

# CITY OF ALBUQUERQUE

*Planning Department*  
Brennon Williams, Director



*Mayor Timothy M. Keller*

July 30, 2020

David Thompson  
Thompson Engineering Consultants, Inc.  
P.O. Box 65760  
Albuquerque, NM 87190

RE: **Horizon Academy West Field  
Bob McCannon and Painted Rock Dr.  
Request for Certificate of Occupancy - Permanent  
Hydrology Final Inspection –Approved  
Grading and Drainage Plan Stamp Date: 11/21/19  
Certification Dated: 7/10/20  
Drainage File: G10D029I**

PO Box 1293

Dear Mr. Thompson:

Albuquerque

Based on the submittal received on 7/10/20 and field inspection 7/30/20, this certification is approved in support of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, please contact me at 924-3986 or [earmijo@cabq.gov](mailto:earmijo@cabq.gov).

NM 87103

Sincerely,

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

Ernest Armijo, P.E.  
Principal Engineer, Planning Dept.  
Development Review Services



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

**Project Title:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** \_\_\_\_\_

**City Address:** \_\_\_\_\_

**Applicant:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Owner:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF SUBMITTAL:** \_\_\_\_\_ PLAT (\_\_\_\_# OF LOTS) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE \_\_\_\_\_ ADMIN SITE

**IS THIS A RESUBMITTAL?:** \_\_\_\_\_ Yes \_\_\_\_\_ No

**DEPARTMENT:** \_\_\_\_\_ TRAFFIC/ TRANSPORTATION \_\_\_\_\_ HYDROLOGY/ DRAINAGE

Check all that Apply:

### TYPE OF SUBMITTAL:

- \_\_\_\_\_ ENGINEER/ARCHITECT CERTIFICATION
- \_\_\_\_\_ PAD CERTIFICATION
- \_\_\_\_\_ CONCEPTUAL G & D PLAN
- \_\_\_\_\_ GRADING PLAN
- \_\_\_\_\_ DRAINAGE MASTER PLAN
- \_\_\_\_\_ DRAINAGE REPORT
- \_\_\_\_\_ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- \_\_\_\_\_ ELEVATION CERTIFICATE
- \_\_\_\_\_ CLOMR/LOMR
- \_\_\_\_\_ TRAFFIC CIRCULATION LAYOUT (TCL)
- \_\_\_\_\_ TRAFFIC IMPACT STUDY (TIS)
- \_\_\_\_\_ 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:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_

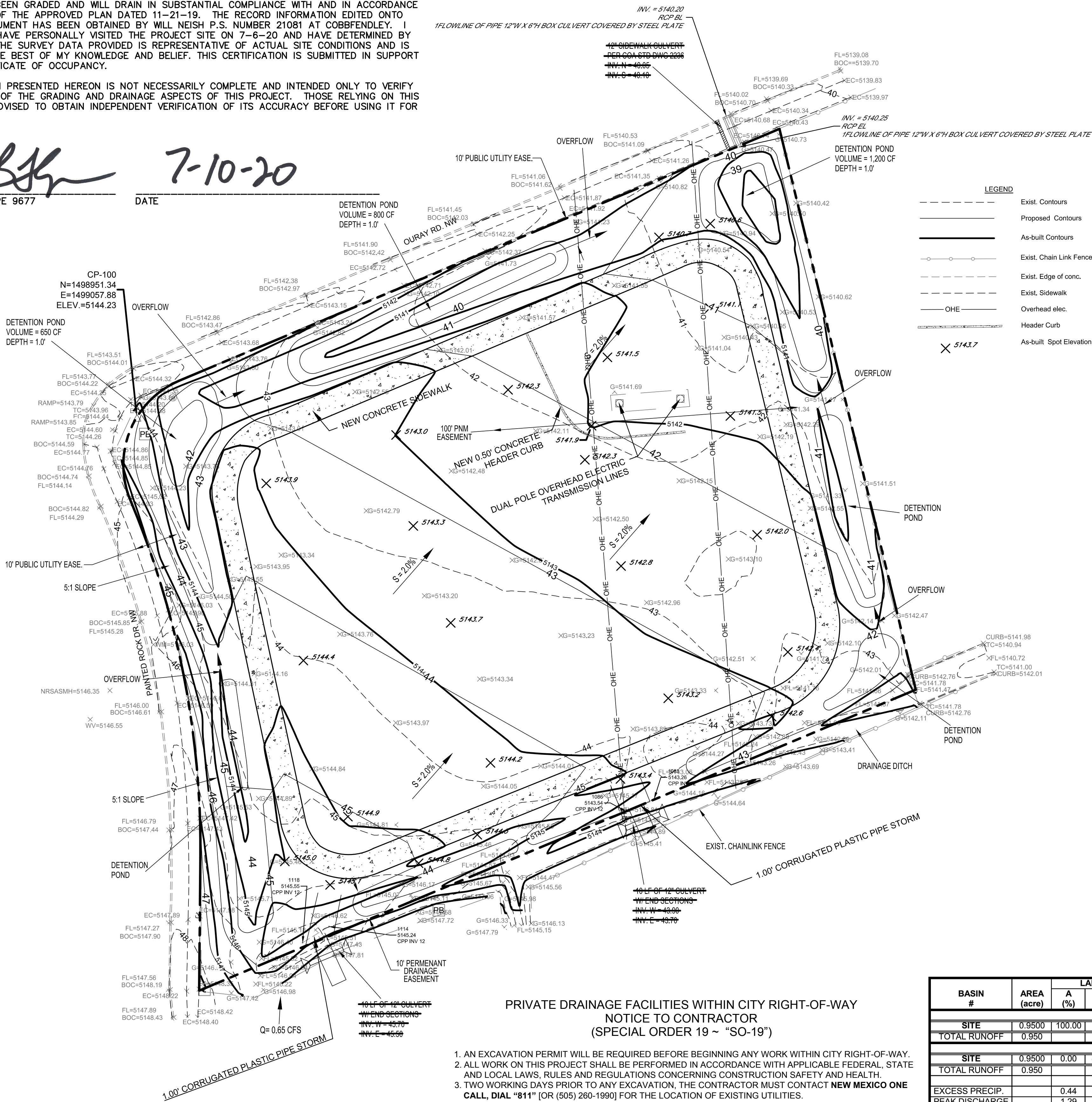


DRAINAGE CERTIFICATION

I, DAVID B. THOMPSON, NMPE 9677, OF THE FIRM THOMPSON ENGINEERING CONSULTANTS, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 11-21-19. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY WILL NEISH P.S. NUMBER 21081 AT COBBFENDLEY. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 7-6-20 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

DAVID B. THOMPSON, NMPE 9677  
DATE 7-10-20



PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY  
NOTICE TO CONTRACTOR  
(SPECIAL ORDER 19 ~ "SO-19")

1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL, DIAL "811" OR (505) 280-1900 FOR THE LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7. WORK ON ARTERIAL STREETS MAY BE REQUIRED ON A 24-HOUR BASIS.
8. CONTRACTOR MUST CONTACT AUGIE ARMIJO (505) 857-8607 AND CONSTRUCTION COORDINATION AT 924-3416 TO SCHEDULE AN INSPECTION.

DRAINAGE PLAN FOR GRADING CERTIFICATION:

LEGAL DESCRIPTION: TRACT 5A2-A1-2, VOLCANO BUSINESS PARK

SITE AREA: 0.95 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED NOVEMBER 4, 2016 (PANEL NO. 35001C0326J) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH SETION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED "DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF. THE SITE IS LOCATED IN ZONE 1 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.23 INCHES. UNDER EXISTING CONDITIONS, THE LOT IS VACANT AND THEREFORE IS LAND TREATMENT A.

THE TRACT IS LOCATED IN THE NORTHWEST PART OF ALBUQUERQUE AT THE INTERSECTION OF BOB MCCANNON PARKWAY AND PAINTED ROCK DRIVE. CURRENTLY THE SITE DRAINS FROM SOUTHWEST TO NORTHEAST TO BOB MCCANNON PARKWAY. THERE IS A 100-FOOT PNM EASEMENT ACROSS THE SITE WITH TWO POWER POLES WITHIN THE EASEMENT. THE EXISTING PEAK RUNOFF FROM THE TRACT UNDER EXISTING CONDITIONS IS 1.23 CFS AND 1,517 CUBIC FEET OF RUNOFF VOLUME DURING A 100-YEAR, 6-HOUR STORM.

THERE IS A DITCH THAT BORDERS THE SOUTH PROPERTY LINE DRAINING FROM WEST TO EAST TO A DETENTION POND LOCATED ADJACENT TO TODOS SANTOS STREET. THIS DITCH COLLECTS OFFSITE FLOWS AND CONVEYS THEM TO THE POND. THE TOTAL OFFSITE PEAK FLOW REACHING THE DITCH FROM TRACTS TO THE SOUTH IS 0.65 CFS. THE DRAINAGE MASTER PLAN FOR THIS AREA WAS UPDATED IN 2003 UNDER DRAINAGE FILE G10029 THAT SHOWED THAT WHEN DEVELOPED THIS SITE IS ALLOWED FREE DISCHARGE TO BOB MCCANNON PARKWAY.

DEVELOPED DRAINAGE CONDITIONS:

THIS PROJECT INVOLVES THE CONSTRUCTION OF A PLAY FIELD AND CONCRETE WALKING TRACK FOR THE HORIZON ACADEMY CHARTER SCHOOL. THE PROPOSED SITE GRADING MAINTAINS THE SLOPE AND DIRECTION OF FLOW FROM THE SOUTHWEST CORNER TO THE NORTHEAST CORNER. SMALL LOCALIZED WATER HARVESTING PONDS AROUND THE PERIMETER OF THE TRACK WILL CAPTURE RUNOFF FROM THE SITE AND IRRIGATE THE PERIMETER LANDSCAPING. AS EACH PERIMETER POND FILLS UP THE RUNOFF WILL OVERFLOW TO THE NEXT POND DOWNSTREAM. THE LOWEST POND AT THE NORTHEAST CORNER OF THE PROPERTY WILL HAVE A SIDEWALK CULVERT THAT WILL DRAIN THE POND TO BOB MCCANNON PARKWAY IF AND WHEN IT OVER FLOWS.

THE PEAK RUNOFF FROM THE TRACT UNDER DEVELOPED CONDITIONS IS 2.21 CFS AND 3,069 CUBIC FEET OF RUNOFF VOLUME DURING A 100-YEAR, 6-HOUR STORM. THE VOLUME PROVIDED BY THE PERIMETER PONDS IS A MINIMUM OF 3,100 CUBIC FEET. SO THERE IS ENOUGH CAPACITY IN THE PERIMETER PONDS DURING A 100-YEAR STORM. THERE IS A SMALL IMPERVIOUS AREA FOR THE CONCRETE PATH UNDER DEVELOPED CONDITIONS, THEREFORE FIRST-FLUSH PONDING REQUIRED IS ONLY 147 CUBIC FEET.

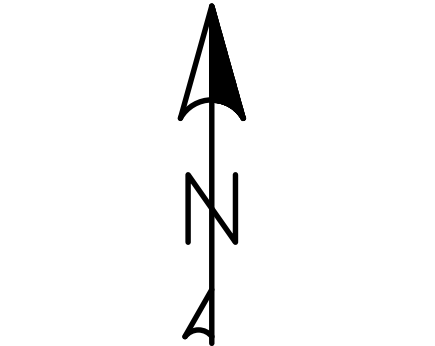
THE FIELD WILL BE ACCESSED BY TWO PATHS THAT WILL CROSS THE DRAINAGE DITCH ALONG THE SOUTH PROPERTY LINE. TO MAINTAIN THE FLOW IN THE DITCH, TWO 12-INCH CULVERTS WILL BE PLACED UNDER THE TWO PATHS. WITH A PEAK FLOW OF 0.65 CFS IN THE DITCH THE TWO CULVERTS WILL HAVE A MAXIMUM HEADWATER OF 0.6 FEET UNDER INLET CONTROL.

FIRST FLUSH =  $(0.34IN/12IN/FT) \times ((0.95 \times .125) \times 43,560SF/AC) = 147 \text{ CF}$  REQUIRED, 3,100 CF PROVIDED

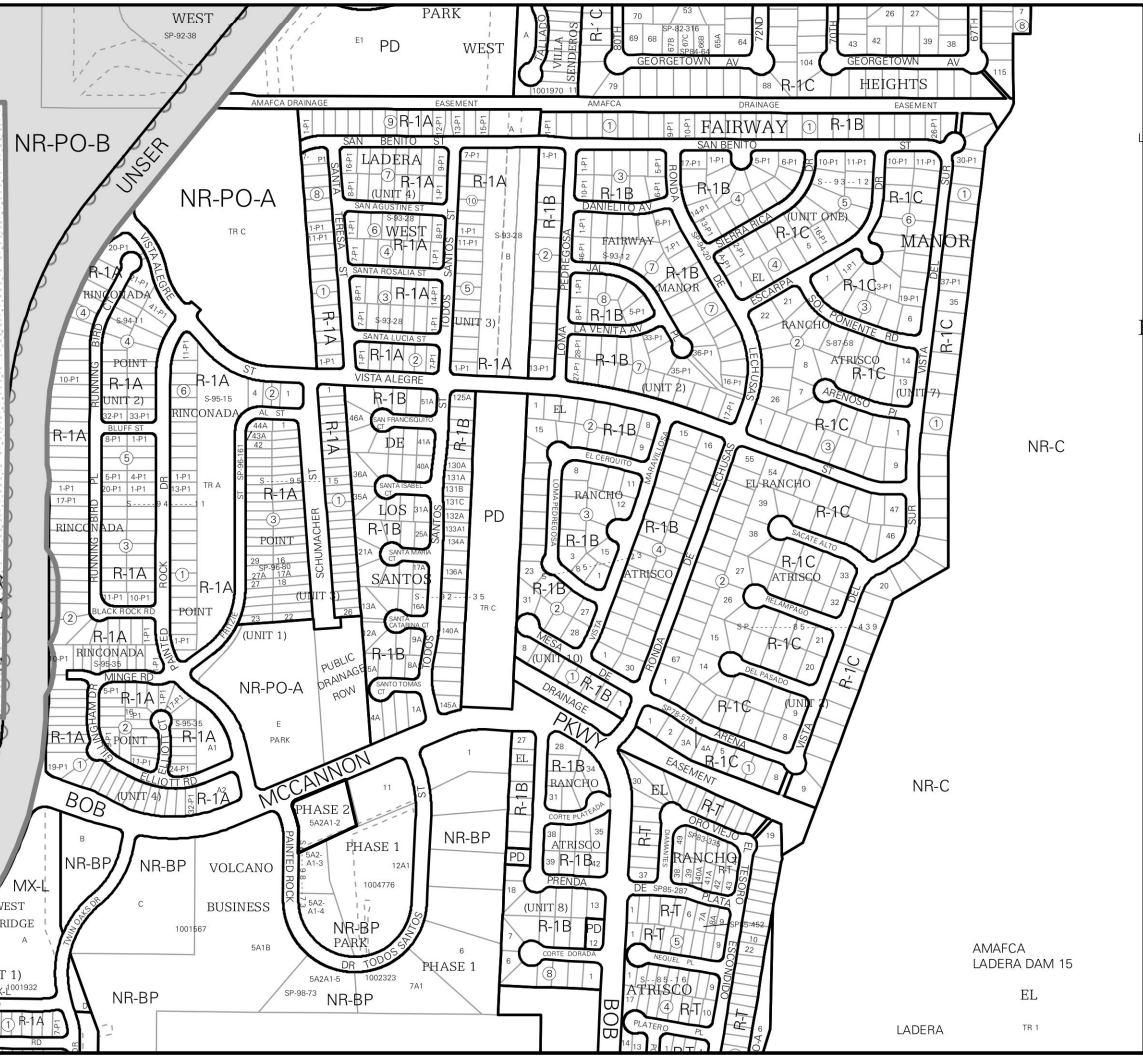
SIDEWALK CULVERT CAPACITY, WEIR EQUATION =  $(2.7) \times (1FT) \times (7IN/12IN/FT)^{1.5} = 1.2 \text{ CFS}$

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	100-YEAR PRECIPITATION				
		A (%)	B (%)	C (%)	D (%)		V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (24-hr) (acre-ft)	V (24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
SITE	0.9500	100.00	0.00	0.00	0.00	0.44	0.03	1,517	0.03	1,517	1.23
TOTAL RUNOFF	0.950						0.03	1,517	0.03	1,517	1.23
PROPOSED CONDITIONS											
SITE	0.9500	0.00	87.50	0.00	12.50	0.83	0.07	2,871	0.07	3,069	2.21
TOTAL RUNOFF	0.950						0.07	2,871	0.07	3,069	2.21
EXCESS PRECIP.		0.44	0.67	0.99	1.97	E (in)					
PEAK DISCHARGE		1.29	2.03	2.87	4.37	Q <sub>in</sub> (cfs)					
ZONE = 1											
WEIGHTED E (in) = (E <sub>A</sub> )(%A) + (E <sub>B</sub> )(%B) + (E <sub>C</sub> )(%C) + (E <sub>D</sub> )(%D)											
V <sub>6-hr</sub> (acre-ft) = (WEIGHTED E)(AREA)/12											
V <sub>24-hr</sub> (acre-ft) = V <sub>6-hr</sub> + (A <sub>0</sub> )(P <sub>100day</sub> - P <sub>6-hr</sub> )/12											
Q (cfs) = (Q <sub>in</sub> )(A <sub>0</sub> ) + (Q <sub>6-hr</sub> )(A <sub>6</sub> ) + (Q <sub>24-hr</sub> )(A <sub>24</sub> ) + (Q <sub>24-hr</sub> )(A <sub>0</sub> )											
V <sub>6-hr</sub> (in.) = 2.23											
P <sub>24-hr</sub> (in.) = 2.69											
P <sub>100day</sub> (in.) = 3.67											



SCALE: 1"=20'

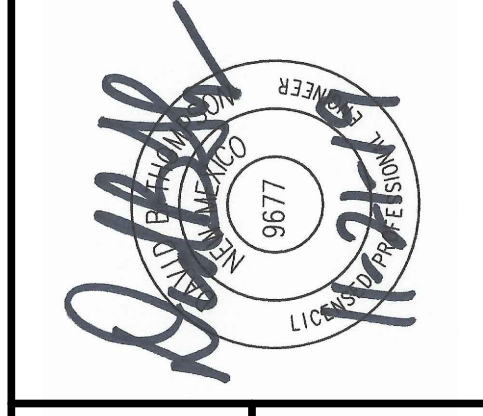


ZONE ATLAS: G-10-Z

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P.O. BOX 45760  
ALBUQUERQUE, NM 87113  
PHONE: (505) 271-2199  
FAX: (505) 850-9246  
taylor@thompson-engineering.com

NO.	REVISION	BY	DATE

PROJECT: DRAWN BY: BLN  
DATE: CHECKED BY:  
HORIZ. SCALE: APPROVED BY:  
VERT. SCALE: FILE:



HORIZON ACADEMY WEST FIELD  
AS-BUILT  
GRADING AND DRAINAGE

CITY/COUNTY REVIEW		DATE
DEPARTMENT	SIGN-OFF	
WASTEWATER MGMT. DIV.		
WATER SERVICES		
SUBDIVISION ENG.		
STREETS		
TRAFFIC		

FOR CITY/COUNTY USE ONLY

SHEET No.  
C100