	936	758	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	676	671	1032	737	617	1004	1446	-	-	1537	-	-
Mov Cap-2 Maneuver	676	671	-	737	617	-	-	-	-	-	-	-
Stage 1	884	804	-	887	796	-	-	-	-	-	-	-
Stage 2	827	793	-	888	750	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	9.5	2	0.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1446	-	-	676	1032	870	1537	-	-
HCM Lane V/C Ratio	0.015	-	-	0.151	0.038	0.073	0.01	-	-
HCM Control Delay (s)	7.5	-	-	11.3	8.6	9.5	7.4	0	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0.2	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1083	27	107	1066	67	108
Future Volume (vph)	1083	27	107	1066	67	108
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	3	3
Permitted Phases		6				
Detector Phase	6	6	5	2	3	3
Switch Phase						
Minimum Initial (s)	25.0	25.0	6.0	25.0	6.0	6.0
Minimum Split (s)	37.8	37.8	12.7	30.8	13.0	13.0
Total Split (s)	50.0	50.0	20.0	70.0	20.0	20.0
Total Split (%)	55.6%	55.6%	22.2%	77.8%	22.2%	22.2%
Yellow Time (s)	4.3	4.3	3.0	4.3	3.0	3.0
All-Red Time (s)	1.5	1.5	3.7	1.5	4.0	4.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	6.7	5.8	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 66.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Mountain View Blvd. & US-60

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1491	19	118	1389	76	102
Future Volume (vph)	1491	19	118	1389	76	102
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	3	3
Permitted Phases		6				
Detector Phase	6	6	5	2	3	3
Switch Phase						
Minimum Initial (s)	25.0	25.0	6.0	25.0	6.0	6.0
Minimum Split (s)	37.8	37.8	12.7	30.8	13.0	13.0
Total Split (s)	50.0	50.0	20.0	70.0	20.0	20.0
Total Split (%)	55.6%	55.6%	22.2%	77.8%	22.2%	22.2%
Yellow Time (s)	4.3	4.3	3.0	4.3	3.0	3.0
All-Red Time (s)	1.5	1.5	3.7	1.5	4.0	4.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	6.7	5.8	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 78.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Mountain View Blvd. & US-60

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1083	27	107	1066	67	108
Future Volume (veh/h)	1083	27	107	1066	67	108
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1152	29	114	1134	71	115
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2612	811	281	3562	353	162
Arrive On Green	0.51	0.51	0.08	0.70	0.10	0.10
Sat Flow, veh/h	5274	1585	3456	5274	3456	1585
Grp Volume(v), veh/h	1152	29	114	1134	71	115
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1585
Q Serve(g_s), s	9.1	0.6	2.0	5.5	1.2	4.5
Cycle Q Clear(g_c), s	9.1	0.6	2.0	5.5	1.2	4.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2612	811	281	3562	353	162
V/C Ratio(X)	0.44	0.04	0.41	0.32	0.20	0.71
Avail Cap(c_a), veh/h	3529	1095	719	5125	702	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	7.8	27.9	3.8	26.3	27.8
Incr Delay (d2), s/veh	0.4	0.1	0.3	0.2	0.3	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.2	0.8	1.3	0.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.3	7.8	28.3	3.9	26.6	33.4
LnGrp LOS	B	A	C	A	C	C
Approach Vol, veh/h	1181			1248	186	
Approach Delay, s/veh	10.2			6.2	30.8	
Approach LOS	B			A	C	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		50.4			11.9	38.5	13.5
Change Period (Y+Rc), s		5.8			* 6.7	5.8	7.0
Max Green Setting (Gmax), s		64.2			* 13	44.2	13.0
Max Q Clear Time (g_c+I1), s		7.5			4.0	11.1	6.5
Green Ext Time (p_c), s		28.8			0.1	21.6	0.3

Intersection Summary			
HCM 6th Ctrl Delay		9.7	
HCM 6th LOS		A	

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1491	19	118	1389	76	102
Future Volume (veh/h)	1491	19	118	1389	76	102
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1553	20	123	1447	79	106
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2839	881	265	3709	326	150
Arrive On Green	0.56	0.56	0.08	0.73	0.09	0.09
Sat Flow, veh/h	5274	1585	3456	5274	3456	1585
Grp Volume(v), veh/h	1553	20	123	1447	79	106
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1585
Q Serve(g_s), s	13.9	0.4	2.4	7.7	1.5	4.6
Cycle Q Clear(g_c), s	13.9	0.4	2.4	7.7	1.5	4.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2839	881	265	3709	326	150
V/C Ratio(X)	0.55	0.02	0.46	0.39	0.24	0.71
Avail Cap(c_a), veh/h	3159	981	643	4589	629	288
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	7.1	31.6	3.7	30.0	31.4
Incr Delay (d2), s/veh	0.6	0.0	0.5	0.2	0.4	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.1	1.0	1.8	0.6	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.7	7.2	32.0	4.0	30.4	37.4
LnGrp LOS	B	A	C	A	C	D
Approach Vol, veh/h	1573			1570	185	
Approach Delay, s/veh	10.7			6.2	34.4	
Approach LOS	B			A	C	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		57.7			12.2	45.5	13.7
Change Period (Y+Rc), s		5.8			* 6.7	5.8	7.0
Max Green Setting (Gmax), s		64.2			* 13	44.2	13.0
Max Q Clear Time (g_c+I1), s		9.7			4.4	15.9	6.6
Green Ext Time (p_c), s		37.6			0.1	23.9	0.3

Intersection Summary			
HCM 6th Ctrl Delay		9.9	
HCM 6th LOS		A	

Notes

User approved ignoring U-Turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	21	90	108
Demand Flow Rate, veh/h	21	92	110
Vehicles Circulating, veh/h	82	37	1
Vehicles Exiting, veh/h	47	74	102
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.0	3.3	3.3
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LTR	LT
Assumed Moves	LR	LTR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	21	92	110
Cap Entry Lane, veh/h	1269	1329	1378
Entry HV Adj Factor	1.000	0.983	0.978
Flow Entry, veh/h	21	90	108
Cap Entry, veh/h	1269	1306	1348
V/C Ratio	0.017	0.069	0.080
Control Delay, s/veh	3.0	3.3	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	54	95	98
Demand Flow Rate, veh/h	55	97	100
Vehicles Circulating, veh/h	92	9	18
Vehicles Exiting, veh/h	14	109	129
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.2	3.3
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LTR	LT
Assumed Moves	LR	LTR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	55	97	100
Cap Entry Lane, veh/h	1256	1367	1355
Entry HV Adj Factor	0.982	0.981	0.982
Flow Entry, veh/h	54	95	98
Cap Entry, veh/h	1233	1342	1331
V/C Ratio	0.044	0.071	0.074
Control Delay, s/veh	3.3	3.2	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

APPENDIX D

CRASH ANALYSIS WORKSHEETS

CRASH STATISTICS *Involvement* **Study Area Crashes**

2018-2020

	# Incidents	Totals		# Motorists	# Non-Motorists
Incidents	5	7	Veh	9	0
Fatal	0	0	Ppl	0	0
Injury	2	3	Ppl	0	0
PDO	3	5	Veh		

Peds/Bikes Summary

	Incidents	Persons Injuries	Fatal	Non-Fatal
Pedestrian:	0	0	0	0
Bicycle:	0	0	0	0

Circumstances

Hit & Run?	1
Intersection Related?	2

Code	No.	LightCondition
1	5	DAYLIGHT
2	0	DAWN
3	0	DUSK
4	0	DARK_LIGHTED
5	0	DARK_NOT_LIGHTED
6	0	DARK_UNKNOWN_LIGHTING
99	0	UNKNOWN
	5	Check Total

		Weather
1	5	CLEAR
2	0	CLOUDY
3	0	SLEET_HAIL_FREEZING_RAIN_OR_DRIZZLE
4	0	RAIN
5	0	SNOW
6	0	SEVERE_CROSSWINDS
7	0	BLOWING_SAND_SOIL_DIRT
8	0	FOG_SMOG_SMOKE
9	0	BLOWING_SNOW
97	0	OTHER
99	0	UNKNOWN
	5	Check Total

		TrafficWayType
1	1	ONE_WAY_TRAFFICWAY
2	0	TWO_WAY_NOT_DIVIDED
3	0	OED_WITH_CONTINUOUS_LEFT_TURN_LANE
4	0	_UNPROTECTED_PAINTED_4_FEET_MEDIAN
5	4	IDED_POSITIVE_MEDIAN_BARRIER
99	0	UNKNOWN
	5	Check Total

		Weekday
1	1	Sunday
2	0	Monday
3	1	Tuesday
4	1	Wednesday
5	1	Thursday
6	0	Friday
7	1	Saturday
	5	Check Total

Code	No.	JunctionRelation
0	3	NOT_JUNCTION_RELATED
1	1	INTERSECTION_NON_INTERCHANGE
2	0	INTERSECTION_RELATED_NON_INTERCHANGE
3	0	ENTRANCE_EXIT_RAMP_NON_INTERCHANGE
4	0	RAILWAY_GRADE_CROSSING
5	0	CROSSOVER_RELATED
6	0	FRONTAGE_ROAD_NON_INTERCHANGE
7	0	DRIVEWAY
8	0	ALLEY_ACCESS_RELATED
9	0	UNKNOWN_NON_INTERCHANGE
10	0	THRU_ROADWAY
11	1	INTERSECTION_INTERCHANGE
12	0	INTERSECTION_RELATED_INTERCHANGE
13	0	ENTRANCE_EXIT_RAMP_INTERCHANGE
14	0	FRONTAGE_ROAD_INTERCHANGE
15	0	OTHER_PART_OF_INTERCHANGE
16	0	<not defined>
17	0	UNKNOWN_INTERCHANGE
18	0	UNKNOWN_JUNCTION
99	0	UNKNOWN
109	0	OTHER_NON_INTERCHANGE
	5	Check Total

		CollisionManner
1	3	SINGLE_VEHICLE
2	1	ANGLE (front to side)(other than left turn)
3	0	LEFT_TURN
4	1	REAR_END
5	0	HEAD_ON
6	0	SIDESWIPE_SAME_DIRECTION
7	0	SIDESWIPE_OPPOSITE_DIRECTION
8	0	REAR_TO_SIDE
9	0	REAR_TO_REAR
97	0	OTHER
99	0	UNKNOWN
	5	Check Total

			TravelDirection
1	NORTH	N	
2	SOUTH	S	
3	EAST	E	
4	WEST	W	
5	NORTHWEST	NW	
6	NORTHEAST	NE	
7	SOUTHWEST	SW	
8	SOUTHEAST	SE	
99	UNKNOWN	99	

Code	No.	First Harmful Event
1	0	OVERTURN_ROLLOVER
2	0	FIRE_EXPLOSION
3	0	IMMERSION
4	0	JACKKNIFE
5	0	CARGO_EQUIPMENT_LOSS_SHIFT
6	0	FELL_JUMPED_FROM_VEHICLE
7	0	THROWN_OR_FALLING_OBJECT
8	0	OTHER_NON_COLLISION
9	0	EQUIPMENT_FAILURE_TIRES_BRAKES
10	0	SEPARATION_OF_UNITS
11	0	RAN_OFF_ROAD_RIGHT
12	0	RAN_OFF_ROAD_LEFT
13	0	CROSS_MEDIAN
14	0	CROSS_CENTERLINE
15	0	DOWNHILL_RUNAWAY
16	2	MOTOR_VEHICLE_IN_TRANSPORT
17	0	PEDESTRIAN
18	0	PEDALCYCLE
19	0	RAILWAY_VEHICLE_TRAIN_ENGINE
20	0	LIGHT_RAILWAY_RAILCAR_VEHICLE
21	0	ANIMAL_WILD_NON_GAME
22	0	ANIMAL_WILD_GAME
23	0	ANIMAL_PET
24	0	ANIMAL_LIVESTOCK
25	0	PARKED_MOTOR_VEHICLE
26	0	WORK_ZONE_MAINTENANCE_EQUIPMENT
27	0	STRUCK_BY_FALLING_SHIFTING_CARGO_OR_OBJECT
28	0	OTHER_NON_FIXED_OBJECT
29	0	IMPACT_ATTENUATOR_CRASH_CUSHION
30	0	BRIDGE_OVERHEAD_STRUCTURE
31	0	BRIDGE_RAIL
32	0	CULVERT
33	2	CURB
34	0	DITCH
35	0	EMBANKMENT
36	0	GUARDRAIL_FACE
37	0	GUARDRAIL_END
38	0	CONCRETE_TRAFFIC_BARRIER
39	0	CABLE_TRAFFIC_BARRIER
40	0	OTHER_TRAFFIC_BARRIER
41	0	TREE_BUSH_STUMP_STANDING
42	0	TRAFFIC_SIGN_SUPPORT
43	0	TRAFFIC_SIGNAL_SUPPORT
44	1	UTILITY_POLE_LIGHT_SUPPORT
45	0	OTHER_POST_POLE_OR_SUPPORT
46	0	FENCE
47	0	MAILBOX
48	0	BUILDING
49	0	OTHER_FIXED_OBJECT
99	0	UNKNOWN
255	0	Not Reported
	5	Check Total

Code	No.	Month
1	0	January
2	0	February
3	0	March
4	1	April
5	0	May
6	0	June
7	0	July
8	0	August
9	0	September
10	2	October
11	2	November
12	0	December
	5	Total

			(Unit) SurfaceCondition
1	7	DRY	
2	0	WET	
3	0	SNOW	
4	0	SLUSH	
5	0	ICE_FROST	
6	0	WATER_STANDING_MOVING	
7	0	SAND	
8	0	MUD_DIRT_GRAVEL	
9	0	OIL	
97	0	OTHER	
99	0	UNKNOWN	
	7	Total	

Additional Useful Information

Vehicle Action Codes

1	GOING_STRAIGHT_AHEAD
2	SLOWING_IN_TRAFFICWAY
3	STOPPED_IN_TRAFFICWAY
4	MAKING_LEFT_TURN
5	MAKING_RIGHT_TURN
6	MAKING_U_TURN
7	OVERTAKING_PASSING
8	CHANGING_LANES
9	NEGOTIATING_A_CURVE
10	BACKING
11	Avoiding_Vehicle_Object_Pedestrian
12	ENTERING_PARKING_POSITION
13	LEAVING_PARKING_POSITION
14	PROPERLY_PARKED
15	IMPROPERLY_PARKED
16	DRIVERLESS_MOVING_VEHICLE
17	CROSSING_ROAD
18	WALKING_WITH_TRAFFIC
19	WALKING_AGAINST_TRAFFIC
20	STANDING
21	LYING
22	GETTING_ON_OR_OFF_VEHICLE
23	WORKING_ON_OR_PUSHING_VEHICLE
24	WORKING_ON_ROAD
97	OTHER
99	UNKNOWN

Body Styles

-1	NOT_REPORTED
1	\Passenger Vehicles, including RVs
53	/
54	\TRUCKS
88	/
89	\MOBILEHOME (NOT RVS)
92	/
93	\TRAILERS
120	/
121	\MOTORCYCLES
128	/
254	UNKNOWN
255	NOT REPORTED

<-------- LOCATION -------->								<-DATE & TIME->		<-------- UNITS -------->																<---------- PERSON ---------->										<------- SEVERITY ------->							<----- GENERAL ----->						
INCIDNT	ON	STREET	MP	OFF-SET	D R	DIS-TANCE	INTERSECT STREET	OFCR NCIC	OFCR NCIC	YYMMDD	HH:MM	D W	TO-TAL	SRFCND U1	SRFCND U2	ALGMT 1	ALGMT 2	GRADE 1	GRADE 2	DFCTS U1	DFCTS U2	BSTYLE U1	BSTYLE U2	TRDR 1	TRDR 2	UACT U1	UACT U2	TTL MOT	TTL NON	TYP 1	TYP 2	INJR 1	INJR 2	VLTN D1	VLTN D2	PHSCND D1	PHSCND D2	NON LOC	INCIDENTS PDO	INJ	FAT	TTL MOT	NON TTL	MOT	NON	H R	LT CN	WE CN	JCT REL	TRF CWY	HE CD	M C
3446500	07	WHITEHORSE			P	0	Grand Ave	727	727	181121	08:38	4	1	1		1		1		0		31		S		4		1	0	1		2		7		0			1	1	0	0	0	0	0	N	1	1	11	5	44	1
3493743	07	WHITEHORSE			P	150	Cornerstone Trl	727	727	190406	17:42	7	1	1		2		1		0		44		N		1		2	0	1	4	2	2	2	0	0	0	255	1		2	0	0	0	0	0	0	N	1	1	0	1	33	1
3577469	07	WHITEHORSE			M	115	Grand Ave	727	727	191022	12:56	3	2	1	1	1	1	1	0	0	0	30	50	S	W	4	1	3	0	1	1	1	1	20	1	0	0	255	1		0		0		N	1	1	0	5	16	2
																														4		1		0		0																
3581881	07	WHITEHORSE			P	0	Mountain View Blvd	727	727	191110	18:45	1	1	1		2		1		99		255		E		1		1	0	1		1		99		0			1		0		0		N	1	1	1	5	33	1
3694121	07	GRAND			P	41	Whitehorse Trl	727	799	201015	09:42	5	2	1	1	1	1	1	0	0	99	254	82	W	W	1	3	2	0	1	1	1	99	2	1	0	0	0	1		0		0		Y	1	1	0	5	16	4

Study Area Crashes

SUMMARY BY YEAR

SEVERITY / INCIDENTS	**2018**	**2019**	**2020**	**Totals**	**Checks**
Fatal Injury Incidents					
Non-fatal Injury Incidents	1	1		2	
PDO Incidents		2	1	3	
TOTALS	1	3	1	5	
Pedestrian Incidents					
Pedestrians Involved					
Bicycle Incidents					
Bicyclists Involved					
SEVERITY / INVOLVMENT					
Fatal Injuries					
Non-Fatal Injuries	1	2		3	
PDO Vehicles		3	2	5	
Pedestrians Fatally Injured					
Pedestrians Non-Fatally Injured					
Bicyclists Fatally Injured					
Bicyclists Non-Fatally Injured					
COLLISION MANNER					
SINGLE_VEHICLE 1	1	2		3	
ANGLE 2		1		1	
LEFT_TURN 3					
REAR_END 4			1	1	
HEAD_ON 5					
SIDESWIPE_SAME_DIRECTION 6					
IDESWIPE_OPPOSITE_DIRECTION 7					
REAR_TO_SIDE 8					
REAR_TO_REAR 9					
OTHER 97					
UNKNOWN 99					
TOTALS	1	3	1	5	

APPENDIX E

TRIP GENERATION CALCULATIONS

Methodology Overview

This form facilitates trip generation estimation using data within the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition and methodology described within ITE's Trip Generation Handbook, 3rd Edition. These references will be referred to as Manual and Handbook, respectively. The Manual contains data collected by various transportation professionals for a wide range of different land uses, with each land use category represented by a land use code (LUC). Average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized LUC in various settings and time periods. The Handbook indicates an established methodology for how to use data contained within the Manual when to use the fitted curve instead of the average rate and when to adjustments to the volume of trips are appropriate and how to do so. The methodology steps are represented visually in boxes in Figure 3.1. This worksheet applies calculations for each box if applicable.

Box 1 - Define Study Site Land Use Type&Site Characteristics, | **Box 2 - Define Site Context** | **Box 3 - Define Analysis Objectives** Trip Types&Time Period

The analyst is to pick an appropriate LUC(s) based on the subject's zoning/land use(s)/future land use(s). The size of the land use(s) is described in reference to an independent variable(s) specific to (each) the land use (example: 1,000 square feet of building area is relatively common). Context assessment is to "simply determine whether the study sites is in a multimodal setting" and "could have persons accessing the site by walking, bicycling, or riding transit." This assessment is used in Box 4. The Manual separates data into 4 setting categories - Rural, General Urban/Suburban, Dense Multi-Urban Use and Center City Core. This worksheet uses the following abbreviations, respectively: R, G, D, and C. The Manual does not have data for all settings of all land use codes. The "General Urban/Suburban" setting is used by default.

This tool will focus on vehicular trips for a 24-hour period on a typical weekday as well as its AM peak hour and PM peak hour. Other time period(s) may be of interest.

Land Use Types and Size

Proposed Use	Amount	Units	ITE LUC	ITE Land Use Name
Apartments(Low-Rise) Not Close to Rail	274	Dwelling Units	220	Multifamily Housing (Low-Rise)

Box 4 - Is Study Site Multimodal?

Per the Handbook, "if the objective is to establish a local trip generation rate for a particular land use or study site, the simplified approach (Box 9) may be acceptable but the Box 5 through 8 approach is required if the study site is located in an infill setting, contains a mix of uses on-site, or is near significant transit service."

Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips (Determine Equation)

Vehicle trips are estimated using rates/equations applicable to each LUC. When the appropriate graph has a fitted curve, the Handbook has a process (Figure 4.2) to determine when to use it versus using the weighted average rate or collecting local data. The methodology requires for engineering judgement in some circumstances and permits engineering judgement to override or make adjustments when appropriate to best project (example 1: study site is expected to operate differently than data in the applicable land use code - such as restaurant that is closed in the morning or in the evening; example 2: LUC data in a localized area fails to be represented by the typically selected fitted curve/weighted average rate - a small shop/LUC 820, AM peak hour is skewed by the high y-intercept).

Equation Type: Equation Used [Equated Rate] (Type Abbreviations: Weighted Average Rate ("WA"), Fitted Curve ("FC **Type: Equation Used [Equated Rate]**

Proposed Use	ADT	AM Peak Hour	PM Peak Hour	(not used)
Apartments(Low-Rise) Not Close to Rail	FC: T=6.41*X+75.31 [6.68]	FC: T=0.31*X+22.85 [0.39]	FC: T=0.43*X+20.55 [0.51]	

Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips (Apply Equations and in/out Distributions)

Baseline Vehicular Trips

Proposed Use	ADT				AM Peak Hour				PM Peak Hour				(not used)			
	% In	In	Out	Total	% In	In	Out	Total	% In	In	Out	Total	% In	In	Out	Total
Apartments(Low-Rise) Not Close to Rail	50%	916	916	1,832	24%	26	82	108	63%	87	51	138				

Box 8 - Convert Person Trips to Final Vehicle Trips

The vehicle occupancy and baseline alternate mode are now factored out from the external trips in vehicles, after any adjustments for internal capture and additional alternate mode from Box 7. In Box 6, vehicle trips were considered to account for 90% of total person trips. Alternate mode trips in addition to the baseline, if any, are accounted for in Box 7. It is estimated that vehicle trips should be reduced by an additional 0% due to carpooling. The final external trips in vehicles is multiplied by 90% (= 90% - 0%) to produce the external vehicle trips.

External Vehicular Trips

Proposed Use	ADT				AM Peak Hour				PM Peak Hour				(not used)			
		In	Out	Total		In	Out	Total		In	Out	Total		In	Out	Total
Apartments(Low-Rise) Not Close to Rail		916	916	1,832		26	82	108		87	51	138				
Totals		**916**	**916**	**1,832**		**26**	**82**	**108**		**87**	**51**	**138**				

Methodology Overview

This form facilitates trip generation estimation using data within the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition and methodology described within ITE's Trip Generation Handbook, 3rd Edition. These references will be referred to as Manual and Handbook, respectively. The Manual contains data collected by various transportation professionals for a wide range of different land uses, with each land use category represented by a land use code (LUC). Average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized LUC in various settings and time periods. The Handbook indicates an established methodology for how to use data contained within the Manual when to use the fitted curve instead of the average rate and when to adjustments to the volume of trips are appropriate and how to do so. The methodology steps are represented visually in boxes in Figure 3.1. This worksheet applies calculations for each box if applicable.

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The analyst is to pick an appropriate LUC(s) based on the subject's zoning/land use(s)/future land use(s). The size of the land use(s) is described in reference to an independent variable(s) specific to (each) the land use (example: 1,000 square feet of building area is relatively common). Context assessment is to "simply determine whether the study sites is in a multimodal setting" and "could have persons accessing the site by walking, bicycling, or riding transit." This assessment is used in Box 4. The Manual separates data into 4 setting categories - Rural, General Urban/Suburban, Dense Multi-Urban Use and Center City Core. This worksheet uses the following abbreviations, respectively: R, G, D, and C. The Manual does not have data for all settings of all land use codes. The "General Urban/Suburban" setting is used by default.

This tool will focus on vehicular trips for a 24-hour period on a typical weekday as well as its AM peak hour and PM peak hour. Other time period(s) may be of interest.

Land Use Types and Size

Proposed Use	Amount	Units	ITE LUC	ITE Land Use Name
Shopping Center	94.087	1,000 square feet	820	Shopping Center
General Office Building	188.174	1,000 square feet	710	General Office Building
Medical, Dental or Health Office Buildings and Clinics	188.174	1,000 square feet	720	Medical-Dental Office Building

Box 4 - Is Study Site Multimodal?

Per the Handbook, "if the objective is to establish a local trip generation rate for a particular land use or study site, the simplified approach (Box 9) may be acceptable but the Box 5 through 8 approach is required if the study site is located in an infill setting, contains a mix of uses on-site, or is near significant transit service."

Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips (Determine Equation)

Vehicle trips are estimated using rates/equations applicable to each LUC. When the appropriate graph has a fitted curve, the Handbook has a process (Figure 4.2) to determine when to use it versus using the weighted average rate or collecting local data. The methodology requires for engineering judgement in some circumstances and permits engineering judgement to override or make adjustments when appropriate to best project (example 1: study site is expected to operate differently than data in the applicable land use code - such as restaurant that is closed in the morning or in the evening; example 2: LUC data in a localized area fails to be represented by the typically selected fitted curve/weighted average rate - a small shop/LUC 820, AM peak hour is skewed by the high y-intercept).

Equation Type: Equation Used [Equated Rate] (Type Abbreviations: Weighted Average Rate ("WA"), Fitted Curve ("FC **Type: Equation Used [Equated Rate]**

Proposed Use	ADT	AM Peak Hour	PM Peak Hour	(not used)
Shopping Center	WA: T=X*37.01 [37.01]	WA: T=X*0.84 [0.84]	WA: T=X*3.4 [3.40]	
General Office Building	FC: LN(T)=0.87*LN(X)+3.05 [10.69]	FC: LN(T)=0.86*LN(X)+1.16 [1.53]	FC: LN(T)=0.83*LN(X)+1.29 [1.49]	
Medical, Dental or Health Office Buildings and Clinics	WA: T=X*36 [36.00]	WA: T=X*3.1 [3.10]	WA: T=X*3.93 [3.93]	

Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips (Apply Equations and in/out Distributions)

Baseline Vehicular Trips

	ADT				AM Peak Hour				PM Peak Hour				(not used)			
Proposed Use	% In	In	Out	Total	% In	In	Out	Total	% In	In	Out	Total	% In	In	Out	Total
Shopping Center	50%	1,741	1,741	3,482	62%	49	30	79	48%	154	166	320				
General Office Building	50%	1,006	1,006	2,012	88%	253	35	288	17%	48	233	281				
Medical, Dental or Health Office Buildings and Clinics	50%	3,387	3,387	6,774	79%	461	122	583	30%	222	518	740				

APPENDIX F

TRIP DISTRIBUTION CALCULATIONS

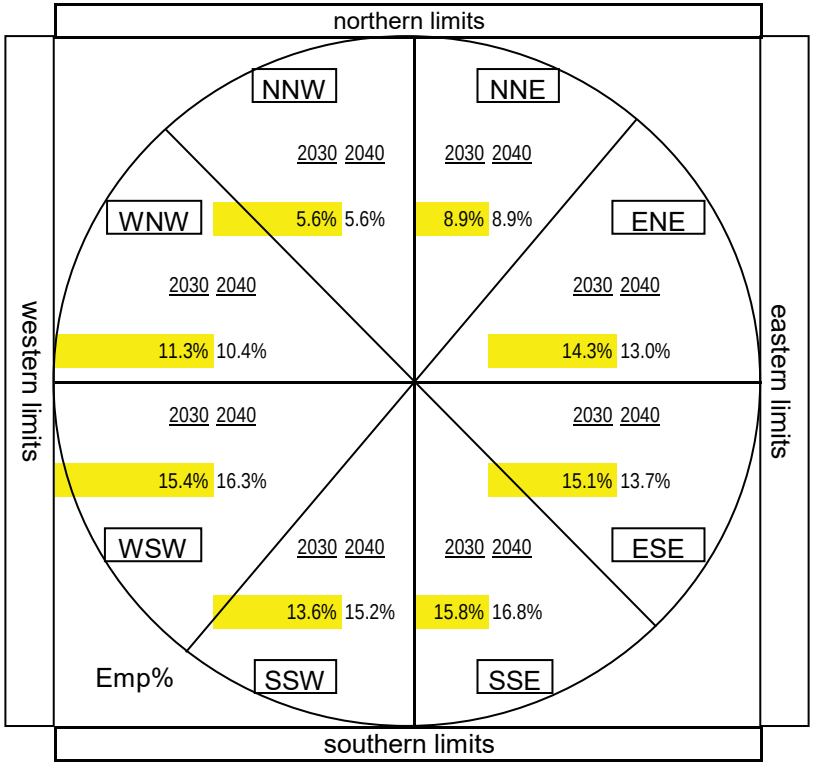
	2030				2040			
Quadrant			**Employment**	**Percent**			**Employment**	**Percent**
North Northwest			3,506	5.6%			4,218	5.6%
North Northeast			5,553	8.9%			6,615	8.9%
North			9,059	14.5%			10,833	**14.5%**
East Northeast			8,959	14.3%			9,719	13.0%
East Southeast			9,456	15.1%			10,273	13.7%
East			18,415	29.4%			19,992	**26.7%**
South Southeast			9,876	15.8%			12,541	16.8%
South Southwest			8,504	13.6%			11,374	15.2%
South			18,380	29.4%			23,915	**32.0%**
West Southwest			9,641	15.4%			12,197	16.3%
West Northwest			7,069	11.3%			7,810	10.4%
West			16,710	26.7%			20,007	**26.7%**
Totals			62,564	100.0%			74,746	99.9%

Radius

Employment radius: 5 miles

Select Analysis Year (2030, 2040, 2050)

2030



5-mile radius

RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted	RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted
NNW							**NNE**						
221	MC	9,752	10,086	27%	2,633	2,723	221	MC	9,752	10,086	30%	2,926	3,026
212	SU	5,821	9,965	15%	873	1,495	212	SU	5,821	9,965	7%	407	698
		-	-		-	-	213	PE	4,155	5,800	37%	1,537	2,146
		-	-		-	-	215	PE	13,644	14,918	5%	682	746
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-

5-mile radius

RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted	RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted
ENE							**ESE**						
221	MC	9,752	10,086	28%	2,731	2,824	221	MC	9,752	10,086	15%	1,463	1,513
234	SU	3,354	3,922	27%	906	1,059	232	SU	11,297	12,187	2%	226	244
213	PE	4,155	5,800	3%	125	174	234	SU	3,354	3,922	70%	2,348	2,745
215	PE	13,644	14,918	35%	4,775	5,221	235	EM	6,453	7,225	25%	1,613	1,806
237	MC	14,098	14,683	3%	423	440	237	MC	14,098	14,683	27%	3,806	3,964
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
From ENE					**8,959**	**9,719**	**From ESE**					**9,456**	**10,273**
From East												**18,415**	**19,992**

5-mile radius

RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted	RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted
SSE							**SSW**						
232	SU	11,297	12,187	3%	339	366	232	SU	11,297	12,187	3%	339	366
233	SU	32,661	44,032	20%	6,532	8,806	233	SU	32,661	44,032	25%	8,165	11,008
234	SU	3,354	3,922	3%	101	118			-	-		-	-
235	EM	6,453	7,225	45%	2,904	3,251			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-

5-mile radius

RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted	RAZ	MPA	2030 Employment	2040 Employment	% of TAZ	2030 Adjusted	2040 Adjusted
WSW							**WNW**						
232	SU	11,297	12,187	27%	3,050	3,290	232	SU	11,297	12,187	60%	6,778	7,312
212	SU	5,821	9,965	1%	58	100	212	SU	5,821	9,965	5%	291	498
233	SU	32,661	44,032	20%	6,532	8,806			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-			-	-		-	-
		-	-		-	-

APPENDIX G

BACKGROUND GROWTH CALCULATIONS

Location of counts: US-60 Southeast of Mountain View Blvd.

Source(s): https://adot.public.ms2soft.com/tcds/tsearch.asp?loc=Adot&mod=TCDS

	Year	Volume
Start	2017	26,545
End	2018	28,769
AAGR		8.4%
Exp Factor		1.084

Growth Rate Used	4.0%
Per-Year Multiplier	1.040

Year	Expansion Factor(s)	
2022	1.000	
2023	**1.040**	**Opening**
2024	1.082	
2025	1.125	
2026	1.170	
2027	1.217	
2028	1.265	
2029	1.316	
2030	1.369	
2031	1.423	
2032	1.480	
2033	1.539	
2034	1.601	
2035	1.665	
2036	1.732	
2037	1.801	
2038	1.873	
2039	1.948	
2040	2.026	
2041	2.107	
2042	2.191	
2043	2.279	
2044	2.370	
2045	2.465	
2046	2.563	
2047	2.666	
2048	2.772	
2049	2.883	
2050	2.999	
2051	3.119	
2052	3.243	
2053	3.373	
2054	3.508	

APPENDIX H

2023 NO BUILD PEAK HOUR ANALYSIS

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	0	0	2	1	0	1	1	83	4	2	99	2
Future Vol, veh/h	0	0	2	1	0	1	1	83	4	2	99	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	2	1	0	1	1	90	4	2	108	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	208	209	109	208	208	92	110	0	0	94	0	0
Stage 1	113	113	-	94	94	-	-	-	-	-	-	-
Stage 2	95	96	-	114	114	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	749	688	945	749	689	965	1480	-	-	1500	-	-
Stage 1	892	802	-	913	817	-	-	-	-	-	-	-
Stage 2	912	815	-	891	801	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	747	687	945	746	688	965	1480	-	-	1500	-	-
Mov Cap-2 Maneuver	747	687	-	746	688	-	-	-	-	-	-	-
Stage 1	891	801	-	912	816	-	-	-	-	-	-	-
Stage 2	910	814	-	888	800	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.3	0.1	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	945	841	1500	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	0.003	0.001	-	-
HCM Control Delay (s)	7.4	0	-	8.8	9.3	7.4	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	1	0	2	2	0	4	4	126	4	2	62	1
Future Vol, veh/h	1	0	2	2	0	4	4	126	4	2	62	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	2	2	0	4	4	137	4	2	67	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	221	221	68	220	219	139	68	0	0	141	0	0
Stage 1	72	72	-	147	147	-	-	-	-	-	-	-
Stage 2	149	149	-	73	72	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	735	678	995	736	679	909	1533	-	-	1442	-	-
Stage 1	938	835	-	856	775	-	-	-	-	-	-	-
Stage 2	854	774	-	937	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	729	675	995	732	676	909	1533	-	-	1442	-	-
Mov Cap-2 Maneuver	729	675	-	732	676	-	-	-	-	-	-	-
Stage 1	935	834	-	853	773	-	-	-	-	-	-	-
Stage 2	847	772	-	934	834	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.3	0.2	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1533	-	-	887	841	1442	-	-
HCM Lane V/C Ratio	0.003	-	-	0.004	0.008	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.1	9.3	7.5	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	61	41	28	59	29	30
Future Vol, veh/h	61	41	28	59	29	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	60	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	45	30	64	32	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	111	0	213	89
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	124	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1479	-	775	969
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1479	-	760	969
Mov Cap-2 Maneuver	-	-	-	-	760	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	884	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	854	-	-	1479	-
HCM Lane V/C Ratio	0.075	-	-	0.021	-
HCM Control Delay (s)	9.6	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	43	49	70	64	56
Future Vol, veh/h	24	43	49	70	64	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	60	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	47	53	76	70	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	73	0	232	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	182	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1527	-	756	1018
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	849	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1527	-	730	1018
Mov Cap-2 Maneuver	-	-	-	-	730	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	819	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.1	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	841	-	-	1527	-
HCM Lane V/C Ratio	0.155	-	-	0.035	-
HCM Control Delay (s)	10.1	-	-	7.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	5	51	6	4	30	28	48	19	51	24	76
Future Vol, veh/h	105	5	51	6	4	30	28	48	19	51	24	76
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	35	-	0	-	-	-	35	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	114	5	55	7	4	33	30	52	21	55	26	83

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	277	269	13	249	342	63	109	0	0	73	0	0
Stage 1	136	136	-	123	123	-	-	-	-	-	-	-
Stage 2	141	133	-	126	219	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	664	637	1064	694	579	1001	1480	-	-	1526	-	-
Stage 1	854	783	-	881	794	-	-	-	-	-	-	-
Stage 2	861	786	-	865	721	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	610	600	1064	624	545	1001	1480	-	-	1526	-	-
Mov Cap-2 Maneuver	610	600	-	624	545	-	-	-	-	-	-	-
Stage 1	837	752	-	863	778	-	-	-	-	-	-	-
Stage 2	812	770	-	782	693	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	9.5	2.2	2.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1480	-	-	610	1064	852	1526	-	-
HCM Lane V/C Ratio	0.021	-	-	0.187	0.052	0.051	0.036	-	-
HCM Control Delay (s)	7.5	-	-	12.3	8.6	9.5	7.4	0	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.2	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	2	36	20	3	36	21	53	6	15	62	66
Future Vol, veh/h	96	2	36	20	3	36	21	53	6	15	62	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	35	-	0	-	-	-	35	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	2	39	22	3	39	23	58	7	16	67	72

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	228	210	34	175	279	62	139	0	0	65	0	0
Stage 1	99	99	-	108	108	-	-	-	-	-	-	-
Stage 2	129	111	-	67	171	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	717	687	1032	779	628	1002	1443	-	-	1536	-	-
Stage 1	897	813	-	897	805	-	-	-	-	-	-	-
Stage 2	874	803	-	936	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	673	668	1032	732	611	1002	1443	-	-	1536	-	-
Mov Cap-2 Maneuver	673	668	-	732	611	-	-	-	-	-	-	-
Stage 1	883	804	-	883	792	-	-	-	-	-	-	-
Stage 2	823	790	-	888	749	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	9.5	2	0.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1443	-	-	673	1032	866	1536	-	-
HCM Lane V/C Ratio	0.016	-	-	0.155	0.038	0.074	0.011	-	-
HCM Control Delay (s)	7.5	-	-	11.3	8.6	9.5	7.4	0	-
HCM Lane LOS	A	-	-	B	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0.2	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1126	28	111	1109	70	112
Future Volume (vph)	1126	28	111	1109	70	112
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	3	3
Permitted Phases		6				
Detector Phase	6	6	5	2	3	3
Switch Phase						
Minimum Initial (s)	25.0	25.0	6.0	25.0	6.0	6.0
Minimum Split (s)	37.8	37.8	12.7	30.8	13.0	13.0
Total Split (s)	50.0	50.0	20.0	70.0	20.0	20.0
Total Split (%)	55.6%	55.6%	22.2%	77.8%	22.2%	22.2%
Yellow Time (s)	4.3	4.3	3.0	4.3	3.0	3.0
All-Red Time (s)	1.5	1.5	3.7	1.5	4.0	4.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	6.7	5.8	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 73.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Mountain View Blvd. & US-60

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1551	20	123	1445	79	106
Future Volume (vph)	1551	20	123	1445	79	106
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	3	3
Permitted Phases		6				
Detector Phase	6	6	5	2	3	3
Switch Phase						
Minimum Initial (s)	25.0	25.0	6.0	25.0	6.0	6.0
Minimum Split (s)	37.8	37.8	12.7	30.8	13.0	13.0
Total Split (s)	50.0	50.0	20.0	70.0	20.0	20.0
Total Split (%)	55.6%	55.6%	22.2%	77.8%	22.2%	22.2%
Yellow Time (s)	4.3	4.3	3.0	4.3	3.0	3.0
All-Red Time (s)	1.5	1.5	3.7	1.5	4.0	4.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	6.7	5.8	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 83.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Mountain View Blvd. & US-60

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1126	28	111	1109	70	112
Future Volume (veh/h)	1126	28	111	1109	70	112
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1251	35	131	1232	88	132
Peak Hour Factor	0.90	0.80	0.85	0.90	0.80	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2646	821	280	3564	391	179
Arrive On Green	0.52	0.52	0.08	0.70	0.11	0.11
Sat Flow, veh/h	5274	1585	3456	5274	3456	1585
Grp Volume(v), veh/h	1251	35	131	1232	88	132
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1585
Q Serve(g_s), s	10.6	0.7	2.5	6.5	1.6	5.5
Cycle Q Clear(g_c), s	10.6	0.7	2.5	6.5	1.6	5.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2646	821	280	3564	391	179
V/C Ratio(X)	0.47	0.04	0.47	0.35	0.23	0.74
Avail Cap(c_a), veh/h	3331	1034	678	4838	663	304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	8.0	29.7	4.1	27.3	29.1
Incr Delay (d2), s/veh	0.5	0.1	0.5	0.2	0.3	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.2	1.0	1.6	0.6	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	8.1	30.2	4.3	27.6	34.9
LnGrp LOS	B	A	C	A	C	C
Approach Vol, veh/h	1286			1363	220	
Approach Delay, s/veh	10.8			6.8	32.0	
Approach LOS	B			A	C	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		53.1			12.2	40.9	14.7
Change Period (Y+Rc), s		5.8			* 6.7	5.8	7.0
Max Green Setting (Gmax), s		64.2			* 13	44.2	13.0
Max Q Clear Time (g_c+I1), s		8.5			4.5	12.6	7.5
Green Ext Time (p_c), s		31.7			0.1	22.5	0.3

Intersection Summary			
HCM 6th Ctrl Delay		10.5	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1551	20	123	1445	79	106
Future Volume (veh/h)	1551	20	123	1445	79	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1723	25	145	1606	93	125
Peak Hour Factor	0.90	0.80	0.85	0.90	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2842	882	264	3689	367	168
Arrive On Green	0.56	0.56	0.08	0.72	0.11	0.11
Sat Flow, veh/h	5274	1585	3456	5274	3456	1585
Grp Volume(v), veh/h	1723	25	145	1606	93	125
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1585
Q Serve(g_s), s	16.9	0.5	3.0	9.5	1.8	5.7
Cycle Q Clear(g_c), s	16.9	0.5	3.0	9.5	1.8	5.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2842	882	264	3689	367	168
V/C Ratio(X)	0.61	0.03	0.55	0.44	0.25	0.74
Avail Cap(c_a), veh/h	3019	937	615	4385	601	276
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	7.5	33.3	4.2	30.7	32.4
Incr Delay (d2), s/veh	0.8	0.0	0.7	0.3	0.4	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	0.2	1.3	2.3	0.8	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	7.5	34.0	4.5	31.0	38.7
LnGrp LOS	B	A	C	A	C	D
Approach Vol, veh/h	1748			1751	218	
Approach Delay, s/veh	11.8			6.9	35.4	
Approach LOS	B			A	D	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		59.8			12.4	47.4	14.9
Change Period (Y+Rc), s		5.8			* 6.7	5.8	7.0
Max Green Setting (Gmax), s		64.2			* 13	44.2	13.0
Max Q Clear Time (g_c+I1), s		11.5			5.0	18.9	7.7
Green Ext Time (p_c), s		40.5			0.1	22.7	0.3

Intersection Summary			
HCM 6th Ctrl Delay		10.9	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	3.1
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	17	70	85
Demand Flow Rate, veh/h	17	71	87
Vehicles Circulating, veh/h	63	29	1
Vehicles Exiting, veh/h	37	59	79
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.9	3.2	3.2
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LTR	LT
Assumed Moves	LR	LTR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	17	71	87
Cap Entry Lane, veh/h	1294	1340	1378
Entry HV Adj Factor	1.000	0.983	0.975
Flow Entry, veh/h	17	70	85
Cap Entry, veh/h	1294	1316	1345
V/C Ratio	0.013	0.053	0.063
Control Delay, s/veh	2.9	3.2	3.2
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	57	98	101
Demand Flow Rate, veh/h	58	100	103
Vehicles Circulating, veh/h	95	9	20
Vehicles Exiting, veh/h	14	114	133
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.3	3.3
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LTR	LT
Assumed Moves	LR	LTR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	58	100	103
Cap Entry Lane, veh/h	1252	1367	1352
Entry HV Adj Factor	0.983	0.981	0.982
Flow Entry, veh/h	57	98	101
Cap Entry, veh/h	1231	1342	1328
V/C Ratio	0.046	0.073	0.076
Control Delay, s/veh	3.3	3.3	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

APPENDIX I

2023 BUILD PEAK HOUR ANALYSIS

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	0	0	2	1	0	1	1	91	4	2	102	2
Future Vol, veh/h	0	0	2	1	0	1	1	91	4	2	102	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	2	1	0	1	1	99	4	2	111	2

Major/Minor	Minor2			Minor1				Major1			Major2	
Conflicting Flow All	220	221	112	220	220	101	113	0	0	103	0	0
Stage 1	116	116	-	103	103	-	-	-	-	-	-	-
Stage 2	104	105	-	117	117	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	736	678	941	736	678	954	1476	-	-	1489	-	-
Stage 1	889	800	-	903	810	-	-	-	-	-	-	-
Stage 2	902	808	-	888	799	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	734	677	941	733	677	954	1476	-	-	1489	-	-
Mov Cap-2 Maneuver	734	677	-	733	677	-	-	-	-	-	-	-
Stage 1	888	799	-	902	809	-	-	-	-	-	-	-
Stage 2	900	807	-	885	798	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	9.4	0.1	0.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1476	-	-	941	829	1489	-	-
HCM Lane V/C Ratio	0.001	-	-	0.002	0.003	0.001	-	-
HCM Control Delay (s)	7.4	0	-	8.8	9.4	7.4	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↰	↱	
Traffic Vol, veh/h	1	0	2	2	0	4	4	131	4	2	71	1
Future Vol, veh/h	1	0	2	2	0	4	4	131	4	2	71	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	2	2	0	4	4	142	4	2	77	1

Major/Minor	Minor2			Minor1				Major1			Major2	
Conflicting Flow All	236	236	78	235	234	144	78	0	0	146	0	0
Stage 1	82	82	-	152	152	-	-	-	-	-	-	-
Stage 2	154	154	-	83	82	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	718	665	983	720	666	903	1520	-	-	1436	-	-
Stage 1	926	827	-	850	772	-	-	-	-	-	-	-
Stage 2	848	770	-	925	827	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	712	662	983	716	663	903	1520	-	-	1436	-	-
Mov Cap-2 Maneuver	712	662	-	716	663	-	-	-	-	-	-	-
Stage 1	923	826	-	847	770	-	-	-	-	-	-	-
Stage 2	841	768	-	922	826	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	9.4	0.2	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1520	-	-	872	831	1436	-	-
HCM Lane V/C Ratio	0.003	-	-	0.004	0.008	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.1	9.4	7.5	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	133	42	28	82	29	30
Future Vol, veh/h	133	42	28	82	29	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	60	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	145	46	30	89	32	33

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	191	0	317	168
Stage 1	-	-	-	-	168	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1383	-	676	876
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	879	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1383	-	661	876
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	860	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	755	-	-	1383	-
HCM Lane V/C Ratio	0.085	-	-	0.022	-
HCM Control Delay (s)	10.2	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	44	49	147	65	56
Future Vol, veh/h	69	44	49	147	65	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	60	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	75	48	53	160	71	61

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	123	0	365	99
Stage 1	-	-	-	-	99	-
Stage 2	-	-	-	-	266	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1464	-	635	957
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1464	-	612	957
Mov Cap-2 Maneuver	-	-	-	-	612	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	751	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.9	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	735	-	-	1464	-
HCM Lane V/C Ratio	0.179	-	-	0.036	-
HCM Control Delay (s)	11	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	105	5	51	6	4	30	28	120	19	51	47	76
Future Vol, veh/h	105	5	51	6	4	30	28	120	19	51	47	76
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	35	-	0	-	-	-	35	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	114	5	55	7	4	33	30	130	21	55	51	83

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	380	372	26	339	445	141	134	0	0	151	0	0
Stage 1	161	161	-	201	201	-	-	-	-	-	-	-
Stage 2	219	211	-	138	244	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	565	557	1044	603	507	906	1449	-	-	1429	-	-
Stage 1	826	764	-	800	734	-	-	-	-	-	-	-
Stage 2	783	727	-	851	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	515	522	1044	540	476	906	1449	-	-	1429	-	-
Mov Cap-2 Maneuver	515	522	-	540	476	-	-	-	-	-	-	-
Stage 1	809	732	-	783	719	-	-	-	-	-	-	-
Stage 2	735	712	-	766	673	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	10	1.3	2.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1449	-	-	515	1044	760	1429	-	-
HCM Lane V/C Ratio	0.021	-	-	0.222	0.053	0.057	0.039	-	-
HCM Control Delay (s)	7.5	-	-	14	8.6	10	7.6	0.1	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.2	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	2	36	20	3	36	21	98	6	15	139	66
Future Vol, veh/h	96	2	36	20	3	36	21	98	6	15	139	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	35	-	0	-	-	-	35	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	2	39	22	3	39	23	107	7	16	151	72

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	361	343	76	266	412	111	223	0	0	114	0	0
Stage 1	183	183	-	157	157	-	-	-	-	-	-	-
Stage 2	178	160	-	109	255	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	582	579	970	676	529	942	1344	-	-	1474	-	-
Stage 1	802	748	-	845	767	-	-	-	-	-	-	-
Stage 2	823	765	-	885	696	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	542	562	970	632	513	942	1344	-	-	1474	-	-
Mov Cap-2 Maneuver	542	562	-	632	513	-	-	-	-	-	-	-
Stage 1	788	738	-	831	754	-	-	-	-	-	-	-
Stage 2	772	752	-	836	687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	10	1.3	0.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1344	-	-	542	970	779	1474	-	-
HCM Lane V/C Ratio	0.017	-	-	0.193	0.04	0.082	0.011	-	-
HCM Control Delay (s)	7.7	-	-	13.2	8.9	10	7.5	0	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.1	0.3	0	-	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1126	36	126	1109	96	158
Future Volume (vph)	1126	36	126	1109	96	158
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	3	3
Permitted Phases		6				
Detector Phase	6	6	5	2	3	3
Switch Phase						
Minimum Initial (s)	25.0	25.0	6.0	25.0	6.0	6.0
Minimum Split (s)	37.8	37.8	12.7	30.8	13.0	13.0
Total Split (s)	50.0	50.0	20.0	70.0	20.0	20.0
Total Split (%)	55.6%	55.6%	22.2%	77.8%	22.2%	22.2%
Yellow Time (s)	4.3	4.3	3.0	4.3	3.0	3.0
All-Red Time (s)	1.5	1.5	3.7	1.5	4.0	4.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	6.7	5.8	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 76.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Mountain View Blvd. & US-60

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1551	48	173	1445	95	135
Future Volume (vph)	1551	48	173	1445	95	135
Turn Type	NA	Perm	Prot	NA	Prot	Prot
Protected Phases	6		5	2	3	3
Permitted Phases		6				
Detector Phase	6	6	5	2	3	3
Switch Phase						
Minimum Initial (s)	25.0	25.0	6.0	25.0	6.0	6.0
Minimum Split (s)	37.8	37.8	12.7	30.8	13.0	13.0
Total Split (s)	50.0	50.0	20.0	70.0	20.0	20.0
Total Split (%)	55.6%	55.6%	22.2%	77.8%	22.2%	22.2%
Yellow Time (s)	4.3	4.3	3.0	4.3	3.0	3.0
All-Red Time (s)	1.5	1.5	3.7	1.5	4.0	4.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	6.7	5.8	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 83.9
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 4: Mountain View Blvd. & US-60

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1126	36	126	1109	96	158
Future Volume (veh/h)	1126	36	126	1109	96	158
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1251	45	148	1232	113	186
Peak Hour Factor	0.90	0.80	0.85	0.90	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2557	794	276	3445	503	231
Arrive On Green	0.50	0.50	0.08	0.67	0.15	0.15
Sat Flow, veh/h	5274	1585	3456	5274	3456	1585
Grp Volume(v), veh/h	1251	45	148	1232	113	186
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1585
Q Serve(g_s), s	11.5	1.0	2.9	7.4	2.1	8.1
Cycle Q Clear(g_c), s	11.5	1.0	2.9	7.4	2.1	8.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2557	794	276	3445	503	231
V/C Ratio(X)	0.49	0.06	0.54	0.36	0.22	0.81
Avail Cap(c_a), veh/h	3172	985	646	4607	631	290
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	9.1	31.5	5.0	26.9	29.4
Incr Delay (d2), s/veh	0.5	0.1	0.6	0.2	0.2	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.2	0.6	2.2	3.6	1.5	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	9.2	32.1	5.2	27.1	41.9
LnGrp LOS	B	A	C	A	C	D
Approach Vol, veh/h	1296			1380	299	
Approach Delay, s/veh	12.2			8.1	36.3	
Approach LOS	B			A	D	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		53.8			12.4	41.4	17.4
Change Period (Y+Rc), s		5.8			* 6.7	5.8	7.0
Max Green Setting (Gmax), s		64.2			* 13	44.2	13.0
Max Q Clear Time (g_c+I1), s		9.4			4.9	13.5	10.1
Green Ext Time (p_c), s		31.4			0.1	22.1	0.3

Intersection Summary			
HCM 6th Ctrl Delay		12.7	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1551	48	173	1445	95	135
Future Volume (veh/h)	1551	48	173	1445	95	135
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1723	60	204	1606	112	159
Peak Hour Factor	0.90	0.80	0.85	0.90	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2752	854	290	3620	437	201
Arrive On Green	0.54	0.54	0.08	0.71	0.13	0.13
Sat Flow, veh/h	5274	1585	3456	5274	3456	1585
Grp Volume(v), veh/h	1723	60	204	1606	112	159
Grp Sat Flow(s),veh/h/ln	1702	1585	1728	1702	1728	1585
Q Serve(g_s), s	18.3	1.4	4.5	10.4	2.3	7.6
Cycle Q Clear(g_c), s	18.3	1.4	4.5	10.4	2.3	7.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2752	854	290	3620	437	201
V/C Ratio(X)	0.63	0.07	0.70	0.44	0.26	0.79
Avail Cap(c_a), veh/h	2899	900	590	4211	577	265
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.5	8.6	34.7	4.8	30.7	33.0
Incr Delay (d2), s/veh	0.9	0.1	1.2	0.3	0.3	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.5	0.8	3.4	5.0	1.7	6.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	8.7	35.9	5.1	31.0	44.4
LnGrp LOS	B	A	D	A	C	D
Approach Vol, veh/h	1783			1810	271	
Approach Delay, s/veh	13.2			8.6	38.9	
Approach LOS	B			A	D	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		61.0			13.2	47.8	16.9
Change Period (Y+Rc), s		5.8			* 6.7	5.8	7.0
Max Green Setting (Gmax), s		64.2			* 13	44.2	13.0
Max Q Clear Time (g_c+I1), s		12.4			6.5	20.3	9.6
Green Ext Time (p_c), s		40.0			0.1	21.7	0.3

Intersection Summary			
HCM 6th Ctrl Delay		12.9	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	3.1
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	17	70	86
Demand Flow Rate, veh/h	17	71	88
Vehicles Circulating, veh/h	63	29	1
Vehicles Exiting, veh/h	37	60	79
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	2.9	3.2	3.2
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LTR	LT
Assumed Moves	LR	LTR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	17	71	88
Cap Entry Lane, veh/h	1294	1340	1378
Entry HV Adj Factor	1.000	0.983	0.975
Flow Entry, veh/h	17	70	86
Cap Entry, veh/h	1294	1316	1345
V/C Ratio	0.013	0.053	0.064
Control Delay, s/veh	2.9	3.2	3.2
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	57	100	102
Demand Flow Rate, veh/h	58	102	104
Vehicles Circulating, veh/h	97	9	20
Vehicles Exiting, veh/h	14	115	135
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.3	3.3
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LTR	LT
Assumed Moves	LR	LTR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	58	102	104
Cap Entry Lane, veh/h	1250	1367	1352
Entry HV Adj Factor	0.983	0.981	0.982
Flow Entry, veh/h	57	100	102
Cap Entry, veh/h	1228	1342	1328
V/C Ratio	0.046	0.075	0.077
Control Delay, s/veh	3.3	3.3	3.3
LOS	A	A	A
95th %tile Queue, veh	0	0	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	73	23	88	102	3
Future Vol, veh/h	8	73	23	88	102	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	79	25	96	111	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	259	113	114	0	-	0
Stage 1	113	-	-	-	-	-
Stage 2	146	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	730	940	1475	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	718	940	1475	-	-	-
Mov Cap-2 Maneuver	718	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1475	-	912	-	-
HCM Lane V/C Ratio	0.017	-	0.097	-	-
HCM Control Delay (s)	7.5	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	46	78	134	66	9
Future Vol, veh/h	5	46	78	134	66	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	75	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	50	85	146	72	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	393	77	82	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	611	984	1515	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	577	984	1515	-	-	-
Mov Cap-2 Maneuver	577	-	-	-	-	-
Stage 1	893	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	2.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1515	-	920	-	-
HCM Lane V/C Ratio	0.056	-	0.06	-	-
HCM Control Delay (s)	7.5	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	59	70	0
Future Vol, veh/h	0	0	0	59	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	64	76	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	140	76	76	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	853	985	1523	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	853	985	1523	-	-	-
Mov Cap-2 Maneuver	853	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1523	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	121	93	0
Future Vol, veh/h	0	0	0	121	93	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	132	101	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	233	101	101	0	-	0
Stage 1	101	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	755	954	1491	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	755	954	1491	-	-	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1491	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

APPENDIX J

QUEUE STORAGE ANALYSIS

Signalized Intersections

2023 Total:

Average Vehicle Length, VL (Per Table 9-23, AASHTO "Green Book" 2018, p 9-99)

Intersection Cycle Length (sec): 90

Cycles per Hour: 40 Queuing Cycles: 2

Truck % = VL (ft) = 25 Average Vehicle Length

Table 9-23	
Truck%	VL (ft)
0%	25
2%	25
10%	32
15%	35
20%	38
25%	41

Equation Used Storage Length, SL, = 2 x (vehicles/hour)/(cycles/hour) x Average Vehicle Length

Intersection	Cycle Length	Move-ment	AM Peak (veh/hr)	Midday Peak (veh/hr)	PM Peak (veh/hr)	Max vehs per 2 cycles	AASHTO Storage Length (ft)
Mountain View Blvd. & US-60	90	NB Left	96	0	95	5	125'
		WB Left	126	0	173	9	225'
		NB Right	158	0	135	8	200'
		EB Right	36	0	48	3	75'

*Note: Truck/Passenger Vehicle split is projected based on percentage and not reflective of acctual vehicle classification counts.

"Yield" for turns indicates that, while movement may or may not be subject to a Yield sign, vehicles must yield to oncoming traffic and may experience

Unsignalized Intersections

2023 Total:

Left Turns (Per AASHTO "Green Book" 2018, pp 9-96 to 9-99)

Equation 9-3 — U.S. Customary

$$c = \frac{V_o e^{-V_o t_c/3600}}{1 - e^{-V_o t_f/3600}}$$

where:

c = left-turn capacity, veh/h

V_o = major-road volume conflicting with the minor movement, assumed to be equal to one-half of the two-way major-road volume, veh/h

t_c = critical gap, s

t_f = follow-up gap, s

Equation 9-4 — U.S. Customary

$$SL = \left\{ \frac{\ln\left[P(n>N)\right]}{\ln\left[\frac{v}{c}\right]} - 1 \right\} \times VL$$

where:

SL = storage length, ft

$P(n>N)$ = probability of turn-lane overflow

v = left-turn vehicle volume, veh/h

c = left-turn capacity, veh/h

VL = average length per vehicle, ft

Table 9-23

Truck%	VL (ft)
0%	25
5%	28
10%	32
15%	35
20%	38
25%	41

Per Section 9.7.2.2 Storage Length

c (veh/hr) =	*calculated*	Left-Turn Capacity
V_O (veh/hr) =	Opposing	Major Road Volume
t_c (sec) =	6.25	85th %-ile Critical Gap
t_f (sec) =	2.50	Follow-Up Gap
SL (ft) =	*calculated*	Storage Length
$P(n>N)$ =	0.005	(a probability, no units)
v (veh/hr) =	*enter below*	Left-Turn Vehicle Volume

Truck % = [ ] VL (ft) = 25 Average Vehicle Length

Right Turns: Equation Used: storage length = 2 x (vehicles/hour)/(60 minutes/hour) x average vehicle length

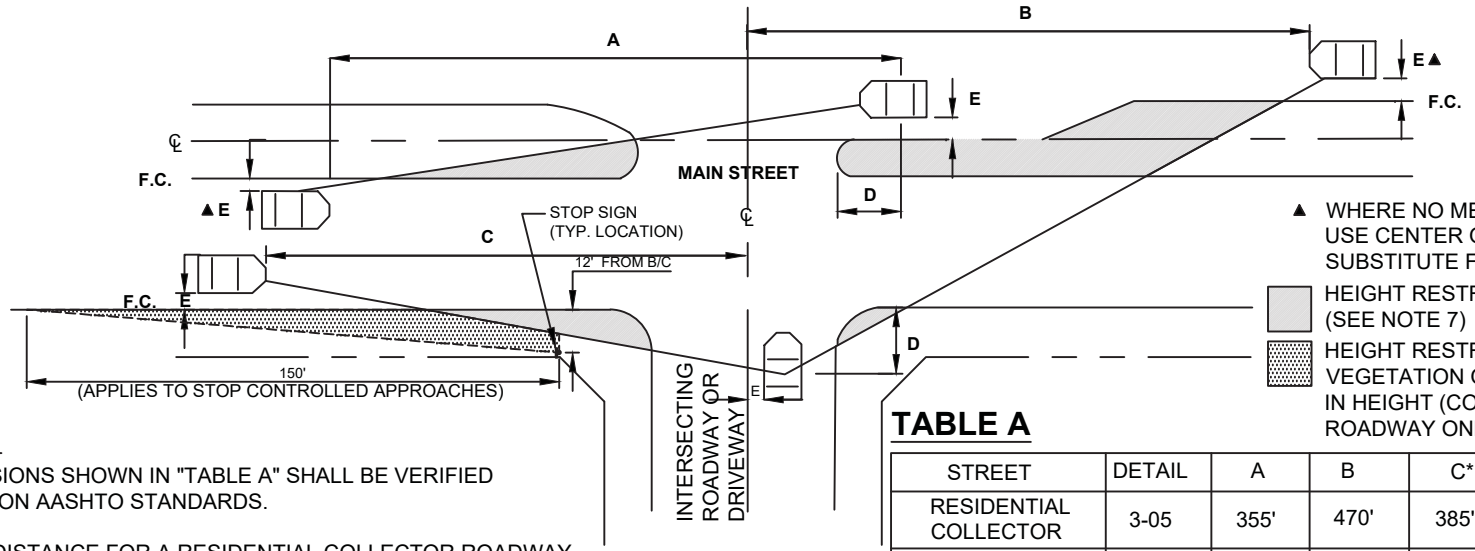
Intersection	Move-ment	AM Peak (veh/hr)	Midday Peak (veh/hr)	PM Peak (veh/hr)	Veh per 2 minutes	Opposing V_O (veh/hr)	AASHTO Storage Length (ft)
Mountain View Blvd. & Access	NB Left	23	0	78	3	66	25'

*Note: Truck/Passenger Vehicle split is projected based on percentage and not reflective of acctual vehicle classification counts.

"Yield" for turns indicates that, while movement may or may not be subject to a Yield sign, vehicles must yield to oncoming traffic and may experience delays.

APPENDIX K

SIGHT DISTANCE ANALYSIS



NOTES

1. DIMENSIONS SHOWN IN "TABLE A" SHALL BE VERIFIED BASED ON AASHTO STANDARDS.

2. SIGHT DISTANCE FOR A RESIDENTIAL COLLECTOR ROADWAY IS BASED ON:
   A. A PASSENGER CAR ON A ROADWAY.
   B. 1-LANE IN EACH DIRECTION WITH A 14' RAISED MEDIAN.
   C. A DESIGN SPEED OF 40 MPH.
   D. AN APPROACH GRADE OF LESS THAN THREE PERCENT.

3. SIGHT DISTANCE FOR A HIGH VOLUME COLLECTOR
   A. A PASSENGER CAR ON A ROADWAY.
   B. 2-LANES IN EACH DIRECTION WITH A 14' RAISED MEDIAN.
   C. A DESIGN SPEED OF 40 MPH.
   D. AN APPROACH GRADE OF LESS THAN THREE PERCENT.

4. SIGHT DISTANCE FOR A MINOR ARTERIAL ROADWAY IS BASED ON:
   A. A PASSENGER CAR ON A ROADWAY.
   B. 2-LANES IN EACH DIRECTION WITH A 16' RAISED MEDIAN.
   C. A DESIGN SPEED OF 50 MPH.
   D. AN APPROACH GRADE OF LESS THAN THREE PERCENT.

5. SIGHT DISTANCE FOR A MAJOR ARTERIAL ROADWAY IS BASED ON:
   A. A PASSENGER CAR ON A ROADWAY.
   B. 3-LANES IN EACH DIRECTION WITH A 24' RAISED MEDIAN.
   C. A DESIGN SPEED OF 50 MPH.
   D. AN APPROACH GRADE OF LESS THAN THREE PERCENT.

TABLE A

STREET	DETAIL	A	B	C*	D	E
RESIDENTIAL COLLECTOR	3-05	355'	470'	385'	18'	3'
HIGH VOLUME COLLECTOR	3-04	480'	625'	385'	18'	3'
MINOR ARTERIAL	3-03	515'	665'	480'	18'	3'
MAJOR ARTERIAL	3-02	555'	700'	480'	18'	3'

* FOR RIGHT TURNS AT SIDE STREET APPROACHES PROVIDING ONLY RIGHT-IN/RIGHT-OUT MOVEMENTS. WHERE LEFT TURNS ARE ALLOWED, DIMENSION "C" SHALL EQUAL DIMENSION "B".

6. NO SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES, OR OTHER PLANTS, (EXCLUDING TREES), OVER 30 INCHES IN HEIGHT SHALL BE PERMITTED WITHIN THE RESTRICTED AREAS.

7. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
   A. NO LIMBS, LEAVES NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
   B. TREES SHALL NOT OBSTRUCT MORE THAN 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.

8. SIGHT DISTANCE FOR TYPICAL RIGHT ANGLE INTERSECTION ONLY, SKEWED INTERSECTIONS WILL REQUIRE SPECIAL CONSIDERATION.

DATE REVISED: 8/2016

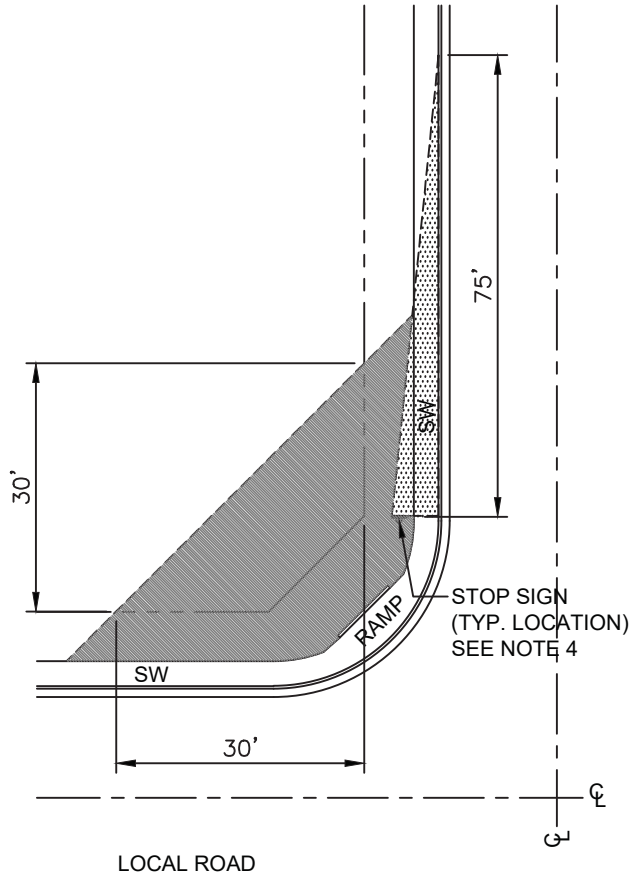
APPROVED FOR DISTRIBUTION
(SIGNATURE ON FILE)

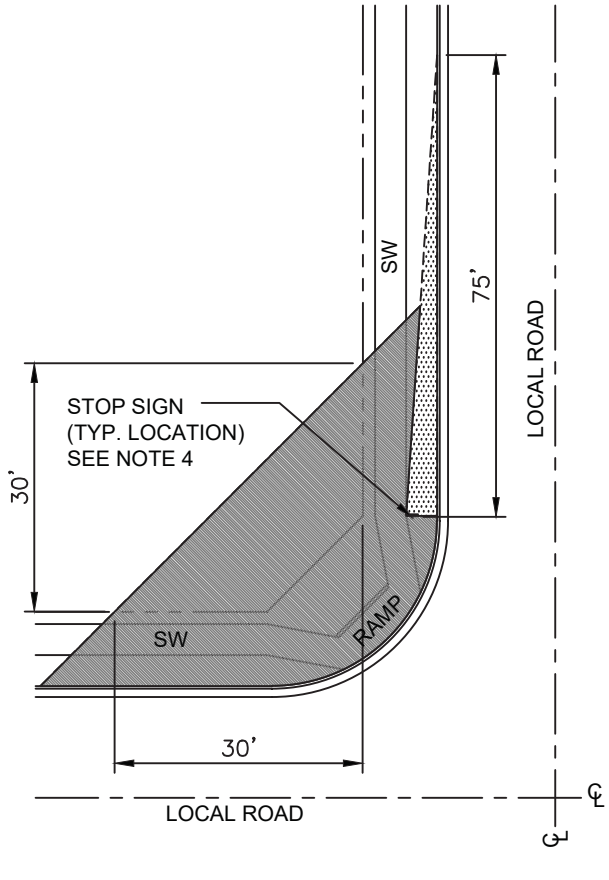
SURPRISE
ARIZONA

SIGHT DISTANCE REQUIREMENTS FOR ARTERIAL & COLLECTOR STREETS

DETAIL NO:

4-01





NOTES:

1. SIGNS, FENCES, WALLS, UTILITY BOXES, STRUCTURES, SHRUBS, HEDGES OR OTHER PLANTS, BUT EXCLUDING TREES OVER 30 INCHES IN HEIGHT SHALL NOT BE PERMITTED WITHIN THE RESTRICTED AREAS.
2. PLANTING WITHIN THE R/W IN VIEW EASEMENTS SHALL BE PER THE APPROVED TYPES AND DIMENSIONS AND SHALL NOT ENCROACH WITHIN THE SIGHT TRIANGLE PER AASHTO GUIDELINES.
3. TREES ARE PERMITTED WITHIN THE RESTRICTED AREAS PROVIDED:
   A. NO LIMBS, LEAVES, NEEDLES OR OTHER FOLIAGE ABOVE 30 INCHES OR BELOW 84 INCHES ARE PERMITTED.
   B. TREES SHALL NOT OBSTRUCT MORE THAN 20% OF THE VISIBILITY WHEN COMBINED WITH OTHER OBSTRUCTIONS PRESENT.
4. STOP SIGN SHALL BE INSTALLED 2' MINIMUM BEHIND BACK OF CURB.

UNOBSTRUCTED VIEW EASEMENT AREA (SEE NOTE #3)

NO VEGETATION OVER 30 INCHES IN HEIGHT

DATE REVISED: 8/2016

APPROVED FOR DISTRIBUTION (SIGNATURE ON FILE)

SURPRISE ARIZONA

LOCAL STREET SIGHT VISIBILITY TRIANGLES

DETAIL NO:

4-02

ORDINANCE # 2022-24

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF SURPRISE, ARIZONA, APPROVING A REZONE FROM COMMUNITY COMMERCIAL (C-2) TO RESIDENTIAL HIGH DENSITY (R-3) FOR PROSE APARTMENTS, A PROPERTY LOCATED ON THE SOUTHWEST CORNER OF MOUNTAIN VIEW BLVD AND WHITE HORSE TRAIL.

WHEREAS, this Ordinance was properly noticed for public hearing and the necessary hearings and opportunity for public input were completed;

WHEREAS, the subject site is located on the southwest corner of Mountain View Blvd and White Horse Trail;

WHEREAS, the subject site is approximately 12.82 acres and is currently zoned Community Commercial (C-2);

WHEREAS, the proposed use of the subject site requires modification of the applicable zoning regulations;

WHEREAS, the proposed Rezone to Residential High Density (R-3), satisfies the requirements set forth in the City of Surprise Land Development Ordinance (LDO);

WHEREAS, this Rezone is in harmony with the purposes and intent of the zoning ordinance and the Surprise General Plan; and

WHEREAS, on October 06, 2022, the Planning and Zoning Commission recommended that the Rezone for Prose Apartments be denied.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Council of the City of Surprise, Arizona, as follows:

Section 1. *Rezoning.* The parcel legally described on ***Exhibit A*** and depicted on ***Exhibit B***, known as “Prose Apartments” is rezoned from Community Commercial (C-2) to Residential High Density (R-3) subject to the following stipulations:

a. Development and use of the site shall be consistent with the narrative entitled “Prose Mountain View” dated August 18, 2022.

b. Non-compliance with the stipulations of approval of this case will be treated as a violation in accordance with the applicable provisions of the Surprise Municipal Code.

Section 2. *Amendment of Zoning Map.* The City of Surprise zoning map is herewith amended to reflect the change in districts referred to in Section 1 above.

Section 3. *Codification.* This Ordinance is not of a general nature and shall not be codified.

Section 4. *Repeal of Conflicting Ordinances.* All ordinances or parts of ordinances in conflict with the provisions of this ordinance or any part of the code adopted herein by reference are hereby repealed, upon the effective date of this Ordinance.

Section 5. *Severability.* If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

Section 6. *Effective Date.* This ordinance shall become effective at the time and in the manner prescribed by law.

PASSED AND ADOPTED this_____day of _____2022.

_____
Skip Hall, Mayor

Attest:

_____
Sherry Aguilar, City Clerk

Approved as to form:

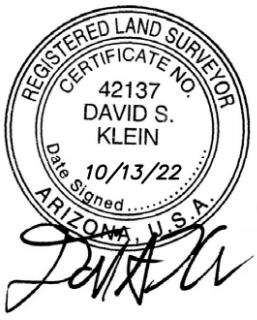
_____
Robert Wingo, City Attorney

EXHIBIT "A"

DESCRIPTION OF PROPERTY TO BE REZONED
3134 & 3146 E. WELDON AVENUE
SURPRISE, AZ 85086

That portion of Lot 3, Tract C and the Excepted Portion at the Southwest corner of GRAND AVENUE PROFESSIONAL PLAZA, AMENDED, recorded in Book 652 of Maps, Page 29, records of Maricopa County, Arizona, lying within a portion of the Northeast quarter of Section 33, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, being more particularly described as follows:

Commencing at a 1/2–inch capped rebar stamped "51969" marking the North corner of said subdivision, on the West right of way line of Grand Avenue (U.S. 60) from which a 1/2–inch rebar marking the Southeast corner of said subdivision, on the said West right of way line, bears South 46 degrees 13 minutes 14 seconds East 1803.38 feet, said line being the basis of bearings for this description;
Thence South 46 degrees 13 minutes 14 seconds East 555.28 feet along said West right of way line to the centerline of Mountain View Boulevard;
Thence South 43 degrees 45 minutes 58 seconds West 449.98 feet along said centerline to the beginning of a non–tangent curve to the right having a radius of 117.00 feet and a chord bearing and distance of South 60 degrees 11 minutes 06 seconds West 66.14 feet;
Thence Southwesterly along the arc of said curve through a central angle of 32 degrees 50 minutes 16 seconds an arc length of 67.06 feet to the centerline of White Horse Trail and the Point of Beginning;
Thence South 13 degrees 24 minutes 13 seconds East 114.17 feet along said centerline to the beginning of a non–tangent curve to the left having a radius of 312.00 feet, a chord bearing and distance of South 21 degrees 54 minutes 35 seconds East 93.07 feet;
Thence along the arc of said curve through a central angle of 17 degrees 09 minutes 16 seconds an arc length of 93.41 feet;
Thence South 30 degrees 32 minutes 08 seconds East 131.06 feet to the beginning of a non–tangent curve to the right having a radius of 300.00 feet and a chord bearing and distance of South 14 degrees 58 minutes 52 seconds East 160.74 feet;
Thence Southerly along the arc of said curve through a central angle of 31 degrees 04 minutes 47 seconds an arc length of 162.73 feet;
Thence South 00 degrees 39 minutes 49 seconds West 28.83 feet to a point on the South line of said subdivision;



SHEET 1 OF 2

SUPERIOR
SURVEYING SERVICES, INC.
2122 W. Lone Cactus Dr.
Ste. 11, Phoenix, AZ 85027
623–869–0223 (office)
623–869–0726 (fax)
www.superiorsurveying.com
info@superiorsurveying.com

DATE: 10/13/22 | *JOB NO.:* 202203027

Ordinance No. 2022-24
RFLS #8536
Rev 10/22

EXHIBIT "A"

DESCRIPTION OF PROPERTY TO BE REZONED
3134 & 3146 E. WELDON AVENUE
SURPRISE, AZ 85086

(Legal Description continued):

Thence North 89 degrees 24 minutes 40 seconds West 719.74 feet along said South line to a 1/2–inch rebar with aluminum cap stamped "Klein 42137"
Thence North 00 degrees 20 minutes 20 seconds West 29.65 feet to a 1/2–inch rebar and the beginning of a non–tangent curve to the right having a radius of 1055.00 feet and, a chord bearing and distance of North 66 degrees 13 minutes 39 seconds West 0.66 feet;
Thence Northwesterly along the arc of said curve through a central angle of 00 degrees 02 minutes 09 seconds an arc length of 0.66 feet to a 1/2–inch rebar with aluminum cap stamped "Klein 42137";
Thence North 89 degrees 24 minutes 40 seconds West 335.50 feet to a 1/2–inch rebar with aluminum cap stamped "Klein 42137";
Thence North 00 degrees 15 minutes 22 seconds East 200.71 feet to a 1/2–inch rebar with aluminum cap stamped "Klein 42137";
Thence North 89 degrees 44 minutes 38 seconds West 30.00 feet to a 1/2–inch rebar with aluminum cap stamped "Klein 42137" on the West line of said Northeast quarter;
Thence North 00 degrees 15 minutes 22 seconds East 104.13 feet along said West Line to a Washer stamped "45378":
Thence North 43 degrees 46 minutes 00 seconds East 654.15 feet to a point on the centerline of Mountain View Boulevard;
Thence South 47 degrees 50 minutes 51 seconds East 441.74 feet along said centerline to the beginning of a non–tangent curve to the left having a radius of 117.00 feet and a chord bearing and distance of South 75 degrees 37 minutes 17 seconds East 109.04 feet;
Thence Southeasterly along the arc of said curve through a central angle of 55 degrees 32 minutes 59 seconds an arc length of 113.43 feet to the Point of Beginning.

SHEET 2 OF 2

SUPERIOR
SURVEYING SERVICES, INC.

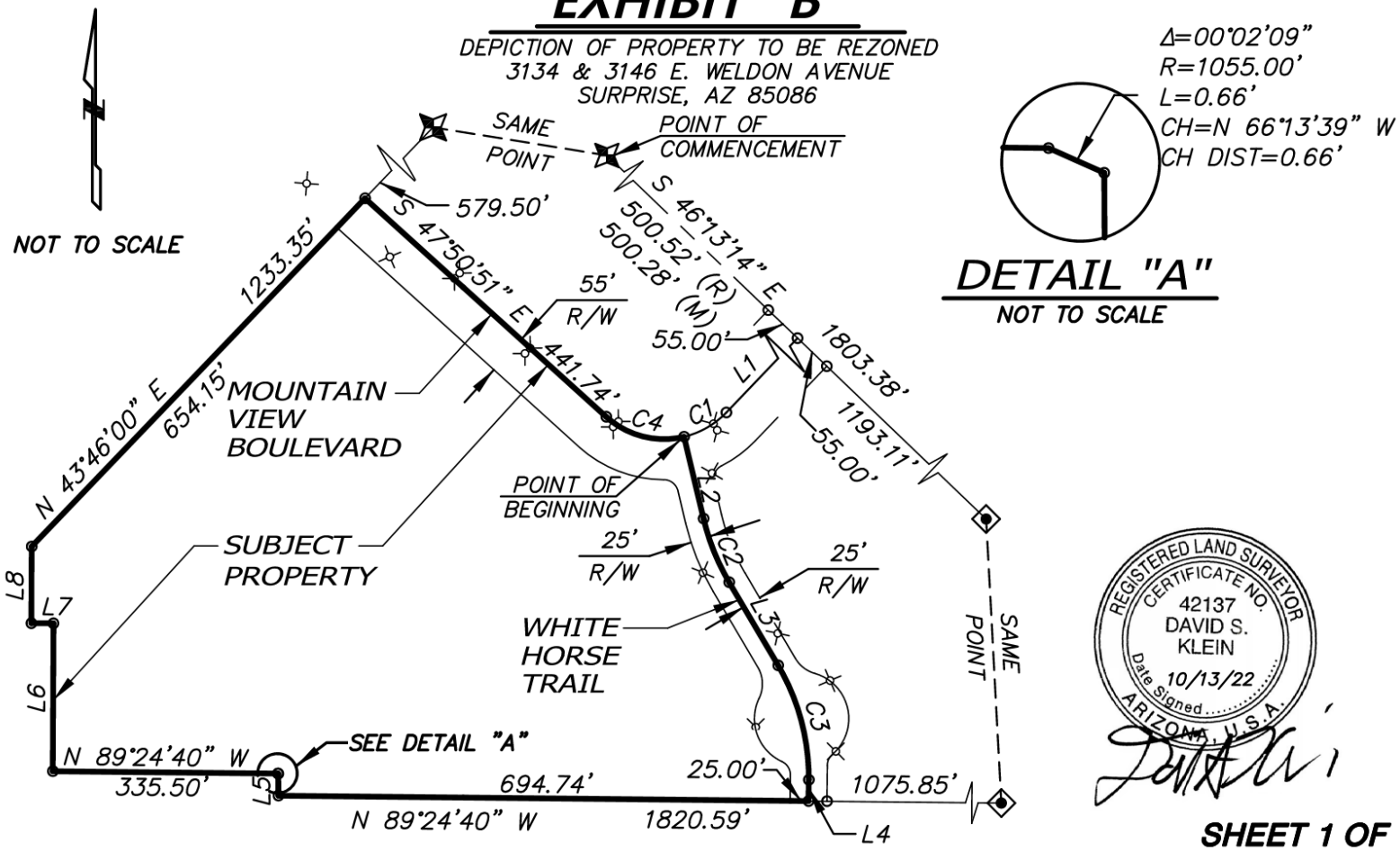
2122 W. Lone Cactus Dr.
Ste. 11, Phoenix, AZ 85027
623–869–0223 (office)
623–869–0726 (fax)
www.superiorsurveying.com
info@superiorsurveying.com

DATE: 10/13/22 | JOB NO.: 202203027

Ordinance No. 2022-24
RFLS #8536
Rev 10/22

EXHIBIT "B"

DEPICTION OF PROPERTY TO BE REZONED
3134 & 3146 E. WELDON AVENUE
SURPRISE, AZ 85086



DETAIL "A"

NOT TO SCALE

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
42137
DAVID S. KLEIN
10/13/22
Date Signed
ARIZONA, U.S.A.

SHEET 1 OF 2

SUPERIOR
SURVEYING SERVICES, INC.

2122 W. Lone Cactus Dr., Ste. 11
Phoenix, AZ 85027
623-869-0223 (office)
623-869-0726 (fax)
www.superiorsurveying.com
info@superiorsurveying.com

DATE: 10/13/22

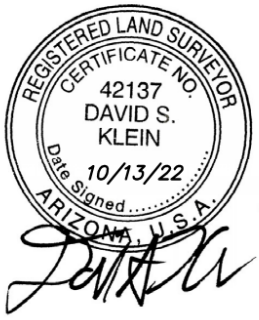
JOB NO.: 202203027

EXHIBIT "B"

DEPICTION OF PROPERTY TO BE REZONED
3134 & 3146 E. WELDON AVENUE
SURPRISE, AZ 85086

LINE	BEARING	DISTANCE
L1	S 43°45'58" W	449.98'
L2	S 13°24'13" E	114.17'
L3	S 30°32'08" E	131.06'
L4	S 00°39'49" W	28.83'
L5	N 00°20'20" W	29.65'
L6	N 00°15'22" E	200.71'
L7	N 89°44'38" W	30.00'
L8	N 00°15'22" E	104.13'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	117.00'	67.06'	66.14'	S 60°11'06" W	32°50'16"
C2	312.00'	93.41'	93.07'	S 21°54'35" E	17°09'16"
C3	300.00'	162.73'	160.74'	S 14°58'52" E	31°04'47"
C4	117.00'	113.43'	109.04'	S 75°37'17" E	55°32'59"



SHEET 2 OF 2

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DATE: 10/13/22 | *JOB NO.:* 202203027

Ordinance No. 2022-24
RFLS #8536
Rev 10/22

SURPRISE
ARIZONA

FS22-0588
Prose Apartments Rezone

City Council

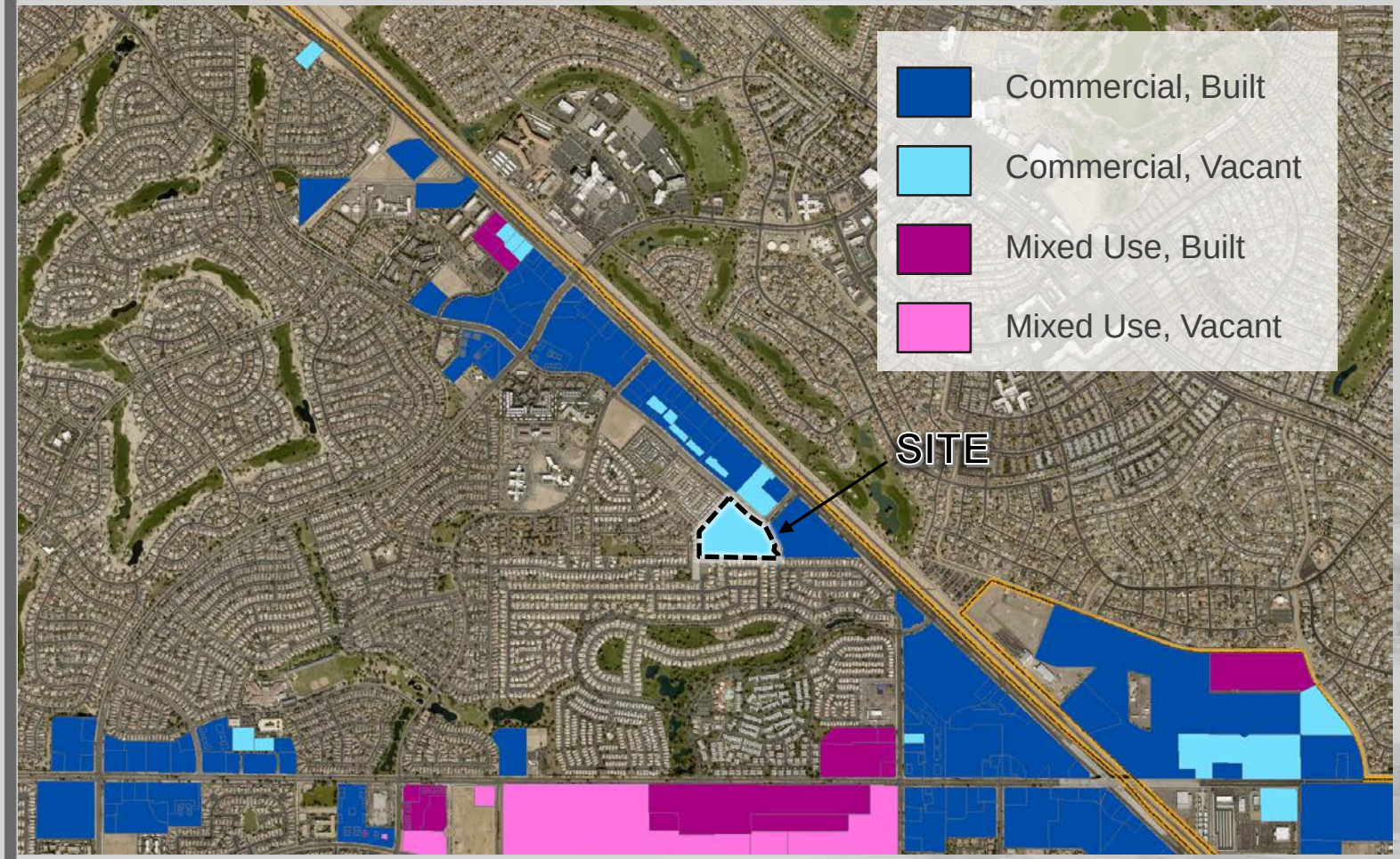
November 15, 2022

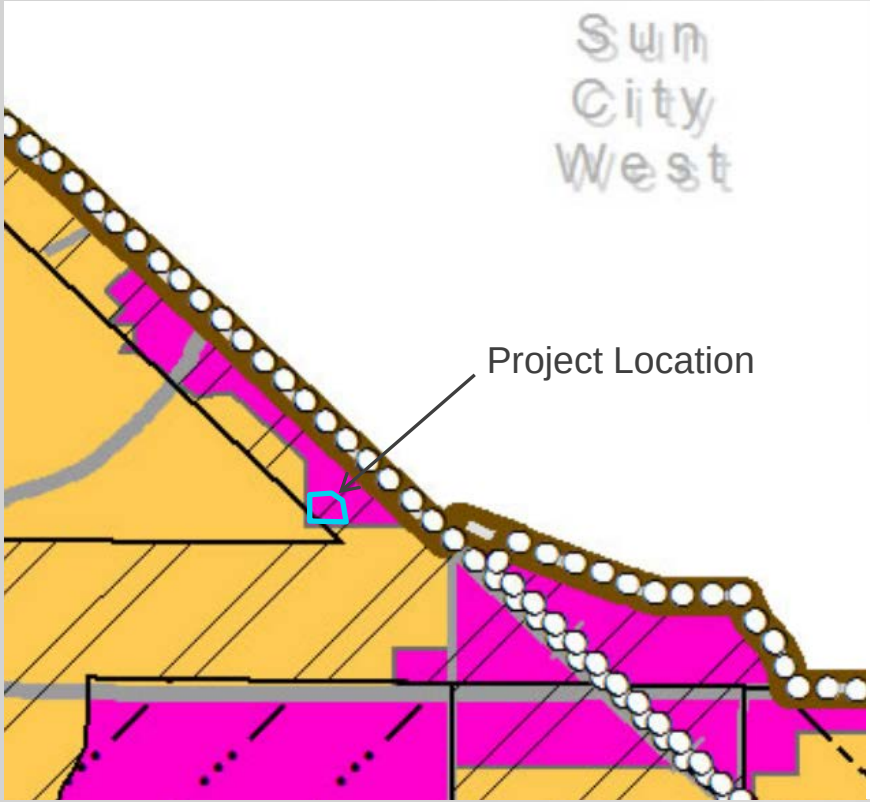
VICINITY MAP

EXISTING ZONING

PROPOSED ZONING

EXISTING COMMERCIAL





Character Areas

- Neighborhood
  - *Rural*
  - *Suburban*
  - *Urban*
- Commerce & Office
  - *Mixed Use: Residential*
  - *Mixed Use: Commercial*
  - *Regional Commercial*
  - *Commercial Office*
- Employment
  - *Business Park*
  - *Industrial*
- Open Space

(As described on page 53)

Sub Areas

- Luke Compatibility District
- Scenic Lands Development
- Surprise Center District
- Surprise Heritage District
- Transit Oriented Development District
- Aggregate Resource Areas

- The Commerce & Office Character area supports a horizontal mixture of high density housing and commercial uses.
- The Transit Orientated Development areas promote the intensification of residential and commercial uses.

SITE PLAN

2 – Story Buildings

Cathedral Oak Trees

ALLIANCE RESIDENTIAL COMPANY | Overall Site Plan

Prose Mountain View

anderson

R-3 DEVELOPMENT STANDARDS		
	REQUIRED	PROVIDED
Setback: Street (Collector or Local)	15’	25’-10”
Setback: To Residential Zoning	20’	22’-5”
Setback: To Non-Residential Zoning	20’	24’-4”
Setback: 3 Story to Single Family **	28’	41’-5”
Maximum Building Height	60’	38’
Open Space/Amenities	41,100 sq. ft.	42,000 sq. ft.

** 20’ plus 1’ for every 1’ of height over 30’

OUTREACH

- Site Posting, 300’ Mailers, Newspaper Publishings, Project Website

- Citizen Participation Meeting 8/11/2022
  - 81 attendees
  - Questions and Opposition
    - Building Height
    - Traffic
    - Crime

RECOMMENDATION

On October 6, 2022 Planning & Zoning Commission recommended Denial to the Mayor and City Council.

SURPRISE
ARIZONA

QUESTIONS OR COMMENTS?

Thank You

STIPULATIONS

a) **Development and use of the site shall be consistent with the narrative entitled “Prose Mountain View” dated August 18, 2022.**

b) **Non-compliance with the stipulations of approval of this case will be treated as a violation in accordance with the applicable provisions of the Surprise Municipal Code.**

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022 Contact Person: Lloyd Abrams
Submitting Department: Community Development District: District 1
Staff Recommendations:

Consent: No Regular: Yes Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action pertaining to approval of The Third Amendment to the Broadstone Ranch Pre-Annexation Development Agreement between the City of Surprise and Elliott Homes, Inc.; Resolution #2022-110.

Motion:
I move to approve Resolution #2022-110.

Background:
The City and Elliott Homes, Inc. desire to further amend the Broadstone Ranch PADA (Pre-Annexation Development Agreement) by entering into a Third Amendment, which would extend the term of the Broadstone Ranch PADA by an additional twelve (12) months. This extension would allow both parties the opportunity to further analyze the PADA to determine if further amendments to the PADA are necessary to address provisions related to, but not necessarily limited to: conditions for the City serving the property with water and wastewater; construction of water and wastewater infrastructure; fire service infrastructure; reimbursement and funding mechanisms; and future annexation.

Objective Analysis:
The extension allows the respective parties the time necessary to further evaluate the merits of the Pre-Annexation Development Agreement and the potential for further amendments.

Policy Compliant:
Future annexation of this property is compliant with Council policy by expanding the range of influence of the City.

Financial Impact:
While this item does not have an immediate or direct financial impact, ongoing development activity in the City will inevitably have a future financial impact as additional resources are needed to provide city services.

Budget Impact:

There is no anticipated budget impact related to this item.

FTE Impact:

This item does not have an impact on current staffing levels.

ATTACHMENTS:

1. Third Amendment to the Broadstone Ranch Pre-Annexation Development Agreement
2. Broadstone Ranch Development Location Map
3. Existing Dev Agmt - Broadstone Ranch and Amendments
4. Resolution 2022-101 Broadstone Ranch PADA extension

When recorded, return to:
City Clerk
City of Surprise, Arizona
12425 W. Bell Road Suite D-100
Surprise, AZ 85374

With Copy to:
Earl & Curley, P.C.
Attn: Taylor Earl
3101 N. Central Ave., Suite 1000
Phoenix, AZ 85012

THIRD AMENDMENT TO THE PRE-ANNEXATION, DEVELOPMENT AND SERVICES AGREEMENT (BROADSTONE RANCH)

This Third Amendment to the Pre-Annexation, Development and Services Agreement ("**Third Amendment**") is entered into by and between the CITY OF SURPRISE, an Arizona municipal corporation ("City"), and ELLIOTT HOMES, INC., an Arizona corporation (the "Owner"). The City and Owner are hereinafter collectively referred to as the "Parties."

RECITALS

A. Owner and the City entered into a development agreement titled "Pre-Annexation, Development and Services Agreement (Broadstone Ranch)," which agreement was approved by City of Surprise Resolution #07-222 on November 29, 2007, last signed on December 5, 2007, and recorded with the Maricopa County Recorder as Instrument No. 2007-1312966 ("Agreement"), as amended by that certain First Amendment to the Pre-Annexation, Development and Services Agreement (Broadstone Ranch) approved by City of Surprise Resolution #08-144 and recorded as Instrument No. 2008-0747621, and as further amended by that certain Second Amendment to the Pre-Annexation, Development and Services Agreement (Broadstone Ranch) approved by City of Surprise Resolution #09-40 and recorded as Instrument No. 2009-0216751 (collectively, the **"Agreement")** covering certain real property consisting of approximately eight hundred forty one (841) acres located within parts of Section 4, 5 & 8, Township 5 North, Range 3 West, Maricopa County, Arizona.

B. The City and Owner desire to further modify and amend the Agreement on the terms and conditions hereinafter set forth.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises and mutual promises set forth in this Third Agreement, the Parties state, confirm and agree as follows:

1. Section 2 of the Agreement is hereby amended to replace the phrase "shall automatically terminate on the 15th anniversary of such date" appearing in that Section with the phrase "shall automatically terminate on the 16th anniversary of such date."

2. Section 5.7 of the Agreement is hereby amended to replace the phrase "shall terminate on the fifteenth (15th) anniversary of the date the City Council approves this Agreement" appearing in that Section with the phrase "shall terminate on the sixteenth (16th) anniversary of the date the City Council approves this Agreement."

3. All of the terms, provisions, and conditions of the Agreement which are not expressly modified, amended or clarified by this Third Amendment (or which, in context, must be deemed modified, amended, or clarified hereby) shall remain in full force and effect. In the event of any conflict between this Third Amendment and the Agreement, the provisions of this Third Amendment shall control. Time is of the essence of this Third Amendment and with respect to the performance required by each party hereunder. The City acknowledges and agrees that Owner and its successors and permitted assignees have a right to rely, and will be relying, on the terms, provisions, and conditions of this Third Amendment. Owner expressly acknowledges and agrees that the City's agreement to enter into this Third Amendment does not and shall not be construed or interpreted as obligating the City to enter into any further amendments to the Agreement, including, but not limited to, extending the Term set forth in Section 2 of the Agreement beyond the extension agreed to in this Third Amendment.

[Signature Pages to Follow]

IN WITNESS WHEREOF, the Parties have executed this Third Amendment on the date(s) written below.

"**City**"

City of Surprise
An Arizona municipal corporation

By:

Skip Hall, Mayor

Signature:_____

Date:_____

ATTEST:

_____
Sherry Aguilar, City Clerk

APPROVED AS TO FORM:

_____
Robert Wingo, City Attorney

STATE OF ARIZONA)
)ss.
County of Maricopa)

This foregoing instrument was acknowledged before me this _____ day of _____, 2022, by Skip Hall, the Mayor for the CITY OF SURPRISE, an Arizona municipal corporation.

_____
Notary Public

My commission expires:

_____

"Owner"

ELLIOTT HOMES, INC., an Arizona Corporation

By:

Printed Name: Jeff Klem

Signature: [signature]

Title: VP

Date: 10/14/22

STATE OF ARIZONA)
)ss.
County of Maricopa)

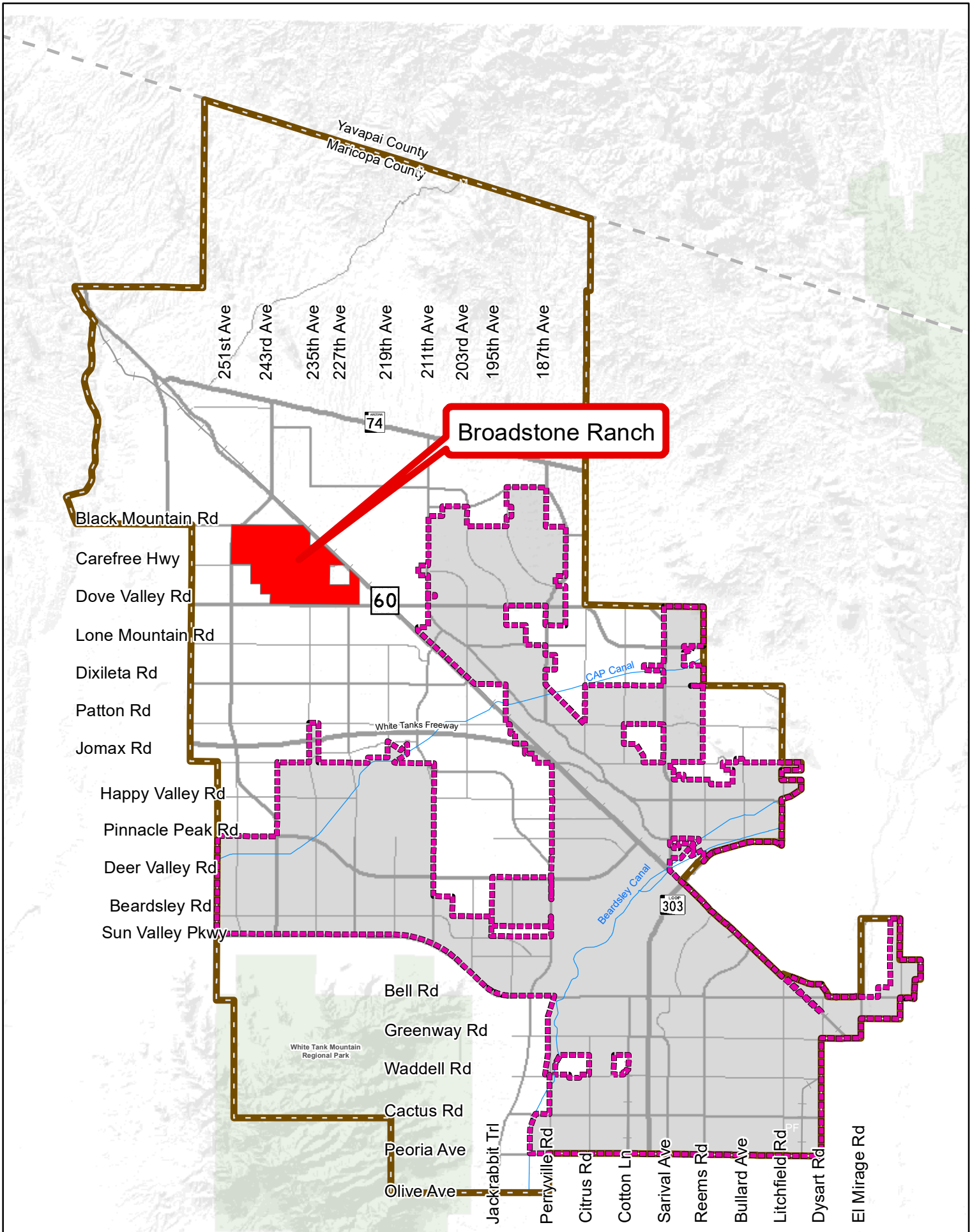
This foregoing instrument was acknowledged before me this 14th day of OCT., 2022, by Jeff Klem, the Vice President of ELLIOTT HOMES, INC., an Arizona corporation.

[signature]
Notary Public

My commission expires:

Mar. 19, 2025

AMY L BRINSON
Notary Public - Arizona
Maricopa County
Commission # 596932
My Comm. Expires Mar 19, 2025


Yavapai County
Maricopa County
251st Ave
243rd Ave
235th Ave
227th Ave
219th Ave
211th Ave
203rd Ave
195th Ave
187th Ave
74
Broadstone Ranch
Black Mountain Rd
Carefree Hwy
Dove Valley Rd
Lone Mountain Rd
Dixileta Rd
Patton Rd
Jomax Rd
Happy Valley Rd
Pinnacle Peak Rd
Deer Valley Rd
Beardsley Rd
Sun Valley Pkwy
60
CAP Canal
White Tanks Freeway
Beardsley Canal
303
Bell Rd
Greenway Rd
Waddell Rd
Cactus Rd
Peoria Ave
Olive Ave
White Tank Mountain Regional Park
Jackrabbit Trl
Perryville Rd
Citrus Rd
Cotton Ln
Sarival Ave
Reems Rd
Bullard Ave
Litchfield Rd
Dysart Rd
El Mirage Rd

OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL
2007-1312966 12/14/07 02:52 PM
1 OF 1
FRAUSTOJ

When recorded return to:

City Clerk
City of Surprise
12425 West Bell Road, Suite D-100
Surprise, Arizona 85374

With a copy to:

Stephen C. Earl
Earl Curley & Lagarde, P.C.
3101 N. Central Avenue, Suite 1000
Phoenix, Arizona 85012

PRE-ANNEXATION, DEVELOPMENT AND SERVICES AGREEMENT (BROADSTONE RANCH)

THIS PRE-ANNEXATION, DEVELOPMENT AND SERVICES AGREEMENT (this "Agreement") is entered into 11/29, 2007, by and between the CITY OF SURPRISE, an Arizona municipal corporation (the "City") and ELLIOTT HOMES, INC., an Arizona corporation (the "Owner"). The City and the Owner are collectively referred to herein as the "Parties" and individually as a "Party".

RECITALS

A. The Owner owns real property located in unincorporated Maricopa County, Arizona, as more particularly described and depicted in Exhibit A.1 and Exhibit A.1.1 attached hereto and incorporated herein by reference (the "Property"). This Property is part of a project known as Broadstone Ranch, which is referred to in this Agreement. The Property comprises the western 841 acres of Broadstone Ranch. The Arizona State Land Department ("ASLD") is the owner of the eastern acres of Broadstone Ranch and intends to enter into a separate agreement with the City regarding its property.

B. In 2006, Maricopa County (the "County") approved a Development Master Plan, application number DMP2004004 (the "Approved DMP") and a zoning change application number Z2004046 (the "Zone Change"), for the property that was supported by the City. The Approved DMP and Zone Change established a mix of land uses, including various residential densities, commercial, mixed use employment, schools, and recreational natural open space. The Approved DMP and Zone Change approved 8,628 residential units with a gross density of 3.06

When recorded return to:

City Clerk
City of Surprise
12425 West Bell Road, Suite D-100
Surprise, Arizona 85374

With a copy to:

Stephen C. Earl
Earl Curley & Lagarde, P.C.
3101 N. Central Avenue, Suite 1000
Phoenix, Arizona 85012

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dwelling units per acre, 197 acres of commercial land use, 85 acres of employment land use and 667 units of high-density residential land use. The Owner and City acknowledge that ARIZ. REV. STAT. § 9-471.L requires the City to adopt zoning classifications for the Property upon annexation that permit densities and uses no greater than those permitted in Maricopa County prior to annexation.

C. The City intends to file and process an Amendment to the City's General Plan in the 2007 yearly cycle to properly reflect the Approved DMP and Zone Change by the County.

D. The Owner and City desire that the Property be annexed into the corporate limits of the City and be developed as part of the City. The Property is located within the City's Special Planning Area 5 ("SPA 5") but is not presently contiguous to the City's border for the purpose of annexation. The parties intend for the Property to be annexed into the City as soon as possible after the City has achieved a border that is legally contiguous to the Property for purposes of annexation according to ARIZ. REV. STAT. § 9-471. The Parties also intend that the City will be the water and wastewater service provider for the Property both prior to and after annexation.

E. SPA 5 is in the northwest portion of the City's planning area. It is comprised of approximately 58 square miles generally lying north of the Central Arizona Project ("CAP") and west of Grand Avenue. It is the City's intent to eventually annex the land in SPA 5 and be the municipal provider of public services for this area (i.e., water, sewer, police, fire and other governmental services). At the present time, there are no City facilities in SPA 5. Through this Agreement, certain initial water and wastewater infrastructure will be provided by the Owner in SPA 5 as outlined herein.

F. The Approved DMP Land Use Map for all of Broadstone Ranch, including both Owner's portion and ASLD's portion, is attached as Exhibit B and incorporated herein by reference.

G. Under this Agreement, Owner (in cooperation with other property owners in SPA 5) will (i) prepare materials for the City to complete an amendment to the MAG 208 plan to establish the City as the water and wastewater service provider in SPA 5 and (ii) design and fund the construction of the initial phase of water and wastewater infrastructure that will allow the City to provide these services to Owner's portion of Broadstone Ranch, with planned expandability in the future, according to the City's Rules (as defined below). As noted above, Owner will annex its Property into the City as soon as annexation becomes legally available and will provide the notification to homeowners within the Property as set forth in Subsection 3.2 below, encouraging them to do likewise. It is understood that Owner can only sign the annexation petition for that portion of the Property still in its ownership at the time annexation becomes available. In return, the City will continue to support the Approved DMP and Zone Change for Broadstone Ranch and related preliminary and final plats through the County review and approval process and will provide water and sewer services to the Owner's portion of the Property included within the Approved DMP both prior to and following annexation according to the terms set forth in this Agreement.

H. Owner and the City are entering into this Agreement pursuant to the provisions of ARIZ. REV. STAT. § 9-500.05 in order to facilitate the annexation, proper municipal zoning designation and development of the Property by providing for, among other things: (i) conditions, terms, restrictions and requirements for the annexation of the unincorporated portions of the Property by the City; (ii) conditions, terms, restrictions and requirements for the construction and installation of public services/infrastructure improvements; (iii) the permitted uses for the Property; (iv) the density of the permitted uses for, and other matters related directly or indirectly to the development of the Property.

I. Notwithstanding the above, the City and the Owner agree that certain elements of this Agreement are independent of the provisions and limitations of ARIZ. REV. STAT. § 9-500.05 and, therefore, those portions of this Agreement that address development and public services for the Property prior to annexation shall become operative and effective upon execution of this Agreement and shall not be dependent on the status of the Property's annexation into the corporate limits of the City for their operation and effect.

J. The City and the Owner acknowledge that the development of the Property pursuant to this Agreement and the Approved DMP will have planning and economic impacts to the City by: (i) encouraging investment in and commitment to comprehensive planning, which will result in efficient utilization of municipal and other public resources; (ii) requiring development of the Property to be consistent with the City's General Plan and the Approved DMP; (iii) providing for the planning, design, engineering, construction, acquisition, and/or installation of public infrastructure in order to support anticipated development of the Property; (iv) increasing tax and other revenues to the City based on improvements to be constructed on the Property; (v) creating employment through development of the Property consistent with this Agreement; (vi) creating improved housing and other uses for citizens of the City; and (vii) increasing the demand for City services during and after the development of the Property. The City and Owner acknowledge that the development of the Property pursuant to this Agreement will result in benefits to Owner by providing certainty in order to avoid the waste of resources, including assurances to Owner that it will have the ability to develop the Property in accordance with this Agreement and the Approved DMP and Zone Change.

K. Among other things, development of the Property in accordance with this Agreement and the Approved DMP will result in the planning, design, engineering, construction, acquisition, installation, and/or provision of public services/infrastructure improvements that will support development of the Property.

L. The public services/infrastructure improvements to be provided by Owner, while necessary to serve development within the Property, also are needed in certain instances to facilitate and support the ultimate development of a larger land area that includes the Property. Given the regional significance of such public services/infrastructure improvements and development of the Property, the City is willing to consider the utilization of various public and/or quasi-public financing methods as provided in this Agreement.

M. Notwithstanding any public financing utilized for public infrastructure as set forth herein, the City and the Owner each acknowledge that the Owner is required to design and

construct the public services/infrastructure improvements necessary for the development of the Property.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises and the mutual promises and agreements set forth herein, the parties hereto state, confirm and agree as follows:

1. Incorporation of Recitals. The foregoing Recitals are hereby incorporated into this Agreement by reference as though fully restated.

2. Term. The term of this Agreement shall commence on the date and at the time this Agreement is approved by the City Council, and shall automatically terminate on the 15th anniversary of such date.

3. Annexation.

3.1. Annexation of Owner's Portion of Broadstone Ranch. Subject to Paragraph 3.4 below, Owner and its successors and assigns shall, within 30 days of a request by the City, deliver to the City an executed annexation petition for whatever portion of the Property still retained in its ownership provided the City has established sufficient land contiguous to the Property that has been annexed into the municipal boundaries of the City to meet the annexation requirements of ARIZ. REV. STAT. § 9-471. With respect to the annexation petition, the City agrees to comply with the provisions of ARIZ. REV. STAT. § 9-471 *et seq.* regarding municipal annexations and, if determined to be in the best interest of the City, adopt the final ordinance annexing said portions of the Property into the corporate limits of the City.

3.2. Disclosure and Notice of Intent to Annex to Home Buyers. The following information shall be (A) disclosed in the Public Sales Report for the Property and (B) provided to and explained to each prospective home buyer on a residential lot within the Property prior to the close of escrow with the home buyer. Owner shall obtain and retain a separate written acknowledgement from each homebuyer that this information was provided to them:

> "It is the intention of Elliott Homes and the City of Surprise that the Property (a.k.a., Broadstone Ranch), will be annexed into the municipal boundaries of the City as soon as a municipal boundary of the City is legally contiguous to the Property according to the requirements of ARIZ. REV. STAT. § 9-471. At that time, all owners of residential or commercial parcels within the Property shall be asked to sign the annexation petition to allow the City to annex the entire Property. The City is providing water and wastewater services to the Property with the expectation that the Property will be annexed into the City as soon as it is legally possible to do so. The water and wastewater systems in the Property were designed and built in compliance with City's standards. These systems are to be owned and operated by the City. Moreover, the subdivisions within the Property (i.e., streets, homes, lots, open spaces, recreational amenities) were designed to conform to City codes and ordinances wherever possible. Failure of the Property

to be annexed into the City could affect the water and wastewater rates for each homeowner. The City reserves the right to charge higher water and wastewater rates to non-city residents. Failure of the Property to annex into the City could also affect delivery of other City services like parks, libraries, trash removal and emergency services such as police and fire. Elliott Homes strongly encourages each homeowner and property owner to sign the City's annexation petition as soon as annexation becomes available. Owner will sign the City's annexation petition for all parcels within the Property still under Owner's ownership and control."

The provisions of the paragraph shall terminate and be of no further effect or obligation as soon as the City has completed its annexation of the available portions of the Property. Owner shall provide the City copies of the separate written acknowledgements signed by homebuyers of the Property upon request.

3.3. Annexation of ASLD's Portion of Broadstone Ranch. The Parties anticipate that annexation of Broadstone Ranch will proceed from east to west. ASLD owns the eastern portion of Broadstone Ranch. It is the Parties understanding that ASLD will, by separate Agreement with the City, agree to execute and deliver to the City an annexation petition for its portion of Broadstone Ranch upon request by the City as soon as the City has (A) established a continuous boundary and (B) otherwise met the annexation requirements of ARIZ. REV. STAT. § 9-471. The Parties further understand that ASLD will provide this executed annexation petition prior to any auction of ASLD's portion of Broadstone Ranch.

3.4. Completion of County Plats. Notwithstanding Owner's intent to annex into the City as soon as annexation is legally available, the Parties recognize that Owner has committed considerable effort and resources toward entitling the Property in the County and that Owner is currently preparing to submit one or more plat requests to the County for review and approval. Should the City determine that the Property meets the legal requirements for annexation into the City at a time after the Owner has submitted one or more requests to the County for plat approval and before the Owner has received such plat approval from the County, the City agrees that at Owner's option, the City shall postpone annexation of the Property until such time as the plat or plats have received final approval from the County; provided, however that such delay shall not alter Owner's obligation to execute annexation petition for any portion of the Property under its ownership as soon as requested by the City.

3.5. City Acceptance of County Approved Preliminary Plats. Should the Property become eligible for annexation into the City during the process of review and approval of Preliminary and/or Final Plats in the County, the City shall accept those Preliminary Plats that are in process and/or have been approved by the County and allow the Owner to process Final Plats consistent with the approved Preliminary Plats through the City following the annexation of the Property. City's acceptance of the Preliminary Plats shall include honoring and accepting such things as the County's approved street cross sections, engineering (related to the preparation of the plat), approved lot sizes, building setbacks, overall layout and design of the Preliminary Plat, provided that once model homes have been permitted for construction in the County the

City will honor and accept the housing products represented by those model homes for the related plats.

4. Development of the Property.

4.1 Compliance with Approved DMP and Rules. The Owner agrees that while the Property remains under County jurisdiction all development of the Property shall comply with the Approved DMP and Zone Change and any amendments thereto as approved by the County and the City through the City Community Development Director. The Parties shall work cooperatively to review the preliminary and final plats and related infrastructure plans and any amendments thereto for the Approved DMP and Zone Change to determine compliance with City standards to the maximum extent possible under County jurisdiction. Upon request by Owner and subject to approval by the City Community Development Director, the City shall provide written notification to the County's Technical Advisory Committee indicating the City's support for the preliminary and final plats and infrastructure plans. Owner shall work cooperatively with the City to take reasonable steps to design the Property in accordance with the rules, ordinances, regulations and standards (collectively, the "Rules") of both the County and the City that are in effect at the time submittals or permit applications are made in the County for the Property. However, if there is a conflict between the Rules of the County and the Rules of the City, Owner shall comply with the Rules of the County until such time as the Property is annexed into the City, as set forth below. For purposes of this subsection, a conflict exists when a County Rule or Rules imposes a stricter or heightened requirement as compared to City Rules. A conflict does not exist if there is a City Rule or Rules and an absence of a County Rule relating to some aspect of development or if a City Rule or Rules impose(s) a stricter or heightened requirement as compared to County Rules and it is legally permissible under the County's jurisdiction to comply with the stricter City requirement. Upon annexation into the City of any undeveloped portions of the Property, the City and the Owner agree that the Property has already received zoning and/or final plat approval in the County will be deemed vested with respect to uses and densities and intensities of uses only (the "Vested Rights"), and that all City Rules in effect at the time of development of such portions of the property shall apply to such development, subject to the Vested Rights. Except as otherwise provided herein, City development fees shall be collected for any building permits issued by the City for homes within the Property. During the 12-month transition period following annexation of the Property, the Parties agree to work cooperatively to resolve any discrepancy between County and City Rules to avoid hardships and modifications for approved housing plans on the lots in plats upon which residential building permits have not yet been issued.

4.2 Regulation of Development.

A. With respect to the development of the Property as contemplated by this Agreement, the City Rules, which apply to the development of the Property, shall mean those Rules in existence from time to time. The City reserves the right, exercising its sole and absolute discretion, to amend existing or to adopt new Rules and such Rules as amended or adopted shall be applicable to and binding on the Property to the extent set forth in this Agreement. Notwithstanding the foregoing, any change in the Rules in existence on the date of this Agreement or any Rules enacted after the date of this Agreement shall not be enforced

against any development of the Property if such enforcement would materially and adversely limit or change the development of the Property consistent with the Vested Rights defined in this Agreement.

B. Notwithstanding the provisions of subsection 4.2(A) above, the City may change, enact and enforce Rules against the Property and development thereof which have an adverse impact on the Vested Rights upon the occurrence of any one of the following provisions:

(1) Rules which the Owner may agree in writing apply to the development of the Property.

(2) Rules of the City enacted as necessary to comply with mandatory requirements imposed on the City by the state or federal governments, including court decisions, and other similar superior external authorities beyond the control of the City, provided that in the event any such mandatory requirement prevents or precludes compliance with this Agreement, if permitted by law, such affected provisions of this Agreement shall be modified as may be necessary to achieve the minimum permissible compliance with such mandatory requirement.

(3) Rules of the City reasonably necessary to alleviate threats to public health and safety, provided such Rules shall be applied uniformly and not arbitrarily to all areas that are subject to the similar threat.

(4) Future updates or replacements of, and amendments to, existing building, construction, plumbing, mechanical, electrical, drainage, dangerous building, and similar construction and safety related codes, such as the International Building Code, which updates and amendments are generated by a nationally recognized construction/safety organization, or by the county, state or federal governments or by the Maricopa Association of Governments, or by the City as a supplement to such codes, provided such code updates, amendments and supplements shall be applied uniformly and not arbitrarily.

4.3 Additional Property. Upon the request of the Owner and the submission of a development master plan to the County or a planned area development plan to the City for the additional property hereafter referenced, the City hereby agrees to consider and, if in the best interest of the City, as determined by the City in its sole discretion, and in accordance with typically applicable notice and public hearing requirements, to incorporate into this Agreement the whole or any portion of additional properties adjacent to or proximate to the Property (the "Additional Property") if and when Owner acquires such Additional Property. The City and the Owner agree that if Owner elects to request from City the incorporation of such Additional Property or portions thereof and if the City consents, in its sole discretion, (A) thereafter, such Additional Property shall be included in the Property and shall be subject to and shall benefit from all provisions of this Agreement applicable thereto and any reference herein to the Property shall include such Additional Property, (B) the City and Owner shall cooperate in order for the Additional Property to receive the necessary land use approvals, including any necessary

amendment to the zoning required to approve a development master plan site with the County or City planned area development plan for the Additional Property (the "Additional Property Approvals") and (C) the plans and land use designations contained in the Additional Property Approvals shall thereafter apply to the applicable Additional Property such that the County-approved development master plan shall apply for the Additional Property while it is located outside the City's corporate limits and the City-approved planned area development plan shall apply while the Additional Property is within the corporate limits of the City.

5. Public Infrastructure.

5.1 Infrastructure Plan. The Owner shall submit to the City a plan (the "Infrastructure Plan") for completion of the water, wastewater and fire facilities (the "Infrastructure Improvements"), which shall be attached hereto as Exhibit C and incorporated herein by reference. After the Infrastructure Plan is approved by the City, and except as otherwise provided in this Agreement and subject to the City's Rules, the City-approved Infrastructure Plan shall authorize Owner, so long as Owner proceeds with the development of the Property, to implement and phase the Infrastructure Improvements to the Property in conformance with the City-approved Infrastructure Plan. The Parties hereto acknowledge and agree that, to the extent the Owner develops the Property, it shall have the right and obligation at any time after the date of execution of this Agreement by the Owner to construct or cause to be constructed, and installed, all portions of the City-approved Infrastructure Plan related to the developing segments of the Property.

5.2 Infrastructure Plan Amendment. The City and the Owner acknowledge that amendments to the Infrastructure Plan may be necessary from time to time. Unless otherwise required by law, minor changes shall only require the approval of the City's Deputy City Manager or Designee. For the purposes of this Agreement, "minor changes" shall mean only those changes to the Infrastructure Plan which do not (A) delete, materially diminish or change any of Owner's obligations to construct or cause to be constructed any of the Infrastructure Improvements described in Exhibit C or (B) materially alter the design or location of the Infrastructure Improvements in Exhibit C. All changes not determined to be "minor changes" above shall be deemed "major changes." Major changes shall require the approval of the City Council at a public meeting conducted as required by law. City and Owner shall cooperate in good faith to agree upon, to process any amendments to the Infrastructure Plan. The Owner and the City agree that any such amendments shall be incorporated by this reference into this Agreement with the same force and effect as if set forth herein and shall not require corresponding amendment to this Agreement.

5.3 Construction. The parties hereto acknowledge and agree that to the extent the Owner develops the Property within the corporate limits of the City, the Owner shall have the right and the obligation, at any time after the date of execution of this Agreement by the Owner, to construct or cause to be constructed and installed, in accordance with the City-approved Infrastructure Plan, the City's Rules and all other applicable rules, regulations, construction standards, and governmental review processes, all portions of the Infrastructure Improvements that relate to the phase or portion of the Property to be developed by Owner at any given time. Owner shall cause the Infrastructure Improvements to be constructed and installed in a good and

workmanlike manner and in compliance with plans and specifications (the "Technical Specifications") submitted to the City for its review and approval in its sole and absolute discretion, and in conformance with the City's Rules and all other applicable rules, regulations, construction standards and governmental review processes. Owner acknowledges and agrees that the Technical Specifications may be modified by the City from time to time in order to comply with the Rules or to enhance operating efficiency. Any modification by the City to the Technical Specifications shall not be applied retroactively to any Infrastructure Improvement to the extent the City has already granted approval based on prior Technical Specifications and Owner has acted on such approval.

5.4 Permits and Approvals. Owner shall, at its sole cost and expense, be responsible for obtaining all governmental permits and approvals necessary to design, construct, install and operate on an interim basis the Infrastructure Improvements that Owner causes to be completed. The City agrees to be the "applicant" and "permittee" on all permits required for the operation of the Infrastructure Improvements and otherwise cooperate with Owner in securing the necessary governmental permits; provided, however, that Owner shall pay all costs, expenses, and permit fees associated with such permits and approvals and cooperate fully with the City's requirements related to such approvals.

5.5 Infrastructure Assurance. The Parties hereto acknowledge and agree that the City, prior to the commencement of construction of any Infrastructure Improvements by the Owner within the corporate limits of the City, shall require the Owner and/or its designees, grantees or buyers under contract, to provide appropriate assurances in such form and amount as required by the Surprise Municipal Code to assure that the installation of Infrastructure Improvements within that subdivision or other Infrastructure Improvements directly related to such building permit or permits will be completed.

5.6 Dedication and Acceptance.

A. Infrastructure Improvements. Upon completion by Owner of any Infrastructure Improvements, the Owner shall promptly (1) notify the City in writing of the presumptive completion of such Infrastructure Improvements and (2) dedicate to the City, at no cost to the City, such Infrastructure Improvements free and clear of all liens and encumbrances. So long as such Infrastructure Improvements are constructed in accordance with the Technical Specifications as verified by the inspection of the completed Infrastructure Improvements by the Deputy City Manager or Designee, all punch list items have been completed, the Infrastructure Improvements are free of any liens and encumbrances and, if applicable, a service and shortfall reimbursement agreement (a "Service Agreement") has been executed and delivered by the Owner with respect to water, sewer and wastewater services as the case may be, the City shall conditionally accept the Infrastructure Improvements and initiate the two-year warranty period on all public Infrastructure Improvements, excepting the SPA 5 Wastewater Reclamation Facility (the "SPA 5 WRF"), which warranty period shall be consistent with the manufacturer's warranty of one (1) year. The City shall notify such Owner, in writing, of the City's conditional acceptance of the Infrastructure Improvements as of the day of the final inspection or as of such other date set forth in a Service Agreement for such Infrastructure Improvements. Acceptance of any Infrastructure Improvement is expressly conditioned upon a warranty for such Infrastructure

Improvement, as provided in subsection 5.19 below. Except as provided in subsection 5.19 below, or according to the terms of any applicable Service Agreement, after acceptance of any Infrastructure Improvements, the City thereafter shall own, maintain, repair and operate such Infrastructure Improvements at its own cost. Owner, at no cost to City, shall dedicate, convey or obtain, as applicable, all rights-of-way, rights of entry, easements and/or other use rights, wherever located on property under Owner's ownership or control, as useful or necessary for the operation and maintenance of the Infrastructure Improvements as required by the City.

B. Infrastructure Improvement Sites. Upon acceptance by the City of each Infrastructure Improvement, the Owner shall promptly dedicate at no cost to the City the land upon which the Infrastructure Improvement is located (the "Infrastructure Improvement Sites") as each is more particularly described and depicted on Exhibits D, D.1, D.1.1, D.2, D.2.1, D.3 and D.3.1 attached hereto and incorporated herein by reference, together with all improvements thereon, by general warranty deed, free and clear of all liens and encumbrances that could adversely affect the use or operation of the Infrastructure Improvement, together with all easements and/or other property rights necessary to access and operate and maintain the Infrastructure Improvement. The City expressly acknowledges that the Infrastructure Improvement Sites depicted on Exhibits D, D.1, D.1.1, D.2, D.2.1, D.3 and D.3.1 represent the entire infrastructure dedication requirements for the Property and that no further dedications or exactions of property for infrastructure improvements will be required of Owner beyond those contained on Exhibits D, D.1, D.1.1, D.2, D.2.1, D.3 and D.3.1.

C. Development Fee Reimbursement. City agrees that, to the extent any Infrastructure Improvement, or any portion thereof, installed by Owner is included as a component of any existing or after-adopted development impact fee applicable to the Property, Owner shall be entitled to a reimbursement of the development impact fee in an amount not to exceed the actual costs associated with the Infrastructure Improvement minus any amounts Developer is reimbursed by Benefited Property owners.

5.7 Benefited Property Proportionate Share Buy-In Fee. City agrees to collect a buy-in fee from property owners benefiting from the installation of any Infrastructure Improvement installed by Owner (each a "Benefited Property") representing the percentage of the cost to design, construct, and install an Infrastructure Improvement allocated to the Benefited Property (the "Proportionate Share Buy-In Fee"). The Benefited Properties for Reimbursable Water Infrastructure and Reimbursable Wastewater Infrastructure are identified on Exhibits E.1, E.2, E.3 and E.4, attached hereto and thereby incorporated herein. The Proportionate Share Buy-In Fee shall be collected by the City from each Benefited Property prior to the City signing a final plat within the Benefited Property or prior to issuing a building permit for such Benefited Property, whichever first applies. If the Benefited Property has not been annexed into the City, the City shall collect the Proportionate Share Buy-In Fee from said Benefited Property prior to providing water or wastewater service to that Benefited Property. The Proportionate Share Buy-In Fees shall be retained by the City and disbursed to Owner every three (3) months. The City shall not begin disbursing the Proportionate Share Buy-In Fee collected for water improvements until all monies to be expended by Owner on the Reimbursable Water Infrastructure (as defined below) have been expended by Owner. Similarly, the City shall not begin disbursing the Proportionate Share Buy-In Fee collected for wastewater improvements until all monies to be

expended by Owner on the Reimbursable Wastewater Infrastructure (as defined below) have been expended by Owner. City's obligation to collect the Proportionate Share Buy-In Fee shall terminate on the fifteenth (15th) anniversary of the date the City Council approves this Agreement.

5.8 Water Infrastructure Improvements. The Owner shall finance, design, construct and install on the Property all of the wells and water supply and storage facilities as required by the City and as described in the Infrastructure Plan for municipal water service to the Property according to federal and state requirements, as amended from time to time (the "Mandated Water Requirements"), the City's Integrated Water Master Plan and the City's Design Water Guidelines and Standards as each exists on the date that the City approves the Owner's water master plan study for the Property (the "Property Master Water Study")(the City's Integrated Water Master Plan and the City's Design Water Guidelines and Standards are collectively referred to herein as the "Water Guidelines"). The Owner may, for a period of ten (10) years following the City's approval of the Property Master Water Study, submit to the City for construction approval such Infrastructure Improvements as are included in, and consistent with, the City-approved Property Master Water Study (the "Water Improvements"); provided, however, that if such plans are inconsistent with the then-current Mandated Water Requirements, the Owner shall make such modifications to meet the Mandated Water Requirements, even if such modifications are inconsistent with the City-approved Property Master Water Study. Beginning on the date that is ten (10) years after the City approves the Property Water Master Plan, any Water Improvements submitted for construction approval by the Owner to the City shall be in conformance with the then-current versions of the Mandated Water Requirements and the Water Guidelines, even if such conformance causes the plans to be inconsistent with the City-approved Property Master Water Study.

A. Reimbursable Water Infrastructure Components.

1. Wells. The Owner shall finance, design, construct and install on the Property all necessary well(s) as required by the City-approved Property Master Water Study. The Owner shall provide any remediation necessary to ensure that the water produced by the well(s) (when such wells are pumped at full capacity) identified on the Property Master Water Study meets the State, County and City drinking water standards in effect at the time the well(s) is constructed, installed and connected to the City's infrastructure. Additionally, the Owner shall provide a dedicated well, or such other water source as approved by the City, independent of the municipal water service, to service the Water Reclamation Facility located on the site of the SPA 5 Wastewater Reclamation Facility (the "SPA 5 WRF"). The well shall provide not less than 20 gpm at 50 psi at the entrance of the SPA 5 WRF to meet the fire service needs of the SPA 5 WRF.

2. Water Supply and Storage Facilities. The Owner shall finance, design, construct and install on the Property all water supply and storage facilities required by the City-approved Property Master Water Study. Unless modified as set forth in this subsection 5.8, the storage tank volume capacity shall be a minimum two 1.2 million gallons ("mg") storage tanks for a total of 2.4 mg. The water storage for the SPA 5 WRF may include the use of aboveground welded steel tanks. Additionally, the Owner shall provide a dedicated

storage tank with a volume of 180,000 gallons, based upon the fire flow requirements of 1,500 gallons per minute for two hours, and a diesel-powered fire pump and the required appurtenances for the purpose of fire flow storage and delivery to the SPA 5 WRF. The Well described in paragraph 5.8(A)(1) above and the water supply and storage facilities described in this paragraph 5.8(A)(2) are collectively referred to herein as the "Reimbursable Water Infrastructure." The initial site for these Reimbursable Water Facilities in Broadstone Ranch shall be termed the "Water Campus" and shall be approximately six (6) acres at the location described and depicted on Exhibits D.1 and D.1.1. The real property upon which the Well(s) and Water Supply Facilities are located shall be in compliance with the City's most current standards and requirements for similar facilities, as determined by the Deputy City Manager or Designee and will be dedicated by the Owner to the City at final plat. Such Wells and Water Supply Facilities shall be located, to the extent it is feasible and practical, (in the Owner's reasonable discretion) adjacent to park or open space facilities constructed by the Owner (except for the above-referenced Well at the SPA 5 WRF) in order to allow the City to discharge high volumes of water therein. The City and Owner shall work together to locate wells in locations near such park and open space facilities when otherwise consistent with well spacing requirements. Whenever a well is located next to a park and/or open space, the City and Owner shall enter into an easement, in the form attached hereto as Exhibit F, for each facility utilized for such well water discharge purpose.

B. Reimbursable Water Amount. Owner's cost to design, construct and install the well(s), the water supply facilities and, if determined to be necessary, the well transmission lines (collectively, the "Reimbursable Water Infrastructure"), without interest, minus any monies paid directly to Owner by Benefited Properties utilizing the Reimbursable Water Infrastructure, shall be the "Reimbursable Water Amount." The Reimbursable Water Amount is subject to validation by the City and shall be paid as set forth in this subsection 5.8(B). Owner shall be reimbursed for all City-approved costs expended for the benefit of the Reimbursable Water Infrastructure, minus the percentage of the cost to design, construct and install the Reimbursable Water Infrastructure allocated to Owner's share of such Infrastructure ("Owner's Proportionate Share"). The Parties agree that on the date that is one year following the date the City has conditionally accepted the Water Improvements and the expenditures made by Owner, which acceptance shall not be unreasonably delayed, as evidenced by actual invoices, for all or any part of the Reimbursable Water Infrastructure, an addendum to this Agreement will be administratively executed specifying the portion of the Reimbursable Water Infrastructure that is represented by such invoices. Each such addendum shall be submitted by Owner on the form attached hereto as Exhibit G, and when such addendum has been approved and signed by the City Manager, or his/her designee, on behalf of the City (which approval will not be unreasonably delayed, withheld or conditioned), it shall be incorporated into and become part of this Agreement. Owner shall be reimbursed for any Benefited Property's use of the Reimbursable Water Infrastructure, as provided in subsection 5.7 above, until fully reimbursed for expenditures approved by the City or the termination of this Agreement, whichever comes first.

C. Non-Reimbursable Water Infrastructure.

1. Water Distribution Lines. Owner shall finance, design, construct and install water distribution lines within the Property as required by the City to provide water service to the Property.

2. Onsite Water Improvements. Owner shall finance, design, construct and install all onsite water system improvements. The water distribution lines described in paragraph 5.8(C)(1) above and the onsite water improvements described in this paragraph 5.8(C)(2) are collectively referred to herein as the "Non-Reimbursable Water Infrastructure."

D. Oversizing. City shall not reimburse Owner for any costs associated with the design, construction or installation of the Non-Reimbursable Water Infrastructure, except as provided for hereinabove or unless the City requests that some or all of the Non-Reimbursable Water Infrastructure be oversized, and then in such a case Owner shall only be entitled to reimbursement through the City for the portion of the amount expended on the design, construction, and installation of the improvement associated with said oversizing over and above the amount that would have been incurred had the improvement been designed, constructed and installed to service only the Property (the "Net Costs"), plus annual interest at 6%. By way of example, if one mile of Owner's sewer line were oversized from 15 inches to 30 inches at the request of the City, the Owner would bid the project as a 15 inch line with the alternate being a 30 inch line, and the Net Costs would be the difference between the two bids. Owner shall be reimbursed from Proportionate Share Buy-In Fees collected by the City from benefited properties for all City-approved costs expended for oversizing Non-Reimbursable Wastewater Infrastructure, minus Owner's Proportionate Share, plus interest as set forth herein. The Parties agree that once expenditures have been made by Owner, as evidenced by actual invoices, for all or any part of the oversized Non-Reimbursable Water Infrastructure, an addendum to this Agreement will be administratively executed specifying the portion of the oversized Non-Reimbursable Water Infrastructure that is represented by such invoices. Each such addendum shall be submitted by Owner on the form attached hereto as Exhibit G, and when such addendum has been approved and signed by the City Manager, or his/her designee, on behalf of the City (which approval will not be unreasonably delayed, withheld or conditioned), it shall be incorporated into and become part of this Agreement. Owner shall be reimbursed for any Benefited Property's use of oversized Non-Reimbursable Water Infrastructure as provided in subsection 5.7 above, until fully reimbursed for expenditures approved by the City or the termination of this Agreement, whichever comes first.

5.9 Water Service. The City hereby commits to provide municipal water service to the Property served by the completed Non-Reimbursable Water Infrastructure and Reimbursable Water Infrastructure, with service-related fees imposed by the City according to accepted municipal standards for determining water service charges upon (A) the completion of the requisite Non-Reimbursable Water Infrastructure and the requisite Reimbursable Water Infrastructure within the City's water service area, (B) the City's conditional acceptance of both by letter (which conditional acceptance shall not be unreasonably delayed or withheld) and dedication of the completed infrastructure as set forth in this Agreement and (C) the continuing

obligation during the entire term of this Agreement that the Owner execute any well impact waivers as deemed necessary by the City so long as such waivers are imposed equally upon all other similarly situated properties. The City acknowledges and agrees that Owner may phase the construction of Improvements necessary to provide water service to the portion of the Property served water by the City and at such phasing shall be subject to approval by the Deputy City Manager or Designee(s). The requirements of this subsection shall apply individually to each such phase without regard to the status of any other phase(s), provided the "other phase(s)" are not required to support the new phases, as reasonably determined by the Deputy City Manager or Designee. If the City concurs, the initial water supply for the first phase of development on the Property may be provided by another water provider on an interim basis through a mutual aid agreement between the City and the private water provider while the Owner is proactively constructing the required Water Infrastructure. Owner and City agree that there will be no expansion of any private water provider's certificate of convenience and necessity ("CCN"), and no county franchise shall be created or amended, to cover any portion of the Property arising out of this interim use of water. Owner agrees to actively support the City in opposition to any proposed expansion of a private water provider's CCN or creation/amendment of a county franchise; such active support shall include, but is not limited to, providing testimony before the Arizona Corporation Commission or the Maricopa County Board of Supervisors, as applicable.

5.10 Irrigation Water Rights. The Parties shall cooperate reasonably to (A) jointly prepare and file with the ADWR, the applications, documentation and information necessary to extinguish all grandfathered irrigation groundwater rights associated with any portion of the Property served water by the City and (B) pledge the resulting credits to the City's assured water supply account at ADWR, when such Property (or each phase thereof) is subjected to a final plat and no longer in agricultural production.

5.11 Underground Storage Facility (USF). The owner shall have no responsibility to obtain permits relating to water recharge credits, including a permit for an Underground Storage Facility (USF). Such permits shall be in the name of the City. The Owner shall contribute to the City the cost of this and all permit processes at the time the City applies for each such permit; provided, however, that the aggregate cost to the Owner for such permits shall not exceed $150,000.

5.12 Wastewater Infrastructure Improvements. The Owner shall finance, design, construct and install the following wastewater infrastructure improvements as required by the City and as described in the Infrastructure Plan (A) the initial phase(s) of the SPA 5 WRF of sufficient size to allow the City to provide wastewater service to the Property as described in detail below (the "Developer Phase of the SPA 5 WRF"), (B) an interceptor line (the "Interceptor Line") and (C) all necessary on-site sewer lines (collectively, the Developer Phase of the SPA 5 WRF, the Interceptor Line and the on-site sewer lines are referred to herein as the "Wastewater Infrastructure") as required by the City and as described in the Infrastructure Plan for municipal wastewater service to the Property (the "Property Master Sewer Study") according to federal and state requirements, as amended from time to time (the "Mandated Sewer Requirements") and the Water Guidelines as each exists on the date that the City approves the Property Master Sewer Study. The Owner may, for a period of ten (10) years following the City's approval of the Property Master Sewer Study, submit to the City for construction approval such plans for

Wastewater Infrastructure improvements as are included in, and consistent with, the City-approved Property Master Sewer Study (the "Wastewater Improvements"); provided, however, that if such plans are inconsistent with the then-current Mandated Sewer Requirements, the Owner shall make such modifications to meet the Mandated Sewer Requirements, even if such modifications are inconsistent with the City-approved Property Master Sewer Study. Beginning on the date that is ten (10) years after the City approves the Property Master Sewer Study, any Wastewater Improvements submitted for construction approval by the Owner to the City shall be in conformance with the then-current versions of the Mandated Sewer Requirements and the Water Guidelines, even if such conformance causes the plans to be inconsistent with the City-approved Property Master Sewer Study.

A. Facilities. The Owner shall finance, design, construct and install the Wastewater Improvements. Owner (in cooperation with others) will purchase the initial parcel of land of twenty (20) acres for the Developer Phase of the SPA 5 WRF from the ASLD (the "Initial WRF Site"), engineer, design, construct and install this Developer Phase of the SPA 5 WRF pursuant to the City's requirements. City acknowledges that the Initial WRF Site is of sufficient size to handle the Property's needs relating to the Developer Phase of the SPA 5 WRF. The amount of wastewater capacity in gallons per unit per day served by a water reclamation facility is set by the Maricopa County Environmental Services Department ("MCESD"), and is currently set at three hundred and three (303) gallons per day. Should MCESD amend the amount of gallons per unit per day capacity required by a water reclamation facility, the amount of wastewater capacity created by such an amendment to the Developer Phase of the SPA 5 WRF shall be adjusted accordingly. Owner and other Benefited Parties (to the extent those Benefited Parties have (1) entered into a Joint Development Agreement with Owner to finance, design construct and install the Wastewater Improvements or (2) reimbursed the Owner for their Benefited Property Proportionate Share Buy-In Fee) shall be entitled to the full amount of wastewater capacity that is produced by the Developer Phase of the SPA 5 WRF as currently set by MCESD or as it may be adjusted in the future by MCESD. Within ninety (90) days after startup completion of this Developer Phase of the SPA 5 WRF, Owner shall dedicate to the City the Developer Phase of the SPA 5 WRF. The Initial WRF Site and the full SPA 5 WRF shall be located approximately at the intersection of 219th Avenue, Crozier Avenue and the Central Arizona Project ("CAP") Canal. An additional thirty and seven tenths (30.7) acres of land adjacent to the Initial WRF Site (the "Expansion Site") are needed for the SPA 5 WRF Site (collectively, the Initial WRF Site and the Expansion Site are hereinafter referred to as the "WRF Site" and are identified on Exhibit D.2 and Exhibit D.2.1 attached hereto and incorporated herein). If Owner purchases the entire WRF Site, the City shall require the successful bidder at the initial auction of the ASLD trust lands within the Broadstone Ranch development to pay the City for the cost of the purchase price for the Expansion Site as established at the WRF Site auction plus interest at six percent (6%) per annum prior to approving the first final plat for such property. The City shall reimburse Owner for the cost of the Expansion Site plus interest, as described above, no later than sixty (60) days from the date the City receives such payment. Alternatively, should another property owner require wastewater capacity from the City that would require the expansion of the SPA 5 WRF to the Expansion Site, such property owner shall pay to the City the cost for the Expansion Site purchase plus interest prior to the City approving the first final plat for such property and City shall reimburse Owner for the cost of the Expansion

Site plus interest, as described above, no later than sixty (60) days from the date the City receives such payment.

B. MAG 208 Amendment. Owner shall support and assist the City in obtaining an amendment to the City's MAG 208 plan to allow the SPA 5 Developer Wastewater Facility to serve SPA 5. The Owner shall be responsible and shall reimburse the City for all costs incurred by the City in obtaining the MAG 208 amendment.

C. Permits. City shall acquire all permits (including the USF permit) and approvals necessary to operate the Developer Phase of the SPA 5 WRF in the name of the City at Owner's costs and expense, subject to the limitations set forth in subsection 5.11 above. Owner shall cooperate with City in obtaining said permits and approvals and execute such documents and make such undertakings as are required to obtain same and necessary for the City to operate the Developer Phase of the SPA 5 WRF.

5.13 Ownership of Wastewater. City shall own all wastewater generated from the Property.

5.14 Reimbursable Wastewater Infrastructure.

A. Developer Phase of the SPA 5 WRF. Owner shall finance, the land acquisition and design, construct, manage and install the Developer Phase of the SPA 5 WRF. This Developer Phase of the SPA 5 WRF shall consist of a wastewater facility that is initially capable of treating a minimum of one million two hundred thousand (1,200,000) gallons of wastewater per day ("1.2 MGD") and, at Owner's sole option, the Developer Phase of the of the SPA 5 WRF may be expanded to a facility capable of treating a minimum of one million eight hundred thousand (1,800,000) gallons of wastewater per day ("1.8 MGD"); provided, however, that if the Owner does not elect to expand the Developer Phase of the SPA 5 WRF to 1.8 MGD at the same time as Owner is constructing the 1.2 MGD portion of the Developer Phase of the SPA 5 WRF, the City may request that the Developer do so and the cost of such expansion shall be reimbursed to the Owner within ninety (90) days following the City's conditional acceptance of the Developer Phase of the SPA 5 WRF; provided, however, that if the City makes such a request of Owner to accommodate the sewer capacity needs of a Benefited Property that did not participate with Owner in the cost of construction of the Developer Phase of the SPA 5 WRF, the Owner shall not be obligated to construct the additional six hundred thousand (600,000) gallons of wastewater capacity unless the Benefited Property pays Owner the full incremental costs to design and construct the additional six hundred thousand (600,000) gallons of wastewater capacity prior to commencement of construction on the additional six hundred thousand (600,000) gallons of wastewater capacity. The costs associated with completing this Developer Phase of the SPA 5 WRF shall include all funds expended to acquire the land, design, construct, manage and install the facility and obtain all required permits and approvals, all funds expended to design, construct, manage and install the utilities necessary for the facility including the Well and related storage referred to in paragraphs 5.8(A)(1) and 5.8(A)(2) above, as well as all funds expended to provide and install access (both vehicular and utility) to the facility. In order for the amounts expended on the Developer Phase of the SPA 5 WRF to be reimbursable, the technology and design shall meet the Deputy City Manager or

Designee's approval, the facility shall have a minimum of a ten (10) year life span and the facility shall be functionally reusable within the City's master plan for the SPA 5 WRF, similar to the City-approved developer-phases for SPA 2 and SPA 3.

B. Facility Site. Owner shall dedicate to the City, and the City shall accept, the Initial WRF Site upon acceptance of construction of the Developer Phase of the SPA5 WRF and the Interceptor.

C. Interceptor(s). Owner shall finance, design, construct and install the wastewater Interceptor Line(s) to connect the Property to the SPA 5 WRF as described and depicted on Exhibits E.3.1 and E.3.2. City agrees to use its power of eminent domain to acquire any additional right of way that may be needed to accommodate the installation of this Interceptor Line. Owner shall be responsible to reimburse City for all costs associated with the acquisition of this right-of-way, including attorneys' fees. The Developer Phase of the SPA 5 WRF described in subsection 5.14(A) above, the Initial WRF Site described in subsection 5.14(B) above and the Interceptor line described in this subsection 5.14(C) are collectively referred to herein as the "Reimbursable Wastewater Infrastructure."

5.15 Reimbursable Wastewater Amount. Owner's cost to design, construct and install the Reimbursable Wastewater Infrastructure without interest, minus any monies paid directly to Owner by Benefited Properties, as shown on Exhibits E.2, E.3 and E.4 utilizing the Reimbursable Wastewater Infrastructure, shall be the "Reimbursable Wastewater Amount." The Reimbursable Wastewater Amount is subject to validation by the City and shall be paid as set forth in this subsection 5.15. Owner shall be reimbursed for all City-approved costs expended for the benefit of the Reimbursable Wastewater Infrastructure, minus Owner's Proportionate Share. The Parties agree that on the date that is one year following the date the City has conditionally accepted the Wastewater Improvements and the expenditures made by Owner, which acceptance shall not be unreasonably delayed, as evidenced by actual invoices, for all or any part of the Reimbursable Wastewater Infrastructure, an addendum to this Agreement will be administratively executed specifying the portion of the Reimbursable Wastewater Infrastructure that is represented by such invoices. Each such addendum shall be submitted by Owner on the form attached hereto as Exhibit G, and when such addendum has been approved and signed by the City Manager, or his/her designee, on behalf of the City (which approval will not be unreasonably delayed, withheld or conditioned), it shall be incorporated into and become part of this Agreement. Owner shall be reimbursed for any Benefited Property's use of Reimbursable Wastewater Infrastructure as provided in subsection 5.12 above, until fully reimbursed for expenditures approved by the City or the termination of this Agreement, whichever comes first.

5.16 Operation and Maintenance - Developer Phase of the SPA 5 WRF. Owner (and others) shall employ the equipment manufacturer of the (the "Manufacturer") to assist City with the operation and maintenance of the Developer Phase of the SPA 5 WRF. The City shall enter into an Operation and Maintenance agreement with the Manufacturer. The Manufacturer shall assist the City, at Owner's expense, until six (6) months following the date the Facility is receiving wastewater in amounts equal to or in excess of ten percent (10%) of its design capacity, unless sooner released from this obligation, in writing, by the City in its sole discretion. Owner and City also shall enter into a Service Agreement wherein Owner agrees to pay, on a

monthly basis, a sum equal to the difference between the costs of operating and maintaining the Facility and the user fees collected from users of the Facility, until the date that is six (6) months following the date that the Facility is receiving wastewater in amounts equal to or in excess of fifteen percent (15%) of its design capacity.

5.17 Non-Reimbursable Wastewater Infrastructure.

A. Onsite Wastewater Improvements. Owner shall finance, design, construct and install the onsite wastewater improvements for the Property (the "Non-Reimbursable Wastewater Infrastructure").

B. Oversizing. City shall not reimburse Owner for any costs associated with the design, construction or installation of the Non-Reimbursable Wastewater Infrastructure, except as provided for hereinabove or unless the City requests that some or all of the Non-Reimbursable Wastewater Infrastructure be oversized, and then in such a case Owner shall only be entitled to reimbursement through the City for the Net Costs of such oversizing, plus annual interest at 6%. Owner shall be reimbursed from Proportionate Share Buy-In Fees collected by the City from Benefited Properties for all City-approved costs expended for oversizing Non-Reimbursable Wastewater Infrastructure, minus Owner's Proportionate Share, plus interest as set forth herein. The Parties agree that on the date that is one year following the date the City has conditionally accepted the Wastewater Improvements and the expenditures made by Owner, which acceptance shall not be unreasonably delayed, as evidenced by actual invoices, for all or any part of the oversized Non-Reimbursable Wastewater Infrastructure, an addendum to this Agreement will be administratively executed specifying the portion of the oversized Non-Reimbursable Wastewater Infrastructure that is represented by such invoices. Each such addendum shall be submitted by Owner on the form attached hereto as Exhibit G, and when such addendum has been approved and signed by the City Manager, or his/her designee, on behalf of the City (which approval will not be unreasonably delayed, withheld or conditioned), it shall be incorporated into and become part of this Agreement. Owner shall be reimbursed for any benefited property's use of oversized Non-Reimbursable Wastewater Infrastructure as provided in subsection 5.12 above, until fully reimbursed for expenditures approved by the City or the termination of this Agreement, whichever comes first.

5.18 Effluent Reuse. As used in this Agreement, "Effluent" means the treated wastewater or any other water being transported through the City's non-potable irrigation distribution lines and "Effluent Lines" means the system of distribution lines located within the Property that carry Effluent throughout the Property. In light of the fact that the Property is currently many miles from the nearest existing City Effluent Lines, Owner shall be responsible for disposal of Effluent produced by the Property, which may be disposed of at the Initial WRF Site or at an off-site location at Owner's discretion. If Owner provides City with an Effluent management plan that demonstrates that the SPA5 WRF is capable of adequately recharging all Effluent generated by the Property in compliance with all applicable City, County, State and Federal requirements, then said Effluent may be recharged at the Initial WRF Site. Owner shall not be required to install the separate Effluent Interceptor Transmission Line from the SPA5 WRF north to the Property, but shall only be required to install those on-site Effluent lines to allow future conversion to an Effluent system for the irrigation of non-residential and common

area turf landscaping on the Property of 0.5 Acres or larger when the Effluent Interceptor Line has been installed by others. Owner shall not be required to extend these on-site Effluent lines to serve landscaping needs for individual residential lots, but only the non-residential and common area turf landscaping of 0.5 acres or larger.

5.19 Warranty. Owner or its assignee shall give to the City a two-year warranty for all Infrastructure Improvements, except for the SPA 5 WRF, which shall have a warranty period consistent with the manufacturer's one-year warranty period, which warranty periods shall begin on the date that the City conditionally accepts the Infrastructure Improvements as provided in this subsection or on such other date as set forth in the Service Agreement. Any material deficiencies in material or workmanship identified by City staff during the two-year warranty period shall be brought to the attention of the Owner or its Assignee who provided the warranty, who shall promptly remedy or cause to be remedied such deficiencies to the reasonable satisfaction of the City's staff. Continuing material deficiencies in a particular portion of the Infrastructure Improvements shall be sufficient grounds for the City to require (A) an extension of the warranty for an additional two-year period (or in the case of the SPA 5 WRF, an additional one-year period) and (B) the proper repair of or the removal and reinstallation of, that portion of the Infrastructure Improvements that is subject to such continuing deficiencies. Regardless of whether the warranty period has expired, the Owner agrees to repair any damage to the Infrastructure Improvements caused by Owner's or homebuilder's construction activities on the Property. Nothing contained herein shall prevent the City or Owner from seeking recourse against any other third party for damage to the Infrastructure Improvements caused by such third party.

6. Fire Facilities. The Property requires fire service to be provided by the Temporary Fire Services, as defined below, or the Permanent Fire Station, as defined below. Because City does not have a current source of funding to offset the capital expenditures related to fire service, the Owner shall do the following in connection with the development of the Property:

6.1 Fire Station Site. Dedicate, upon the request of the City at the time of or after Annexation, the parcel of real property described and depicted on Exhibits D.3 and D.3.1, attached hereto and incorporated herein by reference, for the location of a permanent fire station on the Property (which may include a community office for police or other municipal use) ("Permanent Fire Station Site"). This Permanent Fire Station Site is located one-eighth (1/8th) mile north of Broadstone Boulevard on the east side of 243rd Avenue. It is dimensioned at approximately 360 feet by 360 feet and is therefore three (3) acres in size. This site is mutually acceptable to City and Owner. This site shall be dedicated without cost to the City and Owner shall not be entitled to a credit against the City's fire development fee, unless the value of land dedicated for permanent fire station sites is a component of the City fire development impact fees. In such case, Owner shall be entitled to a credit for the costs of dedication of the Permanent Fire Station Site using the land value component identified in the fire development impact fees in existence at the time a building permit is issued.

6.2 Temporary Fire Services Prior to Annexation. Owner will contract with the Circle City-Morristown Fire District ("CC/MTFD") for fire service, until annexation, under a

separate agreement between CC/MTFD and Owner. Owner shall pay costs for operation and maintenance as negotiated with CC/MTFD. Any property donated, capital contribution made or capacity/service charge paid to CC/MTFD will be deemed a gift/compensation for contracted services and in no way will operate as an offset against City impact fees. The City will not oppose attempts by CC/MTFD to annex the Property into the CC/MTFD service district to establish a secondary property tax to pay for the operational expense of serving the Property; provided, however, that Owner knows, understands and acknowledges in the Agreement that there will be no credit against City development impact fees for any such payments made to CC/MTFD. Upon annexation of the Property, City assumes control of fire and emergency medical services to the property, subject to the overlap provisions in Arizona Revised Statutes § 48-813. Upon annexation of the Property, CC/MTFD fire service terminates and City is under no obligation to employ any CC/MTFD employees.

6.3 Temporary Fire Service Provided By City. In order to ensure that adequate City provided fire and emergency services are available to the Property upon annexation, Owner shall, within thirty (30) days from the later of the (A) date the City establishes a contiguous boundary with the Broadstone Ranch Development along Grand Avenue or (B) written approval by the Arizona State Selection Board and the Director of the Arizona State Land Department for the annexation of State Land within the Broadstone Ranch development into the corporate limits of the City, and the City determines it will proceed with the construction of a temporary fire station, make a one-time cash contribution of $250,000 to the City for the construction of the temporary fire station upon the Permanent Fire Station Site (the "Temporary Fire Station") and related equipment and furnishings. Upon the City's completion of the Temporary Fire Station, Owner shall make a one-time cash contribution of $100,000 for the operation and maintenance of the Temporary Fire Station. Owner shall provide all necessary utilities to the Temporary Fire Station on the Permanent Fire Station Site. Owner acknowledges that until such time as a Permanent Fire Station is constructed, fire services provided by the City to the Property will be at a "rural response" level. The cash contributions set forth in this subsection 6.3 shall be adjusted annually in April of each year by the percentage of change in the Construction Cost Index as published in the Engineering News Record (the "Construction Index") determined in accordance with this subsection. The cash contributions shall be adjusted based on the Construction Index as established and published by the Engineering News Record for the elapsed period since the effective date of the last adjustment. The annual adjustment shall become effective on April 30 of each year.

6.4 Permanent Fire Station Design and Construction. City shall be responsible for the design, construction and operation of the Permanent Fire Station on the Permanent Fire Station Site. Owner shall not be responsible for any costs associated with the design, construction or operation of the Permanent Fire Station beyond payment of the City fire development impact fees in place at the time of issuance of each building permit.

7. Community Facilities District Financing.

7.1 Community Facilities District. The City in accordance with its Community Facilities Guidelines adopted on November 11, 2003, as amended from time to time, will consider any requests by Owner to form a community facilities district ("CFD") comprised

of the Property in order to aid in financing the costs of the Infrastructure Improvements. Nothing contained herein shall be construed to compel the City to form a CFD or for the CFD, if formed, to finance any Infrastructure Improvements. Owner agrees and understands that the decisions to form a CFD or to finance any Infrastructure Improvements are at the sole, legislative discretion of the City Council and the CFD governing board, respectively.

7.2 CFD Agreement. Immediately upon formation and as a condition of formation of a CFD, the City, Owner, and any owner of the Property, and CFD shall enter into a CFD Development Agreement in the form approved by the City, in its sole discretion. Any CFD shall cause to be levied a CFD operation an maintenance tax on properties within the district and Owner shall provide additional funds for CFD operation as required by the City in its sole discretion. The City agrees to cooperate and pursue intergovernmental agreements with other public bodies, as applicable to secure the ownership, operation and maintenance of completed public infrastructure acquired or constructed with CFD funds that are typically not owned, operated an maintained by the City. The Owner may request that the City and any community facilities district establish a means of collecting reimbursements from Owners or other real property owners for the CFD's and/or Owner's costs of financing, designing and installing public facilities that are of the size, length or capacity greater than that needed to serve or mitigate the impacts of development of the Property and which will serve other property in the City.

8. Anti-Moratorium. The parties hereby acknowledge and agree that the Approved DMP contemplates and provides for the development of the Property over many years and that for the Term of this Agreement as defined in Section 2 above, no moratorium shall be imposed except as permitted by ARIZ. REV. STAT. § 9-463.06, as of the date of this Agreement, attached hereto as Exhibit H. The City agrees, to the extent permitted by law, that if subsequent law changes or repeals the standards or language of ARIZ. REV. STAT. § 9-463.06, as set forth in Exhibit H hereto, such standards set forth in Exhibit H shall continue to apply to the Property.

9. General Provisions.

9.1 Recordation. This Agreement shall be recorded in its entirety in the Official Records of Maricopa County, Arizona, not later than ten days after its full execution by the Parties.

9.2 Notices and Requests. Any notice or other communication required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if (A) delivered to the party at the address set forth below, (B) deposited in the U.S. Mail, registered or certified, return receipt requested, to the address set forth below, (C) given to a recognized and reputable overnight delivery service, to the address set forth below or (D) delivered by facsimile transmission to the number set forth below:

The City: City of Surprise
12425 West Bell Road, Suite D-100
Surprise, Arizona 85375
Facsimile: 623-875-4229

Attn: City Manager

With copy to: Surprise City Attorney's Office
12425 West Bell Road, Suite D-100
Surprise, Arizona 85374
Facsimile: 623-583-1399
Attn: Michael D. Bailey, Esq.

With copy to: GUST ROSENFELD, P.L.C.
201 East Washington, Suite 800
Phoenix, Arizona 85004-2327
Facsimile: 602-340-1538
Attn: Andrew J. McGuire, Esq.

The Owner: Elliott Homes, Inc.
80 Iron Point Circle, Suite 110
Folsom, California 95630
Facsimile: 916-984-1322
Attn: Harry C. Elliott, III

With a copy to: Elliott Homes, Inc.
1400 East Southern Avenue, Suite 720
Tempe, Arizona 85282
Facsimile: 480-831-9300
Attn: Jeff Klem

With a copy to: Earl, Curley & Lagarde, P.C.
3101 North Central Avenue, Suite 1000
Phoenix, Arizona 85012
Facsimile: 602-265-2195
Attn: Stephen C. Earl

or at such other address, and to the attention of such other person or officer, as any party may designate in writing by notice duly given pursuant to this subsection. Notices shall be deemed received (A) when delivered to the party, (B) three business days after being placed in the U.S. Mail, properly addressed, with sufficient postage, (C) the following business day after being given to a recognized overnight delivery service, with the person giving the notice paying all required charges and instructing the delivery service to deliver on the following business day, or (D) when received by facsimile transmission during the normal business hours of the recipient. If a copy of a notice is also given to a party's counsel or other recipient, the provisions above governing the date on which a notice is deemed to have been received by a party shall mean and refer to the date on which the party, and not its counsel or other recipient to which a copy of the notice may be sent, is deemed to have received the notice.

9.3 Default. In the event a Party fails to perform or otherwise act in accordance with any term or provision hereof (the "Defaulting Party") then the other Party may

provide written notice to perform to the Defaulting Party. The Defaulting Party shall have thirty (30) days to perform after written notice is received; provided, however, that if the failure is such that more than thirty (30) days would reasonably be required to perform such action or comply with any term or provision hereof, then the Defaulting Party shall have such additional time as may be necessary to perform or comply so long as the Defaulting Party commences performance or compliance within said thirty (30) day period and diligently proceeds to complete such performance or fulfill such obligation. Any written notice shall specify the nature of the default and the manner in which the default may be satisfactorily cured, if possible. The thirty (30) day period shall not apply where an ordinance or statute requires the City to perform or otherwise act in a period in excess of thirty (30) days. In the event a default remains uncured following the thirty (30) day period, the only remedy permitted shall be specific performance, except as specifically allowed within this Agreement.

9.4 Dispute Resolution. In the event that there is a dispute hereunder which the Parties cannot resolve between themselves, the Parties agree that there shall be a forty-five (45) day moratorium on litigation during which time the Parties agree to attempt to settle the dispute by nonbinding mediation before commencement of litigation. The mediation shall be held under the Commercial Mediation Procedures of the American Arbitration Association; however, the mediation shall not be administered by the American Arbitration Association. The matter in dispute shall be submitted to a mediator mutually selected by the Parties. In the event that the Parties cannot agree upon the selection of a mediator within seven (7) days, then within three (3) days thereafter, the City and Owner shall request the presiding judge of the Superior Court for the County to appoint an independent mediator. The mediator selected shall have at least five (5) years' experience in mediating or arbitrating disputes relating to development. The cost of any such mediation shall be divided equally between the City and Owner. The results of the mediation shall be nonbinding on the Parties, and any Party shall be free to initiate litigation subsequent to the moratorium.

9.5 Choice of Law, Venue and Attorneys' Fees. Any dispute, controversy, claim or cause of action arising out of or related to this Agreement shall be governed by the laws of the State of Arizona. The venue for any such dispute shall be Maricopa County, Arizona, and each Party waives the right to object to venue in Maricopa County for any reason. Neither Party shall be entitled to recover any of its attorneys' fees or other costs from the other Party incurred in any such dispute, controversy, claim, or cause of action, but each Party shall bear its own attorneys' fees and costs, whether the same is resolved through arbitration, litigation in a court, or otherwise.

9.6 Good Standing; Authority. Each Party represents and warrants that it is duly formed and validly existing under the laws of the State of Arizona with respect to Owner, or a municipal corporation within Arizona with respect to the City and that the individuals executing this Agreement on behalf of their respective Party are authorized and empowered to bind the Party on whose behalf each such individual is signing.

9.7 Assignment. The provisions of this Agreement are binding upon and shall inure to the benefit of the Parties, and all of their successors in interest and assigns; provided, however, that Owner's rights and obligations hereunder may be assigned, in whole or in part,

only to a person or entity that has acquired title to the Property or a portion thereof and only by a written instrument recorded in the Official Records of Maricopa County, Arizona, expressly assigning such rights and obligations. In the event of a complete or partial assignment by Owner, all or a portion of Owner's rights and obligations hereunder shall terminate effective upon the assumption by Owner's assignee of such rights and obligations and the delivery of that executed assignment Agreement to the City Manager.

9.8 Termination Upon Sale of Residential Lots. Except as otherwise provided herein, the Parties hereby acknowledge and agree that this Agreement is not intended to and shall not create conditions or exceptions to title or covenants running with the residential lots within the Property. Therefore, in order to alleviate any concern as to the effect of this Agreement on the status of title to any of the Property, so long as not prohibited by law, this Agreement shall terminate without the execution or recordation of any further document or installment as to any residential lot, and thereupon such residential lot shall be released from and no longer be subject to or burdened by the provisions of this Agreement.

9.9 Third Parties. It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture or other agreement between the Parties. No term or provision of this Agreement is intended to, or shall be for the benefit of any person or entity not a party hereto, and no such other person or entity shall have any right or cause of action hereunder.

9.10 Waiver. No delay in exercising any right or remedy shall constitute a waiver thereof, and no waiver of any breach shall be construed as a waiver of any preceding or succeeding breach of the same or any other covenant, or condition of this Agreement. No waiver shall be effective unless it is in writing and is signed by the Party asserted to have granted such waiver.

9.11 Further Documentation. The Parties agree in good faith to execute such further or additional instruments and documents and to take such further acts as may be necessary or appropriate to fully carry out the intent and purpose of this Agreement.

9.12 Fair Interpretation. The Parties have been represented by counsel in the negotiation and drafting of this Agreement and this Agreement shall be construed according to the fair meaning of its language. The rule of construction that ambiguities shall be resolved against the Party who drafted a provision shall not be employed in interpreting this Agreement.

9.13 Headings. The headings of this Agreement are for purposes of reference only and shall not limit or define the meaning of any provision of this Agreement.

9.14 Counterparts. This Agreement may be executed in up to three counterparts, each of which shall be an original but all of which shall constitute one and the same instrument.

9.15 Computation of Time. In computing any period of time under this Agreement, the date of the act or event from which the designated period of time begins to run

shall not be included. The last date of the period so completed shall be included unless it is a Saturday, Sunday or legal holiday, in which event the period shall run until the end of the next day which is not a Saturday, Sunday or legal holiday. The time for performance of any obligation or taking any action under this Agreement shall be deemed to expire at 5:00 p.m. (Phoenix time) on the last day of the applicable time period provided herein.

9.16 Conflict of Interest. Pursuant to ARIZ. REV. STAT. § 38-503 and § 38-511, no member, official or employee of the City shall have any personal interest, direct or indirect, in this Agreement, nor shall any such member, official or employee participate in any decision relating to this Agreement which affects his or her personal interest or the interest of any corporation, partnership or association in which he or she is, directly or indirectly, interested. This Agreement is subject to cancellation pursuant to the terms of ARIZ. REV. STAT. § 38-511.

9.17 Owner's Representations. Nothing contained herein shall be deemed to obligate Owner to complete any part of the development of the Property.

9.18 Entire Agreement. This Agreement, together with the following Exhibits attached hereto (which are incorporated herein by this reference) constitutes the entire agreement between the Parties.

Exhibit A.1: Legal Description of the Property
Exhibit A.1.1: Map of the Property
Exhibit B: DMP Land Use Map for all of Broadstone Ranch
Exhibit C: Infrastructure Plan
Exhibit D: Initial WRF Site
Exhibit D.1: Water Campus Legal Description
Exhibit D.1.1: Water Campus Map
Exhibit D.2: WRF Site Legal Description
Exhibit D.2.1: WRF Site Map
Exhibit D.3: Permanent Fire Station Site Legal Description
Exhibit D.3.1: Permanent Fire Station Site Map
Exhibit E.1: Benefited Area for Reimbursable Water Infrastructure
Exhibit E.2: Benefited Area for Reimbursable Wastewater Infrastructure: SPA 5 WRF Site
Exhibit E.3: Benefited Area for Reimbursable Wastewater Infrastructure: Interceptor Line
Exhibit E.3.1: Interceptor Line Easement Legal Description
Exhibit E.3.2: Interceptor Line Easement Map
Exhibit E.4: Benefited Area for Reimbursable Wastewater Infrastructure: SPA 5 WRF Improvements
Exhibit F: Flowage Easement
Exhibit G: Buy-in Addendum
Exhibit H: Moratorium Law

All prior and contemporaneous agreements, representations and understandings of the Parties, oral or written, are superseded by and merged in this Agreement.

9.19 Time. Time is of the essence in this Agreement and with respect to the performance required by each Party hereunder.

9.20 Waiver of Claims Pursuant to A.R.S. § 12-1134 *et seq.* The Owner agrees and understands that the City is entering into this Agreement in good faith and with the understanding that, if it acts consistently with the terms and conditions herein, it will not be subject to a claim for diminished value of the Property from the Owner or other parties having an interest in the Property. The Owner, on behalf of itself and all other parties having an interest in the Property, intends to encumber the Property with the following agreements and waivers. Owner agrees and consents to all the conditions imposed by this Agreement, the annexation contemplated herein, subsequent rezoning consistent with the provisions of this Agreement and the Approved DMP and any subdivision plat approved consistent with this Agreement, and by signing this Agreement waives any and all claims, suits, damages, compensation and causes of action the Owner may have now or in the future under the provisions of ARIZ. REV. STAT. §§ 12-1134 through and including 12-1136 (but specifically excluding any provisions included therein relating to eminent domain) and resulting from the development of the Property consistent with this Agreement or from any "land use law" (as such term is defined in the aforementioned statute sections) permitted by this Agreement to be enacted, adopted or applied by the City now or hereafter. Owner acknowledges and agrees the terms and conditions set forth in this Agreement cause an increase in the fair market value of the Property.

[SIGNATURES ON FOLLOWING PAGES]

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first set forth above:

"City"

CITY OF SURPRISE,
an Arizona municipal corporation

By: _____
Joan Shafer, Mayor
Date: 12.5.07

ATTEST:

_____
Sherry Aguilar, City Clerk

APPROVED AS TO FORM

_____
Michael Bailey, City Attorney

STATE OF ARIZONA)
)ss.
County of Maricopa)

The foregoing instrument was acknowledged before me this 5th day of December, 2007, by JOAN SHAFER, the Mayor for the CITY OF SURPRISE, an Arizona municipal corporation.

_____
Notary Public

My Commission Expires:
Feb 7, 2008

OFFICIAL SEAL
LINDA B. STEVENS
NOTARY PUBLIC-STATE OF ARIZONA
MARICOPA COUNTY
My Comm. Expires February 7, 2008

673377.11

"Owner"

ELLIOTT HOMES, INC., an Arizona corporation

By: _____

Name: Jeffrey Klem

Title: Assistant Vice President

Date: 11/9/07

STATE OF ARIZONA)
)ss.
County of Maricopa)

The foregoing instrument was acknowledged before me this 9 day of November, 2007, by Jeff Klem, the V.P. Construction of ELLIOTT HOMES, INC., an Arizona corporation.

_____
Notary Public

My Commission Expires:
03/22/2010

Notary Public State of Arizona
Maricopa County
Tina Garcia
My Commission Expires
03/22/2010

673377.11

EXHIBIT A.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Property Legal Description]

See following pages.

EXHIBIT A.1
WRITTEN LEGAL DESCRIPTION FOR THE PROPERTY

BROADSTONE RANCH PROPERTY DESCRIPTION

PARCEL 1:

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING 40.10 ACRES MORE OR LESS

PARCEL 2

ALL OF SECTION 5, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

CONTAINING 639.75 ACRES MORE OR LESS

PARCEL 3

THE NORTHEAST QUARTER AND THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

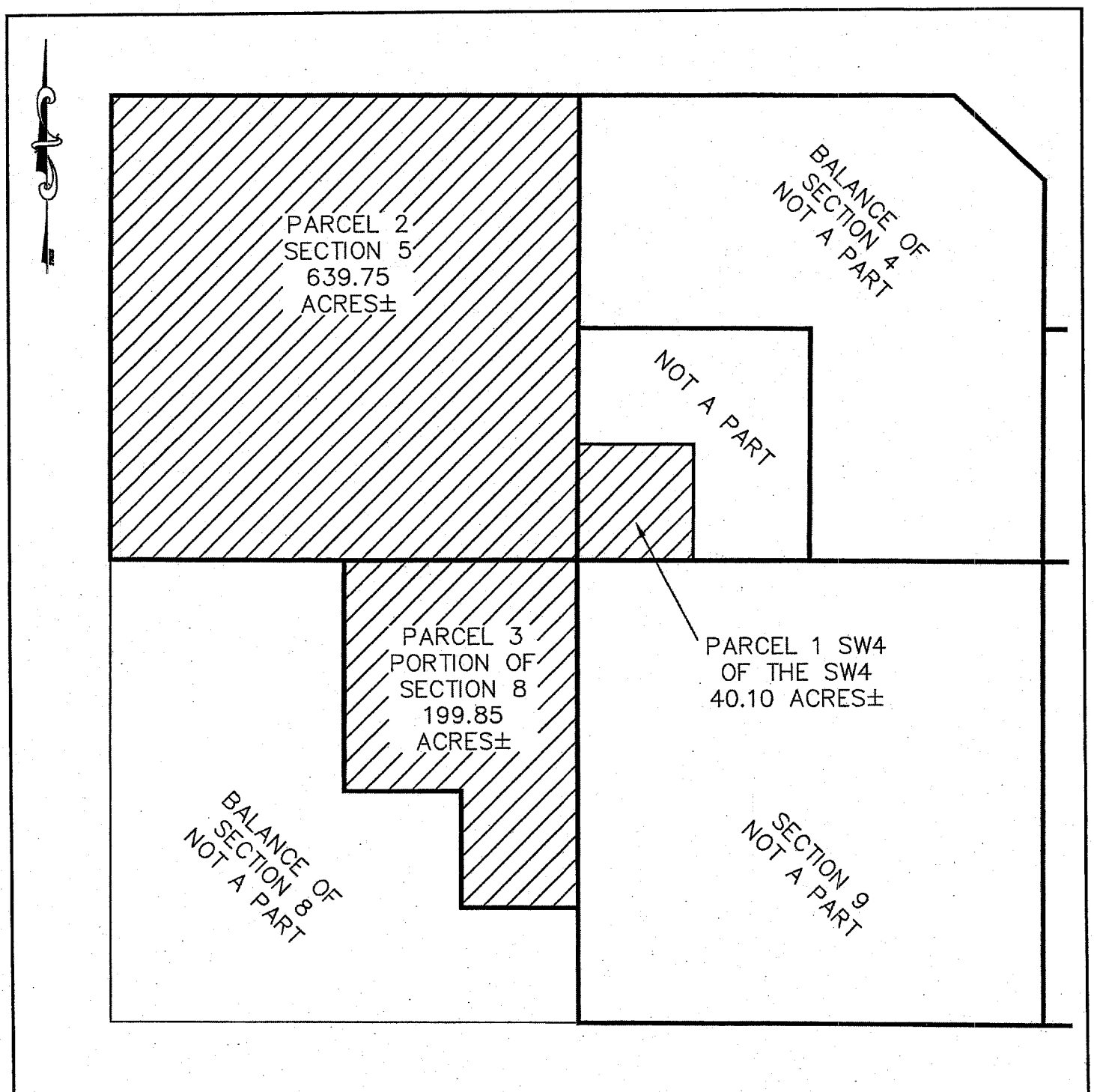
CONTAINING 199.85 ACRES MORE OR LESS

EXHIBIT A.1.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Property Map]

See following pages.

EXHIBIT A.1.1
MAP FOR THE PROPERTY



RST
Land Surveying Inc.
3720 N. ROBERT ROAD STE 2
PRESCOTT VALLEY, AZ. 86314
TEL (928) 775-9890 FAX (928) 775-9891

BROADSTONE RANCH
PROPERTY EXHIBIT
PART OF SECTION 4, 5, & 8,
TOWNSHIP 5 NORTH, RANGE 3 WEST,
G.&S.R.M., MARICOPA COUNTY,
ARIZONA

SCALE: NTS	DRAWN: T.A.L.
DATE: 11-05-07	JOB #: 07-1043

EXHIBIT B
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[DMP Land Use Map for all of Broadstone Ranch]

See following pages.

Exhibit B
To
Pre-Annexation and
Development Agreement
(Broadstone Ranch)

is not recordable due to
line through text
a copy of this exhibit is on file with:

City of Surprise
City Clerk's Office
12425 West Bell Road, Suite D-100
Surprise, AZ 85374

Parcel #	Land Use
A1	SLR
A2	SLR
A3	MDR
A4	EDU
A5	ROS
A6	SLR
A7	SLR
A8	SLR
A9	SLR
A10	SLR
A11	MDR
A12	MDR

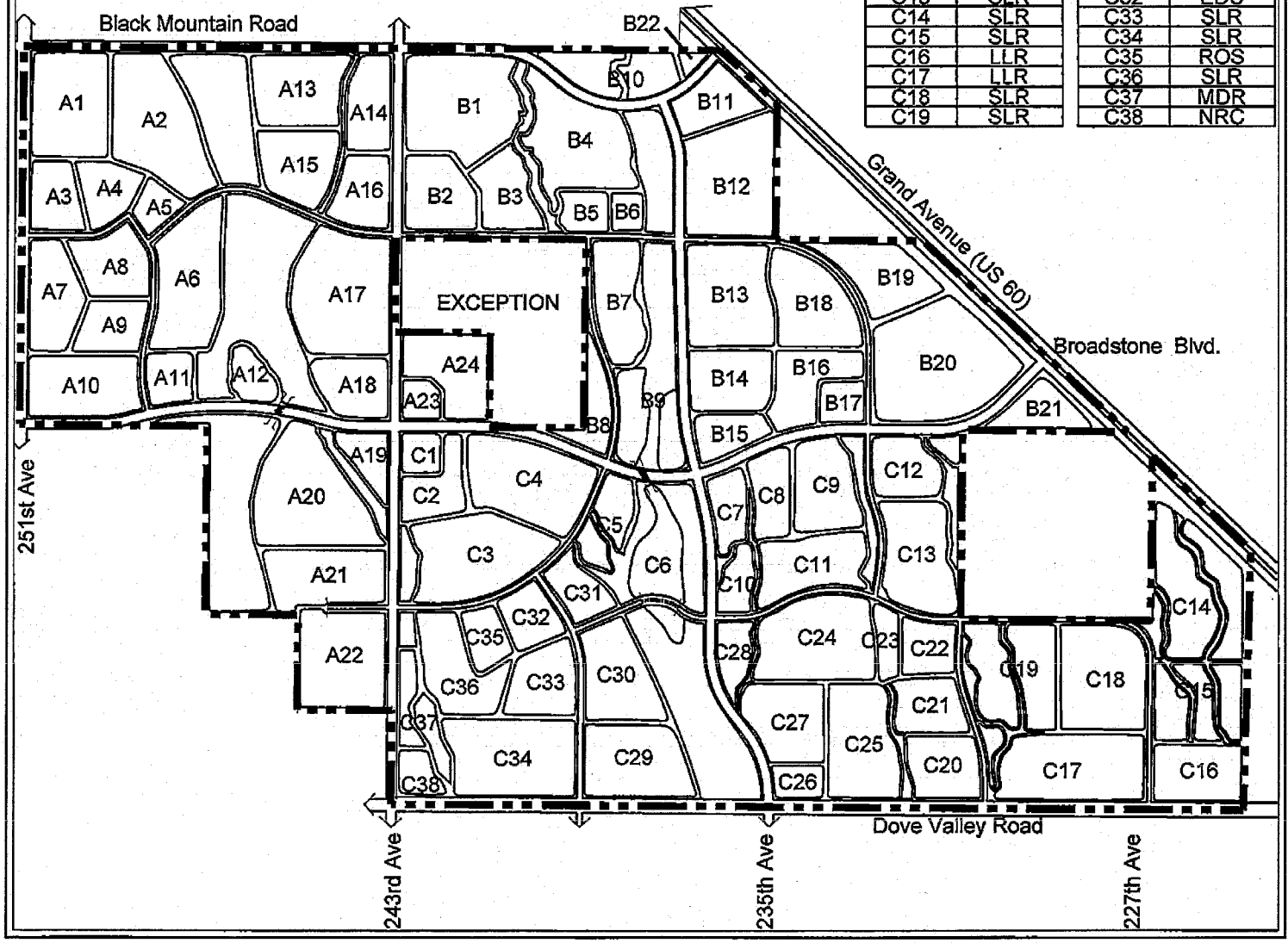
Parcel #	Land Use
A13	SLR
A14	MDR
A15	SLR
A16	MDR
A17	SLR
A18	NRC
A19	MDR
A20	SLR
A21	SLR
A22	SLR
A23	NRC
A24	SLR

Parcel #	Land Use
B1	SLR
B2	MDR
B3	SLR
B4	SLR
B5	EDU
B6	ROS
B7	MDR
B8	MDR
B9	ROS
B10	MDR
B11	OFFICE
B12	MDR

Parcel #	Land Use
B13	MDR
B14	MDR
B15	MDR
B16	MDR
B17	HDR
B18	MDR
B19	OFFICE
B20	RRC
B21	OFFICE
B22	CRC

Parcel #	Land Use
C1	NRC
C2	MDR
C3	SLR
C4	EDU/HS
C5	MDR
C6	ROS
C7	NRC
C8	MDR
C9	SLR
C10	MDR
C11	SLR
C12	HDR
C13	SLR
C14	SLR
C15	SLR
C16	LLR
C17	LLR
C18	SLR
C19	SLR

Parcel #	Land Use
C20	SLR
C21	MDR
C22	EDU
C23	ROS
C24	SLR
C25	SLR
C26	NRC
C27	SLR
C28	MDR
C29	SLR
C30	SLR
C31	MDR
C32	EDU
C33	SLR
C34	SLR
C35	ROS
C36	SLR
C37	MDR
C38	NRC



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

DMP LAND USE MAP
EXHIBIT B

Legend	Total AC.
LLR	87
SLR	1,584
MDR	580
HDR	40
EDU	59
EDU/HS	50
OE	85
NRC	112
CRC	4
RRC	81
ROS	136
Total	2,819

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

Parcel #	Land Use
A1	SLR
A2	SLR
A3	MDR
A4	EDU
A5	ROS
A6	SLR
A7	SLR
A8	SLR
A9	SLR
A10	SLR
A11	MDR
A12	MDR

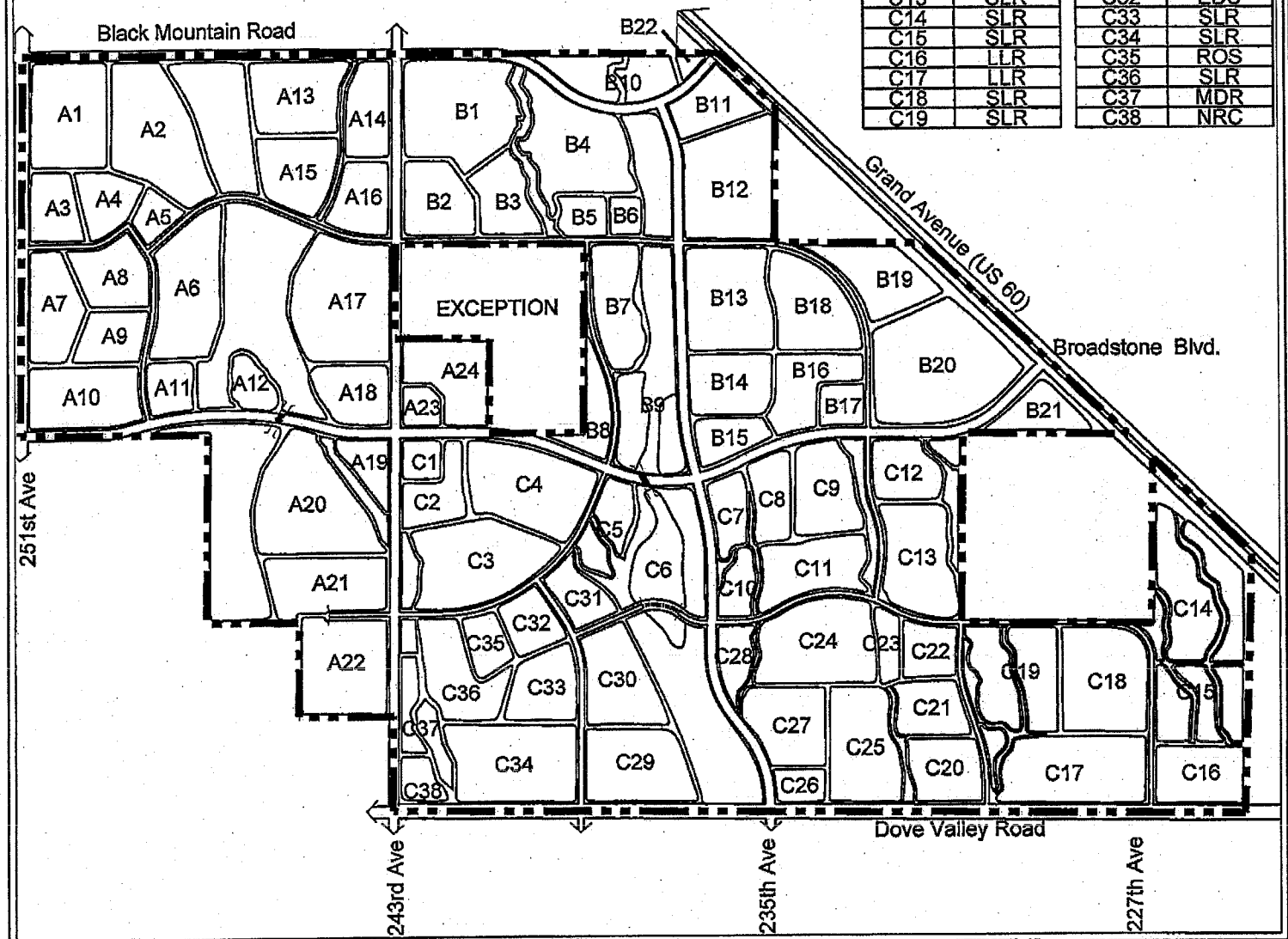
Parcel #	Land Use
A13	SLR
A14	MDR
A15	SLR
A16	MDR
A17	SLR
A18	NRC
A19	MDR
A20	SLR
A21	SLR
A22	SLR
A23	NRC
A24	SLR

Parcel #	Land Use
B1	SLR
B2	MDR
B3	SLR
B4	SLR
B5	EDU
B6	ROS
B7	MDR
B8	MDR
B9	ROS
B10	MDR
B11	OFFICE
B12	MDR

Parcel #	Land Use
B13	MDR
B14	MDR
B15	MDR
B16	MDR
B17	HDR
B18	MDR
B19	OFFICE
B20	RRC
B21	OFFICE
B22	CRC

Parcel #	Land Use
C1	NRC
C2	MDR
C3	SLR
C4	EDU/HS
C5	MDR
C6	ROS
C7	NRC
C8	MDR
C9	SLR
C10	MDR
C11	SLR
C12	HDR
C13	SLR
C14	SLR
C15	SLR
C16	LLR
C17	LLR
C18	SLR
C19	SLR

Parcel #	Land Use
C20	SLR
C21	MDR
C22	EDU
C23	ROS
C24	SLR
C25	SLR
C26	NRC
C27	SLR
C28	MDR
C29	SLR
C30	SLR
C31	MDR
C32	EDU
C33	SLR
C34	SLR
C35	ROS
C36	SLR
C37	MDR
C38	NRC



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

DMP LAND USE MAP
EXHIBIT B

Legend	Total AC.
LLR	87
SLR	1,584
MDR	580
HDR	40
EDU	59
EDU/HS	50
OE	85
NRC	112
CRC	4
RRC	81
ROS	136
Total	2,819

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

EXHIBIT C
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Infrastructure Plan]

See following pages.

EXHIBIT C
INFRASTRUCTURE PLANS

DUE TO THE SIZE, CONFIGURATION AND MAPPING AFFILIATED WITH THE CITY OF SURPRISE APPROVED MASTER WATER STUDY (MARCH 2007) AND APPROVED MASTER SEWER STUDY (MARCH 2007), EXHIBIT C WAS NOT RECORDED BUT IS REFERENCED HEREIN. A COPY OF EXHIBIT C IS ON FILE WITH:

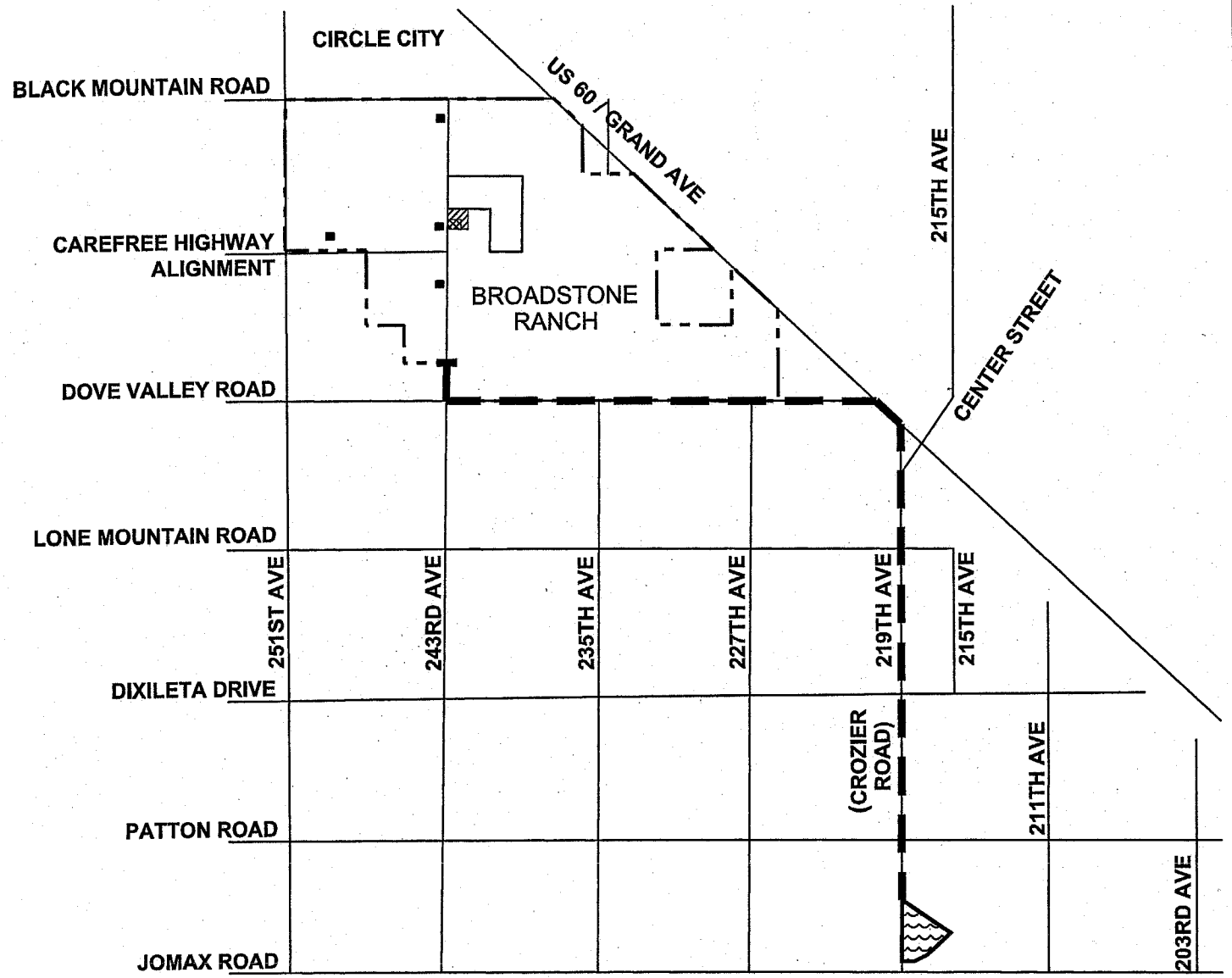
CITY OF SURPRISE
CITY CLERK'S OFFICE
12425 WEST BELL ROAD; SUITE D-100
SURPRISE, ARIZONA 85374

EXHIBIT D
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Infrastructure Improvement Sites]

See following pages.

INFRASTRUCTURE IMPROVEMENT SITES



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT D

LEGEND

- Interceptor Line
- Water Campus Site
- Fire Station Site
- Planned Well Sites
- Broadstone Ranch Project Boundary
- Wastewater Reclamation Facility

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

EXHIBIT D.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Water Campus Legal Description]

See following pages.

EXHIBIT D.1
WATER CAMPUS WRITTEN LEGAL DESCRIPTION

PROPERTY DESCRIPTION
BROADSTONE RANCH WATER CAMPUS

PARCEL 1

THE NORTH HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THE EAST 220 FEET AND THE SOUTH 387.50 FEET THEREOF

ALSO EXCEPTING AND RESERVING THE WEST 68 FEET THEREOF FOR INGRESS, EGRESS AND PUBLIC UTILITIES.

SAID PARCEL CONTAINS 2.76 GROSS ACRES+/- MORE OR LESS

PARCEL 2

THE EAST 220' OF THE NORTH HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPTING AND RESERVING SOUTH 27.50 FEET THEREOF FOR INGRESS, EGRESS AND PUBLIC UTILITIES.

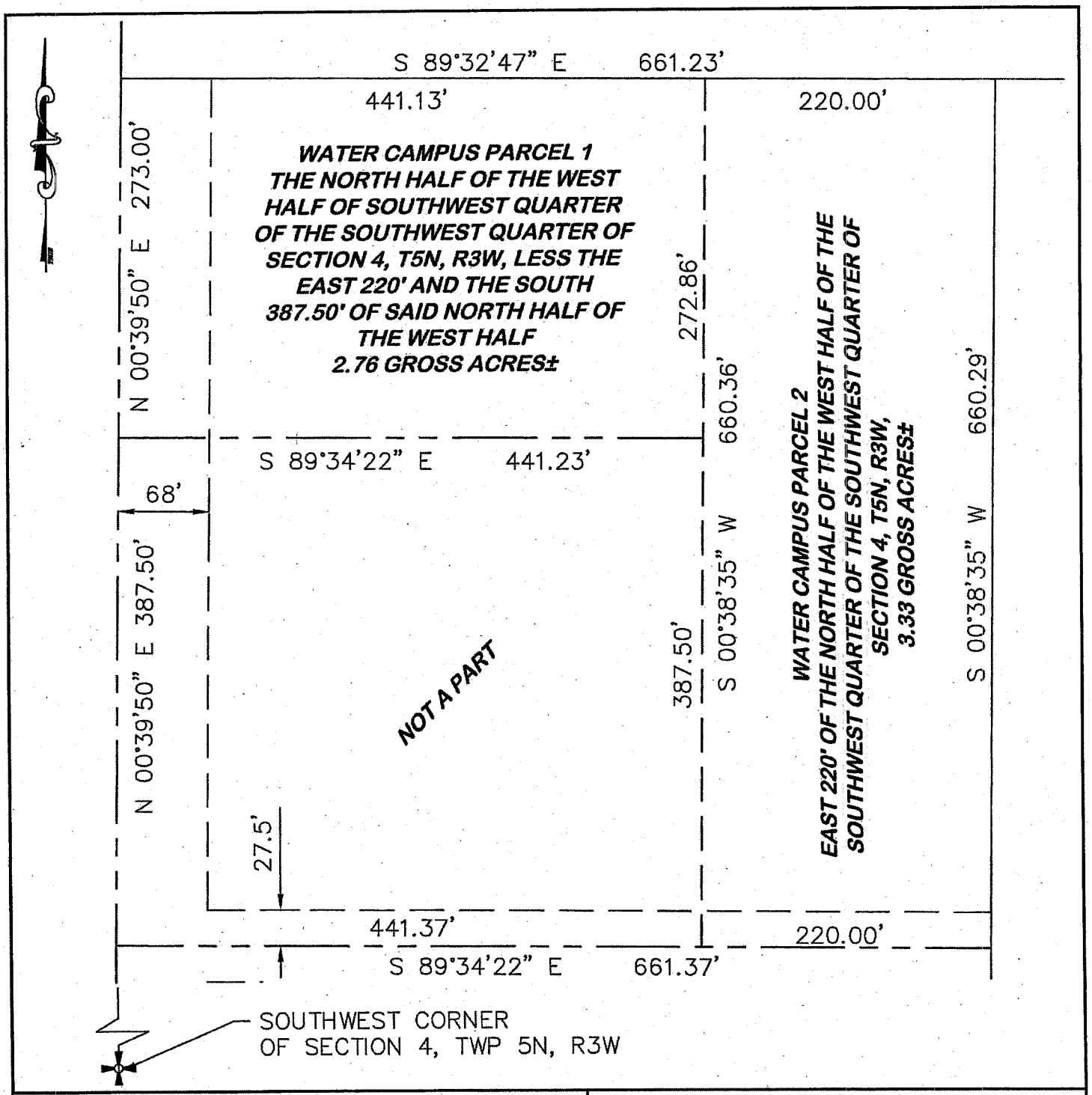
SAID PARCEL CONTAINS 3.33 GROSS ACRES+/- MORE OR LESS

EXHIBIT D.1.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Water Campus Map]

See following pages.

Exhibit D.1.1
Water Campus Map



RST Land Surveying Inc.
3720 N. ROBERT ROAD STE 2
PRESCOTT VALLEY, AZ. 86314
TEL (928) 775-9890 FAX (928) 775-9891

BROADSTONE RANCH
WATER CAMPUS PROPERTY EXHIBIT
PART OF SECTION 4 TOWNSHIP 5 NORTH, RANGE 3 WEST, G.&S.R.M., MARICOPA COUNTY, ARIZONA

SCALE: NTS	DRAWN: T.A.L.
DATE: 11-05-07	JOB #: 07-1043

EXHIBIT D.2
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[WRF Site Legal Description]

See following pages.

EXHIBIT D.2
WASTEWATER RECLAMATION FACILITY WRITTEN LEGAL DESCRIPTION
PAGE 1 OF 2

PROPERTY DESCRIPTION
SECTION 36 WASTE WATER RECLAMATION FACILITY

ALL THAT PORTION OF THE WEST HALF OF SECTION 36, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA LYING SOUTHWESTERLY OF THE 65 dB LUKE AIR FORCE BASE BOUNDARY AND NORTHWESTERLY OF THE CENTRAL ARIZONA PROJECT CANAL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 36 BEING A MARICOPA COUNTY BRASS CAP, THENCE ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 36, N.00°22'11"E., A DISTANCE OF 660.18 FEET TO THE TRUE POINT OF BEGINNING;

THENCE CONTINUE NORTHERLY ALONG SAID LINE, N.00°22'11"E., A DISTANCE OF 1,979.34 FEET TO THE WEST QUARTER CORNER OF SAID SECTION 36, MARKED BY A MARICOPA COUNTY BRASS CAP;

THENCE ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 36. N.00°29'10"E., A DISTANCE OF 212.75 FEET TO A POINT OF INTERSECTION OF SAID WEST LINE OF THE NORTHWEST QUARTER WITH THE APPROXIMATE LUKE 65DB BOUNDARY OF WHICH AN ACCURATE DESCRIPTION OF SURVEY DOES NOT EXIST;

THENCE ALONG SAID APPROXIMATE 65DB BOUNDARY, S.55°23'46"E., A DISTANCE OF 377.84 FEET TO A POINT OF INTERSECTION OF SAID BOUNDARY WITH THE EAST-WEST MID-SECTION LINE OF SAID SECTION 36;

THENCE CONTINUE SOUTHEASTERLY ALONG SAID LINE, S.55°23'46"E., A DISTANCE OF 1,727.08 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY OF THE CENTRAL ARIZONA PROJECT CANAL AS DETAILED IN STATE LAND LEASE #29-110010-00-000;

THENCE ALONG SAID CANAL RIGHT OF WAY, S.47°47'05"W., A DISTANCE OF 1,146.04 FEET;

EXHIBIT D.2
WASTEWATER RECLAMATION FACILITY WRITTEN LEGAL DESCRIPTION
PAGE 2 OF 2

THENCE CONTINUE ALONG SAID CANAL RIGHT OF WAY, S.63°31'40"W., A DISTANCE OF 515.11 FEET;

THENCE CONTINUE ALONG SAID CANAL RIGHT OF WAY, N.89°36'23"W., A DISTANCE OF 437.26 FEET TO THE TRUE POINT OF BEGINNING.

EXCEPTING THE WEST 40 FEET OF THE AFOREMENTIONED PARCEL AS AN EASEMENT FOR HIGHWAY PURPOSES AS DETAILED IN DOCUMENT #91-383042 OF OFFICIAL RECORDS, MARICOPA COUNTY.

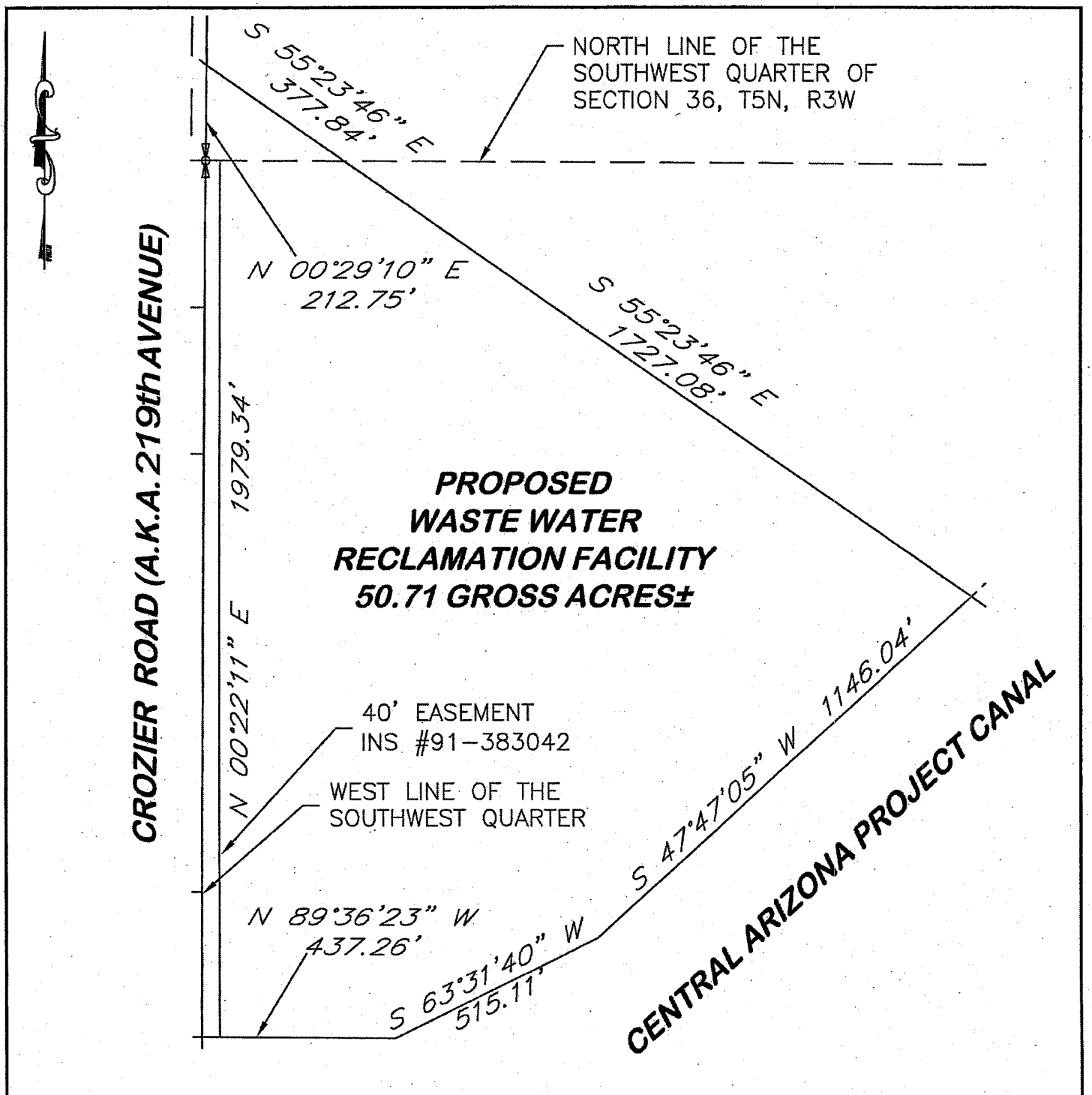
CONTAINING 2,208,659.34 GROSS SQUARE FEET OR 50.71 GROSS ACRES, MORE OR LESS.

EXHIBIT D.2.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[WRF Site Map]

See following pages.

EXHIBIT D.2.1
WASTEWATER RECLAMATION FACILITY MAP



RST Land Surveying Inc.
3720 N. ROBERT ROAD STE 2
PRESCOTT VALLEY, AZ. 86314
TEL (928) 775-9890 FAX (928) 775-9891

BROADSTONE RANCH
WASTE WATER RECLAMATION FACILITY
PROPERTY EXHIBIT
PART OF SECTION 36 TOWNSHIP 5
NORTH, RANGE 3 WEST, G.&S.R.M.,
MARICOPA COUNTY, ARIZONA

SCALE: NTS	DRAWN: T.A.L.
DATE: 11-05-07	JOB #: 07-1043

EXHIBIT D.3
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Permanent Fire Station Site Legal Description]

See following pages.

EXHIBIT D.3
FIRE STATION SITE WRITTEN LEGAL DESCRIPTION

PROPERTY DESCRIPTION
BROADSTONE RANCH FIRE STATION

THE SOUTH 387.50 FEET OF THE NORTH HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

EXCEPT THE EAST 220 FEET OF SAID NORTH HALF

ALSO EXCEPTING AND RESERVING THE WEST 68 FEET AND THE SOUTH 27.50 FEET THEREOF FOR INGRESS, EGRESS AND PUBLIC UTILITIES.

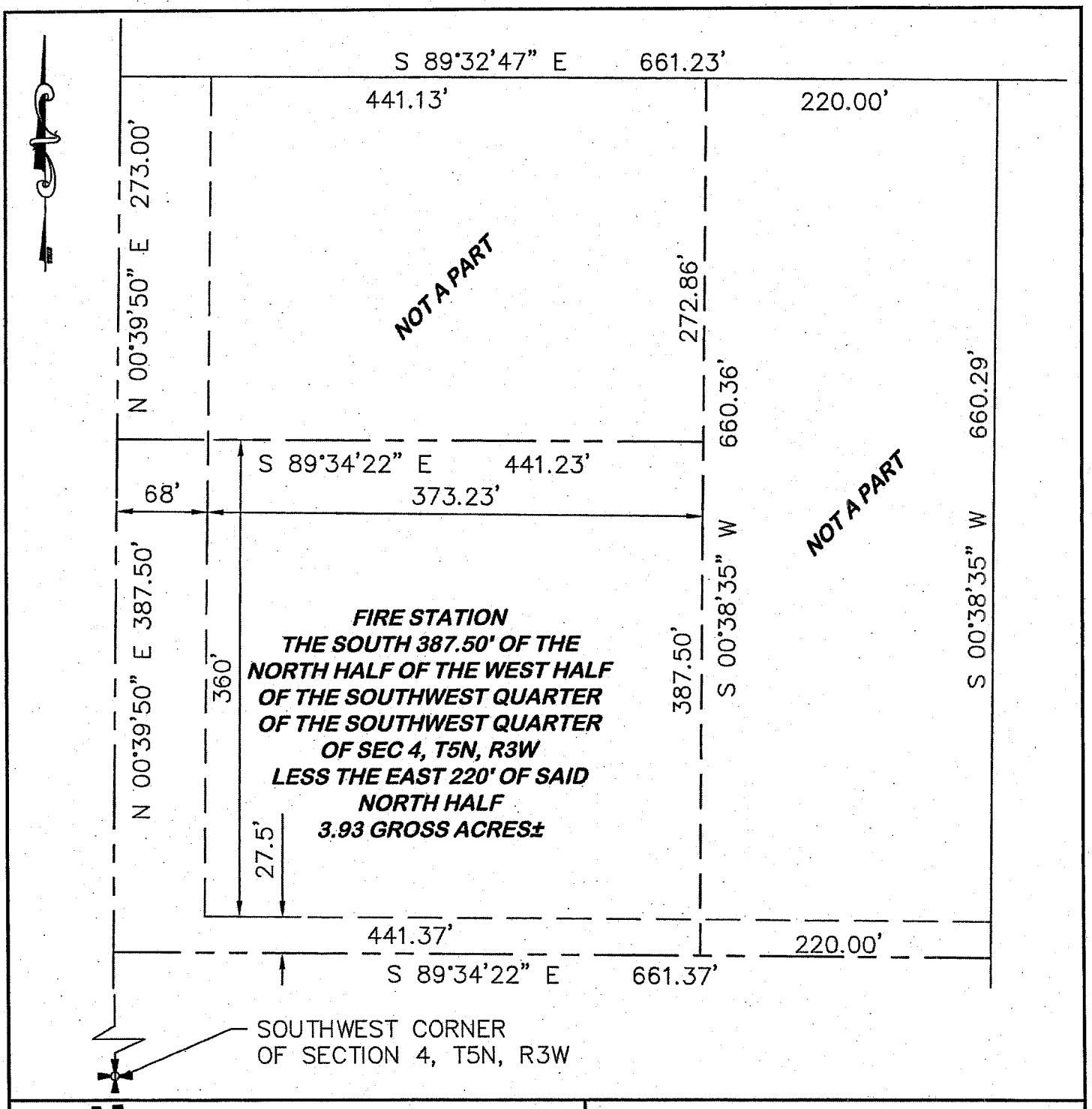
SAID PARCEL CONTAINS 3.93 GROSS ACRES+/- MORE OR LESS

EXHIBIT D.3.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Permanent Fire Station Site Map]

See following pages.

EXHIBIT D.3.1
FIRE STATION SITE MAP



RSLT Land Surveying Inc.
3720 N. ROBERT ROAD STE 2
PRESCOTT VALLEY, AZ. 86314
TEL (928) 775-9890 FAX (928) 775-9891

BROADSTONE RANCH
FIRE STATION PROPERTY EXHIBIT
PART OF SECTION 4 TOWNSHIP 5
NORTH, RANGE 3 WEST, G.&S.R.M.,
MARICOPA COUNTY, ARIZONA

SCALE: NTS	DRAWN: T.A.L.
DATE: 11-05-07	JOB #: 07-1043

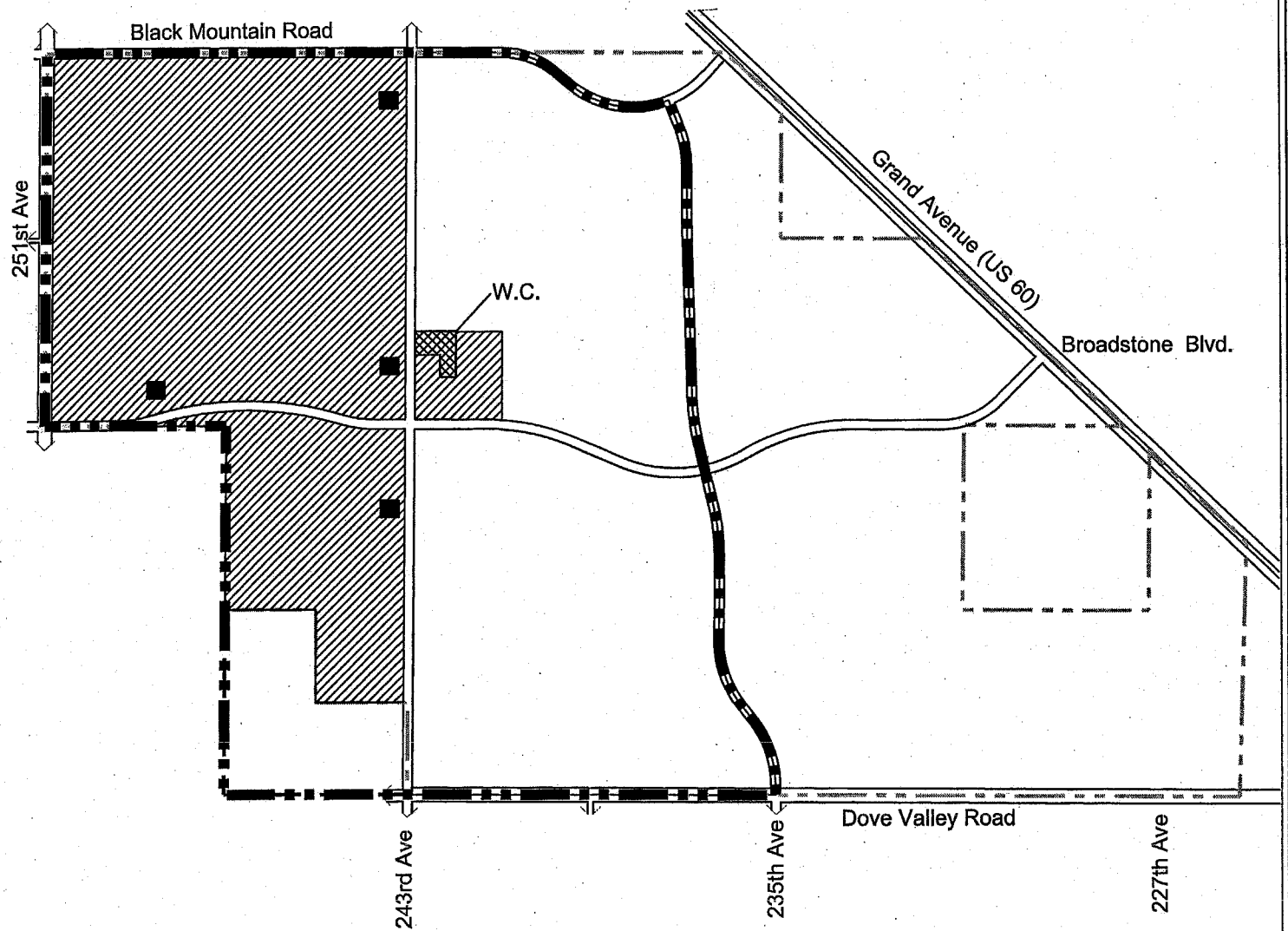
EXHIBIT E.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Benefited Area for Reimbursable Water Infrastructure]

See following pages.

BENEFIT AREA FOR REIMBURSEMENT OF WATER INFRASTRUCTURE

Facilities
Storage: 2.4 Million Gallons
Planned Wells: 4
Oversized Water Lines: 25,448 Lineal Feet
Land 6.1 Acres



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E-1

LEGEND

- Permanent Water Campus Site
- Planned Well Sites
- Development Agreement Area 880 Acres (44.8% of Benefit Area)
- Water Service Benefit Area (1,963 Acres)

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

EXHIBIT E.2
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Benefited Area for Reimbursable Wastewater Infrastructure: SPA 5 WRF Site]

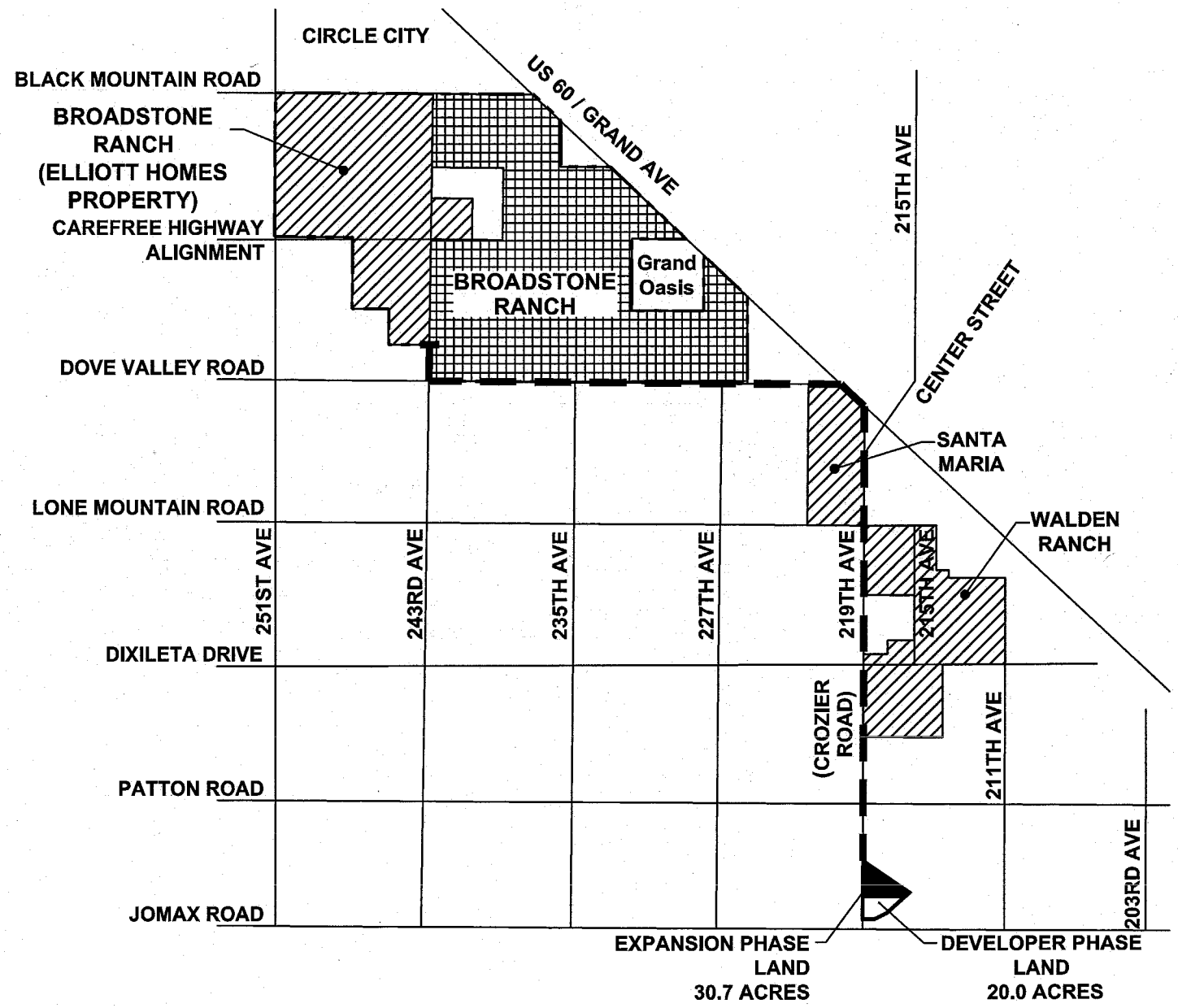
See following pages.

Exhibit E-2
To
Pre-Annexation and
Development Agreement
(Broadstone Ranch)

is not recordable due to
line through text
a copy of this exhibit is on file with:

City of Surprise
City Clerk's Office
12425 West Bell Road, Suite D-100
Surprise, AZ 85374

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
SPA 5 WASTEWATER RECLAMATION SITE



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E.2

LEGEND

- Interceptor Line
- Broadstone Ranch Project Boundary
- Developer Phase Responsibility (1,590 Ac.)
- Expansion Phase Reimbursement Area (1,939 Ac.)
- SPA 5 Wastewater Reclamation Facility

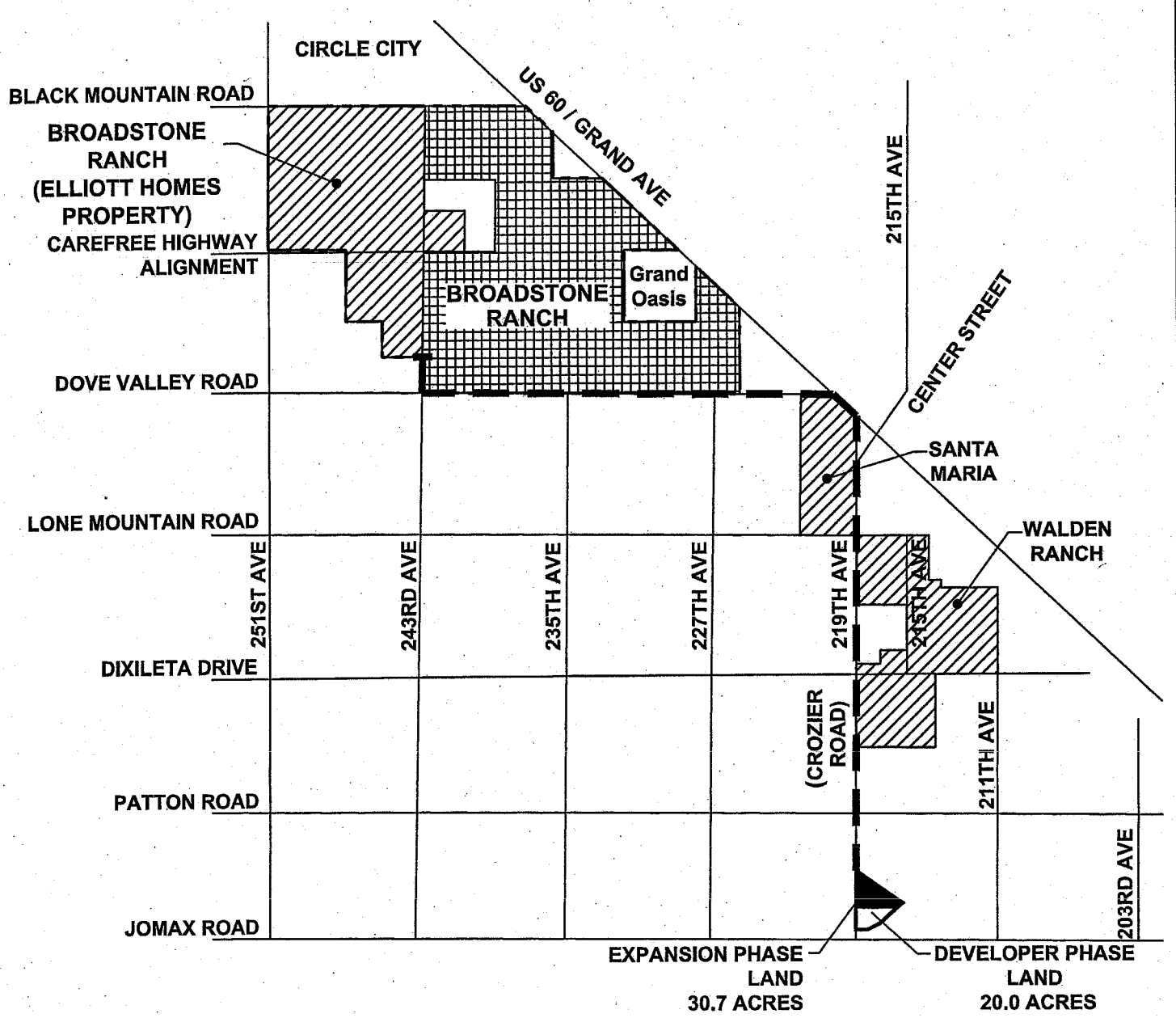
Benefit Area: 3,529 Ac.

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
SPA 5 WASTEWATER RECLAMATION SITE



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E.2

LEGEND

- Interceptor Line
- Broadstone Ranch Project Boundary
- Developer Phase Responsibility (1,590 Ac.)
- Expansion Phase Reimbursement Area (1,939 Ac.)
- SPA 5 Wastewater Reclamation Facility

Benefit Area: 3,529 Ac.

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

EXHIBIT E.3
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Benefited Area for Reimbursable Wastewater Infrastructure: Interceptor Line]

See following pages.

Exhibit E-3
To
Pre-Annexation and
Development Agreement
(Broadstone Ranch)

is not recordable due to
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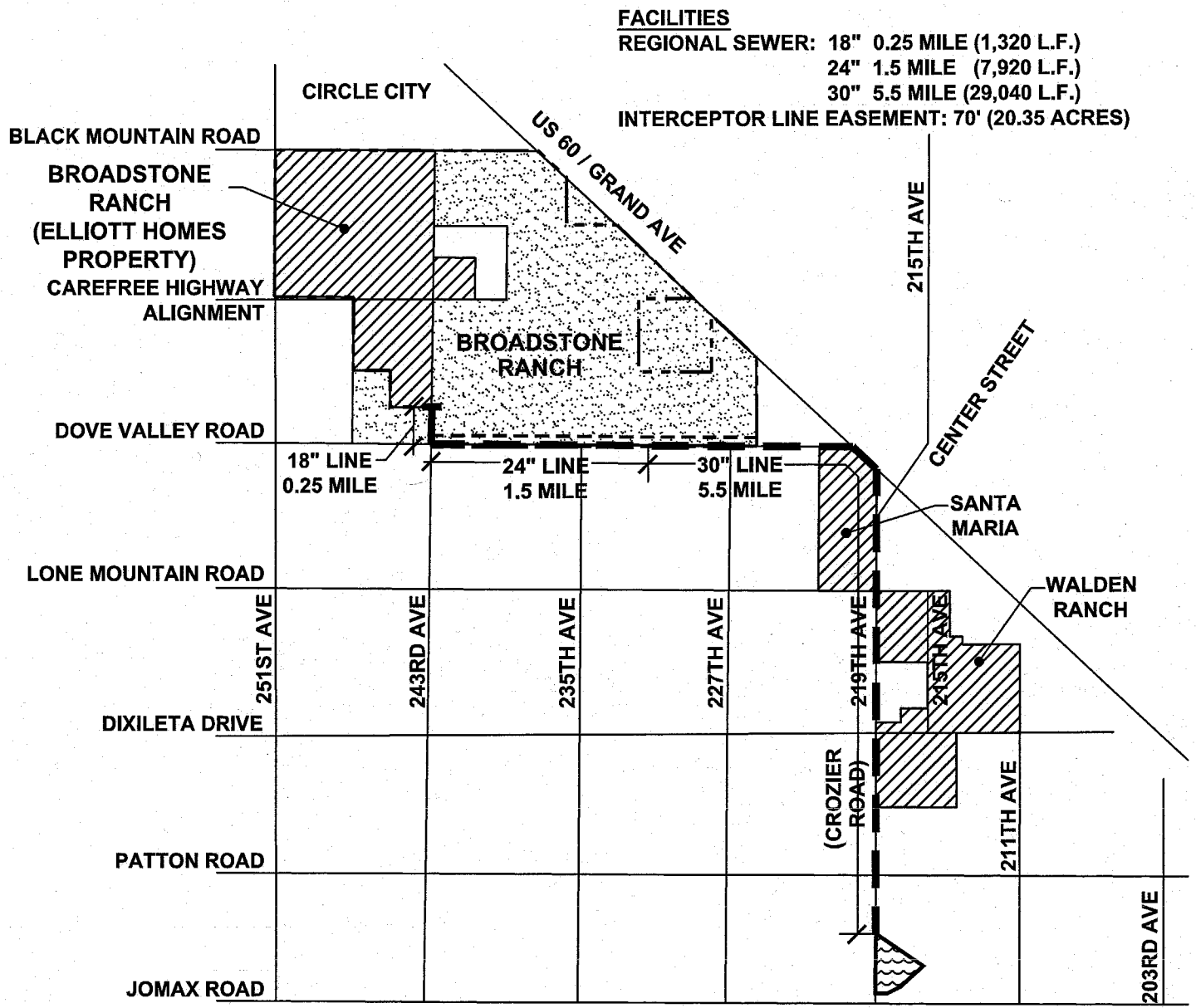
a copy of this exhibit is on file with:

City of Surprise
City Clerk's Office
12425 West Bell Road, Suite D-100
Surprise, AZ 85374

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
REGIONAL INTERCEPTOR LINE



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E.3

LEGEND

- Interceptor Line
- Broadstone Ranch Project Boundary
- Sewer Easement
- Developer Phase Participants (1,590 Ac.)
- Reimbursement Area (2,260 Ac.)
- SPA 5 Wastewater Reclamation Facility

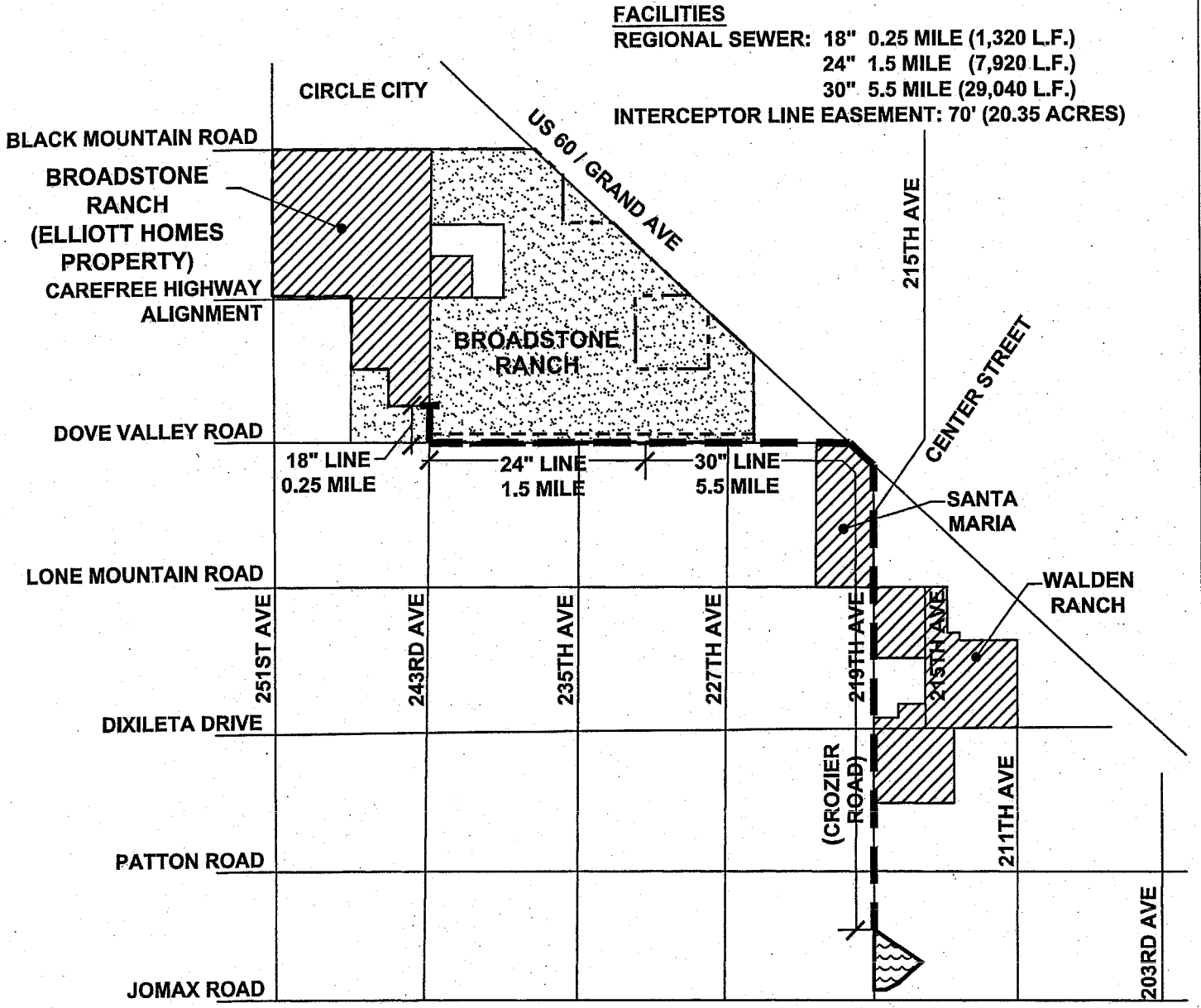
Benefit Area: 3,850 Ac.

Date: 09.20.07
Job No.: 0496
Drawn by: PR

NORTH

LVA urban design studio

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
REGIONAL INTERCEPTOR LINE



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E.3

LEGEND

- Interceptor Line
- Broadstone Ranch Project Boundary
- Sewer Easement
- Developer Phase Participants (1,590 Ac.)
- Reimbursement Area (2,260 Ac.)
- SPA 5 Wastewater Reclamation Facility

Benefit Area: 3,850 Ac.

Date: 09.20.07
Job No.: 0496
Drawn by: PR

NORTH

LVA urban design studio

EXHIBIT E.3.1
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Interceptor Line Easement Legal Description]

See following pages.

EXHIBIT E.3.1
INTERCEPTOR LINE EASEMENT WRITTEN LEGAL DESCRIPTION (PARCEL 1)

EASEMENT DESCRIPTION

PARCEL 1

ALL THAT PORTION OF SECTION 9, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SECTION 9, BEING A U.S.G.L.O. BRASS CAP DATED 1916, SAID POINT BEING THE TRUE POINT OF BEGINNING;

THENCE ALONG THE WEST LINE OF SAID SECTION 9, N.00°21'19"E., A DISTANCE OF 1,389.84 FEET;

THENCE LEAVING SAID WEST LINE, EAST, A DISTANCE OF 70.00 FEET;

THENCE S.00°21'19"W., A DISTANCE OF 1,320.34 FEET;

THENCE S.89°35'32"E., A DISTANCE OF 2,576.44 FEET;

THENCE S.89°26'12"E., A DISTANCE OF 2,646.56 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 9;

THENCE ALONG SAID EAST LINE, S.00°33'48"W., A DISTANCE OF 70.00 FEET TO THE SOUTHEAST CORNER OF SECTION 9, BEING A U.S.G.L.O. BRASS CAP DATED 1916;

THENCE ALONG THE SOUTH LINE OF SECTION 9, N.89°26'12"W., A DISTANCE OF 2,646.29 FEET TO THE SOUTH ¼ CORNER OF SECTION 9, BEING A U.S.G.L.O. BRASS CAP DATED 1916;

THENCE CONTINUE ALONG THE SOUTH LINE OF SECTION 9, N.89°35'32"W., A DISTANCE OF 2,646.46 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 462,906.86 SQUARE FEET OR 10.63 ACRES, MORE OR LESS.

EXHIBIT E.3.1
INTERCEPTOR LINE EASEMENT WRITTEN LEGAL DESCRIPTION
(PARCEL 2)

EASEMENT DESCRIPTION

PARCEL 2

ALL THAT PORTION OF SECTION 10, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING THE SOUTHEAST CORNER OF SECTION 10, BEING A U.S.G.L.O. BRASS CAP DATED 1916, SAID POINT BEING THE TRUE POINT OF BEGINNING;

THENCE ALONG THE SOUTH LINE OF SAID SECTION 10, N.89°38'16"W., A DISTANCE OF 2,647.24 FEET TO THE SOUTH ¼ CORNER OF SECTION 10, BEING A U.S.G.L.O. BRASS CAP DATED 1916;

THENCE CONTINUE ALONG SAID SOUTH LINE, N.89°36'30"W., A DISTANCE OF 2,647.35 FEET TO THE SOUTHWEST CORNER OF SECTION 10, BEING A U.S.G.L.O. BRASS CAP DATED 1916;

THENCE ALONG THE WEST LINE OF SECTION 10, N.00°33'48"E., A DISTANCE OF 70.00 FEET;

THENCE LEAVING SAID WEST LINE, S.89°36'30"E., A DISTANCE OF 2,646.85 FEET;

THENCE S.89°38'16"E., A DISTANCE OF 2,647.48 FEET TO A POINT ON THE EAST LINE OF SECTION 10;

THENCE ALONG THE EAST LINE OF SECTION 10, S.00°21'01"W., A DISTANCE OF 70.00 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 370,610.92 SQUARE FEET OR 8.51 ACRES, MORE OR LESS.

EXHIBIT E.3.1
INTERCEPTOR LINE EASEMENT WRITTEN LEGAL DESCRIPTION
(PARCEL 3)

EASEMENT DESCRIPTION
40' WIDE PUBLIC UTILITIES EASEMENT

PARCEL 3

AN EASEMENT FOR THE PURPOSE OF INSTALLATION AND MAINTENANCE OF PUBLIC UTILITIES RUNNING THROUGH SECTION 11, TOWNSHIP 5 NORTH, RANGE 3 WEST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTH 40 FEET OF THE WEST HALF OF THE SOUTHWEST QUARTER OF SECTION 11, TOWNSHIP 5 NORTH, RANGE 3 WEST

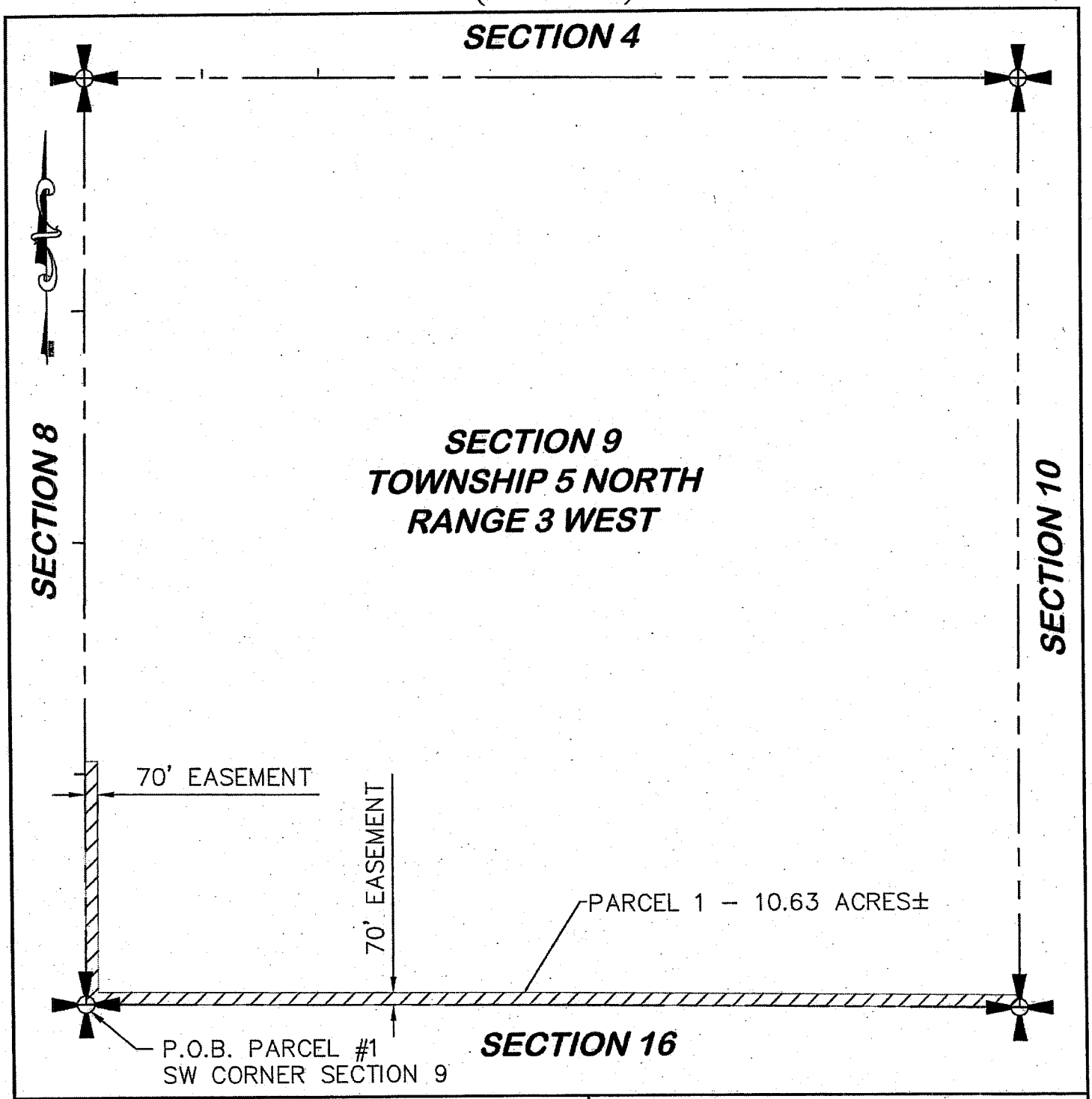
CONTAINING 52,707.60 SQUARE FEET OR 1.21 ACRES, MORE OR LESS.

EXHIBIT E.3.2
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Interceptor Line Easement Map]

See following pages.

EXHIBIT E.3.2
INTERCEPTOR LINE EASEMENT MAP
(PARCEL 1)

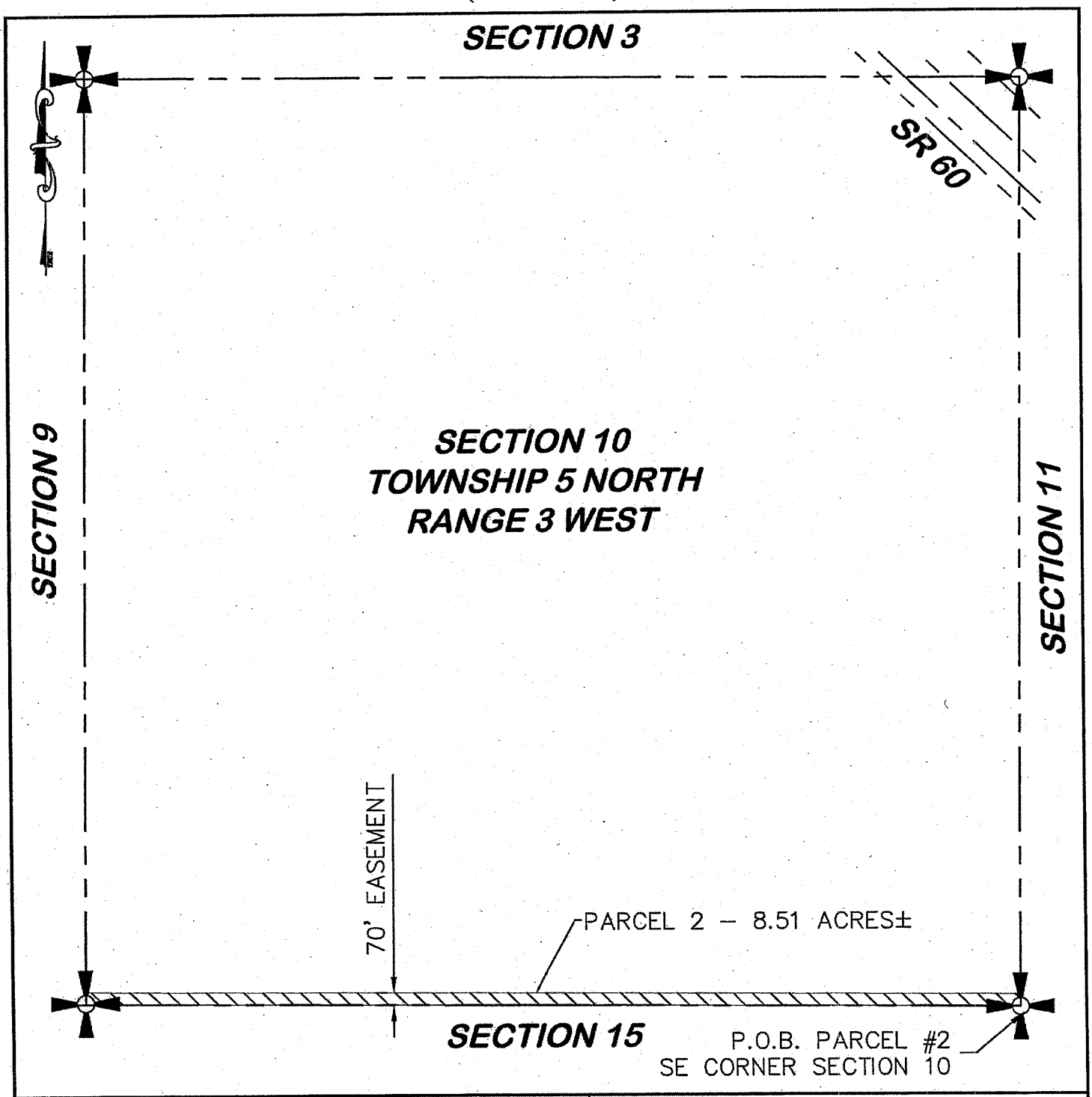


RST
Land Surveying Inc.
3720 N. ROBERT ROAD STE 2
PRESCOTT VALLEY, AZ. 86314
TEL (928) 775-9890 FAX (928) 775-9891

BROADSTONE RANCH
RIGHT OF WAY EXHIBIT
SECTION 9, TOWNSHIP 5 NORTH,
RANGE 3 WEST, G.&S.R.M.,
MARICOPA COUNTY, ARIZONA

SCALE: NTS	DRAWN: T.A.L.
DATE: 11-05-07	JOB #: 07-1043

EXHIBIT E.3.2
INTERCEPTOR LINE EASEMENT MAP
(PARCEL 2)

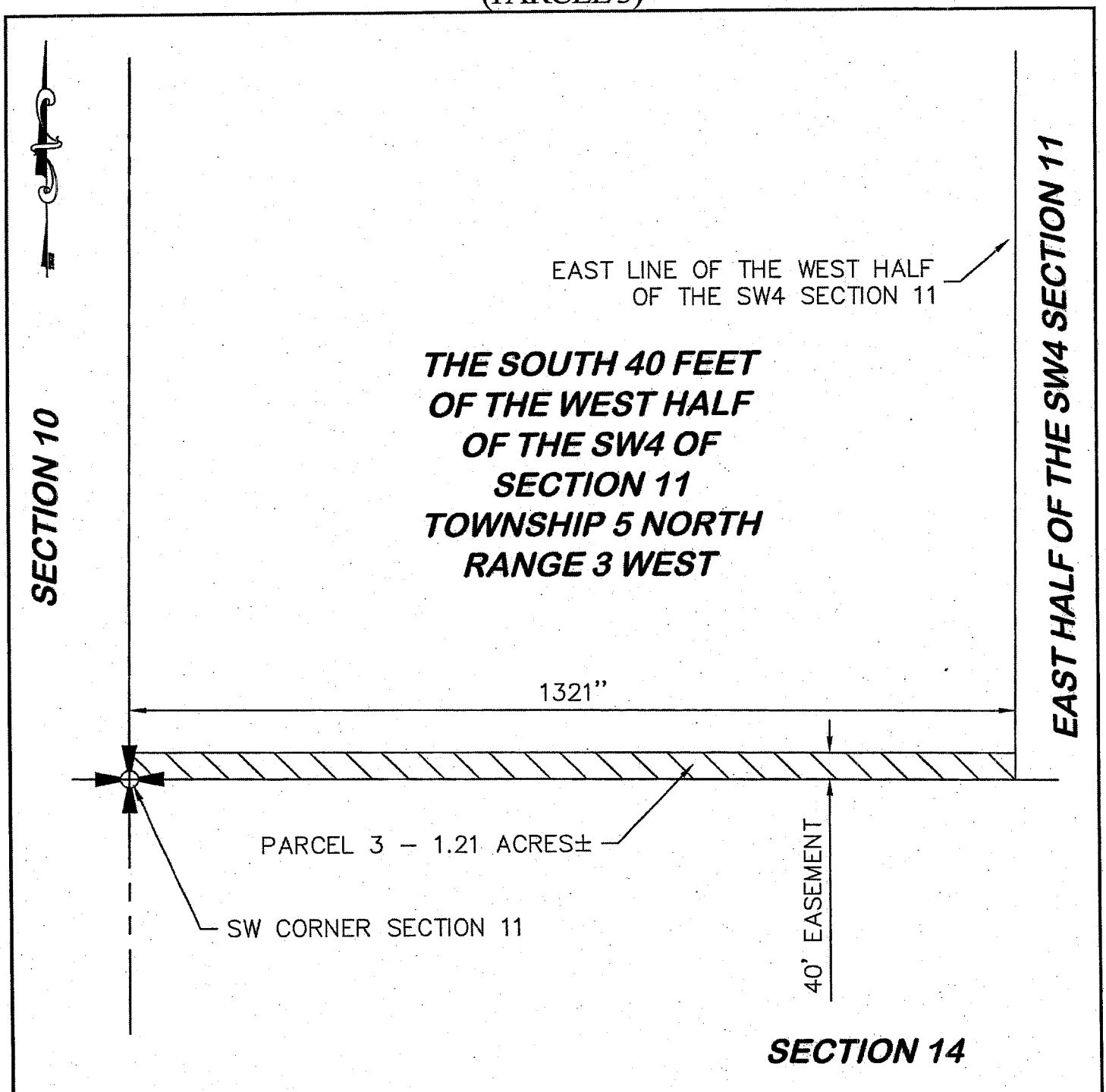


RST Land Surveying Inc.
3720 N. ROBERT ROAD STE 2
PRESCOTT VALLEY, AZ. 86314
TEL (928) 775-9890 FAX (928) 775-9891

BROADSTONE RANCH
RIGHT OF WAY EXHIBIT
SECTION 10, TOWNSHIP 5 NORTH,
RANGE 3 WEST, G.&S.R.M.,
MARICOPA COUNTY, ARIZONA

SCALE: NTS	DRAWN: T.A.L.
DATE: 11-05-07	JOB #: 07-1043

EXHIBIT E.3.2
INTERCEPTOR LINE EASEMENT MAP
(PARCEL 3)



RST
Land Surveying Inc.
3720 N. ROBERT ROAD STE 2
PRESCOTT VALLEY, AZ. 86314
TEL (928) 775-9890 FAX (928) 775-9891

BROADSTONE RANCH
RIGHT OF WAY EXHIBIT
SECTION 11, TOWNSHIP 5 NORTH,
RANGE 3 WEST, G.&S.R.M.,
MARICOPA COUNTY, ARIZONA

SCALE: NTS	DRAWN: T.A.L.
DATE: 11-05-07	JOB #: 07-1043

EXHIBIT E.4
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Benefited Area for Reimbursable Wastewater Infrastructure: SPA 5 WRF Improvements]

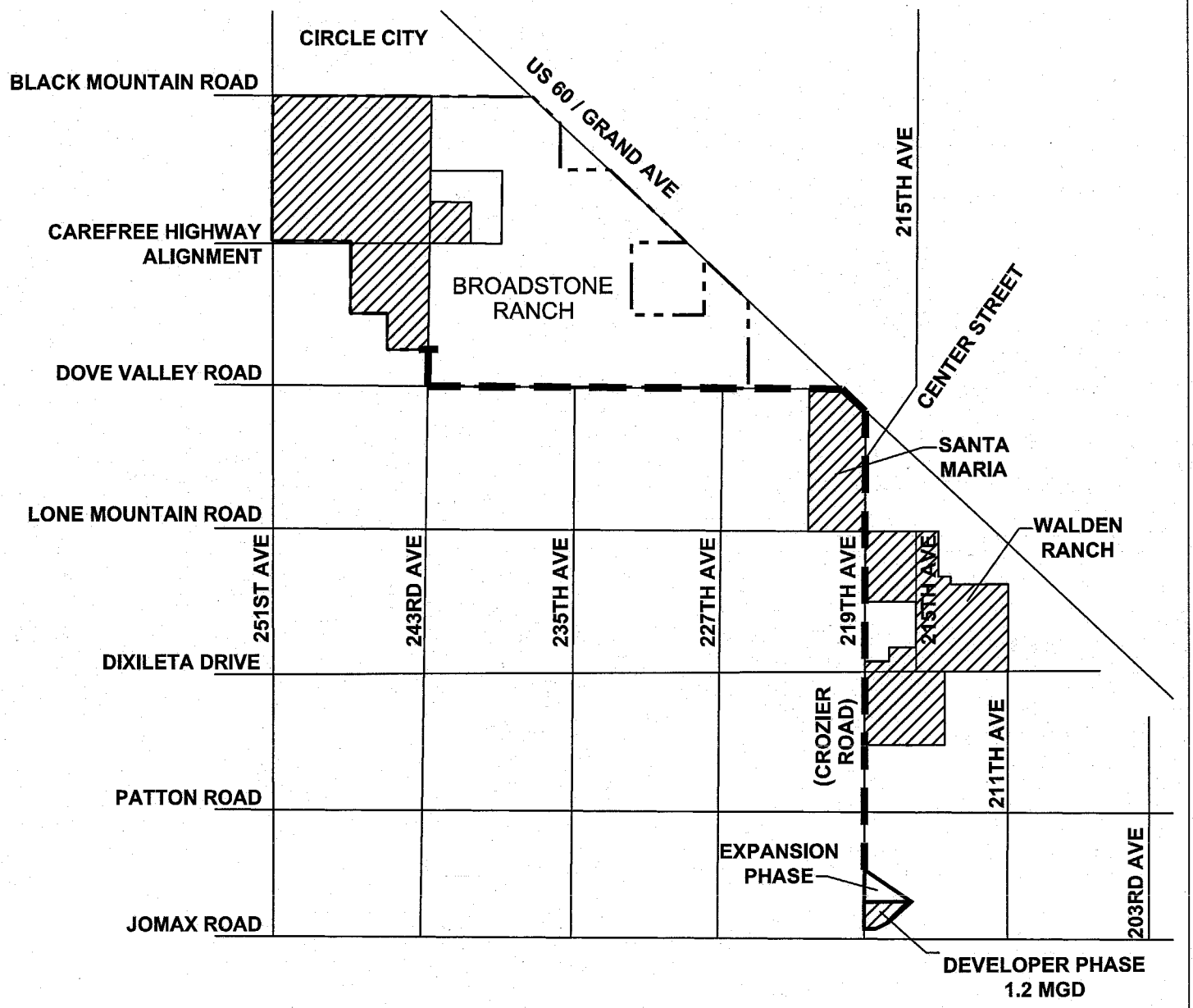
See following pages.

Exhibit E-4
To
Pre-Annexation and
Development Agreement
(Broadstone Ranch)

is not recordable due to
line through text
a copy of this exhibit is on file with:

City of Surprise
City Clerk's Office
12425 West Bell Road, Suite D-100
Surprise, AZ 85374

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
SPA 5 WASTEWATER RECLAMATION FACILITY IMPROVEMENTS



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E.4

LEGEND

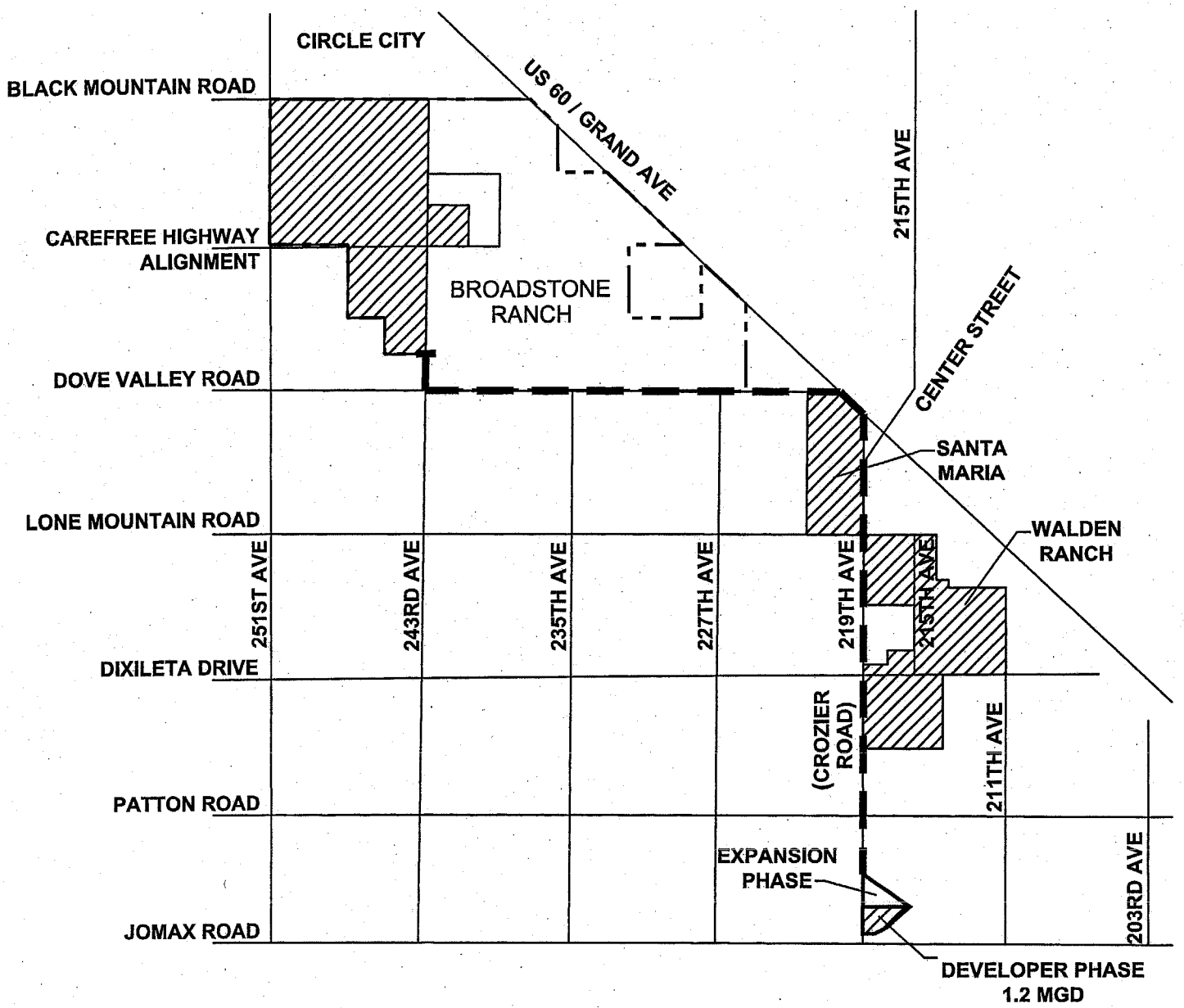
- Interceptor Line
- Broadstone Ranch Project Boundary
- Developer Phase (1,590 AC)

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
SPA 5 WASTEWATER RECLAMATION FACILITY IMPROVEMENTS



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E.4

LEGEND

- Interceptor Line
- Broadstone Ranch Project Boundary
- Developer Phase (1,590 AC)

NORTH

Date: 09.20.07
Job No.: 0496
Drawn by: PR

LVA urban design studio

EXHIBIT F
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Flowage Easement]

See following pages.

WHEN RECORDED, RETURN TO:
City Clerk
City of Surprise
12425 West Bell Road, Suite D-100
Surprise, AZ 85374

FLOWAGE EASEMENT

Grantor: _____

Grantee: CITY OF SURPRISE, an Arizona municipal corporation

Easement Area: As described on Exhibit 1 and depicted on Exhibit 2, attached hereto.

Well: As described on Exhibit 3 and depicted on Exhibit 2, attached hereto.

In consideration of the sum of Ten and No/100ths Dollars ($10.00) and other good and valuable consideration paid to Grantor by the Grantee, the receipt of which is hereby acknowledged, Grantor has granted, bargained, sold, and conveyed and does hereby grant, bargain, sell and convey unto Grantee, its successors and assigns a permanent and perpetual flowage easement, giving Grantee all rights of flowage caused by the operation and maintenance of Grantee's Well, over and across the Easement Area. Grantor will not allow any impediments to Grantee's use of this easement. Grantee shall be permitted to remove anything interfering with or impeding this easement or any ingress or egress of this easement

EXECUTED as of the latest date set forth below.

[SIGNATURES ON FOLLOWING PAGE]

GRANTOR:

_____
_____

By:_____

Name:_____

Title:_____

Date:_____

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

Subscribed and sworn to before me on _____, 200__, by ___ _____, the _____ of _____, an Arizona _____, on behalf of such _____.

_____
Notary Public

My commission expires:

_____

783426.1

EXHIBIT 1
TO
FLOWAGE EASEMENT
TO
BROADSTONE RANCH PRE-ANNEXATION DEVELOPMENT AGREEMENT

[Legal Description of the Easement Area]

See following pages.

EXHIBIT 2
TO
FLOWAGE EASEMENT
TO
BROADSTONE RANCH PRE-ANNEXATION DEVELOPMENT AGREEMENT

[Map of the Easement Area and Well]

See following pages.

EXHIBIT 3
TO
FLOWAGE EASEMENT
TO
BROADSTONE RANCH PRE-ANNEXATION DEVELOPMENT AGREEMENT

[Legal Description of the Well]

See following pages.

EXHIBIT G
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Buy-in Addendum]

See following pages.

Addendum form for reimbursement

ADDENDUM NO. ____

This Addendum No.___ dated _____, 200_, ("Addendum") is made and entered into by and between the City and Owner with respect to the Agreement, and, when countersigned below by the City Manager or designee on behalf of the City, it shall become an addendum to the Agreement for all purposes, and shall thereafter be construed to be integrated into such document.

By its signature set forth below, Owner hereby represents and warrants to City that since its last submittal of an Addendum to the City to be incorporated into the Agreement, Owner has incurred and paid the costs, charges and expenses itemized below for the development of reimbursable infrastructure in accordance with the terms of the Agreement and that it is entitled to reimbursement with respect to same as contemplated by and agreed to in the Agreement:

_____ $_____

_____ $_____

_____ $_____

_____ $_____

Subtotal $_____

Copies of paid bills or invoices, cancelled checks, or other written evidence reasonably evidencing these sums are attached to the copy of this Addendum being delivered to City and incorporated therein. When added to the costs, charges, fees and other expenses previously submitted to and approved by the City Manager or designee, this amount brings the total submitted by Owner to the City for reimbursement to $_____.

By its signature below, Owner hereby represents and warrants to City that all costs, fees, charges and expenses set forth above have been paid in full by Owner incident to the development of reimbursable infrastructure as contemplated by the Agreement, that no such amounts or sums are duplicative of amounts previously reported and submitted on prior Addenda, and that Owner in good faith believes that all such costs, fees, charges and expenses are eligible for reimbursement under the Agreement.

Unless otherwise separately defined in this Addendum, all capitalized terms contained herein shall be given the meaning set forth for such terms in the Agreement. All of the terms, provisions and conditions of the Agreement which are not expressly modified, amended or clarified by this Addendum (or which, in context, must be deemed modified, amended or clarified hereby) shall remain in full force and effect.

[SIGNATURES ON FOLLOWING PAGE]

OWNER:

_____

By:_____
Name:_____
Title:_____
Date:_____

The undersigned hereby acknowledges the information set forth above and has accepted such costs for which Owner is entitled to receive reimbursement pursuant to the Agreement, and by its signature set forth below, authorizes that this Addendum No._____ be attached to and hereafter be deemed a part of the Agreement for all purposes set forth therein.

CITY:
CITY OF SURPRISE, an Arizona municipal corporation

By:_____

Name:_____

Title:_____

Date:_____

EXHIBIT H
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Moratorium Law]

See following pages.

Moratorium Law - A.R.S. § 9-463.06

9-463.06. Standards for enactment of moratorium; land development; limitations; definitions

A. A city or town shall not adopt a moratorium on construction or land development unless it first:

1. Provides notice to the public published once in a newspaper of general circulation in the community at least thirty days before a final public hearing to be held to consider the adoption of the moratorium.

2. Makes written findings justifying the need for the moratorium in the manner provided for in this section.

3. Holds a public hearing on the adoption of the moratorium and the findings that support the moratorium.

B. For urban or urbanizable land, a moratorium may be justified by demonstration of a need to prevent a shortage of essential public facilities that would otherwise occur during the effective period of the moratorium. This demonstration shall be based on reasonably available information and shall include at least the following findings:

1. A showing of the extent of need beyond the estimated capacity of existing essential public facilities expected to result from new land development, including identification of any essential public facilities currently operating beyond capacity and the portion of this capacity already committed to development, or in the case of water resources, a showing that, in an active management area, an assured water supply cannot be provided or, outside an active management area, a sufficient water supply cannot be provided, to the new land development, including identification of current water resources and the portion already committed to development.

2. That the moratorium is reasonably limited to those areas of the city or town where a shortage of essential public facilities would otherwise occur and on property that has not received development approvals based upon the sufficiency of existing essential public facilities.

3. That the housing and economic development needs of the area affected have been accommodated as much as possible in any program for allocating any remaining essential public facility capacity.

C. A moratorium not based on a shortage of essential public facilities under subsection B of this section may be justified only by a demonstration of compelling need for other public facilities, including police and fire facilities. This demonstration shall be based on reasonably available information and shall include at least the following findings:

1. For urban or urbanizable land:

(a) That application of existing development ordinances or regulations and other applicable law is inadequate to prevent irrevocable public harm from development in affected geographical areas.

(b) That the moratorium is sufficiently limited to ensure that a needed supply of affected housing types and the supply of commercial and industrial facilities within or in proximity to the city or town are not unreasonably restricted by the adoption of the moratorium.

(c) Stating the reasons that alternative methods of achieving the objectives of the moratorium are unsatisfactory.

(d) That the city or town has determined that the public harm that would be caused by failure to impose a moratorium outweighs the adverse effects on other affected local governments, including shifts in demand for housing or economic development, public facilities and services and buildable lands and the overall impact of the moratorium on population distribution.

(e) That the city or town proposing the moratorium has developed a work plan and time schedule for achieving the objectives of the moratorium.

2. For rural land:

(a) That application of existing development ordinances or regulations and other applicable law is inadequate to prevent irrevocable public harm from development in affected geographical areas.

(b) Stating the reasons that alternative methods of achieving the objectives of the moratorium are unsatisfactory.

(c) That the moratorium is sufficiently limited to ensure that lots or parcels outside the affected geographical areas are not unreasonably restricted by the adoption of the moratorium.

(d) That the city or town proposing the moratorium has developed a work plan and time schedule for achieving the objectives of the moratorium.

D. Any moratorium adopted pursuant to this section does not affect any express provision in a development agreement entered into pursuant to section 9-500.05 or as defined in section 11-1101 governing the rate, timing and sequencing of development, nor does it affect rights acquired pursuant to a protected development right granted according to chapter 11 of this title or title 11, chapter 9. Any moratorium adopted pursuant to this section shall provide a procedure pursuant to which an individual landowner may apply for a waiver of the moratorium's applicability to its property by claiming rights obtained pursuant to a development agreement, a protected development right or any vested right or by providing the public facilities that are the subject of the moratorium at the landowner's cost.

E. A moratorium adopted under subsection C, paragraph 1 of this section shall not remain in effect for more than one hundred twenty days, but such a moratorium may be extended for additional periods of time of up to one hundred twenty days if the city or town adopting the moratorium holds a public hearing on the proposed extension and adopts written findings that:

1. Verify the problem requiring the need for the moratorium to be extended.

2. Demonstrate that reasonable progress is being made to alleviate the problem resulting in the moratorium.

3. Set a specific duration for the renewal of the moratorium.

F. A city or town considering an extension of a moratorium shall provide notice to the general public published once in a newspaper of general circulation in the community at least thirty days before a final hearing is held to consider an extension of a moratorium.

G. Nothing in this section shall prevent a city or town from complying with any state or federal law, regulation or order issued in writing by a legally authorized governmental entity.

H. A landowner aggrieved by a municipality's adoption of a moratorium pursuant to this section may file, at any time within thirty days after the moratorium has been adopted, a complaint for a trial de novo in the superior court on the facts and the law regarding the moratorium. All matters presented to the superior court pursuant to this section have preference on the court calendar on the same basis as condemnation matters and the court shall further have the authority to award reasonable attorney fees incurred in the appeal and trial pursuant to this section to the prevailing party.

I. In this section:

1. "Compelling need" means a clear and imminent danger to the health and safety of the public.

2. "Essential public facilities" means water, sewer and street improvements to the extent that these improvements and water resources are provided by the city, town or private utility.

3. "Moratorium on construction or land development" means engaging in a pattern or practice of delaying or stopping issuance of permits, authorizations or approvals necessary for the subdivision and partitioning of, or construction on, any land. It does not include denial or delay of permits or authorizations because they are inconsistent with applicable statutes, rules, zoning or other ordinances.

4. "Rural land" means all property in the unincorporated area of a county or in the incorporated area of the city or town with a population of two thousand nine hundred or less persons according to the most recent United States decennial census.

5. "Urban or urbanizable land" means all property in the incorporated area of a city or town with a population of more than two thousand nine hundred persons according to the most recent United States decennial census.

6. "Vested right" means a right to develop property established by the expenditure of substantial sums of money pursuant to a permit or approval granted by the city, town or county.

OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL

20080747621 08/27/2008 04:13

ELECTRONIC RECORDING
broadstone-8-1-1--,N

City of Surprise
City Clerk's Office
12425 West Bell Road,
Suite D-100
Surprise, AZ 85374

FIRST AMENDMENT TO THE PRE-ANNEXATION, DEVELOPMENT AND SERVICES AGREEMENT (BROADSTONE RANCH)

When recorded, return to:
City Clerk
City of Surprise, Arizona
12425 W. Bell Road
Suite D-100
Surprise, AZ 85374

FIRST AMENDMENT TO THE PRE-ANNEXATION, DEVELOPMENT AND SERVICES AGREEMENT (BROADSTONE RANCH)

This First Amendment to the Pre-Annexation, Development and Services Agreement ("Amendment") is entered into by and between the City of Surprise, an Arizona municipal corporation ("City"), and ELLIOTT HOMES, INC., an Arizona corporation (the "Owner"). The City and Owner are hereinafter collectively referred to as the "Parties."

RECITALS:

A. Owner and the City entered into a Development Agreement last signed on December 5, 2007 and recorded with the Maricopa County Recorder in Instrument No. 2007-1312966 ("Agreement"), covering certain real property consisting of approximately eight hundred, forty one (841) acres located within parts of Section 4,5 & 8, Township 5 North, Range 3 West, Maricopa County, Arizona.

B. The City and Owner desire to modify, amend and clarify the Agreement on the terms and conditions hereinafter set forth.

AGREEMENT:

NOW, THEREFORE, in consideration of the foregoing premises and mutual promises set forth in this Agreement, the Parties state, confirm and agree as follows:

1. Upon execution of this Amendment by the Parties, **Exhibit E.2,** attached to this Amendment shall be substituted for, and replace, Exhibit E.2, "Benefit Area for Reimbursable Wastewater Infrastructure: SPA 5 Wastewater Reclamation Site", to the Agreement and **Exhibit E.2.3,** attached to this Amendment shall be substituted for, and replace, Exhibit E.2.4 "Benefit Area for Reimbursable Wastewater Infrastructure: SPA 5 Wastewater Reclamation Facility Improvements" to the Agreement. Substitution of these Exhibits will have the effect of expanding the area to be benefited by the Reimbursable Wastewater Infrastructure as defined in the Agreement. This is the only change being requested.

2. All of the terms, provisions and conditions of the Agreement which are not expressly modified, amended or clarified by this Amendment (or which, in context, must be deemed modified, amended or clarified hereby) shall remain in full force and effect. In the event of any conflict between this Amendment and the Agreement, the provisions of this Amendment shall control. Time is of the essence of this Amendment and with respect to the performance required by each party hereunder. The City acknowledges and agrees that Owner and its successors and

permitted assignees have a right to rely, and will be relying, on the terms, provisions and conditions of this Amendment.

IN WITNESS WHEREOF, the Parties have executed this Amendment on the date(s) written below.

"City"

CITY OF SURPRISE,
an Arizona municipal corporation

By: L E Truitt
L.E. Truitt, Mayor
Date: 8-27-08

ATTEST:

Sherry Aguilar, City Clerk

APPROVED AS TO FORM

Michael Bailey, City Attorney

STATE OF ARIZONA)
)ss.
County of Maricopa)

The foregoing instrument was acknowledged before me this 27 day of AUGUST, 2008, by L.E. TRUITT, the Mayor for the CITY OF SURPRISE, an Arizona municipal corporation.

Rosalinda M Herrera
Notary Public

My Commission Expires:

July 23, 2010

OFFICIAL SEAL
ROSALINDA M. HERRERA
NOTARY PUBLIC-STATE OF ARIZONA
MARICOPA COUNTY
My Comm. Expires July 23, 2010

"**Owner**"

ELLIOTT HOMES, INC., an Arizona corporation

By: _____

Name: Jeffrey Klem

Title: Assistant Vice President

Date: 8/14/08

STATE OF ARIZONA)
)ss.
County of Maricopa)

The foregoing instrument was acknowledged before me this 14th day of August, 2008, by Jeffrey Klem, the A.V.P. of ELLIOTT HOMES, INC., an Arizona corporation.

_____
Notary Public

My Commission Expires:

_____

AMY L. BRINSON
Notary Public - Arizona
Maricopa County
My Comm. Expires Mar 19, 2009

EXHIBIT E.2
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Benefit Area for Reimbursable Wastewater Infrastructure: SPA 5 WRF Site]

Exhibit E.2

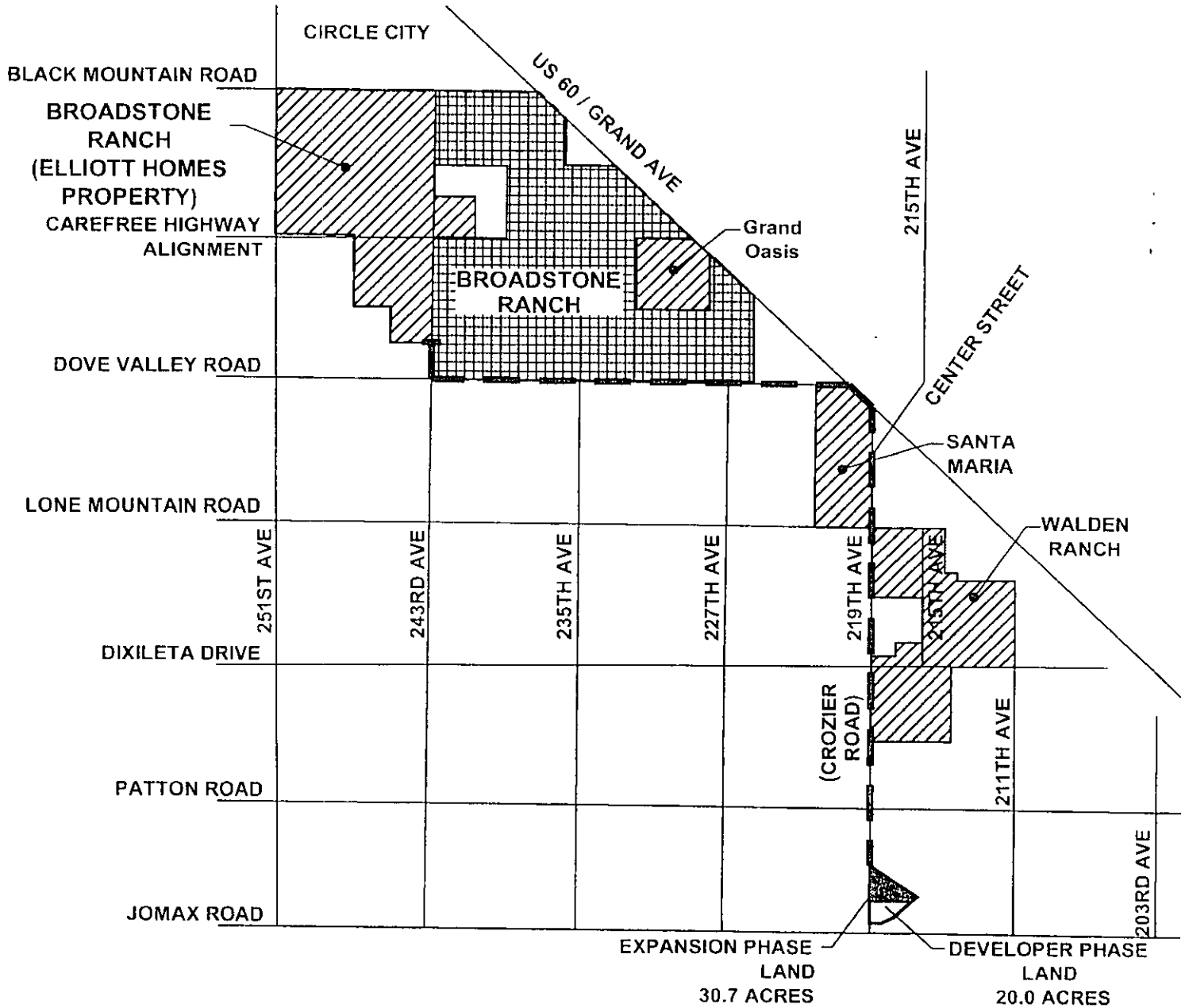
First Amendment to the Pre-Annexation,
Development and
Services Agreement
(Broadstone Ranch)

is not recordable due to lines through text

a copy of this exhibit is on file with:

City of Surprise
City Clerk's Office
12425 West Bell Road, Suite D-100
Surprise, AZ 85374
623.222.1000

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
SPA 5 WASTEWATER RECLAMATION SITE



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E.2

LEGEND

- Interceptor Line
- Broadstone Ranch Project Boundary
- Developer Phase Responsibility (1,748 Ac.)
- Expansion Phase Reimbursement Area (1,939 Ac.)
- SPA 5 Wastewater Reclamation Facility

Benefit Area: 3,687 Ac.

NORTH

Date: 06.23.08
Job No.: 0496
Drawn by: PR

LVA urban design studio

EXHIBIT E.2.3
TO
PRE-ANNEXATION AND
DEVELOPMENT AGREEMENT
(Broadstone Ranch)

[Benefit Area for Reimbursable Wastewater Infrastructure: SPA 5 WRF Improvements]

Exhibit E.2.3

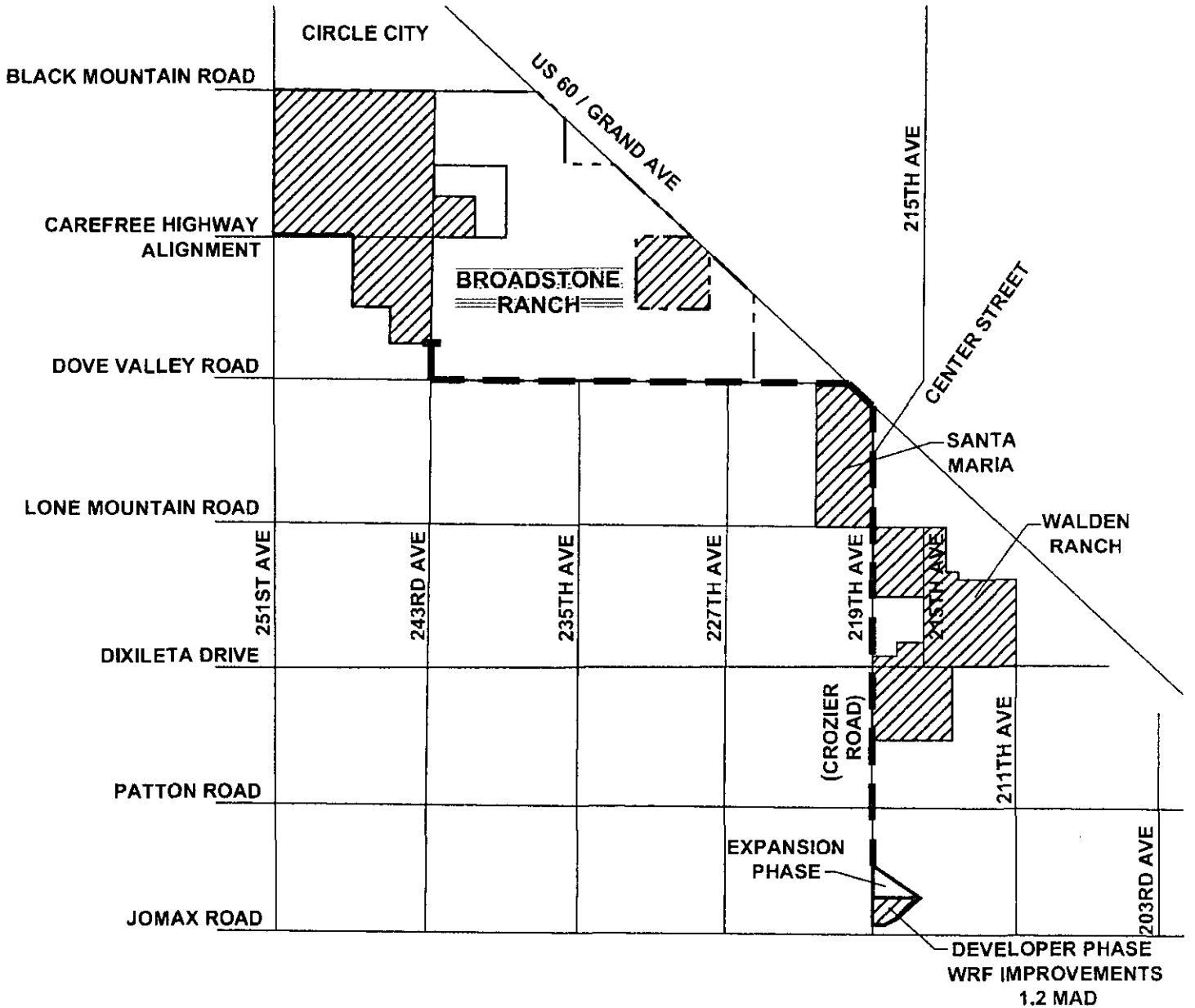
First Amendment to the Pre-Annexation,
Development and
Services Agreement
(Broadstone Ranch)

is not recordable due to lines through text

a copy of this exhibit is on file with:

City of Surprise
City Clerk's Office
12425 West Bell Road, Suite D-100
Surprise, AZ 85374
623.222.1000

BENEFIT AREA FOR REIMBURSEMENT OF WASTEWATER INFRASTRUCTURE
SPA 5 WASTEWATER RECLAMATION FACILITY IMPROVEMENTS



DEVELOPMENT AGREEMENT

BROADSTONE RANCH

CITY OF SURPRISE, ARIZONA

EXHIBIT E 2.3

LEGEND

- Interceptor Line
- Broadstone Ranch Project Boundary
- Developer Phase (1,748 AC)

NORTH

Date: 06.23.08
Job No.: 0496
Drawn by: PR

urban design studio

OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL

20090216751,03/11/2009 03:23

ELECTRONIC RECORDING

RECORDING REQUESTED BY:

City of Surprise
City Clerk's Office
12425 West Bell Road,
Suite D-100
Surprise, AZ 85374

Second Amendment to the Pre-Annexation,
Development and Services Agreement

Broadstone Ranch

When recorded, return to:
City Clerk
City of Surprise, Arizona
12425 W. Bell Road
Suite D-100
Surprise, AZ 85374

SECOND AMENDMENT TO THE PRE-ANNEXATION, DEVELOPMENT AND SERVICES AGREEMENT (BROADSTONE RANCH)

This Second Amendment to the Pre-Annexation, Development and Services Agreement ("Second Amendment") is entered into by and between the CITY OF SURPRISE, an Arizona municipal corporation ("City"), and ELLIOTT HOMES, INC., an Arizona corporation (the "Owner"). The City and Owner are hereinafter collectively referred to as the "Parties."

RECITALS:

A. Owner and the City entered into a Development Agreement last signed on December 5, 2007 and recorded with the Maricopa County Recorder in Instrument No. 2007-1312966 ("Agreement"), as amended by that certain First Amendment to Pre-Annexation and Development Agreement recorded as Instrument No. 20080747621 (collectively, the "**Agreement**") covering certain real property consisting of approximately eight hundred, forty one (841) acres located within parts of Section 4,5 & 8, Township 5 North, Range 3 West, Maricopa County, Arizona.

B. The City and Owner desire to modify, amend and clarify the Agreement on the terms and conditions hereinafter set forth.

AGREEMENT:

NOW, THEREFORE, in consideration of the foregoing premises and mutual promises set forth in this Agreement, the Parties state, confirm and agree as follows:

1. Perimeter Improvements for Developer Phase of the SPA 5 WRF. Pursuant to Section 5.12(A) of the Agreement, Owner has purchased and dedicated to the City the Initial WRF Site and the Expansion Site. As part of the City requirements for development of the Developer Phase of the SPA 5 WRF, City requires a minimum level of perimeter improvements (i.e. perimeter landscaping, wall/fence treatment and adjunct street) be installed with the Initial WRF Site ("Phase I Perimeter Improvements"). Additional improvements to the Initial WRF Site will be installed by the developer of the Expansion Site ("Expansion Site Developer"), as detailed herein, at the time development occurs on the Expansion Site ("Deferred Improvements").

A. Phase I Perimeter Improvements. As part of the first phase of development of the Developer Phase of the SPA 5 WRF at the Initial WRF Site, Owner shall cause to be installed the following Phase I Improvements, as approved by the City and in

accordance with City standards, and as more specifically set forth on **Exhibit A**, attached hereto and incorporated herein by this reference:

1. Install a six (6) foot tall CMU block wall along the Initial WRF Site adjacent to the Crozier Avenue roadway frontage.

2. Install a six (6) foot tall chain link fence around the remaining perimeter side of the Initial WRF Site.

3. Provide one-quarter (1/4) inch or less sized decomposed granite surface material between the existing edge of Crozier Avenue and eastern roadway right-of-way boundary along the full frontage of the existing drainage channel.

4. Install desert palette landscaping along the Crozier Avenue frontage adjacent to the Initial WRF Site and in a landscape buffer along the northern boundary of the Initial WRF site extending from the eastern edge of the existing drainage channel to a point 100 feet east to screen visibility of the plant. Developer shall submit a buffer landscape plan that identifies the location of the proposed landscape materials as well as the specific species, size and quantity. The plan shall be reviewed and approved by City staff.

B. Deferred Improvements. At the time of development on the Expansion Site, the Expansion Site Developer shall cause the following Deferred Improvements to be installed.

1. Install asphaltic pavement, to the then existing City roadway standards, For the east half of Crozier Avenue adjacent to the Initial WRF Site.

2. Install all curb, gutter and sidewalk improvements associated with Crozier Avenue adjacent to the Initial WRF Site pursuant to the existing City roadway standard.

C. Reimbursement for Deferred Improvements. On or before the date established by the Arizona Land Department ("ASLD") for the auction of the ALSD trust lands within Broadstone Ranch, Owner shall provide the City with an engineer's cost estimate of the Deferred Improvements, plus a ten (10) percent contingency (Deferred Improvement Cost Estimate). City shall withhold the Deferred Improvement Cost Estimate amount from the proceeds collected by the City pursuant to Section 5.12(A) of the Agreement. The balance of funds collected pursuant to Section 5.12(A) shall be provided to Owner as directed in the Agreement. Within ninety (90) days of completion and City acceptance of the Deferred Improvements, City shall reimburse to the Expansion Site Developer the Deferred Improvement Cost Estimate Amount.

2. All of the terms, provisions and conditions of the Agreement which are not expressly modified, amended or clarified by this Second Amendment (or which, in context, must be deemed modified, amended or clarified hereby) shall remain in full force and effect. In the event of any conflict between this Amendment and the Agreement, the provisions of this Amendment shall control. Time is of the essence of this Second Amendment and with respect to the performance required by each party hereunder. The City acknowledges and agrees that Owner and its successors and permitted assignees have a right to rely, and will be relying, on the terms, provisions and conditions of this Second Amendment.

IN WITNESS WHEREOF, the Parties have executed this Second Amendment on the date(s) written below.

"City"

CITY OF SURPRISE,
an Arizona municipal corporation

By: _____
L.E. Truitt, Mayor
Date: 03-06-2009

ATTEST:

_____
Sherry Aguilar, City Clerk

APPROVED AS TO FORM

_____
Michael Bailey, City Attorney

STATE OF ARIZONA)
)ss.
County of Maricopa)

The foregoing instrument was acknowledged before me this 6th day of March, 2008, by L.E. TRUITT, the Mayor for the CITY OF SURPRISE, an Arizona municipal corporation.

Linda Broyles-Stevens
Notary Public

My Commission Expires:
Feb. 7, 2012

OFFICIAL SEAL
LINDA BROYLES-STEVENS
Notary Public - State of Arizona
MARICOPA COUNTY
My Comm. Expires Feb. 7, 2012

"Owner"

ELLIOTT HOMES, INC., an Arizona corporation

By: _____

Name: Jeffrey Klem

Title: Assistant Vice President

Date: 1/13/09

STATE OF ARIZONA)
)ss.
County of Maricopa)

The foregoing instrument was acknowledged before me this 13th day of January, ~~2008~~ 2009, by Jeffrey Klem the Asst. V.P. of ELLIOTT HOMES, INC., an Arizona corporation.

_____
Notary Public

My Commission Expires:

_____

AMY L. BRINSON
Notary Public - Arizona
Maricopa County
My Comm. Expires Mar 19, 2009

o:\index\elliott\broadstone ranch\docs\pre-annexation development agreement\pada-- 2nd amendment 11-12-08.doc

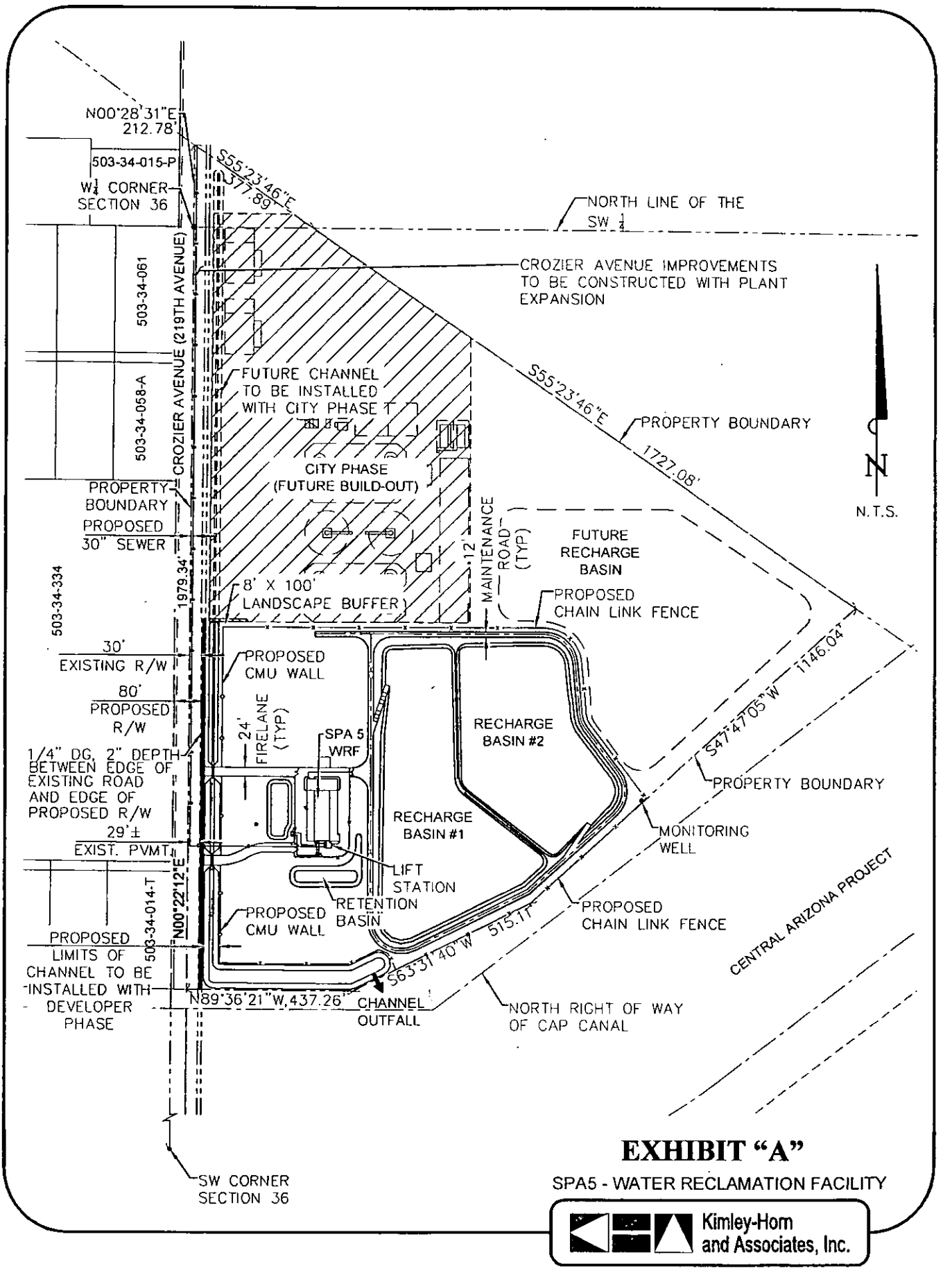


EXHIBIT "A"

SPA5 - WATER RECLAMATION FACILITY

Kimley-Horn and Associates, Inc.

RESOLUTION # 2022-110

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE CITY OF SURPRISE, ARIZONA, APPROVING THE THIRD AMENDMENT TO THE BROADSTONE RANCH PRE-ANNEXATION DEVELOPMENT AGREEMENT TO EXTEND THE TERM BY ONE YEAR.

WHEREAS, the City of Surprise and Elliott Homes, Inc. entered into a pre-annexation development agreement entitled "***Pre-Annexation, Development, and Services Agreement (Broadstone Ranch)***" on December 5, 2007, recorded in the Office of the Maricopa County, Arizona, Recorder as MCR 2007-1312966 on December 14, 2007 ("**Broadstone Ranch PADA**"), which was approved by the Mayor and City Council for Surprise, Arizona, by Resolution #07-222 on November 29, 2007;

WHEREAS, thereafter, a First Amendment to the Broadstone Ranch PADA was entered into by the City and Elliott Homes, Inc., and approved by the Mayor and City Council for Surprise by Resolution #08-144 on August 14, 2008, and recorded in the Office of the Maricopa County, Arizona, Recorder as MCR 2008-0747621 on August 27, 2008, to expand the area to be benefited by the SPA 5 Waste Water Reclamation Facility;

WHEREAS, a Second Amendment to the Broadstone Ranch PADA was entered into by the City and Elliott Homes, Inc., and approved by the Mayor and City Council for Surprise by Resolution #09-40 on February 26, 2009, and recorded in the Office of the Maricopa County, Arizona, Recorder as MCR 2009-0216751 on March 11, 2009, to modify the timing and nature of the road and landscape improvements along the SPA 5 Water Reclamation Facility site located at Crozier Avenue north of Jomax Road; and

WHEREAS, the City and Elliott Homes, Inc. desire to further amend the Broadstone Ranch PADA by entering into the Third Amendment attached hereto as ***Exhibit "A,"*** which Amendment would extend the term of the Broadstone Ranch PADA by an additional twelve (12) months to allow the parties to negotiate a possible further amendment to the PADA to address provisions related to, but not necessarily limited to, water infrastructure, wastewater infrastructure, fire service infrastructure, reimbursement and funding mechanisms, and future annexation.

NOW, THEREFORE, BE IT RESOLVED by the City Council for the City of Surprise, Arizona, as follows:

Section 1. The City of Surprise hereby approves and agrees to enter into the Third Amendment to the Pre-Annexation, Development, and Services Agreement (Broadstone Ranch), attached hereto as ***Exhibit "A."***

Section 2. The Mayor is hereby authorized and directed to sign the Third Amendment to the Pre-Annexation, Development, and Services Agreement (Broadstone Ranch), on behalf of the City of Surprise.

APPROVED AND ADOPTED this ___ day of November, 2022.

_____

Skip Hall, Mayor

ATTEST:

_____

Sherry Aguilar, City Clerk

APPROVED AS TO FORM:

_____

Robert Wingo, City Attorney

EXHIBIT "A"

Third Amendment to Pre-Annexation, Development, and Services Agreement (Broadstone Ranch)

CITY OF SURPRISE
Regular City Council Meeting

Council Meeting Date: November 15, 2022
Submitting Department: Legal
Staff Recommendations:

Contact Person: Robert Wingo, CITY ATTORNEY
District: Internal

Consent: Yes Regular: No Public Hearing: No Report/Discussion: No

Agenda Wording:
Consideration and action pertaining to authorizing submission of the Request for Exemption from posting deposit to the Industrial Commission of Arizona.

Motion:
I move to approve and authorize submission of the Request for Exemption from the Requirement to Post Statutory Deposit to the Industrial Commission of Arizona.

Background:
On January 30, 2017, Council approved by Resolution # 2017-03 the funding of a self-insured workers' Compensation program. With establishment of the self-insurance program comes certain regulatory compliance measures in addition to an annual application to the Industrial Commission of Arizona requesting authority to self insure.

In lieu of posting securities for outstanding workers' compensation liabilities, Arizona Administrative Code R-20-5-1114, affords public entities the opportunity to request waiver of a security deposit. This request for waiver must be submitted annually as part of the application process for renewal of Workers' Compensation self-insured status considered by the Industrial Commission of Arizona. The waiver must include the signatures of the majority of Council requesting such exemption be granted.

Objective Analysis:
This action is to obtain consent from City Council to submit an exemption letter to the Industrial Commission of Arizona, seeking approval to waive the requirement to post a security deposit for outstanding workers' compensation liabilities. Council has approved, and an exemption letter has been submitted to the ICA, every year since the City initiated its self-insured Workers' Compensation program.

Policy Compliant:
This action complies with all applicable statutes and codes and furthers the City Council's continuing agenda to be fiscally responsible and proactive.

Financial Impact:

The action aims to avoid posting of statutory securities; thus preserving contingency funds held within the Workers' Compensation Trust.

Budget Impact:

The action aims to avoid posting of statutory securities; thus preserving contingency funds held within the Workers' Compensation Trust.

FTE Impact:

No FTE impact associated with this action.

ATTACHMENTS:

1. Request for Waiver of Security Form (002)

Notary Attestation

I _____, _____ of/for

_____,

do hereby attest the attached Request for Waiver from Requirement to Post Statutory Deposit form signatures, duly approving the request for a waiver from requirement to post a statutory deposit, were signed in perpetuity, are original signatures, or a certified copy thereof.

State of Arizona)
) ss
County of _____)

IN WITNESS WHEREOF, I have hereunto set my hand and caused the official seal of

_____, a notary public, to be affixed hereunto

this _____ day of _____, _____.

Affix Seal or Stamp

_____
Notary Public

_____
Signer's Email Address

(Notary - complete this section to sign if form is filed electronically)

IN WITNESS WHEREOF, the foregoing Request for Waiver From Requirement to Post a Security Deposit was acknowledged before me, a notary public, to be affixed hereunto by means of communication technology this _____ day of _____, _____

Affix Seal or Stamp

_____
Notary Public

_____
Signer's Email Address

Request for Waiver from Requirement to Post Statutory Deposit Pursuant to A.A.C. § 1525 (A)

The City of Surprise ,

1) is a duly qualified, eligible, and authorized Arizona self-insurer pursuant to Arizona Revised Statute § 23-961 et. seq., and the Arizona Administrative Code, and, as such, hereby requests the Industrial Commission of Arizona approve a waiver from the posting of a statutory deposit, pursuant to A.A.C. § R20-5-1525 (A).

2) is a public entity or public entity pool that has operated in Arizona for a minimum of five consecutive years pursuant to A.A.C § 1525 (B)(1).

3) is a public entity or public entity pool with an established trust document (attached), and a trust fund pursuant to A.R.S. § 11-981, or a public entity pool that has an established a workers' compensation pool loss account pursuant to A.A.C. § R20-5-1530 (B).

4) maintains a positive fund/account balance pursuant to A.A.C. § 1525 (B)(2), that is continually funded in accordance with GASB #30 (or a successor statement) cover actuarial liabilities pursuant to A.A.C § 1525 (B)(3).

5) completes an actuary report on an annual basis with a confidence level of 55%, and a discount percent of 2%.

6) shall file current quarter financial statements and a statement of unpaid liabilities with the Division every six months, beginning six months after a waiver is granted pursuant to A.A.C. § R20-5-1525 (E).

7) will cure an account or fund deficiency immediately upon discovery.

8) shall cure an account or fund deficiency within 30 days of being notified by the Division.

9) shall file a completed Workers' Compensation Liability Form, and post security as required by the Commission within 10 days of service of a written findings and order revoking the waiver of security pursuant to A.A.C. § R20-5-1525 (G).

10) understands the decision of the Commission to approve, deny, or revoke a request for waiver of security shall be made by a majority vote of a quorum of Commissioners present at a public meeting; if the Commission grants a waiver of security, the waiver shall be included in the Resolution of Authorization issued under R20-5-1509 (F) and shall continue unless the public entity or public entity pool named in this document no longer satisfies the requirements of A.A.C § 1525.

11) shall file a completed Workers' Compensation Liability Form, and post security pursuant to A.R.S. § 23-961, A.A.C. § 1520, and/or 1509 (C) if the requirements of A.A.C § 1525 are not satisfied.

The signature(s) below represent

_____,

and as such, certifies and attests that the information contained in this Request for Waiver From Posting Security Form is accurate and correct.

If the signature responsibility is delegated to one public employee position or designated officer, attach the code or ordinance section (Public Entity), or bylaws, resolution or incorporating documents (Public Entity Pool).

Name: _____

Signed: _____ Date_____

Name: _____

Signed: _____ Date_____

Name: _____

Signed: _____ Date_____

Name: _____

Signed: _____ Date_____

Name: _____

Signed: _____ Date_____