PRELIMINARY DRAINAGE REPORT

NORTHSIGHT RESIDENTIAL HEALTHCARE

13875 N. Northsight Blvd.
Scottsdale, AZ 85260

Plan #
Case # 15-ZN-2022
Q-S #
☒ Accepted
☐ Corrections
N.Baronas 5/29/2023
Reviewed By Date

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Submittal Date: April 17, 2023

Case No.: 15-ZN-2022 **Plan Check No.: TBD**

15-ZN-2022
04/27/2023

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1. INTRODUCTION

This Preliminary Drainage Report represents the storm water analysis for a residential healthcare development proposed in Scottsdale, Arizona. The purpose of this report is to provide the hydrologic and hydraulic analysis, required by the City of Scottsdale, to support the proposed site plan for said development. This report includes discussions and calculations defining the storm water management concepts for the collection and conveyance necessary to comply with the drainage requirements of the City of Scottsdale and Maricopa County. Preparation of this report has been done in accordance with the requirements of the City of Scottsdale Design Standards & Policies Manual (DS&PM) 2018 [1], and the Drainage Design Manuals for Maricopa County, Arizona, Volume I[2] and Volume II[3].

2. LOCATION AND PROJECT DESCRIPTION

2.1 LOCATION:

The subject property consists of land located in a portion of the Southeast Quarter of Section 12, Township 3 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County Arizona:

- Parcel ID: 215-53-005D, Zoning is C-2.
- Address: 13875 N. Northsight Blvd., Scottsdale, AZ 85260

Refer to **FIGURE 1** - **Vicinity Map** for the project's location with respect to major cross streets.

2.2 EXISTING AND PROPOSED DEVELOPMENTS SURROUNDING THE SITE:

- North: Across N. 87th Street
  - Parcel 215-53-006C; Commercial buildings; Zoning is I-5
- South: Across N. Northsight Blvd
  - Parcel 215-53-034; Office buildings; Zoning is S-R.
- West: Across intersection of N 86th Street and N. Northsight Blvd.
  - Parcels 215-53-106 and 215-53-009J; Office buildings; Zoning is S-R.
- East:
  - Parcel 215-53-005G; Bank and parking structure; Zoning is C-2.
  - Parcel 215-53-042; Office buildings; Zoning is C-2.

2.3 EXISTING SITE DESCRIPTION:

The project's net area is approximately 4.51 acres of land and is designated with zoning C-2. The site consists of a bank building (Desert Financial Credit Union) located at the center of the property with circular parking surrounding the building. Landscaping consists of desert shrubs and trees. There are currently six open retention basins around the perimeter of the site.

Per Topographic Survey, the site topography generally slopes from the northeast to the southwest with approximately six feet of fall.

Refer to **FIGURE 2** attached for an aerial of the site.

2.4 PROPOSED SITE DEVELOPMENT:

Site development includes the demolition of existing structures and designated parking lots for the construction of a 3-story healthcare facility with 143 units. The development will include three access point proposed on the private driveway east of the site and one access at N. 87th Street.

Refer to **APPENDIX III** – Preliminary Grading and Drainage Plan for site layout.

2.5 FLOOD HAZARD ZONE:

FIRM Map Number 04013C1760L dated October 15, 2013 indicates the site is designated as Zone "X Shaded". As such, it is defined as "Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or within drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood."

Refer to **FIGURE 3** for the FIRM.

3. EXISTING DRAINAGE CONDITIONS

3.1 OFF-SITE DRAINAGE PATTERNS

The topographic survey provides the following information for offsite drainage:

- *North*: Half of the runoff from N. 87th Street flows towards the site, where it is conveyed via curb and gutter into an existing catch basin (EX-OFF CB 2). No offsite flows from the north affect the site.

- *East*: The private driveway east of the site drains southeasterly to Northsight Blvd. via curb and gutter. No offsite flows from the east affect the site.

- *West*: Half of the runoff from the intersection of N. 87th Street and N. Northsight Boulevard drains towards the site, where it is conveyed via curb and gutter into an existing catch basin (EX-OFF CB 1). No offsite flows from the west affect the site.

- *South*: Half of the runoff from N. Northsight Boulevard drains towards the site, where it is conveyed northwesterly via curb and gutter into an existing catch basin (EX-OFF CB 1) located southwest of the site. No offsite flows from the south affect the site.

Refer to **APPENDIX II** for **Existing Conditions Drainage Area Map**.

3.2 ON-SITE DRAINAGE

Based on the topographic information, the historical outfalls are as follows:

- Flows from drainage areas EX-A1 through EX-A15 drain to on-site open retention basins surrounding the site via overland flow. Inside the open retention basins, catch basins are set 1 foot higher than the bottom elevations discharge excess stormwater into the city's public storm network.
- Flows from drainage area EX-B1 are discharged overland into N. 87th street. Runoff is then conveyed westerly via curb and gutter into existing catch basin EX-OFF CB 2.
- Flows from drainage area EX-B2 are discharged overland into N. Northsight Boulevard. Runoff is then conveyed northwesterly and from southeast of the intersection via curb and gutter into existing catch basin. EX-OFF CB 1.
- Flows from drainage area EX-B3 are discharged overland southeast of the site (CP-1). Runoff is then conveyed easterly via curb and gutter away from the site into an existing catch basin located approximately 360 ft east of the site along N. Northsight Boulevard.

Refer to **APPENDIX II** for **Existing Conditions Drainage Area Map**.

Table 1 below is a summary of existing conditions runoff calculations:

TABLE 1:

SUMMARY OF EXISTING SITE DISCHARGES

	TOTAL AREA	Cwt	Intensity 10 yr 5-min	Q 10	Intensity 100 yr 5-min	Q 100	Control Point	Total Flows Q10	Total Flows Q100
	(ac)	(-)	(in/hr)	(cfs)	(in/hr)	(cfs)	CP#	(cfs)	(cfs)
	5.85	0.78	4.08	-	7.68	-	-	15.17	28.55
EX-A6	0.12	0.45	4.08	0.21	7.68	0.40	EX-OFF CB 1	5.67	10.68
EX-A7	0.59	0.84	4.08	2.04	7.68	3.84			
EX-A15	0.20	0.95	4.08	0.78	7.68	1.47			
EX-A8	0.10	0.45	4.08	0.19	7.68	0.36			
EX-A9	0.14	0.45	4.08	0.25	7.68	0.48			
EX-A10	0.37	0.87	4.08	1.31	7.68	2.47			
EX-A11	0.06	0.54	4.08	0.14	7.68	0.26			
EX-B2	0.32	0.57	4.08	0.75	7.68	1.41			
EX-OFF-2	0.83	0.89	4.08	3.04	7.68	5.73			
EX-B1	0.07	0.60	4.08	0.17	7.68	0.32	EX-OFF CB 2	4.11	7.73
EX-A4	0.46	0.85	4.08	1.59	7.68	3.00			
EX-A5	0.31	0.45	4.08	0.56	7.68	1.06			
EX-OFF-1	0.50	0.87	4.08	1.78	7.68	3.35			
EX-A1	0.04	0.95	4.08	0.15	7.68	0.27	EX-OFF CB3	4.03	7.59
EX-A2	0.33	0.45	4.08	0.61	7.68	1.16			
EX-A3	0.40	0.85	4.08	1.37	7.68	2.58			
EX-A12	0.37	0.88	4.08	1.33	7.68	2.50			
EX-A13	0.18	0.45	4.08	0.34	7.68	0.63			
EX-A14	0.06	0.90	4.08	0.24	7.68	0.45			
EX-B3	0.38	0.87	4.08	1.35	7.68	2.55	CP-1	1.35	2.55

Overall project area includes **5.85 Acres at C_{wt} = 0.78** (Existing conditions)

Per as-builts prepared by Lemme Engineering Inc. dated March 27, 2003, 100-year 2-hour event required volume for the site is 39,525 CF and the provided volume is 64,704 CF.

Refer to the **Existing Conditions Cwt and Existing Conditions Drainage Area Map** in **APPENDIX II**.

4. PROPOSED STORM WATER MANAGEMENT

4.1 DESIGN INTENT:

Given that the site has been previously developed, on-site retention shall be calculated per City of Scottsdale DSPM 4-1.201. In order to preserve existing drainage patterns, most of the on-site drainage will be retained on-site. A portion of the site run-off will be discharged into historical outfalls without drastically increasing the existing conditions runoff. The proposed underground retention basins (Basin A & Basin B) will store the 100-year 2-hour storm event. Proposed drainage patterns are as follow:

- Drainage areas DA-A1, DA-A2, and DA-A3 will be directed into underground retention basin (Basin A) via catch basins, roof drain and overland flow. Flows from DA-A2 will be directed to a roof drain and flows from DA-A3 (courtyard) will be captured by a CB-4.
- Drainage areas DA-B1 through DA-B4 be directed into underground retention basin (Basin B) via Catch Basins (CB-1, CB-2 & CB-3) and overland flow. Drainage area DA-B2 (courtyard) will be captured by CB-3.
- Drainage area DA-C1 will be directed to N. Northsight Blvd; joining with the EX-OFF-2 drainage area for discharge into existing catch basin (EX-OFF CB 1) located southwest of the site.
- Flows from drainage area DA-D1 are discharged overland southeast of the site (CP-1). Runoff is then conveyed easterly via curb and gutter away from the site into an existing catch basin located approximately 360 ft east of the site along N. Northsight Boulevard.
- Drainage area EX-1A will maintain historical patterns and discharge to the existing scupper northeast of the site (EX-SC 1).
- Off-site Drainage area (EX-OFF-1) will maintain existing drainage patterns and discharge into existing catch basin EX-OFF CB 2 along N. 87th street.

Refer to **APPENDIX II** for **Proposed Conditions Drainage Area Map**.

4.2 DESIGN STORM REQUIREMENTS:

In accordance with City of Scottsdale requirements for lots that are already developed, stormwater storage for the 100-year 2-hour storm event is required based on maintaining existing retention volume plus the difference between the pre vs. post development runoff from the 100-year 2-hour storm event if increased or first flush, whichever is greater. The existing provided retention considerably exceeds the required volume for the site, therefore, retention will be provided for the 100-year 2-hour event during proposed conditions.

4.3 LAND CHARACTERISTICS:

The proposed project site consists of a 3-story healthcare facility with 143 units. Based on the DS&PM, runoff coefficients for the 100-year storm event used are as follows:

- C=0.95 for building or concrete
- C=0.95 for paved surface
- C=0.45 for undisturbed natural desert or desert landscape

HYDROLOGIC ANALYSIS: The hydrologic analysis is determined using the procedures in the City of Scottsdale Design Standards & Policies Manual and the Drainage Design Manual for Maricopa County, Arizona, Volume I.

Table 2 below is a summary of proposed conditions runoff calculations:

TABLE 2:

SUMMARY OF PROPOSED SITE FLOWS									
	TOTAL AREA	Cwt	Intensity 10 yr 5-min	Q 10	Intensity 100 yr 5-min	Q 100	Control Point	Total flows Q10	Total flows Q100
	(ac)	(-)	(in/hr)	(cfs)	(in/hr)	(cfs)	CP#	(cfs)	(cfs)
	5.85	0.84	4.88	-	7.68	-	-	23.75	37.37
DA-A1	0.78	0.79	4.88	2.98	7.68	4.69	BASIN A	5.58	8.78
DA-A2	0.53	0.95	4.88	2.48	7.68	3.90			
DA-A3	0.06	0.45	4.88	0.12	7.68	0.20			
DA-B1	0.93	0.95	4.88	4.33	7.68	6.81	BASIN B	9.09	14.31
DA-B2	0.09	0.45	4.88	0.21	7.68	0.32			
DA-B3	0.48	0.83	4.88	1.96	7.68	3.09			
DA-B4	0.42	0.93	4.88	1.89	7.68	2.97			
DA-B5	0.17	0.84	4.88	0.71	7.68	1.12			
DA-C1	0.61	0.54	4.88	1.61	7.68	2.54	EX-OFF CB1	5.17	8.13
EX-OFF-2	0.83	0.87	4.88	3.56	7.68	5.60			
EX-1A	0.04	0.95	4.88	0.17	7.68	0.27	EX-SC 1	0.17	0.27
DA-D1	0.39	0.83	4.88	1.60	7.68	2.52	CP-1	1.60	2.52
EX-OFF-1	0.50	0.87	4.88	2.13	7.68	3.35	EX-OFF CB2	2.13	3.35

Refer to the **Proposed Conditions Cwt and Proposed Conditions Drainage Area Map** in **APPENDIX II**.

4.4 STORMWATER RETENTION:

100-YR, 2-HR STORM: Per City of Scottsdale DSPM 4-1.201, development storage requirements for the 100-yr, 2-hr storm event are calculated as follows:

$$V_r = C\left(\frac{R}{12}\right)A$$

where:

V_r = Required storage (cf)
R = Precipitation amount =2.26 in per NOAA Atlas 14 Precipitation Frequency Estimates
A = Total area of site (sf)
C = Weighted average runoff coefficient over disturbed area

Calculated required volume is summarized in Table 3 below:

TABLE 3

Required Storage Volume Calculations Summary		
	Vr=1*(P/12)*Cw*A	
	P=100-yr,2-hr= 2.26in.	
Basin ID	Volume Req. (acre-ft)	Volume Req. (CF)
A	0.22	9,379
B	0.35	15,289

Total volume provided is 24,528 cf, per as-builts prepared by Lemme Engineering Inc. dated March 27, 2003, 100-year 2-hour event required volume for the site is 39,525 CF and the provided volume is 64,704 CF. Calculations considered in the as-builts use a precipitation depth of 2.82 in, higher than the 2.24 inc obtained by the current NOAA Atlas 14 information. The Existing runoff coefficient considered by the as-builts was 0.90 for the overall development.

Refer to **APPENDIX I** for **Rainfall Data**.

STORAGE PROVIDED:

Provided storage of *Basin A*:
Basin A will consist of a 10' diameter corrugated metal pipe and will have a length of 120 LF.
$V_P = \pi$* Pipe radius^2 * Pipe length
$V_P = (\pi * 5^2)*(120) = 9{,}425$ cf

Provided storage of *Basin B*:
Basin A will consist of a 10' diameter corrugated metal pipe and will have a length of 200 LF.
$V_P = \pi$* Pipe radius^2 * Pipe length
$V_P = (\pi * 5^2)*(200) = 15{,}708$ cf

The table below shows a summary of proposed and required volume for the site:

***TABLE 4*:**

Proposed Retention Basin Summary			
Basin	TYPE	Vp	Vr
(ID)	(--)	(CF)	(CF)
Basin A	UG	9,425	9,379
Basin B	UG	15,708	15,289
Total:		**25,133**	**24,668**

The proposed basins have enough capacity to store the required 100-year 2-hour event.

4.5 STORMWATER DISCHARGE

For Basins with no direct bleed-off available, Drywells are proposed in the on-site storage facilities to dispose of the stormwater within thirty-six (36) hours. The calculation is as follows:

- Minimum percolating rate of a drywell (for planning purposes) = 0.1 cfs
- Volume to be drained in 36 hours = 0.1 cfs * 36 hours * 3600 sec/hour = 12,960 cf = 0.298 acre-feet.
- The number of drywells will be reduced if geotechnical testing for percolation rates determine adequate infiltration is available in the native soils at lower depths. If the percolation rate of the drywells is less than 0.1 cfs the number of drywells may have to be increased.

Basin A:
Total provided storage = **9,425 CF**
9,425 CF / 12,960 CF per drywell = 0.73 = 1 drywells required.

Basin B:
Total provided storage = **15,708 CF**
15,708 CF / 12,960 CF per drywell = 1.21 = 2 drywells required.

Pre vs post discharges

Proposed conditions will decreased site flow contributions to the existing public storm drain system. Table 5 below summarizes the project discharges per outfall for the 10-year and 100-year storm events, providing the differences between existing and proposed peak flows for each case.

TABLE 5: PRE vs POST DISCHARGES

Outfall	Existing Q10	Proposed Q10	Δ	Existing Q100	Proposed Q100	Δ
EX-OFF CB 1	5.67	5.17	-0.50	10.68	8.13	-2.54
EX-OFF CB 2	4.11	2.13	-1.98	7.73	3.35	-4.38
EX-OFF CB 3	4.03	0.17	-3.86	7.59	0.27	-7.32
CP-1	1.35	1.60	0.25	2.55	2.52	-0.03

Refer to **Existing Conditions Drainage Area Map** and **Proposed Conditions Drainage Area Map** in **APPENDIX II**.

4.6 ADEQ WATER QUALITY REQUIREMENTS

The total disturbed area of this site is approximately 4.51 acres. The Arizona Department of Environmental Quality requires that any site disturbance over an acre is required to submit an NOI. A NOI will be submitted to ADEQ for this site after the first submittal of the construction documents as this site disturbance is over 1 acre.

5. FLOOD SAFETY FOR DWELLINGS

5.1 FINISHED FLOOR ELEVATIONS

This project lies in an "X" Flood Zone. Therefore, the proposed building finished floor elevation will be set a minimum of 14 inches above the lot ultimate outfall, located at near the southwestern corner of the site at an elevation of 1242.18'.

6. CONCLUSIONS

6.1 OVERALL PROJECT:

1. The finish floor elevations will be designed a minimum of 14 inches above the low top of curb of the lot.
2. The historical outfalls will not be affected at proposed conditions.
3. On-site storage facilities will be provided to account for 100-year, 2-hour storm event.

6.2 PROJECT PHASING:

This project will be constructed in a single phase.

7. WARNING AND DISCLAIMER OF LIABILITY

RE: following page.

8. REFERENCES

1. *Design Standards & Policies Manual, City of Scottsdale – January 2018*
2. *Drainage Design Manual for Maricopa County, Arizona, Volume I, Hydrology, Flood Control District of Maricopa County, Fourth Edition, December 14, 2018*
3. *Drainage Design Manual for Maricopa County, Arizona, Volume II, Hydraulics, Flood Control District of Maricopa County, December 14, 2018*

GRADING & DRAINAGE LANGUAGE

WARNING AND DISCLAIMER OF LIABILITY

The City's Stormwater and Floodplain Management Ordinance is intended to minimize the occurrence of losses, hazards and conditions adversely affecting the public health, safety and general welfare which might result from flooding.

The Stormwater and Floodplain Management Ordinance identifies floodplains, floodways, flood fringes and special flood hazard areas. However, a property outside these areas could be inundated by floods. Also, much of the city is a dynamic flood area; floodways, floodplains, flood fringes and special flood hazard areas may shift from one location to another, over time, due to natural processes.

WARNING AND DISCLAIMER OF LIABILITY

The flood protection provided by the Stormwater and Floodplain Management Ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Floods larger than the base flood can and will occur on rare occasions. Floodwater heights may be increased by constructed or natural causes. The Stormwater and Floodplain Management Ordinance does not create liability on the part of the city, any officer or employee thereof, or the federal, state or county government for any flood damages that result from reliance on the Ordinance or any administrative decision lawfully made thereunder.

Compliance with the Stormwater and Floodplain Management Ordinance does not ensure complete protection from flooding. Flood-related problems such as natural erosion, streambed meander, or constructed obstructions and diversions may occur and have an adverse effect in the event of a flood. You are advised to consult your own engineer or other expert regarding these considerations.

I have read and understand the above.

_____ _____ _____

Plan Check # Owner Date

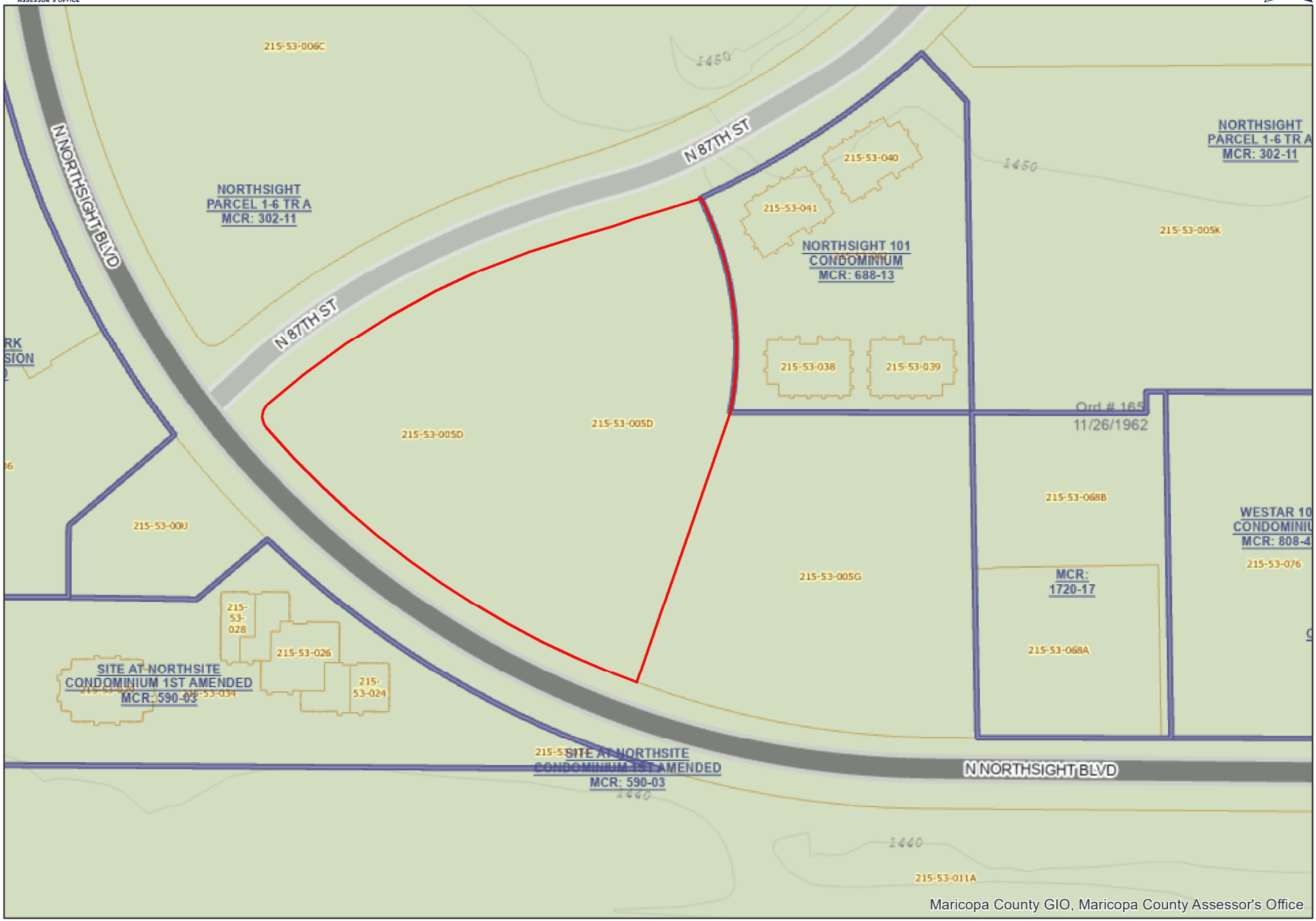
FIGURES

1. Vicinity Map
2. Aerial Map
3. FIRM

MARICOPA COUNTY
ASSESSOR'S OFFICE

1. VICINITY MAP

Map



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MARICOPA COUNTY
ASSESSOR'S OFFICE

2. AERIAL MAP

Map

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NOTES TO USERS

This map is for use in administering the Nation Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Arizona State Plane Central zone (FIPSZONE 0202). The **horizontal datum** was NAD 83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988 (NAVD 88). These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. Map users wishing to obtain flood elevations referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29) may use the following Maricopa County website application: http://www.fcd.maricopa.gov/Maps/gismaps/apps/gdacs/application/index.cfm

This web tool allows users to obtain point-specific datum conversion values by zooming in and hovering over a VERTCON checkbox on the layers menu on the left side of the screen. The VERTCON grid referenced in this web application was also used to convert existing flood elevations from NGVD 29 to NAVD 88.

To obtain current elevation, description, and/or location information for National Geodetic Survey bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov. To obtain information about Geodetic Densification and Cadastral Survey bench marks produced by the Maricopa County Department of Transportation, please visit the Flood Control District of Maricopa County website at:
http://www.fcd.maricopa.gov/Maps/gismaps/apps/gdacs/application/index.cfm.

Base map information shown on this FIRM was derived from multiple sources. Aerial imagery was provided in digital format by the Maricopa County Department of Public Works, Flood Control District. The imagery is dated October 2009 to November 2009. Additional National Agricultural Imagery Program (NAIP) imagery was provided by the Arizona State Land Department (ALRIS) and is dated 2007. The coordinate system used for the production of the digital FIRM is State Plane Arizona Central NAD83 HARN, International Feet.

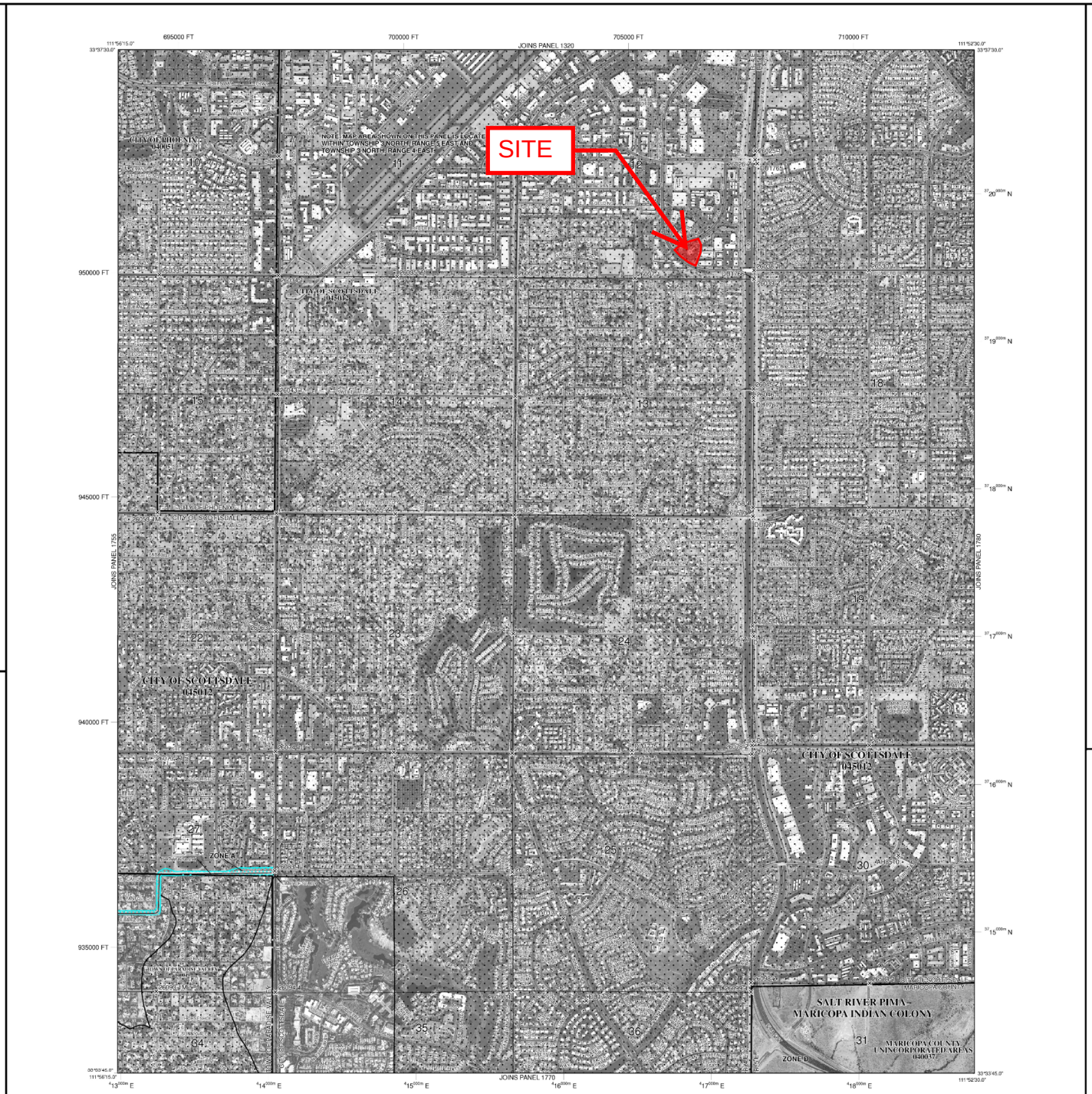
The **profile base line** depicted on this map represents the hydraulic modeling baselines that match flood profiles in the FIS report. As a result of improved topographic data, the profile base line, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community, as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM, visit the **FEMA Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map,** how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A — No Base Flood Elevations determined.

ZONE AE — Base Flood Elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 — Base Flood Elevation line and value; elevation in feet*

(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A — Cross section line

23 — 23 — Transect line

97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 12

6000000 M — 5000-foot grid ticks: Arizona State Plane coordinate system, central zone (FIPSZONE 0202), Transverse Mercator

DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)

M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
April 15, 1988

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
July 15, 2001 - September 30, 2005

October 16, 2013 –to incorporate previously issued letters of map revision, to update corporate limits, to change base flood elevations, to add base flood elevation, to add roads and road names, to change floodway, to add special flood hazard areas, to advance suffix, and to add floodway.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in 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 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP

PANEL 1760L

FIRM

FLOOD INSURANCE RATE MAP

MARICOPA COUNTY, ARIZONA AND INCORPORATED AREAS

PANEL 1760 OF 4425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY	040037	1760	L
PARADISE VALLEY, TOWN OF	040049	1760	L
PHOENIX, CITY OF	040051	1760	L
SCOTTSDALE, CITY OF	045012	1760	L

FIGURE 3

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 04013C1760L

MAP REVISED OCTOBER 16, 2013

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

15-ZN-2022
04/27/2023

APPENDIX I

RAINFALL DATA

NOAA Atlas 14, Volume 1, Version 5
Location name: Scottsdale, Arizona, USA*
Latitude: 33.6127°, Longitude: -111.8957°
Elevation: 1446.78 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	0.193 (0.160-0.236)	0.252 (0.211-0.309)	0.340 (0.281-0.415)	0.407 (0.336-0.495)	0.498 (0.404-0.604)	0.568 (0.456-0.683)	0.640 (0.504-0.769)	0.711 (0.551-0.852)	0.808 (0.611-0.970)	0.882 (0.653-1.06)
10-min	0.293 (0.243-0.360)	0.383 (0.320-0.470)	0.517 (0.428-0.631)	0.620 (0.511-0.754)	0.758 (0.615-0.920)	0.864 (0.693-1.04)	0.974 (0.768-1.17)	1.08 (0.839-1.30)	1.23 (0.929-1.48)	1.34 (0.994-1.61)
15-min	0.364 (0.302-0.445)	0.475 (0.397-0.582)	0.641 (0.531-0.782)	0.768 (0.634-0.935)	0.940 (0.763-1.14)	1.07 (0.860-1.29)	1.21 (0.952-1.45)	1.34 (1.04-1.61)	1.53 (1.15-1.83)	1.66 (1.23-2.00)
30-min	0.490 (0.406-0.600)	0.640 (0.535-0.784)	0.863 (0.715-1.05)	1.03 (0.854-1.26)	1.27 (1.03-1.54)	1.44 (1.16-1.74)	1.63 (1.28-1.95)	1.81 (1.40-2.17)	2.05 (1.55-2.46)	2.24 (1.66-2.69)
60-min	0.606 (0.503-0.742)	0.792 (0.662-0.970)	1.07 (0.885-1.30)	1.28 (1.06-1.56)	1.57 (1.27-1.90)	1.79 (1.43-2.15)	2.01 (1.59-2.42)	2.24 (1.73-2.68)	2.54 (1.92-3.05)	2.77 (2.05-3.33)
2-hr	0.709 (0.596-0.847)	0.917 (0.775-1.10)	1.22 (1.02-1.45)	1.45 (1.21-1.73)	1.77 (1.46-2.10)	2.01 (1.63-2.37)	2.26 (1.80-2.65)	2.51 (1.97-2.95)	2.84 (2.18-3.34)	3.10 (2.33-3.66)
3-hr	0.786 (0.662-0.964)	1.01 (0.851-1.24)	1.32 (1.11-1.61)	1.56 (1.30-1.90)	1.90 (1.56-2.30)	2.17 (1.76-2.61)	2.46 (1.95-2.95)	2.75 (2.15-3.30)	3.16 (2.39-3.78)	3.48 (2.58-4.18)
6-hr	0.949 (0.814-1.13)	1.20 (1.03-1.43)	1.53 (1.30-1.81)	1.79 (1.51-2.11)	2.15 (1.79-2.52)	2.43 (1.99-2.84)	2.72 (2.20-3.17)	3.02 (2.40-3.53)	3.42 (2.65-3.99)	3.74 (2.82-4.37)
12-hr	1.06 (0.914-1.25)	1.34 (1.15-1.58)	1.69 (1.45-1.98)	1.96 (1.67-2.30)	2.33 (1.96-2.73)	2.62 (2.18-3.05)	2.91 (2.38-3.39)	3.21 (2.60-3.73)	3.60 (2.84-4.21)	3.91 (3.03-4.60)
24-hr	1.24 (1.09-1.43)	1.57 (1.39-1.82)	2.03 (1.78-2.34)	2.39 (2.09-2.76)	2.90 (2.51-3.33)	3.30 (2.83-3.78)	3.71 (3.16-4.26)	4.14 (3.49-4.75)	4.74 (3.93-5.45)	5.22 (4.26-6.02)
2-day	1.34 (1.17-1.54)	1.71 (1.49-1.97)	2.23 (1.94-2.57)	2.65 (2.30-3.04)	3.23 (2.78-3.71)	3.69 (3.15-4.24)	4.18 (3.53-4.80)	4.68 (3.93-5.40)	5.38 (4.44-6.22)	5.95 (4.84-6.89)
3-day	1.44 (1.26-1.65)	1.84 (1.61-2.11)	2.42 (2.12-2.77)	2.89 (2.52-3.30)	3.54 (3.07-4.05)	4.07 (3.50-4.65)	4.64 (3.96-5.30)	5.23 (4.42-6.00)	6.06 (5.05-6.97)	6.74 (5.54-7.78)
4-day	1.54 (1.36-1.76)	1.97 (1.74-2.25)	2.61 (2.29-2.96)	3.12 (2.74-3.55)	3.86 (3.36-4.38)	4.45 (3.86-5.06)	5.10 (4.38-5.80)	5.78 (4.91-6.60)	6.74 (5.65-7.71)	7.53 (6.24-8.66)
7-day	1.73 (1.52-1.99)	2.22 (1.95-2.54)	2.94 (2.57-3.37)	3.53 (3.08-4.03)	4.36 (3.78-4.98)	5.04 (4.34-5.76)	5.77 (4.92-6.59)	6.54 (5.53-7.51)	7.64 (6.37-8.79)	8.54 (7.03-9.87)
10-day	1.88 (1.65-2.15)	2.41 (2.12-2.75)	3.19 (2.80-3.64)	3.82 (3.34-4.34)	4.71 (4.09-5.35)	5.43 (4.68-6.16)	6.19 (5.30-7.05)	7.00 (5.94-7.99)	8.15 (6.82-9.32)	9.08 (7.50-10.4)
20-day	2.33 (2.05-2.65)	3.00 (2.64-3.41)	3.96 (3.49-4.50)	4.70 (4.12-5.33)	5.69 (4.98-6.46)	6.46 (5.62-7.34)	7.26 (6.28-8.26)	8.07 (6.93-9.20)	9.16 (7.79-10.5)	10.0 (8.44-11.5)
30-day	2.73 (2.41-3.10)	3.52 (3.11-3.99)	4.64 (4.09-5.26)	5.50 (4.84-6.22)	6.66 (5.83-7.54)	7.56 (6.58-8.55)	8.49 (7.34-9.59)	9.43 (8.11-10.7)	10.7 (9.12-12.2)	11.7 (9.87-13.3)
45-day	3.18 (2.82-3.61)	4.11 (3.64-4.65)	5.42 (4.79-6.12)	6.40 (5.64-7.23)	7.70 (6.76-8.70)	8.68 (7.60-9.82)	9.69 (8.42-11.0)	10.7 (9.25-12.2)	12.1 (10.3-13.8)	13.1 (11.1-15.0)
60-day	3.53 (3.14-3.99)	4.57 (4.06-5.15)	6.02 (5.34-6.78)	7.08 (6.26-7.98)	8.47 (7.46-9.54)	9.51 (8.34-10.7)	10.6 (9.21-11.9)	11.6 (10.1-13.1)	13.0 (11.2-14.7)	14.0 (12.0-16.0)

[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.

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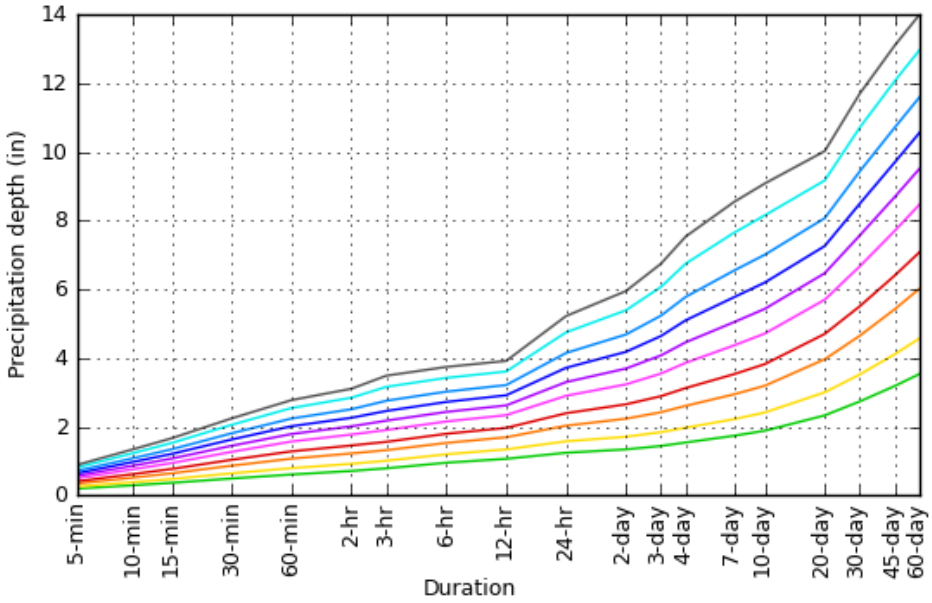
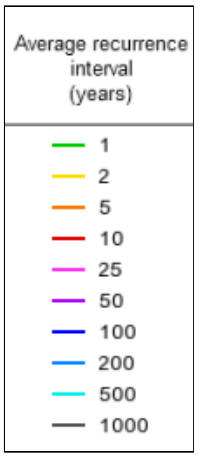
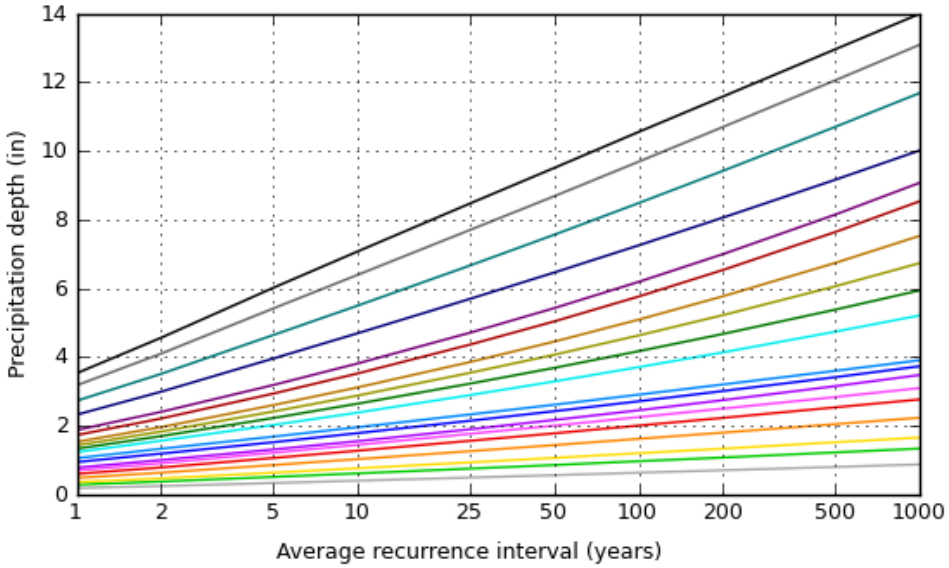
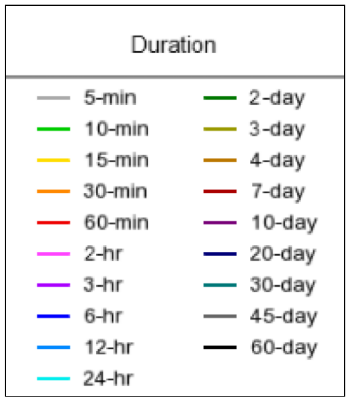
PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 33.6127°, Longitude: -111.8957°









NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Mon Sep 12 23:37:20 2022

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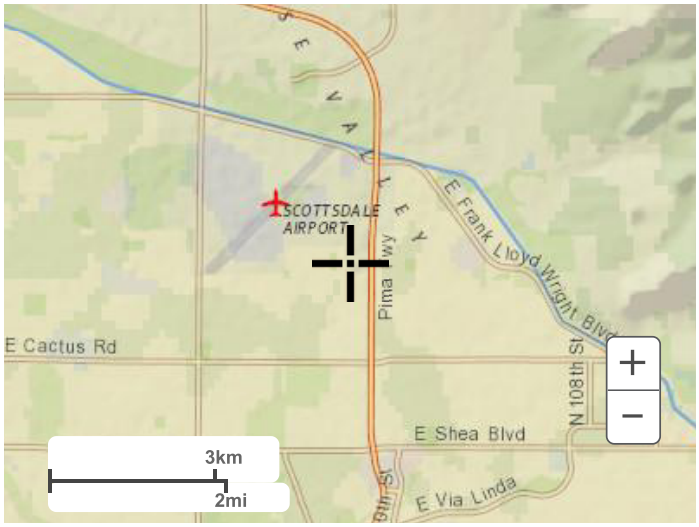
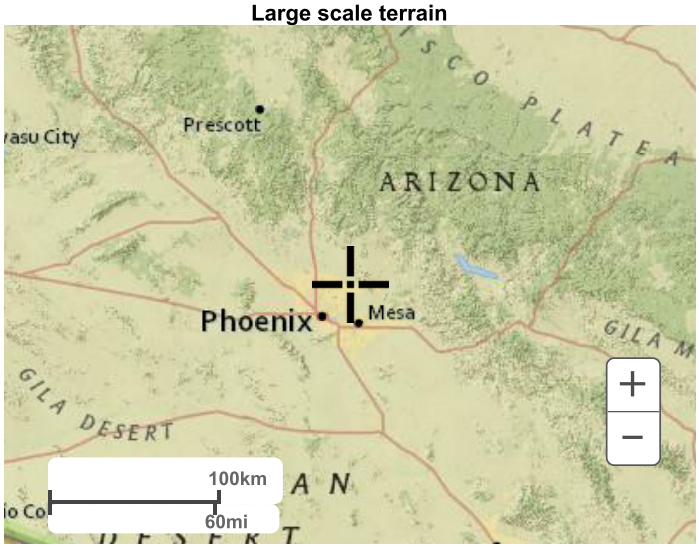
Maps & aerials

Small scale terrain

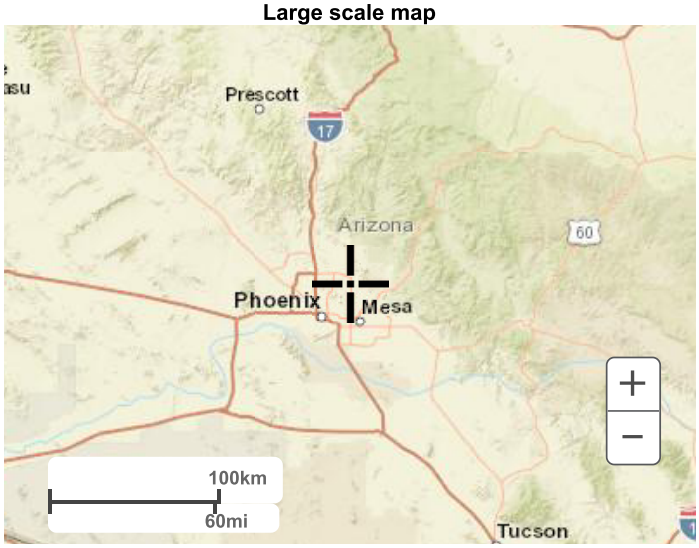
15-ZN-2022
04/27/2023



Large scale terrain



Large scale map



Large scale aerial

NOAA Atlas 14, Volume 1, Version 5
Location name: Scottsdale, Arizona, USA*
Latitude: 33.6127°, Longitude: -111.8957°
Elevation: 1446.78 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/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**2.32** (1.92-2.83)	**3.02** (2.53-3.71)	**4.08** (3.37-4.98)	**4.88** (4.03-5.94)	**5.98** (4.85-7.25)	**6.82** (5.47-8.20)	**7.68** (6.05-9.23)	**8.53** (6.61-10.2)	**9.70** (7.33-11.6)	**10.6** (7.84-12.7)
10-min	**1.76** (1.46-2.16)	**2.30** (1.92-2.82)	**3.10** (2.57-3.79)	**3.72** (3.07-4.52)	**4.55** (3.69-5.52)	**5.18** (4.16-6.23)	**5.84** (4.61-7.02)	**6.49** (5.03-7.78)	**7.38** (5.57-8.86)	**8.05** (5.96-9.67)
15-min	**1.46** (1.21-1.78)	**1.90** (1.59-2.33)	**2.56** (2.12-3.13)	**3.07** (2.54-3.74)	**3.76** (3.05-4.56)	**4.28** (3.44-5.16)	**4.83** (3.81-5.80)	**5.36** (4.16-6.43)	**6.10** (4.61-7.32)	**6.65** (4.93-8.00)
30-min	**0.980** (0.812-1.20)	**1.28** (1.07-1.57)	**1.73** (1.43-2.11)	**2.07** (1.71-2.52)	**2.53** (2.05-3.07)	**2.89** (2.32-3.47)	**3.25** (2.56-3.90)	**3.61** (2.80-4.33)	**4.11** (3.10-4.93)	**4.48** (3.32-5.38)
60-min	**0.606** (0.503-0.742)	**0.792** (0.662-0.970)	**1.07** (0.885-1.30)	**1.28** (1.06-1.56)	**1.57** (1.27-1.90)	**1.79** (1.43-2.15)	**2.01** (1.59-2.42)	**2.24** (1.73-2.68)	**2.54** (1.92-3.05)	**2.77** (2.05-3.33)
2-hr	**0.354** (0.298-0.424)	**0.458** (0.388-0.549)	**0.610** (0.512-0.726)	**0.726** (0.603-0.864)	**0.885** (0.729-1.05)	**1.00** (0.816-1.19)	**1.13** (0.900-1.33)	**1.25** (0.984-1.47)	**1.42** (1.09-1.67)	**1.55** (1.17-1.83)
3-hr	**0.262** (0.220-0.321)	**0.336** (0.283-0.413)	**0.438** (0.368-0.536)	**0.519** (0.431-0.632)	**0.633** (0.518-0.765)	**0.724** (0.585-0.870)	**0.818** (0.649-0.982)	**0.917** (0.715-1.10)	**1.05** (0.796-1.26)	**1.16** (0.858-1.39)
6-hr	**0.158** (0.136-0.189)	**0.200** (0.171-0.238)	**0.255** (0.217-0.302)	**0.299** (0.252-0.352)	**0.359** (0.299-0.421)	**0.405** (0.333-0.474)	**0.454** (0.367-0.529)	**0.504** (0.400-0.589)	**0.571** (0.442-0.666)	**0.624** (0.472-0.730)
12-hr	**0.088** (0.076-0.104)	**0.111** (0.095-0.131)	**0.140** (0.120-0.165)	**0.163** (0.139-0.191)	**0.194** (0.163-0.226)	**0.217** (0.181-0.253)	**0.242** (0.198-0.281)	**0.266** (0.216-0.310)	**0.299** (0.236-0.350)	**0.325** (0.251-0.382)
24-hr	**0.052** (0.045-0.060)	**0.066** (0.058-0.076)	**0.084** (0.074-0.098)	**0.100** (0.087-0.115)	**0.121** (0.105-0.139)	**0.137** (0.118-0.157)	**0.155** (0.132-0.178)	**0.173** (0.145-0.198)	**0.198** (0.164-0.227)	**0.217** (0.178-0.251)
2-day	**0.028** (0.024-0.032)	**0.036** (0.031-0.041)	**0.046** (0.040-0.054)	**0.055** (0.048-0.063)	**0.067** (0.058-0.077)	**0.077** (0.066-0.088)	**0.087** (0.074-0.100)	**0.097** (0.082-0.112)	**0.112** (0.093-0.130)	**0.124** (0.101-0.144)
3-day	**0.020** (0.018-0.023)	**0.026** (0.022-0.029)	**0.034** (0.029-0.038)	**0.040** (0.035-0.046)	**0.049** (0.043-0.056)	**0.057** (0.049-0.065)	**0.064** (0.055-0.074)	**0.073** (0.061-0.083)	**0.084** (0.070-0.097)	**0.094** (0.077-0.108)
4-day	**0.016** (0.014-0.018)	**0.021** (0.018-0.023)	**0.027** (0.024-0.031)	**0.033** (0.029-0.037)	**0.040** (0.035-0.046)	**0.046** (0.040-0.053)	**0.053** (0.046-0.060)	**0.060** (0.051-0.069)	**0.070** (0.059-0.080)	**0.078** (0.065-0.090)
7-day	**0.010** (0.009-0.012)	**0.013** (0.012-0.015)	**0.017** (0.015-0.020)	**0.021** (0.018-0.024)	**0.026** (0.023-0.030)	**0.030** (0.026-0.034)	**0.034** (0.029-0.039)	**0.039** (0.033-0.045)	**0.045** (0.038-0.052)	**0.051** (0.042-0.059)
10-day	**0.008** (0.007-0.009)	**0.010** (0.009-0.011)	**0.013** (0.012-0.015)	**0.016** (0.014-0.018)	**0.020** (0.017-0.022)	**0.023** (0.020-0.026)	**0.026** (0.022-0.029)	**0.029** (0.025-0.033)	**0.034** (0.028-0.039)	**0.038** (0.031-0.043)
20-day	**0.005** (0.004-0.006)	**0.006** (0.006-0.007)	**0.008** (0.007-0.009)	**0.010** (0.009-0.011)	**0.012** (0.010-0.013)	**0.013** (0.012-0.015)	**0.015** (0.013-0.017)	**0.017** (0.014-0.019)	**0.019** (0.016-0.022)	**0.021** (0.018-0.024)
30-day	**0.004** (0.003-0.004)	**0.005** (0.004-0.006)	**0.006** (0.006-0.007)	**0.008** (0.007-0.009)	**0.009** (0.008-0.010)	**0.010** (0.009-0.012)	**0.012** (0.010-0.013)	**0.013** (0.011-0.015)	**0.015** (0.013-0.017)	**0.016** (0.014-0.019)
45-day	**0.003** (0.003-0.003)	**0.004** (0.003-0.004)	**0.005** (0.004-0.006)	**0.006** (0.005-0.007)	**0.007** (0.006-0.008)	**0.008** (0.007-0.009)	**0.009** (0.008-0.010)	**0.010** (0.009-0.011)	**0.011** (0.010-0.013)	**0.012** (0.010-0.014)
60-day	**0.002** (0.002-0.003)	**0.003** (0.003-0.004)	**0.004** (0.004-0.005)	**0.005** (0.004-0.006)	**0.006** (0.005-0.007)	**0.007** (0.006-0.007)	**0.007** (0.006-0.008)	**0.008** (0.007-0.009)	**0.009** (0.008-0.010)	**0.010** (0.008-0.011)

[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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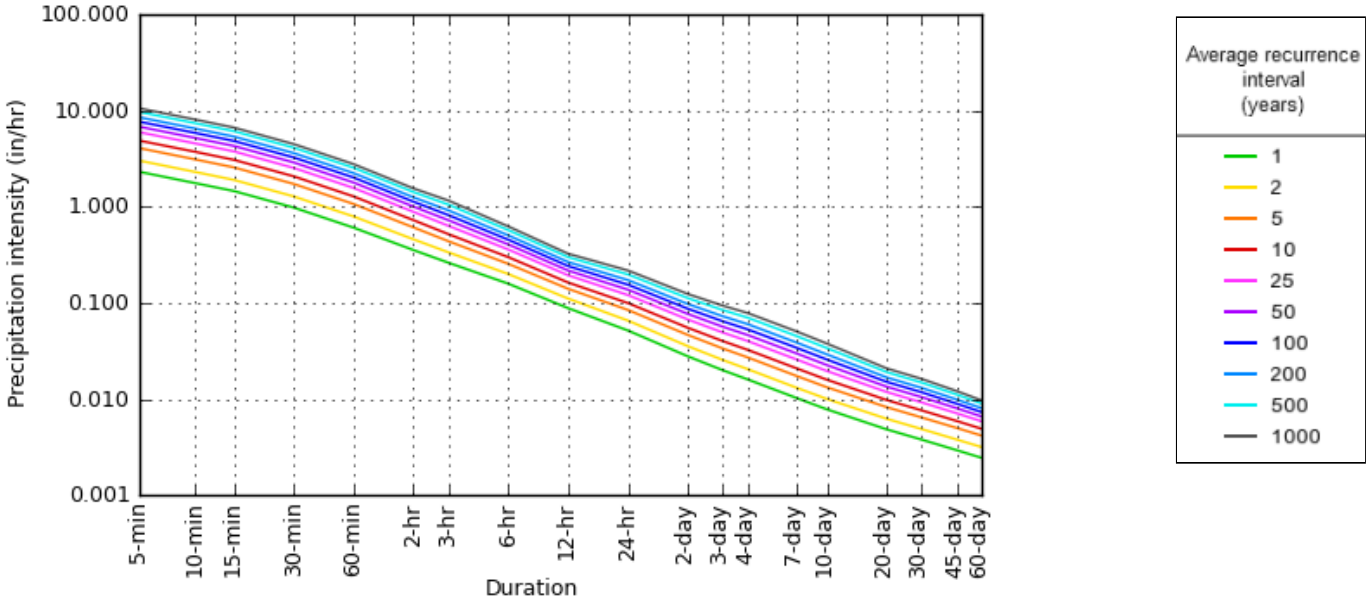
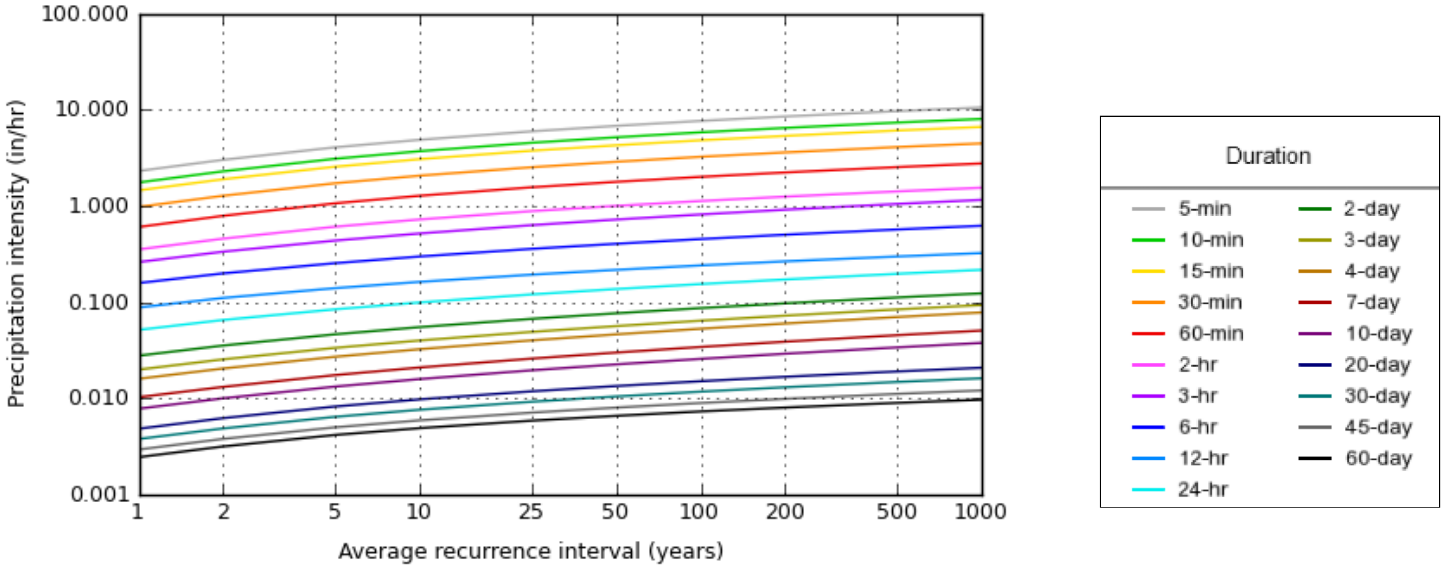
PF graphical

PDS-based intensity-duration-frequency (IDF) curves
Latitude: 33.6127°, Longitude: -111.8957°





NOAA Atlas 14, Volume 1, Version 5

Created (GMT): Mon Sep 12 23:38:46 2022

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Maps & aerials

Small scale terrain

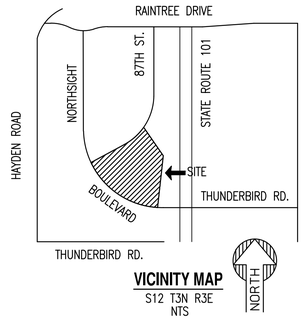
APPENDIX II

CALCULATIONS

NORTHSIGHT RESIDENTIAL HEALTHCARE

EXISTING CONDITIONS C_{WT} EXHIBIT

13875 N NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260



VICINITY MAP
S12 T3N R3E
NTS

ON–SITE

PROPERTY LINE			
BUILDING/PAVED SURFACE =	109,202 SF (2.51 AC)	@ CWT=0.95,	
NATURAL DESERT/LANDSCAPE =	87,264 SF (2.00 AC)	@ CWT=0.45	
TOTAL ON–SITE CWT =	196,466 SF (4.51 AC)	@ CWT=0.73	

OFF–SITE

PROPERTY LINE		
BUILDING/PAVED SURFACE =	50,537 SF (1.16 AC)	@ CWT=0.95,
NATURAL DESERT/LANDSCAPE =	7,736 SF (0.17 AC)	@ CWT=0.45
TOTAL OFF–SITE CWT =	58,273 SF (1.33 AC)	@ CWT=0.89

NORTH

0' 40' 80' 120'

SCALE: 1" = 40'

PRELIMINARY
NOT FOR
CONSTRUCTION

SEG SUSTAINABILITY ENGINEERING GROUP
5240 N. 16TH STREET SUITE 105, PHOENIX, ARIZONA 85016
WWW.AZSEG.COM TEL. 480.588.7226 FAX. 480.259.3534

NORTHSIGHT PARTNERS LLC

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811 Call 811 or click Arizona811.com

PROJECT: KB DEVCO NORTHSIGHT
LOCATION: 13875 N. NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260

DRAWN	MC	04/17/2023
DESIGNED	JC	04/17/2023
QC	SC	04/03/2023
FINAL QC		
PROJ. MGR.	AF	04/17/2023

DATE: 04/17/2023
ISSUED FOR: REVIEW

REVISION NO.:	DATE:
1	
2	
3	
4	

JOB NO.: 220609

SHEET TITLE: **EXISTING CONDITIONS C_{WT} EXHIBIT**

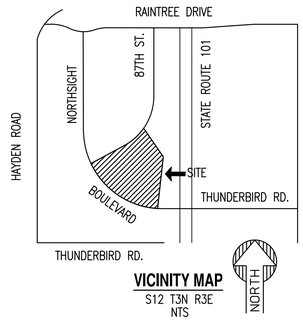
PAGE NO.: 1 OF 1
SHEET NO.: **EX-Cwt**

15-ZN-2022
04/27/2023

NORTHSIGHT RESIDENTIAL HEALTHCARE

PROPOSED CONDITIONS C_{WT} EXHIBIT

13875 N NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260



VICINITY MAP
S12 T3N R3E
NTS

ON-SITE

PROPERTY LINE		
BUILDING/PAVED SURFACE =	145,648 SF (3.34 AC)	@ CWT=0.95
NATURAL DESERT/LANDSCAPE =	50,818 SF (1.17 AC)	@ CWT=0.45
TOTAL ON-SITE CWT =	196,467 SF (4.51 AC)	@ CWT=0.82

OFF-SITE

PROPERTY LINE		
BUILDING/PAVED SURFACE =	49,044 SF (1.13 AC)	@ CWT=0.95
NATURAL DESERT/LANDSCAPE =	9,228 SF (0.21 AC)	@ CWT=0.45
TOTAL OFF-SITE CWT =	58,272 SF (1.34 AC)	@ CWT=0.87

NORTH

0' 40' 80' 120'

SCALE: 1" = 40'

PRELIMINARY
NOT FOR
CONSTRUCTION

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LOCATION: 13875 N. NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260

DRAWN	MC	04/17/2023
DESIGNED	JC	04/17/2023
QC	SC	04/03/2023
FINAL QC		
PROJ. MGR.	AF	04/17/2023

DATE: 04/17/2023
ISSUED FOR: REVIEW

REVISION NO.:	DATE:
1	
2	
3	
4	

JOB NO.: 220609

SHEET TITLE: **PROPOSED CONDITIONS C_{WT} EXHIBIT**

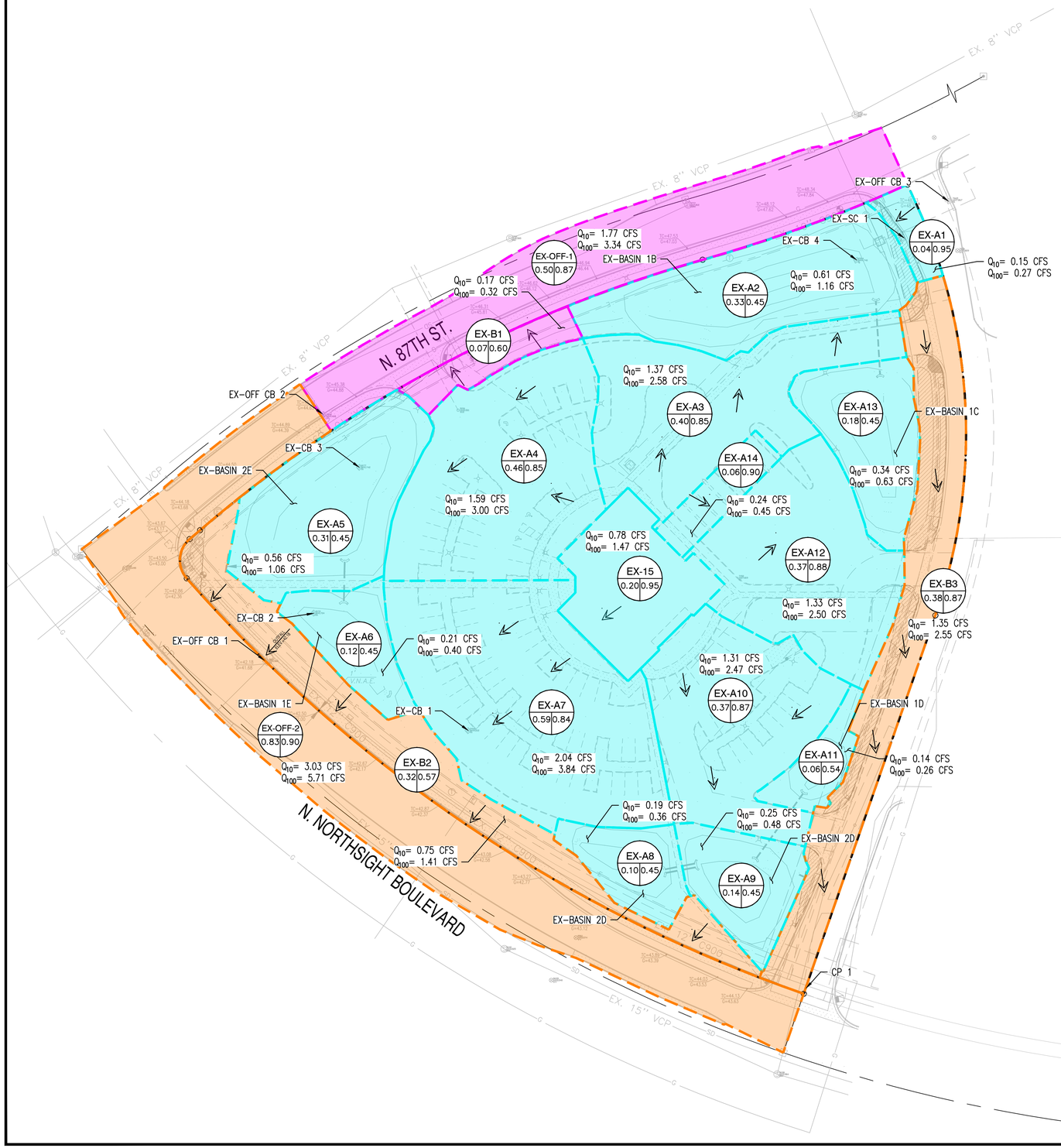
PAGE NO.: 1 OF 1
SHEET NO.: **P-Cwt**

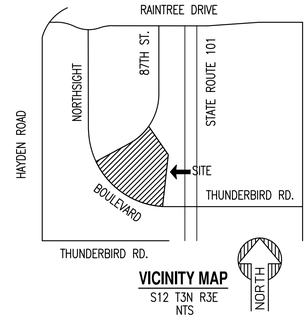
15-ZN-2022
04/27/2023

NORTHSIGHT RESIDENTIAL HEALTHCARE

EXISTING DRAINAGE AREA MAP

13875 N NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260

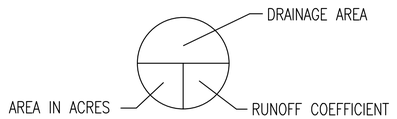




VICINITY MAP
S12 T3N R3E
NTS

SUMMARY OF EXISTING SITE DISCHARGES

	TOTAL AREA	Cwt	Intensity 10 yr 5-min	Q 10	Intensity 100 yr 5-min	Q 100	Control Point	Total Flows Q10	Total Flows Q100
	(ac)	(-)	(in/hr)	(cfs)	(in/hr)	(cfs)	CP#	(cfs)	(cfs)
	5.84	0.78	4.08	-	7.68	-	-	15.16	28.54
EX-A6	0.12	0.45	4.08	0.21	7.68	0.40	EX-OFF CB 1	5.67	10.68
EX-A7	0.59	0.84	4.08	2.04	7.68	3.84			
EX-A15	0.20	0.95	4.08	0.78	7.68	1.47			
EX-A8	0.10	0.45	4.08	0.19	7.68	0.36			
EX-A9	0.14	0.45	4.08	0.25	7.68	0.48			
EX-A10	0.37	0.87	4.08	1.31	7.68	2.47			
EX-A11	0.06	0.54	4.08	0.14	7.68	0.26			
EX-B2	0.32	0.57	4.08	0.75	7.68	1.41			
EX-OFF-2	0.83	0.90	4.08	3.03	7.68	5.71			
EX-B1	0.07	0.60	4.08	0.17	7.68	0.32	EX-OFF CB 2	4.10	7.72
EX-A4	0.46	0.85	4.08	1.59	7.68	3.00			
EX-A5	0.31	0.45	4.08	0.56	7.68	1.06			
EX-OFF-1	0.50	0.87	4.08	1.77	7.68	3.34			
EX-A1	0.04	0.95	4.08	0.15	7.68	0.27	EX-OFF CB3	4.03	7.59
EX-A2	0.33	0.45	4.08	0.61	7.68	1.16			
EX-A3	0.40	0.85	4.08	1.37	7.68	2.58			
EX-A12	0.37	0.88	4.08	1.33	7.68	2.50			
EX-A13	0.18	0.45	4.08	0.34	7.68	0.63			
EX-A14	0.06	0.90	4.08	0.24	7.68	0.45			
EX-B3	0.38	0.87	4.08	1.35	7.68	2.55	CP-1	1.35	2.55



DRAINAGE AREA KEY

EXISTING CONDITIONS DRAINAGE AREA KEY

EXISTING LEGEND

- DRAINAGE AREAS DISCHARGING OFF-SITE
- DRAINAGE AREAS DISCHARGING TO ON-SITE RETENTION
- DRAINAGE AREAS DISCHARGING OFF-SITE
- FLOW ARROW

NORTH

0' 40' 80' 120'

SCALE: 1" = 40'

PRELIMINARY
NOT FOR
CONSTRUCTION

SEG SUSTAINABILITY ENGINEERING GROUP
5240 N. 16TH STREET SUITE 105, PHOENIX, ARIZONA 85016
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NORTHSIGHT PARTNERS LLC

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PROJECT: KB DEVCO NORTHSIGHT
LOCATION: 13875 N. NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260

DRAWN	MC	04/17/2023
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FINAL QC		
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4	

JOB NO.: 220609

SHEET TITLE: **EXISTING CONDITIONS DRAINAGE AREA MAP**

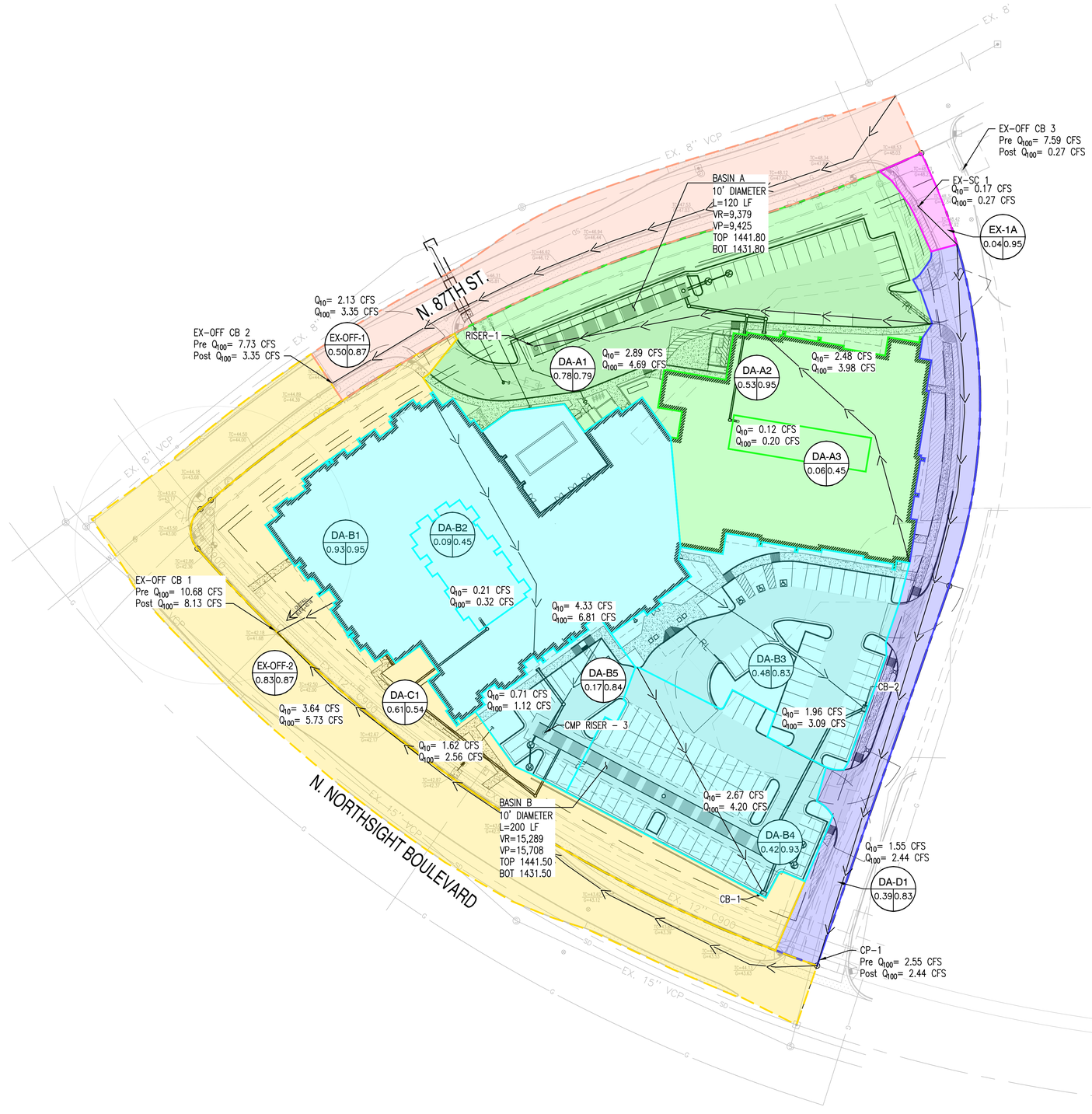
PAGE NO.: 1 OF 1
SHEET NO.: **EX-DAM**

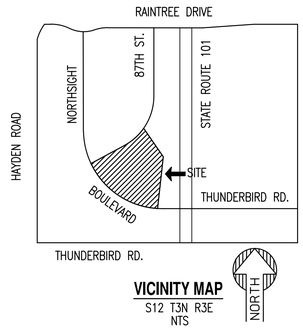
15-ZN-2022
04/27/2023

NORTHSIGHT RESIDENTIAL HEALTHCARE

PROPOSED DRAINAGE AREA MAP

13875 N NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260

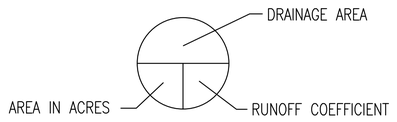




VICINITY MAP
S12 T3N R3E
NTS

PROPOSED LEGEND

- ON-SITE DRAINAGE AREAS DISCHARGING TO BASIN A
- ON-SITE DRAINAGE AREAS DISCHARGING TO BASIN B
- ON-SITE DRAINAGE AREAS DISCHARGING TO EX-OFF CB1 OF PUBLIC STORM NETWORK
- OFF-SITE DRAINAGE AREAS DISCHARGING TO EX-OFF CB1 OF PUBLIC STORM NETWORK
- ON-SITE DRAINAGE AREA DISCHARGING TO EX-SC 1 OF PUBLIC STORM NETWORK
- ON-SITE DRAINAGE AREA DISCHARGING TO OVERLAND SOUTHEAST OF THE SITE (CP-1)
- OFF-SITE DRAINAGE AREAS DISCHARGING TO EX-OFF CB2 OF PUBLIC STORM NETWORK
- FLOW ARROW



DRAINAGE AREA KEY

SUMMARY OF PROPOSED SITE FLOWS

	TOTAL AREA	Cwt	Intensity 10 yr 5-min	Q 10	Intensity 100 yr 5-min	Q 100	Control Point	Total flows Q10	Total flows Q100
	(ac)	(-)	(in/hr)	(cfs)	(in/hr)	(cfs)	CP#	(cfs)	(cfs)
	5.85	0.84	4.88	-	7.68	-	-	23.75	37.37
DA-A1	0.78	0.79	4.88	2.98	7.68	4.69	BASIN A	5.58	8.78
DA-A2	0.53	0.95	4.88	2.48	7.68	3.90			
DA-A3	0.06	0.45	4.88	0.12	7.68	0.20			
DA-B1	0.93	0.95	4.88	4.33	7.68	6.81	BASIN B	9.09	14.31
DA-B2	0.09	0.45	4.88	0.21	7.68	0.32			
DA-B3	0.48	0.83	4.88	1.96	7.68	3.09			
DA-B4	0.42	0.93	4.88	1.89	7.68	2.97			
DA-B5	0.17	0.84	4.88	0.71	7.68	1.12			
DA-C1	0.61	0.54	4.88	1.61	7.68	2.54	EX-OFF CB1	5.17	8.13
EX-OFF-2	0.83	0.87	4.88	3.56	7.68	5.60			
EX-1A	0.04	0.95	4.88	0.17	7.68	0.27	EX-SC 1	0.17	0.27
DA-D1	0.39	0.83	4.88	1.60	7.68	2.52	CP-1	1.60	2.52
EX-OFF-1	0.50	0.87	4.88	2.13	7.68	3.35	EX-OFF CB2	2.13	3.35

Proposed Retention Basin Summary

Basin	TYPE	Vp	Vr
(ID)	(--)	(CF)	(CF)
Basin A	UG	9,425	9,379
Basin B	UG	15,708	15,289
Total:		**25,133**	**24,668**

PRELIMINARY
NOT FOR
CONSTRUCTION

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PROJECT
KB DEVCO NORTHSIGHT

LOCATION
13875 N. NORTHSIGHT BLVD.
SCOTTSDALE, AZ 85260

DRAWN	MC	04/17/2023
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DATE: 04/17/2023
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JOB NO.: 220609

SHEET TITLE:
PROPOSED CONDITIONS DRAINAGE AREA MAP

PAGE NO.: 1 OF 1
SHEET NO.: **P-DAM**

15-ZN-2022
04/27/2023

Weighted Runoff Coefficient-Calculations (Cw)

EXISTING OVERALL SITE C_w				
	Pavement	DESERT LANDSCAPE	TOTAL AREA	Cwt
C-VALUE	0.95	0.45		
AREA (ac)	2.51	2.00	**4.51**	0.73
EX-A1	0.04	0.00	0.04	0.95
EX-A2	0.00	0.33	0.33	0.45
EX-A3	0.31	0.08	0.40	0.85
EX-A4	0.37	0.09	0.46	0.85
EX-A5	0.00	0.31	0.31	0.45
EX-A6	0.00	0.12	0.12	0.45
EX-A7	0.47	0.13	0.59	0.84
EX-A8	0.00	0.10	0.10	0.45
EX-A9	0.00	0.14	0.14	0.45
EX-A10	0.31	0.06	0.37	0.87
EX-A11	0.01	0.05	0.06	0.54
EX-A12	0.32	0.05	0.37	0.88
EX-A13	0.00	0.18	0.18	0.45
EX-A14	0.06	0.01	0.06	0.90
EX-A15	0.20	0.00	0.20	0.95
EX-B1	0.02	0.05	0.07	0.60
EX-B2	0.08	0.24	0.32	0.57
EX-B3	0.32	0.06	0.38	0.87

EXISTING OFFSITE SITE C_w				
	Pavement	DESERT LANDSCAPE	TOTAL AREA	Cwt
C-VALUE	0.95	0.45		
AREA (ac)	1.16	0.18	**1.34**	**0.88**
EX-OFF-1	0.42	0.08	0.503	0.87
EX-OFF-2	0.74	0.09	0.835	0.89

Weighted Runoff Coefficient-Calculations (Cw)

PROPOSED OVERALL SITE C_w				
	Building/ Pavement	DESERT LANDSCAPE	TOTAL AREA	Cwt
C-VALUE	0.95	0.45		
AREA (ac)	3.34	1.17	**4.51**	**0.82**
DA-A1	0.52	0.25	0.78	0.79
DA-A2	0.53	0.00	0.53	0.95
DA-A3	0.00	0.06	0.06	0.45
DA-B1	0.93	0.00	0.93	0.95
DA-B2	0.00	0.09	0.09	0.45
DA-B3	0.37	0.11	0.48	0.83
DA-B4	0.40	0.02	0.42	0.93
DA-B5	0.13	0.04	0.17	0.84
DA-C1	0.11	0.50	0.61	0.54
EX-1A	0.04	0.00	0.04	0.95
DA-D1	0.30	0.09	0.39	0.83

PROPOSED OFFSITE SITE C_w				
	Pavement	DESERT LANDSCAPE	TOTAL AREA	Cwt
C-VALUE	0.95	0.45		
AREA (ac)	1.13	0.21	**1.34**	**0.87**
EX-OFF-2	0.71	0.13	0.835	0.87
EX-OFF-1	0.42	0.08	0.503	0.87

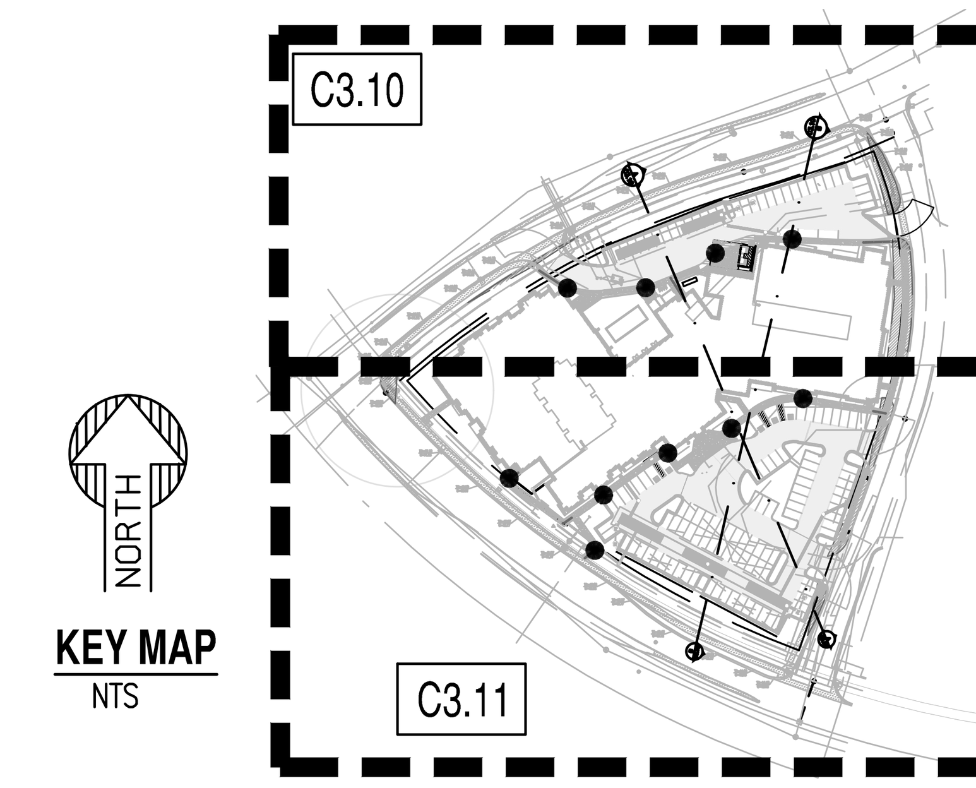
Required Storage Volume Calculations

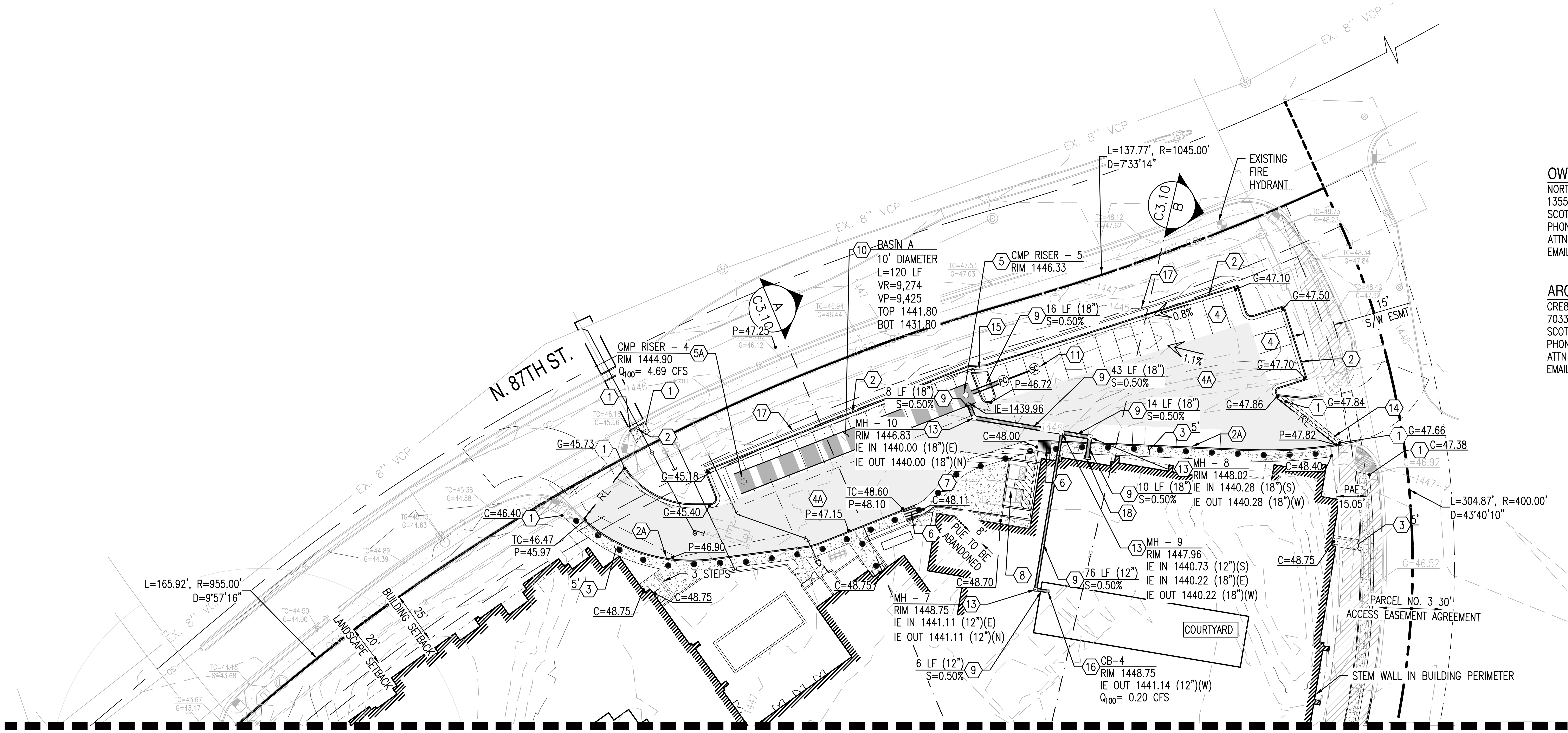
					Vr=1*(P/12)*Cw*A P=100-yr,2-hr= 2.26in.
Drainage Area ID	Area (acres)	C (-)	Depth (in)	Volume Req. (acre-ft)	Volume Req. (CF)
ON-SITE RETENTION - BASIN A - UG Storage (10' DIAM; 120 LF)					
DA-A1	0.78	0.79	2.26	0.115	5,007
DA-A2	0.53	0.95	2.26	0.096	4,163
DA-A3	0.06	0.45	2.26	0.005	209
Total	**1.37**	**0.84**	**2.26**	**0.22**	**9,379**
ON-SITE RETENTION - BASIN B - UG Retention (10' DIAM; 200 LF)					
DA-B1	0.93	0.95	2.26	0.167	7,273
DA-B2	0.09	0.45	2.26	0.008	345
DA-B3	0.48	0.83	2.26	0.076	3,301
DA-B4	0.42	0.93	2.26	0.073	3,176
DA-B5	0.17	0.84	2.26	0.027	1,193
Total	**2.10**	**0.89**	**2.26**	**0.35**	**15,289**
				Total	**24,668**

APPENDIX III
GRADING & DRAINAGE PLAN

NORTHSIGHT RESIDENTIAL HEALTHCARE
PRELIMINARY GRADING AND DRAINAGE PLAN

13875 N NORTHSIGHT BLVD. SCOTTSDALE, ARIZONA 85260
A PORTION OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 3 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.





MATCHLINE - REFER TO SHEET C3.11

NORTH
0' 30' 60' 90'
SCALE: 1" = 30'

OWNER
NORTHSIGHT PARTNERS, LLC
13556 N 96TH PL
SCOTTSDALE, ARIZONA. 85260
PHONE: 480-628-2530
ATTN.: BENJAMIN JOHNSON
EMAIL: BEN@KBDEVCO.COM

CIVIL ENGINEER
SUSTAINABILITY ENGINEERING GROUP
5240 N. 16TH STREET SUITE 105,
PHOENIX, ARIZONA 85016
PHONE: 480-237-2507
ATTN.: ALI FAKIH
EMAIL: ALI@AZSEG.COM

ARCHITECT
CRE8TIVE ARCHITECTS, LLC
7033 E GREENWAY PARKWAY, SUITE 250
SCOTTSDALE, ARIZONA 85254
PHONE: 602-834-0523
ATTN.: DANIELLE TORRES
EMAIL: DANIELLE.TORRES@CRE8TIVEARCHITECTS.COM

SURVEYOR
ALLIANCE LAND SURVEYING LLC
7900 N 70TH AVE SITE 104
GLENDALE, ARIZONA 85303
PHONE: 623-972-2200
EMAIL: CONTACTUS@AZALS.COM

FLOOD ZONE:
SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X" (SHADED) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP NO. 04013C1760L, DATED OCTOBER 16, 2013. ZONE "X" (SHADED) IS DEFINED AS AREAS OF 0.2% ANNUAL FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEEVES FROM 1% ANNUAL CHANCE FLOOD.

MAP NUMBER	COMMUNITY NUMBER	PANEL # PANEL DATE	PANEL REVISION DATE	SUFFIX	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE USE DEPTH)
04013C1760L	045012	1760 10/16/2013	09/30/2005	L	X-SHADED	N/A

PROPOSED GRADING LEGEND:
- G=XX.XX — GUTTER ELEVATION, TC = G+0.5'
- P=XX.XX — PAVEMENT ELEVATION TC = P+0.5'
- C=XX.XX — CONCRETE ELEVATION
- PROPERTY LINE
- RIGHT OF WAY
- CURB AND GUTTER
- RL — RIDGELINE
- SETBACK
- FLOW ARROW
- CATCH BASIN
- ADA PATH
- STORM PIPE
- HEAVY DUTY PAVEMENT
- LIGHT DUTY PAVEMENT
- SD STORM MANHOLE
- DW DRYWELL
- NYLOPLAST BASIN

EXISTING LEGEND:
- W — UNDERGROUND WATER LINE
- S — UNDERGROUND SEWER LINE
- G — UNDERGROUND GAS LINE
- E — UNDERGROUND ELECTRIC LINE
- TV — UNDERGROUND COX LINE
- SD — UNDERGROUND STORM SEWER LINE
- PROPERTY CORNER (SEE MONUMENT TABLE)
- PROPERTY LINE
- FND SURVEY MONUMENT (SEE MONUMENT TABLE)
- SIGHT DISTANCE EASEMENT
- (1) (SEE MONUMENT TABLE)
- (R) SEE REFERENCE DOCUMENTS
- (M) MEASURED
- (4) SCHEDULE "B" ITEM
- 24 INCH VERTICAL CURB & GUTTER
- 6 INCH CONCRETE CURB
- DRIVE INDICATES DRIVEWAY (MEANS OF ACCESS)
- CONCRETE SURFACE
- WALL
- ATM AUTOMATIC TELLER MACHINE
- V BANKING EQUIPMENT (VACUUM LINE)
- BACK FLOW PREVENTER

PROJECT LOCATION:
SITE ADDRESS: 13875 N NORTHSIGHT BLVD. SCOTTSDALE, ARIZONA 85260

PROJECT DESCRIPTION:
THE PROPOSED DEVELOPMENT CONSISTS OF THE DEMOLITION OF EXISTING STRUCTURES AND DESIGNATED PARKING LOTS FOR THE CONSTRUCTION OF A 3-STORY HEALTHCARE FACILITY WITH 143 UNITS. SITE IS APPROXIMATELY 4.51 ACRES.

SITE DATA:

ASSESSOR PARCEL NUMBER:	215-53-005D
ZONING:	C-2
GROSS AREA:	251,880 SF (5.78 AC).
NET AREA:	196,467 SF (4.51 AC).
DISTURBED AREA:	200016 SF (4.59 AC)

BASIS OF BEARING:
THE BASIS OF BEARING AND ALL MONUMENTATION SHOWN HEREON IS BASED ON THE MONUMENT LINE OF NORTHSIGHT BOULEVARD, USING A BEARING OF NORTH 89 DEGREES 52 MINUTES 51 SECONDS WEST, PER THE MAP OF DEDICATION "NORTHSIGHT". RECORDED IN BOOK 302, PAGE 11. MARICOPA COUNTY RECORDS.

BENCHMARK:
BENCHMARK IS AN ADOT ALUMINUM CAP LOCATED AT THE NORTHWEST CORNER OF SECTION 18, T3N, R5E. THE MONUMENT IS GDACS POINT NUMBER 26038-1 WHICH IS DESCRIBED AS THE "FD 3" ADOT AL CAP FL STAMPED "T3N R4E T3N R5E S7 S12 S18 22282 2001".

ELEVATION: 1443.639' NAVD 88 (MCDOT).

PRELIMINARY GRADING NOTES
1. MATCH EXISTING GRADE.
2. 6" VERTICAL CURB AND GUTTER.
2A. 6" VERTICAL CURB
3. PROPOSED CONCRETE SIDEWALK. WIDTH PER PLAN.
4. LIGHT DUTY PAVEMENT.
4A. HEAVY DUTY PAVEMENT.
5. PROPOSED CMP RISER WITH STANDARD SOLID LID.
5A. PROPOSED CMP RISER WITH STANDARD GRATE LID.
6. PROPOSED ADA RAMP.
7. PAVEMENT WITH 2% MAXIMUM SLOPE IN ANY DIRECTION AT ACCESIBLE PARKING STALLS AND 2% MAXIMUM CROSS SLOPE AT ADA ACCESSIBLE ROUTE.
8. PROPOSED DOUBLE REFUSE ENCLOSURE PER C.O.S STD. DET. 2147-1
9. PROPOSED HDPE PIPE.
10. PROPOSED UNDERGROUND STORMWATER STORAGE SYSTEM.
11. PROPOSED MAXWELL PLUS DRYWELL.
13. PROPOSED NYLOPLAST DRAIN BASIN WITH SOLID LID.
14. PROPOSED CONCRETE VALLEY GUTTER.
15. PROPOSED CURB ISLAND OPENING.
16. NEW CATCH BASIN.
17. PROPOSED SCREEN WALL PER ARCHITECTURAL PLANS.
18. ROOF DRAIN AND COURTYARD STORMWATER NETWORK CONNECTION.

PRELIMINARY NOT FOR CONSTRUCTION

SEG
SUSTAINABILITY ENGINEERING GROUP
5240 N. 16TH STREET SUITE 105, PHOENIX, ARIZONA 85016
WWW. AZSEG.COM TEL. 480.588.7226 FAX 480.259.3534

NORTHSIGHT PARTNERS LLC

PROJECT: KB DEVCO NORTHSIGHT
LOCATION: 13875 N. NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260

DRAWN	MC	04/17/2023
DESIGNED	JC	04/17/2023
QC	SC	04/03/2023
FINAL QC		
PROJ. MGR.	AF	04/17/2023

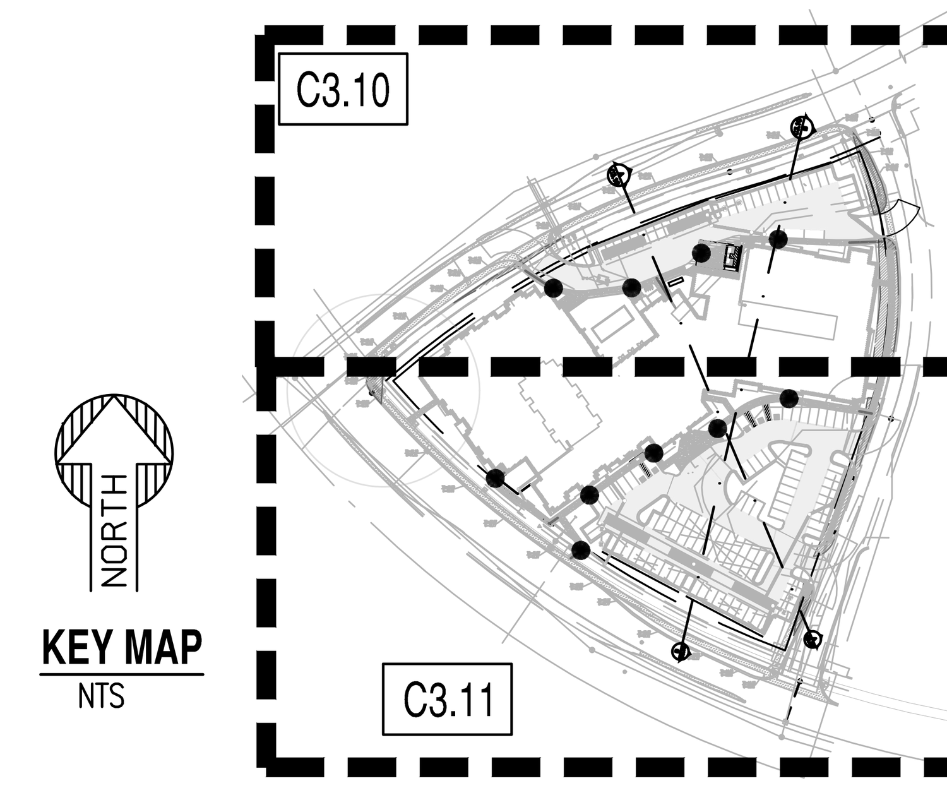
DATE: 04/17/2023
ISSUED FOR: REVIEW
REVISION NO.: DATE:
JOB NO.: 220609
SHEET TITLE: PRELIMINARY GRADING AND DRAINAGE PLAN
PAGE NO.: 1 OF 4
SHEET NO.: C3.10

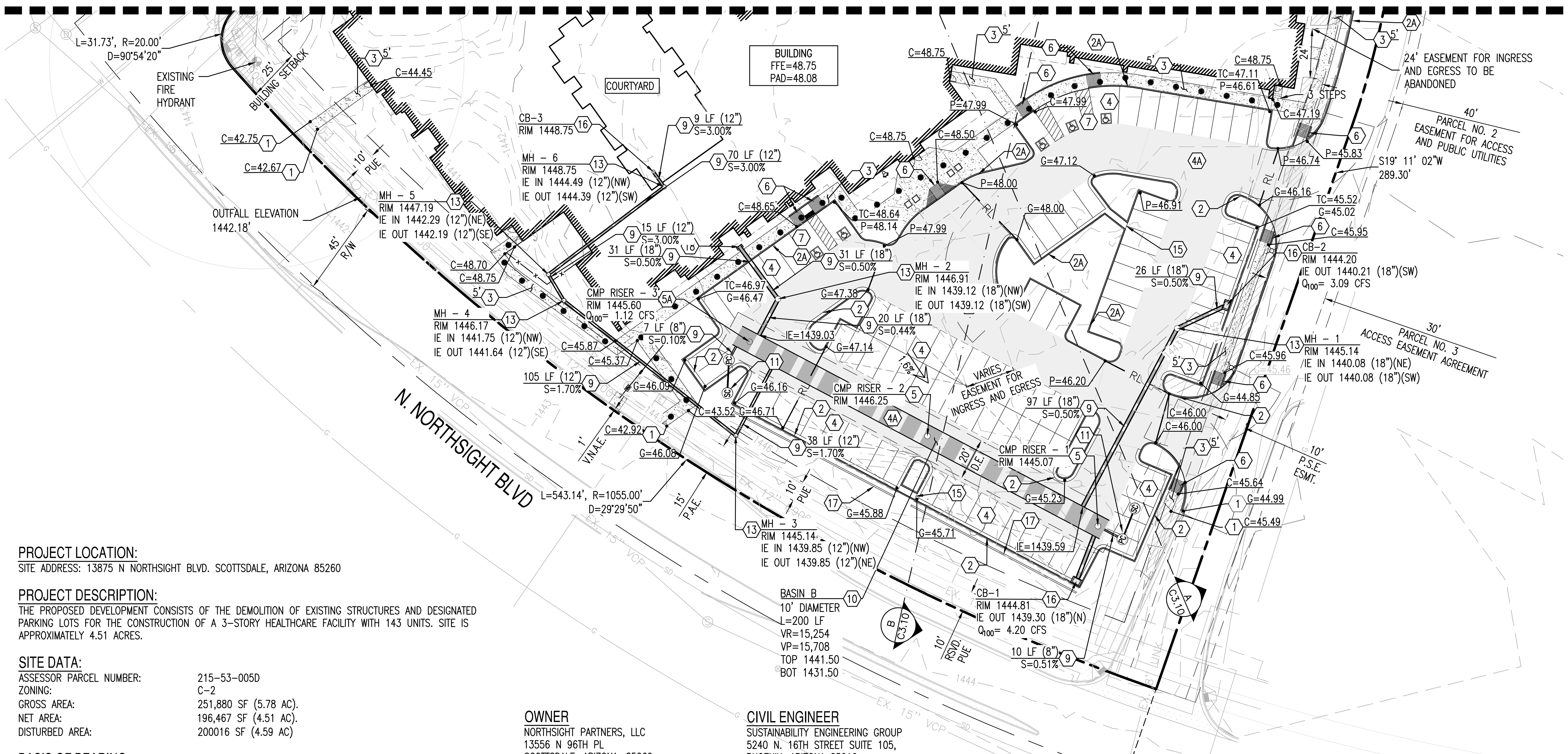
15-ZN-2022
04/27/2023

NORTHSIGHT RESIDENTIAL HEALTHCARE
PRELIMINARY GRADING AND DRAINAGE PLAN

13875 N NORTHSIGHT BLVD. SCOTTSDALE, ARIZONA 85260
A PORTION OF THE SOUTHEAST QUARTER OF SECTION 12, TOWNSHIP 3 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

MATCHLINE - REFER TO SHEET C3.10





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2A. 6" VERTICAL CURB
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4. LIGHT DUTY PAVEMENT.
4A. HEAVY DUTY PAVEMENT.
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16. NEW CATCH BASIN.
17. PROPOSED SCREEN WALL PER ARCHITECTURAL PLANS.
18. ROOF DRAIN AND COURTYARD STORMWATER NETWORK CONNECTION.

PROJECT LOCATION:
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ELEVATION: 1443.639' NAVD 88 (MCDOT).

OWNER
NORTHSIGHT PARTNERS, LLC
13556 N 96TH PL
SCOTTSDALE, ARIZONA. 85260
PHONE: 480-628-2530
ATTN.: BENJAMIN JOHNSON
EMAIL: BEN@KBDEVCO.COM

CIVIL ENGINEER
SUSTAINABILITY ENGINEERING GROUP
5240 N. 16TH STREET SUITE 105,
PHOENIX, ARIZONA 85016
PHONE: 480-237-2507
ATTN.: ALI FAKIH
EMAIL: ALI@AZSEG.COM

ARCHITECT
CRE8TIVE ARCHITECTS, LLC
7033 E GREENWAY PARKWAY, SUITE 250
SCOTTSDALE, ARIZONA 85254
PHONE: 602-834-0523
ATTN.: DANIELLE TORRES
EMAIL: DANIELLE.TORRES@CRE8TIVEARCHITECTS.COM

SURVEYOR
ALLIANCE LAND SURVEYING LLC
7900 N 70TH AVE SITE 104
GLENDALE, ARIZONA 85303
PHONE: 623-972-2200
EMAIL: CONTACTUS@AZALS.COM

ALUMINUM CAP LOCATED AT THE NORTHWEST CORNER OF SECTION 18 T.3N. R.5E., PER G.&S.R.B.&M
N89°19'54"W 365.95'
N89°52'51"W 294'
N89°52'51"W 395.99'
N89°52'51"W 263.92'
FOUND BRASS CAP FLUSH
FOUND BRASS CAP FLUSH
FOUND BRASS CAP FLUSH

PROPOSED GRADING LEGEND:

- G=XX.XX — GUTTER ELEVATION, TC = G+0.5'
- P=XX.XX — PAVEMENT ELEVATION TC = P+0.5'
- C=XX.XX — CONCRETE ELEVATION
- PROPERTY LINE
- RIGHT OF WAY
- CURB AND GUTTER
- RL — RIDGELINE
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- PROPERTY CORNER (SEE MONUMENT TABLE)
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- (M) MEASURED
- SCHEDULE "B" ITEM
- 24 INCH VERTICAL CURB & GUTTER
- 6 INCH CONCRETE CURB
- DRIVE — INDICATES DRIVEWAY (MEANS OF ACCESS)
- CONCRETE SURFACE
- WALL
- AUTOMATIC TELLER MACHINE
- BANKING EQUIPMENT (VACUUM LINE)
- BACK FLOW PREVENTER

FLOOD ZONE:
SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X" (SHADED) AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP NO. 04013C1760L, DATED OCTOBER 16, 2013. ZONE "X" (SHADED) IS DEFINED AS AREAS OF 0.2% ANNUAL FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEEVES FROM 1% ANNUAL CHANCE FLOOD.

MAP NUMBER	COMMUNITY NUMBER	PANEL # PANEL DATE	PANEL EFFECTIVE REVISION DATE	SUFFIX	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE USE DEPTH)
04013C1760L	045012	1760 10/16/2013	10/16/2013	L	X-SHADED	N/A

NORTH
0' 30' 60' 90'
SCALE: 1" = 30'

PRELIMINARY NOT FOR CONSTRUCTION

SEG
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WWW. AZSEG.COM TEL. 480.588.7226 FAX 480.259.3534

NORTHSIGHT PARTNERS LLC

PROJECT: KB DEVCO NORTHSIGHT
LOCATION: 13875 N. NORTHSIGHT BLVD. SCOTTSDALE, AZ 85260

DRAWN	MC	04/17/2023
DESIGNED	JC	04/17/2023
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FINAL QC		
PROJ. MGR.	AF	04/17/2023

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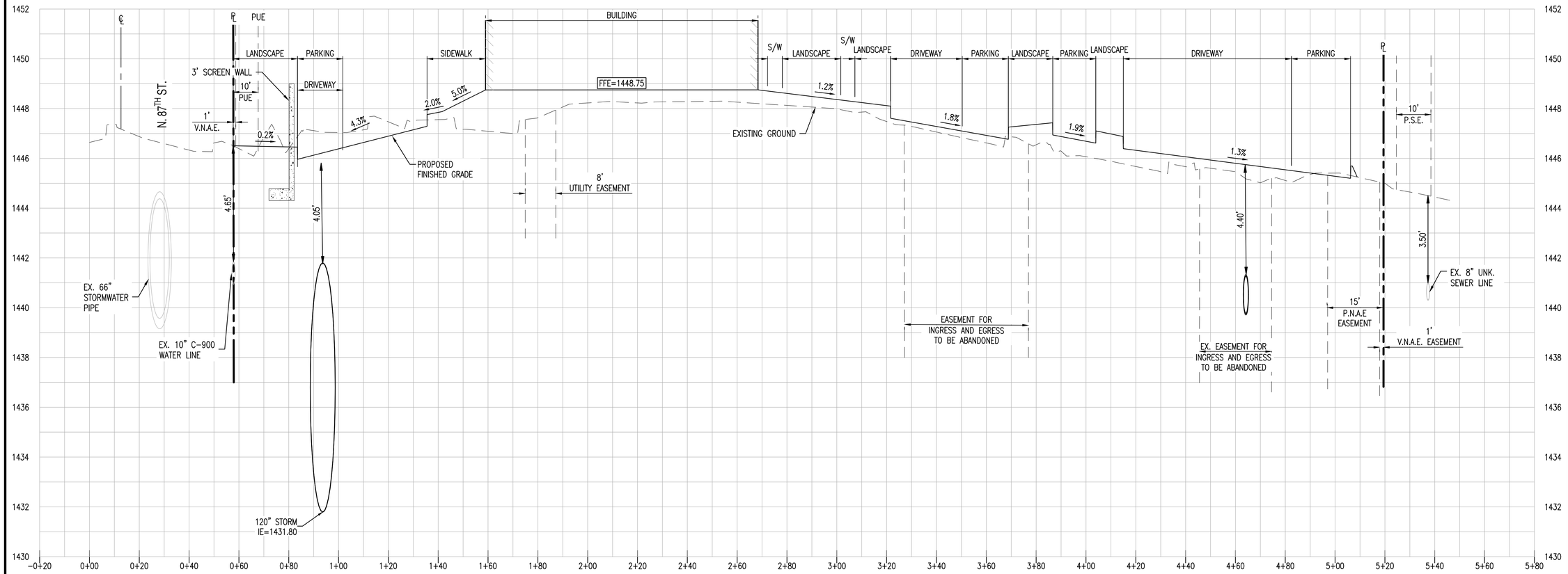
REVISION NO.:		DATE:
1		
2		
3		
4		

JOB NO.: 220609
SHEET TITLE: PRELIMINARY GRADING AND DRAINAGE PLAN
PAGE NO.: 2 OF 4
SHEET NO.: C3.11

15-ZN-2022
04/27/2023



SECTION A-A C3.10

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

PRELIMINARY
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CONSTRUCTION

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NORTHSIGHT PARTNERS LLC

Contact Arizona 811 at least two full working days before you begin excavation
ARIZONA811
Call 811 or click Arizona811.com

PROJECT
KB DEVCO NORTHSIGHT

LOCATION
13875 N. NORTHSIGHT BLVD.
SCOTTSDALE, AZ 85260

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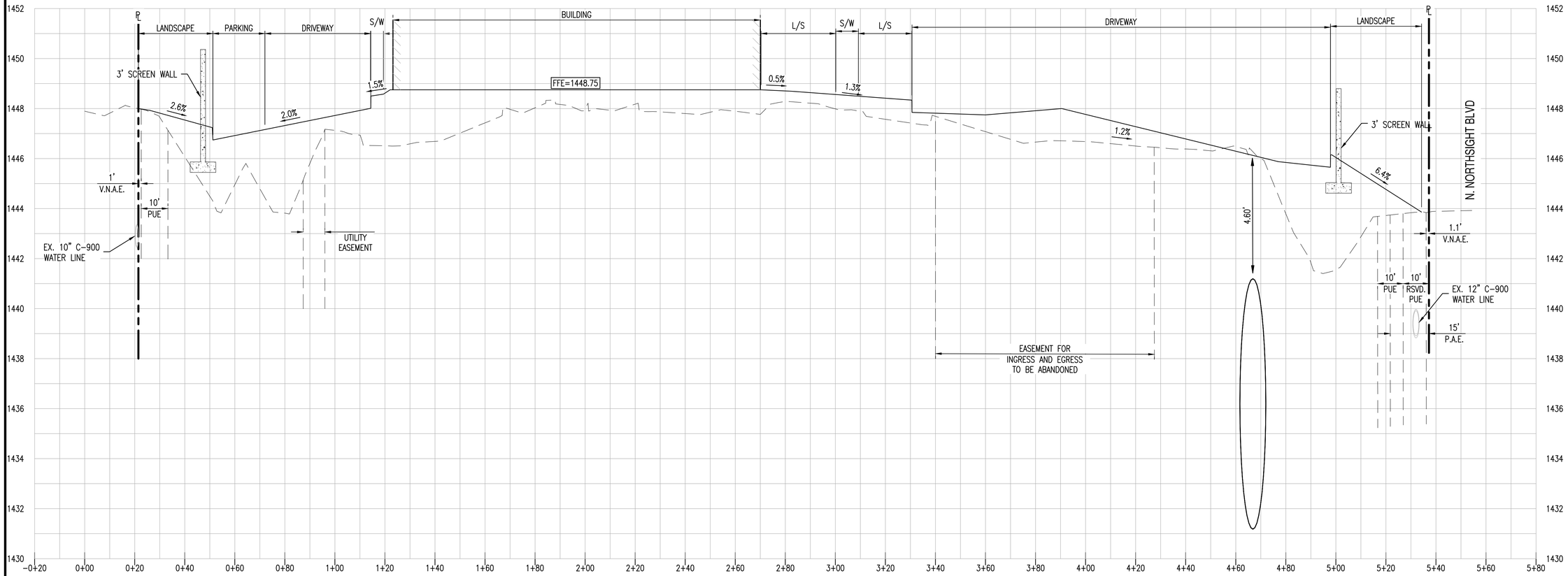
1	
2	
3	
4	

JOB NO.: 220609

SHEET TITLE:
PRELIMINARY SITE CROSS SECTIONS

PAGE NO.: 3 OF 4
SHEET NO.: **C3.50**

15-ZN-2022
04/27/2023



SECTION B-B C3.10

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

PRELIMINARY
NOT FOR
CONSTRUCTION

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SUSTAINABILITY
ENGINEERING
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PROJECT
KB DEVCO NORTHSIGHT

LOCATION
13875 N. NORTHSIGHT BLVD.
SCOTTSDALE, AZ 85260

DRAWN	MC	04/17/2023
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1	
2	
3	
4	

JOB NO.:
220609

SHEET TITLE:
PRELIMINARY SITE CROSS SECTIONS

PAGE NO.: 4 OF 4
SHEET NO.: **C3.51**

15-ZN-2022
04/27/2023