

**Drainage Reports**

**Abbreviated Water & Sewer Need Reports**

**Water Study**

**Wastewater Study**

**Stormwater Waiver Application**

# WATER & SEWER REPORT

FOR

## VIVA ANANDA

7140 E FIRST AVENUE

SCOTTSDALE, ARIZONA 85251

Prepared for:

**ACT NINE, LLC**  
10575 N. 99<sup>th</sup> Place  
Scottsdale, Arizona 85258

Prepared by:



2663 E. Hobart Street  
Gilbert, Arizona 85296  
(480) 223-8573



EXPIRES 09/30/2018

November 2, 2017  
Job # 1491

## I. PROJECT DESCRIPTION

This project is a proposed owner-occupied live/work space. The basement and ground levels will be commercial space. The second and third levels will each have two residential condos for a total of four.

The site is located north of 1<sup>st</sup> Avenue just west of Scottsdale Road in Scottsdale, Arizona. The property is Lot 20, Block 1 of the West Scottsdale subdivision (Section 27, Township 2 North, Range 4 East). It is 0.14 acres in size and is bordered by 1<sup>st</sup> Avenue to the south, a City of Scottsdale owned parking lot to the west, a paved alley to the north, and an existing commercial building to the east. The existing building on the property will be removed as part of this project.

There is an existing 6" ACP City of Scottsdale public water main located in the alley on the north side of the property which supplies water to the site. Sewer service is provided by an 8" main of unknown material and is also located in the alley north of the lot.

## II. BASIS OF DESIGN

The daily water demand for the project was calculated to be 2,280 GPD as shown in the attached calculations. The existing 4" sewer tap is adequately sized to accommodate this flow (calculations attached).

The water improvements proposed as part of this project include a new domestic water service and fire sprinkler line. The existing sewer tap will accommodate the new building construction. Water and sewer infrastructure will be designed in accordance with the City of Scottsdale's *Design Standards and Policies Manual (DS&PM)*, M.A.G. and City of Scottsdale supplemental details and specifications.

## III. CONCLUSIONS

- The existing 4-inch sewer tap is adequate to meet the calculated demand.
- A new water meter and fire service line will be installed and will connect to the existing 6" water main north of the site.
- All construction will be in compliance with applicable environmental laws and regulations and the City of Scottsdale DS&PM.



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**Viva Ananda**  
**Water & Sewer Basis of Design Report**

**Development Data:**

**Development:** Viva Ananda  
 Report Prepared by Landcor Consulting, PC (480-223-8573)

**Location:** 7140 E 1st Ave  
 Scottsdale, AZ 85251

**Zoning:** C-2 D-O TYPE 2

**Land Use:** Commercial

**Population:** See below

**Sewer Impact:**

Wastewater Source	Use	Design Flow per		Quantity	Design Flow
		Unit (GPD)	Unit		(GPD)
Pshyciatrist Office 1	Office	20	Employee	2	40
Pshyciatrist Office 2	Office	20	Employee	2	40
Naturopathic Doctor	Office	20	Employee	2	40
Makeup Artistry	Beauty Parlor	100	Chair	5	500
Café	Restaurant				
Toilet	Restaurant	7	Customer	20	140
Kitchen Waste	Restaurant	6	Meal	20	120
Garbage Disposal	Restaurant	1	Meal	20	20
Kitchen Waste Disposal Service	Restaurant	2	Meal	20	40
Condominium 1	Apartment (3 Bdrm)	400	Apartment	1	400
Condominium 2	Apartment (3 Bdrm)	400	Apartment	1	400
Condominium 3	Apartment (2 Bdrm)	300	Apartment	1	300
Condominium 4	Apartment (2 Bdrm)	300	Apartment	1	300
<b>Total Design Flow =</b>					<b>2,340 GPD</b>
					<b>0.004 CFS</b>

### Existing 4-in Sewer Tap

**Circular**

Diameter (ft) = 0.33

Invert Elev (ft) = 10.00

Slope (%) = 0.50

N-Value = 0.015

**Calculations**

Compute by: Known Q

Known Q (cfs) = 0.00

**Highlighted**

Depth (ft) = 0.05

Q (cfs) = 0.004

Area (sqft) = 0.01

Velocity (ft/s) = 0.49

Wetted Perim (ft) = 0.26

Crit Depth, Yc (ft) = 0.04

Top Width (ft) = 0.24

EGL (ft) = 0.05

Elev (ft)

Section

