CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

March 11, 2019

David Aube, P.E.
Hartman & Majewski Design Group
120 Vassar Dr SE, Suite 100
Albuquerque, NM, 87106

RE: Hope Christian School – Elementary
6721 Palomas Ave. NE
Grading and Drainage Plan
Engineer's Stamp Date: 02/21/19
Hydrology File: D18D009A

Dear Mr. Aube:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 02/22/2019, the Conceptual Grading Plan and Drainage Report **is not** approved for action by the DRB for Site Plan for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Sheet CD-1. Please provide the FIRM Map and flood plain note with effective date.
2. Sheet CD-1. Please provide the legal description of the property.
3. Sheet CD-1. Please add a note under the Drainage Management Plan stating, "The Western adjacent property has accepted up to 6.08 cfs of runoff from the Hope Christian School property."
4. Please add the word "Conceptual" to all the sheets title and also add a note stating "Not for Construction" to all sheets.
5. Please scale back (make lighter) all the existing information (contours, bldgs., & paving). Also bring forward (make bolder) all proposed information (contours, bldgs., SWQ ponds, & paving).
6. Please insure that only the proposed construction is required to provide the SWQ requirement.
7. Please label all the SWQ ponds with the proposed volume.

8. Sheet CD-2. Please fix Drainage Areas EX3 and EX4 to show the existing paving draining through the existing sidewalk culvert in Drainage Area EX4.

9. Sheet C-203. Please add some flowline information within the proposed parking lot.

10. Sheet C-203. Please label the proposed sidewalk culvert.

11. As a reminder, 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, 924-3420) 14 days prior to any earth disturbance.

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

13. Standard review fee of $300 will be required at the time of resubmittal.

PO Box 1293

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

Albuquerque

Sincerely,

NM 87103

Renée C. Brissette

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

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Hope Christian School Building Permit #: _____ Hydrology File #: D18D009A

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Hope Christian School

City Address: 6721 Palomas Avenue NE, 87113

Applicant: Hope Christian School Contact: Terry Heisey

Address: 6721 Palomas Avenue NE, 87113

Phone#: 505-822-8858 Fax#: Hope Christian School E-mail: tlheisey@hcsnm.org

Other Contact: Hope Christian School Contact: David Aube

Address: 120 Vassar Drive SE

Phone#: 505-998-6430 Fax#: 505-242-6881 E-mail: daube@designgroupnm.com

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE X DRB SITE ___ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes X No

DEPARTMENT _____ TRANSPORTATION X HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
X CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ DRAINAGE REPORT
____ DRAINAGE MASTER PLAN
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ STREET LIGHT LAYOUT
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY

____ PRELIMINARY PLAT APPROVAL
X 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: 2-21-19 By: David Aube

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

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) 260-1990] 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 Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

Drainage Summary

Project:	Hope Christian School
Project Numbe:	2553
Date:	02/20/19
By:	Dave A
Site Location	6721 Palomas Avenue NE
Precipitaion Zone	3 Per Table A-1 COA DPM Section 22.2

Existing summary

Basin Name	EX 1	EX 2	EX 3	EX 4	EX 5	
Area (sf)	41420.42	168101.98	49576.84	34543.31	46960.2	
Area (acres)	0.95	3.86	1.14	0.79	1.08	
%A Land treatment	0	15	0	0	0	
%B Land treatment	0	5	5	0	15	
%C Land treatment	85	55	45	30	20	
%D Land treatment	15	25	50	70	65	
Soil Treatment (acres)						
Area "A"	0.00	0.58	0.00	0.00	0.00	
Area "B"	0.00	0.19	0.06	0.00	0.16	
Area "C"	0.81	2.12	0.51	0.24	0.22	
Area "D"	0.14	0.96	0.57	0.56	0.70	
Excess Runoff (acre-feet)						
100yr. 6hr.	0.1149	0.4645	0.1713	0.1347	0.1734	acre-ft.
10yr. 6hr.	0.0596	0.2452	0.0993	0.0817	0.1036	acre-ft.
2yr. 6hr.	0.0240	0.1079	0.0510	0.0451	0.0564	acre-ft.
100yr. 24hr.	0.1209	0.5047	0.1950	0.1579	0.2026	acre-ft.
Peak Discharge (cfs)						
100 yr.	3.50	13.75	4.77	3.61	4.68	cfs
10yr.	2.10	8.08	3.02	2.36	3.00	cfs
2yr.	0.92	3.66	1.57	1.32	1.63	cfs

Proposed summary

Basin Name	PRO 1	PRO 2	PRO 3	PRO 4	PRO 5	
Area (sf)	33815	12673	199621	40165	46960	
Area (acres)	0.776	0.291	4.583	0.922	1.078	
%A Land treatment	30	0	12	0	0	
%B Land treatment	0	10	28	35	15	
%C Land treatment	0	0	30	0	20	
%D Land treatment	70	90	40	65	65	
Soil Treatment (acres)						
Area "A"	0.23	0.00	0.55	0.00	0.00	
Area "B"	0.00	0.03	1.28	0.32	0.16	
Area "C"	0.00	0.00	1.37	0.00	0.22	
Area "D"	0.54	0.26	1.83	0.60	0.70	
Excess Runoff (acre-feet)						
100yr. 6hr.	0.1197	0.0537	0.6369	0.1426	0.1734	acre-ft.
10yr. 6hr.	0.0716	0.0336	0.3474	0.0846	0.1036	acre-ft.
2yr. 6hr.	0.0403	0.0196	0.1653	0.0461	0.0564	acre-ft.
100yr. 24hr.	0.1423	0.0646	0.7133	0.1676	0.2026	acre-ft.
Peak Discharge (cfs)						
100 yr.	3.16	1.39	18.31	3.85	4.68	cfs
10yr.	1.98	0.92	10.81	2.42	3.00	cfs
2yr.	1.11	0.54	5.08	1.29	1.63	cfs
First Flush Ponding Voulme (cf)	670.7	323.2	2262.4	739.7	864.8	

HOPE CHRISTIAN ELEMENTARY SCHOOL, PHASE 1

I. PURPOSE AND SCOPE

The purpose of this drainage plan is to present the existing and proposed drainage management plans for the proposed Classroom Building to be located within the Hope Christian Elementary School located mid-block on Paloma Avenue NE, between San Pedro Boulevard NE, and Louisiana Boulevard NE. The site is located in Zone Atlas Page D-18-Z. The site is currently partially developed.

II. SITE DESCRIPTION AND HISTORY

The site has been previously developed with a mixture of built on site buildings and modular classroom buildings. Several of the buildings are to remain, and the portables will be removed prior beginning Phase 2 development.

III. COMPUTATIONAL PROCEDURES

Hydrologic analysis was performed utilizing the design criteria found in the COA-DPM Section 22.2 released in June 1997.

IV. PRECIPITATION

The 100-yr. 6-hr duration storm was used as the design storm for this analysis. This site is within Zone 3 as identified in the DPM Section 22.2. Tables within the section were used to establish the 6-hr precipitation, excess precipitation and peak discharge.

V. EXISTING DRAINAGE CONDITIONS OVERVIEW

The existing site contains a variety of functions from turf practice fields, buildings, pedestrian circulation paths, vehicular paths, parking areas and vacant dirt lots out to the west. The site is bounded to the east by a site for ABCWUA water tanks, to the north by Paseo Del Norte, to the south by Palomas Avenue NE, and to the West by a site currently under construction for an Assisted Care Facility.

The site generally drains from east to west. The ABCWUA water tanks to the east also generally drain from east to west, but the driveway located on the western side of the water tanks site collects the water and diverts it to the south into Palomas. This will prevent offsite drainage from entering the project site from the east.

A majority of the southenr parts of the site (Basins Ex 3, Ex 4 and Ex5) drains gently to south and will discharge into Palomas Avenue NE. The middle portion of the site (Basin Ex2) will drain historically into the neighboring property to the west. There is not a defined concentrated flow location, but is more sheet flow in nature. The northern part of the site (Basin Ex 1) will drain back into Paseo del Norte. Please refer to the Drainage Summary Table for Peak Flowrates for each of these basins and Excess Runoff Volumes.

VI. DRAINAGE MANAGEMENT PLAN

The site overall drainage patterns will change slightly with the phased construction.

In Phase 1 the new building will have a center ridge and drain toward the edges. For Proposed Basin 1 (PRO 1) the peak runoff will be 3.16 cfs and will still drain to the historic discharge point along the western property line. The developed discharge rate is 0.34 cfs less than the historic conditions. The first flush volume is 671 cubic feet that will be collected in a shallow pond at the north west corner of the site.

Proposed Basin 2 (PRO 2) will also receive some roof runoff, as well as drainage from a base course fire lane. The basin will generate a peak runoff of 1.39 cfs. The first flush volume is 323 cubic feet and will be contained in a shallow pond at the south west corner of the basin.

Proposed Basin 3 (PRO 3) contains portions of the new building, the Kindergarten Playground area, existing turf fields and an area that currently contains portable buildings that will be removed once the new building is constructed and the classroom functions are transferred from the portables to the permanent facility. This basin was previous contained within Existing Basin 2 and 3 but with the new building blocking the historic drainage path, and the kindergarten playground and loading area diverting the water south the basins are now combined. The new peak runoff rate from PRO 3 is 18.31 cfs. When combined with PRO 2 the total is 19.70 cfs. Historically EX 2 and EX 3 combined created a peak runoff of 18.52 cfs. The proposed discharge point for PRO 3 is into Palomas Avenue NE as there is a drive lane that diverts the runoff into the South Domingo Baca Arroyo that is located just to the south of Edmund G Ross Elementary School.

Proposed Basin 4 (PRO 4) is a small parking area located along Palomas Avenue NE. This basin creates a peak runoff of 3.85 cfs which is a slight increase from the historic of 3.61cfs. The increase of 0.24 cfs is offset by the reduction in PRO 3 of 0.21 cfs for the combined drainage into Palomas Avenue NE. A sidewalk culvert will be required to discharge the runoff under teh sidewalk and into Palomas Avenue NE.

Proposed Basin 5 (PRO 5) is unchanged in the proposed conditions from existing. The peak flow rate and discharge point remain.

VII. CONCLUSIONS

The site generally drains from east to west, and historic patterns have been maintained. Drainage onto the adjacent parcels has decreased from the historic that will benefit the two properties to the west.

Because the new two story classroom facility is replacing the single story modular buildings, the overall impervious roof surface are is decreasing. There is an increase in parking areas that will keep the overall impervious area approximately the same in the existing and proposed conditions.

Proposed Basin 1 and 2 will be designed to retain the first flush volumes. Proposed Basin 3 and 4 will likely require the Pay in Lieu of ponding option to comply with the first flush requirements. Proposed Basin 5 does not contain any new impervious surface and therefore is not affected by the first flush requirements.

As the design is formalized, opportunities to retain water in parking lot islands, street scape swales and other landscaping areas will be studied in detail, and should further reduce the runoff from the site, that is already below the historic conditions.

A5 ZONE ATLAS PAGE
SCALE: NOT TO SCALE

DAVID A. AUBE
STATE OF NEW MEXICO
11422
REGISTERED PROFESSIONAL ENGINEER
2-21-19

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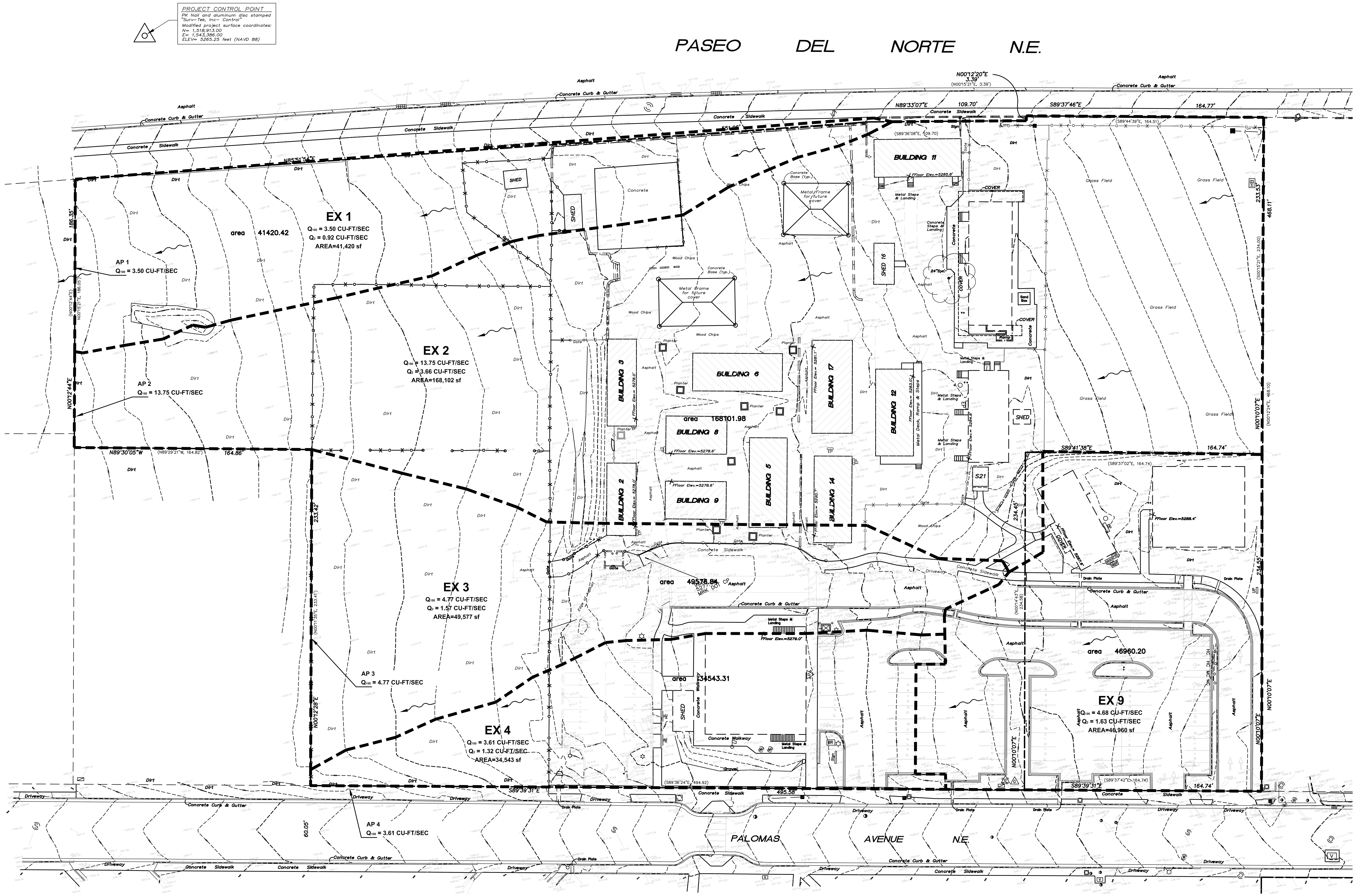
HOPE CHRISTIAN ELEMENTARY

REVISIONS	PHASE	DATE	
	DRB	2.22-19	CONCEPTUAL DRAINAGE PLAN NARRATIVE

CD-1



1 SITE DRAINAGE PLAN - EXISTING CONDITIONS
1" = 30'-0"

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HOPE CHRISTIAN ELEMENTARY

REVISIONS	PHASE	DATE		
	DRB	2.22-19	CONCEPTUAL DRAINAGE PLAN EXISTING CONDITIONS	CD-2

PROJECT CONTROL POINT
PK Nail and aluminum disc stamped "Surv-Tek, Inc- Control"
Modified project surface coordinates:
N= 1,518,913.00
E= 1,543,366.00
ELEV= 5265.25 feet (NAVD 88)

PASEO DEL NORTE N.E.

PRO 1
Q_{100} = 3.16 CU-FT/SEC
Q_2 = 1.11 CU-FT/SEC
AREA=33,815 sf
area 33814.86

AP 1
Q_{100} = 3.16 CU-FT/SEC

PRO 2
Q_{100} = 1.39 CU-FT/SEC
Q_2 = 0.54 CU-FT/SEC
AREA=12,673 sf
area 12673.07

AP 2
Dirt
Q_{100} = 1.39 CU-FT/SEC

PRO 3
Q_{100} = 18.31 CU-FT/SEC
Q_2 =5.08 CU-FT/SEC
AREA=74,548 sf
area 199820.59

PRO 4
Q_{100} = 3.85 CU-FT/SEC
Q_2 = 1.29 CU-FT/SEC
AREA=40,165 sf
area 40164.60

EX 5
Q_{100} = 4.68 CU-FT/SEC
Q_2 = 1.63 CU-FT/SEC
AREA=46,960 sf
area 46960.20

AP 3
Q_{100} = 18.31 CU-FT/SEC

AP 4
Q_{100} = 3.85 CU-FT/SEC

BUILDING 11 — FFloor Elev.=5285.8'
BUILDING 6 — FFloor Elev.=5281.7'
BUILDING 3 — FFloor Elev.=5278.0'
BUILDING 8 — FFloor Elev.=5278.6'
BUILDING 2 — FFloor Elev.=5278.0'
BUILDING 9 — FFloor Elev.=5278.6'
BUILDING 5 — FFloor Elev.=5279.0'
BUILDING 14 — FFloor Elev.=5280.7'
BUILDING 17 — FFloor Elev.=5281.7'
BUILDING 12 — FFloor Elev.=5283.4'
FFloor Elev.=5288.4'
FFloor Elev.=5284.8'
FFloor Elev.=5279.0'

PALOMAS AVENUE N.E.

1 SITE DRAINAGE PLAN - PROPOSED CONDITIONS
1" = 30'-0"

DAVID A AUBE — STATE OF NEW MEXICO (11422) — REGISTERED PROFESSIONAL ENGINEER — 2-21-19

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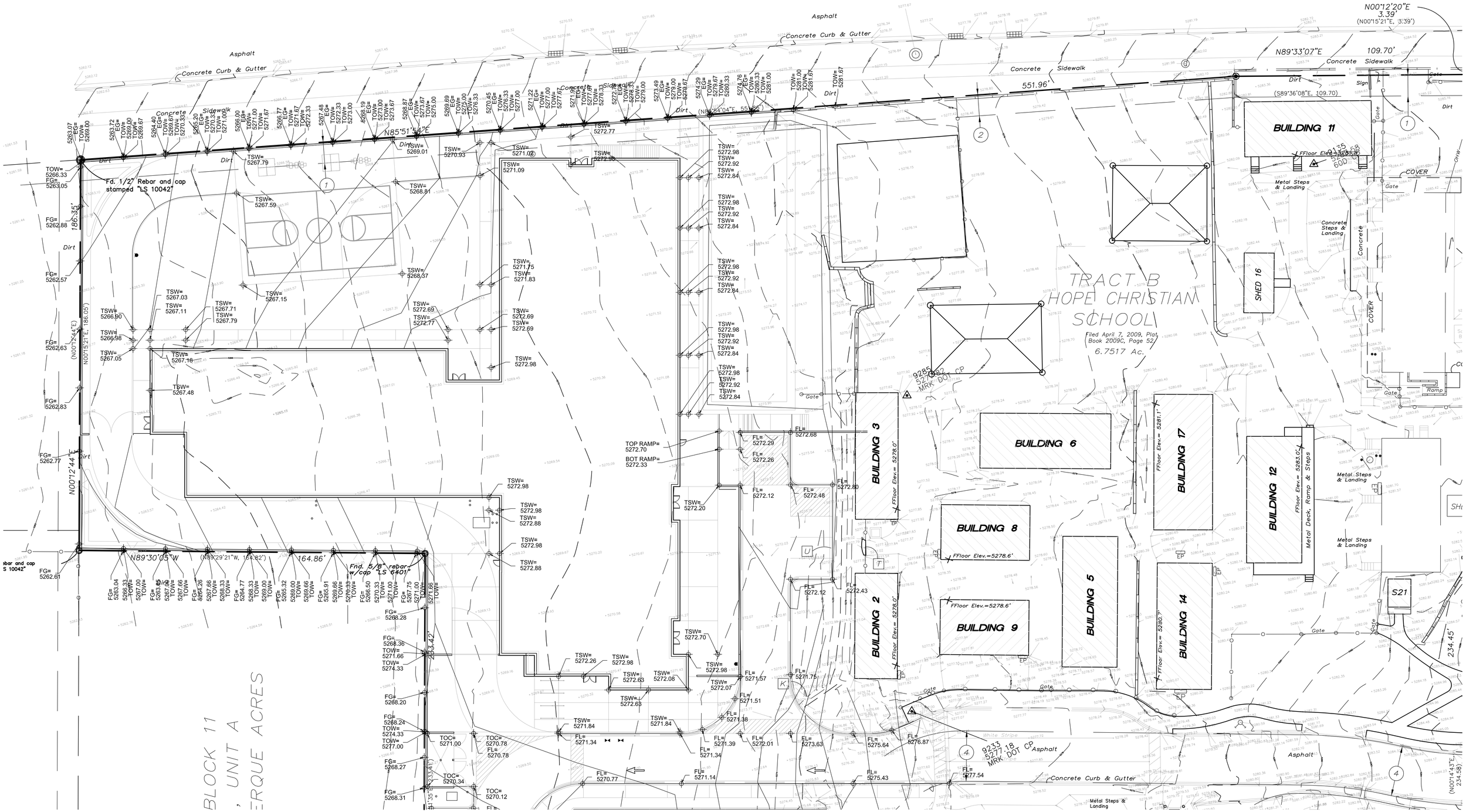
REVISIONS	PHASE	DATE	
	DRB	2.22-19	CONCEPTUAL DRAINAGE PLAN PROPOSED CONDITIONS

CD-3



1 SITE GRADING PLAN - ENLARGED
1" = 20'-0"

GRADING PLAN GENERAL NOTES

1. SEE SHEET CG01 FOR COMPLETE LIST OF GENERAL NOTES AND SYMBOL/LINETYPE LEGEND THAT APPLY TO ALL SHEETS.

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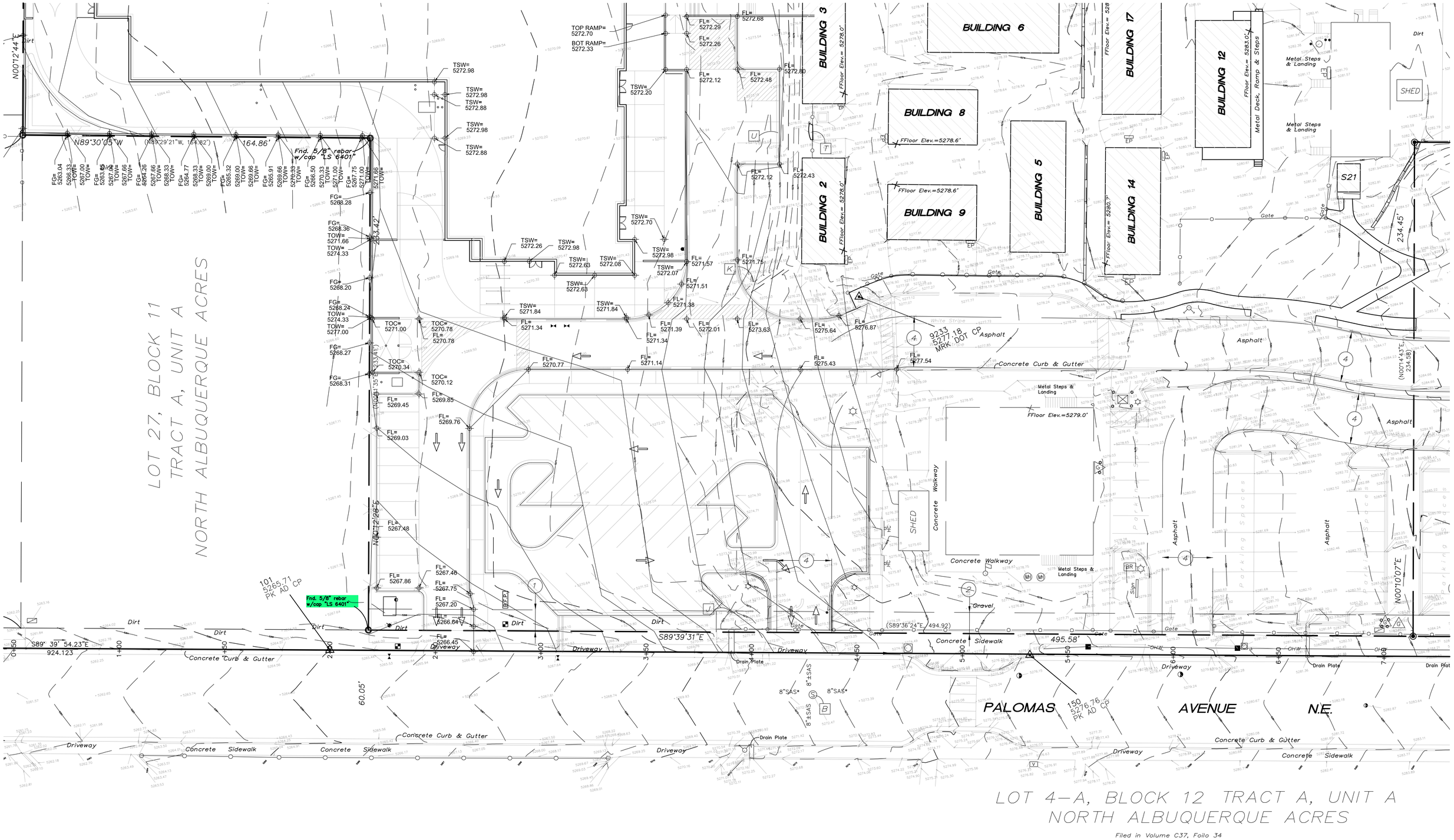
HOPE CHRISTIAN ELEMENTARY

REVISIONS	PHASE	DATE		
	DRB	2.22-19	ENLARGED SITE GRADING PLAN	C-202



LOT 4-A, BLOCK 12 TRACT A, UNIT A
NORTH ALBUQUERQUE ACRES

Filed in Volume C37, Folio 34

1 SITE GRADING PLAN - ENLARGED

1" = 20'-0"

GRADING PLAN GENERAL NOTES

1. SEE SHEET CG01 FOR COMPLETE LIST OF GENERAL NOTES AND SYMBOL/LINETYPE LEGEND THAT APPLY TO ALL SHEETS.

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REVISIONS

PHASE	DATE
DRB	2.22-19

ENLARGED SITE GRADING PLAN

C-203