



Shephard ▲ Wesnitzer, Inc.

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Andy Dickey, Director of Public Works, City Engineer
City of Sedona
102 Roadrunner Drive
Sedona, AZ 86336

December 13, 2021
SWI Job No. 21237

RE: Jordan Townhomes
Trip Generation Letter

Dear Mr. Dickey:

The purpose of this letter is to present a trip generation for the proposed improvements to Assessor Parcel Number 401-58-001A in the City of Sedona, AZ. The project site is located east of Jordan Road and north of Wilson Canyon Road within Section 05 of Township 17 North, Range 06 East and consists of a gross 2.05 acres.

TRIP GENERATION

The project site is currently undeveloped. Primary access to the site is provided by a full access road off Jordan Road. Proposed improvements to the site include 22 townhome units. A preliminary site plan is included as an attachment.

The average daily traffic volumes, including AM & PM peak hour trips generated by the proposed conditions have been estimated using trip rates provided by the *Institute of Transportation Engineer's (ITE) Trip Generation Manual, 10th Edition*. ITE land use code 220: Multifamily Housing (Low-Rise) was used to estimate the trips generated by the proposed townhomes. Per ITE, the 22 townhome units generate a total of 125 weekday trips including 11 AM and 15 PM peak hour trips. Refer to Table 1 – Site Generated Traffic for the trip generation calculations.

Please let us know if you have any questions, comments, or need any additional information.

Sincerely,
Shephard – Wesnitzer, Inc.



Art Beckwith, P.E.
Project Engineer

- Enclosures**
- Trip Generation Calculations
- Preliminary Site Plan

JORDAN ESTATES/JORDAN TOWNHOMES
 SWI Project: # 21237
 Date: 12/13/2021
 Revised Date:

SITE GENERATED TRAFFIC

LAND USE	ITE CODE	VARIABLE	TIME PERIOD	EQUATION	% ENTERING	WEEKDAY TOTAL	AM		PM		SAT PEAK		SAT PEAK		
							TOTAL	in	out	TOTAL	in	out	TOTAL	in	out
Jordan Townhomes	220	22	<i>Weekday</i>	$T=7.56(X)-40.86$	50%	125									
Residential Townhomes			<i>AM peak</i>	$T=0.95Ln(X)-0.51$	23%		11	3	8						
Variable=Dwelling Units			<i>PM peak</i>	$T=0.89Ln(X)-0.02$	63%				15	9	6				
			<i>*Saturday Peak Hr of Generator</i>	$T=0.70(X)$	50%							15	8	7	
Subtotal Trips =						125	11	3	8	15	9	6	15	8	7

ITE Code

220: Multifamily Low Rise

*Note: The Saturday Peak Hour of Generator creates more trips than the Sunday Peak Hour of Generator.



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Exhibit 4b.
Page 1 of 7
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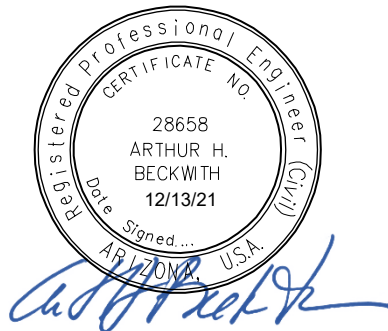
Jordan Townhomes

Sewer Collection System Design Report

APN 401-58-001A
Sedona, Arizona

Prepared for:
Miramonte Homes
102 S Mikes Pike
Flagstaff, 86001

Prepared by:
Shephard-Wesnitzer, Inc.
75 Kallof Place
Sedona, AZ 86336
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December 13, 2021
Job No. 21237

Shephard-Wesnitzer, Inc.
Consulting Engineers
Sedona, Arizona

Sewer Design Report
Jordan Townhomes
Job No.21237

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INTRODUCTION

The project consists of a 22-unit townhome project on a vacant parcel that was previously platted in 1972 as part of The Orchards subdivision and then reverted to acreage in 2019.

The proposed development is located on Jordan Road with Quail Tail Trail on the easterly boundary. The property is situated in Section 05, Township 17 North, Range 6 East, Gila and Salt River Meridian in Coconino County, more specifically defined as Jordan Townhomes Assessor's Parcel Numbers 401-58-001A. The parcel is 2.05 acres and is zoned RM-2.

Property abutting parcel number 401-58-001A to the north, west and part of the south is currently zoned RM-2; remaining property to the south is zoned RS-10 and to the east is the zoning is RS-18. Uses in all directions is private residential, including a bed & breakfast located directly north. Surrounding subdivisions include The Orchards to the west and Sierra Vista to the south.

Sewer treatment is being provided by the City of Sedona. Central water system is provided by Arizona Water Company.

DESIGN FLOW

The wastewater design flow is based on each unit having a daily flow of 220 gallons per day per unit per the City of Sedona Wastewater Master Plan. Total daily design flow generated by this project is $22 \times 220 = 4,840$ gpd. At the design slope of 0.005 feet per foot an 8" PVC pipe will carry 717,362 gpd.

COLLECTION SYSTEM

The area is served by the City of Sedona sewer system located on Jordan Road along the frontage of the property. Sewer service for the project is proposed to extend an 8" main from Quail Tail Trail to connect to the existing 8" sewer line in Jordan Road.

The sewer collection system is designed per R18-9-E301, for a General Permit Type 4.01 for a Sewage Collection System.

SUMMARY

The sewer system design for collection complies with the requirements of the City of Sedona and the Arizona Department of Environmental Quality.

Shephard-Wesnitzer, Inc.
Consulting Engineers
Sedona, Arizona

Sewer Design Report
Jordan Lofts
Job #21237

REFERENCES

Publications

Unified Water Quality Permit Rules, Arizona Department of Environmental Quality, 2019.

Engineering Bulletin No. 11: Minimum Requirements for Design, Submission of Plans and Specifications of Sewage Works, Arizona Department of Environmental Quality, 1978.

Uniform Plumbing Code, International Association of Plumbing and Mechanical Officials, 1994.

Software

FlowMaster, Bentley Version

APPENDIX

8" Gravity Sewer Calculations
Grading and Utilities Concept Plan

Jordan Lofts 8" Sewer

Project Description

Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data

Roughness Coefficient	0.010	
Channel Slope	0.00500	ft/ft
Normal Depth	0.67	ft
Diameter	0.67	ft
Discharge	718860.15	gal/day

Results

Discharge	718860.15	gal/day
Normal Depth	0.67	ft
Flow Area	0.35	ft ²
Wetted Perimeter	2.10	ft
Hydraulic Radius	0.17	ft
Top Width	0.00	ft
Critical Depth	0.50	ft
Percent Full	100.0	%
Critical Slope	0.00601	ft/ft
Velocity	3.18	ft/s
Velocity Head	0.16	ft
Specific Energy	0.82	ft
Froude Number	0.00	
Maximum Discharge	1.20	ft ³ /s
Discharge Full	1.11	ft ³ /s
Slope Full	0.00500	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	%

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Jordan Lofts 8" Sewer

GVF Output Data

Normal Depth Over Rise	100.00	%
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.67	ft
Critical Depth	0.50	ft
Channel Slope	0.00500	ft/ft
Critical Slope	0.00601	ft/ft



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Jordan Townhomes

Water Distribution System Design Report

APN 401-58-001A
Sedona, Arizona

Prepared for:
Miramonte Homes
102 S Mikes Pike
Flagstaff, 86001

Prepared by:
Shephard-Wesnitzer, Inc.
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December 13, 2021
Job No. 21237

Shephard-Wesnitzer, Inc.
Consulting Engineers
Sedona, Arizona

Water System Design Report
Jordan Townhomes
Job No.21237

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INTRODUCTION

The project consists of development of 22 townhome units a 2.05-acre parcel that was previously platted in 1972 as part of The Orchards subdivision and then reverted to acreage in 2019.

The proposed development is located on Jordan Road with Quail Tail Trail on the easterly boundary. The property is situated in Section 05, Township 17 North, Range 6 East, Gila and Salt River Meridian in Coconino County, more specifically defined as Jordan Townhomes Assessor's Parcel Numbers 401-58-001A. The parcel is 2.05 acres and is zoned RM-2.

Property abutting parcel number 401-58-001A to the north, west and part of the south is currently zoned RM-2; remaining property to the south is zoned RS-10 and to the east is the zoning is RS-18. Uses in all directions is private residential, including a bed & breakfast located directly north. Surrounding subdivisions include The Orchards to the west and Sierra Vista to the south.

Sewer treatment is being provided by the City of Sedona. Central water system is provided by Arizona Water Company.

DESIGN CRITERIA

The following is a summary of the major design criteria utilized in this report:

- Average and peak daily demand calculations and system analysis will assume full buildout and occupancy.
- The average water demand is 100 gallons per capita per day and 2.5 persons per dwelling.
- The fire flow requirements per the Sedona Fire District are 1000 GPM for a minimum of 2 hours.
- A minimum residual pressure of 20 PSI must be maintained at all fire hydrant locations under max day demand with fire flow conditions.
- All townhome units will have fire sprinklers.

DEMANDS

Average Daily Demand

The project water demands were estimated using Sedona's average number of residents per dwelling unit of 2.5 and the 100 GPD per person average water demand. Using this average value yields the following residential demand estimates for full build-out:

$$250 \text{ GPD/DU} \times 22 \text{ DU} = 5,500 \text{ GPD} = 3.8 \text{ GPM}$$

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Sedona, Arizona

Water System Design Report
Jordan Townhomes
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Peak Daily Demand

Using typical water design criteria, peak daily demand is estimated as 2.5 times the average daily demand, which yielded the following values:

$$2.5 \times 5,500 \text{ GPD} = 13,750 \text{ GPD} = 9.5 \text{ GPM}$$

Peak Hour Demand

Using typical water design criteria, peak hour demand is estimated as 2.0 times the peak daily demand, which yielded the following values:

$$2.0 \times 13,750 \text{ GPD} = 27,500 \text{ GPD} = 19.0 \text{ GPM}$$

Fire Flow

Fire sprinklers are to be installed in all new the townhomes per city code. In the hydraulic model of the proposed system, fire flow at a single hydrant is assumed to coincide with max day flow.

EXISTING FACILITIES & CONDITIONS

The connection to the Arizona Water Company's existing system will be made just north of the Jordan Road and Navahopi Road intersection. The connection will be to an existing 12" ductile iron pipe water line in Jordan Road.

There is an existing fire hydrant at the northwest corner of the of the 2.05 ac parcel on Jordan Road. The Sedona Oak Creek Fire District flow test results for this hydrant are as follows: static pressure of 55 PSI, fire flow of 1025 GPM with a residual pressure of 50 PSI.

PROPOSED IMPROVEMENTS

The proposed water distribution system improvements begin at the existing 12" water main in Jordan Road. The 12" mainline will be tapped with an 8" water main that will enter Jordan Townhomes on parcel number 401-58-001A and be in constructed in the road. Each townhome unit will have an individual water meter.

SUMMARY

The volume and pressure available at the point of connection will provide the project with ample domestic and fire flow demands. The water distribution system design will comply with the requirements of Arizona Water Company, the Sedona Oak Creek Fire District and Arizona Department of Environmental Quality.

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Sedona, Arizona

Water System Design Report
Jordan Townhomes
Job No.21237

REFERENCES

Publications

Engineering Bulletin No. 10: Guidelines for the Construction of Water Systems, Arizona Department of Environmental Quality, 1978.

Arizona Water Company Records, 2004

Uniform Fire Code, International Fire Code Institute, 2012.

Uniform Plumbing Code, International Association of Plumbing and Mechanical Officials, 1994.

Software

WaterCAD, Bentley Version 10.03.03.74

APPENDIX

Grading and Utilities Concept Plan



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Exhibit 4d.
Page 1 of 22
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CONCEPT DRAINAGE REPORT for JORDAN ESTATES/TOWNHOMES

APN: 401-58-001A, 401-05-004A
Sedona, Arizona

Prepared for:
Miramonte Holdings, LLC
2502 River Road
Tucson, AZ 81758

Job #21237

SEDONA

COTTONWOOD

FLAGSTAFF

PRESCOTT

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APPENDIX

Vicinity Map
FEMA FIRM Maps
City of Sedona Flood Plain Management Study
City of Sedona Storm Water Master Plan
Pre-Development Watershed Map
NOAA Atlas 14 Point Precipitation Frequency Estimates for Sedona
Preliminary Concept Grading and Utilities Plan

Introduction

The proposed project site is located in Sedona, Arizona, bordered by Jordan Road to the west and Wilson Canyon Road to the south. Quail Tail Trail connects to Wilson Canyon Road and crosses through the central portion of the development. The project site is located on approximately 6.52 acres of undeveloped land, positioned in the Southwest $\frac{1}{4}$ of Section 05, Township 17 North, Range 6 East, of the Gila and Salt River Base Meridian. A vicinity map is included in the Appendix.

The proposed Jordan Townhomes and Jordan Estates project includes the development of 22 townhome units and 8 residential home sites. The design of the project includes the addition of a new access roadway and improvements to Quail Tail Trail. The proposed project is located on parcels 401-58-001A and 401-05-004A. Parcel 401-58-001A (Jordan Townhomes) encompasses the western section of the site and consists of relatively flat terrain, covered with shrubs and native grass. Parcel 401-05-004A (Jordan Estates) makes up the eastern section of the site and has significantly sloping topography to the southeast. The parcel vegetation consists of pinion pine, juniper, shrubs and native grass.

Surrounding developments include the Orchards subdivision and private residential property to the west, private residential property to the north and east, and the Sierra Vista Resubdivision and private residential property to the south.

The project is located in Zone X of the FEMA Flood Insurance Rate Map number 04005C7444G, effective September 3, 2010. Zone X is described as an area determined to be outside the 500-year floodplain. The preliminary FEMA Flood Insurance Rate Map number 04005C7444H, dated June 30, 2020, shows no changes to the flood hazard area designation for the site. The Appendix contains a portion of the FIRM near the project area.

The site is located within the City of Sedona Floodplain Management Study prepared by the Soil Conservation Service in May 1994. The project site is not located within a 100-year floodplain per this study, though neighboring properties to the south are identified as being located within a 100-year floodplain of Profile 2200. The City of Sedona Storm Water Master Plan places the site in two separate basins: D1B of the Mormon Wash basin, and Q2C of the Oak Creek "A" basin. Information from these studies can be found in the Appendix.

Objective

The objective of this report is to determine the impact the proposed development will have on the runoff characteristics of the site and to determine, at a concept level, the detention volume needed to attenuate the additional post-development flows. The design of the proposed drainage control structures will be in

accordance with City of Sedona and Yavapai County drainage criteria.

Procedure

The total project watershed is approximately 14.3 acres and is a mixture of developed residential housing and undeveloped native land. A map of the predevelopment watershed can be found in the Appendix. Off-site flow enters the project area from the north, west, and south. Off-site flows entering the site along the north and west boundaries are conveyed as sheet flow. Off-site runoff from the south is conveyed onto the project site via an 18-inch culvert located at the intersection of Wilson Canyon Road and Mountain View Drive. The area upstream of the culvert is identified and analyzed as Basin 4 in this drainage report. The 18-inch culvert drains into a small channel that conveys the runoff across the project site to the east.

The development of the project site includes the eventual addition of approximately 3.67 acres of impervious surfaces. The resulting storm water runoff is proposed to be routed through a storm drain system from the west side of the project site across the proposed development to the east, where it then outlets into the existing natural channel located near the southeast property boundary. To offset the increased peak flows (from the proposed development), a large underground detention structure is proposed.

The design rainfall data was taken from the site specific NOAA Atlas 14 point precipitation frequency estimate, as shown in the Appendix. The required storage volume for the storm water runoff from the development of the site was determined based on retaining the storm runoff volume for the entire 100-year, 2-hour storm event from all added impervious areas of the project site, per the Yavapai County Drainage Manual.

Off-site sheet flow from the north and west will be conveyed onto the western portion of the proposed project site and into the storm drain system, helping with the existing drainage conditions to the south of the project boundary. The natural channel on the eastern portion of the site which conveys the runoff from Basin 4 to the southeast will be preserved. The development of the Jordan Townhomes and Estates project will not alter the existing off-site flowrate conditions with the proposed detention system.

The proposed drainage improvements will be designed to provide safe and efficient drainage across the project site. The open channels, catch basins, and storm drain structures will be designed to intercept 100% of the estimated 100-year flow for the on and off-site flows.

Results

The underground detention structure is proposed to be located under the fire truck turnaround on the Jordan Estates project site, and will require approximately 36,000 ft³ of volume to attenuate peak flows to predevelopment rates. The first flush volume of approximately 6,700 ft³ will be retained below the basin outlet, with the excess storm water runoff being conveyed to the natural channel located near the southeast corner of the Jordan Estates project site. Refer to the Preliminary Concept Grading and Utilities Plan for preliminary details, grades, finished elevations, and locations.

Conclusion

A runoff volume for the 100-year, 2 hour storm event was calculated for the project watershed to conceptually determine a required detention volume of 36,000 ft³. Runoff from the development of the site will be conveyed into the proposed underground detention basin through a storm drain system. The underground detention structure will discharge to the existing channel located on the southeast section of the project site.

This drainage report is drafted to support the Concept Plan submittal for development of Jordan Townhomes. The current concept drainage design will attenuate the post-development runoff in accordance with City of Sedona and Yavapai County drainage criteria.

References

Floodplain Management Study, City of Sedona, May 1994

Stormwater Master Plan, City of Sedona, 2005

Yavapai County Drainage Criteria Manual, Yavapai County Flood Control District, July 2015

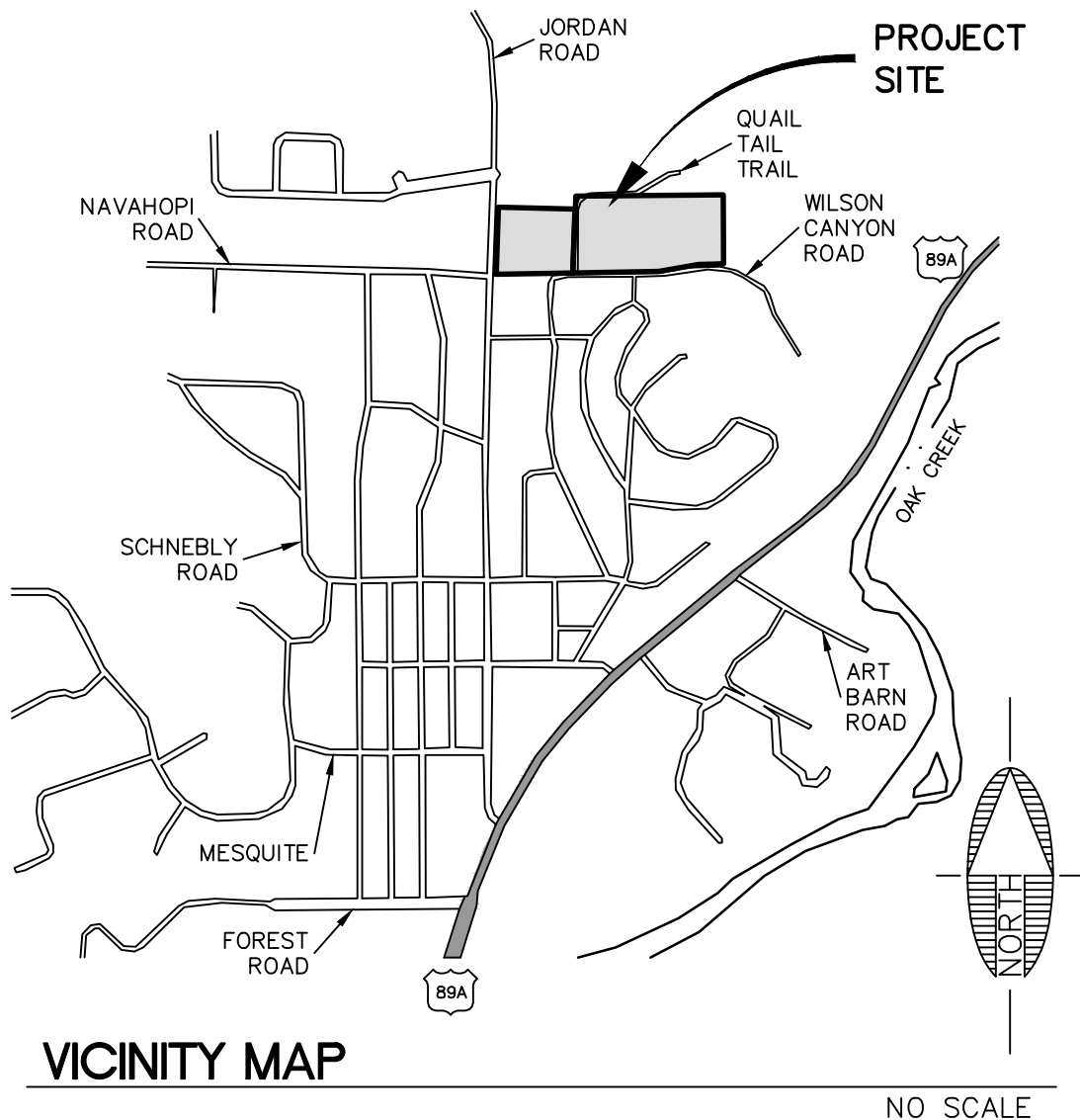
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Sedona, Arizona

Concept Drainage Report
Jordan Estates/Townhomes
Job #21237

Exhibit 4d.
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APPENDIX

PLOTTED: Dec 14, 2021--2:50pm



VICINITY MAP

PRELIMINARY

NOT FOR CONSTRUCTION,
BIDDING OR RECORDING

FILE: P:\2020\20206\DRAWINGS\SITE PLANS\VICINITY MAP.DWG EMETZ



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JOB NO.	21237
DATE	DEC 21
SCALE	NO SCALE
DRAWN	AHB
DESIGN	AHB
CHECKED	AHB

JORDAN TOWNHOMES

SEDONA
ARIZONA

VICINITY MAP

SHEET

1

OF 1

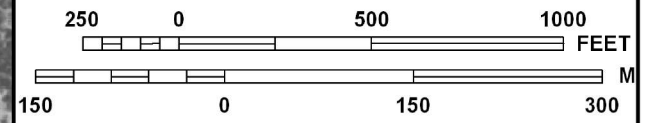


S PANEL 7657

FOREST BOUNDARY COINCIDENT
WITH CORPORATE LIMITS



MAP SCALE 1" = 500'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 7444G

FIRM
FLOOD INSURANCE RATE MAP
COCONINO COUNTY,
ARIZONA
AND INCORPORATED AREAS

PANEL 7444 OF 8475
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COCONINO COUNTY	040019	7444	G
SEDONA, CITY OF	040130	7444	G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
04005C7444G

EFFECTIVE DATE
SEPTEMBER 3, 2010

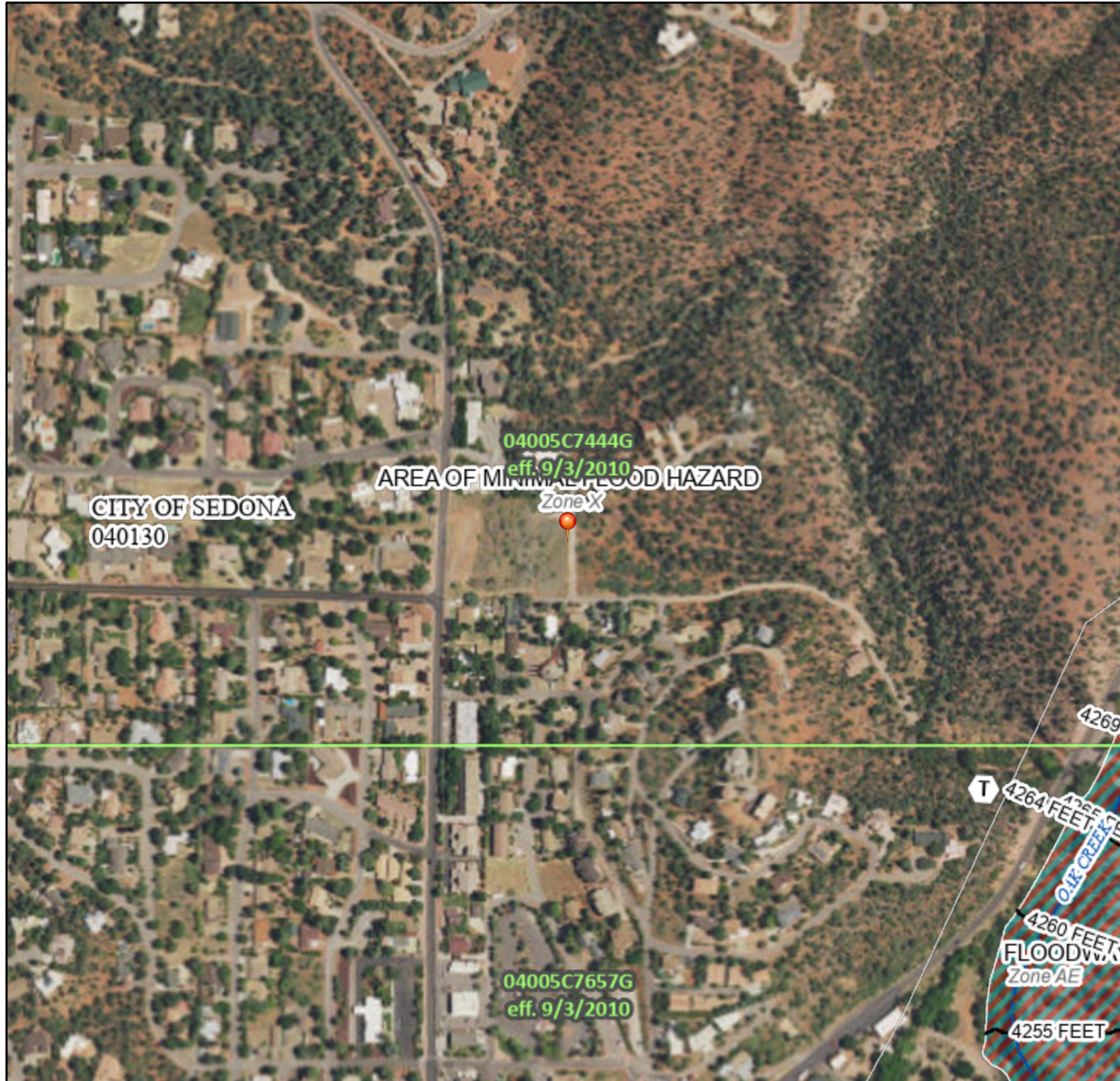
Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

National Flood Hazard Layer FIRMMette



111°45'54"W 34°52'50"N



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
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		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
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

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

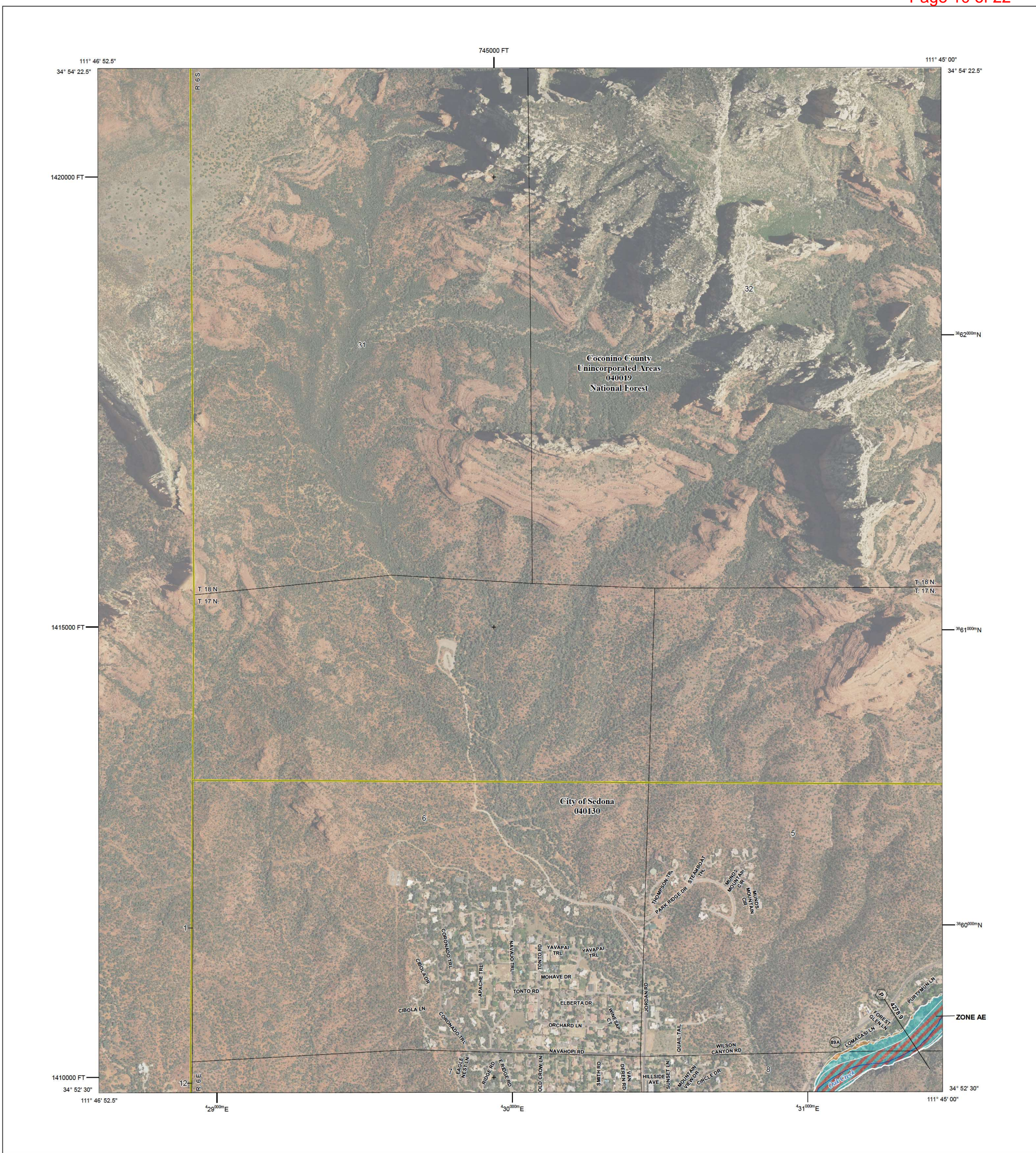
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/5/2021 at 6:41 PM 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.



111°45'17"W 34°52'21"N



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
OTHER AREAS OF FLOOD HAZARD		Regulatory Floodway
		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
OTHER AREAS		Area with Flood Risk due to Levee. Zone D
		NO SCREEN. Areas of Minimal Flood Hazard. Zone X
		Area of Undetermined Flood Hazard. Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

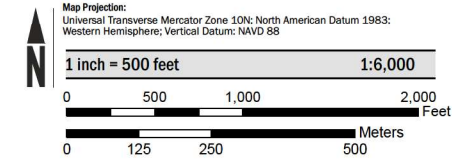
Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-438-6629.

Base map information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). This information was derived from digital orthophotography at a 2-foot resolution from photography dated 2017.

SCALE



PANEL LOCATOR



National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
 FLOOD INSURANCE RATE MAP

COCONINO COUNTY, ARIZONA
 And Incorporated Areas

PANEL 7444 of 8475

Panel Contains:			
COMMUNITY	NUMBER	PANEL	SUFFIX
COCONINO COUNTY	040019	7444	H
UNINCORPORATED AREAS	040130	7444	H

PRELIMINARY
6/30/2020

VERSION NUMBER
2.4.3.5

MAP NUMBER
04005C7444H

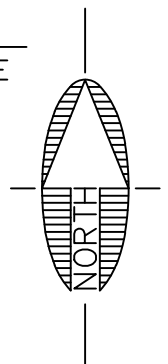
MAP REVISED

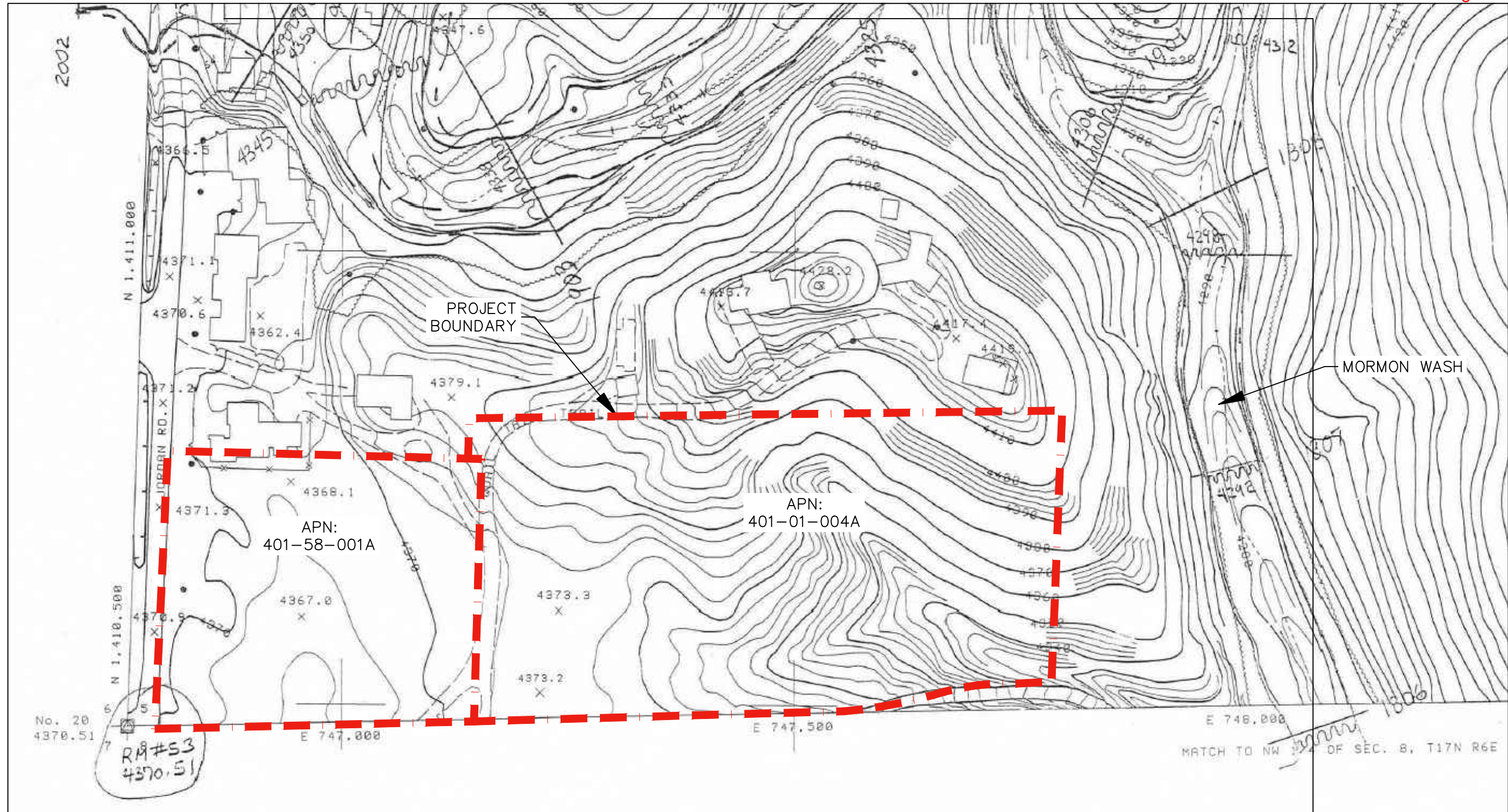


CITY OF SEDONA
FLOODPLAIN MANAGEMENT STUDY, 1994

NO SCALE

PORTION OF OVERALL DRAINAGE BASIN MAP

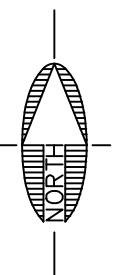


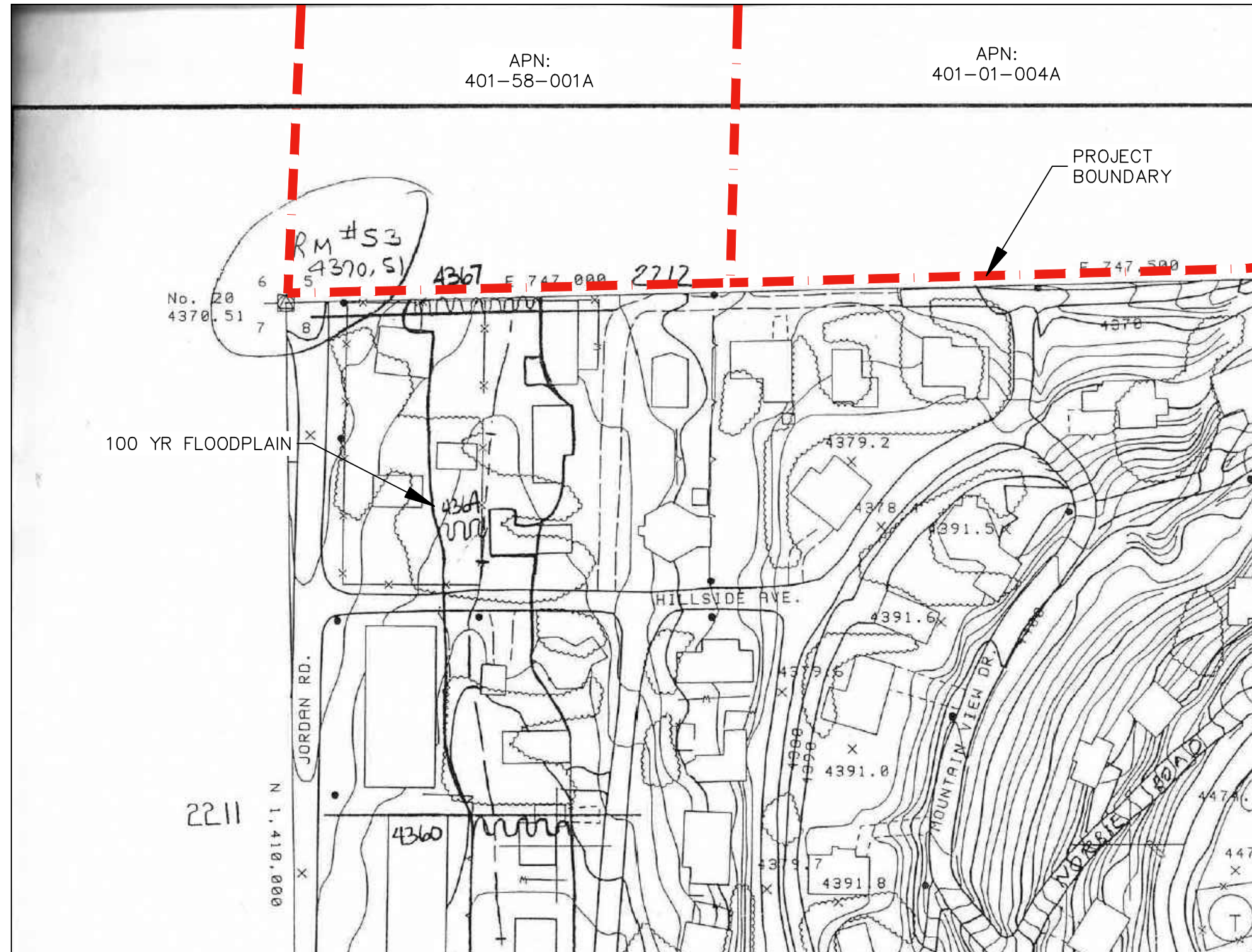


CITY OF SEDONA FLOODPLAIN MANAGEMENT STUDY, 1994

PORTION OF SW QUARTER SECTION 5 MAP

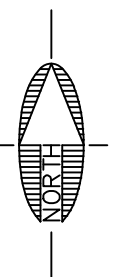
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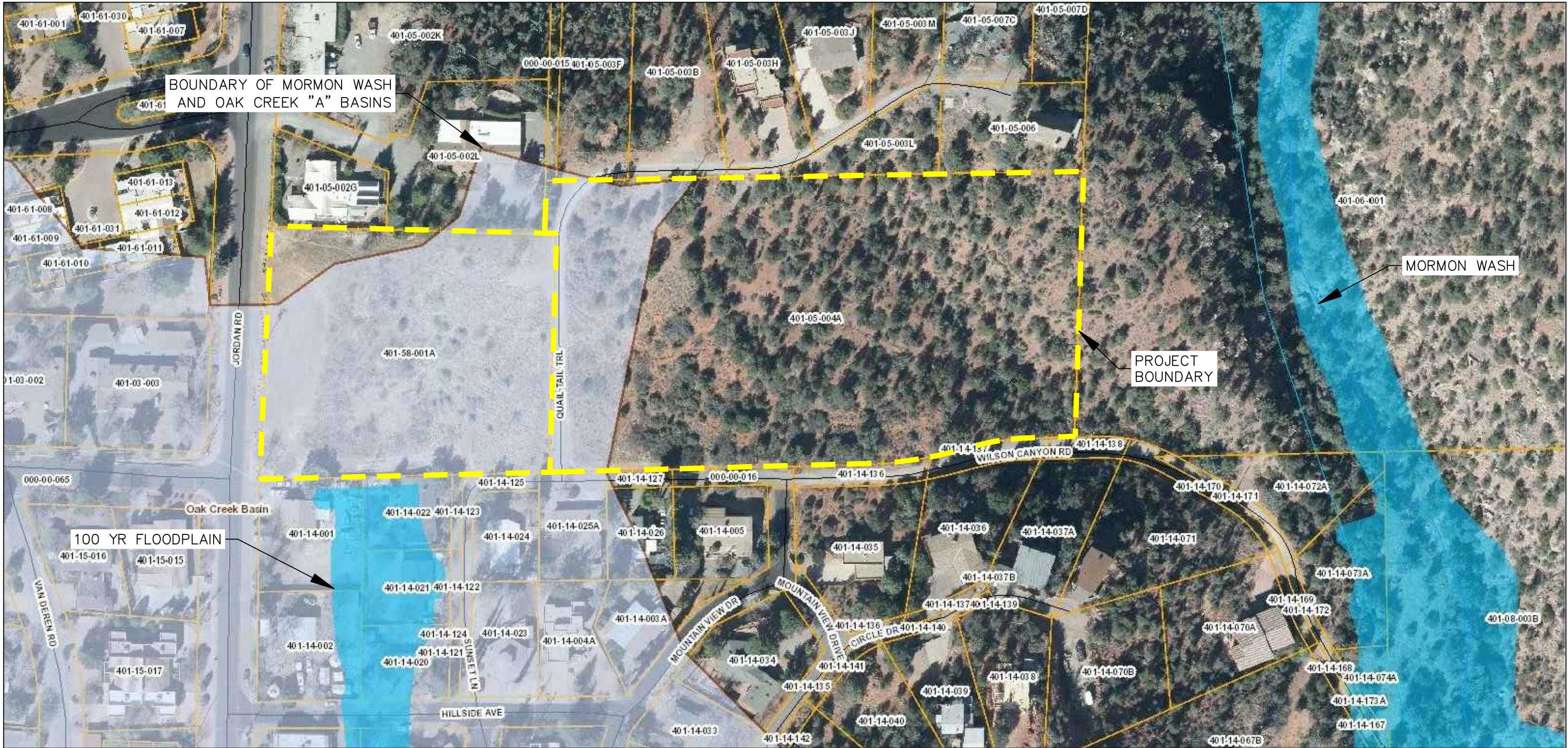




CITY OF SEDONA
FLOODPLAIN MANAGEMENT STUDY, 1994
PORTION OF NW QUARTER SECTION 8 MAP

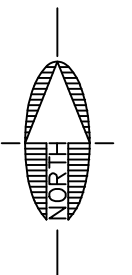
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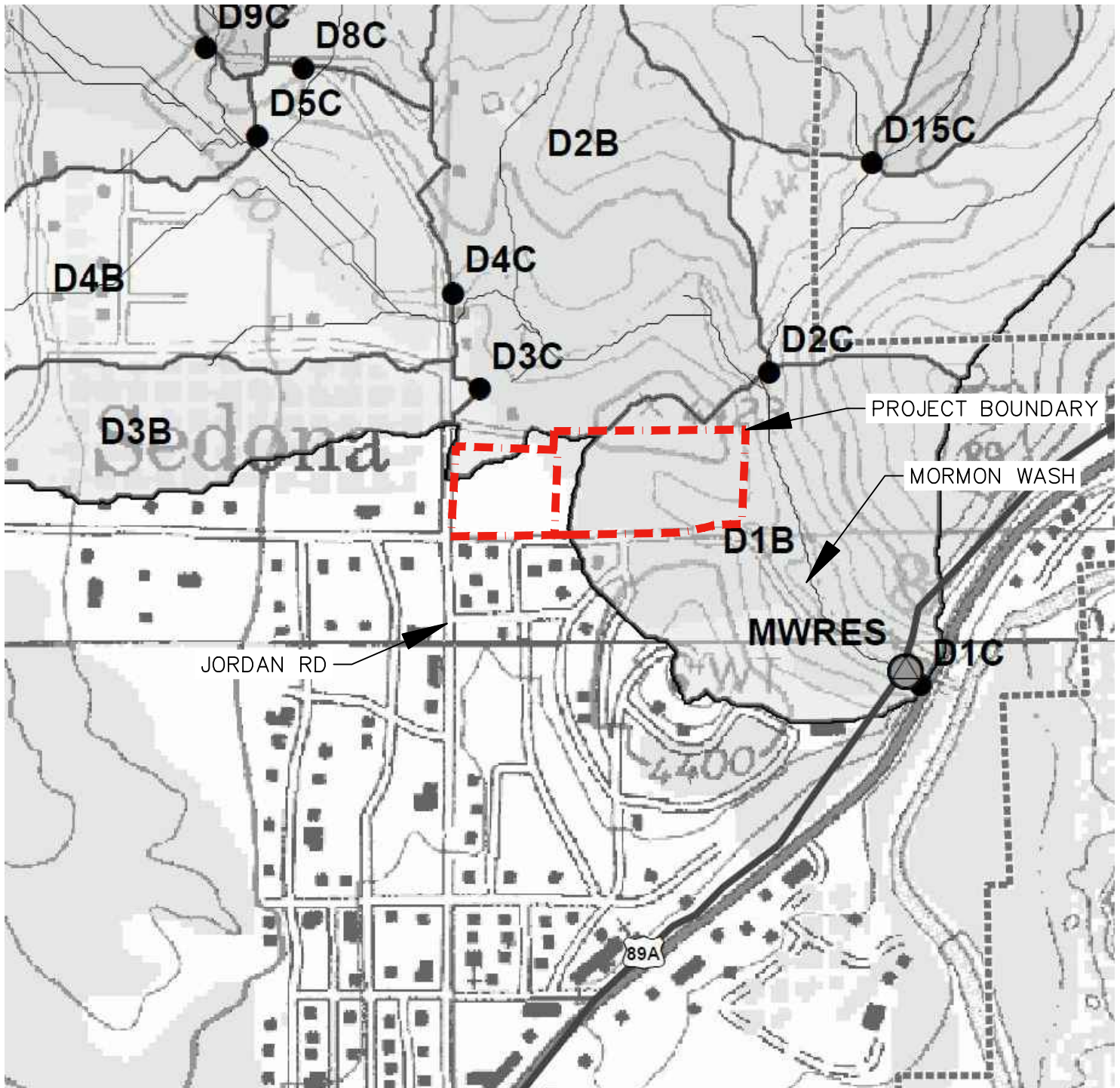




CITY OF SEDONA
STORM WATER MASTER PLAN, 2005
CITY OF SEDONA GIS BASIN MAP

NO SCALE

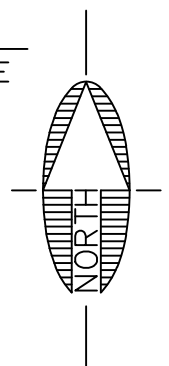


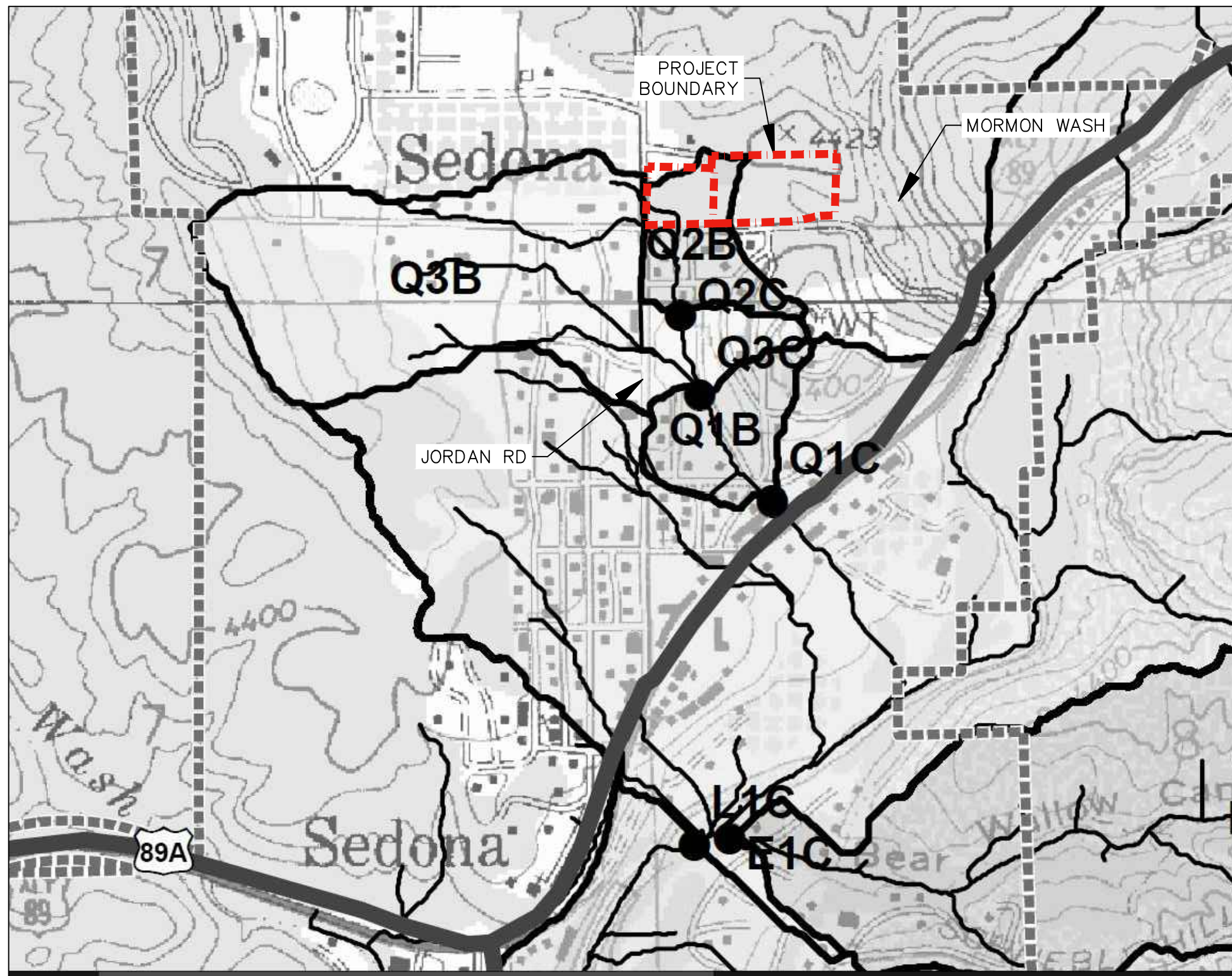


CITY OF SEDONA
STORM WATER MASTER PLAN, 2005

PORTION OF MORMON WASH BASIN MAP

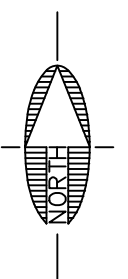
NO SCALE





CITY OF SEDONA
STORM WATER MASTER PLAN, 2005
PORTION OF OAK CREEK 'A' BASIN MAP

NO SCALE



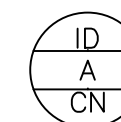
PEAK FLOW VALUES

BASIN	Q ₁₀₀ (CFS)
1X	9.9
2X	0.6
3X	16.1
4X	24.3

GENERAL NOTES

1. OFFSITE BASIN BOUNDARIES WERE DELINEATED BY OVERLAYING 2007 CITY OF SEDONA AERIAL TOPOGRAPHIC CONTOUR DATA.

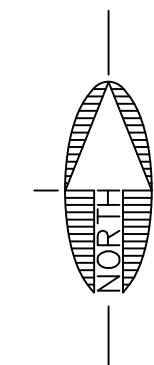
LEGEND



ID = BASIN IDENTIFICATION
A = AREA IN ACRES
CN = SCS CURVE NUMBER

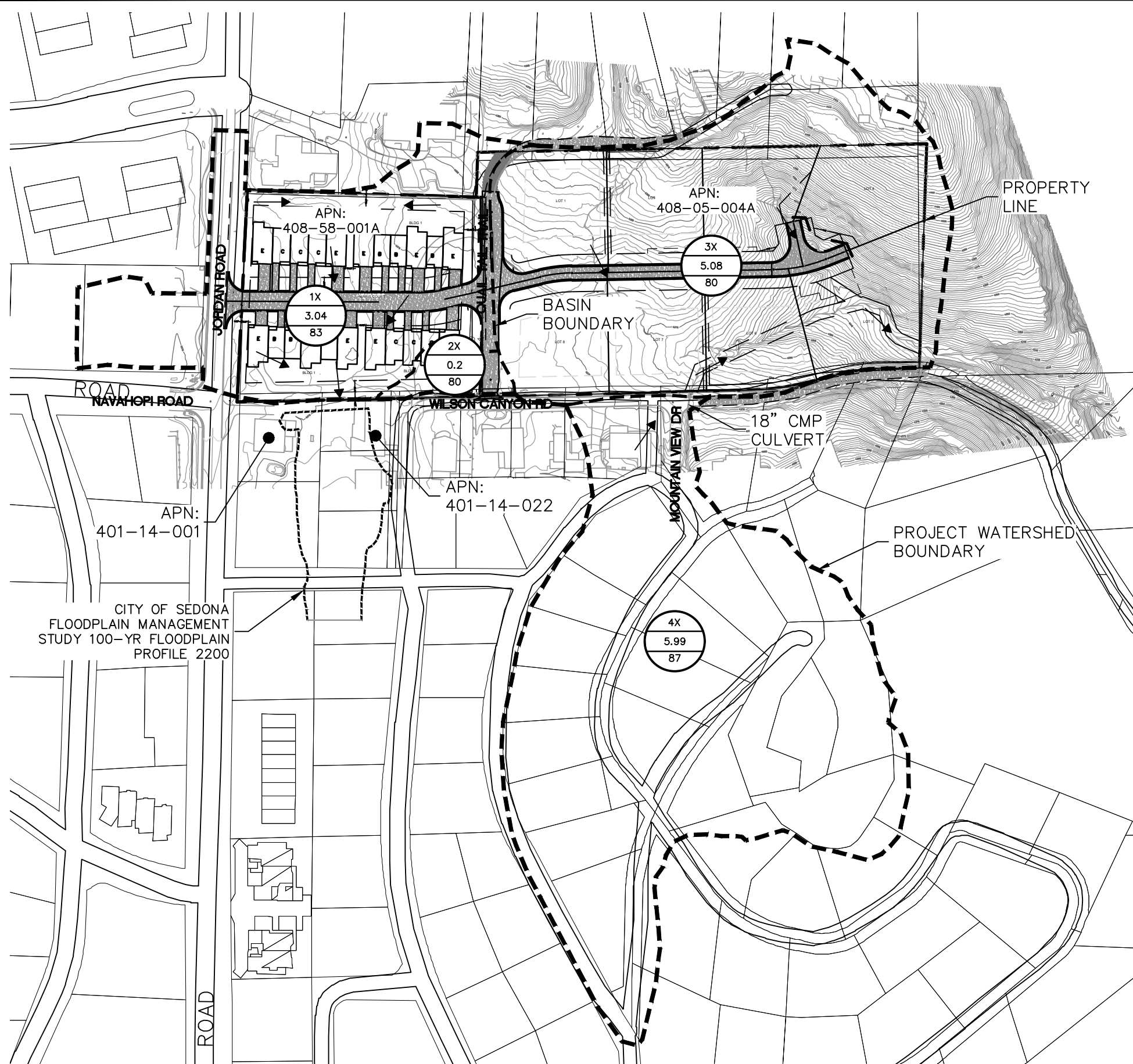


FLOW DIRECTION



PLOTTED: Nov 22, 2021 - 3:58pm

FILE: P:\2020\20206\Drawings\XREF\XD-20206-PRE.dwg SWI-C3D-2020



CITY OF SEDONA
FLOODPLAIN MANAGEMENT
STUDY 100-YR FLOODPLAIN
PROFILE 2200

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REVISIONS			
NO.	DESCRIPTION	DATE	BY

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75 Kallof Place
Sedona, AZ 86336
928.282.1061
928.282.2058 fax
www.swiaz.com

JOB NO: 21237
DATE: NOV 21
SCALE: NTS
DRAWN: EGM
DESIGN: JTL
CHECKED: JTL

JORDAN LOFTS
PREDEVELOPMENT WATERSHED MAP

SEDONA
ARIZONA

SHEET
1
OF 1



NOAA Atlas 14, Volume 1, Version 5
 Location name: Sedona, Arizona, USA*
 Latitude: 34.8766°, Longitude: -111.7598°
 Elevation: 4387.45 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

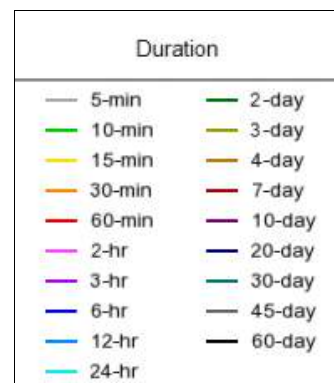
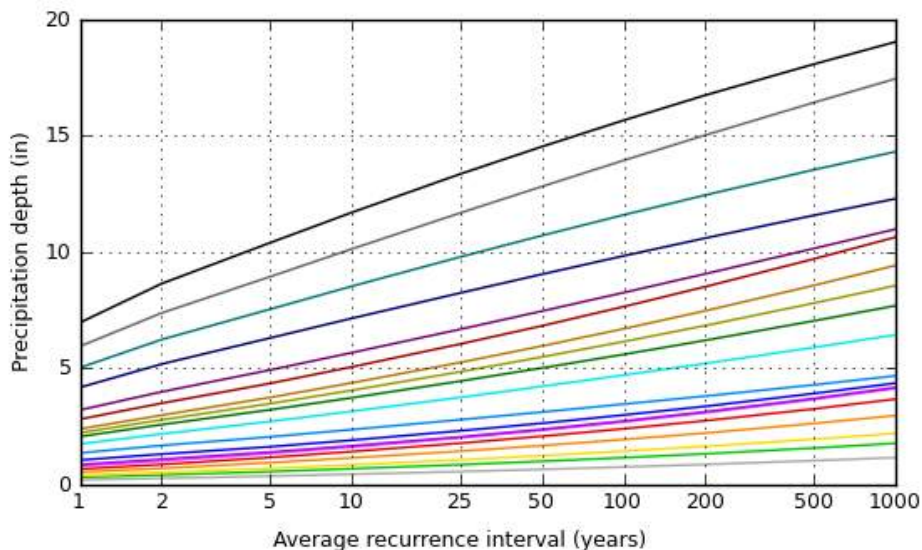
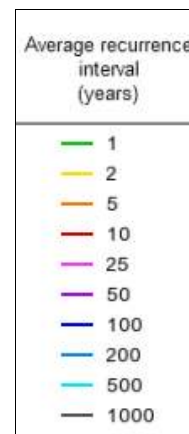
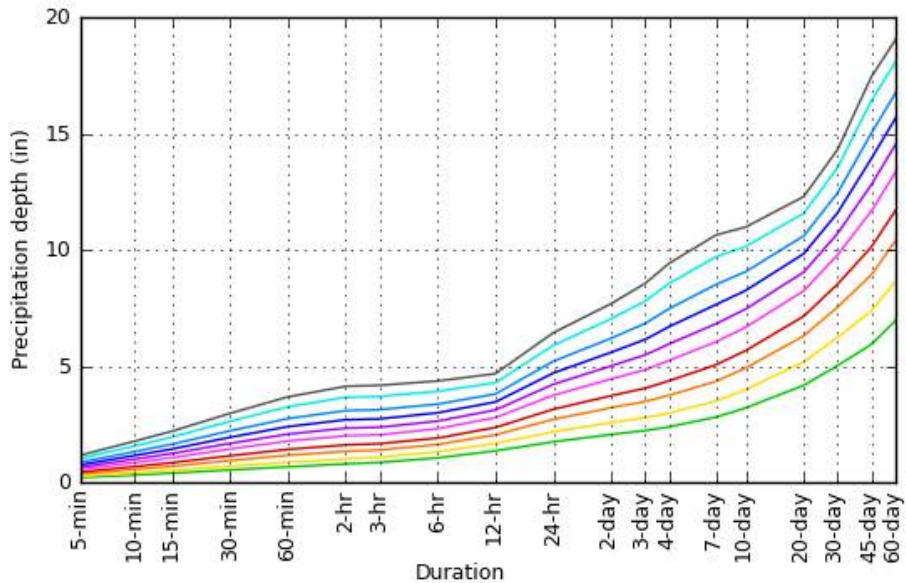
PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.216 (0.181-0.258)	0.278 (0.231-0.332)	0.374 (0.311-0.447)	0.455 (0.378-0.542)	0.569 (0.469-0.675)	0.663 (0.544-0.788)	0.766 (0.622-0.910)	0.876 (0.702-1.04)	1.04 (0.816-1.24)	1.17 (0.910-1.41)
10-min	0.329 (0.274-0.392)	0.424 (0.352-0.505)	0.569 (0.473-0.680)	0.692 (0.575-0.825)	0.865 (0.714-1.03)	1.01 (0.827-1.20)	1.17 (0.947-1.39)	1.33 (1.07-1.59)	1.58 (1.24-1.89)	1.78 (1.39-2.15)
15-min	0.407 (0.340-0.486)	0.525 (0.437-0.626)	0.706 (0.586-0.843)	0.858 (0.713-1.02)	1.07 (0.885-1.27)	1.25 (1.02-1.49)	1.45 (1.17-1.72)	1.65 (1.32-1.97)	1.96 (1.54-2.35)	2.21 (1.72-2.67)
30-min	0.548 (0.458-0.655)	0.707 (0.588-0.843)	0.951 (0.789-1.14)	1.16 (0.960-1.38)	1.44 (1.19-1.71)	1.69 (1.38-2.00)	1.95 (1.58-2.31)	2.23 (1.78-2.65)	2.64 (2.07-3.16)	2.98 (2.31-3.59)
60-min	0.679 (0.567-0.810)	0.875 (0.728-1.04)	1.18 (0.976-1.40)	1.43 (1.19-1.70)	1.79 (1.47-2.12)	2.09 (1.71-2.48)	2.41 (1.96-2.86)	2.75 (2.21-3.28)	3.26 (2.57-3.91)	3.68 (2.86-4.45)
2-hr	0.806 (0.700-0.940)	1.02 (0.879-1.19)	1.35 (1.16-1.57)	1.62 (1.39-1.89)	2.02 (1.72-2.34)	2.34 (1.97-2.72)	2.70 (2.25-3.15)	3.10 (2.54-3.60)	3.67 (2.96-4.28)	4.14 (3.28-4.84)
3-hr	0.868 (0.763-1.01)	1.10 (0.970-1.27)	1.41 (1.23-1.62)	1.68 (1.46-1.93)	2.06 (1.78-2.37)	2.38 (2.05-2.74)	2.74 (2.32-3.17)	3.14 (2.62-3.63)	3.71 (3.04-4.32)	4.18 (3.37-4.90)
6-hr	1.06 (0.953-1.18)	1.32 (1.18-1.47)	1.64 (1.46-1.82)	1.92 (1.71-2.13)	2.32 (2.06-2.58)	2.64 (2.33-2.94)	3.00 (2.61-3.34)	3.37 (2.91-3.78)	3.92 (3.33-4.43)	4.37 (3.64-4.96)
12-hr	1.37 (1.23-1.51)	1.69 (1.53-1.87)	2.06 (1.86-2.28)	2.37 (2.13-2.61)	2.80 (2.51-3.08)	3.12 (2.78-3.43)	3.47 (3.05-3.82)	3.81 (3.33-4.22)	4.29 (3.70-4.78)	4.68 (4.00-5.24)
24-hr	1.76 (1.59-1.93)	2.18 (1.99-2.41)	2.72 (2.47-3.01)	3.16 (2.86-3.49)	3.76 (3.39-4.15)	4.23 (3.80-4.66)	4.71 (4.21-5.20)	5.22 (4.64-5.77)	5.90 (5.19-6.56)	6.44 (5.61-7.19)
2-day	2.07 (1.89-2.29)	2.59 (2.35-2.86)	3.22 (2.94-3.57)	3.74 (3.39-4.13)	4.45 (4.03-4.91)	5.02 (4.51-5.53)	5.60 (5.01-6.17)	6.21 (5.51-6.87)	7.04 (6.19-7.81)	7.70 (6.70-8.56)
3-day	2.24 (2.04-2.47)	2.79 (2.54-3.08)	3.49 (3.18-3.86)	4.06 (3.68-4.48)	4.85 (4.39-5.35)	5.49 (4.94-6.04)	6.15 (5.50-6.78)	6.84 (6.07-7.55)	7.80 (6.86-8.65)	8.56 (7.46-9.52)
4-day	2.40 (2.19-2.64)	2.99 (2.73-3.30)	3.75 (3.42-4.14)	4.38 (3.98-4.82)	5.26 (4.76-5.78)	5.96 (5.36-6.55)	6.70 (5.99-7.38)	7.48 (6.64-8.24)	8.57 (7.53-9.49)	9.43 (8.21-10.5)
7-day	2.82 (2.58-3.09)	3.51 (3.21-3.86)	4.36 (3.98-4.78)	5.06 (4.62-5.56)	6.05 (5.50-6.64)	6.83 (6.19-7.51)	7.65 (6.90-8.43)	8.51 (7.62-9.37)	9.70 (8.60-10.7)	10.6 (9.33-11.8)
10-day	3.21 (2.94-3.53)	4.00 (3.66-4.39)	4.93 (4.51-5.42)	5.68 (5.18-6.24)	6.68 (6.06-7.33)	7.46 (6.75-8.20)	8.26 (7.43-9.09)	9.07 (8.11-9.98)	10.2 (9.01-11.2)	11.0 (9.69-12.2)
20-day	4.18 (3.85-4.58)	5.19 (4.77-5.68)	6.31 (5.80-6.90)	7.15 (6.56-7.81)	8.24 (7.53-9.00)	9.05 (8.24-9.89)	9.84 (8.93-10.8)	10.6 (9.59-11.6)	11.6 (10.4-12.7)	12.3 (11.0-13.5)
30-day	5.03 (4.62-5.50)	6.24 (5.72-6.82)	7.54 (6.90-8.24)	8.53 (7.80-9.29)	9.79 (8.91-10.7)	10.7 (9.72-11.7)	11.6 (10.5-12.6)	12.5 (11.2-13.6)	13.5 (12.2-14.9)	14.3 (12.8-15.7)
45-day	5.95 (5.43-6.57)	7.38 (6.74-8.16)	8.94 (8.15-9.86)	10.1 (9.22-11.2)	11.7 (10.6-12.9)	12.8 (11.6-14.1)	13.9 (12.6-15.4)	15.0 (13.5-16.6)	16.4 (14.7-18.2)	17.4 (15.5-19.4)
60-day	6.97 (6.34-7.64)	8.64 (7.87-9.48)	10.4 (9.46-11.4)	11.7 (10.6-12.8)	13.3 (12.1-14.6)	14.5 (13.1-15.9)	15.7 (14.1-17.2)	16.7 (15.0-18.4)	18.1 (16.1-19.9)	19.0 (16.9-21.0)

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.

[Back to Top](#)

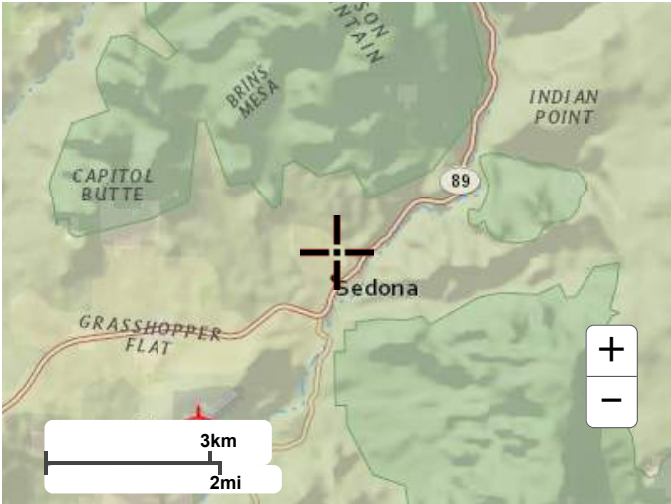
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 34.8766°, Longitude: -111.7598°



Maps & aerials

Small scale terrain



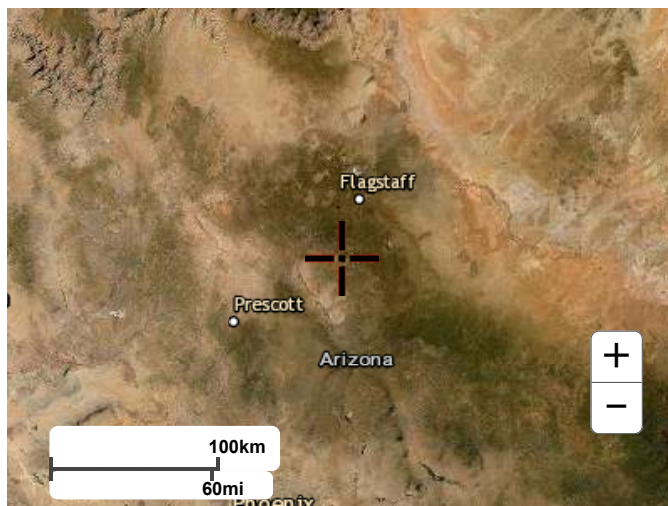
Large scale terrain



Large scale map



Large scale aerial



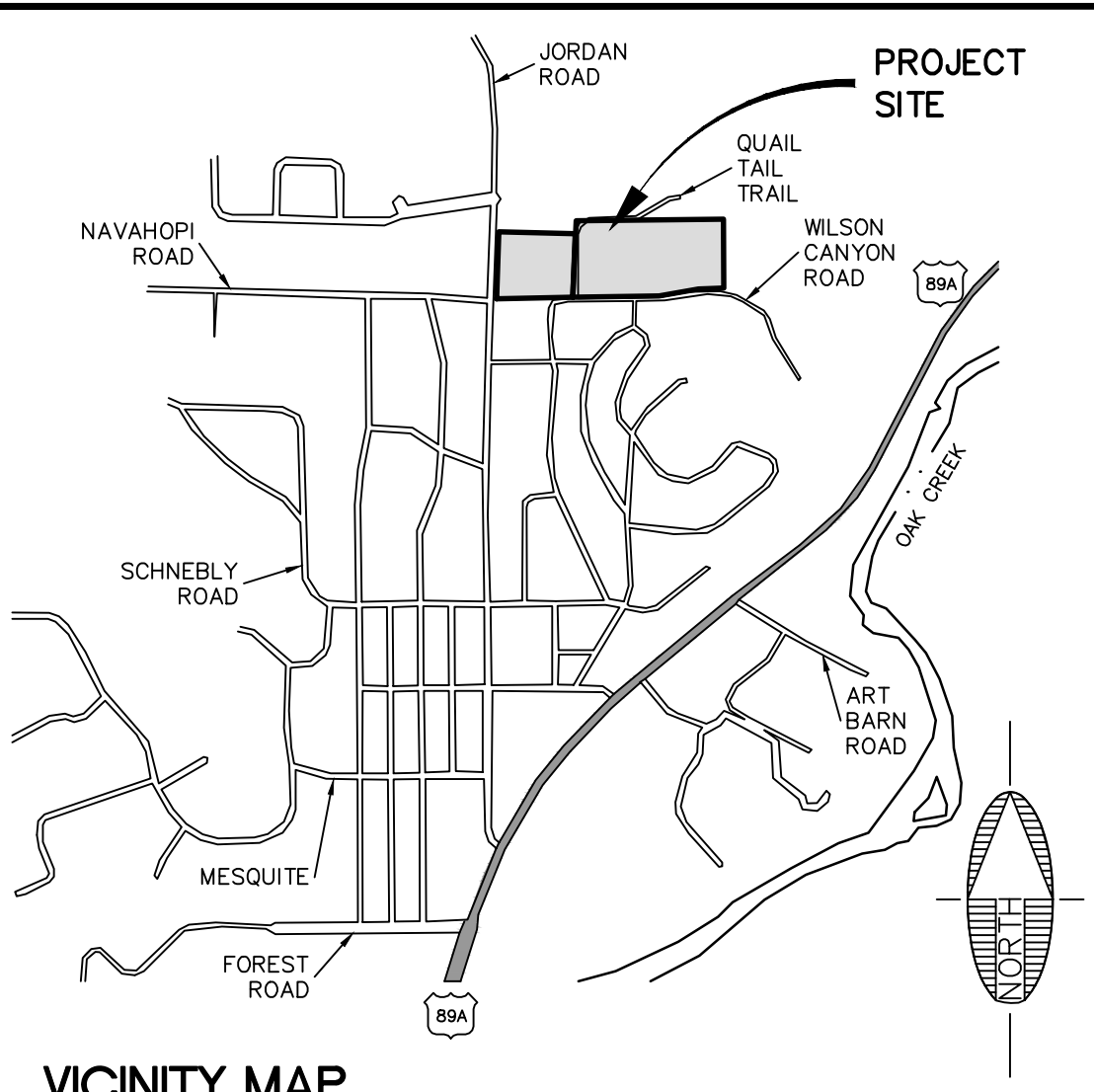
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[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
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Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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JORDAN TOWNHOMES/JORDAN ESTATES

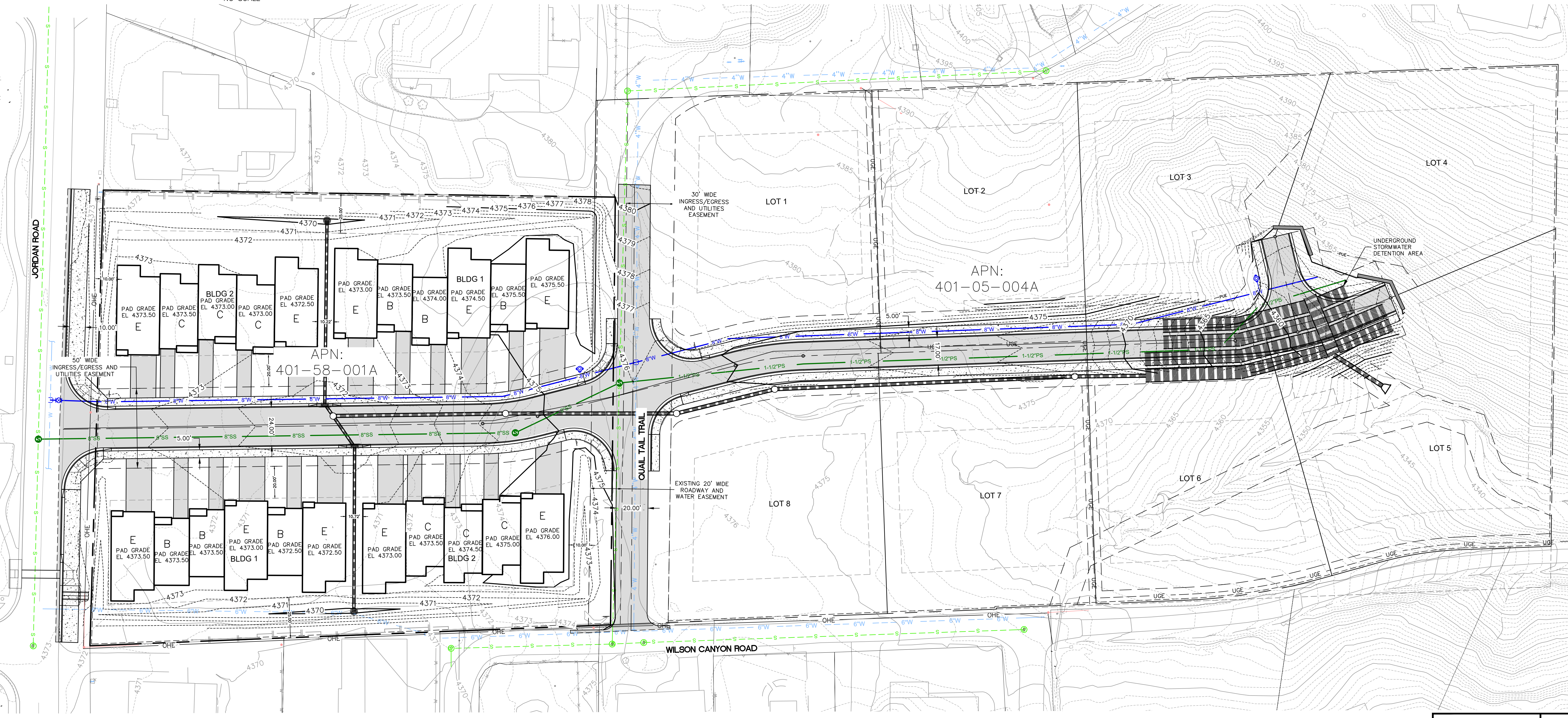
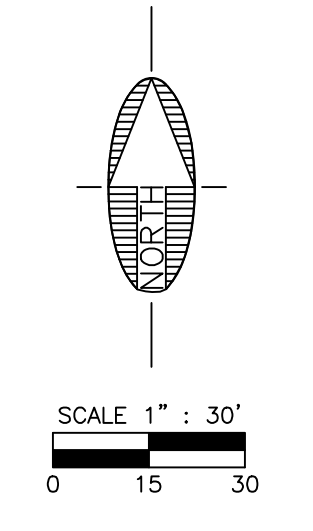
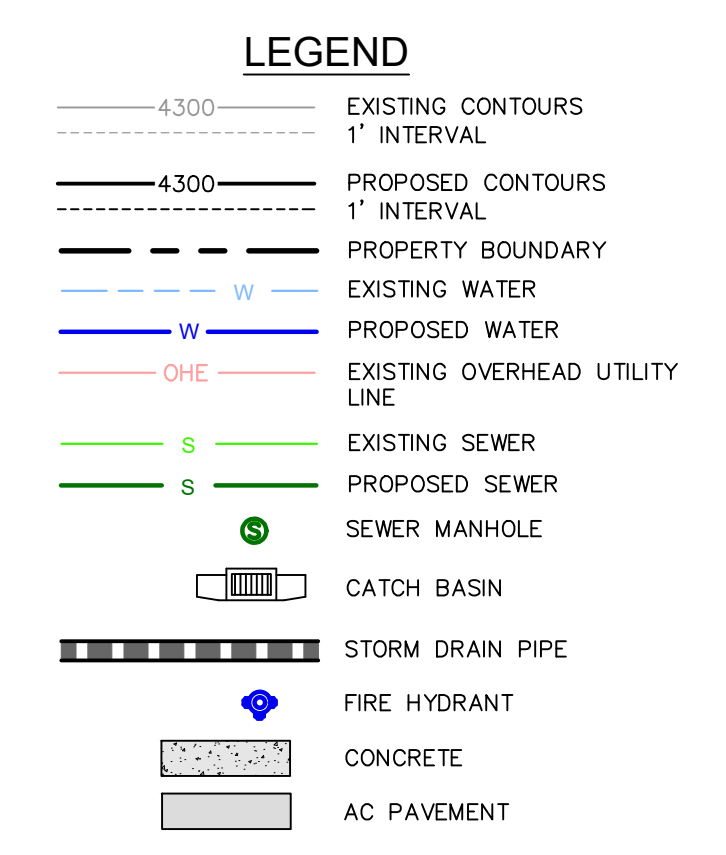
A PORTION OF SECTION 5, TOWNSHIP 17 NORTH, RANGE 6 EAST
GILA AND SALT RIVER MERIDIAN, YAVAPAI COUNTY, ARIZONA
APN: 401-05-004A, 401-58-001A



SITE INFORMATION		
ASSESSORS PARCEL NO.	401-58-001A	401-05-004A
ZONING	RM-2	RS-18
BUILDINGS	4	
UNITS	22	
PARCEL AREA	89,558 S.F. (2.06 AC)	190,654 S.F. (4.38 AC)
BUILDING AREA	26,388 S.F.	
PARCEL COVERED BY BUILDINGS	29%	
PARCEL COVERED BY PARKING, DRIVEWAYS & SIDEWALKS	23% (20,127 S.F.)	
OPEN SPACE	48% (43,043 S.F.)	
% PARCEL TO BE LANDSCAPED	48%	

CONTACT INFORMATION
OWNER MIRAMONTE HOLDINGS, LLC
 2502 E. RIVER ROAD
 TUCSON, AZ 85718
 (520) 615-8900
ENGINEER SHEPARD-WESNITZER, INC.
 75 KALLOF PLACE
 SEDONA, ARIZONA 86336
 (928) 282-1061
 ART BECKWITH, PE 28658

UTILITIES/SERVICES
 WATER ARIZONA WATER COMPANY
 SEWER CITY OF SEDONA
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 WASTE TAYLOR WASTE
 REMOVAL



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NO.	DESCRIPTION	DATE	BY

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 928.282.2058 fax
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JOB NO: 21237
 DATE: DEC 21
 SCALE: 1"=30'
 DRAWN: EGM
 DESIGN: AHB
 CHECKED: AHB

JORDAN TOWNHOMES/JORDAN ESTATES
 CITY OF SEDONA
 ARIZONA
**PRELIMINARY CONCEPT
 GRADING AND UTILITES PLAN**

PRELIMINARY
 NOT FOR CONSTRUCTION,
 BIDDING OR RECORDING

DRAWING NO. **EX2**
 SHT NO. 1 OF 1

PLOTTED: Dec 14, 2021-10:36am
 FILE: P:\2021\21237\DRAWINGS\SITE PLANS\SITE LAYOUT (2021-11-22).DWG EMETZ