



MONTGOMERY
ENGINEERING & MANAGEMENT, L.L.C.

WATER SERVICE IMPACT STUDY

**Lavitt Manor II
Lot Split
7525 N. Ironwood Dr.
Paradise Valley, Arizona
October 2018**

Prepared for:
Cullum Homes
8408 E. Shea Boulevard, Suite D-100
Scottsdale, Arizona 85260

Submitted to:
Town of Paradise Valley
6401 E. Lincoln Drive
Paradise Valley, Arizona 85253

Prepared by:
Montgomery Engineering and Management, L.L.C.
16716 E. Parkview Ave. Suite 204
Fountain Hills, Arizona 85268



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1. INTRODUCTION

This Water Service Impact Study and related design have been developed in accordance with the current Town of Paradise Valley Design Standards, Codes and adopted Ordinance. The report provides engineering analysis and assessment of the required water services and fire flow demand for the proposed lot split development.

The subject property located at 7525 N. Ironwood Drive, Paradise Valley, Arizona. The 2.26-acre parcel is in a subdivided plat, being a Replat of Lot 1 of Lavitt Manor, recorded in Book 376, Page 28, MCR and also being a portion of NE $\frac{1}{4}$ of S $\frac{1}{4}$ of section 4, T2N, R4E. The property is bounded by Invergorden Drive (westerly) and large residential lots on the other sides. It is zoned R-43, which in accordance with the Town of Paradise valley Zoning Ordinance allows for one dwelling unit per acre density. The property has a current residence that is proposed to be demolished. Refer to Appendix A-1-Vicinity Map for the site location.

As part of the project development process, a plat map subject to the Town of Paradise Valley review and approval is prepared. The development is proposing to split the parcel into two lots. The prepared lot split map defines the new property line, new tract for access roadway, location and distances of new building setback lines and public utility easements. Both lots will exceed the minimum required area of 1 acre.

The site is located within the City of Phoenix water service area and Paradise Valley Sewer Service area. There are existing 4-inch and 12-inch water lines that run in Ironwood Drive. There is an 8" water line that runs adjacent to the north boundary of lot 1 of Amalfi Estates.

No sewer is available at this site. The site's terrain slopes northeasterly with desert vegetation and native trees plus a residence, guest house and tennis court that will be demolished. There is a major wash running through the property from west to north.

2. DOMESTIC WATER AND FIRE SUPPRESSION SYSTEM

There is an existing water meter at the southwest corner of the lot. The existing service will be replaced with a 1.5-inch service plus a new water service will be provided with new water meters and service lines tapped off the Phoenix main in Ironwood Drive. The new water service lines and water meters will be sized in accordance with the currently adopted Plumbing Code and will be installed at the southwest corner of the lot with a private water easement to extend one service to the easterly lot.

New homes are proposed to utilize a septic sewer system due to excessive cost to install.

The fire hydrant coverage for this site is provided by an existing fire hydrant located 20 feet north of the northwest property corner on Ironwood Drive.

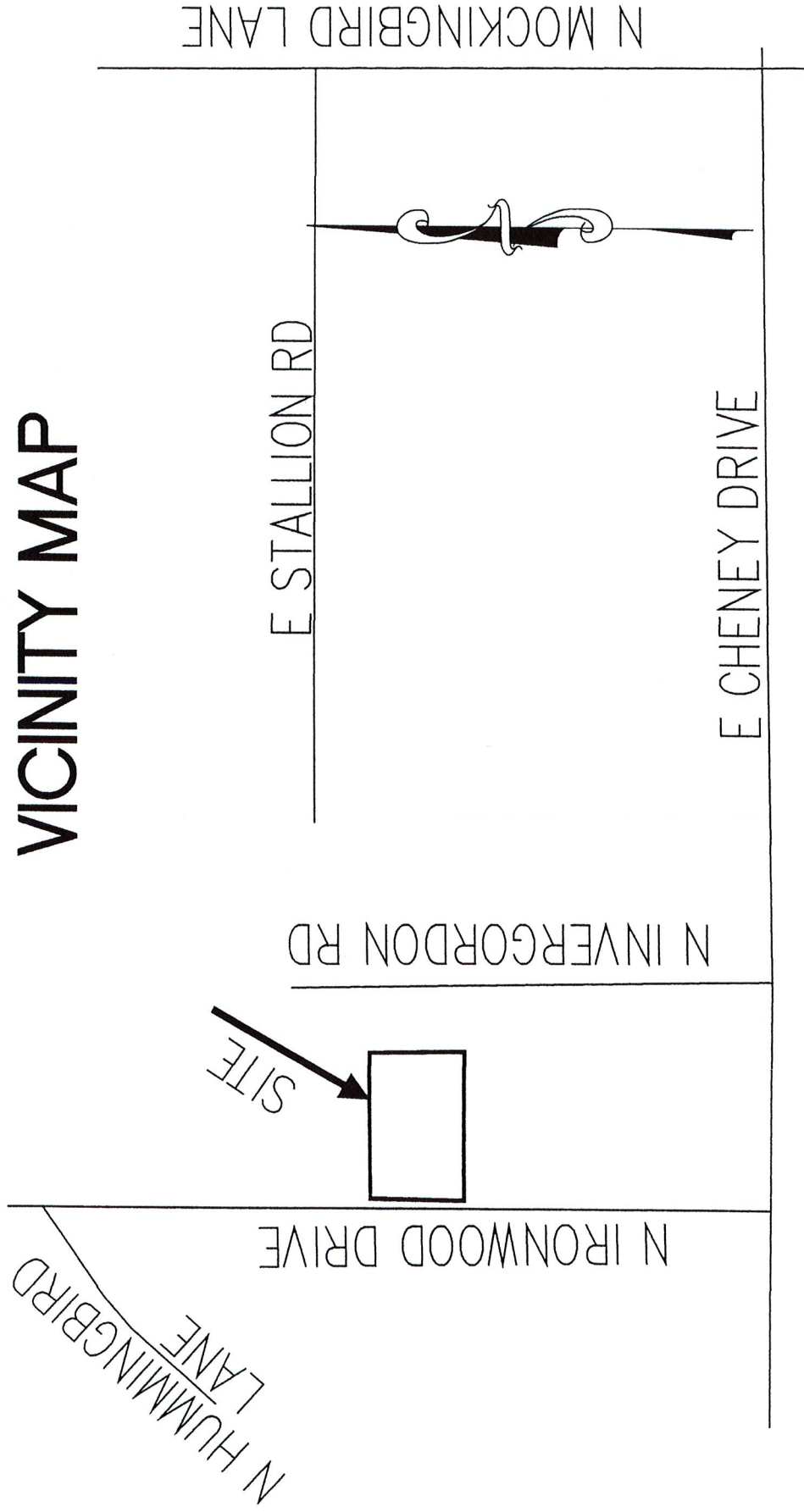
Fire flow test was conducted on October 2018 by Sunstate Fire Protection. Based on the results of the fire flow test, the existing water infrastructure is capable of supplying the required fire flow protection per the Town Code 13.1.6 (1,500 gpm at 20 psi). Fire sprinklers for the new residence will be fed off the domestic water service.

3. REFERENCES

- Town of Paradise Valley Design Standards and Policies.
- 2015 International Fire Code, Appendix B, Fire Flow Requirements for Buildings.

APPENDIX A-1
Vicinity Map

APPENDIX A-1 VICINITY MAP



NO SCALE

APPENDIX A-2
Water Flow Test

Hydrant Flow Test Report

Test Date 10/18/2018

Test Time 0800 Hrs.

Location

7525 N. Ironwood Drive Paradise Valley, AZ
85253

Tested by

Sunstate Fire Protection

Notes

Witnessed by EPCOR

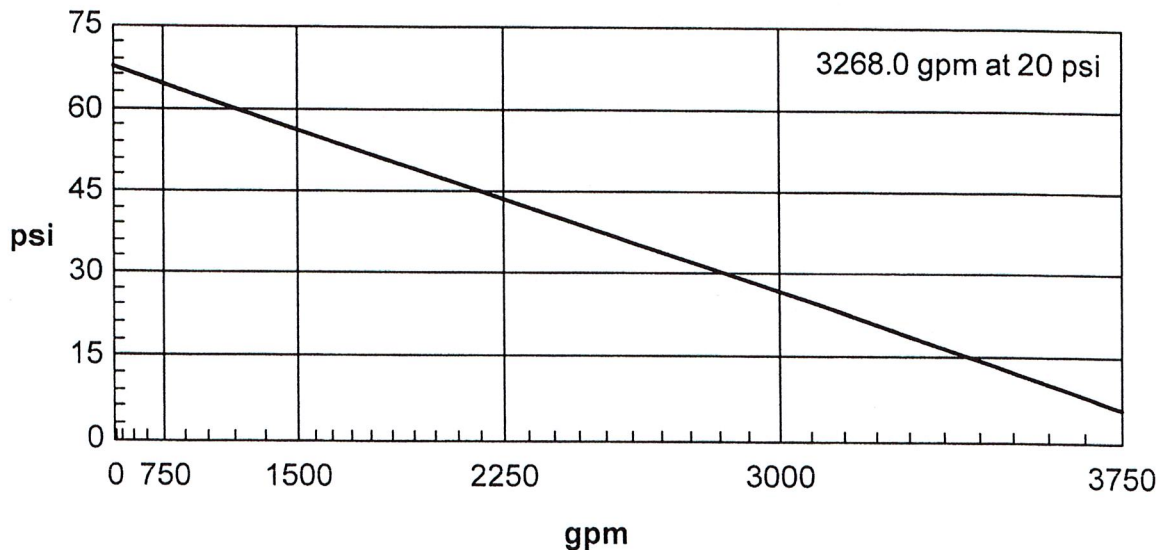
Read Hydrant

68 psi **static pressure**
62 psi **residual pressure**
2 ft **hydrant elevation**

Flow Hydrant(s)

Outlet	Elev	Size	C	Pitot Pressure	Flow
#1	2	2.5	.9	40	1062 gpm

Flow Graph



APPENDIX A-3
Will Serve Letter



City Of Phoenix
Water Services Department
Infrastructure Record Services

October 2, 2018

Cullum Homes
Brad Cullum

RE: 169-03-078
N Ironwood Dr & E Cholla Dr
Q.S.# 24-42

Mr. Cullum,

Your request for water availability to the mentioned properties/street has been reviewed. The property has direct frontage to the City of Phoenix public water main. You do have the capability to connect to the City Of Phoenix Water System.

If you have any questions regarding these guidelines, please contact via email david.marquez@phoenix.gov or call (602) 261-8689.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Marquez'.

David Marquez
Water Services Department
Infrastructure Record Services

Enclosures:

CC: Shauna Johnson, Water Services Department - Infrastructure Record Services
Jeremiah Ireland, Water Services Department - Infrastructure Record Services



City of Phoenix
WATER SERVICES DEPARTMENT
INFRASTRUCTURE RECORD SERVICES
Sewer Availability Response

Date: 10/16/18Property address / APN: 7525 N Ironwood Dr / 169-03-078

Nearest City of Phoenix Sewer is located approximately: Nearest QS with sewer is either quarter section 22-41 or 23-40; not available.

Section 1, check if applicable:

☒ The City of Phoenix, Water Services Department **cannot** provide sewer to the above mentioned property. This property is: Outside the City's jurisdiction, Yes ☐ No ☐ Outside the City's availability area, Yes ☒ No ☐

If Section 1 above is NOT checked off, you must connect to the City's sewer per Water Services Department policy, City Code 28.26 (private systems).

A single family residence on a single lot, whose closest lot line is more than 250 feet from an existing public sewer system, will be allowed to apply to the Maricopa County Department of Environmental Services for approval of an onsite private sewer treatment system. Only exceptions are as follows:

If the above stated property is currently on an existing septic system, the system can remain in use if all three of the following apply:

1. The current septic system is functioning.
2. The current septic system is not required by Maricopa County Environmental Service Department to be upsized with a new tank due to the new water fixture additions in the new structure.
3. The current septic system is not required by Maricopa County Environmental Service Department to be moved to a new location on this property due to the new construction or a related reason.

The above stated property will be required to connect to the public sewer system by extending a sewer main from the property to the nearest sewer line if either of the following apply:

1. The current septic system requires repair
2. The current septic system requires full replacement

Note: The property owner is responsible for verifying sewer elevations and determining whether a gravity sewer or force main will be required. The owner is responsible for all associated plan submittal, engineering costs, permitting and construction of extending the sewer main. All work must be done in accordance with plans submitted to and approved by the Planning and Development Department. All work must be done by a licensed contractor at no expense to the City of Phoenix.

All commercial properties or properties other than single family residence on a single lot are required to connect to the City of Phoenix sewer system.

Feel free to contact us if you have further questions. Thank you.

Staff Name:

David Marquez

WSD, Infrastructure Record Services
(Ph) 602-495-5601
(Fax) 602-495-5461

Reference Links:

Design Standards Manual for Water and Wastewater Systems:

http://phoenix.gov/webcms/groups/internet/@inter/@dept/@wsd/documents/web_content/wsdstdsstand013013.pdf

Technical Appeals (Policy 107) PDF: <http://phoenix.gov/waterservices/design/engpolicies/index.html>