CITY OF SCOTTSDALE

Wastewater Study

SEWER BASIS OF DESIGN REPORT

FOR

WINERY RESIDENCES OF SCOTTSDALE

SWC GOLDWATER BOULEVARD & 1ST STREET
SCOTTSDALE, ARIZONA

PRELIMINARY Basis of Design Report

☐ ACCEPTED

☑ ACCEPTED AS NOTED

☐ REVISE AND RESUBMIT

CITY OF SCOTTSDALE

SCOTTSDALE WATER

9379 E San Salvador Dr.
Scottsdale, AZ 85258

Disclaimer: If accepted; the preliminary approval is granted under the condition that a final basis of design report will also be submitted for city review and approval (typically during the DR or PP case). The final report shall incorporate further water or sewer design and analysis requirements as defined in the city design standards and policy manual and address those items noted in the preliminary review comments (both separate and included herein). The final report shall be submitted and approved prior to the plan review submission.
For questions or clarifications contact the Water Resources Planning and Engineering Department at 480-312-5685.

BY Idillon **DATE** 5/22/2019

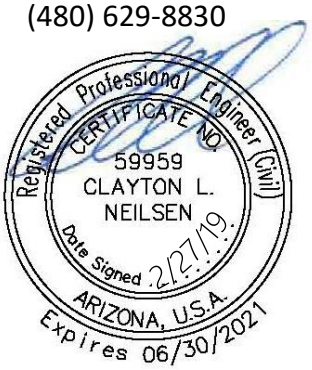
Requirements:

1) The new proposed 12-inch alley sewer line will need to be placed at least 9ft centerline to centerline from the existing 4-inch alley water line to obtain minimum horizontal clearance DS&PM 6-1.402, section 7.c.
2) Minimum slope of new 12" sewer 0.3% (2.5fps @ d/D=1), greater acceptable up to 10fps. DS&PM 7-1.404
3) New sewer must maintain 6ft horizontal clearance from all dry utilities,structures, and edge of ROW. COS detail 2401
4) If applicable the bench of the receiving manhole in Goldwater must be reformed to accept 12" line flow.

Prepared for:
Horizon Pediatric Therapy, Inc.
551 S. Higley Road
Mesa, AZ 85206

Prepared by:

Bowman CONSULTING
1295 W Washing Street, Suite 108
Tempe, Arizona 85281
(480) 629-8830



February 27, 2019
Bowman Project No. 050609

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C. Sewer Quarter Section Map
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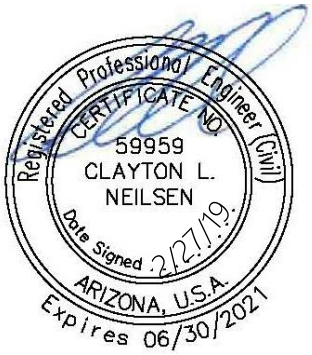
E. Preliminary Utility Plan



1.0 Introduction

Winery Residences of Scottsdale is a proposed development located at the southwest corner of Goldwater Boulevard and 1st Street. The development is located within a portion of the northeast quarter of Section 27, Township 2 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. The site will consist of 0.39 acres. The site is bounded by 1st Street to the North, Goldwater Boulevard to the East, an alley to the South, and existing properties to the West. A vicinity map is provided in Appendix A, Figure 1.

The existing site consists of the LDV Wine Gallery and Tasting Room and Studio B Interior Design; however, these tenants have since moved to new locations, leaving the current parcels occupied by three dwelling units with flexible lease terms. When redeveloped, the site will consist of approximately 1,500 square-feet of ground-floor retail space and 31 dwelling units with flexible leasing terms in a mid-rise building. The Site Plan, Floor Plans, and Elevations (profile) have been provided and can be found in Appendix B.

The Winery Residences of Scottsdale is within the jurisdiction of the City of Scottsdale and is designed to comply with the City of Scottsdale policies as outlined in Chapter 7 of the *City of Scottsdale Design Standards & Policies Manual, 2018* (Reference 1).

The purpose of this report is the following:

- Determine the development's sewer design flows.
- Show that the existing sewer has the capacity to accept flows from the site.
- Show compliance with the City of Scottsdale water design standards (Reference 1).

2.0 Projected Sewer Flows

2.1 Demand Criteria

In accordance with Figure 7-1.2 of the *Design Standards & Policies Manual* (Reference 1), the average day flow (ADF) for Resort Hotel use is 380 gallons per day per dwelling unit.

To determine the peak day flow (PDF), a peaking factor of 4.5 is multiplied by the ADF.

2.2 Demand Calculations

Average Day Flow

Total ADD = 380 gpd/du x 31 du = 11,780 gpd

Peak Day Flow

Total PDF = 11,780 gpd x 4.5 = 53,010 gpd = 0.082 cfs

Additionally, the City requires an additional flow of 100 gpm for pool backwash waste flows and 50 gpm for spa flows.

Additional PDF = 100 gpm + 50 gpm = 150 gpm = 0.33 cfs

Total PDF = 0.082 cfs + 0.33 cfs = 0.412

3.0 Existing Sewer System

There is currently an existing 8" sewer in the alley south of the property. At the request of the City of Scottsdale flow monitoring wanted 9 days of continuous monitoring to determine the maximum flow in the system. The monitoring was continuous for the first couple of days and then debris was being caught on the monitor and then no flows were registered. This issue we attribute to their being over a foot of drop at the manhole between the existing 8" and the 18" sewer. The maximum observed flow was 1180.97 gpm = 2.63 cfs. The total flow for the Peak Day Flow condition would be 3.04 cfs with the added flows requested by the City. With the limited data and using that as our basis a depth of flow calculation was performed, and it was determined with the added flows from our development that there was not enough capacity in the existing 8" sewer for the peak flow.

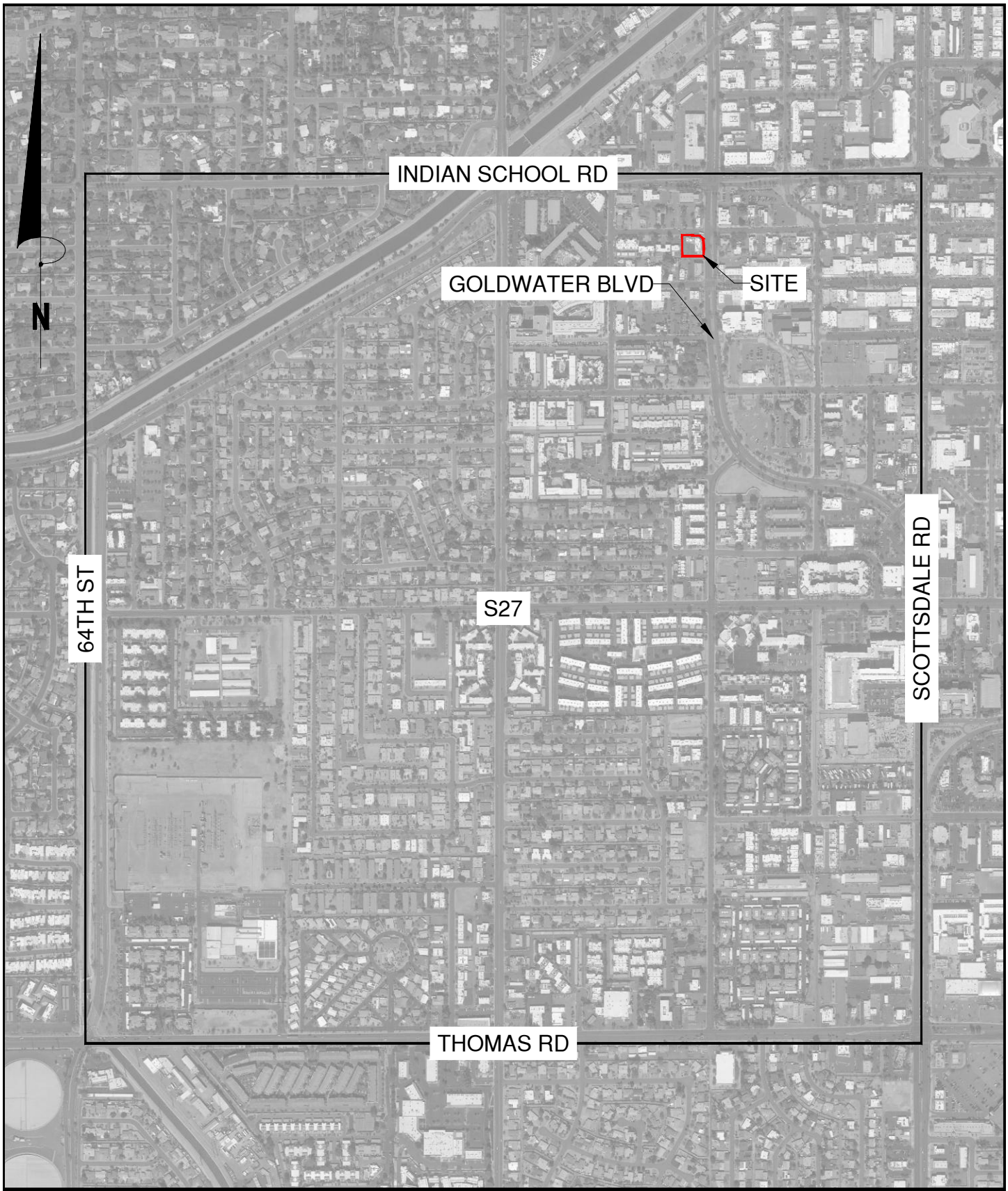
An analysis for a 12" sewer was conducted and that was determined that it would be sufficient to handle the increased flows. Based upon this the site will connect to a proposed 12-inch sewer in the alley to the south of the property. The flow monitoring data and sewer flow calculations can be found in Appendix D. The Preliminary Utility Plan can be found in Appendix E.

4.0 Conclusion

This project will connect to the proposed 12-inch sewer in the alley to the south of the property. It is anticipated that the added wastewater from the site will not adversely affect the surrounding sewer infrastructure.

Appendix A

Exhibits



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WINERY SUITES OF SCOTTSDALE

SCOTTSDALE, AZ

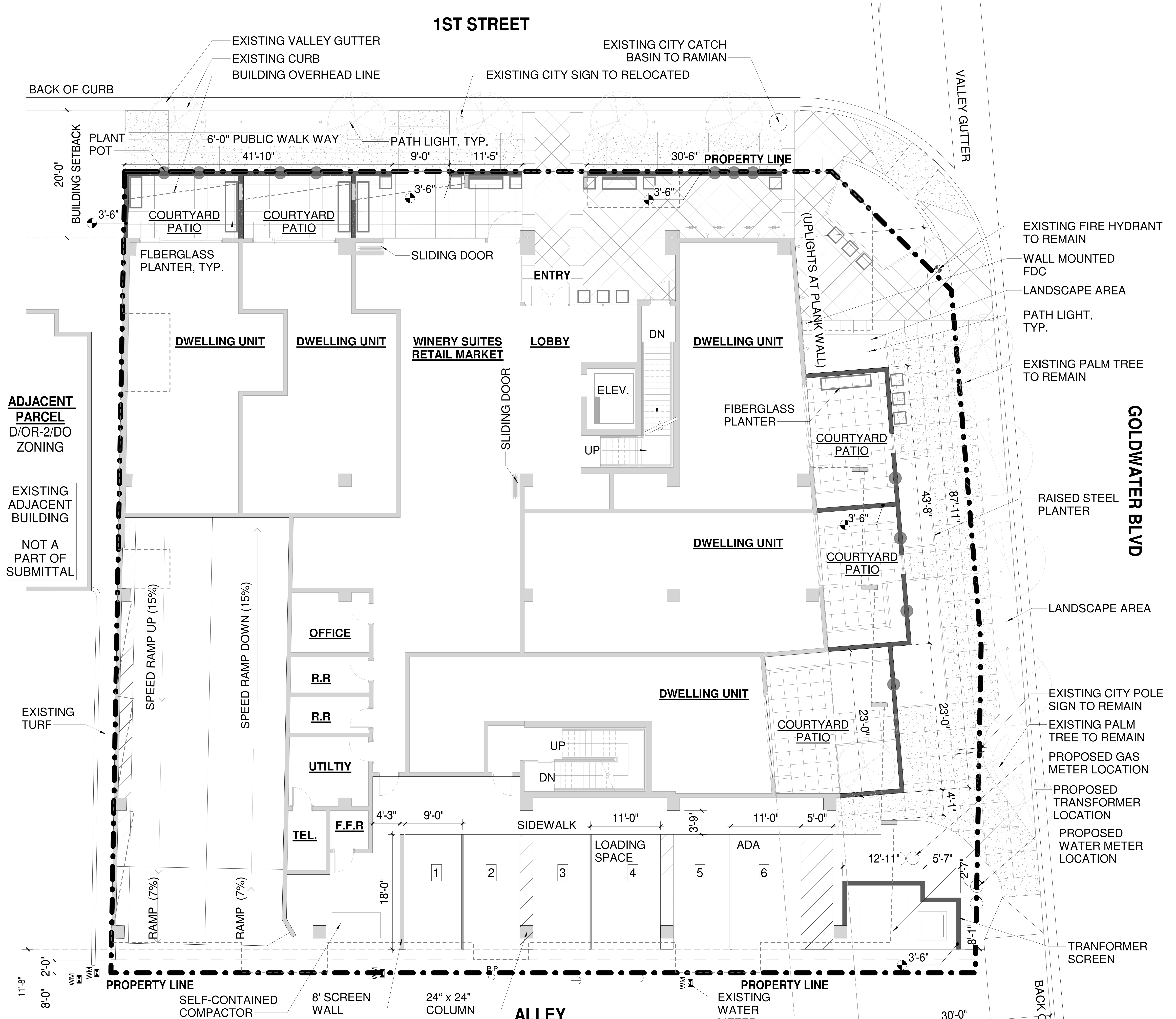
VICINITY MAP

JOB #	050609
DATE	11/08/2018
SCALE	N.T.S.
DRAWN	PS
SHT 1 OF 1	

CAD FILE NAME: V:\050609 - DPA Architects\050609-01-002 (ENG) - Winery Suites of Scottsdale\Engineering\Exhibits\050609-Vicinity Map.dwg 11/09/2018

Appendix B

Site Plan, Floor Plans, and Building Elevations (Profiles)



NOTE: EXISTING OVERHEAD UTILITY LINES ADJACENT TO SITE LINE WILL BE BURIED IN COORDINATION WITH APS.

NOTE: EXISTING ALLEY ALONG SITE FRONTAGE WILL BE REPAVED AS REQUIRED , INCLUDING AN INVERTED CROWN TO IMPROVE DRAINGE, INCLUDING ADA ACCESSIBLE PEDESTRIAN CROSSING. SEE CIVIL DRAWINGS

SITE PLAN
1/8" = 1'-0"

PROJECT DATA

CURRENT ZONING:	
PARCEL 1: 6961 D/OR-2/DO	DOWNTOWN OVERLAY
PARCEL 2: 6951 C-2/DO	CENTRAL BUSINESS DOWNTOWN OVERLAY BUILDING HEIGHT LIMITATION: 36'-0"
REZONING CLASSIFICATION: DMU-2:	DOWNTOWN MULTIPLE USE TYPE 2 AREA, SINGLE PARCEL
GROSS LOT AREA (TO HALF STREET & ALLEY):	**27,034 SF**
NET SITE AREA:	**16,862 SF**
ALLOWED DENSITY (WITH TYPE-2 DMU REZONING)	50 DU / ACRE
GROSS LOT AREA	27,034 (0.62 ACRE)
50 DU / ACRE X 0.62 ACRE	= 31.03 DU **= 31 DWELLING UNITS**
PROPOSED GFAR (AS DEFINED BY COS ZONING ORDINANCE 3.100):	
NONRESIDENTIAL FLOOR AREA(1,645)	
GROSS LOT AREA (17,034)	= 0.096
BUILDING FLOOR AREA (AS DEFINED BY COS ZONING ORDINANCE 3.100):	
STREET LEVEL:	8,045 SF
LEVEL 2:	11,837 SF
LEVEL 3:	11,712 SF
ROOF LEVEL:	4,011 SF
SUBTOTAL:	**35,605 SF**
UNDERGROUND GARAGE:	16,288 SF
TOTAL:	**51,884 SF**
AREA OF USE BREAKDOWN:	
WINERY SUITES RETIAL MARKET: (INCLUDES RESTROOMS)	1,645 SF
STREET LEVEL DEWLLING UNITS:	4,347 SF
2ND LEVEL DWELLING UNITS:	8,826 SF
3RD LEVEL DWELLING UNITS:	9,015 SF
ROOF LEVEL DWELLING UNITS:	3,086 SF
COMMON AREA USE BREAKDOWN:	
PARKING GARAGE	15,658 SF
STREET LEVEL (LOBBY, STAIRS, ELEVATOR, UTILITY ROOMS)	1,050 SF
2ND LEVEL (STAIRS, ELEVATOR, IDF CLOSET,SHAFT)	1,455 SF
3RD LEVEL (STAIRS, ELEVATOR, IDF CLOSET, SHAFT)	1,455 SF
ROOF LEVEL (POOL DECK, STAIRS, HVAC AREA)	6,520 SF
BUILDING HEIGHT ALLOWED (DMU-2 REZONING):	**66'-0"**
SETBACKS:	
NORTH GOLDWATER BLVD (FROM CURB):	**30'-0"**
1ST STREET (FROM CURB):	**20'-0"**
ALLEY (FROM CENTERLINE):	**10'-0"**
STEPBACKS:	
30'-0" TO 45'-0" HEIGHT:	1:1 INCLINE STEPBACK
45'-0" AND ABOVE:	2:1 INCLINE STEP BACK

WINERY RESIDENCES OF SCOTTSDALE
6951 / 6961 E 1ST ST. SCOTTSDALE, AZ. 85251

02/18/2019
expires 30 june 2019

dpa
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REVISION INFORMATION

#:	Description:	Date:

drawn by:	YT
project no.:	18024
date:	02/18/19

SITE PLAN

AS100

CITY OF SCOTTSDALE
REZONING/DR DEVELOPMENT SUBMITTAL
24-ZN-2018 AND 52-DR-2018

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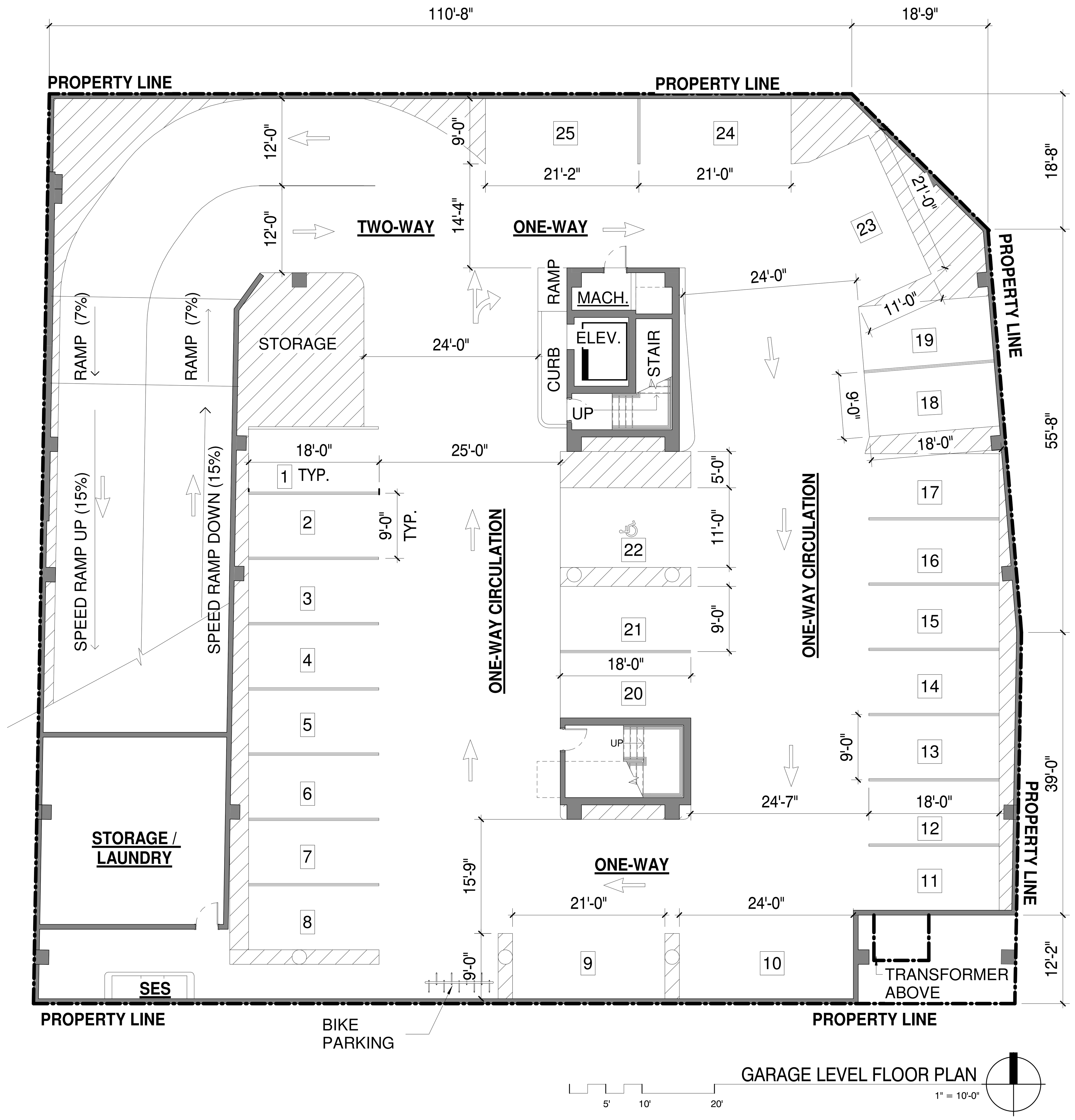

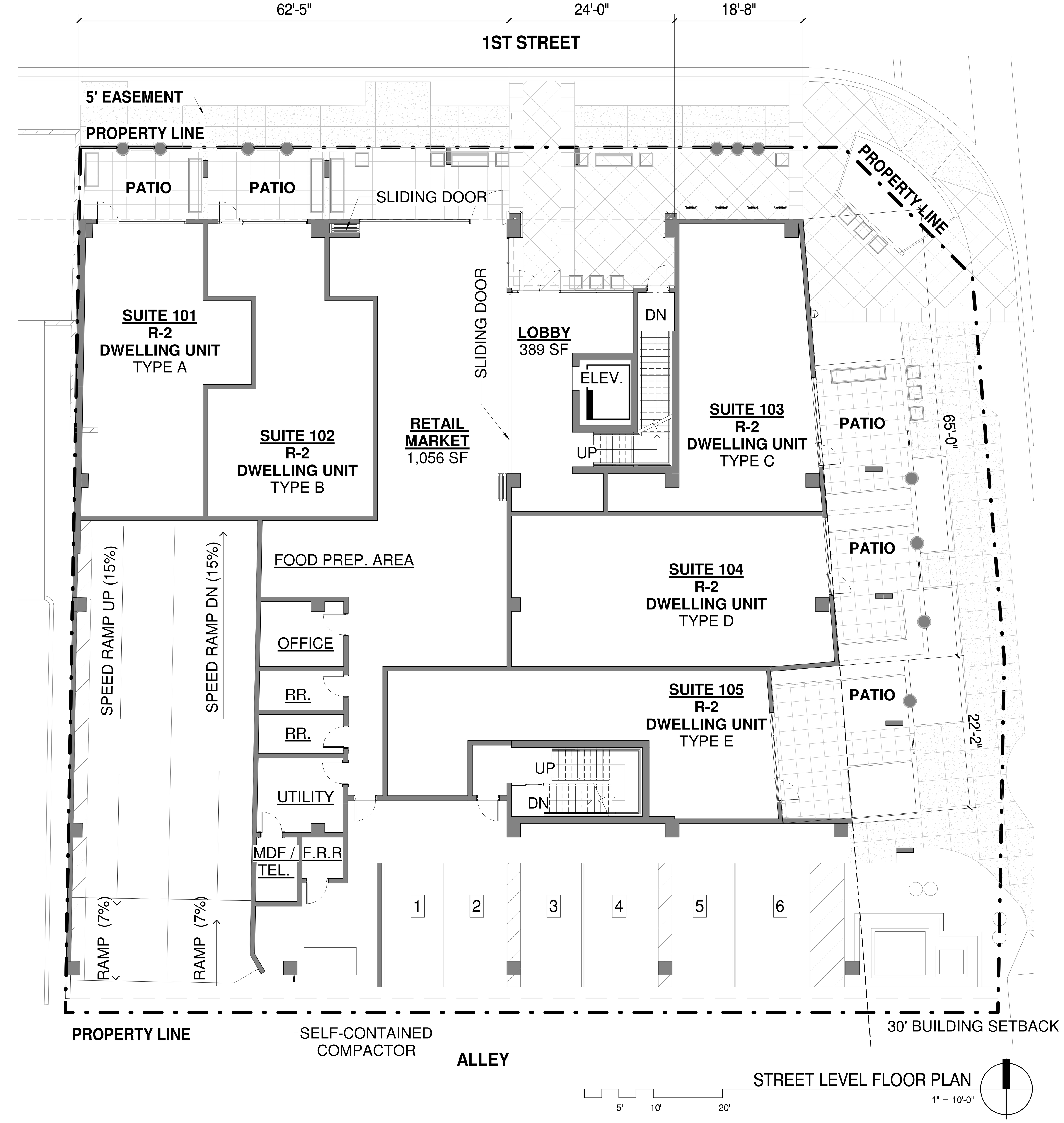

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REVISION INFORMATION

#:	Description:	Date:

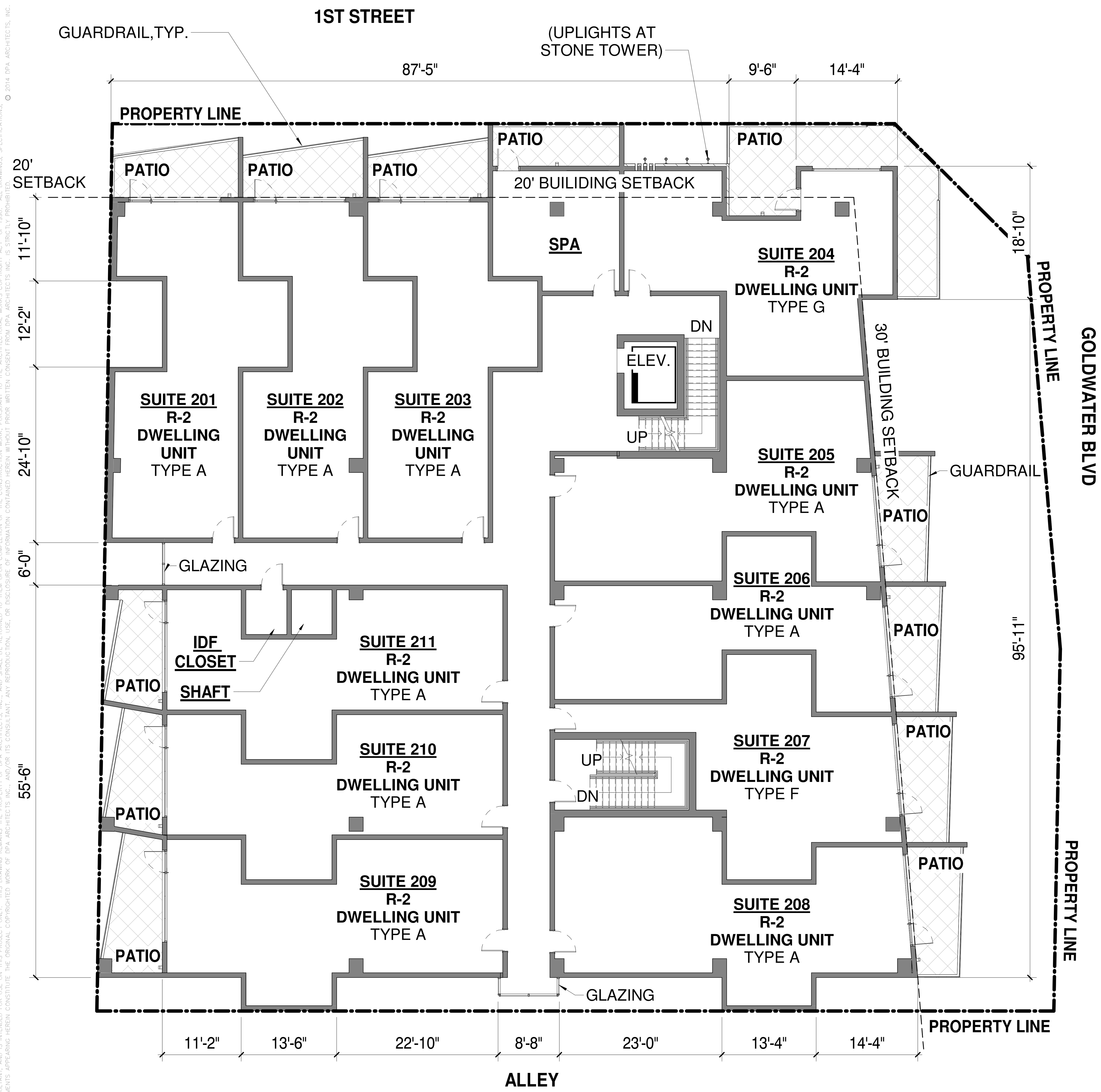
drawn by: YT
project no.: 18024
date: 02/18/19

FLOOR PLANS - GARAGE LEVEL / STREET LEVEL

A 100

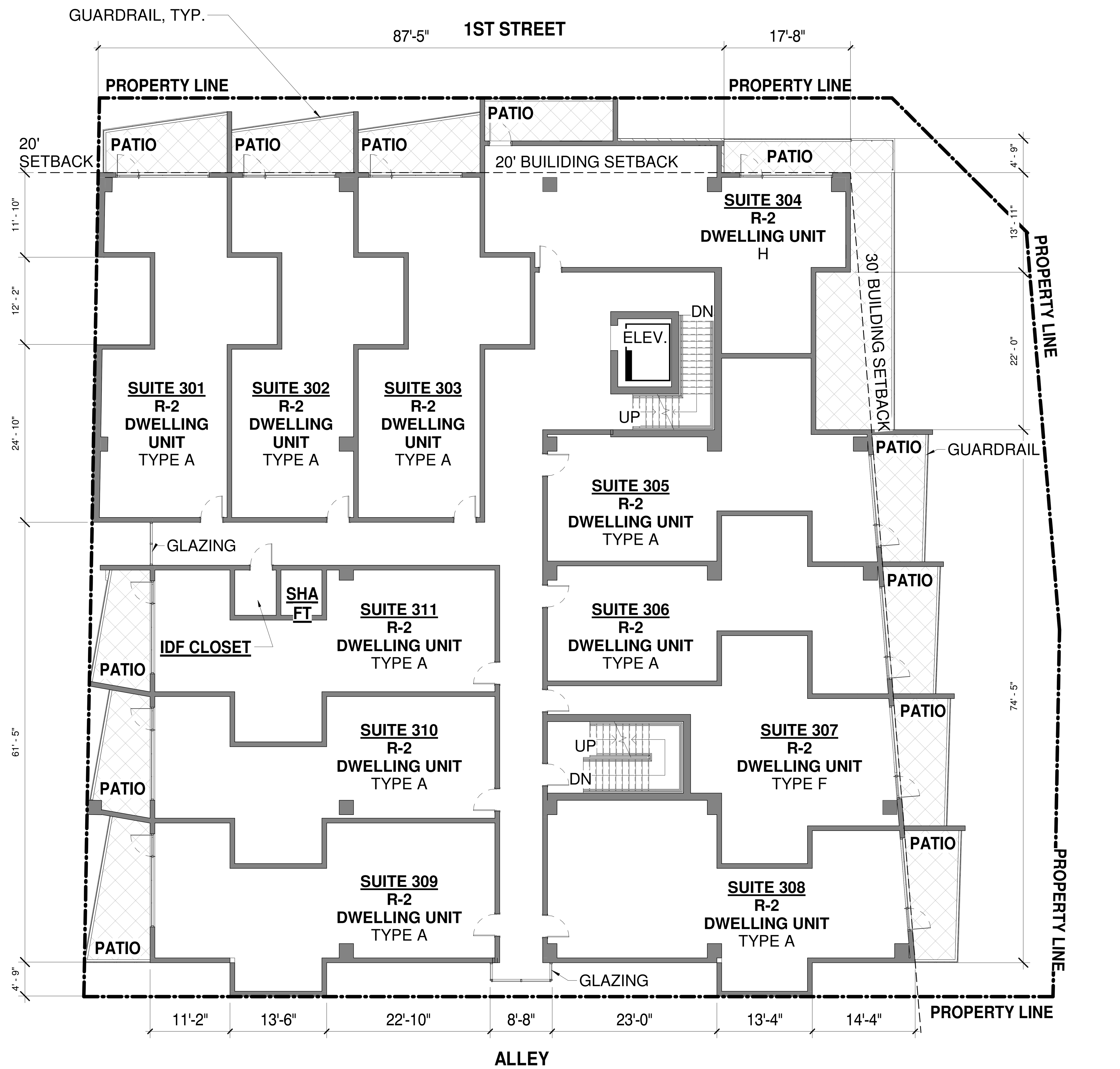
CITY OF SCOTTSDALE
REZONING/DR DEVELOPMENT SUBMITTAL
24-ZN-2018 AND 52-DR-2018

PLOT DATE: 2/16/2019 10:21:26 AM



NOTE:
ROOF DRAINAGE SYSTEM SHALL BE CONCEALED
WITHIN THE STRUCTURE AT ALL BUILDING FACADES PER COS ZONING ORDINANCE, SECTION 7.105C

SECOND LEVEL
1" = 10'-0"



NOTE:
ROOF DRAINAGE SYSTEM SHALL BE CONCEALED
WITHIN THE STRUCTURE AT ALL BUILDING FACADES PER COS ZONING ORDINANCE, SECTION 7.105C

THIRD LEVEL
1" = 10'-0"

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#:	Description:	Date:

drawn by: YT
project no.: 18024
date: 02/18/19

FLOOR PLANS - 2ND LEVEL / 3RD LEVEL

A 101

CITY OF SCOTTSDALE
REZONING/DR DEVELOPMENT SUBMITTAL
24-ZN-2018 AND 52-DR-2018

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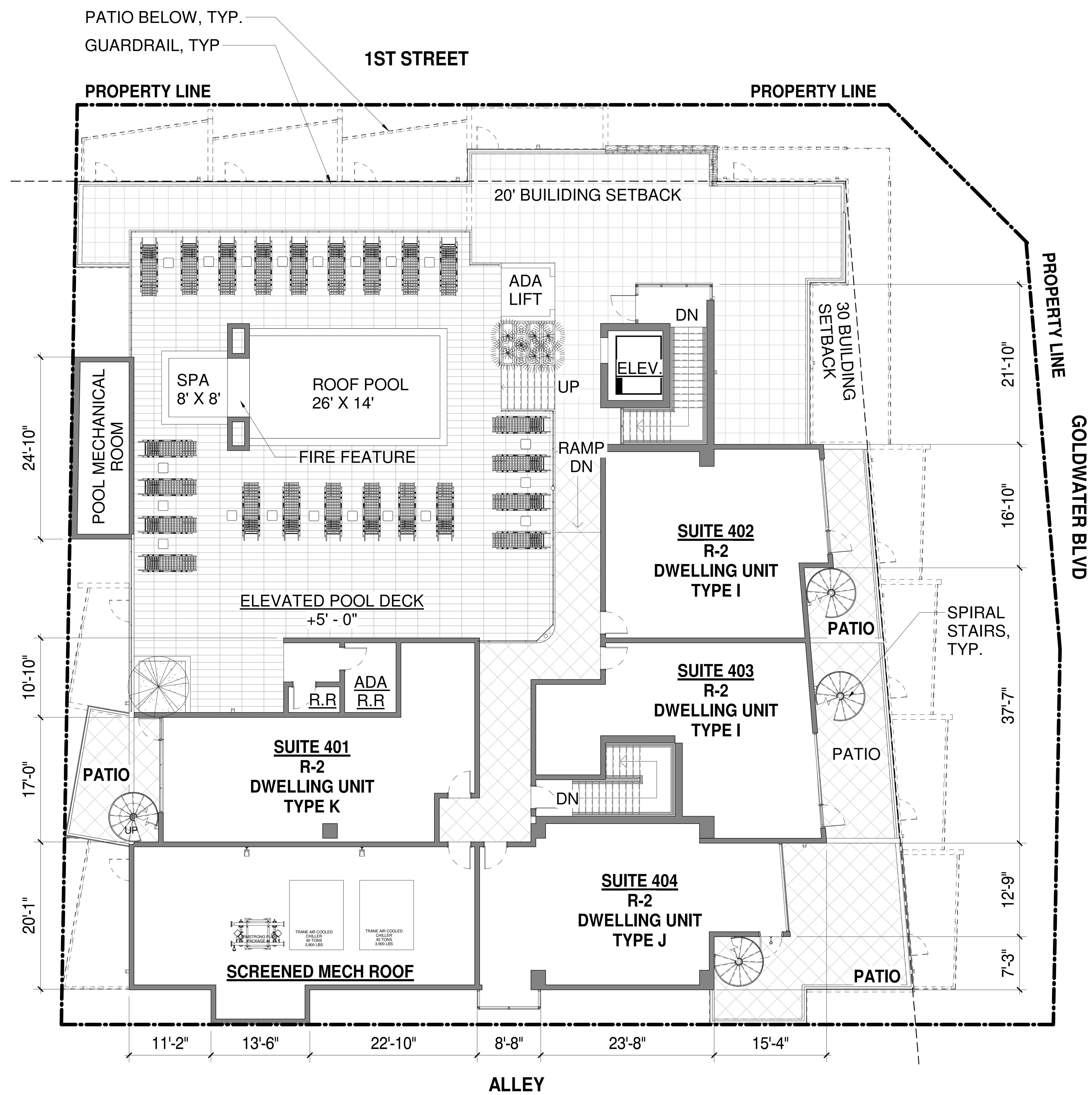

NOTE:
ROOF DRAINAGE SYSTEM SHALL BE CONCEALED
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ROOF LEVEL
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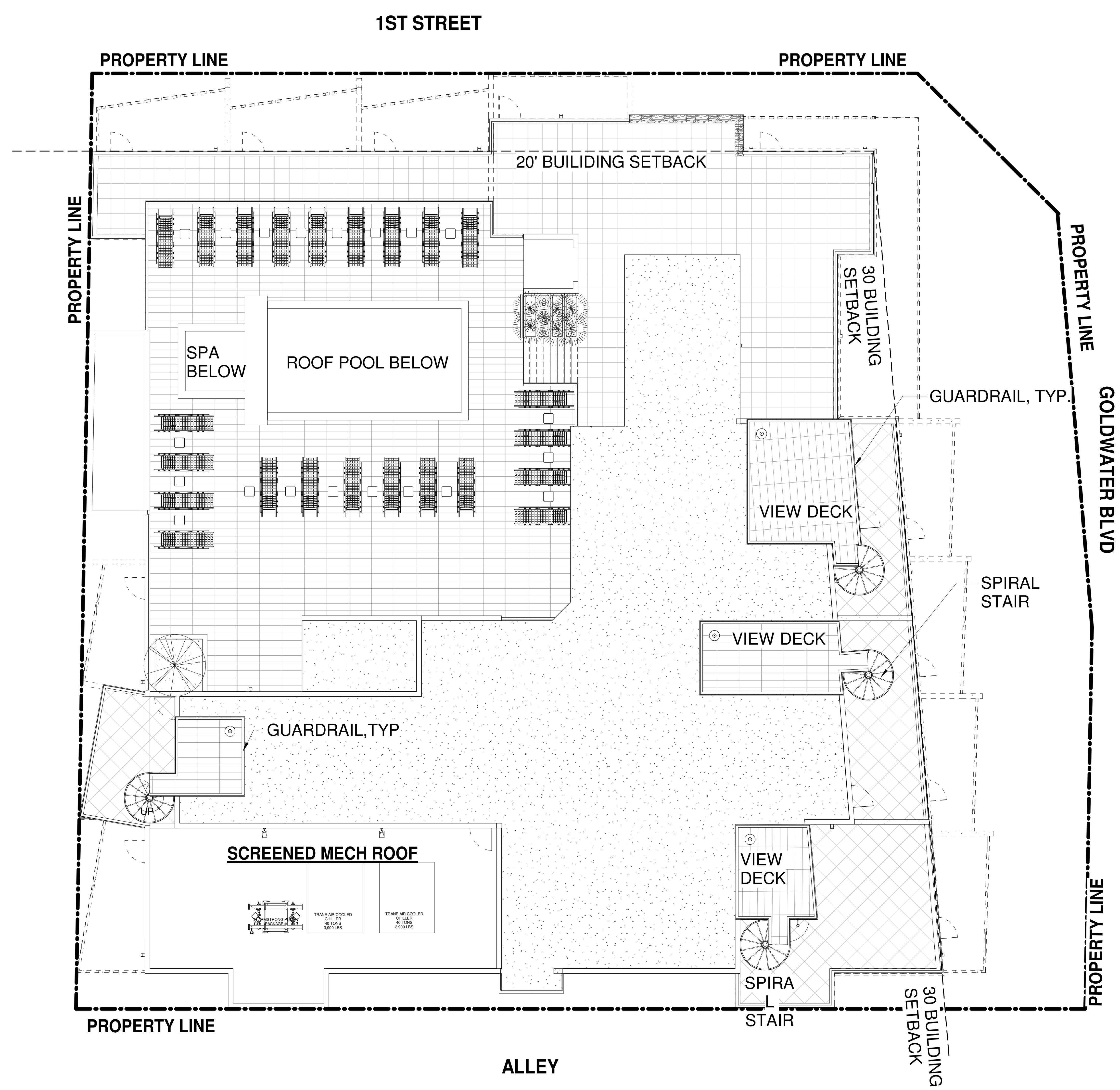

NOTE:
ROOF DRAINAGE SYSTEM SHALL BE CONCEALED
WITHIN THE STRUCTURE AT ALL BUILDING FACADES PER COS ZONING ORDINANCE, SECTION 7.105C

PARAPET LEVEL
1" = 10'-0"

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6951 / 6961 E 1ST ST. SCOTTSDALE, AZ. 85251

expires 30 june 2019

DESIGNERS OF PROGRESSIVE ARCHITECTURE
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REVISION INFORMATION

#:	Description:	Date:

drawn by: YT
project no.: 18024
date: 02/18/19

FLOOR PLANS - ROOF LEVEL / PARAPET LEVEL

A 102

CITY OF SCOTTSDALE
REZONING/DR DEVELOPMENT SUBMITTAL
24-ZN-2018 AND 52-DR-2018

PLOT DATE: 2/16/2019 10:24:34 AM

EXTERIOR MATERIOR AND FINISH SCHEDULE

EIFS-1
DESCRIPTION: EIFS
LOCATION: EXTERIOR WALLS
MANUFACTURER: DUNN EDWARDS
COLOR: 'ASH GRAY' DEC 751
FINISH: SAND FINISH

EIFS-2
DESCRIPTION: EIFS
LOCATION: EXTERIOR WALLS
MANUFACTURER: DUNN EDWARDS
COLOR: 'BISON BEIGE' DEC 750
FINISH: SAND FINISH

EIFS-3
DESCRIPTION: EIFS
LOCATION: EXTERIOR WALLS
MANUFACTURER: DUNN EDWARDS
COLOR: 'CRAFT PAPER' SW6125
FINISH: SAND FINISH

STC-1
DESCRIPTION: STUCCO/PORTLAND CEMENT PLASTER
LOCATION: EXTERIOR WALLS
MANUFACTURER: DUNN EDWARDS
COLOR: 'ASH GRAY' DEC 751
FINISH: SAND FINISH

STC-2
DESCRIPTION: STUCCO/PORTLAND CEMENT PLASTER
LOCATION: EXTERIOR WALLS
MANUFACTURER: DUNN EDWARDS
COLOR: 'BISON BEIGE' DEC 750
FINISH: SAND FINISH

STC-3
DESCRIPTION: STUCCO/PORTLAND CEMENT PLASTER
LOCATION: EXTERIOR WALLS
MANUFACTURER: DUNN EDWARDS
COLOR: 'CRAFT PAPER' SW6125
FINISH: SAND FINISH

MTL-1
DESCRIPTION: LASER CUT METAL PANELS
LOCATION: EXTERIOR WALL, RAILING ELEMENT
MANUFACTURER: CUSTOM PER LAYOUT
COLOR: BRONZE ANODIZED

WD-1
DESCRIPTION: SYNTHETIC WOOD PURLINS
LOCATION: AT BUILDING ENTRY
MANUFACTURER: 'TREX' ENHANCE
COLOR: 'BEACH DUNE'

WS-1
DESCRIPTION: SIMULATED WOOD STONE PLANK VENEER
LOCATION: EXTERIOR WALL AT STREET LEVEL
MANUFACTURER: CORONADO STONE
COLOR: ROUGHCUT WOODSTONE CEDAR
FINISH: MATTE

ST-1
DESCRIPTION: SIMULATED WOOD STONE VENEER
LOCATION: AT ENTRY TOWER ELEMENT
MANUFACTURER: CORONADO STONE
COLOR: MIX OF THE FOLLING STONE VENEERS:
60% 'ITALIAN VILLA' PROVO CANYON GREY
40% ' ITALIAN VILLA' TIMBERLAKE/GREY STONE

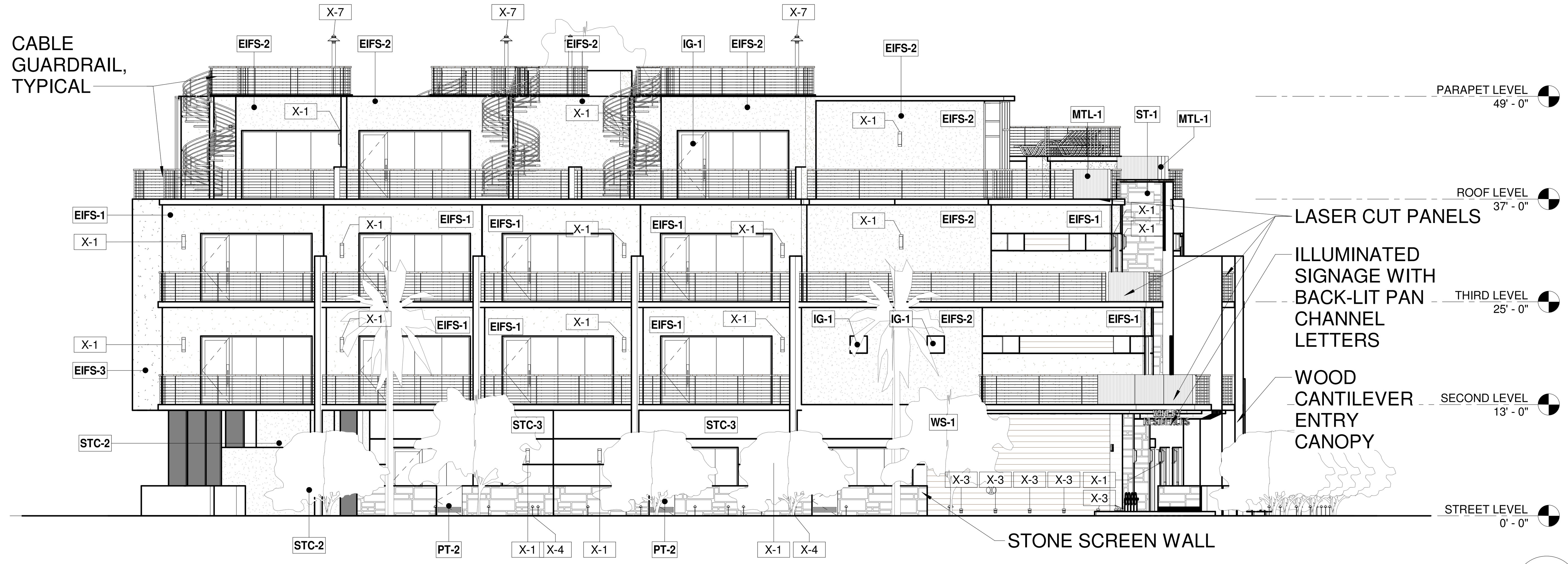
PT-1
DESCRIPTION: ACCENT PAINT COLOR
LOCATION: WINDOW BOX FRAMES, METAL DOORS AND TRIM
MANUFACTURER: SHERWIN WILLIAMS
COLOR: 'POINTED ROCK' DE6363

PT-2
DESCRIPTION: ACCENT PAINT COLOR
LOCATION: ENTRY METAL GATE
MANUFACTURER: SHERWIN WILLIAMS
COLOR: 'POINTED ROCK' DE6363

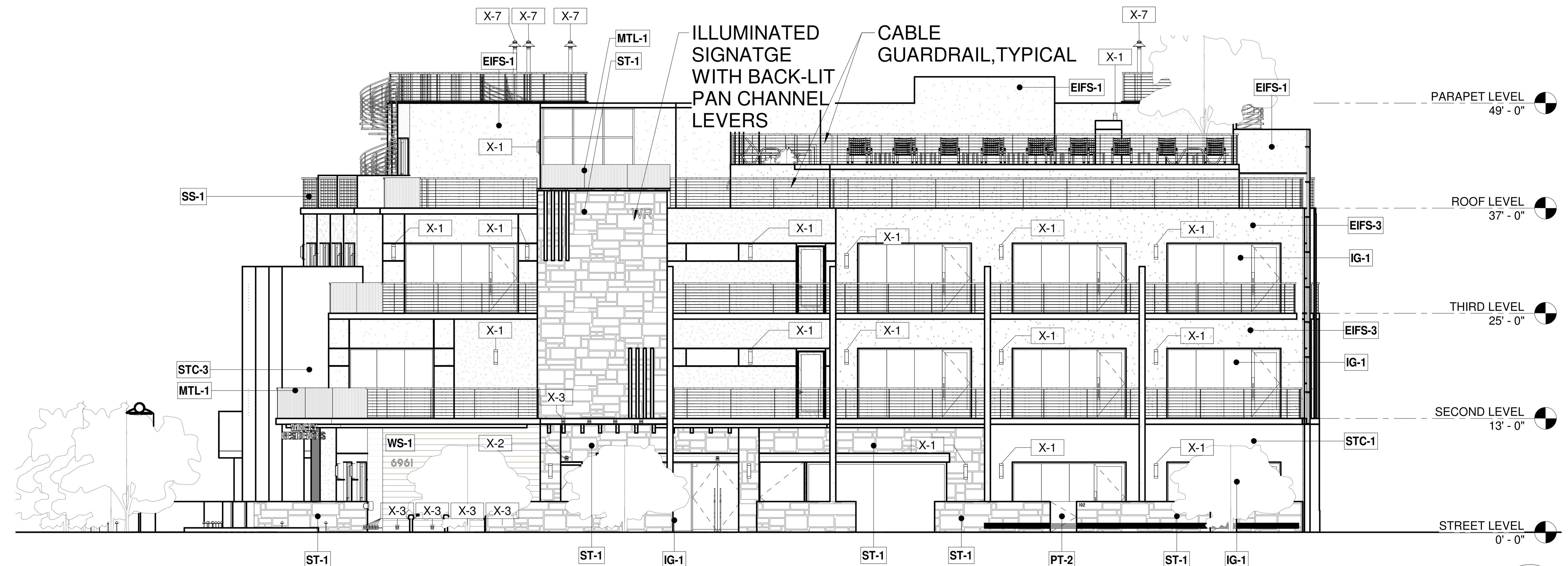
CONC-1
DESCRIPTION: NATURAL FINISH CONCRETE COLUMN
LOCATION: CONCRETE COLUMN
MANUFACTURER: N/A
COLOR: STANDARD CONCRETE

SS-1
DESCRIPTION: STAINLESS STEEL CABLE RAILINGS
LOCATION: CUSTOM PER LAYOUT
MANUFACTURER: STAINLESS

IG-1
DESCRIPTION: LOW - E INSULATED GLAZING UNITS/FRAMES
LOCATION: DWELLINGS UNITS & WINERY MARKET WINDOW OPENINGS
MANUFACTURER: VITRO/PPG
TYPE: SOLARGREY, SOLARBAN 70XL 7% REFLECTIVITY MEDIUM BRONZE ANODIZED



EAST ELEVATION 1
1" = 10'-0" A 201



NORTH ELEVATION 2
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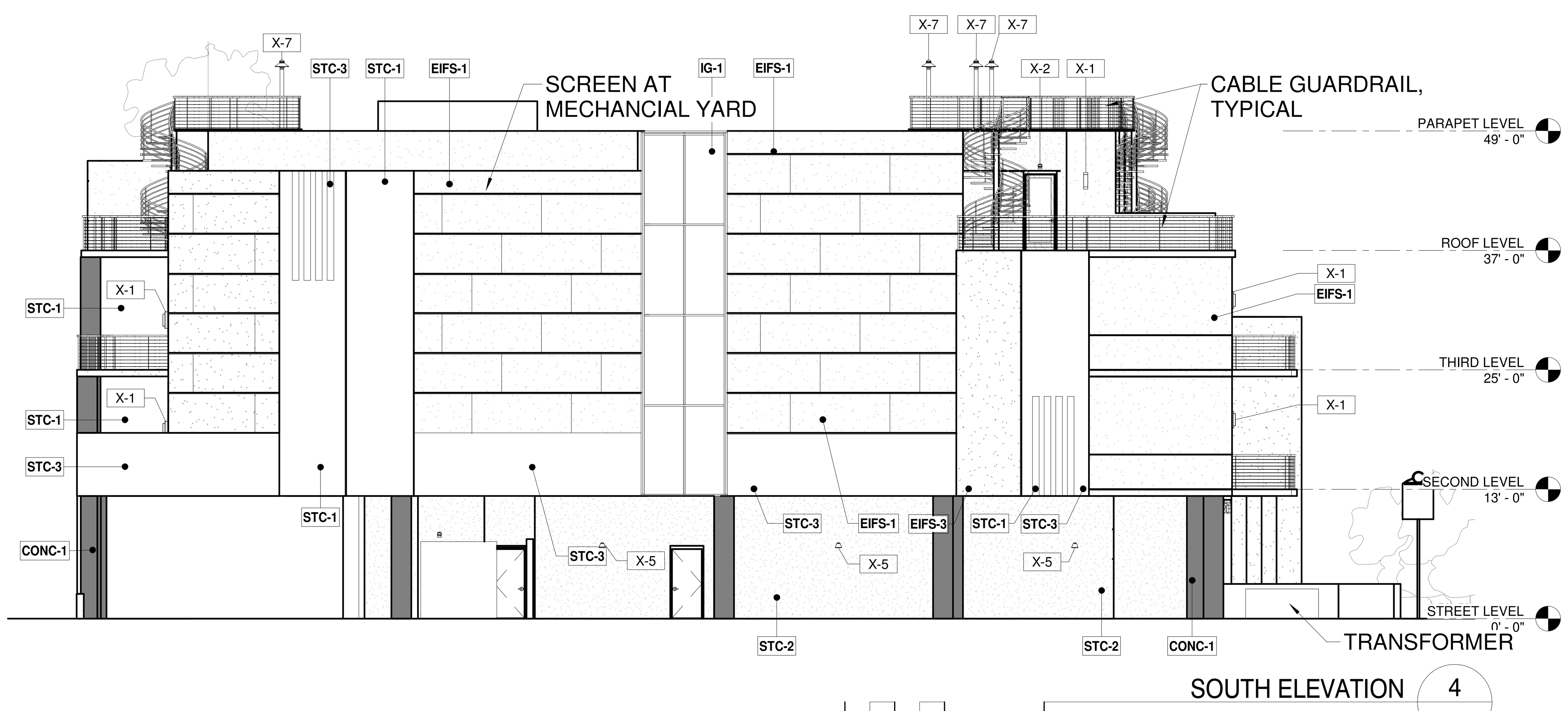

SOUTH ELEVATION 4
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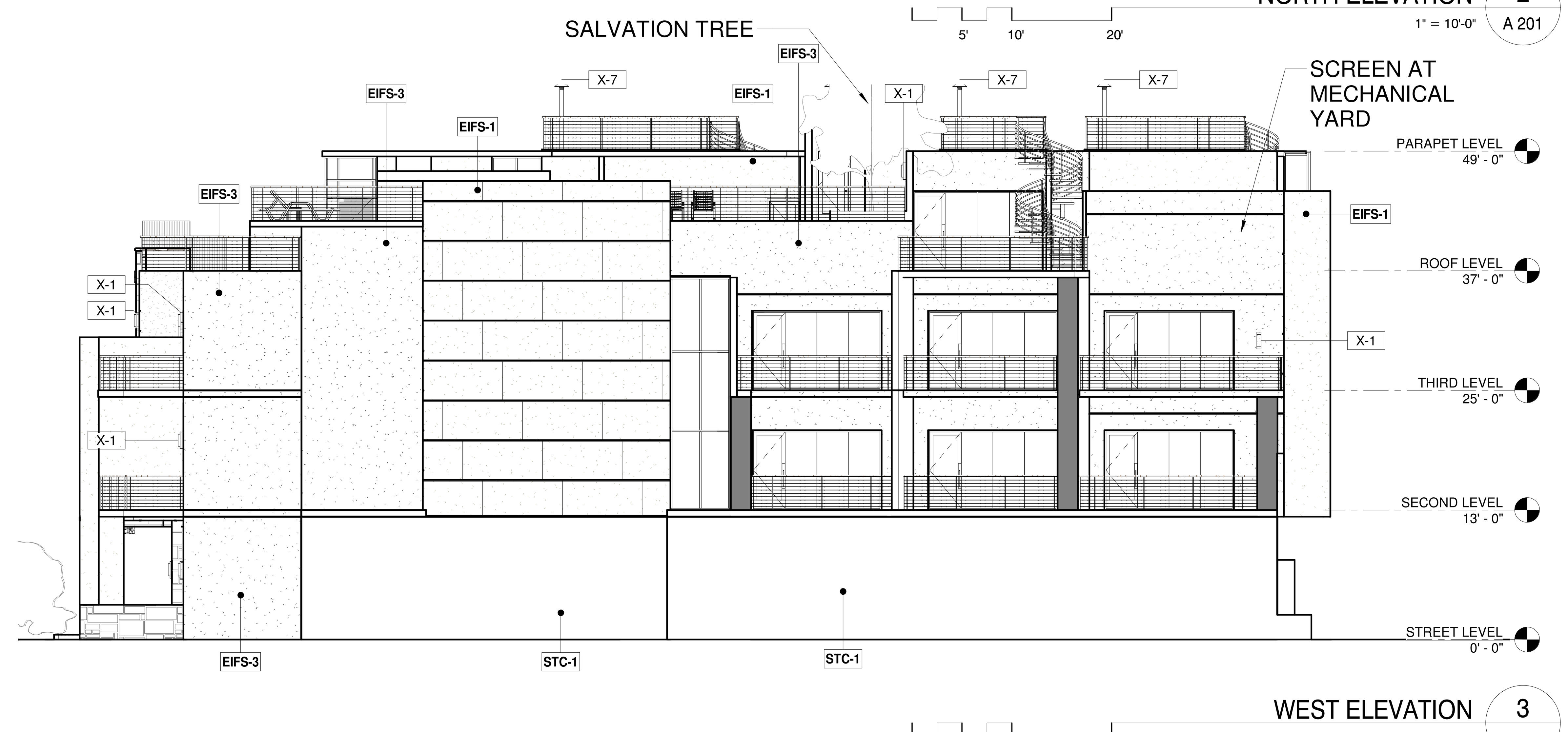

WEST ELEVATION 3
1" = 10'-0" A 201

WINERY RESIDENCES OF SCOTTSDALE
6951 / 6961 E 1ST ST. SCOTTSDALE, AZ. 85251

expires 30 june 2019

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#:	Description:	Date:

drawn by: YT
project no.: 18024
date: 02/18/19

BUILDING ELEVATIONS-BW

A 201

CITY OF SCOTTSDALE
REZONING/DR DEVELOPMENT SUBMITTAL
24-ZN-2018 AND 52-DR-2018

PLOT DATE: 2/16/2019 10:43:51 AM

Appendix C

Sewer Quarter Section Map

16-43

16-45

15-44

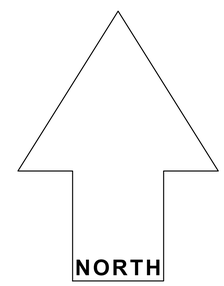
GENERAL NOTES:

- THIS IS A COMPUTER GENERATED DRAWING. FOR ANY REVISIONS PLEASE CONTACT THE CITY OF SCOTTSDALE GIS DEPARTMENT AT (480) 312-7792.
- THE SECTION LINE BEARING AND DISTANCES ARE BASED ON THE CITY OF SCOTTSDALE GPS SURVEY OF SEPTEMBER, 1991. BEARINGS ARE NAD 83 GRID AND DISTANCES ARE FLATTENED TO GROUND. WHERE NO CORNER WAS FOUND THE DIMENSIONS ARE GIVEN TO CALCULATED SECTION CORNERS AND ARE NOTED AS 'CALCULATED' ON THE MAP.

LEGEND:

- Water Valve
- Non-potable Water Valve
- Fire Hydrant
- Water Blowoff
- Water Main Reducer
- Water Sample Station
- Water Air Release Valve
- Non-potable Water Air Release Valve
- Water Pressure Reducing Valve
- Water Vault
- Water Manhole
- Non-Potable Water Manhole
- Water Pump
- Water Main
- Non-Potable Water Main
- Fire Line
- Water Service
- Non-Scottsdale Water Main
- Sewer Manhole
- Sewer Cleanout
- Sewer Lift Station
- Sewer Treatment Plant
- Sewer Main - Gravity
- Sewer Main - Force
- Non-Scottsdale Sewer Main
- Sewer Service

VICINITY MAP



WATER & SEWER

QUARTER SECTION MAP

16-44

NE 1/4 SEC. 27 T2N R4E

CITY OF SCOTTSDALE
SCOTTSDALE GEOGRAPHIC INFORMATION SYSTEMS
3629 North Drinkwater Boulevard
Scottsdale, Arizona 85251

17-FEB-19

Appendix D

Sewer Capacity Calculations

February 25, 2019

Flow Report: SL421

Flow Monitoring Service

RDH Environmental Services LLC (RDH) conducted flow monitoring for **Bowman Consulting & Horizon Pediatric Therapy**

Location of monitoring site: Manhole on Goldwater just south of 1st. Street at the alleyway entrance. See photo below

Installation structure: 6' manhole 15' deep with 24" Ring & Cover

Pipe size: 8" PVC with an exterior drop feature just above the bench into an 18" main.

Total number of meters to be installed: one (1)

Type of meter: 910 Hach meter with Area Velocity (AV) sensor

Duration of monitoring: 9 days 2-8-19 to 2-18-19

Data logging: 5 minutes intervals

The equipment was installed on 2-8-19 with confined space entry, pipe size confirmed, and there was no method to install the sensor at the top of the drop feature due to the recess depth. The sensor was installed at the bottom outlet of the drop which was about 16" of linear pipe. Due to the water fall effect of the vertical pipe and short discharge pipe, the water was extremely turbulent with very little linear flow. The sensor calibrated and level depth confirmed by damming the water to approximately 4" to try and calm the water. There was no true scum line to indicate flow level, but we did witness the flows for 2 hours in the morning (06:00 to 08:00) installing the sensor and levels did not exceed 2" on the average. Photos and video was taken prior to removing the sensor (see attached). There was no evidence of any surcharging of the pipe or manhole walls. The 18" line had a 5"- 6" scum line and no silt. The sensor was inserted in the 5:00 position in the upstream pipe with the sensor reading incoming flow. The 5:00 position is preferred when there is debris present. We witness toilet paper and fecal wanting to build on the sensor due to the nonlinear flows. Due to the drop feature this site did not allow for good flow monitoring.

Flow data:

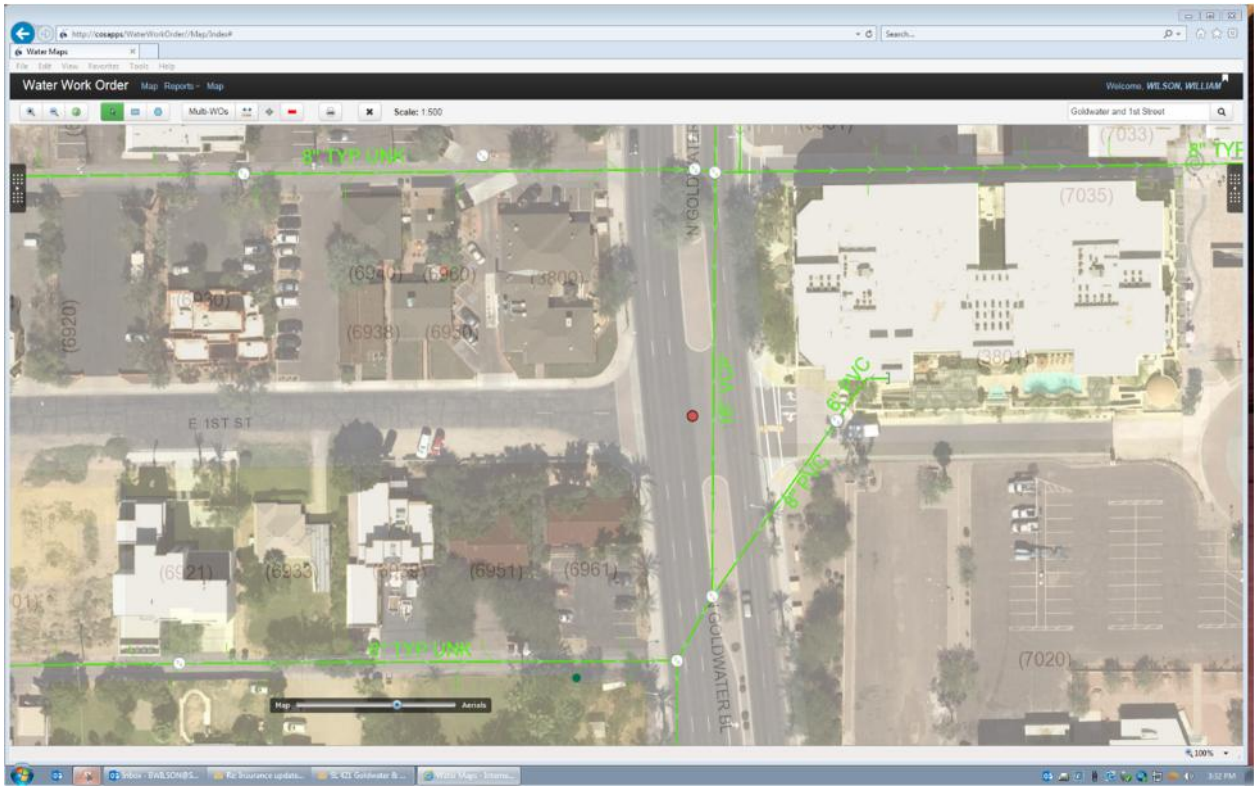
RDH was not able to obtain 9 days of flow day due to the site conditions using an AV sensor. This site would also not be suitable for a Flo-Dar or Ultrasonic sensors due to the drop feature. The data recorded in the first 2 days gave good indicators of the flows and depths based on what was witnessed onsite. In the 3 day the sensor appears to be building up debris and the data is erratic and does not give the appearance of normal flow patterns. Once the velocity is blocked there is no flow indicated. Regarding level, the diaphragm can get temporarily pack and give high level readings. Over all the sensor could not perform well in this application and eventually lockup on 2-11-19 08:25 until 2-12-19 07:30. And again from 2-12-19 09:25 until it was removed 2-18-19.

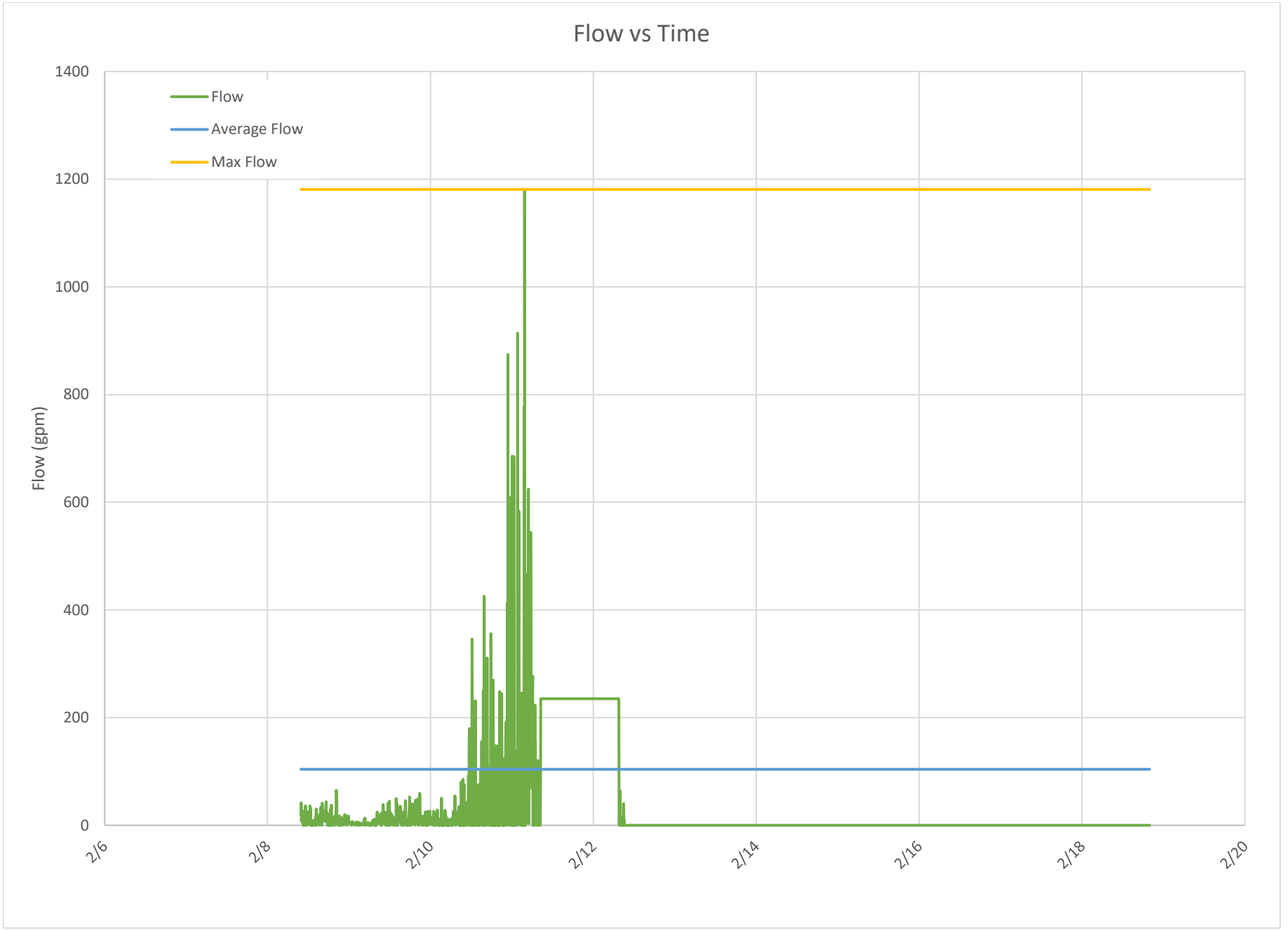
Attached in the e-mail is the excel sheet showing Level, Velocity and Flow using the Manning equation within the logger, and a summary of the daily data. We also included a photo and video of the 8” discharge pipe with flow at the bench of the 18” main.

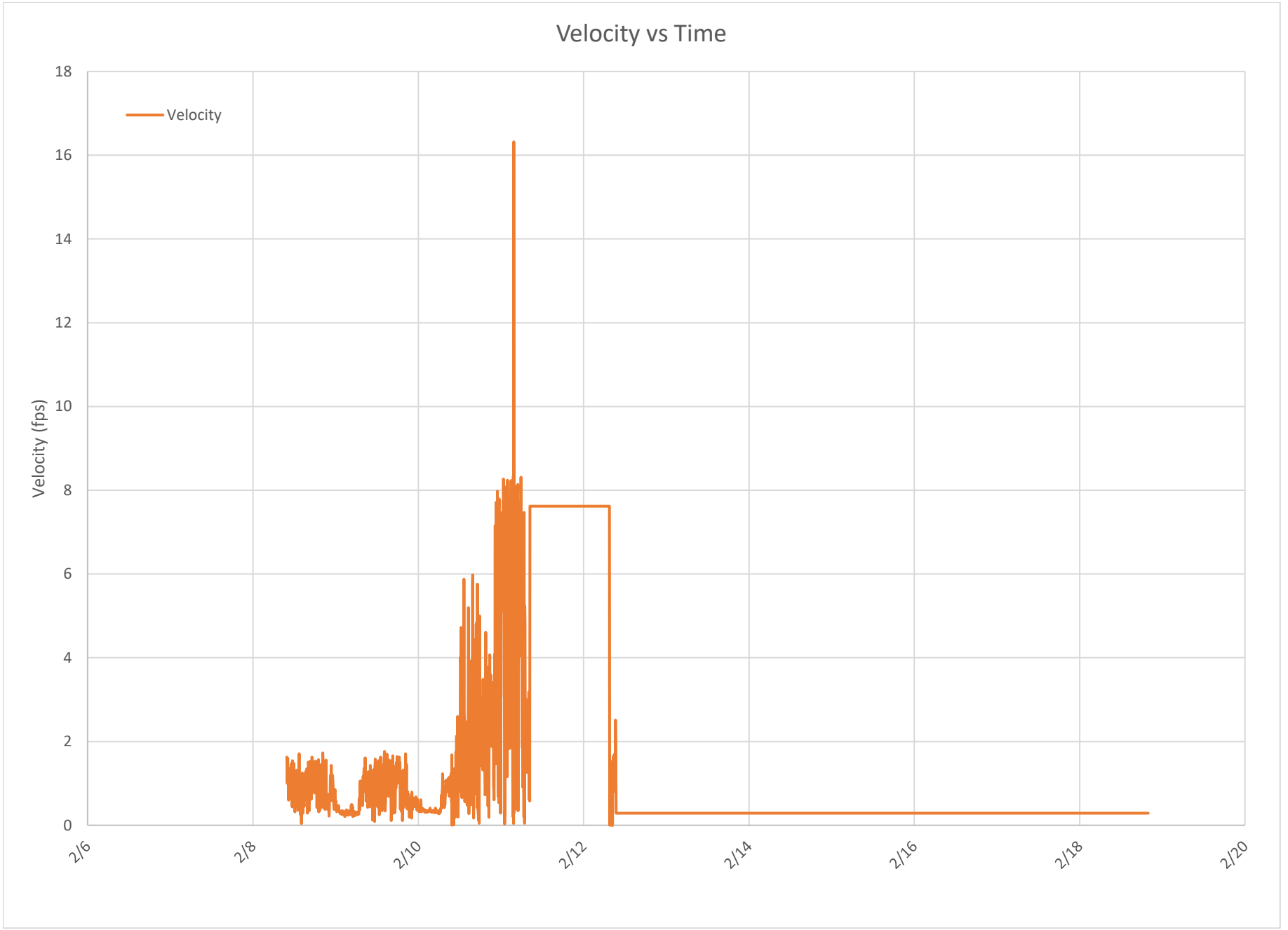
Recommendations:

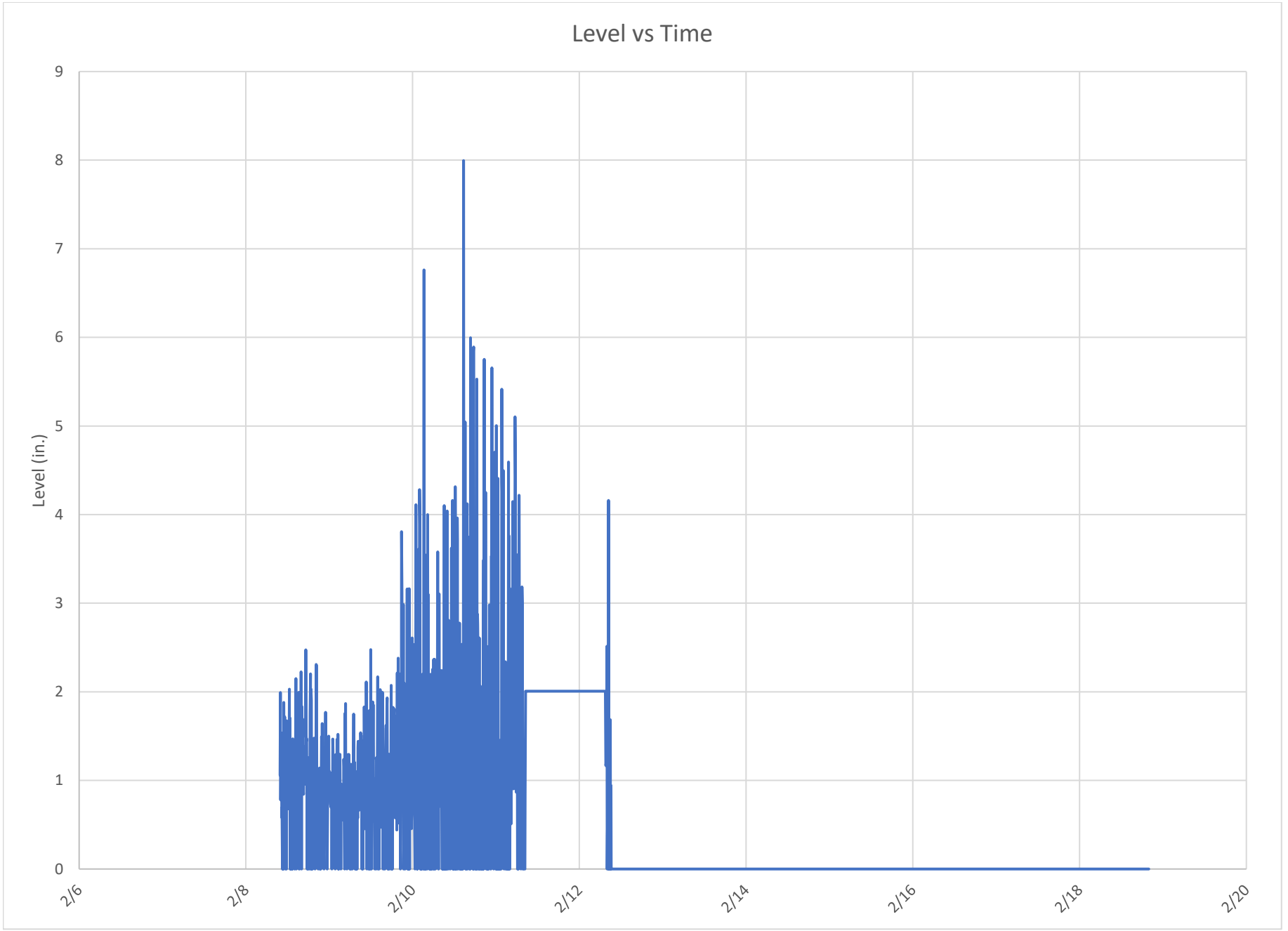
1. Monitor in the next manhole upstream of this 8” line.
2. We try monitoring the influent and efferent of the 18” line in the same manhole. The difference would be the 8” discharge coming into the 18” line.

Randy Helfrich
Senior Manager




Flow vs Time
Flow
Average Flow
Max Flow
Flow (gpm)
1400
1200
1000
800
600
400
200
0
2/6
2/8
2/10
2/12
2/14
2/16
2/18
2/20


Velocity vs Time
Velocity
Velocity (fps)
18
16
14
12
10
8
6
4
2
0
2/6
2/8
2/10
2/12
2/14
2/16
2/18
2/20


Level vs Time
Level (in.)
9
8
7
6
5
4
3
2
1
0
2/6
2/8
2/10
2/12
2/14
2/16
2/18
2/20

12-Inch Sewer Report

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.030	ft/ft
Diameter	12.00	in
Discharge	3.04	cfs

Results

Normal Depth	0.50	ft
Flow Area	0.39	ft²
Wetted Perimeter	1.56	ft
Hydraulic Radius	0.25	ft
Top Width	1.00	ft
Critical Depth	0.75	ft
Percent Full	49.6	%
Critical Slope	0.00882	ft/ft
Velocity	7.83	ft/s
Velocity Head	0.95	ft
Specific Energy	1.45	ft
Froude Number	2.22	
Maximum Discharge	6.64	ft³/s
Discharge Full	6.17	ft³/s
Slope Full	0.00728	ft/ft
Flow Type	SuperCritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	49.55	%
Downstream Velocity	Infinity	ft/s

Cross Section for 12-Inch Sewer

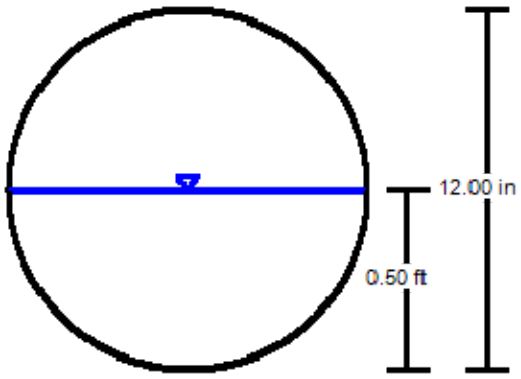
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.030	ft/ft
Normal Depth	0.50	ft
Diameter	12.00	in
Discharge	3.04	cfs

Cross Section Image



V: 1
H: 1

8-Inch Sewer Report

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.030	ft/ft
Normal Depth	0.67	ft
Diameter	8.00	in
Discharge	2.09	cfs

Results

Discharge	2.09	cfs
Normal Depth	0.67	ft
Flow Area	0.35	ft²
Wetted Perimeter	2.09	ft
Hydraulic Radius	0.17	ft
Top Width	0.00	ft
Critical Depth	0.63	ft
Percent Full	100.0	%
Critical Slope	0.02597	ft/ft
Velocity	6.00	ft/s
Velocity Head	0.56	ft
Specific Energy	1.23	ft
Froude Number	0.00	
Maximum Discharge	2.25	ft³/s
Discharge Full	2.09	ft³/s
Slope Full	0.03000	ft/ft
Flow Type	SubCritical	

GVF Input Data

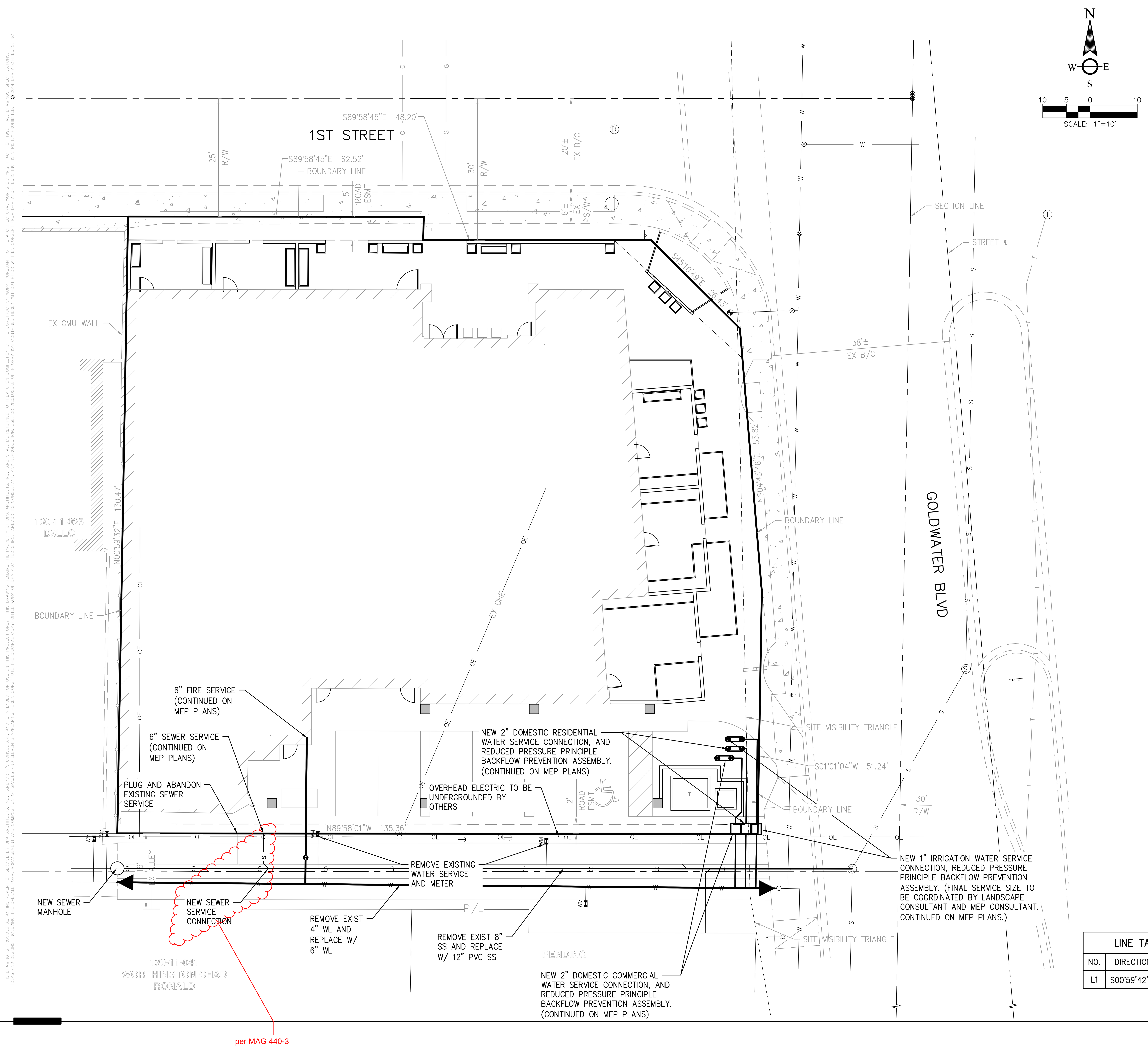
Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Average End Depth Over Rise	0.00	%

Appendix E

Preliminary Utility Plan



LEGEND

TRANS	TRANSFORMER
CMU	CONCRETE MASONRY UNIT
R/W	RIGHT-OF-WAY
OHE/OE	OVERHEAD ELECTRIC
CL	CENTERLINE
EX	EXISTING
ESMT	EASEMENT
S	SEWER
W	WATER

LINE TABLE

NO.	DIRECTION	LENGTH
L1	S00°59'42"W	5.00'

WINERY RESIDENCES OF SCOTTSDALE
6961 E 1ST ST. SCOTTSDALE,AZ.85251

59959 CLAYTON L. NEILSEN ARIZONA U.S.A. Expires 6/30/2021

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REVISION INFORMATION

#:	Description:	Date:

drawn by: DAB/NAM
project no.: 1054.02
date: 2/27/2019

PRELIMINARY UTILITY PLAN

Bowman CONSULTING

CV102

PLOT DATE 2/27/2019 11:09:31 AM