JACOBS WALLACE, LLC
ENGINEERING PLANNING MANAGEMENT

Case #: 9-ZN-2021

Review Cycle: 3

Status: Accepted

Reviewed By: GA

Date: 01/21/2022

This approved drainage report for the subject case includes an approved "Request for Stormwater Storage Waiver". This waiver form needs to be updated at the time of final plans, which should reflect any proposed modifications, and resubmitted for approval

PRELIMINARY
Drainage Report

For

Palo on 75th

3961 N. 75th Street

Scottsdale, Arizona

November, 2021

Prepared for

Prepared for

DE MIRANDA LUX LLC
8325 E WETHERSFIELD RD
SCOTTSDALE, AZ 85260
Robert Miranda

Table of Contents

1.0 INTRODUCTION/LOCATION

The proposed project consists of a multi-story multi-family building and associated site improvements. There is an existing building located on the lot currently that will be demolished.

The 0.22-acre site is located at the southeast corner of 75th St and McKnight Ave at 3961 N 75th Street. The site is bordered to the north by McKnight Ave, to the west by 75th St., to the south by existing multifamily development and to the east by commercial development.

The site lies within the Northwest Quarter of Section 26, Township 2 North, Range 4 East of Gila and Salt River Base and Meridian. See the Appendix for a vicinity map.

2.0 FLOOD PLAIN CLASSIFICATION

This site is located within a shaded Zone "X" designation as identified on Flood Insurance Rate Map (FIRM MAP) #04012C2235 M, dated September 18, 2020, this property is located in flood zone "X". This area is defined as, "Area of minimal flood hazard" Refer to Appendix C for a copy of the FIRM map for this area.

3.0 PURPOSE

The purpose of this Drainage Report is to document onsite retention and drainage requirements, offsite drainage, and anticipated improvements required for the development of this project. The proposed development will be designed to meet City of Scottsdale drainage requirements set forth in the Design Standards & Policies Manual. Retention is not required for this site. Onsite drainage will be directed and released into the rights of way of the adjacent streets at similar locations as it is released today. The post-construction runoff from this site will not be greater than the pre-construction run-off.

4.0 EXISTING CONDITIONS/DRAINAGE

The site has a fall of approximately 1.5 feet of drop from the northwest corner to the southeast corner. The site outfall occurs at the southeast corner of the property into the alley at an elevation of 1244.70. The previous development provided no retention with the runoff splitting north and south with a small portion of the existing roof exiting the site westerly via down spouts onto 75th Street.

5.0 OFFSITE DRAINAGE

This site falls within the Indian Bend Wash-South ADMP completed by the flood control district. The flo 2-D data(see appendix D) shows that there is no offsite water coming through this property. The flow is maintained within the rights of way of McKnight Ave and75th Street. The flow along the frontage of 75th Street ranges from 1.03-2.18cfs while the flow in McKnight ranges from 2.24 – 3.63 cfs. These minimal flows are maintained within the paved areas of both streets. The grids on this site have no results posted with Flo2D data. This means that the flow is less than 1.0 cfs and depths of flow less than 0.1'. These flows are for the 100-year, 6-hour storm event.

The finished floor elevation is set at 1246.25 which is 1.55' above the outfall for the site. The floor is set at 0.61' above the adjacent high curb. The floors are safe from the street flow.

6.0 PROPOSED DRAINAGE IMPROVEMENTS

As previously discussed the previous development provided no retention and had an impervious coverage of roughly 38% that directly releases into the rights of way of 75th St, McKnight Ave., and the alley to the south. There is no retention proposed or existing for the site. The runoff will be collected and directed via roof drains to outlet at similar locations to where it outlets currently. Due to the site being less than 0.5 acres a stormwater storage waiver is submitted to eliminate the requirement for retention for the site. See attached for reference. Pre and Post-Developed stormwater storage requirements are shown below to show minimal increase in runoff volume. Two C-values are used in this scenario as the proposed improvements included are impervious and desert landscape areas. The C values used are: 0.95 for roofed structures and impervious land features such as hardscape and a c-value of 0.45 was use for landscaped desert areas. A weighted C-value was calculated to determine the total storm water runoff.

Calculations:
Pre vs Post Development:

Pre Developed:
VOLr = P/12 * C * A
WEIGHTED "C" =
3576(0.95)+6047(0.45)/9623= 0.63
A=9623 SF
P=2.2 (IN/HR)
VOLr = 1111 CF

Post Developed:
VOL = P/12 * C * A
WEIGHTED "C" =
8353(0.95)+ 1270(0.45)/9623 = 0.88
A=9623 SF
P=2.2 (IN/HR)
VOLr = 1552 CF

Retention Required = 1552-1111 = 441 CF

Stormwater Storage Waiver Submitted due to site being less than 0.5 acres

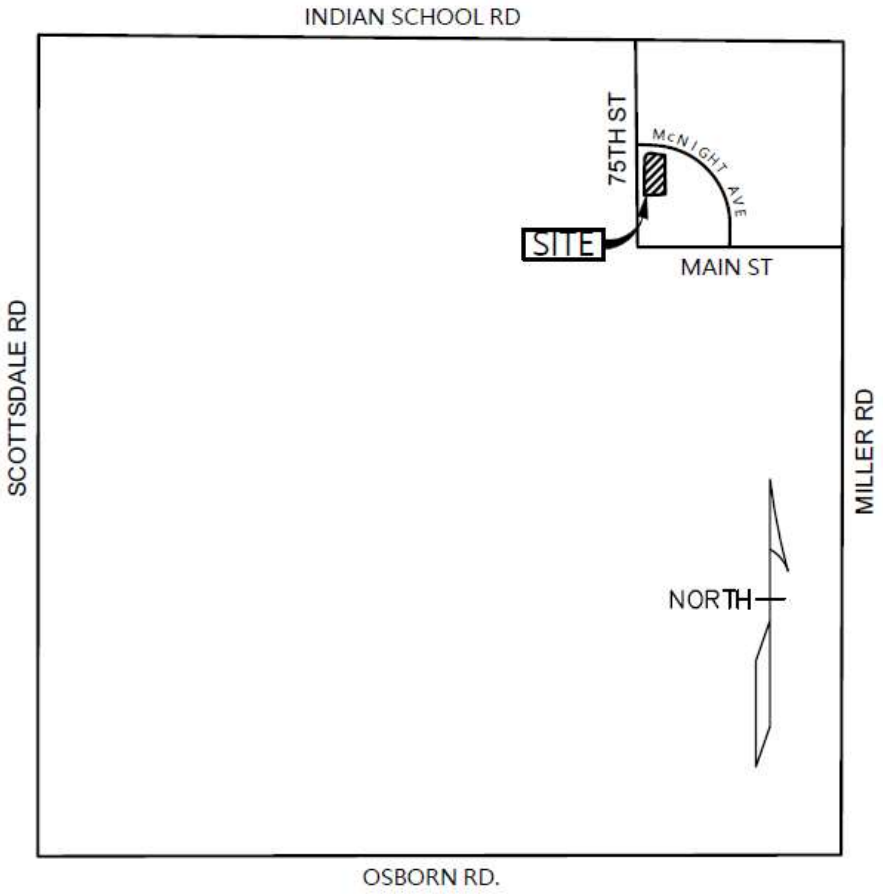
SWPPP

Given that the disturbed area will be less than 1 acre there will not be a Storm Water Pollution Prevention Plan with the accompanying NOI completed for the project and the first flush retention volume is not required.

7.0 CONCLUSION

The proposed Palo on 75Th project will adhere to City of Scottsdale drainage criteria. Offsite flows do not affect this site. Due to the site area being less than 0.5 acres, a stormwater storage waiver for in-lieu fee is being submitted to mitigate the increase in post development stormwater storage requirements. Proposed finished floors will be protected against the 100-year storm event with the site low outfall being a minimum of 1-foot below all finish floors. The onsite runoff will exit the site in similar locations as it does in the current development.

Appendix A
VICINITY MAP



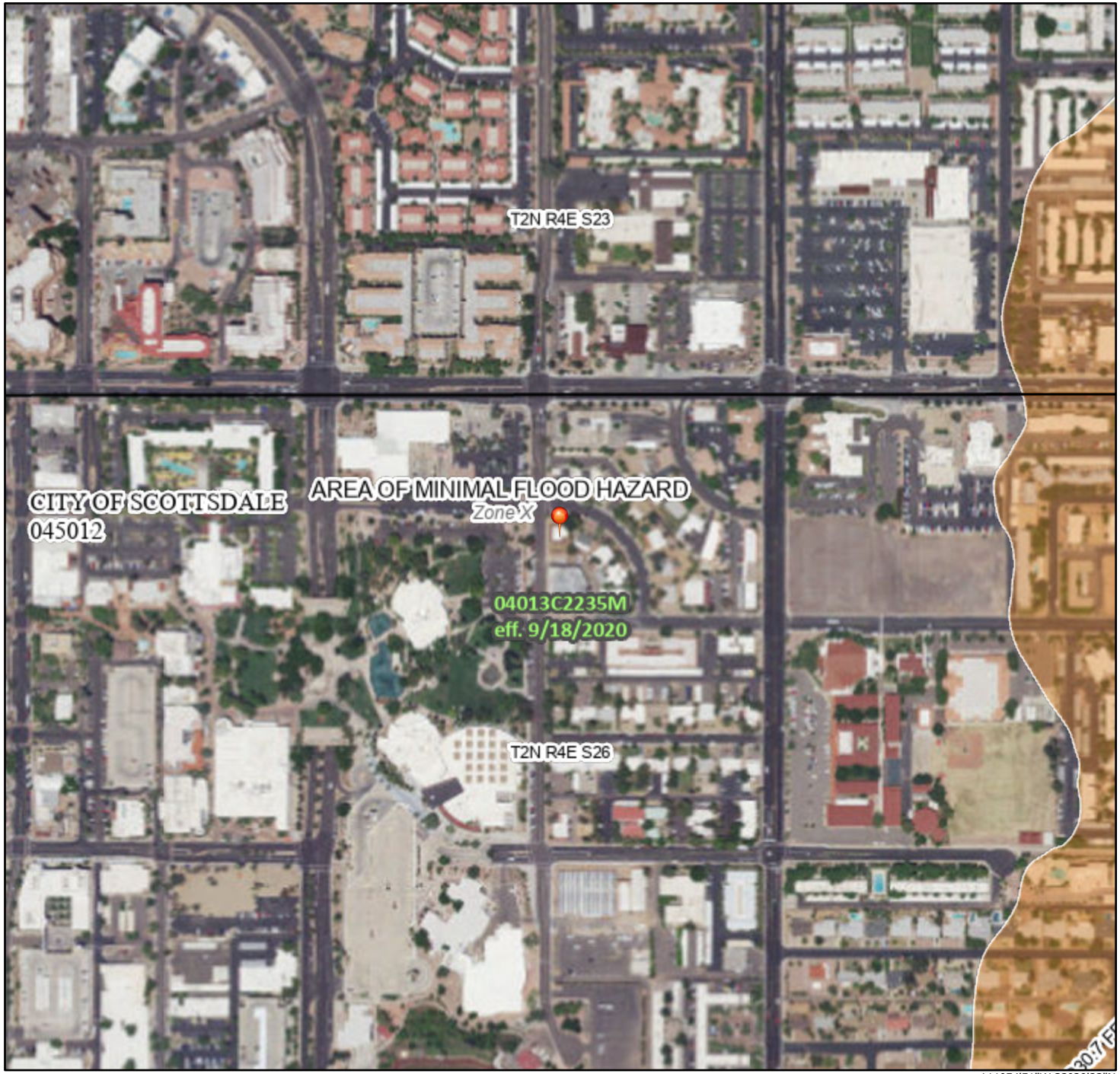
VICINITY MAP

Appendix B
FEMA MAP

National Flood Hazard Layer FIRMette

FEMA

111°55'29"W 33°29'53"N



111°54'51"W 33°29'23"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

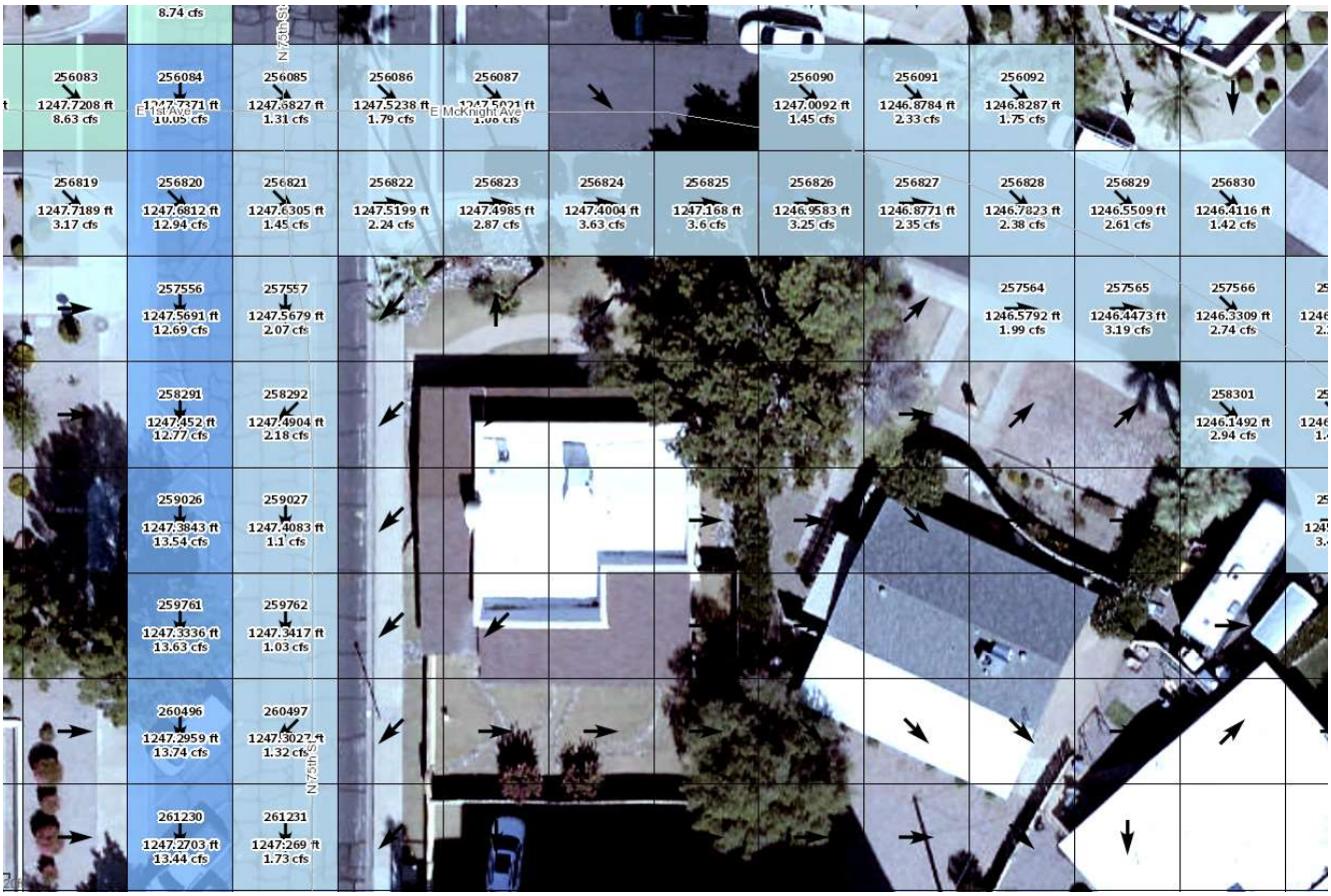
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/13/2021 at 11:42 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

9-ZN-21

Appendix C
AERIAL MAP

Appendix D
LIBW-SOUTH
FLOW 2-D



NOAA Atlas 14, Volume 1, Version 5
Location name: Scottsdale, Arizona, USA*
Latitude: 33.491°, Longitude: -111.9196°
Elevation: 1241.91 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.183** (0.154-0.224)	**0.240** (0.202-0.292)	**0.326** (0.273-0.396)	**0.392** (0.326-0.474)	**0.482** (0.393-0.579)	**0.551** (0.444-0.659)	**0.621** (0.492-0.742)	**0.693** (0.539-0.826)	**0.790** (0.598-0.943)	**0.863** (0.641-1.03)
10-min	**0.279** (0.234-0.340)	**0.365** (0.307-0.445)	**0.496** (0.415-0.603)	**0.597** (0.496-0.721)	**0.733** (0.599-0.881)	**0.838** (0.676-1.00)	**0.945** (0.748-1.13)	**1.06** (0.821-1.26)	**1.20** (0.911-1.43)	**1.31** (0.976-1.57)
15-min	**0.346** (0.290-0.422)	**0.453** (0.381-0.552)	**0.615** (0.514-0.747)	**0.740** (0.614-0.894)	**0.909** (0.742-1.09)	**1.04** (0.838-1.24)	**1.17** (0.927-1.40)	**1.31** (1.02-1.56)	**1.49** (1.13-1.78)	**1.63** (1.21-1.95)
30-min	**0.466** (0.390-0.568)	**0.609** (0.513-0.742)	**0.828** (0.692-1.01)	**0.996** (0.827-1.20)	**1.22** (0.999-1.47)	**1.40** (1.13-1.68)	**1.58** (1.25-1.88)	**1.76** (1.37-2.10)	**2.01** (1.52-2.39)	**2.19** (1.63-2.62)
60-min	**0.576** (0.483-0.703)	**0.754** (0.635-0.919)	**1.02** (0.857-1.24)	**1.23** (1.02-1.49)	**1.52** (1.24-1.82)	**1.73** (1.40-2.07)	**1.95** (1.55-2.33)	**2.18** (1.70-2.60)	**2.48** (1.88-2.96)	**2.71** (2.02-3.25)
2-hr	**0.668** (0.569-0.797)	**0.865** (0.737-1.03)	**1.16** (0.983-1.38)	**1.38** (1.16-1.64)	**1.69** (1.40-1.99)	**1.92** (1.57-2.26)	**2.16** (1.74-2.55)	**2.41** (1.91-2.83)	**2.74** (2.12-3.22)	**3.00** (2.26-3.55)
3-hr	**0.727** (0.617-0.876)	**0.933** (0.794-1.13)	**1.23** (1.04-1.48)	**1.46** (1.22-1.75)	**1.78** (1.48-2.12)	**2.04** (1.67-2.42)	**2.31** (1.85-2.74)	**2.60** (2.04-3.07)	**2.99** (2.28-3.54)	**3.30** (2.46-3.92)
6-hr	**0.875** (0.758-1.03)	**1.11** (0.964-1.31)	**1.42** (1.23-1.67)	**1.67** (1.43-1.95)	**2.01** (1.70-2.34)	**2.28** (1.90-2.64)	**2.56** (2.10-2.96)	**2.84** (2.29-3.29)	**3.23** (2.53-3.75)	**3.54** (2.71-4.12)
12-hr	**0.977** (0.855-1.14)	**1.24** (1.08-1.44)	**1.57** (1.36-1.81)	**1.83** (1.58-2.11)	**2.18** (1.86-2.50)	**2.44** (2.07-2.81)	**2.72** (2.27-3.13)	**3.00** (2.47-3.45)	**3.38** (2.71-3.90)	**3.67** (2.89-4.27)
24-hr	**1.16** (1.04-1.31)	**1.48** (1.32-1.67)	**1.92** (1.71-2.16)	**2.26** (2.01-2.54)	**2.74** (2.42-3.08)	**3.12** (2.74-3.49)	**3.52** (3.06-3.94)	**3.93** (3.39-4.40)	**4.49** (3.84-5.03)	**4.93** (4.18-5.55)
2-day	**1.26** (1.12-1.42)	**1.61** (1.44-1.81)	**2.11** (1.88-2.37)	**2.51** (2.23-2.82)	**3.07** (2.72-3.45)	**3.52** (3.09-3.95)	**3.99** (3.48-4.48)	**4.48** (3.88-5.04)	**5.17** (4.42-5.82)	**5.72** (4.85-6.46)
3-day	**1.33** (1.19-1.50)	**1.70** (1.52-1.92)	**2.24** (1.99-2.52)	**2.67** (2.37-3.00)	**3.28** (2.89-3.68)	**3.77** (3.30-4.22)	**4.29** (3.73-4.81)	**4.83** (4.17-5.42)	**5.60** (4.77-6.29)	**6.22** (5.25-7.01)
4-day	**1.40** (1.25-1.58)	**1.79** (1.60-2.02)	**2.37** (2.10-2.66)	**2.83** (2.51-3.17)	**3.48** (3.07-3.91)	**4.01** (3.51-4.50)	**4.58** (3.98-5.13)	**5.18** (4.46-5.81)	**6.02** (5.12-6.76)	**6.71** (5.65-7.55)
7-day	**1.56** (1.39-1.76)	**1.99** (1.77-2.24)	**2.62** (2.33-2.96)	**3.14** (2.78-3.53)	**3.87** (3.41-4.34)	**4.45** (3.90-4.99)	**5.08** (4.41-5.70)	**5.74** (4.95-6.45)	**6.67** (5.68-7.50)	**7.43** (6.25-8.37)
10-day	**1.69** (1.51-1.90)	**2.16** (1.93-2.43)	**2.85** (2.54-3.20)	**3.41** (3.02-3.82)	**4.19** (3.69-4.68)	**4.81** (4.22-5.38)	**5.48** (4.77-6.12)	**6.17** (5.33-6.91)	**7.15** (6.10-8.00)	**7.93** (6.70-8.90)
20-day	**2.08** (1.86-2.33)	**2.67** (2.39-2.99)	**3.53** (3.15-3.94)	**4.18** (3.72-4.66)	**5.05** (4.47-5.62)	**5.72** (5.05-6.37)	**6.40** (5.62-7.14)	**7.09** (6.20-7.92)	**8.02** (6.95-8.98)	**8.74** (7.51-9.79)
30-day	**2.42** (2.16-2.72)	**3.12** (2.79-3.49)	**4.11** (3.67-4.59)	**4.87** (4.33-5.42)	**5.88** (5.20-6.54)	**6.65** (5.87-7.40)	**7.45** (6.54-8.28)	**8.26** (7.21-9.18)	**9.35** (8.10-10.4)	**10.2** (8.76-11.4)
45-day	**2.81** (2.52-3.14)	**3.62** (3.25-4.04)	**4.77** (4.27-5.32)	**5.62** (5.02-6.26)	**6.74** (6.00-7.51)	**7.58** (6.72-8.45)	**8.43** (7.45-9.40)	**9.28** (8.16-10.4)	**10.4** (9.07-11.6)	**11.2** (9.75-12.6)
60-day	**3.11** (2.80-3.46)	**4.01** (3.61-4.47)	**5.28** (4.74-5.87)	**6.20** (5.55-6.89)	**7.39** (6.61-8.22)	**8.28** (7.37-9.20)	**9.17** (8.13-10.2)	**10.0** (8.86-11.2)	**11.2** (9.80-12.5)	**12.0** (10.5-13.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical

Appendix E

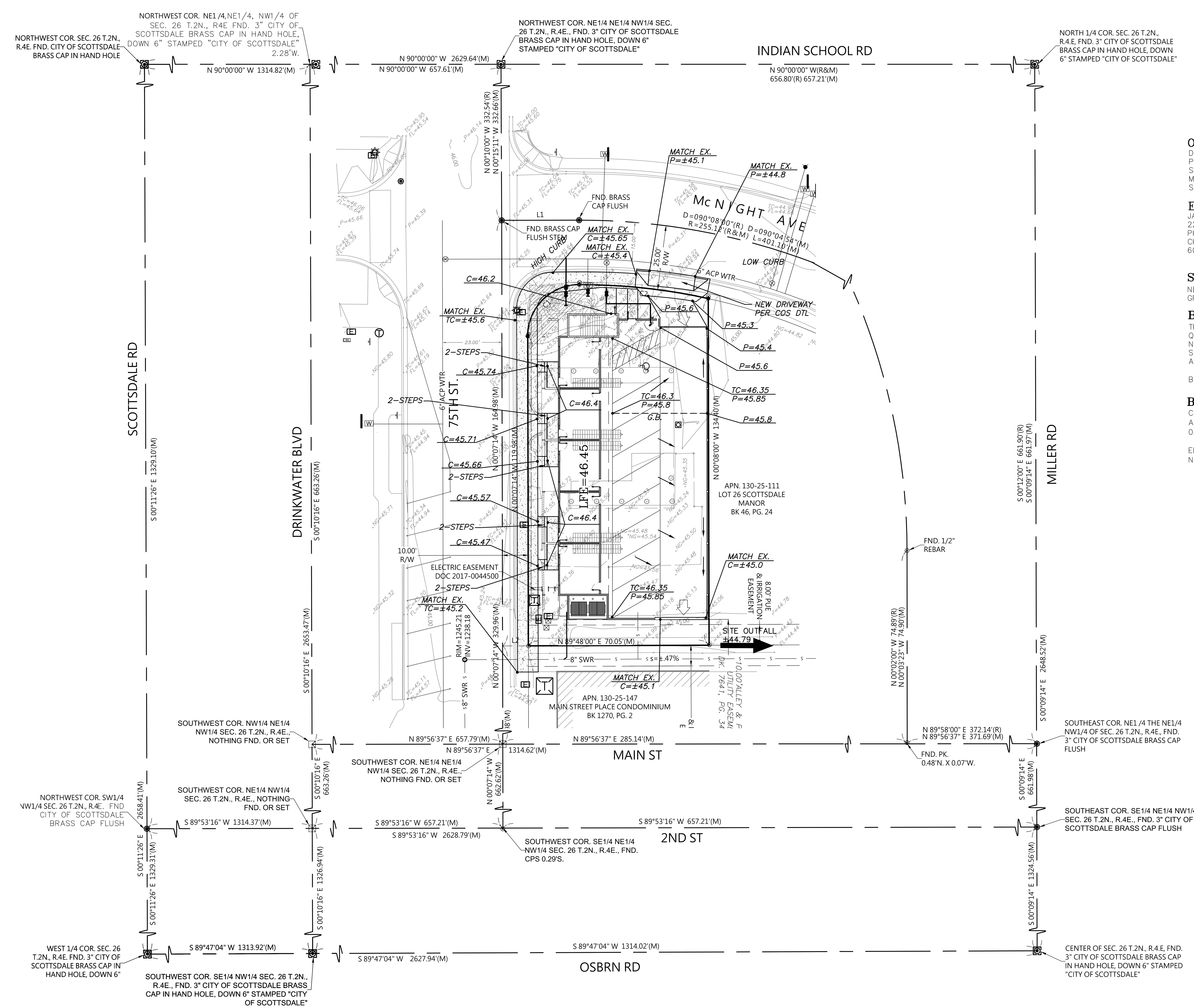
CONCEPTUAL GRADING AND DRAINAGE PLAN

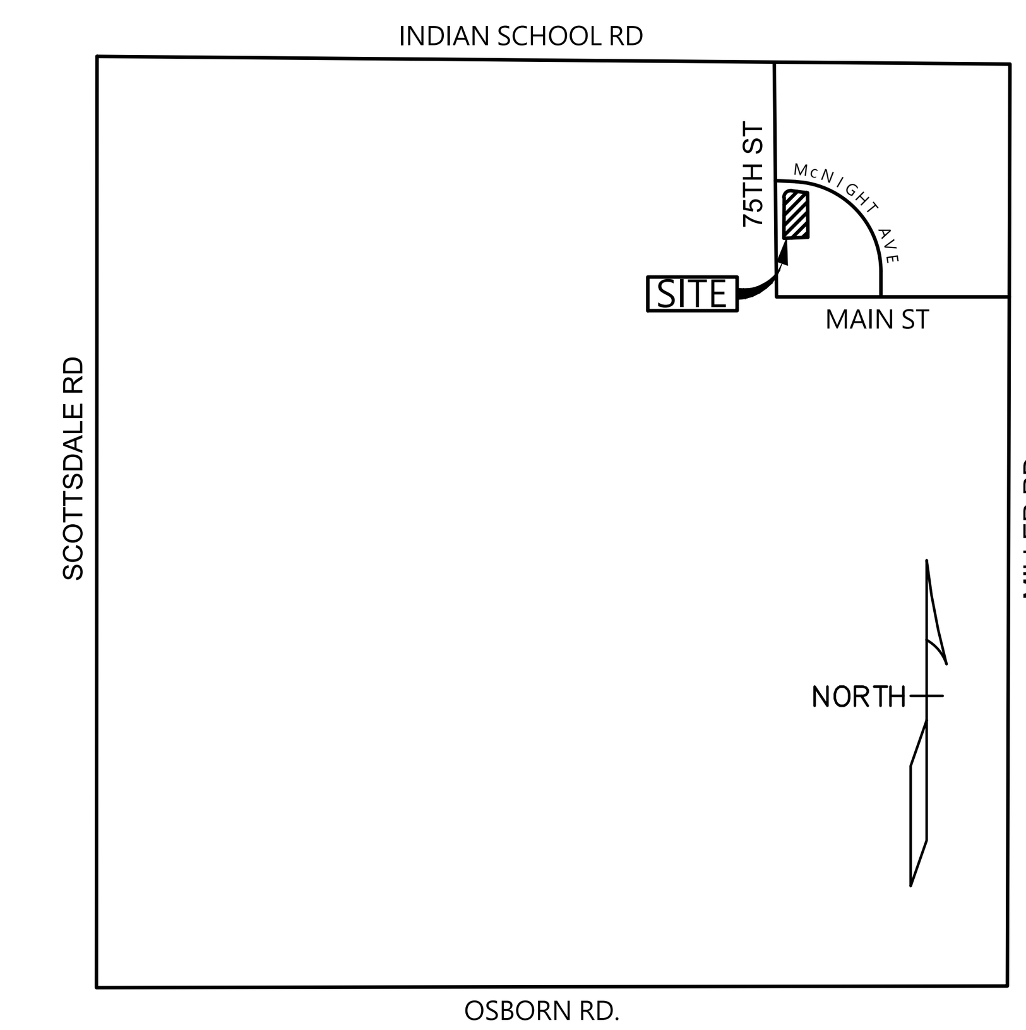
PALO ON 75TH
RESIDENTIAL DEVELOPMENT
CONCEPTUAL G&D AND UTILITY PLAN
3961 N 75TH ST.
SCOTTSDALE, AZ 85251

A PORTION OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

LINE	BEARING	DISTANCE
L1	N 89°50'00" E(R) N 89°51'34" E(M)	30.00'(R) 30.02'(M)
L2	N 89°48'00" E	10.00'

CURVE	DELTA ANGLE	RADIUS	ARC LENGTH
C1	089°58'48"	20.00'(R&M)	31.41'(R&M)
C2	012°32'47"	230.12'(R&M)	50.42'(R) 50.39'(M)





VICINITY MAP
N.T.S.

OWNERS OF RECORD
DE MIRANDA LUX LLC
PROPERTY ADDRESS 3961 N 75TH ST
SCOTTSDALE, AZ. 85251
MAILING ADDRESS 8325 E WETHERSFIELD RD
SCOTTSDALE, AZ. 85260

ENGINEER
JACOBS WALLACE, LLC
2233 W. BETHANY HOME RD
PHOENIX, AZ 85015
CHUCK JACOBS
602.757.5964

SITE AREA
NET AREA 9622.82 S.F. OR 0.22 AC.
GROSS AREA 13,117.69 S.F. OR 0.30 AC.

BASIS OF BEARING
THE NORTH LINE OF THE NORTHWEST QUARTER OF SECTION 26 TOWNSHIP 2 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA

BEARING = N 90°00'00" E

BENCH MARK
CITY OF SCOTTSDALE BRASS CAP IN HAND HOLE AT INDIAN SCHOOL RD. AND MILLER ROAD (DOWN 0.4')

ELEVATION= 1244.55 (CITY OF SCOTTSDALE DATUM NAVD88)

ARCHITECT
TOMECAK DESIGN, P.C.
4368 NORTH CIVIC CENTER PLAZA
SUITE 201
SCOTTSDALE, ARIZONA 85251
PHONE: 602.619.7751
CONTACT: MARK TOMECAK

APN
130-25-110A

PROJECT DESCRIPTION
DEMO EXISTING BUILDINGS AND SITE IMPROVEMENTS AND CONSTRUCT PROPOSED MULTI-STORY MIXED USE DEVELOPMENT WITH ASSOCIATED SITE IMPROVEMENTS.

ZONING
DOWNTOWN MIXED-USE

CONSTRUCTION TYPE
VB

LEGAL DESCRIPTION
LOT 25, OF SCOTTSDALE MANOR, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 46 OF MAPS, PAGE 24.

EXCEPT A PERPETUAL EASEMENT AND RIGHT OF WAY TO CONSTRUCT, OPERATE AND MAINTAIN AN ALLEY AND ANY PUBLIC UTILITY LINES, PIPES OR POLES OVER THE SOUTH 10 FEET OF LOT 25, OF SCOTTSDALE MANOR, RECORDED IN BOOK 46 OF MAPS, PAGE 24.

LEGEND
- BRASS CAP FLUSH
- BRASS CAP IN HAND HOLE
- NOTHING FOUND OR SET
- SET 1/2" REBAR & CAP LS 34559
- ELECTRIC PULL BOX
- STREET LITE
- TELEPHONE RISER
- WATER VALVE
- POWER POLE
- DOWN GUY
- FIREHYDRANT
- SIGN
- SEWER MAN HOLE
- BACKFLOW PREVENTER
- WATER METER
- PALM TREE
- OLIVE TREE
- NON-DESCRIPT TREE
- SAGUARO CACTUS
- C.M.U. WALL (4 OR 8 INCH BLOCKS)
- BOUNDARY

DRAINAGE STATEMENT
THE EXISTING SITE DRAINAGE CONSISTS OF MOSTLY SHEET FLOW SPLITTING NEAR THE MIDDLE OF THE SITE FLOWING BOTH NORTH AND SOUTH AND WEST. THE FLOW EVENTUALLY MAKES ITS WAY TO THE ALLEY TO THE SOUTH , McKNIGHT TO THE NORTH AND 75TH STREET TO THE WEST. THE EXISTING STRUCTURE WILL BE DEMOLISHED AND THE SITE CURRENTLY IS MOSTLY IMPERVIOUS SURFACE.

THERE IS CURRENTLY NO RETENTION PROVIDED ON THE PROPERTY. NO OFFSITE RUNOFF AFFECTS THIS PROPERTY.

THE DRAINAGE WILL CONTINUE TO BE RELEASED AT THE SAME LOCATIONS SIMILAR TO THE HISTORIC FLOW OF THE SITE. THE ROOF DRAINAGE WILL BE SPLASH BLOCK AND DIRECTED TO THE PAVED SURFACES. A STORMWATER STORAGE WAIVER IS BEING SUBMITTED WITH AN IN LIEU FEE CONTRIBUTION

THE SITE OUTFALL OCCURS AT THE SOUTHEAST CORNER OF THE PROJECT AT AN ELEVATION OF 1244.79 BELOW THE FIRST FLOOR LF88 OF 1246.25. THE BUILDING IS SAFE FROM THE 100-YR STORM EVENT.

FLOOD ZONE (FIRM)
THIS SITE FALLS WITHIN ZONE SHADED X PER 04013C2235L, EFFECTIVE ON 10/16/2013. DEFINED AS AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANUUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAG ARES LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

RELEASE	DATE	BY	APP.	DESCRIPTION
C	11-29-21	DWO	CGJ	DR_SUBMITTAL
B	9-3-21	DWO	CGJ	DR_SUBMITTAL
A	5-9-21	DWO	CGJ	DR_SUBMITTAL

PALO ON 75TH
3961 N. 75TH ST.
SCOTTSDALE, AZ 85251

CONCEPTUAL G & D AND UTILITY PLAN

JACOBS WALLACE, LLC
ENGINEERING – PLANNING – MANAGEMENT
2233 W. BETHANY HOME ROAD
PHOENIX, AZ 85015
602.757.5964

Registered Professional Engineer 40224 CHARLES G. JACOBS 11-29-21 ARIZONA, U.S.A. Expires: 12/31/21

TRUE NORTH

0 10 20 40

APRIL 2021

DRAWING NO.
C1.0

JOB: 0184

Request for Stormwater Storage Waiver

CITY OF SCOTTSDALE

City of Scottsdale Plan/Case Numbers:

9 - ZN - 21 ____ - PP - ____ PC#_____

Requests for stormwater storage waivers are reviewed as part of case submittals for the associated project. This form should be included in the preliminary drainage report with the applicant's portion completed. The preliminary drainage report shall include supporting documentation and analysis as needed to support the requested wavier.

Date 7-8-21 Project Name Palo on 75th

Project Location 3961 N 75th St

Applicant Contact Chuck Jacobs Company Name Jacobs Wallace LLC

Phone 602.757.5964 E-mail jacobs@jacobswallac

Address 2233 W Bethany Home Rd

Waiver Criteria

A project must meet at least one of three criteria listed below for the city to consider waiving some or all required stormwater storage. **However, regardless of the criteria, a waiver will only be granted if the applicant can demonstrate that the effect of a waiver will not increase the potential for flooding on any property.** Check the applicable box and provide a signed and sealed engineering report and supporting engineering analysis that demonstrate the project meets the criteria and that the effect of a waiver will not increase the potential for flooding on any property.

If the runoff for the project has been included in a storage facility at another location, the applicant must demonstrate that the stormwater storage facility was specifically designed to accommodate runoff from the subject property and that the runoff will be conveyed to this location through an adequately designed conveyance facility.

It should be noted that reductions in stormwater storage relating to

☐ 1. The development is adjacent to a conveyance facility that an engineering analysis shows is designed and constructed to handle the additional runoff from the site as a result of development.

☑ 2. The development is on a parcel less than one-half acre in size.

☐ 3. Stormwater storage requirements conflict with requirements of the Environmentally Sensitive Lands Ordinance (ESLO).

For a full storage waiver, a conflict with ESLO is limited to:

- Property located in the hillside landform as defined in the city Zoning Ordinance
- Property in the upper desert landform that has a land slope steeper than 5% as defined in the city Zoning Ordinance
- Property within the ESL zoning overlay district where the only viable location for a stormwater storage basin requires blasting

This full waiver only applies to those portions of property meeting one of these three requirements.

100-year/2-hour storage is allowed, but not required for redevelopment projects and development within the ESL zoning overlay. Rather, these projects must store enough stormwater to attenuate post-development flows to predevelopment levels, considering the 10- and 100-year storm events (S.R.C. Sections 37-50 and 37-51).

By signing below, I certify that the stated project meets the waiver criteria selected above as demonstrated by the attached documentation.

_____ 7-8-21

Stormwater Management Department

7447 E Indian School Road, Suite 125, Scottsdale, AZ 85251 ◆ Phone: 480-312-2500

Request for Stormwater Storage Waiver

City of Scottsdale Plan/Case Numbers:

9___ - ZN - 21 ____ - PP - ____ PC#_____

CITY STAFF TO COMPLETE THIS PAGE

Project Name Palo on 75th

Check Appropriate Boxes:

☐ Meets waiver criteria (specify): ☐ 1 ☐ 2 ☐ 3

Recommended Conditions of Waiver:

☐ All storage requirements waived.

☐ Post-development peak discharge rates do not exceed pre-development conditions.

☐ Other:

Explain: _____

_____

☐ **Waiver approved per above conditions.**

_____ _____

Floodplain Administrator or Designee Date

Stormwater Management Department

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Request for Stormwater Storage Waiver

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In-Lieu Fee and In-Kind Contributions

In-lieu fees are only applicable to projects where post-development peak discharge rates exceed pre-development levels, based on the 10- and 100-year storm events. If the city grants a waiver, the developer is required to calculate and contribute an in-lieu fee based on what it would cost the city to provide a storage basin, sized as described below, including costs such as land acquisition, construction, landscaping, design, construction management, and maintenance over a 75-year design life. The fee for this cost is $3.00 per cubic foot of stormwater storage for a virtual storage basin designed to mitigate the increase in runoff associated with the 100-year/2-hour storm event. The applicant may submit site-specific in-lieu fee calculations subject to the Floodplain Administrator's approval.

The Floodplain Administrator considers in-kind contributions on a case-by-case basis. An in-kind contribution can serve as part of or instead of the calculated in-lieu fee. In-kind contributions must be stormwater-related and must constitute a public benefit. In-lieu fees and in-kind contributions are subject to the approval of the Floodplain Administrator or designee.

Project Name Palo on 75th

The waived stormwater storage volume is calculated using a simplified approach as follows:

$V = \Delta CRA$; where
V = stormwater storage volume required, in cubic feet,
ΔC = increase in weighted average runoff coefficient over disturbed area ($C_{post} - C_{pre}$),
R = 100-year/2-hour precipitation depth, in feet (DSPM, Appendix 4-1D, page 11), and
A = area of disturbed ground, in square feet

Furthermore,

$V_w = V - V_p$; where
V_w = volume waived,
V = volume required, and
V_p = volume provided

R = 2.2 NOAA 14
ΔC= 0.88-0.63=0.25
A = 9623
V = 441
V_p= 0
V_w= 441

☑ An in-lieu fee will be paid, based on the following calculations and supporting documentation:
In-lieu fee ($) = V_w (cu. ft.) x $3.00 per cubic foot = $1,323

☐ An in-kind contribution will be made, as follows:

_____
_____
_____

☐ No in-lieu fee is required. Reason:

_____
_____

Approved by:

_____ _____
Floodplain Administrator or Designee Date

Stormwater Management Department
7447 E Indian School Road, Suite 125, Scottsdale, AZ 85251 ◆ Phone: 480-312-2500