

# CITY OF ALBUQUERQUE

Planning Department  
David Campbell, Director



Mayor Timothy M. Keller

June 27, 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  
Grading and Drainage Plan  
Engineer's Stamp Date: 06/19/19  
Hydrology File: C17D127**

Dear Mr. Wooten:

PO Box 1293

Based upon the information provided in your resubmittal received 06/21/2019, the 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

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 (Curtis Cherne, PE, [ccherne@cabq.gov](mailto:ccherne@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

[www.cabq.gov](http://www.cabq.gov)

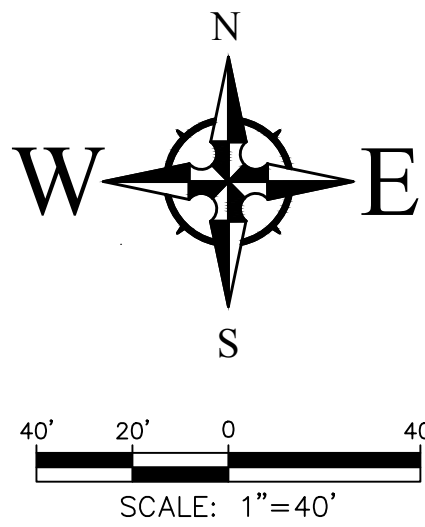
Please provide Drainage Covenant per Chapter 17 of the DPM prior to Permanent Release of Occupancy for the stormwater quality ponds. Please submit these to the 4th floor of Plaza de Sol. A \$25 fee for each will be required.

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

Sincerely,

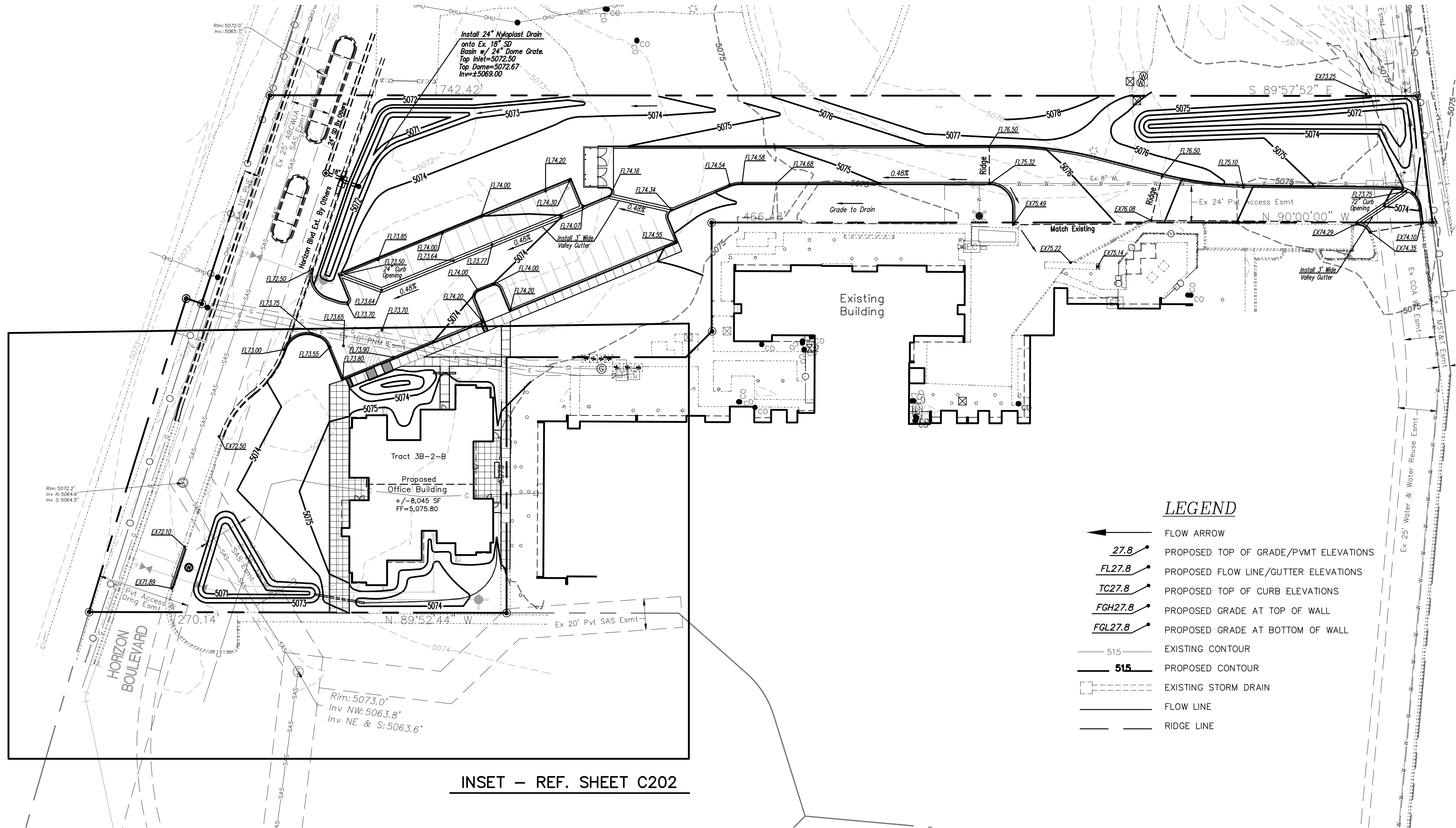
Renée C. Brissette, P.E. CFM  
Senior Engineer, Hydrology  
Planning Department





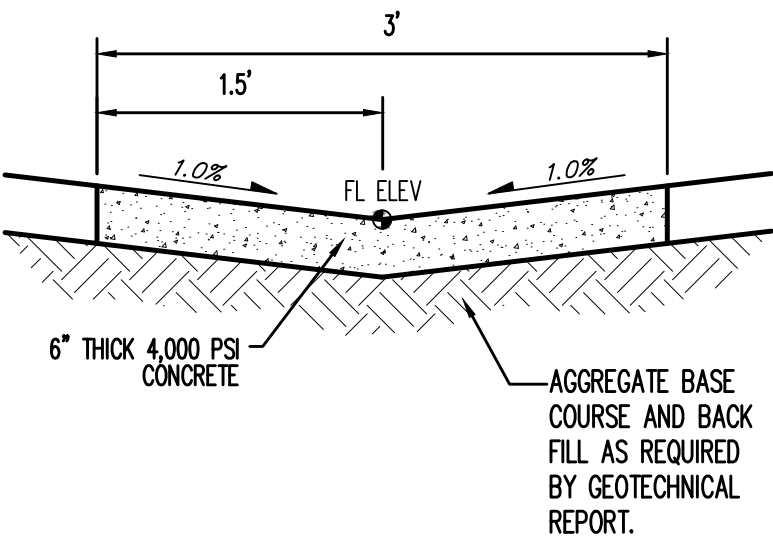
CAUTION - NOTICE TO CONTRACTOR

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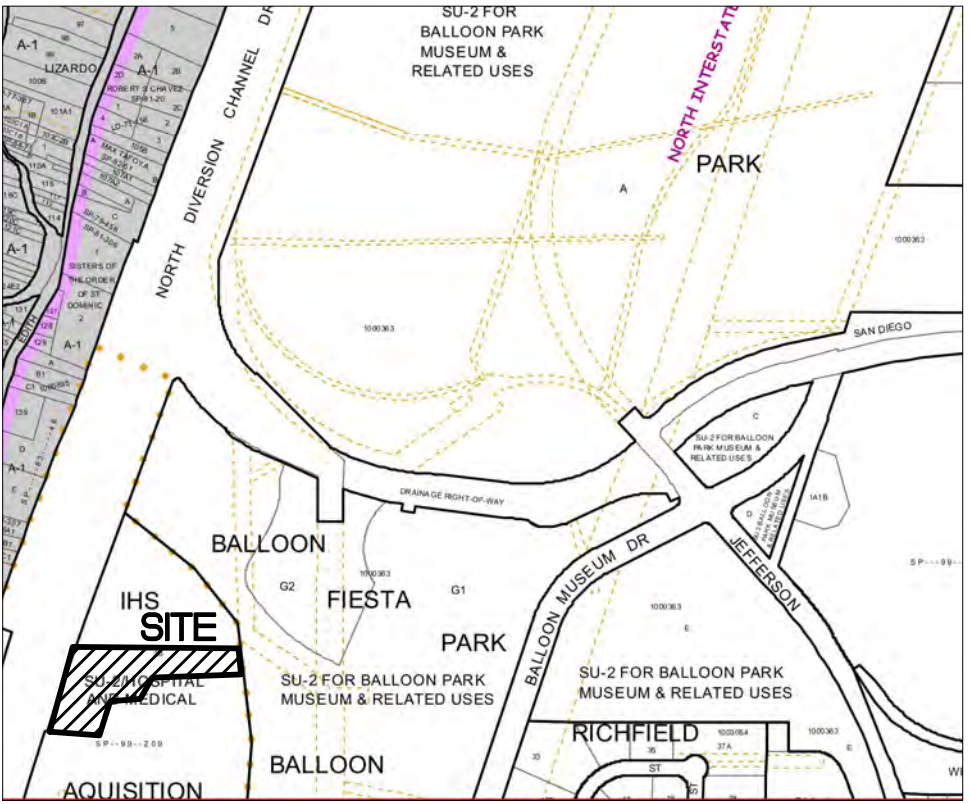


INSET - REF. SHEET C202

- LEGEND**
- FLOW ARROW
  - 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

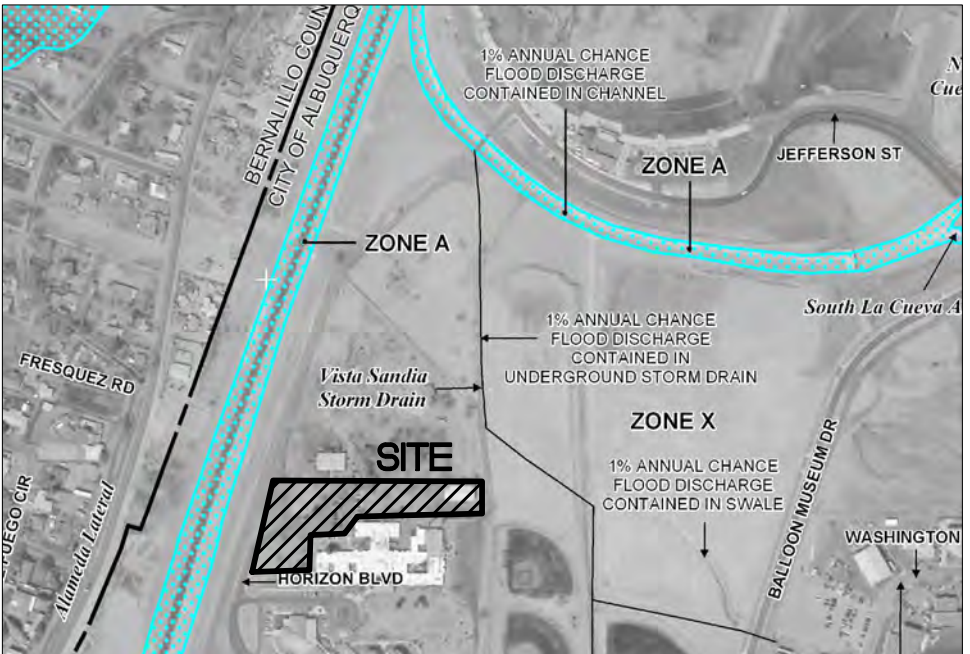


Valley Gutter Detail  
NTS



VICINITY MAP B-17-Z

Legal Description: Tract 3B-2-B, of Land of IHS Acquisition No. 120, Inc., as shown and designated on the Plat entitled "Tracts 3B-1-A, 3B-2-A and 3B-2-B, Land of IHS Acquisition No. 120, Inc., a replat of Tracts 3B-1 and 3B-2, Within Projected Sections 11 and 14, T. 11 N., R. 3 E., N.M.P.M., City of Albuquerque, Bernalillo County, NM."



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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Architect



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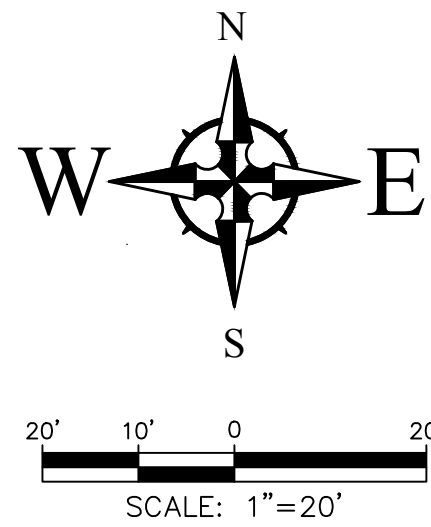
Building Permit Set for:  
Cauwels Golden and  
Schlenker & Cantwell  
8830 Horizon Blvd NE  
Albuquerque, NM 87113

Revision	Date	Description
Issue:	Building Permit	
Date:	June 19, 2019	
Drawn By:	RG	
Checked By:	JTW	
File Name:	2018048	

Grading Plan

C201



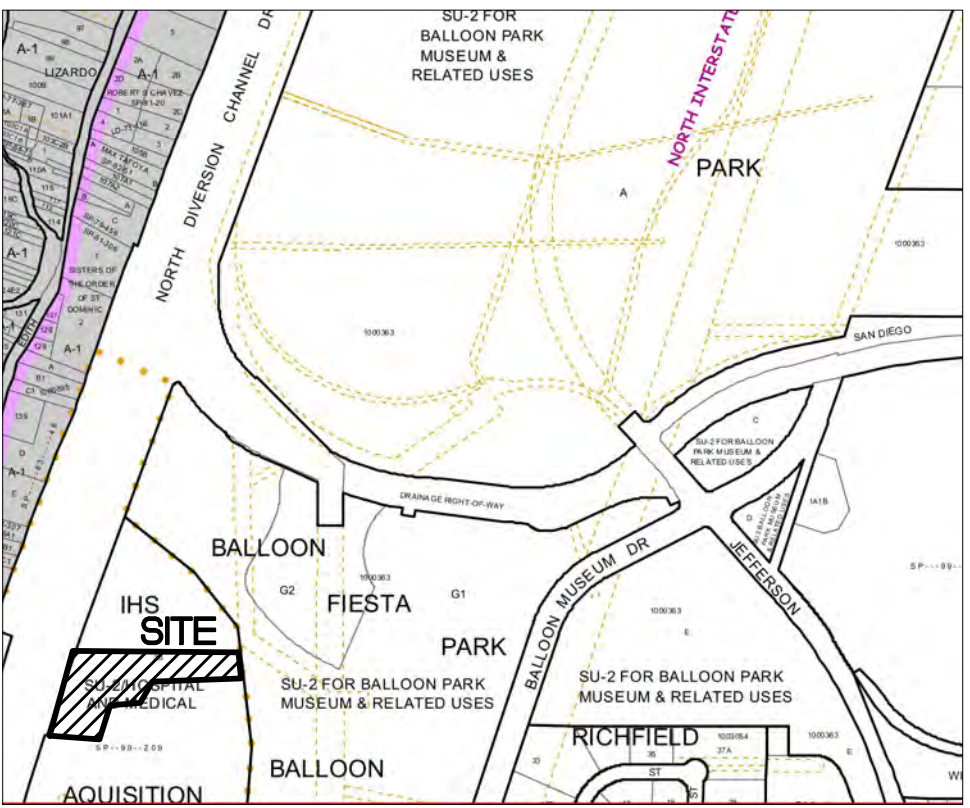


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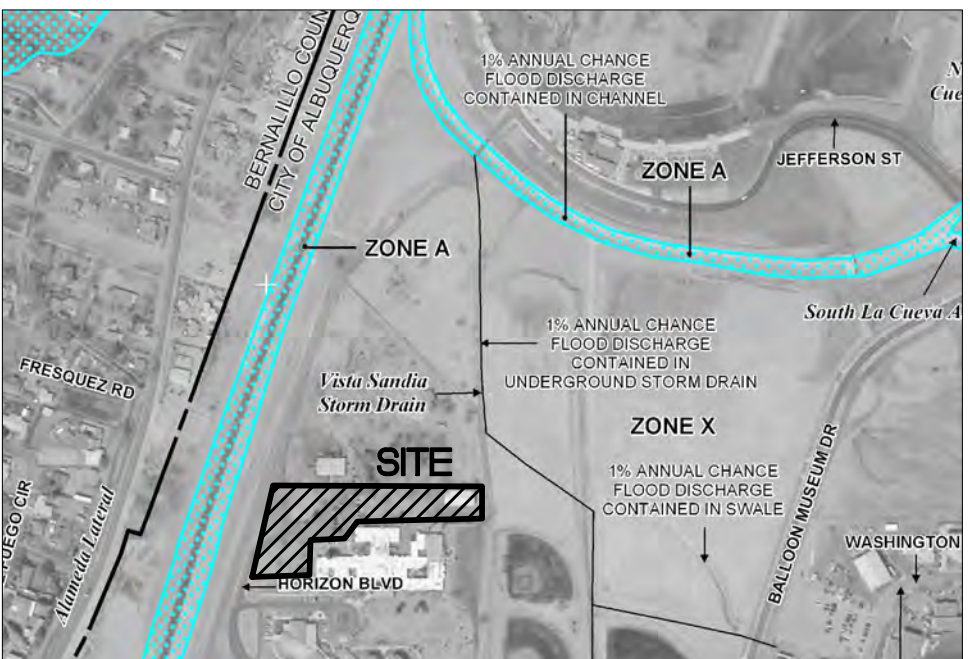
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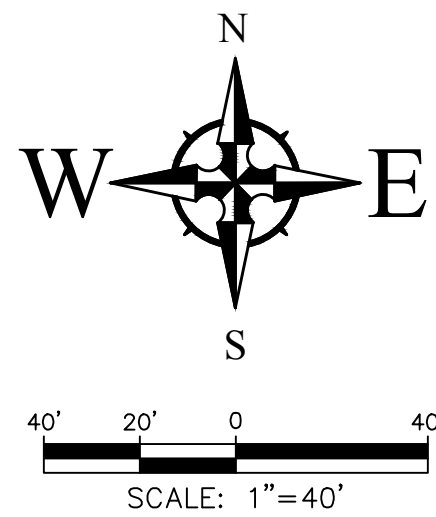
Grading Plan Inset



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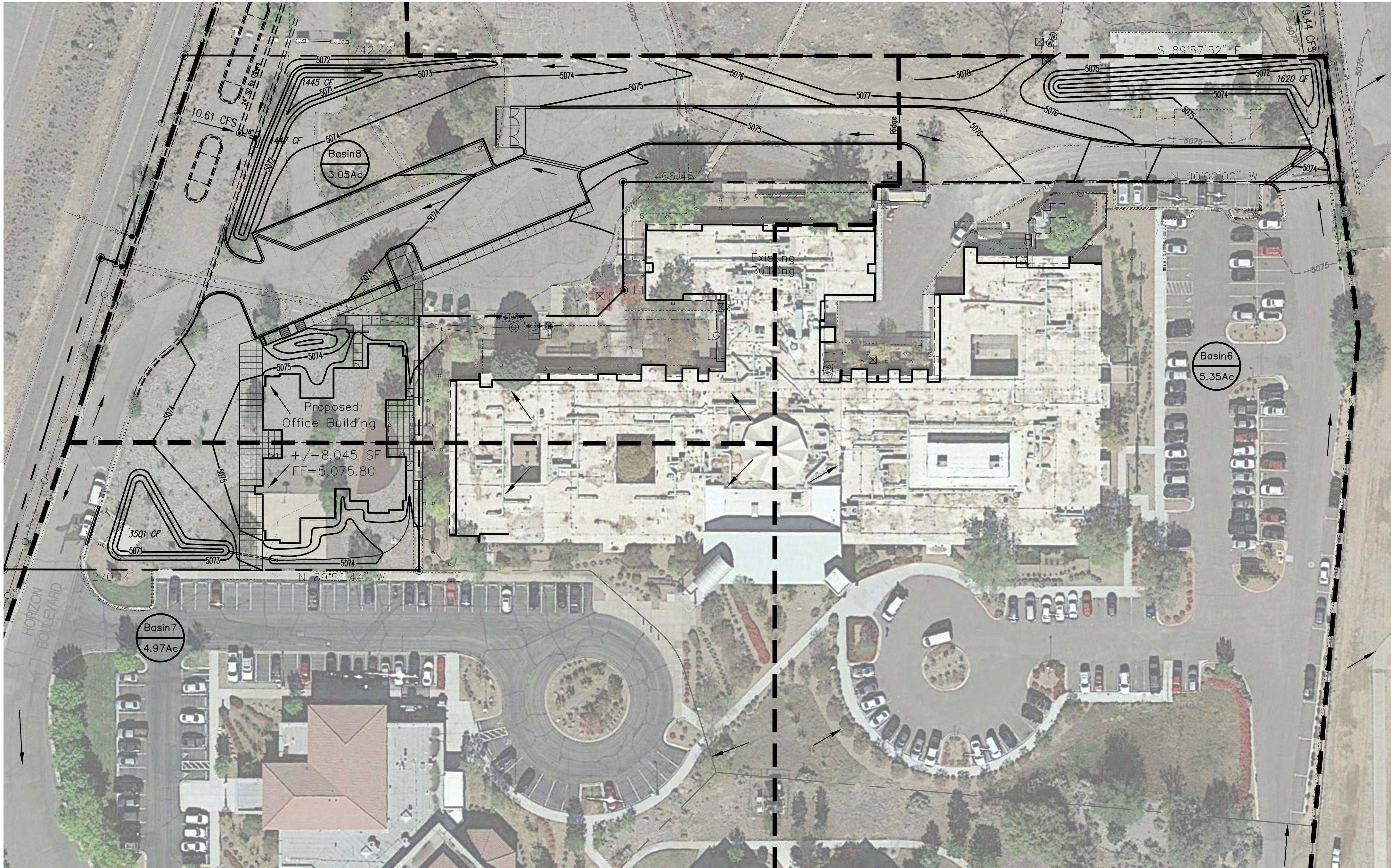
C202





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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 = 8,792 SF  
SWQ VOLUME REQ'D =  $8,792 \cdot 0.26'' / 12 = 194$  CF  
TOTAL VOLUME PROVIDED (2 PONDS) = **1,620 CF**

**BASIN 7**  
TOTAL NEW IMPERVIOUS AREA = 6,208 SF  
SWQ VOLUME REQ'D =  $6,208 \cdot 0.26'' / 12 = 135$  CF  
TOTAL VOLUME PROVIDED (2 PONDS) = **3,501 CF**

**BASIN 8**  
TOTAL NEW IMPERVIOUS AREA = 29,720 SF  
SWQ VOLUME REQ'D =  $29,720 \cdot 0.26'' / 12 = 644$  CF  
TOTAL VOLUME PROVIDED (2 PONDS) = **1,445 CF**

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)

$Q = 2.87 \cdot 2 \cdot (0.50^{\frac{3}{2}})$   
 $Q = 2.87 \cdot 2 \cdot 0.63$   
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)

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

DRAINAGE MANAGEMENT PLAN

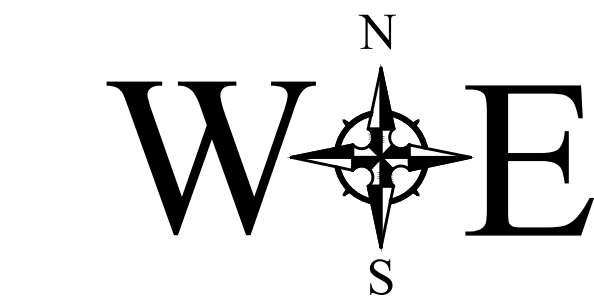
**INTRODUCTION**  
The purpose of this submittal is to provide a final grading plan and drainage management plan for the redevelopment of Tract 3B-2-B, Land of IHS Acquisition No. 120, Inc. The site is located at 8830 Horizon Blvd NE (Private Roadway) in Albuquerque, NM. The site contains approximately 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 Diversion 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.

**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