CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



October 18, 2021

Justin Schara, P.E High Mesa Consulting Group 6010-B Midway Park Blvd. Albuquerque, NM 87109

RE: Sedona West

Conceptual Grading and Drainage Plans

Engineer's Stamp Date: 09/27/21

Hydrology File: C13D001

Dear Mr. Schara:

Based upon the information provided in your submittal received 10/13/2021, the Conceptual

Grading & Drainage Plans are approved for action by the DRB for Site Plan for Building Permit

and Platting.

Albuquerque Please note that in future submittals that colored line work and text is discouraged, as some of

the colors are very difficult to read with a white background.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control

(ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to

any earth disturbance.

If you have any questions, please contact me at 924-3986 or earmijo@cabq.gov.

Sincerely,

www.cabq.gov

Ernest Armijo, P.E.

Principal Engineer, Planning Dept. Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title:	_			
Legal Description: City Address:				
			Contact:	
			E-mail:	
			Contact:	
Address:Phone#:			E-mail:	
TYPE OF DEVELOPMENT:	PLAT (# of lots)	RESIDENCE	DRB SITE ADMIN SITE	
IS THIS A RESUBMITTAL?				
DEPARTMENT TRANSPORT	ATIONHYI	DROLOGY/DRAINAC	GE .	
Check all that Apply: TYPE OF SUBMITTAL: ENGINEER/ARCHITECT CERTIFICATION PAD CERTIFICATION CONCEPTUAL G & D PLAN GRADING PLAN DRAINAGE REPORT DRAINAGE MASTER PLAN FLOODPLAIN DEVELOPMENT PERMIT APPLIC ELEVATION CERTIFICATE CLOMR/LOMR TRAFFIC CIRCULATION LAYOUT (TCL) TRAFFIC IMPACT STUDY (TIS) STREET LIGHT LAYOUT OTHER (SPECIFY) PRE-DESIGN MEETING? (Attended 5-20-2021)		TYPE OF APPROVAL/ACCEPTANCE SOUGHT: BUILDING PERMIT APPROVAL CERTIFICATE OF OCCUPANCY PRELIMINARY PLAT APPROVAL SITE PLAN FOR SUB'D APPROVAL SITE PLAN FOR BLDG. PERMIT APPROVAL FINAL PLAT APPROVAL SIA/ RELEASE OF FINANCIAL GUARANTEE FOUNDATION PERMIT APPROVAL GRADING PERMIT APPROVAL SO-19 APPROVAL PAVING PERMIT APPROVAL GRADING/ PAD CERTIFICATION WORK ORDER APPROVAL CLOMR/LOMR FLOODPLAIN DEVELOPMENT PERMIT OTHER (SPECIFY) DRB Review - Major Amendment of Prio		
DATE SUBMITTED:	By:		Approved Site Development Plan	
COA STAFF:		SUBMITTAL RECEIVED:		

FEE PAID:_____

PROJECT BENCHMARK

AN 3 1/4" AGRS ALUMINUM DISK STAMPED "11_C13", SET FLUSH IN THE NORTHEAST CONCRETE BRIDGE ABUTMENT OF PASEO DEL NORTE OVER COORS BOULEVARD NW. ELEVATION = 5031.88 FEET (NAVD 1988)

TEMPORARY BENCHMARK #201 (T.B.M.)

A 60d NAIL, SET IN CONCRETE JOINT NEAR THE NORTHWEST CORNER OF THE PROJECT SITE APPROXIMATELY 22.8' SOUTHWEST OF THE NORTHWEST PROPERTY CORNER, AS SHOWN ON THIS SHEET.

TEMPORARY BENCHMARK #202 (T.B.M.)

A 60d NAIL, SET IN CONCRETE JOINT NEAR THE SOUTHWEST CORNER OF THE PROJECT SITE APPROXIMATELY 21.3' NORTHEAST OF THE TOP OF A WHEEL CHAIR RAMP, AS SHOWN ON THIS SHEET.

ELEVATION = 5076.20 FEET (NAVD 1988)

TEMPORARY BENCHMARK #203 (T.B.M.)

A MAG NAIL W/WASHER. SET IN ASPHALT PAVEMENT NEAR THE CENTER OF THE PROJECT SITE APPROXIMATELY 1.1' EAST OF THE EAST ASPHALT CURB, AS SHOWN ON THIS

ELEVATION = 5056.78 FEET (NAVD 1988)

TEMPORARY BENCHMARK #204 (T.B.M.)

A MAG NAIL W/WASHER, SET IN ASPHALT PAVEMENT NEAR THE NORTHEAST CORNER OF THE PROJECT SITE APPROXIMATELY 26.6' SOUTH OF THE SOUTHEAST CORNER OF A CONCRETE PAD, AS SHOWN ON THIS SHEET.

TEMPORARY BENCHMARK #205 (T.B.M.)

A MAG NAIL W/WASHER, SET IN ASPHALT PAVEMENT NEAR THE SOUTHEAST CORNER OF THE PROJECT SITE APPROXIMATELY 1.4' SOUTHWEST OF THE END OF A CONCRETE CURB LIP, AS SHOWN ON THIS SHEET. ELEVATION = 5049.36 FEET (NAVD 1988)

GRADING AND DRAINAGE:

THE PROJECT SITE CURRENTLY SLOPES FROM NORTHEAST TO SOUTHWEST. THE STORMWATER RUNOFF FROM THE WEST HALF OF THE SITE IS INTERCEPTED BY AN EXISTING PAVED, CURBED ACCESS ROAD THAT DRAINS TO TWO (2) EXISTING STORM DRAIN INLETS. THESE INLETS DISCHARGE TO AN EXISTING 24" PUBLIC SUBSURFACE STORM DRAIN SYSTEM THAT EXTENDS THROUGH THE SITE FROM NORTH TO SOUTH, ENLARGING TO A 36" RCP STORM DRAIN ALONG THE SOUTH PERIMETER OF THE PROPERTY. THIS PUBLIC STORM DRAIN SYSTEM CONTINUES SOUTHWEST PROJECT SITE AND ULTIMATELY DISCHARGES TO A PUBLIC STORMWATER DETENTION BASIN AT THE "PLAZA AT PASEO DEL NORTE UPPER DETENTION POND", LOCATED NEAR THE SOUTHEAST TERMINATION OF PARADISE BLVD NW, AND IMMEDIATELY SOUTH OF THE EAGLE RANCH APARTMENTS COMPLEX. THE EXISTING PUBLIC STORM DRAIN SYSTEM AND STORMWATER DETENTION POND FACILITY WAS DEVELOPED PER THE 1989 MARKET CENTER WEST (PLAZA AT PASEO DEL NORTE) MASTER PLAN (UPDATED 2007) AND CONSTRUCTED AS PART OF THE PHASE 1 DEVELOPMENT FOR THIS SITE IN 1990. THE STORMWATER DETENTION POND IS SIŽED TO ACCEPT THE FULLY DEVELOPED STORMWATER RUNOFF GENERATED BY THIS SITE (DENOTED AS PORTIONS OF BASIN A IN THE MASTER PLAN DRAINAGE REPORT). IN THE MASTER PLAN, BASINS A-1, A-2 AND A-3 WERE CALCULATED TO GENERATE 24.6 CFS, 16.6 CFS, AND 4.5 CFS RESPECTIVELY (QTOTAL = 45.7 CFS) IN THE FULLY DEVELOPED CONDITION THAT IS FREE DISCHARGED TO THE EXISTING PUBLIC STORM DRAIN IMPROVEMENTS. THIS PROPOSED 2021 SEDONA WEST DEVELOPMENT SITE IS 7.1 AC. 65% OF THE BASIN A 11 AC SITE. THEREFORE, THE ALLOWABLE DISCHARGE FOR THIS SITE IS 65% OF THE 45.7 CFS ALLOWABLE FREE DISCHARGE RATE, EQUAL TO 29.7 CFS.

EASEMENTS

PAGE 12.

PAGE 151.

PAGE 151.

905847.

DOC. # 8849100.

PAGE 7909, DOC. #91019534.

DETERMINED BASED UPON EASEMENT ANNOTATION.

BY PLATS OF RECORD REFERENCED HEREON.

(1) 10' PNM AND US WEST EASEMENT GRANTED BY PLAT FILED JULY 25, 1988, BOOK C37,

2. 10' PNM AND US WEST EASEMENT GRANTED BY PLAT FILED JUNE 28, 1990, BOOK 90C,

3. 10' EASEMENT GRANTED TO N.M. UTILITIES BY PLAT FILED JUNE 28, 1990, BOOK 90C,

4. 20' EASEMENT GRANTED TO N.M. UTILITIES BY PLAT FILED JUNE 28, 1990, BOOK 90C,

5. 30' EASEMENT GRANTED TO N.M. UTILITIES BY PLAT FILED JUNE 28, 1990, BOOK 90C,

6. APPROXIMATE LOCATION OF 100' PNM POWER LINE EASEMENT FILED MAY 06, 1957, BOOK

N.M. UTILITY CO., FILED JANUARY 23, 1990, BOOK 90-2, PAGES 1325-1327, DOC. #

7. 15' UTILITY EASEMENT GRANTED HORIZION-ALBUQUERQUE PROPERTIES AND PNM DATED

8. 8' BIKE LANE AND ASSOCIATED 12' EASEMENT, REFERENCED BY PREVIOUS PLATTING

PNM, FILED FEBRUARY 10, 2005, BOOK A-92, PAGE 31, DOC. #2005020108.

9. 10' GAS COMPANY OF NEW MEXICO EASEMENT, FILED MARCH 21, 1991, BOOK A91-4,

(11) POSSIBLE LOCATION OF 50' ROADWAY EASEMENT RESERVED BY WARRANTY DEED FILED

10. APPROXIMATE LOCATION PUBLIC SIDEWALK EASEMENT GRANTED BY PLAT FILED DECEMBER

18, 2007, BOOK 2007C, PAGE 347, DOC. #2007169358. EXACT LOCATION CANNOT BE

NOVEMBER 19, 1959, BOOK D-513, PAGE 189. EASEMENT NOT DEPICTED OR REFERENCED

D385. PAGE 3031. SUBJECT TO EASEMENT ENCROACHMENT AGREEMENT BETWEEN PNM AND

MARCH 27, 1961, RECORDED FEBRUARY 10, 1992, BOOK 92-3, PAGE 4164, N.M. UTILITIES

ACTIONS, AND SITE DEVELOPMENT PLAN DATED 06-19-2007, FILE NO. 2-83-93-1, ALSO

REFERENCED BY ENCROACHMENT AGREEMENT BETWEEN THE CITY OF ALBUQUERQUE AND

DISCLAIMS ALL INTEREST TO ABOVE REFERENCED EASEMENT RECORDED JUNE 01, 1988,

THE PROPOSED SITE DEVELOPMENT WILL MAINTAIN THE GENERAL DRAINAGE PATTERNS FOR THE SITE WITH OVERALL SITE GRADE SLOPING FROM NORTHEAST TO SOUTH WEST. ROOF DRAINAGE AND LOCALIZED PAVEMENT AREAS WILL BE SERVED BY NEW PRIVATE SUBSURFACE PIPED STORM DRAIN SYSTEMS THAT WILL OUTFALL TO THE EXISTING PUBLIC STORM DRAIN SYSTEM. THE PROJECT WILL RESULT IN AN INCREASE IN DEVELOPED STORMWATER RUNOFF GENERATED DUE TO THE NEW IMPERVIOUS AREAS. CALCULATIONS BASED ON THE CURRENT DPM PROCEDURE FOR A 40 ACRE OR SMALLER SITE SHOWN BELOW DEMONSTRATE THAT THE PROPOSED PEAK DISCHARGE FOR A 100 YEAR, 6 HOUR STORM EVENT GENERATED BY THE FULLY DEVELOPED SITE WILL BE 26.9 CFS. WHICH IS LESS THAN THE ALLOWABLE MASTER PLAN FREE DISCHARGE RATE OF 29.7 CFS NOTED ABOVE.

DUE TO THE GENERAL SLOPE OF THE SITE FROM WEST TO EAST, AND COORDINATION COMPROMISES TO THE SITE DEVELOPMENT WITH THE NEIGHBORING PROPERTY OWNERS. THIS SITE AS FULLY DEVELOPED WILL NOT BE ABLE TO INCLUDE PONDING IMPROVEMENTS NECESSARY TO COMPLY WITH THE CITY OF ALBUQUERQUE DPM AND CURRENT STORMWATER QUALITY ORDNANCE REQUIREMENTS TO CAPTURE AND TREAT THE FIRST FLUSH STORM EVENT GENERATED BY THE SITE. CALCULATIONS INCLUDED BELOW DEMONSTRATE THE REQUIRED STORMWATER QUALITY VOLUME GENERATED BY THE DEVELOPED SITE TO BE 8,510 CF. AS SUCH, THIS PROJECT ANTICIPATES UTILIZING THE ALTERNATIVE 'PAYMENT-IN-LIEU' OPTION NOTED IN THE COA DPM SECTION 6-12(C)(1), TO BE COORDINATED WITH THE CITY HYDROLOGY ENGINEER.

CALCULATIONS:

I. SITE CHARACTERISTICS

Α.	PRECIPITATION ZONE =	<u>1</u>						
В.	P _{100.6 HR} = P ₃₆₀ =	2.17	IN	_				
C.	TOTAL PROJECT AREA (AT) =	310,241	SF					
	TOTAL PROSECT AREA (AT) -	7.12	AC					
D. LAN	ND TREATMENTS							
1.	EXISTING	EXISTING LAND TREATMENT			DEVELOPED LAND TREATMENT			
	PROJECT SITE	310,241 SF		PROJECT SITE	310,241	SF	Ī	
	PROJECTISTIE	7.12	AC		7.12		AC	
	LAND TREATMENT	AREA (SF/	(C)	%	LAND TREATMENT	AREA (SF/A	(C)	Γ
	A				А			Γ
					~			l
	ь .	263,079	SF	050/		33,621	SF	Γ

85%

HYDROLOGY

A. EXISTING CONDITION 100 YEAR STORM

1. PROJECT SITE a. VOLUME 100-YR, 6-HR

 $WT_F = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D)/A_T$ \Rightarrow (0.55 · 0.00) + (0.73 · 6.04) + (0.95 · 0.00) + (2.24 · 1.08)/7.12 = \Rightarrow (0.96/12) • 7.12 = **0.5698 AC-FT =** $V_{100.6 \text{ HR}} = (E_W/12) \cdot A_T$ b. PEAK DISCHARGE 100-YR

6.04 AC

47,162 SF

1.08 AC

 $Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$ \Rightarrow (1.54 • 0.00) + (2.16 • 6.04) + (2.87 • 0.00) + (4.12 • 1.08) =

B. DEVELOPED CONDITION 100 YEAR STORM

1. PROJECT SITE a. VOLUME 100-YR, 6-HR

> $WT_E = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D)/A_T$ \Rightarrow (0.55 • 0.00) + (0.73 • 0.77) + (0.95 • 0.77) + (2.24 • 5.58)/7.12 = \Rightarrow (1.94/12) • 7.12 = 1.1514 AC-FT = 50,160 CF $V_{100.6 \text{ HR}} = (E_W/12) \cdot A_T$

b. STORM WATER QUALITY VOLUME (FIRST FLUSH) GENERATED $V_{SWQV} = ((P_{SWQV})/12) \cdot A_D$ \Rightarrow ((0.42)/12) • (5.58) = 0.1952 AC-FT =

c. STORM WATER QUALITY - PAYMENT IN LIEU VARIANCE REQUEST \$68,080.00 ⇒ \$8.00 PER CF FIRST FLUSH GENERATE x 8510 CF =

 \Rightarrow (1.54 • 0.00) + (2.16 • 0.77) + (2.87 • 0.77) + (4.12 • 5.58) =

d. PEAK DISCHARGE 100-YR

 $Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$

C. COMPARISON 100 YEAR STORM 1. PROJECT SITE

a. VOLUME 100-YR, 6-HR b. PEAK DISCHARGE 100-YR $\Delta Q_{100} = 26.9 - 17.5 =$ (INCREASE)

*29.7 CFS FREE DISCHARGE ALLOWED PER PLAZA AT PASEO DEL NORTE MASTER PLAN > DEVELOPED 26.9 CFS GENERATE

THIS IS NOT A BOUNDARY SURVEY OR A RIGHT-OF-WAY SURVEY, APPARENT PROPERTY CORNERS. RIGHT-OF-WAY LINES. OR PROPERTY LINES AS SHOWN ARE DERIVED FROM RECORD SURVEY PLATS. RIGHT-OF-WAY MAPS, OR DEEDS REFERENCED HEREON AND ARE NOT GUARANTEED OR TO BE RELIED ON FOR THE ESTABLISHMENT OF PROPERTY LINES. THE BOUNDARY INFORMATION DEPICTED BY THIS PLAN IS BASED UPON A BOUNDARY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, NMPS 11184, DATED 03/24/2021 (2021.012.1). THE TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED UPON THE TOPOGRAPHIC AND UTILITY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, NMPS NO. 11184, DATED 03/24/2021 (2021.012.1).

2021.012.2

0.77 AC 33,620 SF 0.77 AC

243,000 SF

24,820 CF

17.5 CFS

8,510 CF

26.9 CFS

5.58 AC

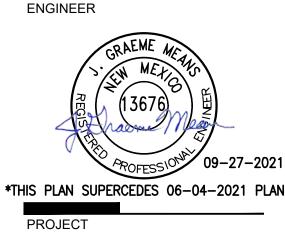


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DEKKER PERICH SABATINI

ARCHITECTURE **DESIGN** INSPIRATION

ARCHITECT



SITE DEVELOPMENT **PLAN**

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REVISIONS	
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DRAWN BY J.Y.R. REVIEWED BY G.M. DATE 08/06/2021 PROJECT NO. 19-0058

CONCEPTUAL **GRADING PLAN**

DRAWING NAME

SHEET NO.

CG-101