

PRELIMINARY GRADING AND DRAINAGE PLAN FOR:
VITA COMMUNITIES - 202 & UNIVERSITY
526 NORTH ELLSWORTH ROAD
CITY OF MESA, 85207, ARIZONA

LOCATED IN A PORTION OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 1 NORTH, RANGE 7 EAST
OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

REQUIRED RETENTION VOLUME & DRAIN TIME CALCULATIONS										
V _R = VOLUME REQUIRED V _R = C x (P / 12) x A C = WEIGHTED RUNOFF COEFFICIENT P = RAINFALL DEPTH (NOAA ATLAS 14) P = 2.2 IN. A = RETAINED AREA										
SITE AREA NET = 12.89 AC PART OF ADJACENT R/W = 0.78 AC TOTAL RETAINED AREA = 13.67 AC										
DRAINAGE AREA DESIGNATION	DRAINAGE AREA (AC)	WEIGHTED RUNOFF COEFFICIENT 'C'	BASIN VOLUME REQUIRED (CF)	BASIN VOLUME PROVIDED (CF)	W.Q. (FIRST FLUSH) VOL. ROD (CF)	W.Q. ISOLATION VOL. PROV. (CF)	OPEN BOTTOM RETENTION STORAGE AREA (SF)	* ASSUMED PERC RATE (IN/HR)	BASIN DEWATER RATE (CF/HR)	ESTIMATED RETENTION BASIN DRAIN TIME (HR)
Basin A	1.51	0.71	8,521	8,777	2,741	2,863	2400	3.00	300	28.4
Basin B	3.32	0.69	18,392	18,760	6,026	6,781	5600	3.00	700	26.3
Basin C	3.21	0.71	18,140	18,948	5,826	6,325	6000	3.00	750	24.2
Basin D	1.94	0.72	11,121	11,339	3,521	4,520	2900	3.00	363	30.7
Basin E	3.69	0.69	20,324	20,417	6,697	8,287	4800	3.00	600	33.9
COMBINED TOTAL	13.67	0.70	76,498	78,241						

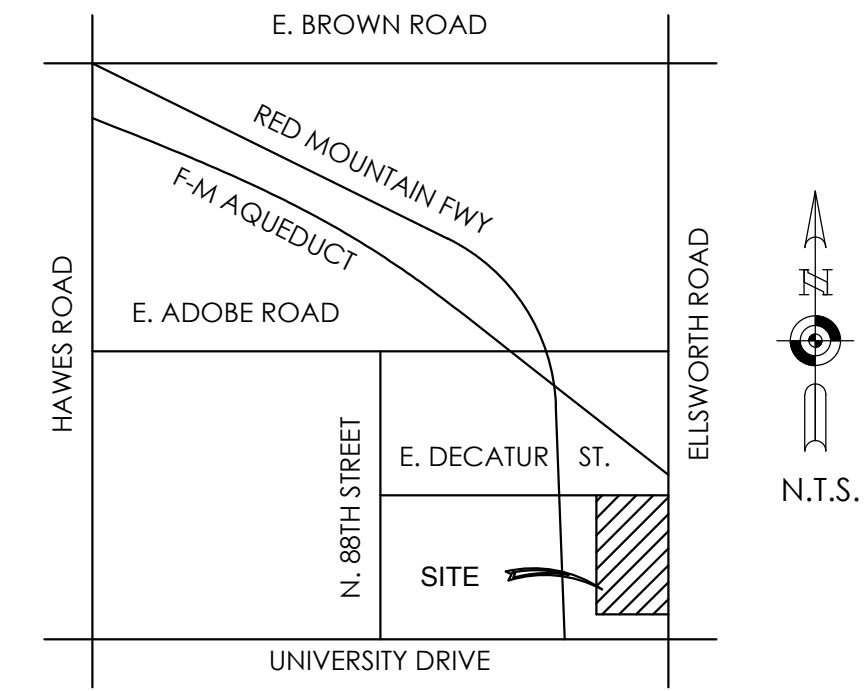
* ASSUMED PERC RATE IN ORDER TO HAVE 100% INFILTRATION. PRELIMINARY DESIGN INCLUDES A PROPOSED BLEEDOFF CONNECTION TO THE EXISTING ADOT CHANNEL. DURING FINAL DESIGN DOUBLE RING INFILTROMETER TESTES WILL BE PERFORMED TO VERIFY FIELD PERC RATES AND POSSIBLE DIRECT PERCOLATION FOR STORMWATER DISPOSAL (SECTION 806.21.2)

ABBREVIATIONS

BLDG	BUILDING	GR	GRATE
C	CONCRETE	LS	LANDSCAPE
C&G	CURB AND GUTTER	MH	MANHOLE
CO	CLEAN OUT	P	PAVEMENT
CMP	CORRUGATED METAL PIPE	PROP	PROPOSED
DIA	DIAMETER	PUE	PUBLIC UTILITY EASEMENT
ESMT	EASEMENT	RW	RIGHT OF WAY
EX	EXISTING	SB	SETBACK
FFE	FINISHED FLOOR ELEVATION	SS	SANITARY SEWER
FL	FLOWLINE	TC	TOP OF CURB
G	GUTTER	TYP	TYPICAL

LEGEND

---	BOUNDARY	STORMTECH UNDERGROUND RETENTION CHAMBERS
---	EX PROPERTY LINE	
---	CENTERLINE	
---	SETBACK	
---	EASEMENT	
---	STORM DRAIN	
---	SANITARY SEWER LINE	
---	DOMESTIC WATERLINE	
---	FIRELINE	
---	DRAINAGE AREA BOUNDARY	
---	DRAINAGE AREA DESIGNATION	
---	STORM DRAIN	
---	CATCH BASIN	
---	CURB OPENING CATCH BASIN	
---	YARD DRAIN	
---	BACKFLOW PREVENTER	
---	WATER METER	



VICINITY MAP

SITE INFO:

APN:	218-07-038A, 040A & 041C
ADDRESS:	526 N. ELLSWORTH RD. MESA, ARIZONA, 85207
PARCEL AREA:	13.44 AC (585,519 S.F.)
NET AREA:	12.89 AC (561,551 S.F.)
GROSS AREA:	14.23 AC (620,074 S.F.)
EXISTING ZONING:	RU-43 & R1-8 (MARICOPA COUNTY)
PROPOSED ZONING:	RM-2/PAD (MULTIPLE RESIDENCE)
PROPOSED No. UNITS:	134 DWELLING UNITS
DENSITY - GROSS:	9.4 DU/AC
DENSITY - NET:	10.4 DU/AC

DEVELOPER / APPLICANT

VITA COMMUNITIES, LLC
1017 N. CENTRAL AVE., SUITE 2
PHOENIX, ARIZONA, 85004

CONTACT: JIM STOCKWELL
PHONE: (760) 413 5435
EMAIL: JIMS@GLASIRCP.COM

PROPERTY OWNER

ELLSWORTH - UNIVERSITY, LLC
5730 ECHO CANYON DR.
PHOENIX, ARIZONA, 85018

ARCHITECT

FELTEN GROUP
18325 N. ALLIED WAY, SUITE 200
PHOENIX, ARIZONA, 85054

CONTACT: PAUL KNITTER
PHONE: (602) 867 2500
EMAIL: PAUL.KNITTER@FELTENGROU.COM

LANDSCAPE ARCHITECT

McGOUGH ADAMSON
11110 N. TATUM BLVD. SUITE 100
PHOENIX, ARIZONA, 85028

CONTACT: NICK ADAMSON
PHONE: (602) 997 9093
EMAIL: NICKA@MG-AZ.COM

CIVIL ENGINEER

TERRASCOPE CONSULTING, LLC
1102 E. MISSOURI AVE.
PHOENIX, ARIZONA, 85004

CONTACT: DAVE SOLTYSIK, P.E.
PHONE: (602) 297 8732
EMAIL: DSOLTYSIK@TERRASCOPE.US

BENCHMARK

THE BENCHMARK USED FOR THIS SURVEY IS A 3 INCH MARICOPA COUNTY HIGHWAY DEPARTMENT BRASS CAP IN HANDHOLE AT THE INTERSECTION OF ELLSWORTH ROAD AND UNIVERSITY DRIVE. THE SOUTHEAST CORNER OF SECTION 16, T.1N.-R.7E.

ELEVATION= 1554.436 (NAVD88 DATUM)

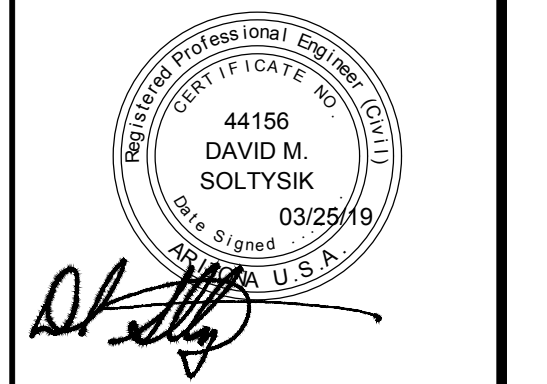
BASIS OF BEARING

S00°05'56"W ALONG THE MONUMENT LINE OF ELLSWORTH ROAD AS MEASURED BETWEEN A CITY OF MESA BRASS CAP IN HANDHOLE FOR THE EAST 1/4 CORNER SECTION 16, T.1N. R.7E., AND A MARICOPA COUNTY HIGHWAY DEPT. BRASS CAP IN HANDHOLE AS THE SOUTHEAST CORNER SECTION 16, T.1N., R.7E.

FLOOD ZONE

FLOOD ZONE DESIGNATION "X" PER F.E.M.A. FLOOD INSURANCE RATE MAP, MAP NUMBERS 04013C2295L, MARICOPA COUNTY PANEL 040037 OF 2295, CITY OF MESA PANEL 040048 OF 2295, DATED OCTOBER 16, 2013.

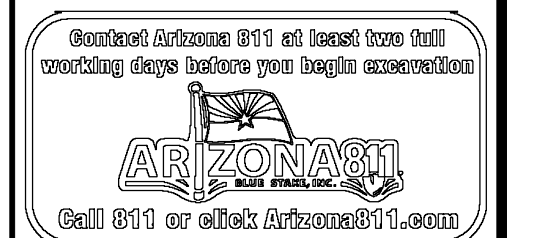
ZONE "X" - AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.



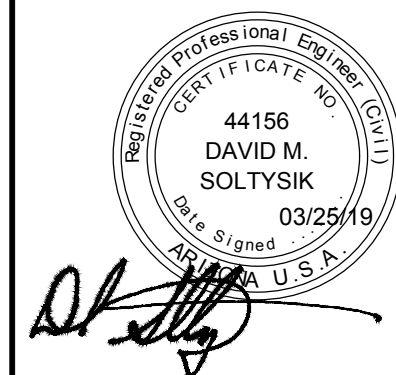
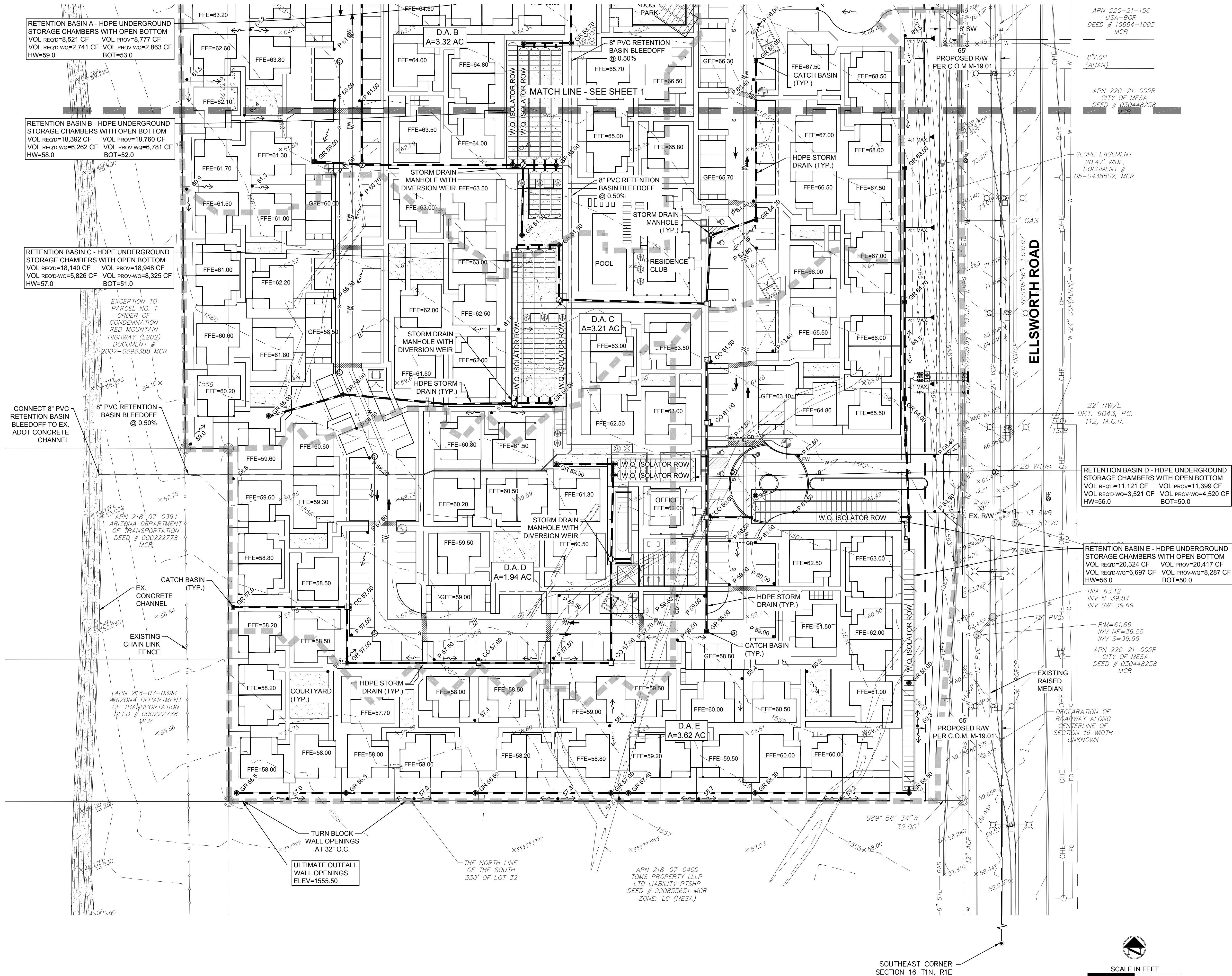
VITA
COMMUNITIES -
202 &
UNIVERSITY

PRELIMINARY

VITA
COMMUNITIES

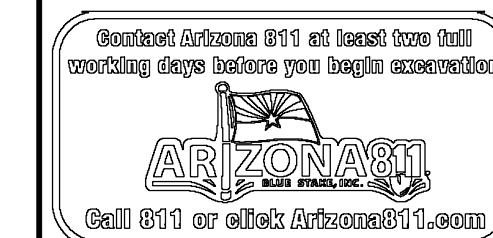


DATE	DESCRIPTION
01/25/19	1ST. SUBMITTAL
03/04/19	2ND. SUBMITTAL
03/19/19	3RD. SUBMITTAL
03/25/19	YARD WALLS UPDATE
CHECKED BY: DMS	
DRAWN BY: EF	
TITLE: PRELIMINARY GRADING AND DRAINAGE PLAN	
SHEET No. 1 of 2	
PROJECT No. 0908	



**VITA
COMMUNITIES -
202 &
UNIVERSITY**

PRELIMINARY



DATE	DESCRIPTION
01/25/19	1ST. SUBMITTAL
03/04/19	2ND. SUBMITTAL
03/19/19	3RD. SUBMITTAL
03/25/19	YARD WALLS UPDATE

CHECKED BY: DMS

DRAWN BY: EF

TITLE:
**PRELIMINARY GRADING
AND DRAINAGE PLAN**

SHEET No.

2 of 2

PROJECT No.
0908