# CITY OF ALBUQUERQUE

*Planning Department* Alan Varela, Interim Director



Mayor Timothy M. Keller

August 23, 2021

Jeremy Shell, P.E. Respec 5971 Jefferson St. NE Albuquerque, NM 8710

RE: Markana Flats Apartments Conceptual Grading & Drainage Plan Engineer's Stamp Date: 06/23/21 Hydrology File: J19D047A

Dear Mr. Shell:

Sincerely,

PO Box 1293 Based upon the information provided in your submittal received 06/24/2021, the Conceptual Grading & Drainage Plan is approved for Grading Permit and for action by the DRB on Site Plan for Building Permit and Site Plan for Subdivision.

Albuquerque 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 924-3995 or <u>rbrissette@cabq.gov</u>.

www.cabq.gov

Renée C. Brissette

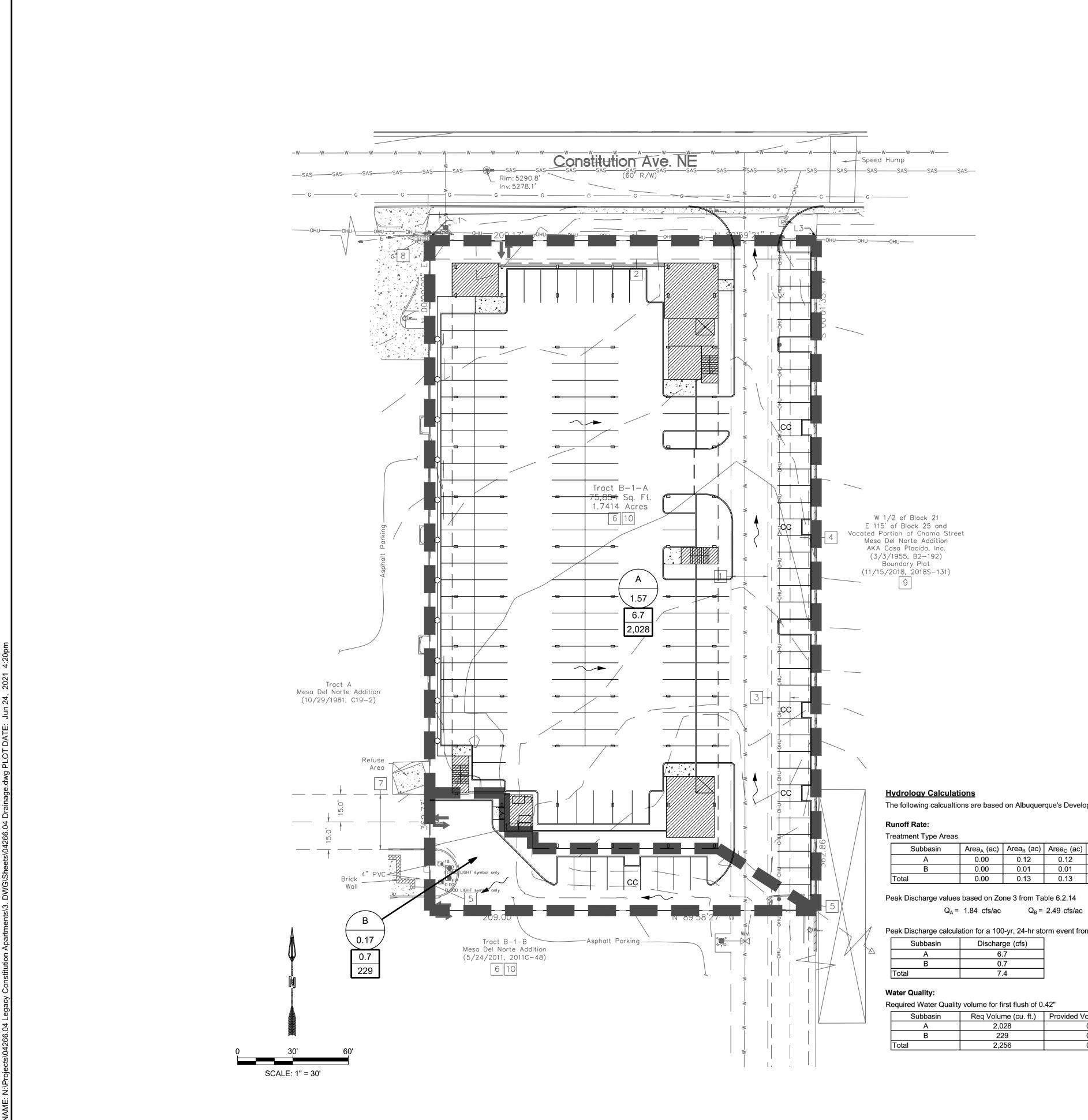
Renée C. Brissette, P.E. CFM Senior Engineer, Hydrology Planning Department

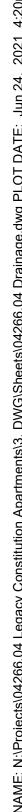
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# City of Albuquerque

Planning Department Development & Building Services Division DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Markana Flats Apartments			
DRB#:	_ EPC#:		Work Order#:
Legal Description: Tract B-1-A, Mesa Del No			
City Address:			
Applicant: Legacy Development			Contact:
Address:			
Phone#:	_Fax#:		E-mail:
			Contact: Jeremy Shell
Address: 5971 Jefferson Street NE, Suite 101			
Phone#: 505.918.1053	_Fax#:		E-mail: jeremy.shell@respec.com
TYPE OF DEVELOPMENT: PLAT (	# of lots)l	RESIDENCE X	DRB SITE ADMIN SITE
IS THIS A RESUBMITTAL? Yes	X No		
DEPARTMENT TRANSPORTATION	X HYDRO	LOGY/DRAINAGE	
Check all that Apply: <b>TYPE OF SUBMITTAL:</b> ENGINEER/ARCHITECT CERTIFICATION PAD CERTIFICATION X CONCEPTUAL G & D PLAN GRADING PLAN DRAINAGE REPORT DRAINAGE MASTER PLAN FLOODPLAIN DEVELOPMENT PERMIT A ELEVATION CERTIFICATE CLOMR/LOMR TRAFFIC CIRCULATION LAYOUT (TCL) TRAFFIC IMPACT STUDY (TIS) STREET LIGHT LAYOUT OTHER (SPECIFY) PRE-DESIGN MEETING?	PPLIC	BUILDING PER   CERTIFICATE O   PRELIMINARY   X   SITE PLAN FOI   FINAL PLAN FOI   FINAL PLAT A   SIA/ RELEASE   FOUNDATION   X   GRADING PER   GRADING PERM   GRADING/ PAR   WORK ORDER A   CLOMR/LOMR   FLOODPLAIN I	OF OCCUPANCY PLAT APPROVAL R SUB'D APPROVAL R BLDG. PERMIT APPROVAL PPROVAL OF FINANCIAL GUARANTEE PERMIT APPROVAL MIT APPROVAL VAL IT APPROVAL O CERTIFICATION APPROVAL
DATE SUBMITTED: 6/24/21	By:By:	Shell	
COA STAFF:		MITTAL RECEIVED:	





Hydrology Calculations

The following calcualtions are based on Albuquerque's Development Process Manual, Article 6-2

R	unoff Rate:						
Т	reatment Type Areas						
	Subbasin	Area₄ (ac)	Area <sub>P</sub> (ac)	Area <sub>c</sub> (ac)	Area <sub>n</sub> (ac)	Total (ac)	

Subbasin	Area <sub>A</sub> (ac)	Area <sub>B</sub> (ac)	Area <sub>c</sub> (ac)	Area <sub>D</sub> (ac)	Total (ac)
А	0.00	0.12	0.12	1.33	1.57
В	0.00	0.01	0.01	0.15	0.17
Total	0.00	0.13	0.13	1.48	1.74

Peak Discharge values based on Zone 3 from Table 6.2.14

Peak Discharge calculation for a 100-yr, 24-hr storm event from equation 6.6							
	Subbasin	Discharge (cfs)					
	А	6.7					
	В	0.7					

Required Water Quality volume for first flush of 0.42"

Subbasin	Req Volume (cu. ft.)	Provided Volume (cu. ft.)	Net Volume (cu. ft.)
A	2,028	0	2,028
В	229	0	229
Total	2,256	0	2,256

 $Q_C = 3.17$  cfs/ac  $Q_D = 4.49$  cfs/ac



## BACKGROUND

TRACT B-1-A, MESA DEL NORTE ADDITION IS APPROXIMATELY 1.7 ACRES IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THE PROPERTY IS LOCATED SOUTH OF CONSTITUTION AVENUE BETWEEN LOUISIANA BOULEVARD AND MESILLA STREET. TRACT B-1-A IS CURRENTLY UNDEVELOPED. THERE IS AN EXISTING POWER LINE AND WATER LINE THAT CROSS THE EAST SIDE OF THE SITE. THE PROPOSED PROJECT IS AN APARTMENT COMPLEX. THE FIRST LEVEL WILL BE A PARKING GARAGE AND THE FOUR LEVELS ABOVE WILL BE THE DWELLING UNITS AND VARIOUS AMENITIES. THE GRADING & DRAINAGE PLAN FOR LOUISIANA PLACE BY HUITT-ZOLLARS 2006 AS WELL AS THE GRADING & DRAINAGE PLAN FOR LOUISIANA PLACE DATED DECEMBER 1987 SHOULD BE REFERENCED FOR BACKGROUND RELATED TO THIS PROPOSED DEVELOPMENT. THE SITE IS ALLOWED FREE DISCHARGE. THERE IS IS NO DESIGNATED 100-YEAR FLOODPLAIN SHOWN ON THE SITE.

### METHODOLOGY

HYDROLOGY CALCULATIONS FOR THE SITE ARE PERFORMED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) ARTICLE 6.2 USING THE RATIONAL METHOD TO CALCULATE PEAK FLOW RATES TO ENSURE ALL FLOW PATHS ARE SUFFICIENT TO CARRY FLOWS. THE REQUIRED WATER QUALITY VOLUME WAS CALCULATED BY MULTIPLYING THE IMPERVIOUS AREA BY THE FIRST FLUSH RUNOFF VALUE OF 0.42". ALL HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE FOUND ON THIS SHEET.

# EXISTING CONDITIONS

THE SITE, IN GENERAL, SLOPES FROM SOUTH TO NORTH AT A SLOPE OF APPROXIMATELY 2%. STORM WATER RUNOFF GENERATED BY THE SITE DRAINS NORTH AND DISCHARGES TO CONSTITUTION AVENUE.

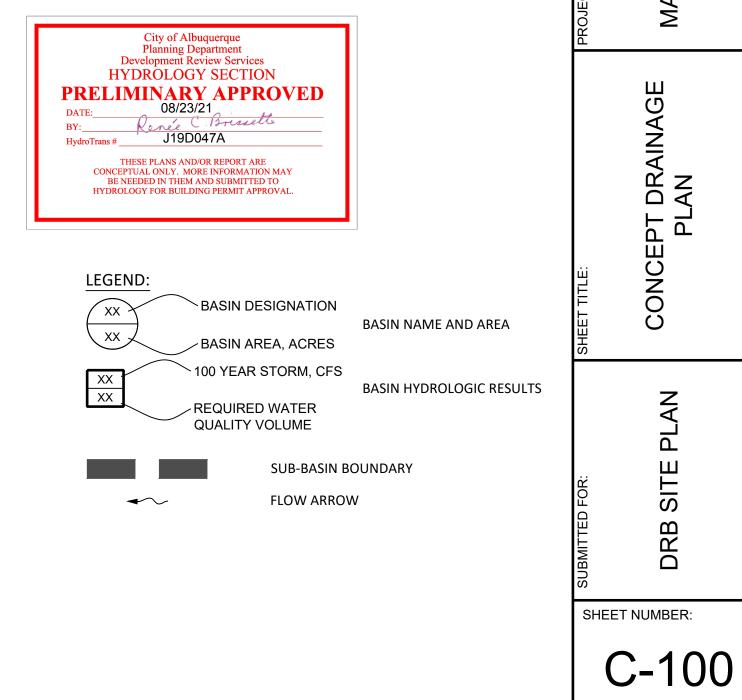
## DEVELOPED CONDITIONS

THE DRAINAGE INTENTION OF THE DEVELOPED CONDITIONS IS TO MATCH THE EXISTING DRAINAGE PATTERN.

SUB-BASIN A IS A MAJORITY OF THE NEW APARTMENT DEVELOPMENT. IT CONTAINS 1.57 ACRES AND GENERATES 6.7 CFS. SIMILAR TO EXISTING CONDITIONS, THIS SUB-BASIN DISCHARGES NORTH INTO CONSTITUTION AVENUE.

SUB-BASIN B IS A SMALL PORTION OF THE SOUTH SIDE OF THE DEVELOPMENT. IT IS 0.17 ACRES AND GENERATES 0.7 CFS. THIS SUB-BASIN DISCHARGES TO THE ADJACENT PROPERTIES TO THE WEST AT THE SOUTHWEST CORNER OF THE SITE.

THE WATER QUALITY TABLE ON THIS SHEET UNDER "HYDROLOGY CALCULATIONS" SUMMARIZES THE WATER QUALITY VOLUMES REQUIRED FOR DEVELOPED CONDITIONS. THE OWNER HAS ELECTED TO PAY THE FEE-IN-LIEU OF STORM WATER QUALITY PONDING REQUIREMENTS. THE TOTAL VOLUME REQUIRED IS 2,256 CUBIC FEET. THEREFORE, THE PAYMENT AMOUNT IS 2,256 CF X \$8/CF = \$18,048.





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STAMP

