

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

October 25, 2017

Robert Fierro, P.E.
Fierro & Company
5508 Costa Uerde Rd. NW
Albuquerque, NM, 87120

**RE: Plaza Hacienda at Old Town Phase II
Grading and Drainage Plan
Stamp Date: 10/24/17
Hydrology File: J13D037**

Dear Mr. Fierro:

PO Box 1293

Based upon the information provided in your submittal received 10/24/2017, the Grading Plan is approved for Building Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

NM 87103

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

www.cabq.gov

Sincerely,

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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Plaza Hacienda at Old Town Phase II **Building Permit #:** _____ **City Drainage #:** _____
DRB#: _____ **EPC#:** _____ **Work Order#:** _____
Legal Description: Block B Casa De Armijo & Plaza Hacienda
City Address: 1919 Old Town Rd NW, Albuquerque, NM 87104

Engineering Firm: Fierro & Company, LLC **Contact:** Robert Fierro
Address: 5508 Costa Uerde Rd. NW, Albuquerque, NM 87120
Phone#: (505) 352-8930 **Fax#:** _____ **E-mail:** robertfierro@fierrocompany.com

Owner: Old Town Plaza, LLC **Contact:** Drew Jones
Address: 1919 Old Town Rd NW Suite 1, Albuquerque, NM 87120
Phone#: 760-207-8734 **Fax#:** _____ **E-mail:** djoneslaw@jtbadvisors.com

Architect: RBA -Architecture Planning Design **Contact:** Doug Gallagher
Address: 1104 Park Ave. SE, Albuquerque, NM 87102
Phone#: (505) 242-1859 **Fax#:** _____ **E-mail:** doug@rba81.com

Other Contact: _____ **Contact:** _____
Address: _____
Phone#: _____ **Fax#:** _____ **E-mail:** _____

Check all that Apply:

DEPARTMENT:

- HYDROLOGY/ DRAINAGE
- TRAFFIC/ TRANSPORTATION
- MS4/ EROSION & SEDIMENT CONTROL

CHECK 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
- PRE-DESIGN MEETING
- OTHER (SPECIFY) _____

TYPE OF SUBMITTAL:

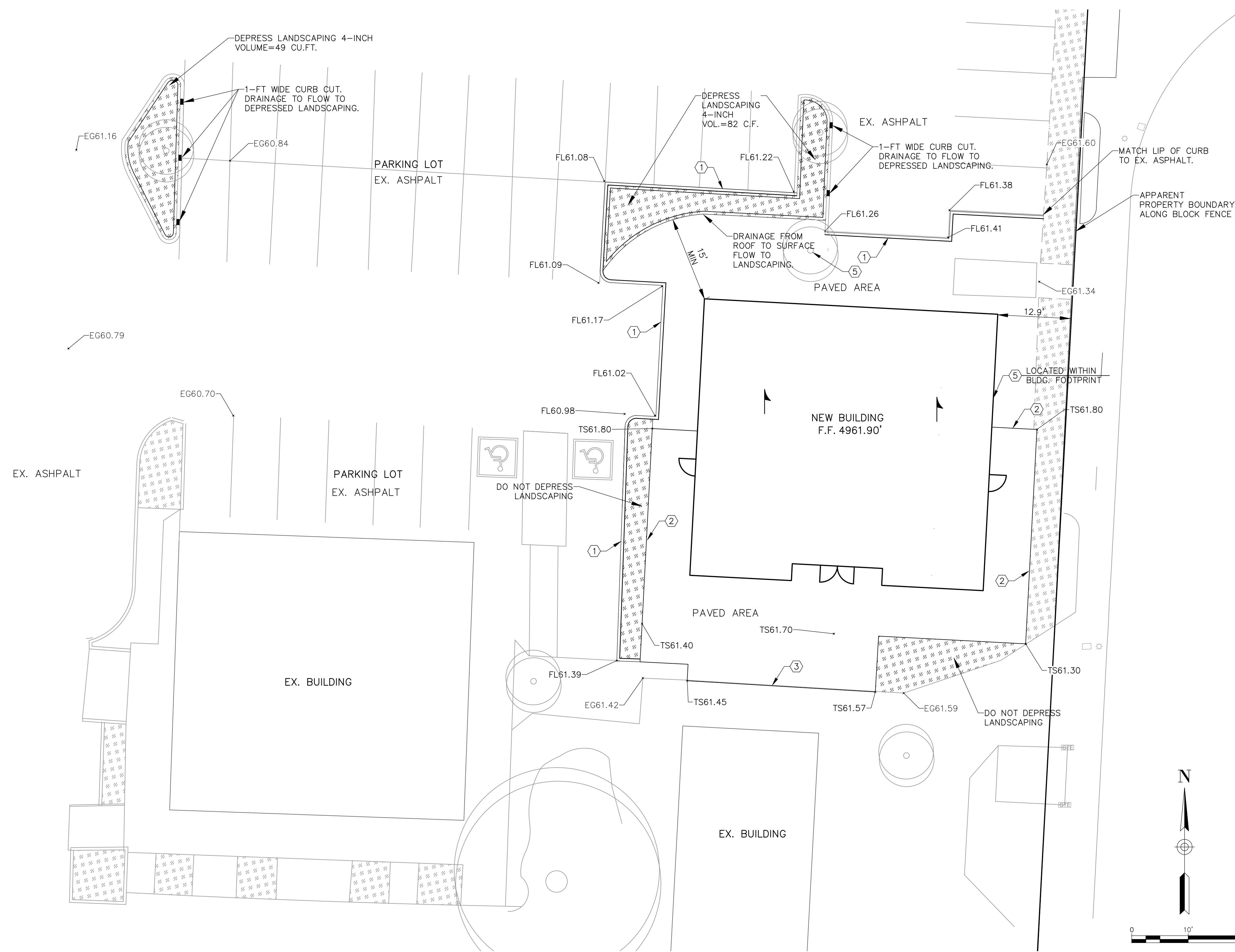
- ENGINEER/ ARCHITECT CERTIFICATION
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- DRAINAGE MASTER PLAN
- DRAINAGE REPORT
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- TRAFFIC IMPACT STUDY (TIS)
- EROSION & SEDIMENT CONTROL PLAN (ESC)
- OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: Yes No

DATE SUBMITTED: October 24, 2017 By: Fierro & Company, LLC

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

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GENERAL GRADING NOTES:

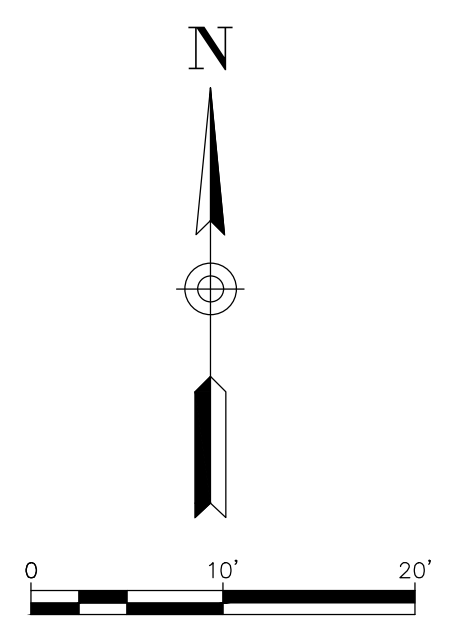
1. THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.
2. PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF ALBUQUERQUE, NEW MEXICO.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.
5. DO NOT DEPRESS LANDSCAPING WITHIN 15- FEET FROM BUILDING FOUNDATION.

KEYED NOTES:

- 1 CONSTRUCT 6" RAISED CURB & GUTTER.
- 2 CONSTRUCT TURNDOWN SIDEWALK W/ 6" FROM TOP OF SIDEWALK TO FG.
- 3 CONSTRUCT TURNDOWN SIDEWALK AT ACCESSIBLE ZONES.
- 4 CONSTRUCT ASPHALT PAVEMENT.
- 5 REMOVE EX. TREE AND RE-PLANT NEW TREE WITHIN NEW DEPRESSED LANDSCAPING.

LEGEND

- PROPERTY BOUNDARY
- FLOW PATH
- PROPOSED RETAINING WALL
- FLOWLINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- FG26.29 FINISHED GRADE
- FL FLOW LINE
- TA TOP OF ASPHALT
- TBC TOP BACK OF CURB
- TC TOP OF CURB
- TOC TOP OF CONCRETE
- TS TOP OF SIDEWALK
- TW TOP OF WALL
- BW BOTTOM OF WALL
- ROOF FLOW DIRECTION
- EXISTING TREE



BENCH MARK
 CITY OF ALBUQUERQUE GEODETIC CONTROL "12-J13"
 NAVD 1988 ELEVATION 4957.50'
 LOCATED AT THE NW CORNER OF 14TH STREET AND LOMAS

Fierro & Company
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 www.fierrocompany.com

ENGINEER'S SEAL

**PLAZA HACIENDA ADDITION AT OLD TOWN
 PHASE II NEW SITE
 ALBUQUERQUE, NEW MEXICO**

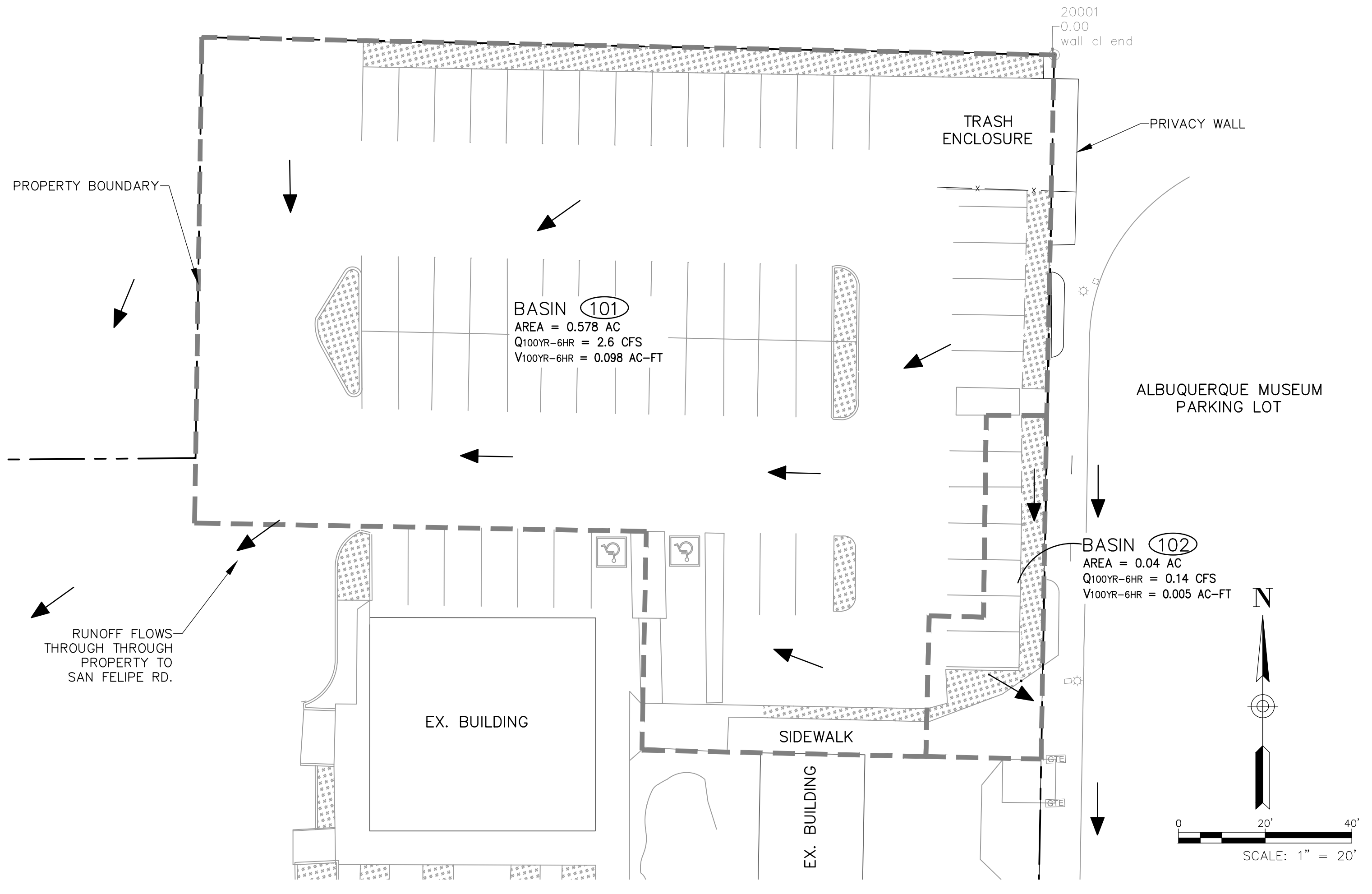
PROJECT NAME	PROJECT NO.	DATE	BY
PLAZA HACIENDA ADDITION AT OLD TOWN PHASE II NEW SITE	17-069		

REV.	DATE	DESCRIPTION

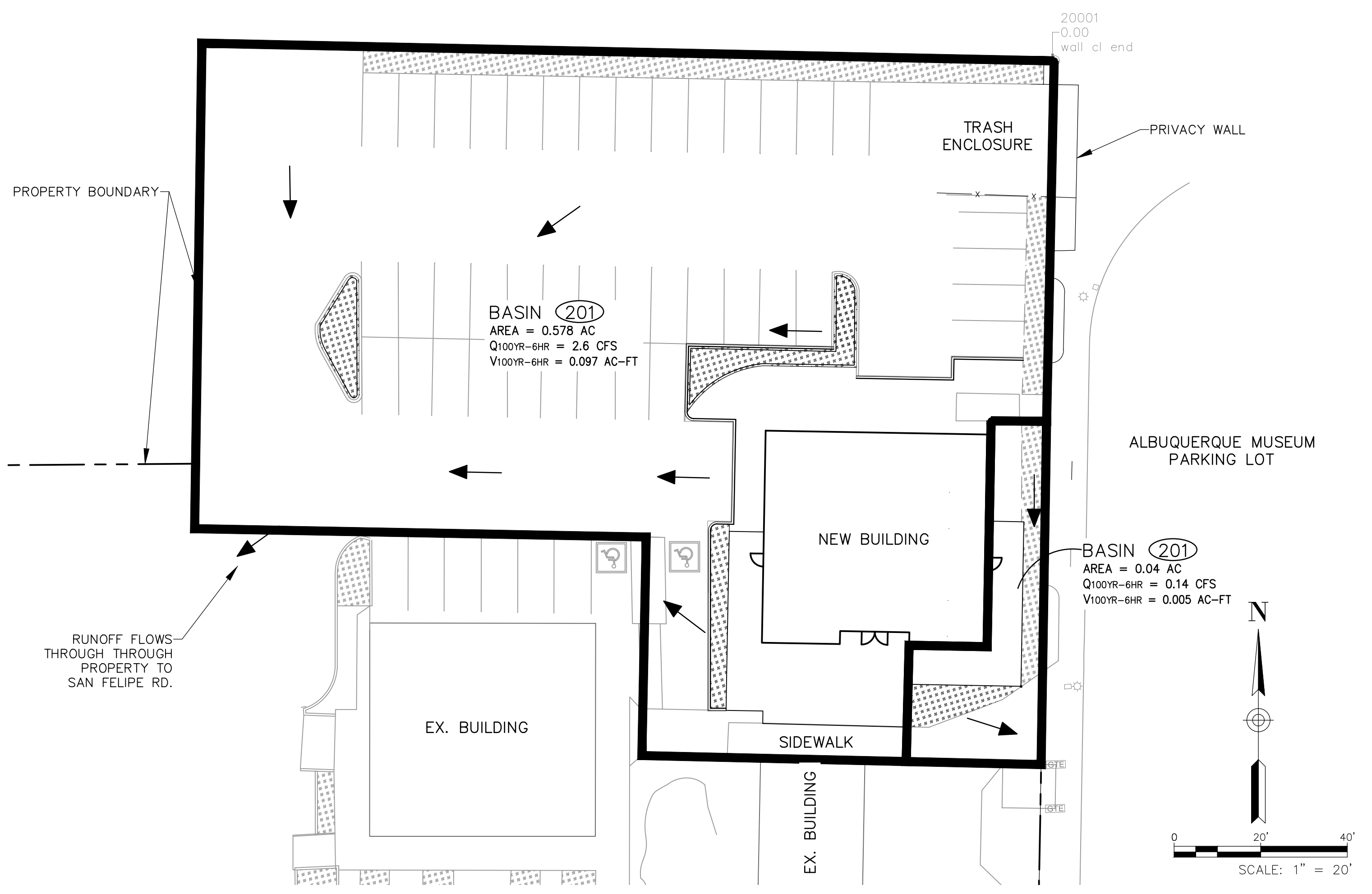
DESIGNED BY: R/JF
 DRAWN BY: R/JF
 CHECKED BY: R/JF
 DATE: OCT 2017

SHEET TITLE
PHASE II GRADING PLAN

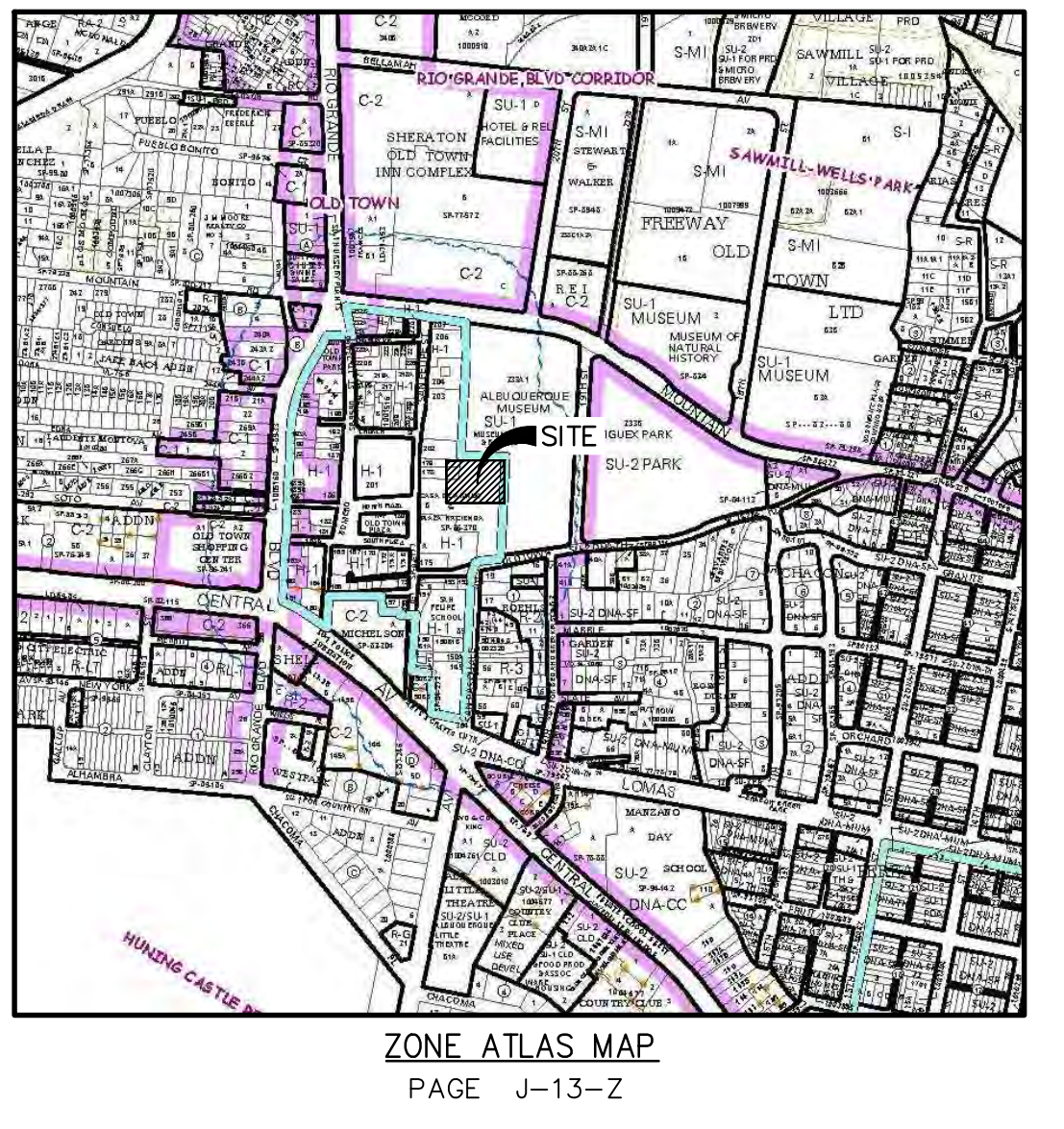
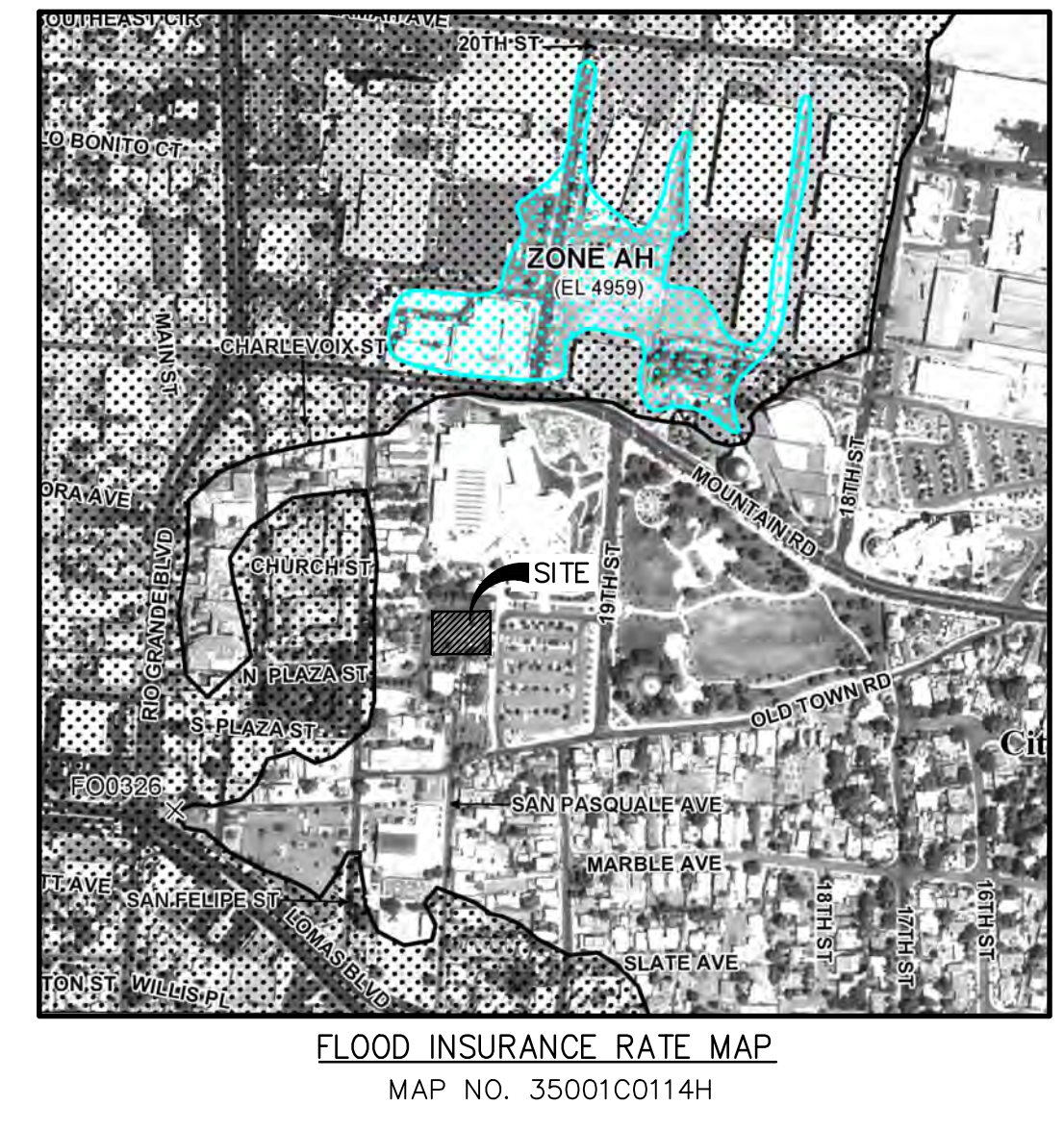
SHEET NO.
C-1



1 EXISTING BASIN MAP



2 PROPOSED BASIN MAP



Introduction
Phase II is being proposed, which includes a 2,500 sq.ft. retail building. The site is located in the Casa De Armijo & Plaza Hacienda Subdivision, which is within the historic Old Town. Phase I was completed earlier this year. The project site for Phase II is not in a Flood Plain. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the allowable and proposed condition, 2) satisfy the first flush requirement, and 3) seek building approval.

Methodology
Hydrologic procedures presented in the Hydrology Section of the DMP, Section 22.2, revised April 7, 1993 were followed.

Existing Condition
Phase II is within said Lot B which is approximately 2.2 acres; however, Phase II drainage analysis only covers a portion of said Lot B with approximately 0.60 acres. Phase II site does not receive offsite runoff. Refer to this sheet for the surface flows of the surrounding lots. Runoff from Sub-basin 101 is conveyed through said Lot B and discharges to San Felipe Rd. Runoff from Sub-basin 102 discharges to the Albuquerque's Museum's parking lot, which then drains to Old Town Rd. Hydrologic analysis for the existing condition is included on this Sheet.

Proposed Condition
Phase II proposes a 2,500 sq.ft. retail building. The proposed drainage pattern will not alter from the existing. Phase two does not adversely impact drainage to the site nor offsite basins. Depressed landscaping of 3.5-inches to 4-inches is proposed to treat the first flush. Refer to Sheet C-1 and this sheet for location of the depressed landscaping. Refer to this sheet for the first flush calculations. Hydrologic analysis for the proposed condition is included on this Sheet.

Conclusion
The City's requirements have been satisfied under this grading & drainage plan. The contractor shall use this plan (Sheet C-1 and Sheet C-2), and will need a drainage certification in order to obtain a Close-out. This drainage report seeks approval for building permit.

Basin 101	
Area of Treatment A	= 0.000 ft ²
Area of Treatment B	= 1453.00 ft ²
Area of Treatment C	= 0.033 ac
Area of Treatment D	= 0.000 ac
Area of Treatment E	= 23710.00 ft ²
Area of Treatment F	= 0.544 ac
Total Area	= 25163.00 ft ²
	= 0.578 ac
Volumetric Flow	
Weighted E	= 2.043 inches
Volume (6hr)	= 0.098 acre-ft
Volume (24hr)	= 0.116 acre-ft
Volume (4days)	= 0.141 acre-ft
Volume (10days)	= 0.171 acre-ft
Peak Rate of Discharge	
Q ₁₀₀	= 2.634 cfs

Basin 102	
Area of Treatment A	= 0.000 ft ²
Area of Treatment B	= 460.00 ft ²
Area of Treatment C	= 0.011 ac
Area of Treatment D	= 0.000 ac
Area of Treatment E	= 1050.00 ft ²
Area of Treatment F	= 0.024 ac
Total Area	= 1510.00 ft ²
	= 0.035 ac
Volumetric Flow	
Weighted E	= 1.712 inches
Volume (6hr)	= 0.005 acre-ft
Volume (24hr)	= 0.006 acre-ft
Volume (4days)	= 0.007 acre-ft
Volume (10days)	= 0.008 acre-ft
Peak Rate of Discharge	
Q ₁₀₀	= 0.137 cfs

Basin 201	
Area of Treatment A	= 0.000 ft ²
Area of Treatment B	= 1824.00 ft ²
Area of Treatment C	= 0.042 ac
Area of Treatment D	= 0.000 ac
Area of Treatment E	= 23339.00 ft ²
Area of Treatment F	= 0.536 ac
Total Area	= 25163.00 ft ²
	= 0.578 ac
Volumetric Flow	
Weighted E	= 2.023 inches
Volume (6hr)	= 0.097 acre-ft
Volume (24hr)	= 0.115 acre-ft
Volume (4days)	= 0.140 acre-ft
Volume (10days)	= 0.169 acre-ft
Peak Rate of Discharge	
Q ₁₀₀	= 2.614 cfs

Basin 202	
Area of Treatment A	= 0.000 ft ²
Area of Treatment B	= 474.00 ft ²
Area of Treatment C	= 0.011 ac
Area of Treatment D	= 0.000 ac
Area of Treatment E	= 1035.00 ft ²
Area of Treatment F	= 0.024 ac
Total Area	= 1509.00 ft ²
	= 0.035 ac
Volumetric Flow	
Weighted E	= 1.699 inches
Volume (6hr)	= 0.005 acre-ft
Volume (24hr)	= 0.006 acre-ft
Volume (4days)	= 0.007 acre-ft
Volume (10days)	= 0.008 acre-ft
Peak Rate of Discharge	
Q ₁₀₀	= 0.136 cfs

FIRST FLUSH STORAGE:

DEPRESSED LANDSCAPING
NEW LAND TREATMENT "D" ROUTED THROUGH DEPRESS LANDSCAPING:
TOTAL AREA = 4,300 SQ.FT.
WATER QUALITY STORAGE NEEDED=4,300 SQ.FT.*(0.34)*(1'/12")=121.8 CU.FT.
WATER QUALITY STORAGE DESIGNED = 49 CU.FT. + 82 CU.FT.= 131 CU.FT.
WQ_{DESIGNED} (131 CU.FT.) > WQ_{NEEDED} (121.8 CU.FT.)

LEGEND

- SWALE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURFACE FLOW DIRECTION
- EXISTING BASIN MAP
- PROPOSED BASIN MAP
- DEPRESSED LANDSCAPING 3"-4"
- 101 EXISTING BASIN
- 201 PROPOSED BASIN

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ROBERT J. FIERRO
NEW MEXICO
20585
10-14-17
PROFESSIONAL ENGINEER

PLAZA HACIENDA ADDITION AT OLD TOWN
PHASE II NEW SITE
ALBUQUERQUE, NEW MEXICO

PROJECT NAME: _____ PROJECT NO: 10/5/2017

DESIGNED BY: R/JF

DRAWN BY: R/JF

CHECKED BY: R/JF

DATE: OCT 2017

SHEET TITLE: DRAINAGE PLAN

SHEET NO: C-2

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