



DRAINAGE STATEMENT

**LINCOLN MEDICAL OFFICE
7125 E. LINCOLN DRIVE
PARADISE VALLEY, ARIZONA 85016**



Prepared By:
Optimus Civil Design Group
4650 E. Cotton Center Blvd, Suite 200
Phoenix, Arizona 85040

This statement and attachments are being submitted as a Drainage Statement to support the proposed development of the Lincoln Medical Office at the SW corner of E. Lincoln Drive and Scottsdale Road, within the SE ¼ of Section 10, Township 2 North, Range 4 East, Gila and Salt River Meridian, within the Town of Paradise Valley, Maricopa County, Arizona.

This property is designated as Zone D, areas in which flood hazards are undetermined but possible per the Flood Insurance Rate Map (FIRM) Community Panel No. 04013C1770L, dated October 16, 2013.

The subject property comprises of 2.14 acres of currently developed land, which consists of an existing building and associated impervious surface improvements. See pre condition exhibit within this statement. This drainage statement has been prepared primarily as documentation for the provision of storm water retention in conformance with the Town's Drainage Standards.

Currently, the site is fully developed as a medical plaza which is slated to be demolished and a new medical office facility is to be constructed. The site was developed prior to any retention requirements and therefore does not retain any runoff onsite. In order to determine the required retention for the proposed project using today's floodplain regulations, the difference between the pre and post runoff conditions will be used.

However in accordance with the Town's requirements the pre-condition will be treated as a vacant desert lot and not a developed lot, which currently has no retention. A "C" factor of 0.40 shall be used for pre-existing condition for volume purposes.

It has been determined the post condition will require 7,810 cubic feet (cf) of net volume.

Due to the limited availability of open landscape area, a 100 foot section of 10 foot diameter pipe will be used as an underground storage system along with a drywell, which will ensure the storm water will dissipate within a 36 hour period.

End of Drainage Statement

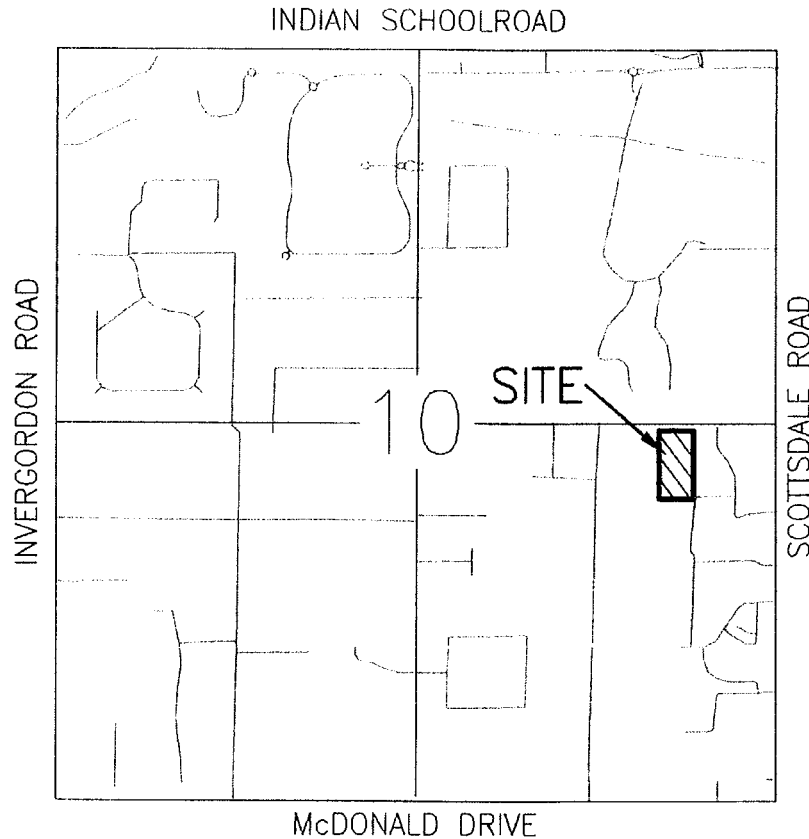
Attachments: Vicinity Map
Firm Map
Pre-Condition
Post Condition

Subject:

LINCOLN MEDICAL OFFICE

Job No.:

181290



VICINITY MAP

SEC. 10, T. 2 N., R. 4 E.

EXHIBIT A
VICINITY MAP


OPTIMUS
CIVIL DESIGN GROUP
4650 E. COTTON CENTER BLVD.
SUITE 240
PHOENIX, AZ 85040
PH: (602) 286-9300 FAX: (602) 286-9400

Prepared By: DB

Date: 7/2018

Checked By: JDB

Sheet No: 1 Of 1

Subject:

LINCOLN MEDICAL OFFICE

Job No.:

181290

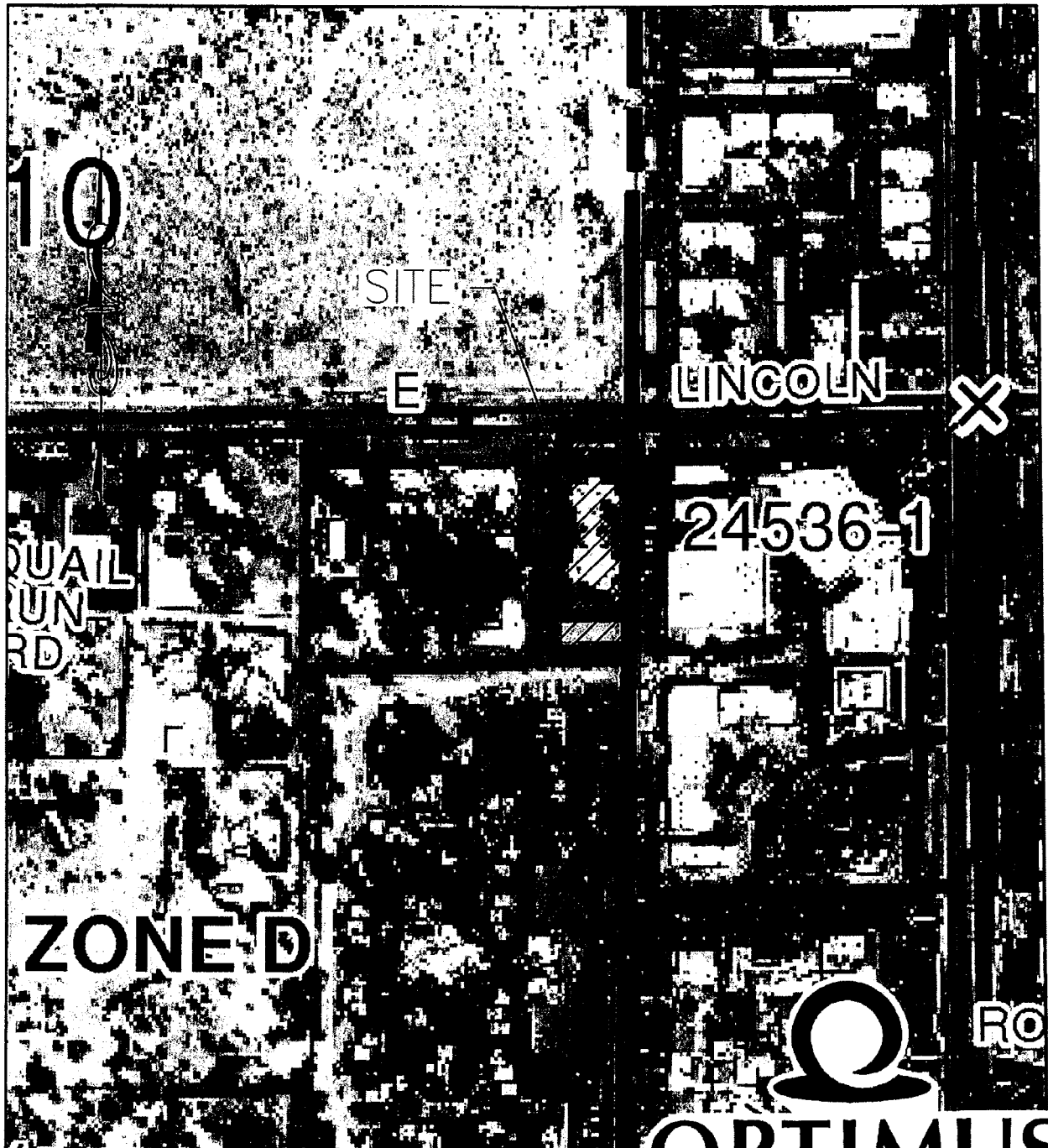


EXHIBIT B
FIRM MAP

OPTIMUS

CIVIL DESIGN GROUP

4650 E. COTTON CENTER BLVD.

SUITE 240

PHOENIX, AZ 85040

PH: (602) 286-9300 FAX: (602) 286-9400

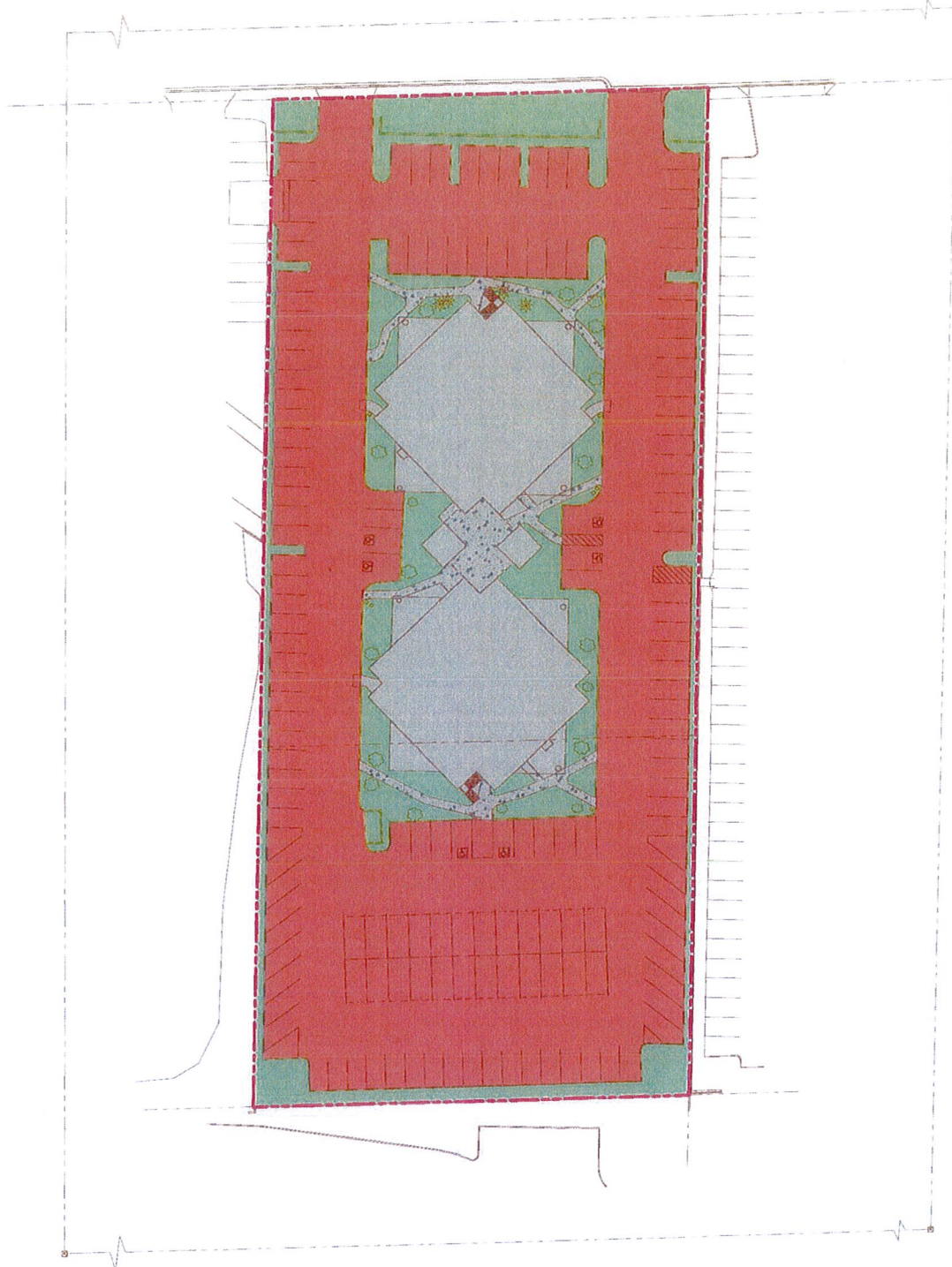
Prepared By: DB

Date: 7/2018

Checked By: JDB

Sheet No: 1 Of 1

PRE CONDITION



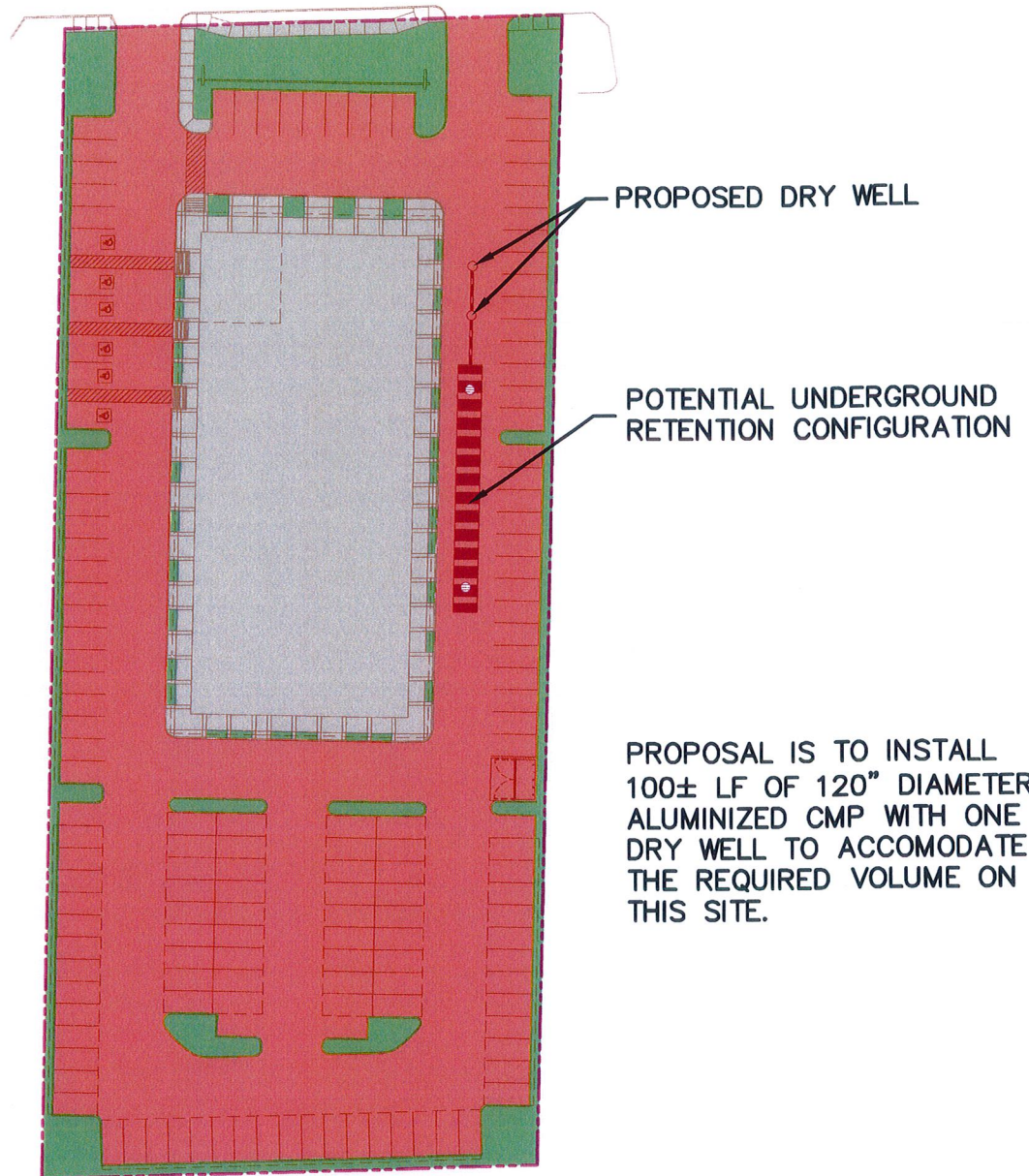
NOTE:

A 'C' FACTOR OF 0.40 SHALL BE USED FOR THE PRE-CONDITION VOLUME PURPOSES FOR VACANT DESERT LAND PRIOR TO THE EXISTING DEVELOPMENT

$$\text{VOLUME REQUIRED (PRE)} = 0.40 \times (2.19/12) \times 93,023 = 6,790 \text{ CF}$$



POST CONDITION



BOUNDARY – 93,023.04 OR 2.14 AC
 ASPHALT (0.90) – 57,247 SF OR 1.31 AC
 CONCRETE (0.95) – 23,569 SF OR 0.54 AC
 LANDSCAPE (0.50) – 12,157 SF OR 0.28 AC

$$C \text{ (WEIGHTED)} = \frac{(57,247 \times 0.90) + (23,569 \times 0.95) + (12,157 \times 0.50)}{93,023} = 0.86$$

$$\text{VOLUME REQUIRED (POST)} = 0.86 \times (2.19/12) \times 93,023 = 14,600 \text{ CF}$$

TOTAL VOLUME REQUIRED IS DIFFERENCE BETWEEN PRE AND POST

$$14,600 \text{ CF} - 6,790 \text{ CF} = 7,810 \text{ CF}$$



Water Resources

9379 E. San Salvador
Scottsdale, AZ 85258

PHONE 480-312-5685
FAX 480-312-5615
www.ScottsdaleAZ.gov

September 17, 2018

Current or prospective owner

7125 E Lincoln Dr.
Scottsdale, Arizona 85253

RE: Sewer service for 7125 E. Lincoln Drive (APN #174-64-003B)

Dear current or prospective owner,

In response to your request regarding provision of sewer service by the City of Scottsdale, this letter indicates conditions under which sewer service is provided to property within the City of Scottsdale sewer service area. The City of Scottsdale will provide sewer service to a property owner if the following conditions are satisfied:

1. The property is within the City of Scottsdale service area and not within the service area of another franchised company; and,
2. All fees and charges are paid, including sewer development fees, line extension or payback charges, charge for installation of service lines or any other applicable authorized fees or charges in existence at the time such service is provided; and,
3. All zoning, use permit or development stipulations governing development of the property are complied with; and,
4. All federal, state, county and city laws, ordinances or regulations relating to sewer discharge are complied with; and,
5. Construction at your cost of the necessary infrastructure (pipelines, etc.) between your point of discharge and the existing system of the city that has the ability to provide the additional capacity which will be required by your discharge.
6. Sufficient sewer capacity is available.

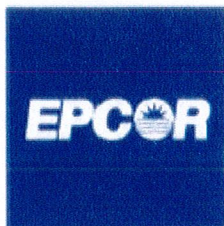
Please let us know if you require any further information.

Sincerely,

Levi C. Dillon, P.E. | *Sr. Water Resources Engineer*

09/17/2018 10:15:14 AM
SCOTTSDALE WATER

*"Water Sustainability through
Stewardship, Innovation and People"*



2355 West Pinnacle Peak Road, Suite 300
Phoenix, AZ 85027 USA
epcor.com

September 17, 2018

Optimus Civil Design Group LLC
Attn: Jeff Behrana, P.E.
4650 E. Cotton Center Blvd., Suite 200
Phoenix, AZ 85040

Sent via e-mail to: jbehrana@optimuscdg.com

Re: Will-Serve Letter for Water Service
7125 E. Lincoln Drive, Paradise Valley
APN 174-64-003B

Dear Mr. Behrana;

This letter is in response to your request to EPCOR Water Arizona Inc. ("EPCOR") regarding EPCOR's willingness to provide water service to a proposed development to be located at 7125 E. Lincoln Drive in Paradise Valley (the "Development") as shown in **Exhibit A**. EPCOR provides the following information for your consideration:

1. EPCOR has confirmed that the Development is located within the area encompassed by EPCOR's Certificate of Convenience & Necessity ("CC&N") for water service as issued by the Arizona Corporation Commission.
2. Water service to the Development by EPCOR may be conditioned upon developer entering into a Main Extension Agreement (an "MXA") with EPCOR in a form acceptable to EPCOR, and upon EPCOR and developer fully performing its respective obligations under the MXA. The MXA, if needed, will provide, among other things, that developer will be responsible for constructing at its cost all water main extensions necessary to distribute water from EPCOR's water system to the individual service line connections in the Development. The design and construction of all such main extensions will be subject to EPCOR's approval, and ownership of the main extensions, together with related real property easement rights, must be transferred to EPCOR prior to the initiation of water service in the Development.
3. Based on the water service currently provided by EPCOR in the CC&N, EPCOR will have adequate water capacity for normal use in the Development upon EPCOR's and developer's fulfillment of its respective obligations under the MXA. Please note that EPCOR does not guarantee the adequacy of its water capacity for fire protection.
4. Developer will also be required, as a condition to EPCOR providing water service to the Development, to pay all required fees pursuant to EPCOR's tariffs and as may be provided in the MXA.

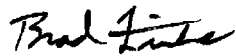
This letter assumes that construction of the main extensions within the Development will begin within one (1) year after the date of this letter.

If developer begins construction of any water mains in the Development or any other water service infrastructure intended to serve the Development without, in each instance, the prior written approval of such construction by EPCOR, developer will be proceeding with such construction at its own risk.

This letter does not independently create any rights or obligations in either developer or EPCOR, and is provided for information only. Any agreement between developer and EPCOR for water service in the Development must be memorialized in a written agreement executed and delivered by their respective authorized representatives.

For additional information, please contact me at (623) 445-2402 or at bfinke@epcor.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad Finke".

Brad Finke, P.E.
Engineering Manager

Enclosure: Exhibit A – Location Description of Development

EXHIBIT A
Location of Development





Flow Test Summary

Project Name: EJFT 18242
Project Address: 7125 E Lincoln Dr, Paradise Valley, AZ 85253
Date of Flow Test: 2018-10-11
Time of Flow Test: 7:45 AM
Data Reliable Until: 2019-04-11
Conducted By: Eder Cueva & Tayler Lynch (EJ Flow Tests) 602.999.7637
Witnessed By: Garren Willey (EPCOR) 480.450.4670
City Forces Contacted: EPCOR Water (480.450.4670)

Raw Flow Test Data

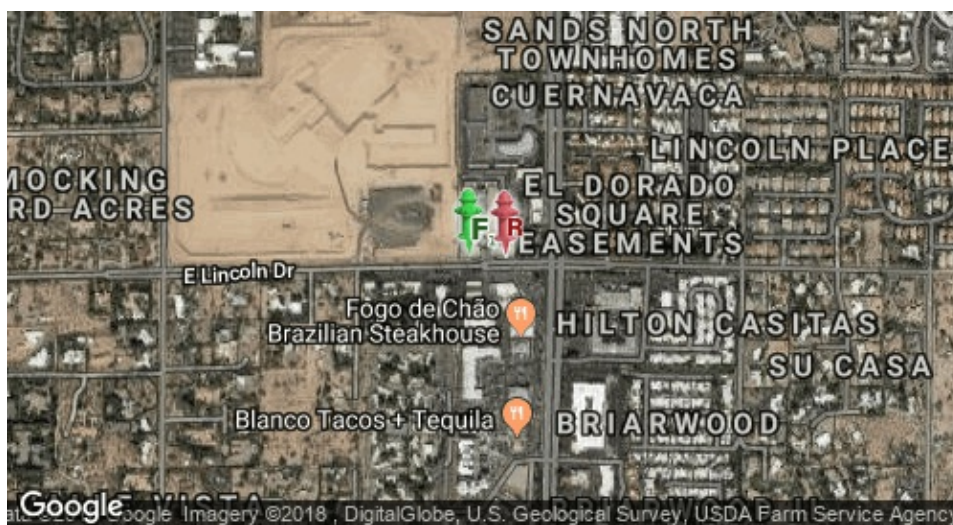
Static Pressure: 104.0 PSI
Residual Pressure: 99.0 PSI
Flowing GPM: 2,831
GPM @ 20 PSI: 12,989

Data with a 10 % Safety Factor

Static Pressure: 93.6 PSI
Residual Pressure: 88.6 PSI
Flowing GPM: 2,831
GPM @ 20 PSI: 12,094

Hydrant F₁

Pitot Pressure (1): 63 PSI
Coefficient of Discharge (1): 0.9
Hydrant Orifice Diameter (1): 4 inches
Additional Coefficient 0.83 on orifice #1



 Static-Residual Hydrant

 Flow Hydrant

Distance Between F₁ and R
248 ft (measured linearly)

Static-Residual Elevation
1304 ft (above sea level)

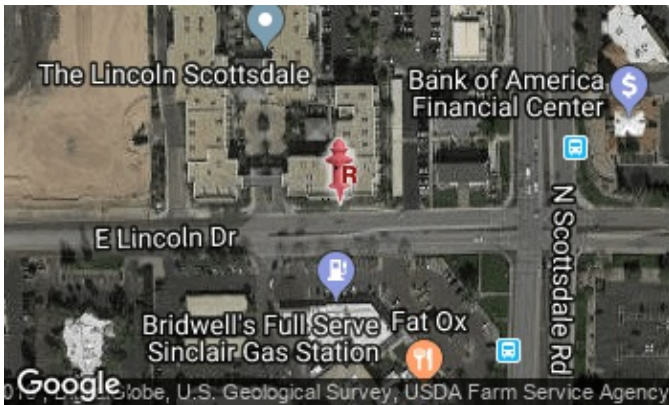
Flow Hydrant (F₁) Elevation
1306 ft (above sea level)

Elevation & distance values are approximate

EJ Flow Tests, LLC

21505 North 78th Ave. | Suite 130 | Peoria, Arizona 85382 | (602) 999-7637 | www.ejengineering.com
John L. Echeverri | NICET Level IV 078493 SME | C-16 FP Contractor ROC 271705 AZ | NFPA CFPS 1915
www.flowtestsummary.com

Static-Residual Hydrant



Flow Hydrant (only hydrant F1 shown for clarity)



Approximate Project Site



Water Supply Curve $N^{1.85}$ Graph

