

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

October 19, 2022

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

**RE: The Peaks by Markana Phase II
Grading & Drainage Plans
Engineer's Stamp Date: 09/08/22
Hydrology File: B18D029**

Dear Mr. Shell:

Based upon the information provided in your submittal received 09/29/2022, the Grading & Drainage Plans are approved for Building Permit and Work Order. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Also, please place this stamp approved Grading & Drainage Plan into the Work Order set of construction drawings.

PRIOR TO CERTIFICATE OF OCCUPANCY:

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide the Drainage Covenant with Exhibit A for the underground stormwater quality facility per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit the original copies along with the \$ 25.00 recording fee check made payable to Bernalillo County to Carrie Compton (cacompton@cabq.gov) on the 4th floor of Plaza de Sol. Please note that Hydrology will need a pdf copy of the recorded Drainage Covenant prior to Hydrology's approval of Permanent Release of Occupancy.

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.

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If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: The Peaks by Markana Phase II Building Permit #: _____ Hydrology File #: B18D029
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: Lots 6, 7, and 26-A, Block 25, North Albuquerque Acres, Tract A, Unit B
City Address: 101806535001140103 and a portion of 101806529002040101

Applicant: Legacy Development Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Other Contact: RESPEC Contact: Jeremy Shell
Address: 7770 Jefferson Street NE, Suite 200, Albuquerque NM 87109
Phone#: 505.918.1053 Fax#: _____ E-mail: jeremy.shell@respec.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE ☒ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes ☒ No

DEPARTMENT _____ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

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?

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) _____

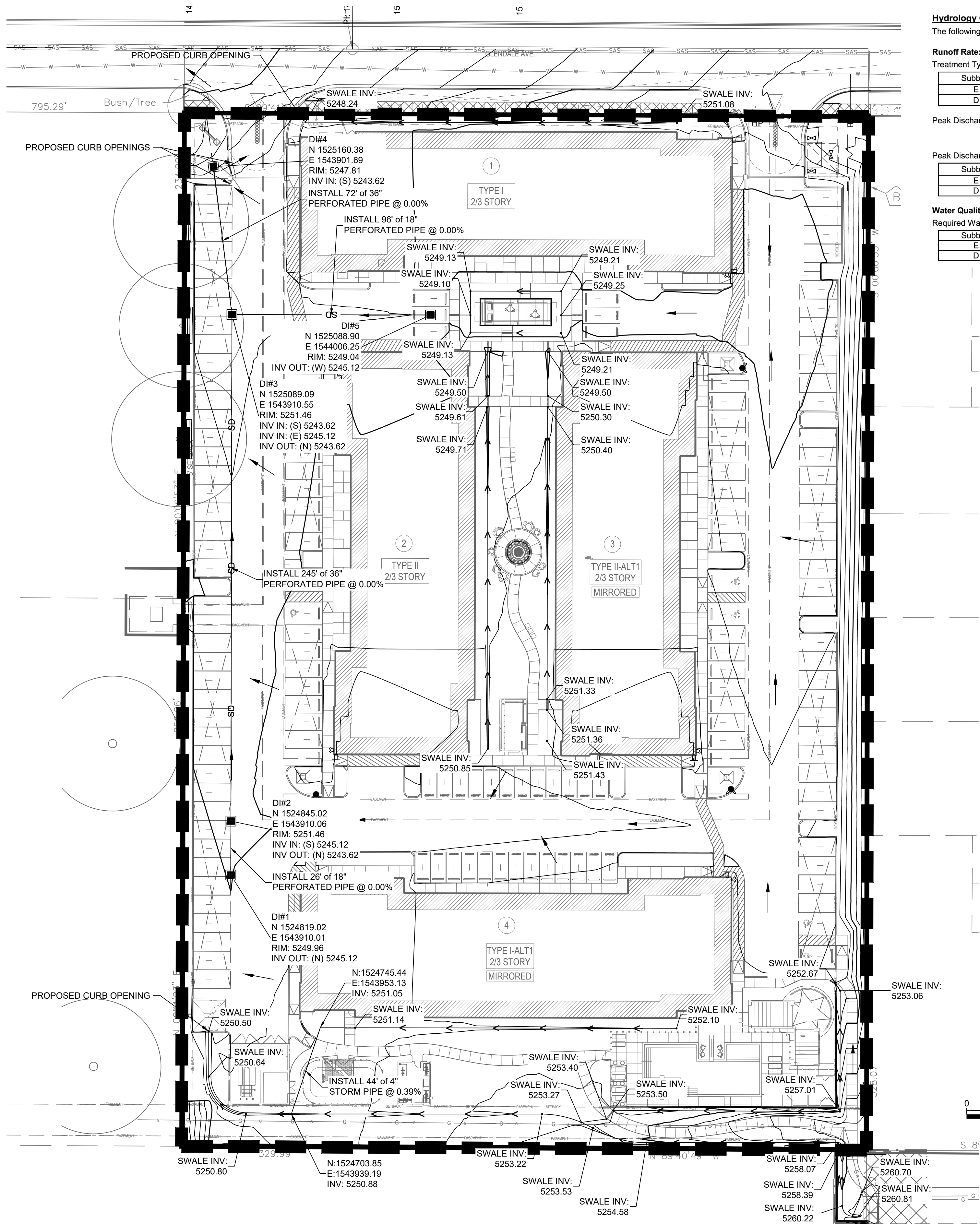
DATE SUBMITTED: 9/29/22 By: Jeremy Shell

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

NAME: N:\Projects\04-266\0006-Legacy Peaks Phase 2\3 DWG\StreetsC-100 DRAINAGE.dwg PLOT DATE: Sep 08, 2022 2:32pm



Hydrology Calculations

The following calculations are based on Albuquerque's Development Process Manual (2020), Article 6-2

Runoff Rate:

Treatment Type Areas

Subbasin	Area _A (ac)	Area _B (ac)	Area _C (ac)	Area _D (ac)	Total (ac)
E1	1.90	1.90	0.00	0.00	3.80
D1	0.00	0.41	0.41	2.98	3.80

Peak Discharge values based on Zone 3 from Table 6.2.14

$$Q_A = 1.84 \text{ cfs/ac} \quad Q_B = 2.49 \text{ cfs/ac} \quad Q_C = 3.17 \text{ cfs/ac} \quad Q_D = 4.49 \text{ cfs/ac}$$

Peak Discharge calculation for a 100-yr, 24-hr storm event from equation 6.6

Subbasin	Discharge (cfs)
E1	8.2
D1	15.7

Water Quality:

Required Water Quality volume for first flush of 0.42"

Subbasin	Req Volume (cu. ft.)	Provided Volume (cu. ft.)	Net Volume (cu. ft.)
E1	-	-	-
D1	4,543	4,545	-

BACKGROUND

LOTS 6, 7, AND 26-A, BLOCK 25, NORTH ALBUQUERQUE ACRES, TRACT A, UNIT B CONTAINS APPROXIMATELY 3.8 ACRES IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THE PROPERTY IS BOUNDED BY GLENDALE AVENUE TO THE NORTH, THE GLENDESTO RESIDENTIAL SUBDIVISION TO THE EAST, THE SANDIA MEMORIAL GARDENS CEMETERY TO THE WEST, AND THE EAGLE ROCK CONVENIENCE CENTER TO THE SOUTH. SEE VICINITY MAP ABOVE. THE PROPOSED DEVELOPMENT IS A 120 UNIT MULTI-FAMILY APARTMENT COMPLEX. THIS WILL BE PHASE II OF THE PEAKS BY MARKANA LOCATED TO THE SOUTHEAST OF THE SUBJECT PROPERTY. THE NORTH ALBUQUERQUE ACRES DRAINAGE MANAGEMENT PLAN RESTRICTS THE DISCHARGE FROM THIS SITE TO 4.06 CFS/AC. THEREFORE, THE ALLOWABLE DISCHARGE FOR THIS DEVELOPMENT IS 15.4 CFS.

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" FOR NEW DEVELOPMENT. ALL HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE FOUND ON THIS SHEET.

EXISTING CONDITIONS

THE LOT IS CURRENTLY UNDEVELOPED. THE EXISTING SITE TERRAIN GENERALLY SHEET DRAINS FROM EAST TO WEST AT VARYING SLOPES BETWEEN 2%-3%. THERE IS NO DESIGNATED 100-YEAR FLOODPLAIN SHOWN ON THE SITE. THE SITE HAS ONE SUB-BASIN DESCRIBED BELOW.

SUB-BASIN E1 CONTAINS 3.8 ACRES. THIS BASIN HAS HISTORICALLY DRAINED TO THE WEST ACROSS THE CEMETERY UNTIL EVENTUALLY REACHING SAN PEDRO DRIVE. 8.2 CFS IS GENERATED BY THIS BASIN.

DEVELOPED CONDITIONS

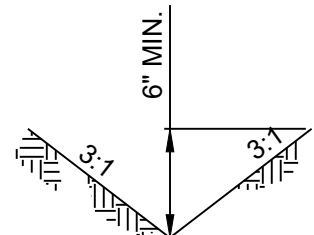
THE DRAINAGE INTENTION OF THE DEVELOPED CONDITIONS IS TO FREELY DISCHARGE DIRECTLY TO GLENDALE AVENUE AND EVENTUALLY TO SAN PEDRO DRIVE. THE SITE HAS ONE SUB-BASINS DESCRIBED BELOW.

SUB-BASIN D1 CONTAINS 3.8 ACRES AND GENERATES 15.7 CFS. THIS IS HIGHER THAN THE ALLOWABLE DISCHARGE RATE FOR THE PROPERTY BUT IS NEGLIGIBLE. RUNOFF GENERALLY DRAINS FROM SOUTHEAST TO NORTHWEST VIA A COMBINATION OF SURFACE FLOWS IN THE PARKING LOT AND A STORM DRAIN SYSTEM. THE SITE DISCHARGES TO GLENDALE AVENUE AT THE NORTHWEST CORNER OF THE PROPERTY AFTER BEING ROUTED THROUGH AN UNDERGROUND STORM DRAIN THAT WILL SERVE AS THE WATER QUALITY RETENTION FOR THE DEVELOPMENT.

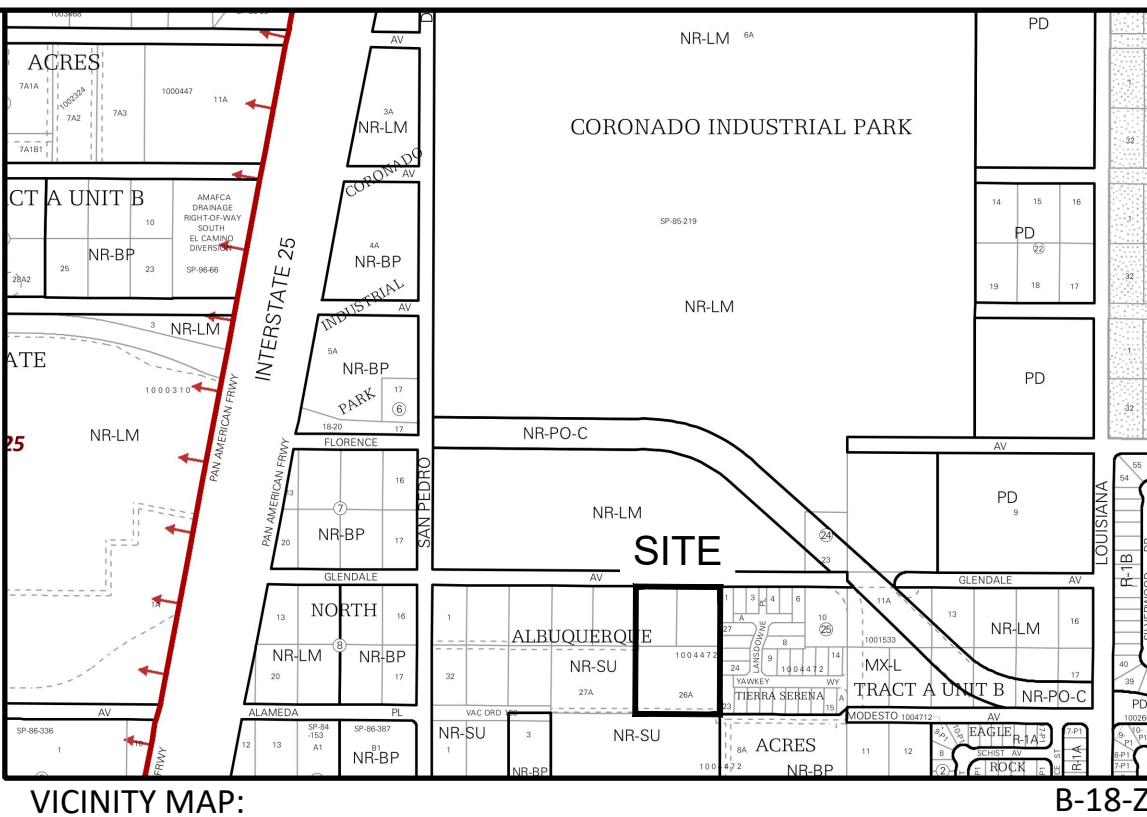
THE WATER QUALITY TABLE ON THIS SHEET UNDER "HYDROLOGY CALCULATIONS" SUMMARIZES THE WATER QUALITY VOLUMES REQUIRED FOR DEVELOPED CONDITIONS. IT IS ANTICIPATED THAT THE TOTAL REQUIRED VOLUME OF 4,543 CUBIC FEET CAN BE RETAINED ONSITE IN THE STORM DRAIN SYSTEM. THE STORM DRAIN WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.

LEGEND:

- BASIN DESIGNATION
- BASIN AREA, ACRES
- 100 YEAR STORM, CFS
- REQUIRED WATER QUALITY VOLUME, CUBIC FEET
- BASIN NAME AND AREA
- BASIN HYDROLOGIC RESULTS
- DEVELOPED SUB-BASIN BOUNDARY
- EXISTING SUB-BASIN BOUNDARY
- FLOW ARROW
- SWALE
- SIDEWALK CULVERT

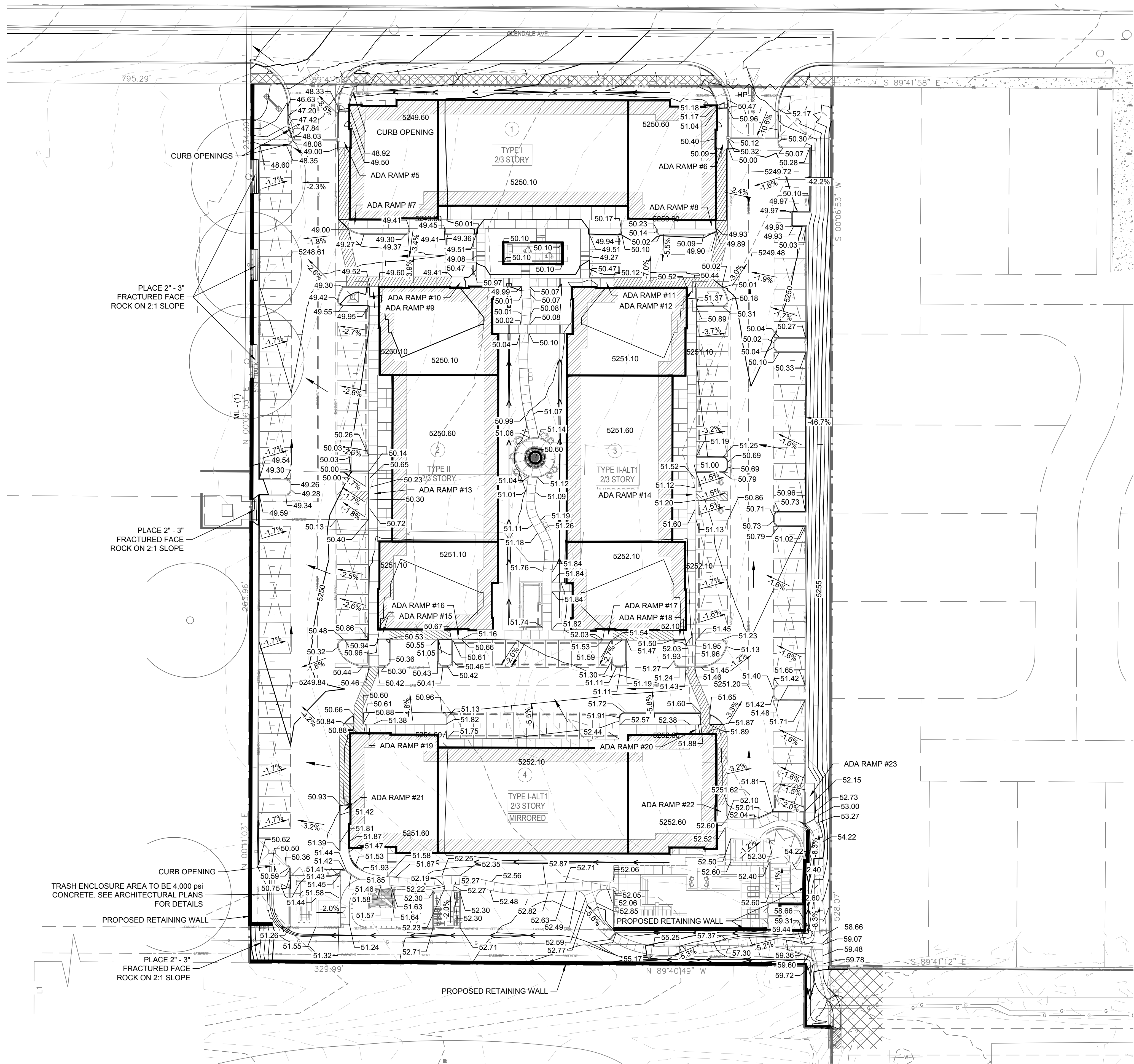


TYPICAL SWALE SECTION



DESIGNED JS	DRAWN JS	CHECKED JS	DATE 9.08.2022
RESPEC COMMUNITY DESIGN SOLUTIONS 7770 JEFFERSON STREET SUITE 200 ALBUQUERQUE, NM 87116 WWW.RESPEC.COM PHONE (505) 253-9718			
STAMP			
JEREMY W. SHELL NEW MEXICO 26341 PROFESSIONAL ENGINEER 9/8/2022			
THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED			
nm811 Know what's below. Call before you dig. PROJ. #: 4266.06			
PROJECT NAME: THE PEAKS BY MARKANA PHASE II			
SHEET TITLE: DRAINAGE			
SUBMITTED FOR: BUILDING PERMIT			
SHEET NUMBER: C-100			

NAME: N:\Projects\04-2665-0006-Legacy Peaks Phase 2\3.DWG\StreetsC-101 GRADING.dwg PLOT DATE: Sep 28, 2022 9:21am



LEGEND:

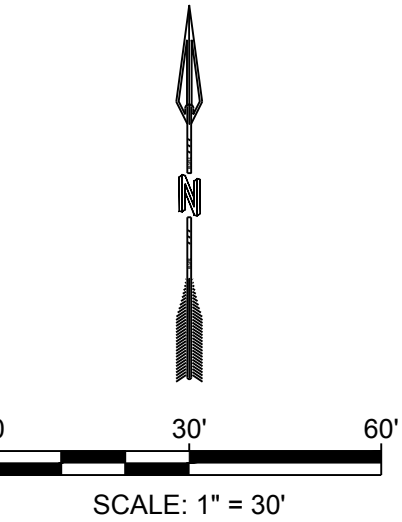
- PROPERTY BOUNDARY
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED HIGH POINT
- PROPOSED RETAINING WALL
- PROPOSED STORM DRAIN
- PROPOSED DROP INLET
- FLOW ARROW
- SWALE

GRADING NOTES

- CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING DRY AND WET UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES. UTILITY RELOCATION MAY BE REQUIRED.
- FINISH GRADE OF SOIL EDGES ALONG PAVEMENT TO BE 1/2" BELOW EDGE OF PAVEMENT.
- STRIP AND STOCKPILE TOPSOIL FROM GRADING AREAS. USE STOCKPILED TOPSOIL AND IMPORTED TOPSOIL AS NECESSARY FOR SURFACE RESTORATION.
- GRADES SHOWN ARE FINAL SURFACE GRADES AFTER COMPLETION OF SURFACE IMPROVEMENTS AND PLACEMENT OF TOPSOIL.
- GRADE AREAS AT SITE PERIMETER TO MATCH GRADES OF ADJACENT PARCELS.
- REMOVE EXCESS SOIL FROM SITE AND DISPOSE OF PROPERLY IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERMS, SWALES, SUMPS AND BASINS TO MANAGE INTERIM STORM WATER RUNOFF DURING CONSTRUCTION PROCESS. STORM WATER RUNOFF LEAVING THE SITE SHALL MEET ALL FEDERAL, STATE AND LOCAL QUALITY REQUIREMENTS.
- ALL DISTURBED AREA TO BE RE-SEEDED OR LANDSCAPED PER LANDSCAPE PLAN BY OTHERS.
- ALL INFRASTRUCTURE CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE BUILT WITH PUBLIC WORK ORDER PLANS.
- FINAL GRADES FOR ADJACENT ROADWAYS TO BE ESTABLISHED WITH WORK ORDER PLANS.
- GRADING SHALL NOT ENCROACH ONTO ADJACENT PROPERTIES.

SPOT ELEVATION SYMBOLS

- ALL SPOT ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED IN THE PLANS.
 - 20.00 FLOWLINE
 - 20.00± MATCH EX. GRADE ELEV. (APPROXIMATE)
 - BW 20.00 BOTTOM WALL
 - TW 20.00 TOP WALL
 - SW 20.00 SIDEWALK
 - FG 20.00 FINISHED GROUND
 - BS 20.00 BOTTOM STEP
 - TS 20.00 TOP STEP



DESIGNED JS	DRAWN JS	CHECKED JS	DATE 9/28/2022	REVISION
RESPEC COMMUNITY DESIGN SOLUTIONS 7770 JEFFERSON STREET SUITE 200 ALBUQUERQUE, NM 87126 WWW.RESPEC.COM PHONE (505) 253-9718				
STAMP				
JEREMY W. SHELL NEW MEXICO 26341 PROFESSIONAL ENGINEER 9/8/2022				
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nm811 Know what's below. Call before you dig. PROJ. #: 4266.06				
PROJECT NAME: THE PEAKS BY MARKANA PHASE II				
SHEET TITLE: GRADING				
SUBMITTED FOR: BUILDING PERMIT				
SHEET NUMBER: C-101				