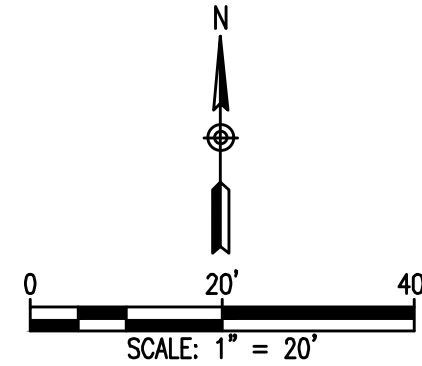
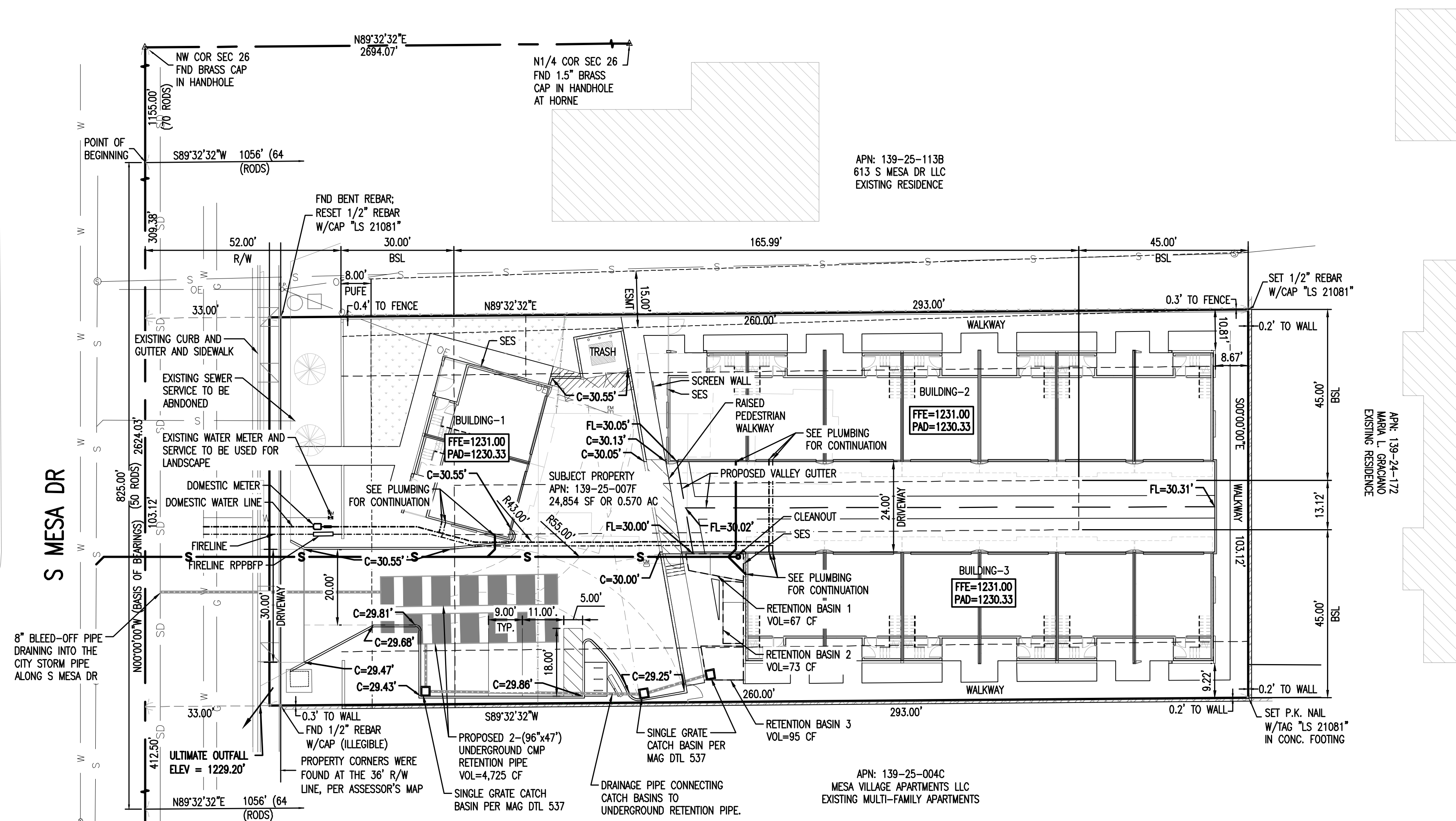


MULTIFAMILY RESIDENTIAL DEVELOPMENT AT HIGHLIGHTS

623 S MESA DR, MESA, AZ 85210



PRELIMINARY
NOT FOR
CONSTRUCTION

no.	date	description

HIGHLIGHTS

623 S MESA DR,
MESA, AZ 85210

PROJECT NO: 23065
DATE: 10/10/24



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PRELIMINARY
GRADING AND
DRAINAGE PLAN

C101

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PROJECT DATA	
ASSESSOR'S PARCEL NUMBER	: 139-25-007F
PROJECT ADDRESS	: 623 S MESA DR, MESA, AZ 85210
LOT AREA	: 24,854 SF OR 0.57 AC
ZONING	: RM-2
REZONE	: RM-4 PAD
ALLOWED DENSITY	: 30*0.57=17.1 DU
BUILDING COVERAGE	
BUILDING 1	= 1,091 SF
BUILDING 2	= 3,821 SF
BUILDING 3	= 3,283 SF
TOTAL	= 8,195 SF = 33%
TOTAL LOT COVERAGE	
BUILDING	= 8,195 SF
DRIVEWAY	= 8,383 SF
WALKWAY	= 2,999 SF
TOTAL	= 19,587 SF = 79%

DRAINAGE REPORT
FLOODPLAIN
THIS PROPERTY LIES WITHIN ZONE "X" AS SHOWN ON FEMA FIRM PANEL 04013C2285M REVISED ON NOVEMBER 4, 2015. ZONE "X" DENOTES 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.

ON-SITE FLOWS
ALL ON-SITE FLOWS WILL BE RETAINED BY THE DESIGNED COMBINATION OF RETENTION BASINS AND UNDERGROUND RETENTION SYSTEM. THE VOLUME WILL BLEED OFF THROUGH AN ORIFICE AND A DRAINAGE PIPE INTO THE CITY STORM DRAIN SERVICE AVAILABLE ALONG S MESA DR.

OFF-SITE FLOWS
NO OFFSITE FLOWS WILL IMPACT THE SUBJECT SITE.

RETENTION SYSTEM SUMMARY
VOLUME REQUIRED = $(P/12) \times A \times C$
C=RUNOFF COEFFICIENT
P=2.16 INCHES (NOAA)
STANDARD DEPTH REQUIREMENT BY COM, P = 2.2 INCHES, (ENGINEERING AND DESIGN STANDARD MANUAL SECTION 806.4)
 $A_{TOT}=30,210$ SQ FT (ENTIRE SITE AND HALF STREETS)
 $A_S=4,793$ SF
 $A_W=25,417$ SF
 $C_S=0.5$
 $C_W=0.95$
 $C_{WDR}=0.88$
 $V_{REQ}=(2.2/12) \times 30,210 \times 0.88 = 4,874$ CF

VOLUME PROVIDED:
BASIN 1 $V=67$ CF
BASIN 2 $V=73$ CF
BASIN 3 $V=95$ CF
UNDERGROUND PIPE 2*(D=8", L=47") $V=4,725$ CF
TOTAL VOLUME $V=4,960$ CF
VOLUME PROVIDED > VOLUME REQUIRED THUS OK.

ABBREVIATIONS	
APN	ASSESSOR PARCEL NUMBER
ABC	AGGREGATE BASE COURSE
BSL	BUILDING SETBACK LINE
C	CONCRETE
CF,CU,FT	CUBIC FEET
BC	BACK OF CURB
ESMT	EASEMENT
EX	EXISTING
FFE	FINISHED FLOOR ELEVATION
FL	FLOW LINE
HWSE	HIGH WATER SURFACE ELEVATION
INV	INVERT
LF	LINEAR FOOT
(W)	MEASURED
MCR	MARICOPA COUNTY RECORDER
R/W	RIGHT OF WAY
PL	PROPERTY LINE
POB	POINT OF BEGINNING
PUE	PUBLIC UTILITIES AND FACILITIES
RPPBFP	EASEMENT
	REDUCED PRESSURE PRINCIPLE
	BACKFLOW PREVENTER
(R)	RECORD
TBM	TEMPORARY BENCH MARK
SD	STORM DRAIN
SES	SECONDARY ELECTRIC SERVICE
SF	SQUARE FEET
YR	YEAR

SYMBOLS LEGEND	
1220	FINISHED GROUND CONTOUR
1220	EXISTING GROUND CONTOUR
---	WATER LINE
---	FIRE LINE
---	SEWER LINE
---	STORMDRAIN PIPE
---	FLOW LINE
---	LIMIT OF GRADING
---	PROPERTY LINE
---	ROAD CENTERLINE
---	ADJACENT PARCEL LINE
S	EXISTING SEWER LINE
W	EXISTING WATER LINE
G	EXISTING GAS LINE
OHE	EXISTING OVERHEAD ELECTRIC LINE
Δ	SECTION CORNER
•	PROPERTY CORNER
⊙	SANITARY SEWER MANHOLE
⊗	WATER METER
⊕	WATER VALVE
⊖	ELECTRIC METER
⊗	GAS METER
⊙	POWER POLE

