

# CITY OF ALBUQUERQUE

Planning Department  
David Campbell, Director



Mayor Timothy M. Keller

June 25, 2018

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

**RE: Yale Retail & Apartments  
416 Yale Blvd SE  
Grading and Drainage Plan  
Engineer's Stamp Date: 06/18/18  
Hydrology File: K16D011**

Dear Mr. Fierro:

PO Box 1293

Based upon the information provided in your submittal received 06/18/18, the Grading and Drainage Plan **is not** approved for Building Permit and SO-19 Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

NM 87103

www.cabq.gov

1. Sheet C-1. Please add a note to the existing sidewalk culvert, "Existing sidewalk culvert to be free of debris prior to Permanent Release of Occupancy by Hydrology.
2. Sheet C-1. At the southwest corner of the site there are too many contours with elevation 5161. It appears this area will drain from East to West towards Yale with elevations from 61.68 on the East side to 61.30 on the West. Please fix.
3. Sheet C-1. Please add the attached SO-19 notes.
4. Sheet C-1. The first flush volume cannot be provided within the drive aisle. The first flush must be in either a depressed landscaping area or an underground facility. If the site cannot support either, a Fee in Lieu must be paid for the required first flush volume of **424** cubic feet. The Fee in Lieu payment (Amount = 424 CF x \$8/CF = **\$3,392.00**) for the required first flush volume. If Fee in Lieu will be used, Then a note about this needs to be added to Sheet C-2.
5. Sheet C-2. Please add the weir calculations for both the proposed sidewalk culvert and the proposed curb cuts.

# CITY OF ALBUQUERQUE

*Planning Department*  
David Campbell, Director



*Mayor Timothy M. Keller*

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto: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](http://www.cabq.gov)



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

**Project Title:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **City Drainage #:** \_\_\_\_\_  
**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** \_\_\_\_\_  
**City Address:** \_\_\_\_\_

**Engineering Firm:** \_\_\_\_\_ **Contact:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Owner:** \_\_\_\_\_ **Contact:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Architect:** \_\_\_\_\_ **Contact:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**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

**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) \_\_\_\_\_

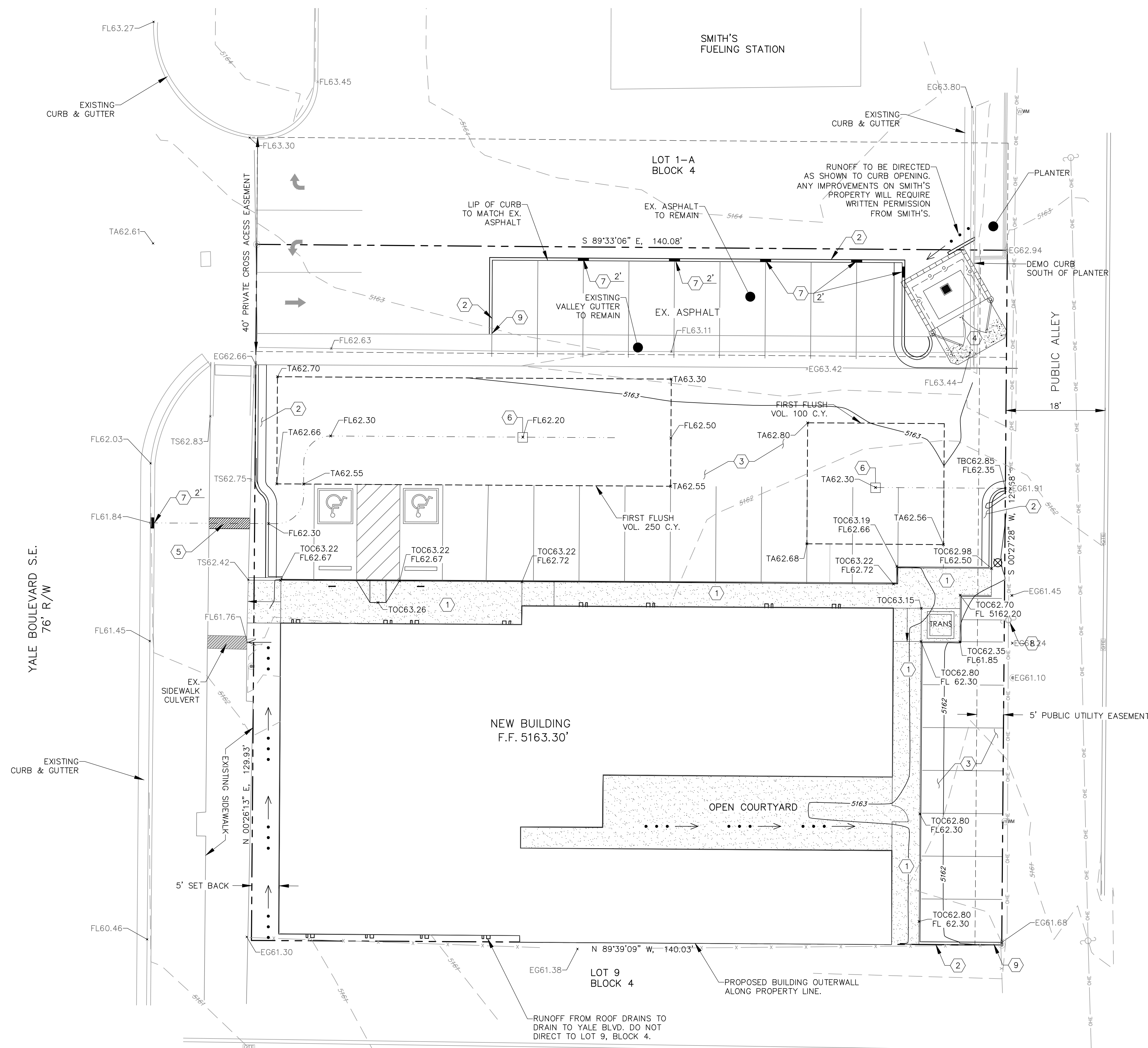
- PRE-DESIGN MEETING
- OTHER (SPECIFY) \_\_\_\_\_

IS THIS A RESUBMITTAL?:  Yes  No

DATE SUBMITTED: \_\_\_\_\_ By: \_\_\_\_\_

COA STAFF: \_\_\_\_\_ ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

\\Seagate-4004ED\Public\PROJECTS\2018\18026\CADD\SHEETS\18026-GD.dwg 6/18/2018 11:41:20 AM



**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.

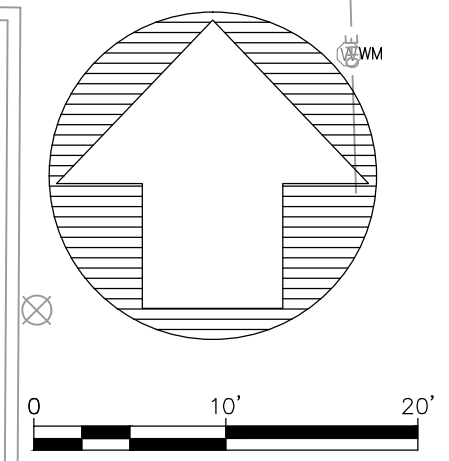
**KEYED NOTES:**

- 1 CONSTRUCT TURNDOWN SIDEWALK PER DETAIL E7/C-3.
- 2 CONSTRUCT CURB & GUTTER PER DETAIL E1/C-3.
- 3 CONSTRUCT ASPHALT PAVEMENT PER DETAIL C1/C-3.
- 4 CONSTRUCT CONCRETE PER DETAIL G7/C-3.
- 5 CONSTRUCT 2-FT WIDE SIDEWALK CULVERT WITH STEEL PLAT TOP PER COA STD. DWG. 2236.
- 6 OPTIONAL: CONSTRUCT FRENCH DRAIN DESIGNED BY OTHERS.
- 7 CONSTRUCT CURB BLOCK OUT FOR SURFACE DRAINAGE.
- 8 EX. POWER POLE.
- 9 TRANSITION CURB HEIGHT FROM 6" TO 0" IN 2.0'.

**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
- NEW SIDEWALK
- FIRST FLUSH PONDING LIMITS

**BENCH MARK**  
 CITY OF ALBUQUERQUE GEODETIC CONTROL "20-L16"  
 NAVD 1988 ELEVATION 5210.836'  
 LOCATED AT THE SW CORNER OF GIRARD BLVD. SE AND BURTON AVENUE SE



**Fierro & Company**  
 ENGINEERING | SURVEYING  
 6300 MONTANO RD. NW, SUITE C  
 ALBUQUERQUE, NEW MEXICO 87120  
 PH (505) 352-8930  
 www.fierrocompany.com



**YALE RETAIL & APARTMENTS**  
 416 YALE BOULEVARD SE,  
 ALBUQUERQUE, NEW MEXICO

PROJECT NAME	PROJECT NO.	DATE	REV.	DESCRIPTION	BY
YALE RETAIL & APARTMENTS 416 YALE BOULEVARD SE, ALBUQUERQUE, NEW MEXICO	18026				

PROJECT NO: 18026  
 DESIGNED BY: RJF  
 DRAWN BY: RS  
 CHECKED BY: RJF  
 DATE: JUNE 2018

SHEET TITLE  
**GRADING PLAN**  
 SHEET NO:  
**C-1**





**YALE RETAIL & APARTMENTS**  
416 YALE BOULEVARD SE,  
ALBUQUERQUE, NEW MEXICO

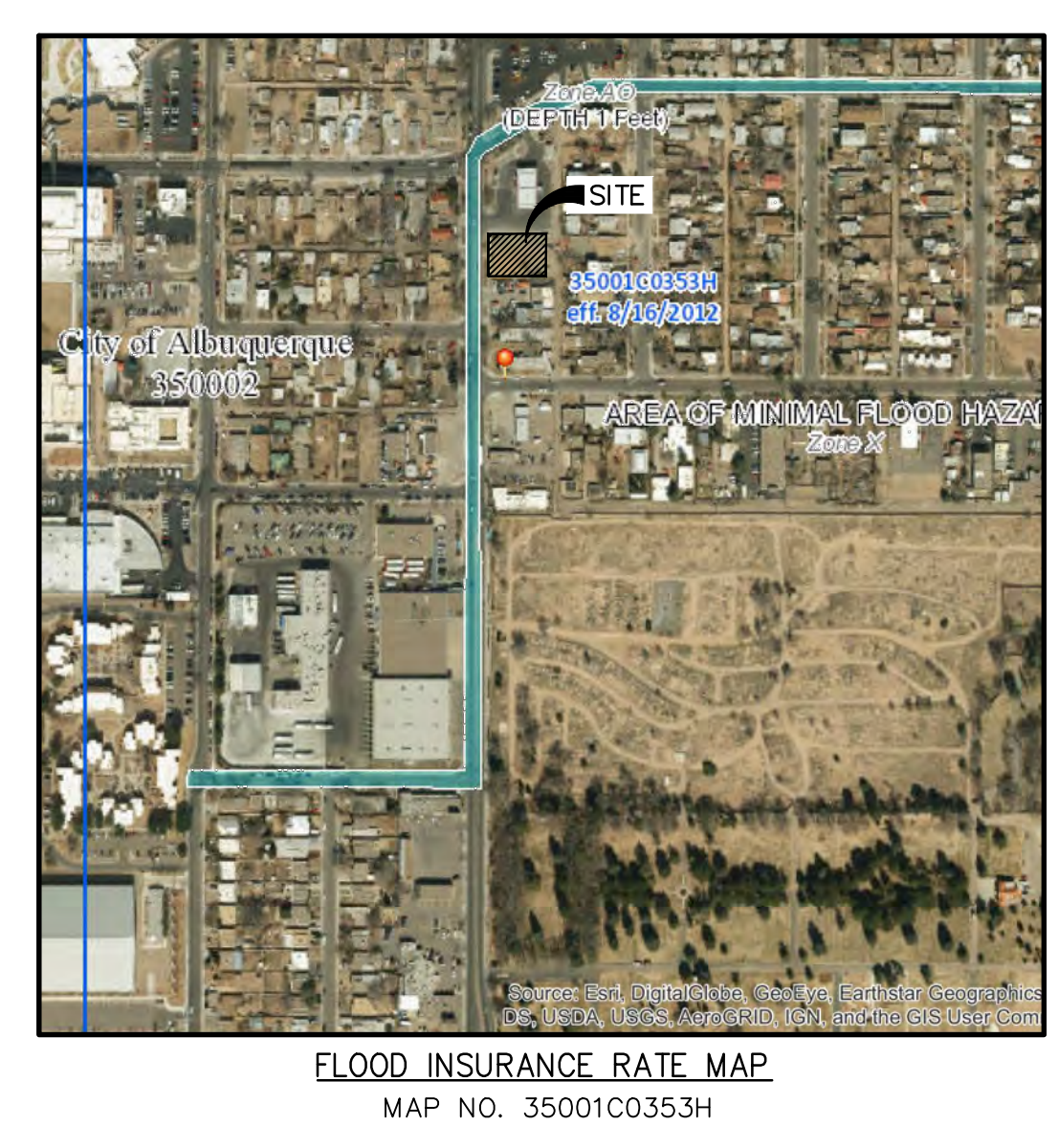
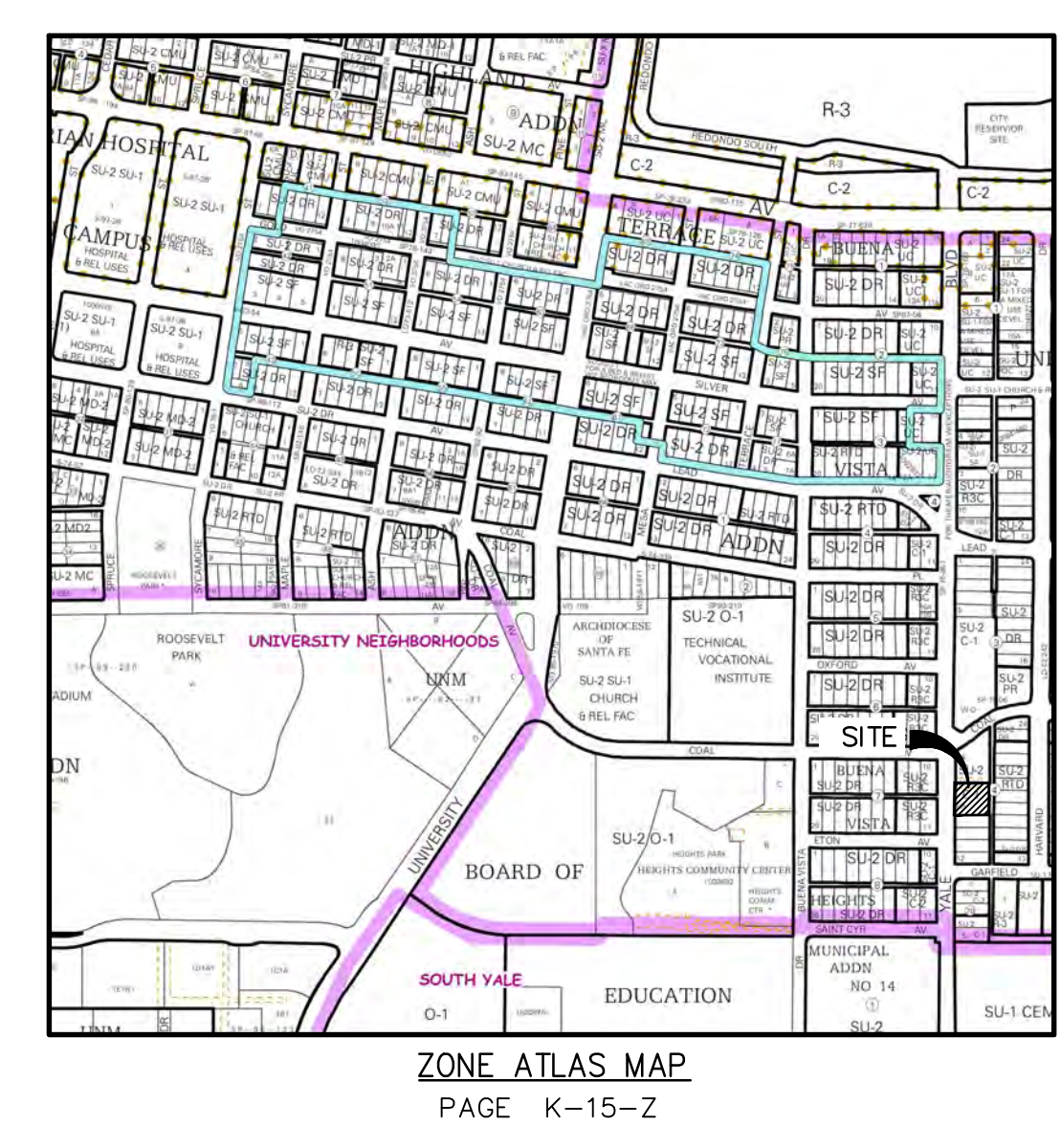
PROJECT NAME

NO.	DATE	DESCRIPTION	BY

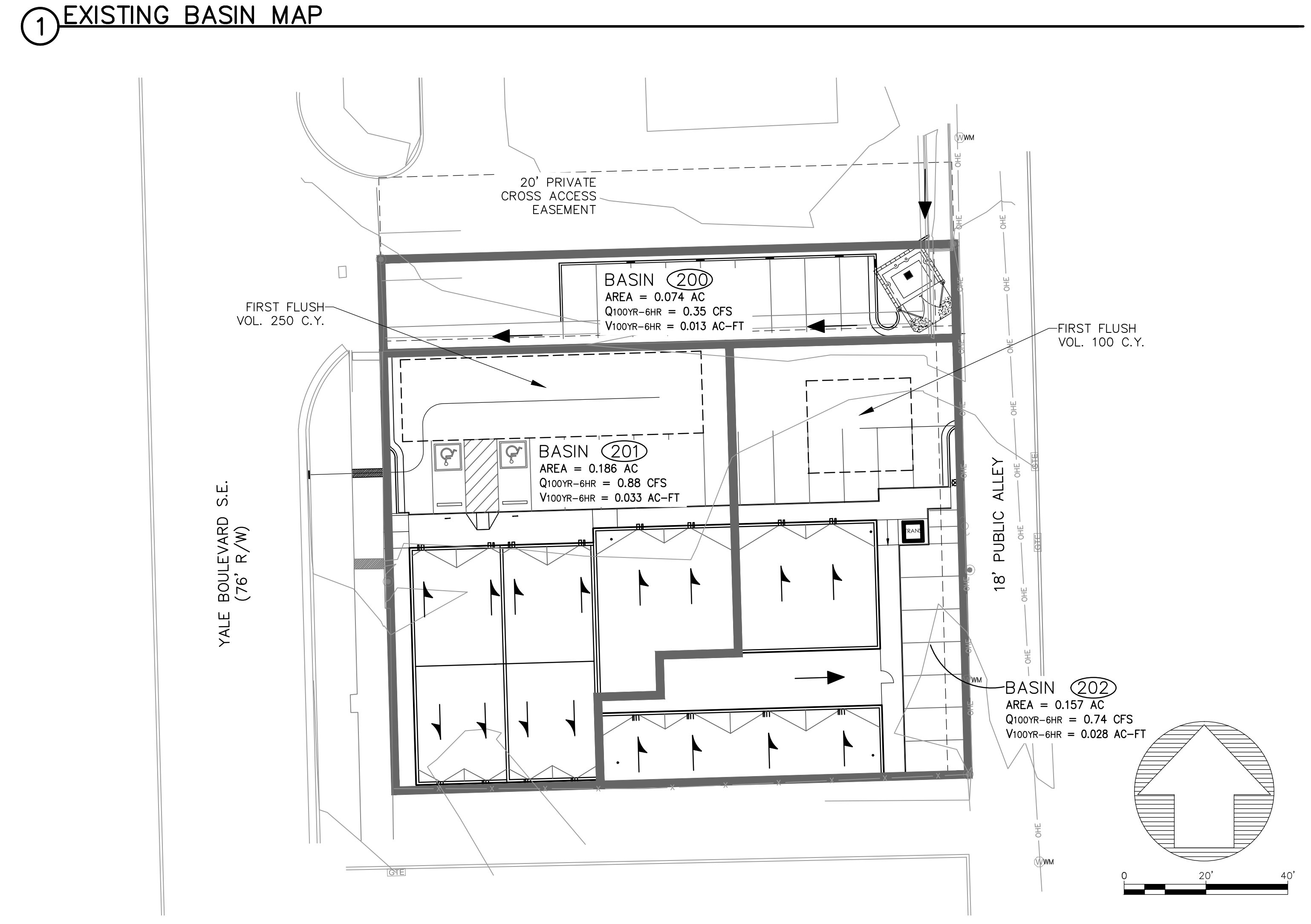
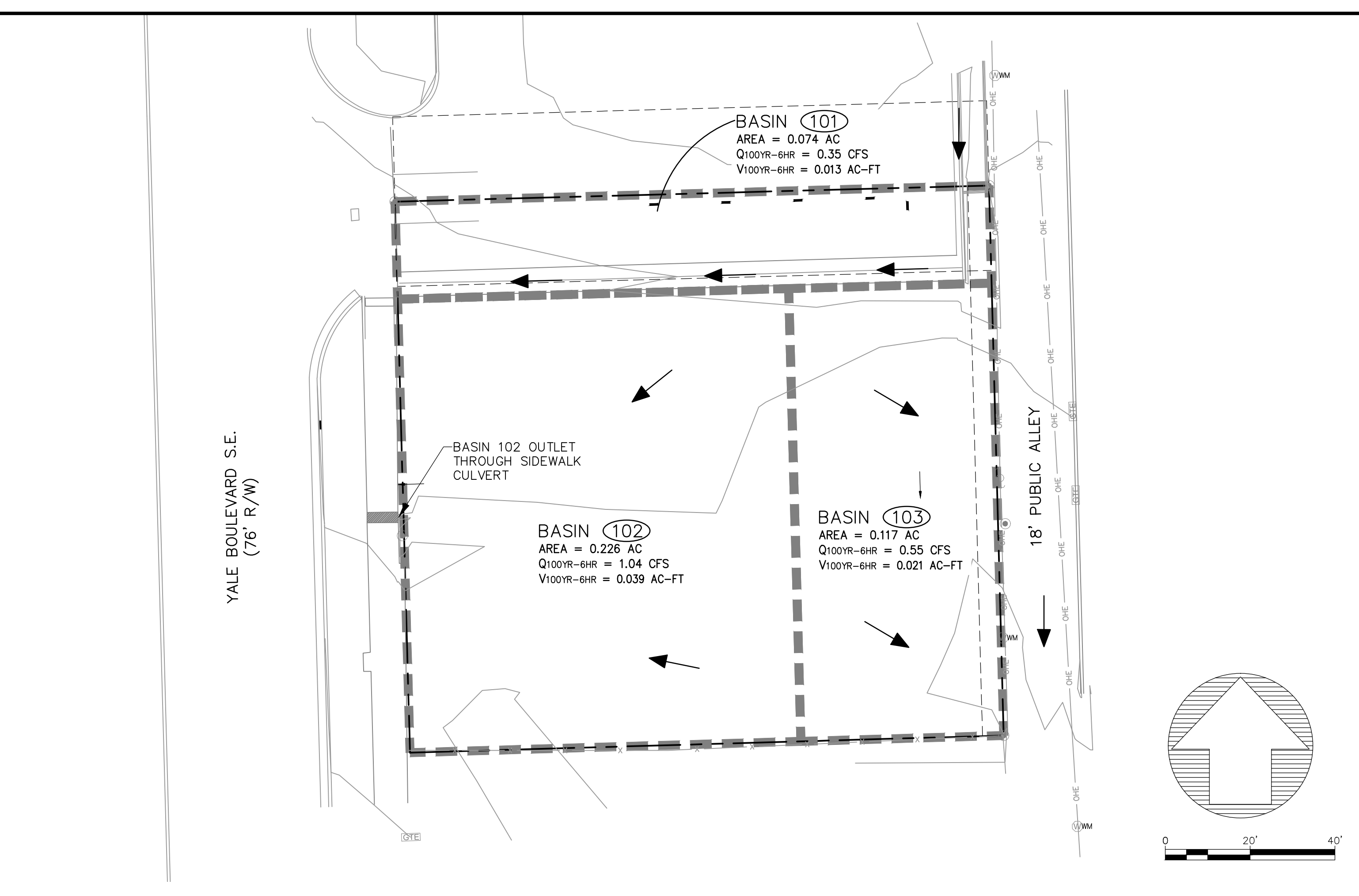
PROJECT NO: 18026  
DESIGNED BY: RJF  
DRAWN BY: RS  
CHECKED BY: RJF  
DATE: JUNE 2018

**DRAINAGE PLAN**

SHEET NO: **C-2**



Basin 101	Basin 102	Basin 103	Basin 201	Basin 202
Area of Treatment A = 0.000 ft <sup>2</sup> 0 ac	Area of Treatment A = 0.000 ft <sup>2</sup> 0 ac	Area of Treatment A = 0.000 ft <sup>2</sup> 0 ac	Area of Treatment A = 0.000 ft <sup>2</sup> 0 ac	Area of Treatment A = 0.000 ft <sup>2</sup> 0 ac
Area of Treatment B = 0.000 ft <sup>2</sup> 0.000 ac	Area of Treatment B = 331.000 ft <sup>2</sup> 0.008 ac	Area of Treatment B = 0.000 ft <sup>2</sup> 0.000 ac	Area of Treatment B = 0.000 ft <sup>2</sup> 0.000 ac	Area of Treatment B = 0.000 ft <sup>2</sup> 0.000 ac
Area of Treatment C = 0.000 ft <sup>2</sup> 0.000 ac	Area of Treatment C = 192.000 ft <sup>2</sup> 0.004 ac	Area of Treatment C = 0.000 ft <sup>2</sup> 0.000 ac	Area of Treatment C = 0.000 ft <sup>2</sup> 0.000 ac	Area of Treatment C = 0.000 ft <sup>2</sup> 0.000 ac
Area of Treatment D = 3222.000 ft <sup>2</sup> 0.074 ac	Area of Treatment D = 9329.000 ft <sup>2</sup> 0.214 ac	Area of Treatment D = 5106.000 ft <sup>2</sup> 0.117 ac	Area of Treatment D = 8110.000 ft <sup>2</sup> 0.186 ac	Area of Treatment D = 6848.000 ft <sup>2</sup> 0.157 ac
<b>Total Area = 3222.000 ft<sup>2</sup> 0.074 ac</b>	<b>Total Area = 9852.000 ft<sup>2</sup> 0.226 ac</b>	<b>Total Area = 5106.000 ft<sup>2</sup> 0.117 ac</b>	<b>Total Area = 8110.000 ft<sup>2</sup> 0.186 ac</b>	<b>Total Area = 6848.000 ft<sup>2</sup> 0.157 ac</b>
<b>Volumetric Flow</b>				
Weighted E = 2.120 inches	Weighted E = 2.056 inches	Weighted E = 2.120 inches	Weighted E = 2.120 inches	Weighted E = 2.120 inches
Volume (6hr) = 0.013 acre-ft	Volume (6hr) = 0.039 acre-ft	Volume (6hr) = 0.021 acre-ft	Volume (6hr) = 0.033 acre-ft	Volume (6hr) = 0.028 acre-ft
Volume (24hr) = 0.016 acre-ft	Volume (24hr) = 0.046 acre-ft	Volume (24hr) = 0.025 acre-ft	Volume (24hr) = 0.039 acre-ft	Volume (24hr) = 0.033 acre-ft
Volume (4days) = 0.019 acre-ft	Volume (4days) = 0.056 acre-ft	Volume (4days) = 0.030 acre-ft	Volume (4days) = 0.048 acre-ft	Volume (4days) = 0.040 acre-ft
Volume (10days) = 0.023 acre-ft	Volume (10days) = 0.067 acre-ft	Volume (10days) = 0.036 acre-ft	Volume (10days) = 0.058 acre-ft	Volume (10days) = 0.049 acre-ft
<b>Peak Rate of Discharge</b>				
Q <sub>100</sub> = 0.348 cfs	Q <sub>100</sub> = 1.038 cfs	Q <sub>100</sub> = 0.551 cfs	Q <sub>100</sub> = 0.875 cfs	Q <sub>100</sub> = 0.739 cfs



**Introduction**  
The proposed site is located at 416 Yale Boulevard, Albuquerque, NM. The development will include a retail and apartment building with a combined footprint of approximately 6,100 sq.ft. Access will be obtained from Yale Boulevard through a shared Access Easement with Lot 1-A. No prior drainage reports were found for the site. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic and hydraulic analysis of the existing 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**  
Prior to 2012 the site contained a commercial building with an approximate footprint of 3,700 sq.ft. The site was fully developed and the impervious area being over 98%. In 2012 the site was demolished and vacated with the only improvements being within the 40-foot access easement. Hydrology analysis under the existing condition is based on the developed site prior to 2012.

Basin 101 is within the Southern 20 feet of the 40-foot access easement. Offsite runoff from Lot 1-A drains to the Valley Gutter as illustrated on Sheet C-2. Runoff from Basin 102 outlets through the sidewalk culvert on Yale Boulevard. Runoff from Basin 103 surface drains West to the Public Alley. The existing condition free discharged to Yale Boulevard and the Public Alley.

**Proposed Condition**  
The redeveloped site will contain a 6,100 sq.ft. retail and apartment building. The proposed drainage pattern is similar to the existing and will free discharge to Yale Boulevard and the Public Alley. However, under the proposed condition, the site will store the first flush volume being approximately 325 cu.ft.

The new improvements in Basin 200 will not affect the existing drainage. Minimal asphalt will be sawcut and removed to build the Curb & Gutter, trash enclosure, and transformer. The Curb & Gutter will have curb openings to allow offsite runoff to continue draining to the existing 6-foot wide valley gutter.

Basin 201 will discharge to Yale Boulevard. The first flush volume will be contained in the First Flush Pond A located in the drive isle. This pond will receive runoff from Basin 201 except for the Southern portion of the retail building's roof. The Southern portion of the retail building's roof will directly drain to Yale Boulevard, since there is no practical way to route its runoff to the First Flush Ponds.

Basin 202 will discharge to the Public Alley. The First Flush Pond B will accept runoff from the drive isle located in this basin and the building's roof located north of the open courtyard. The building's roof located South of the courtyard, open courtyard, and the parking spaces along the public alley will drain directly to the Public Alley. There is not a practical way to get this area to drain to the First Flush Pond B or to add another first flush pond.

**Conclusion**  
The proposed site is similar to the existing site prior to 2012 in the following ways: 1) the drainage pattern, 2) area of impervious area, and 3) commercial use. Therefore, it will not adversely affect the regional drainage. The Site is compact, but will greatly serve the community with needed retail space and apartments. The first flush ponds were placed in the drive isles since the compact dense site does not have the room to store the runoff elsewhere. The runoff collected in the first flush ponds will be approximately 3-inches and will evaporate. It will be the responsibility of the owner to keep the drive isles safe for traffic circulation. A French Drain may be added to the first flush ponds to infiltrate the runoff. The contractor shall follow this drainage plan and is required to obtain an approved drainage certification. This drainage plan seeks approval for building permit.

**FIRST FLUSH STORAGE:**

**DEPRESSED LANDSCAPING**  
NEW LAND TREATMENT "D" ROUTED THROUGH DEPRESS LANDSCAPING:  
TOTAL AREA = 14,958 SQ.FT.  
WATER QUALITY STORAGE NEEDED=14,958 SQ.FT.\*(0.34")\*(1'/12")=424 CU.FT.  
WATER QUALITY STORAGE DESIGNED = 49 CU.FT. + 82 CU.FT.= 131 CU.FT.  
WQDESIGNED (131 CU.FT.) > WQNEEDED (121.8 CU.FT.)

