

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

August 5, 2019

Jeffrey T. Wooten, P.E.
Wooten Engineering
1005 21st Street SE, Suite 13
Rio Rancho, NM 87124

**RE: Horizon 3 Office Building
8830 Horizon Blvd NE
Revised Grading and Drainage Plan
Engineer's Stamp Date: 07/29/19
Hydrology File: C17D127**

Dear Mr. Wooten:

PO Box 1293

Based upon the information provided in your submittal received 08/01/2019, the Revised Grading and Drainage Plan is approved for Building Permit.

Albuquerque

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

NM 87103

www.cabq.gov

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.

The Payment in Lieu payment of \$ **5,560.00** must be paid prior to Permanent Release of Occupancy approval. Please use the attached City of Albuquerque Treasury Deposit form. The Owner needs to bring three copies of this form to the cashier on the Building Permits side of the ground floor and pay the fee. Once paid, please provide Hydrology with one of the copies showing the receipt.

Please provide Drainage Covenant per Chapter 17 of the DPM prior to Permanent Release of Occupancy for the stormwater quality ponds. Please submit these to the 4th floor of Plaza de Sol. A \$25 fee for each will be required.

CITY OF ALBUQUERQUE

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

Sincerely,

Renée C. Brissette

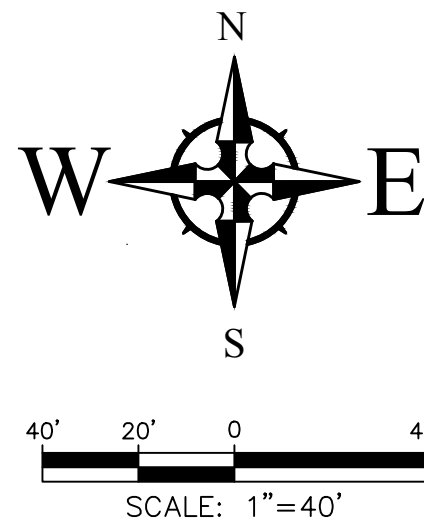
Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

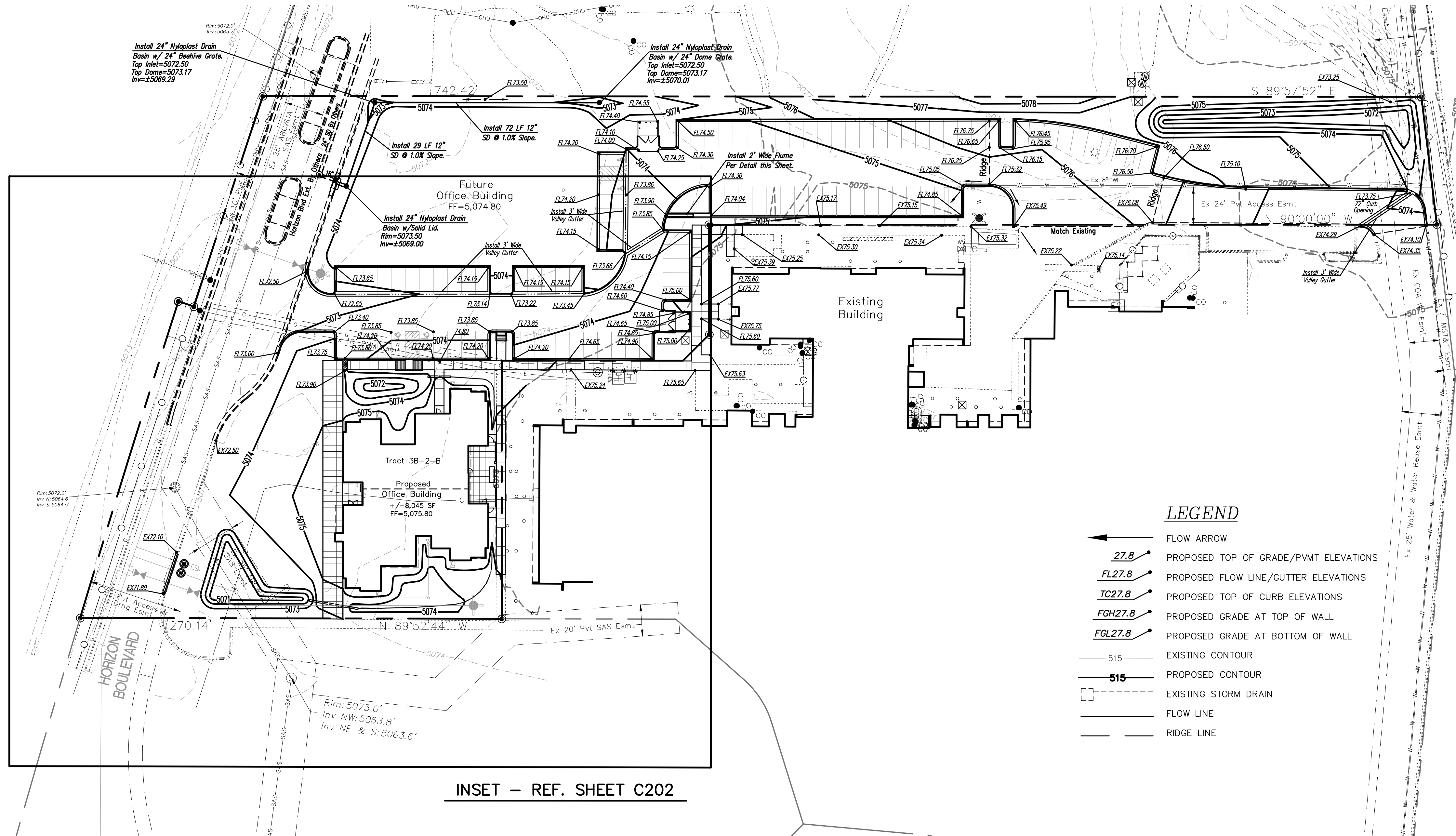
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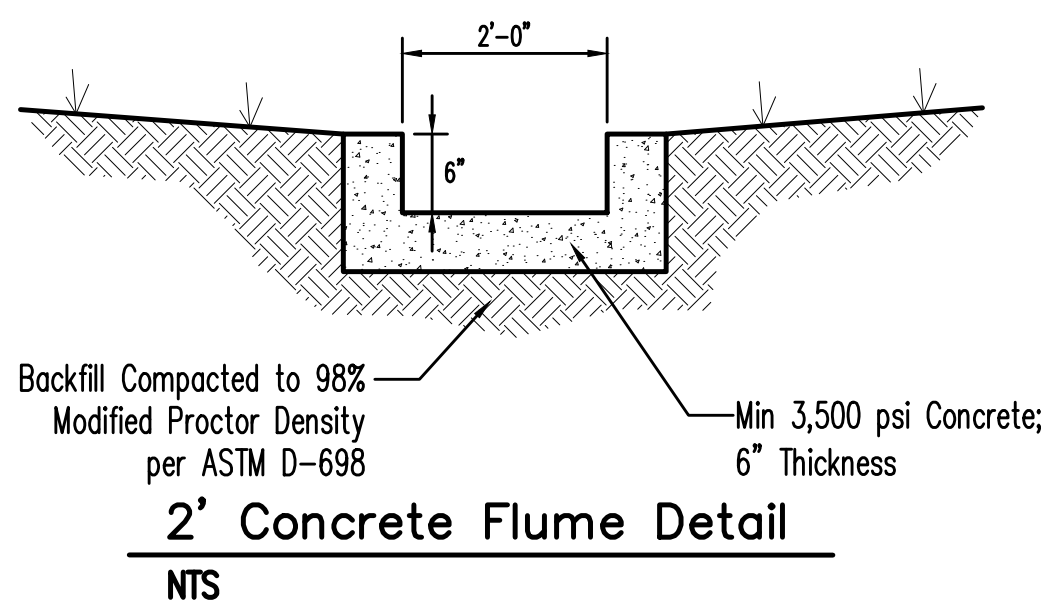
CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL NEW MEXICO ONE CALL (811) AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NOTE: ALL VALLEY GUTTERS SHALL BE FORMED & PLACED PRIOR TO ASPHALT PAVEMENT PLACEMENT TO ENSURE ADEQUATE SLOPES ARE ACHIEVED.

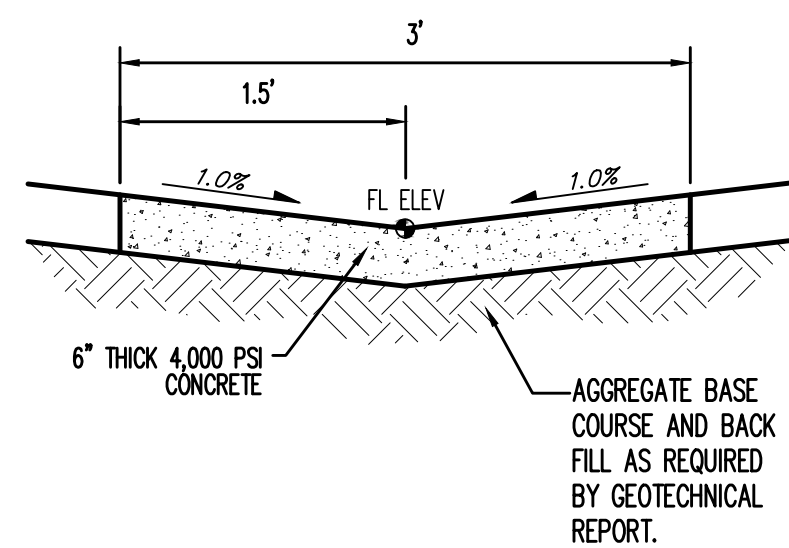


INSET - REF. SHEET C202



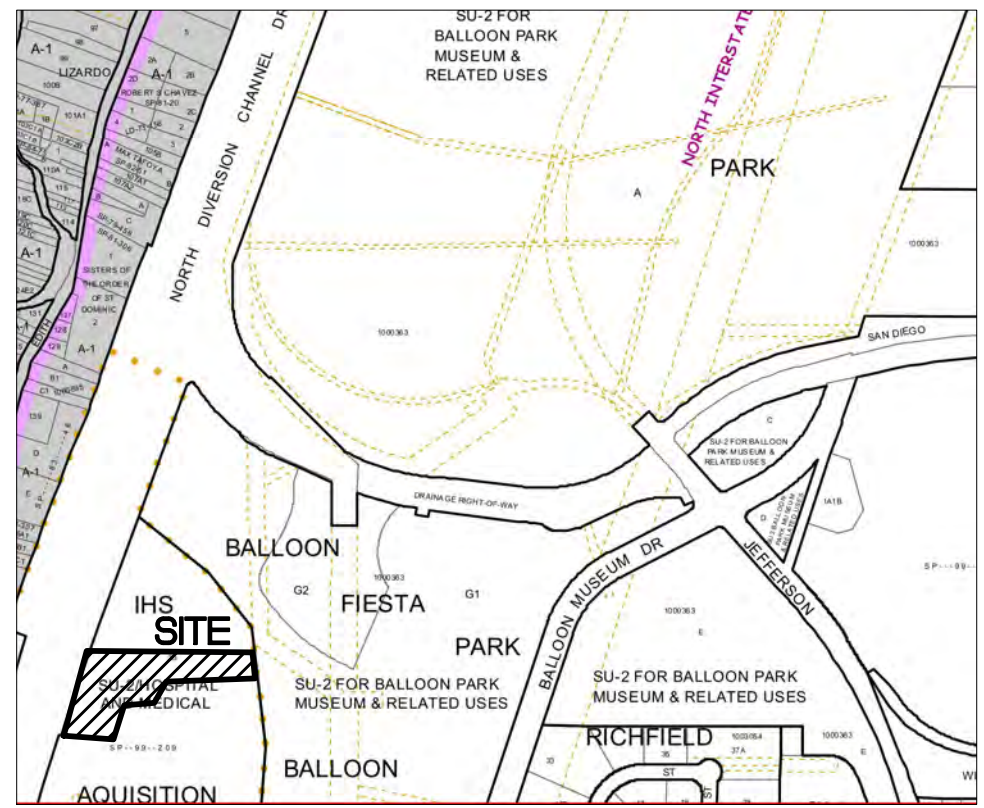
2' Concrete Flume Detail

NTS



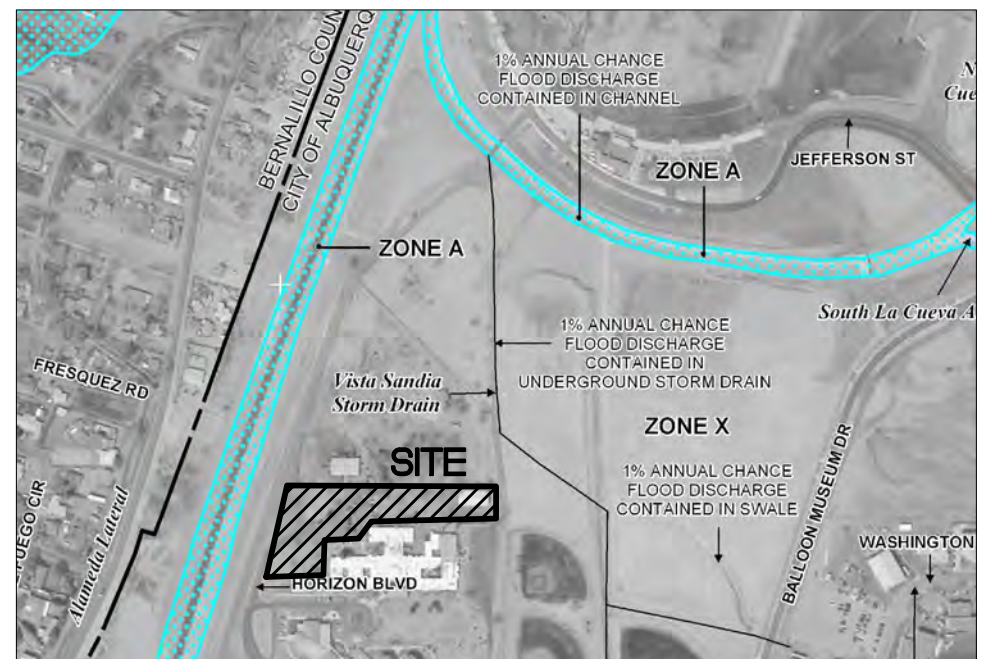
Valley Gutter Detail

NTS



VICINITY MAP B-17-Z

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FIRM MAP 35001C0128G

Per FIRM Map 35001C0128G, dated September 26, 2008, the site is not located in the 'Zone X Floodplain' and determined to not be within the 0.2% chance Annual Floodplain area with depths of less than 1 foot.

GRADING NOTES

- EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
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Phone: (505) 980-3560



STUDIO CONSULTANTS, INC

P.O. Box 1515, Cedar Crest, NM 87008
Daniel@ariasinc.com (505) 506-2314

Architect



7/29/2019

Engineer

CAUWELS & STUVE

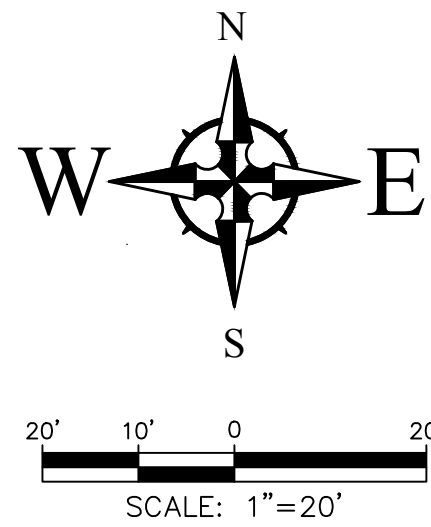
8814 Horizon Boulevard N.E.
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Voice: 505.266.5711
Fax: 505.255.9922
www.cauwels-stuve.com

Building Permit Set for:
Cauwels Golden and
Schlenker & Cantwell
8830 Horizon Blvd NE
Albuquerque, NM 87113

Revision	Date	Description
1	07/29/2019	COA Review Comments
2	07/29/2019	Site Plan Changes
Issue: Building Permit		
Date: July 29, 2019		
Drawn By: RG		
Checked By: JTW		
File Name: 2018048		

Grading Plan

C201

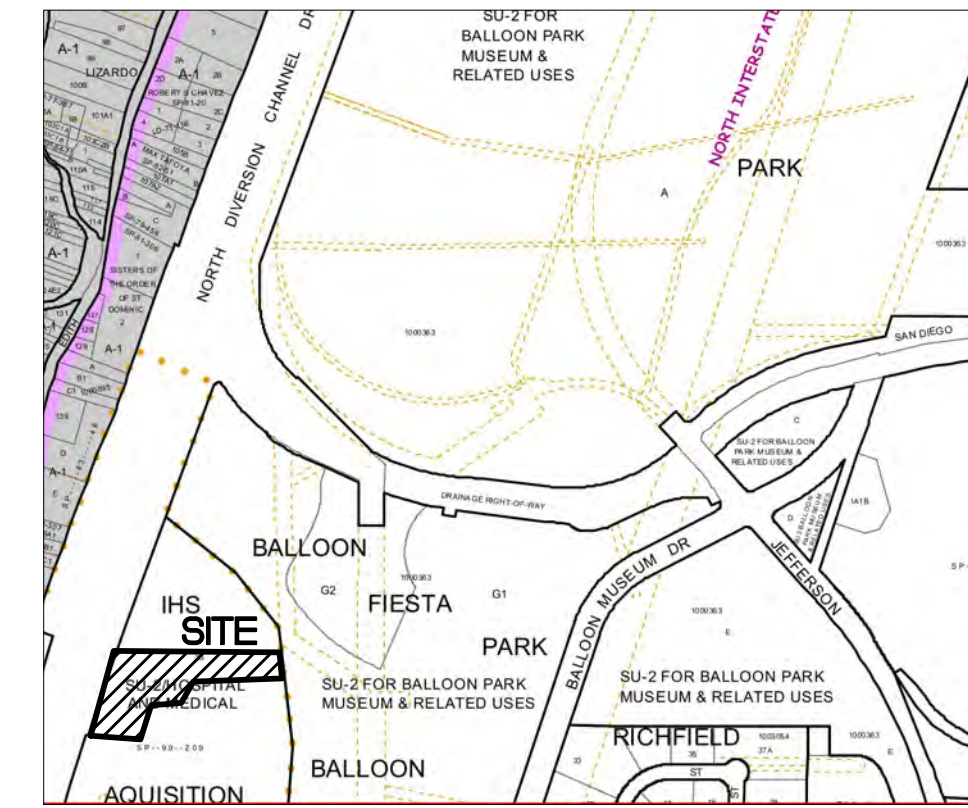


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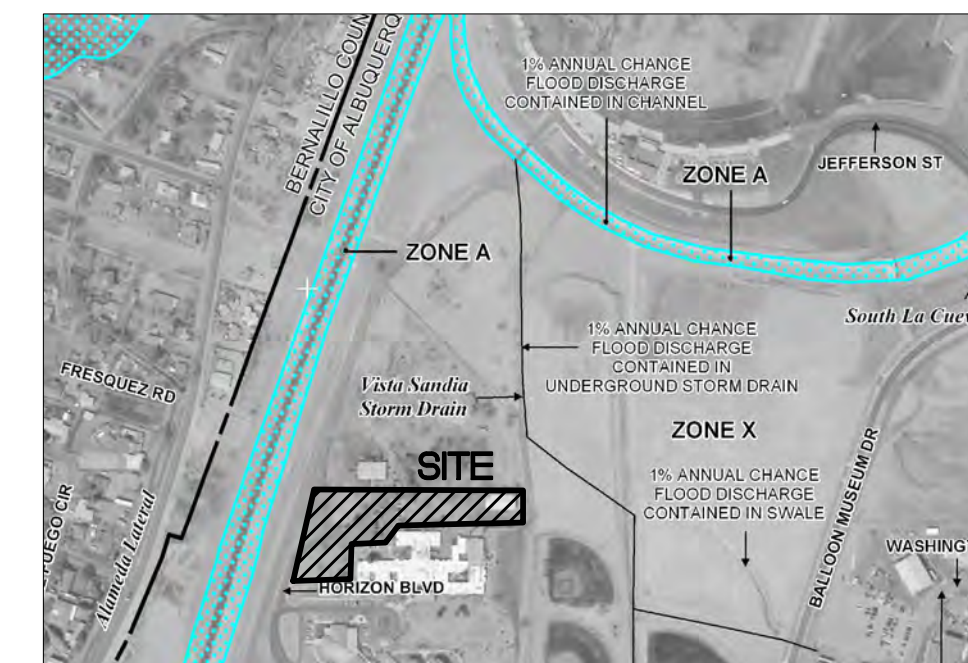
LEGEND

- 27.8 PROPOSED TOP OF GRADE/PVMT ELEVATIONS
- FL27.8 PROPOSED FLOW LINE/GUTTER ELEVATIONS
- TC27.8 PROPOSED TOP OF CURB ELEVATIONS
- FGH27.8 PROPOSED GRADE AT TOP OF WALL
- FGL27.8 PROPOSED GRADE AT BOTTOM OF WALL
- 515 EXISTING CONTOUR
- 515 PROPOSED CONTOUR
- EXISTING STORM DRAIN
- FLOW LINE
- RIDGE LINE



VICINITY MAP B-17-Z

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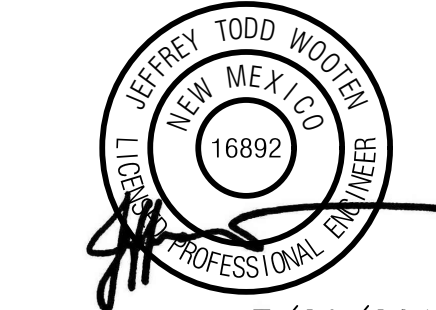
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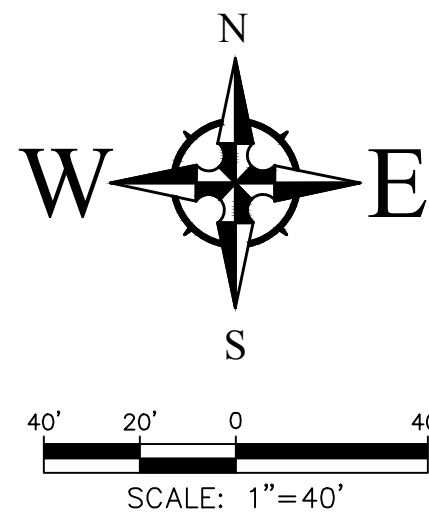
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Grading Plan Inset

C202

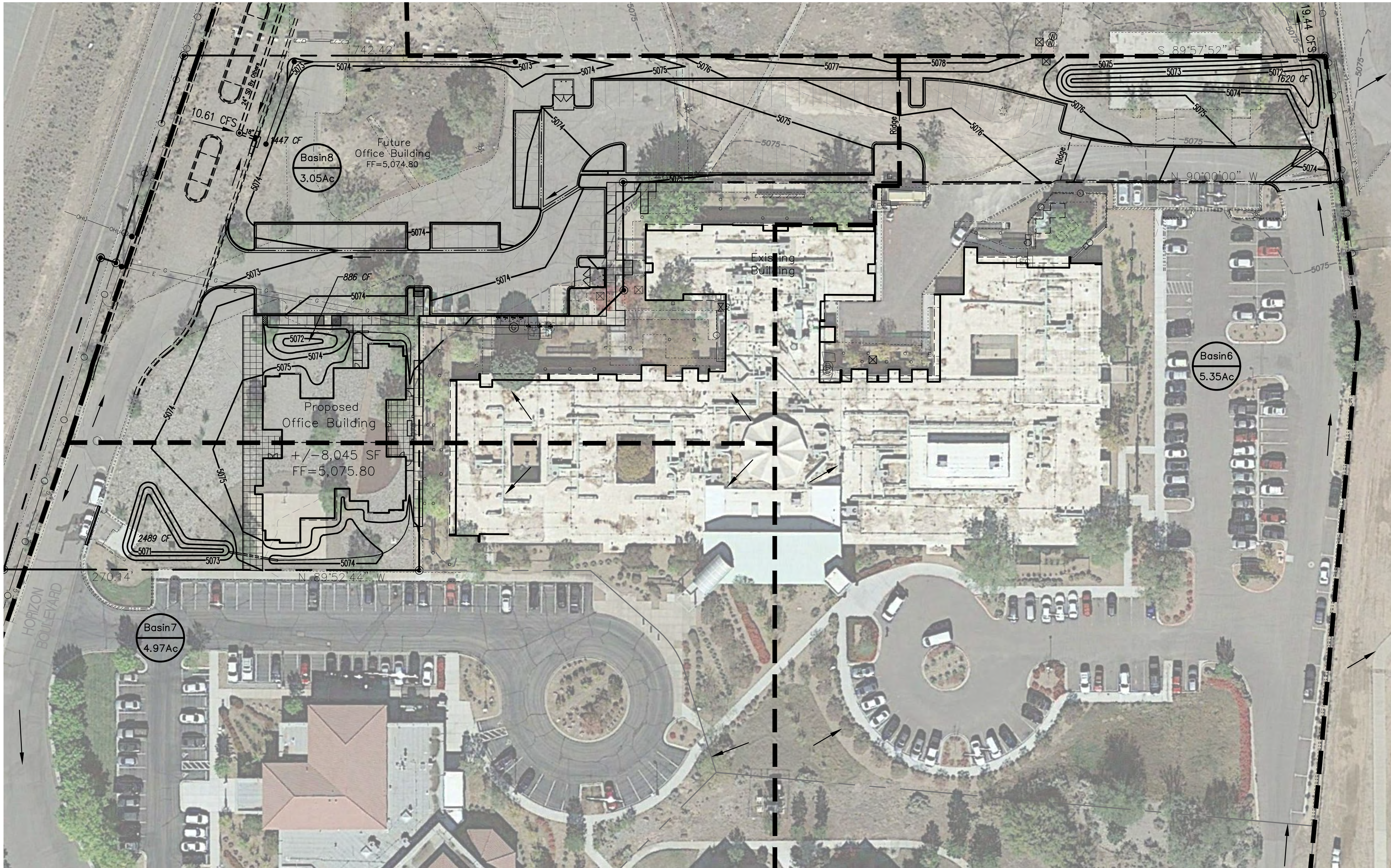


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Proposed Drainage Calculations									
Ultimate Development Conditions Basin Data Table									
This table is based on the COA DPM Section 22.2, Zone: 2									
BASIN	Area (SQ FT)	Area (AC)	Land Treatment Percentages				Q(100) (cfs/ac)	Q(100) (CFS)	WTE (inches)
			A	B	C	D			
BASIN 6	233046	5.35	10.0%	15.0%	25.0%	50.0%	3.63	19.44	1.51
BASIN 7	216353	4.97	10.0%	15.0%	25.0%	50.0%	3.63	18.04	1.51
BASIN 8	127195	2.92	10.0%	15.0%	25.0%	50.0%	3.63	10.61	1.51
TOTAL	576594	13.24					48.09	72675	82285

Calculations based on the Amended Basin Map for the Ascension Subdivision Drainage Report prepared by Bohannon Huston Inc.

STORMWATER QUALITY POND CALCULATIONS

BASIN 6
TOTAL NEW IMPERVIOUS AREA = 10,487 SF
SWQ VOLUME REQ'D = $10,487 \times 0.26'' / 12 = 227$ CF
TOTAL VOLUME PROVIDED = **1,507 CF**

BASIN 7
TOTAL NEW IMPERVIOUS AREA = 5,963 SF
SWQ VOLUME REQ'D = $5,963 \times 0.26'' / 12 = 129$ CF
TOTAL VOLUME PROVIDED = **2,489 CF**

BASIN 8
TOTAL NEW IMPERVIOUS AREA = 36,988 SF
SWQ VOLUME REQ'D = $36,988 \times 0.26'' / 12 = 801$ CF
IMPERVIOUS AREA INTO POND = 4,880 SF
SWQ VOLUME INTO POND = $4,880 \times 0.26'' / 12 = 106$ CF
TOTAL VOLUME PROVIDED = **886 CF**
SWQ VOLUME BYPASSING POND = **695 CF**
TOTAL PAYMENT IN LIEU = $695 \times \$8 = \$5,560.00$

Stormwater Quality Pond Volume Calculations

Elevation (ft)	Area (sq.ft)	Volume (cu-ft)	Volume Sum (cu-ft)
BASIN 6			
5072.0	988	0.0	0.0
5073.0	2,252	1,620.0	1,620.0
BASIN 7			
5071.0	1,134	0.0	0.0
5072.0	1,728	1,431.0	1,431.0
5073.0	2,412	2,070.0	3,501.0
BASIN 8			
5071.0	358	0.0	0.0
5072.0	1,126	742.0	742.0
5072.5	1,686	703.0	1,445.0

24" CURB OPENING WEIR CALCULATION

WEIR EQUATION
 $Q = C \cdot L \cdot (H^{\frac{3}{2}})$

Given:
C = 2.87 (Weir Coefficient)
L = 2 feet (Width of Flow)
H = 0.50 feet (Depth of Flow)

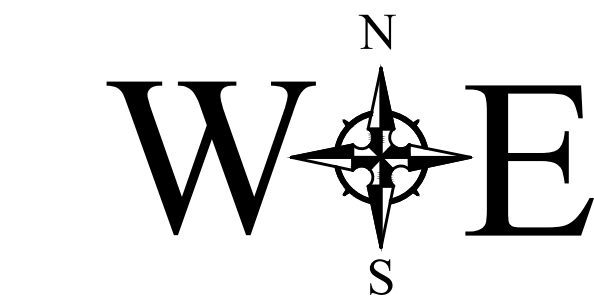
$Q = 2.87 \times 2 \times (0.50^{\frac{3}{2}})$
 $Q = 2.87 \times 2 \times 0.63$
Qcap = 3.62 cfs

72" CURB OPENING WEIR CALCULATION

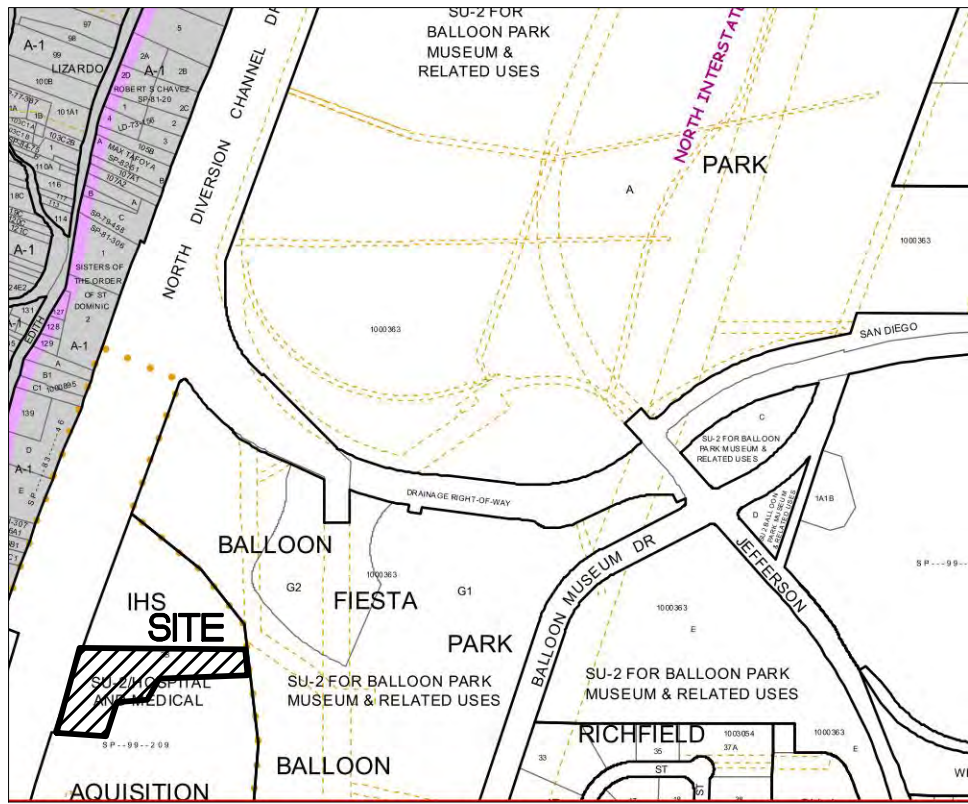
WEIR EQUATION
 $Q = C \cdot L \cdot (H^{\frac{3}{2}})$

Given:
C = 2.87 (Weir Coefficient)
L = 6 feet (Width of Flow)
H = 0.50 feet (Depth of Flow)

$Q = 2.87 \times 6 \times (0.50^{\frac{3}{2}})$
 $Q = 2.87 \times 6 \times 0.63$
Qcap = 10.85 cfs

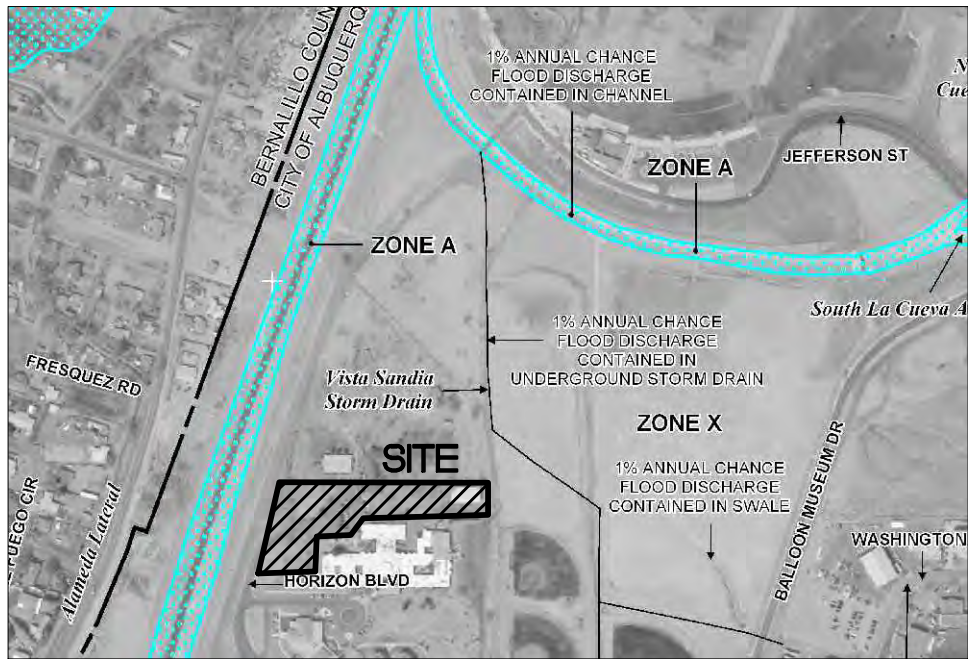


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DRAINAGE MANAGEMENT PLAN

INTRODUCTION

The purpose of this submittal is to provide a final grading plan and drainage management plan for the redevelopment of Tract 3B-2-B, Land of IHS Acquisition No. 120, Inc. The site is located at 8830 Horizon Blvd NE (Private Roadway) in Albuquerque, NM. The site contains approximately 3.02 acres. The proposed redevelopment consists of removal of the existing parking areas and driveways and construction of a new Office Building with the associated new parking and landscaping. For the purpose of preparing this plan, we are referencing the 'Drainage Report for Ascension Subdivision' prepared by Bohannon Huston.

EXISTING HYDROLOGIC CONDITIONS

The site currently consists of three separate basins. Basin 6 drains in the northeasterly direction and across the proposed Ascension Subdivision in an existing undeveloped earthen channel. Basin 7 drains to the south in Horizon Blvd and eventually into the North Division Channel. Basin 8 currently drains in a northwesterly direction and onto the proposed Ascension Subdivision property. Reference the Calculations Table this sheet.

PROPOSED HYDROLOGIC CONDITIONS

The proposed improvements will not alter the existing drainage conditions. Basin 6 will continue to drain to the northeast corner of the site and onto the proposed Ascension Subdivision. Bohannon Huston will be providing a swale on the Ascension property that is capable of conveying 19.44 cfs. Basin 7 will continue to drain to the south in Horizon Blvd. Basin 8 will drain to a new storm drain inlet in Horizon Blvd that is to be installed by the Ascension Subdivision and then north across the Ascension property.

Stormwater Quality Ponds are being proposed for each of the three basins that will capture the flows from the new impervious areas being constructed with this project. Basins 6 & 7 capture 100% of the required stormwater quality volume. Basin 8 captures 106 CF of the required 801 CF stormwater quality volume; therefore, a Payment-in-Lieu of \$5,560 will be required prior to issuance of a CO.

CONCLUSION

This drainage management plan provides for grading and drainage elements which are capable of safely passing the 100 year storm and improve the current condition of the site. With this submittal, we are requesting Building Permit approval.

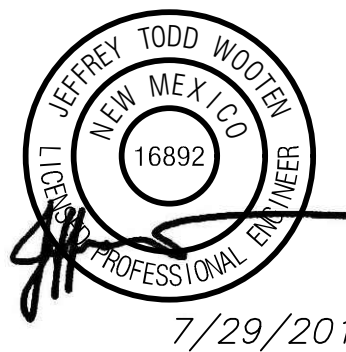


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Drainage Management Plan

C203