

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

June 9, 2017

Glenn Broughton
Bohannon Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

RE: Smiles for Kids Dental Office – Phase 2
Conceptual Grading and Drainage Plan
Stamp Date: 6/7/17
Hydrology File: C12D055

Dear Mr. Broughton:

Based upon the information provided in your resubmittal received 6/9/2017, the Conceptual Grading and Drainage Plan is approved for Site Plan for Building Permit.

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

Sincerely,

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

New Mexico 87103

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

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) _____

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

☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

DATE SUBMITTED: _____ **By:** _____

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

June 1, 2017

Ms. Renee C. Brissette, PE
Senior Engineer, Hydrology
City of Albuquerque
Planning Department
600 2nd Street NW
Albuquerque, NM 87103

Re: Tract 10-A-1 (Smile for kids Phase 2) / Hydrology File C12D055

Dear Ms. Brissette:

Enclosed for your review and comment is a re-submittal of the Tract 10-A-1 (Smiles for Kids Phase 2). Please see the responses to your comments dated May 8, 2017 below: Note that the comment response number corresponds to the number on your review letter. A copy of the review letter is attached for reference.

1. Tract G has been removed from the drainage management plan. Note that the undeveloped lot currently drains onto Tract 10-A-1. This is not accounted for in this Drainage Management Plan. When this tract is developed, drainage will be conveyed north across Tract F as required by the Fountain Hills Drainage Report.
2. A drainage easement will be provided on Tract 10-A-1 for the benefit of Tract H. The easement will be recorded prior to final sign off of the Site Plan for Building Permit.
3. Legal description has been added.
4. The flood plain note is included in the first paragraph of existing conditions narrative.
5. The project bench mark has been added to the plan. This is based on NAD_83 and NAVD88.
6. The applicable drainage report for this tract has been revised.
7. The land treatments for Basin 2 have been revised to match the land treatments on the approved DMP for Tract H.
8. Q100 for Basin 4 has been added to the DMP. Note that this basin ID has been revised to Basin 3.
9. The reference to Nunzio 60' R/W has been deleted. The recording information for the access easement has been added to the sheet.
10. The weir capacity calculation has been added. See Sidewalk Culvert Capacity Table.
11. The private storm drains are all designed for gravity flow. A storm drain pipe table have been added to demonstrate that the storm drain pipes are adequately sized.
12. Top of curb and flow line elevations have been added.
13. Top of curb and flow line elevations have been added.

Engineering ▲

Spatial Data ▲

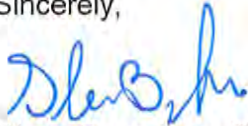
Advanced Technologies ▲

Ms. Renee C. Brissette, P.E.
City of Albuquerque
June 1, 2017
Page 2

14. The Phase 1 storm drain sump pump discharge line connection has been added. This discharge line will connect to a new inlet on Tract H.
15. The Phase 2 storm drain sump pump discharge line connection has been added. This discharge line will connect to the Phase 1 line and new inlet on Tract H.
16. The cross sections along Nunzio and Eagle Ranch have been added.
17. The paved asphalt trail along Nunzio and concrete sidewalk along Eagle Ranch have been added.
18. The sidewalk adjacent to Tract H were financially guaranteed by the Fountain Hills project. Construction of those sidewalks are the responsibility of the Fountain Hills Developer.
19. We have discussed this with Transportation. The conceptual pond design has been modified based on widening of Eagle Ranch for a right turn lane and bike lane.
20. Sheet C-002, Eagle Ranch Capacity Calculations have been added to the submittal package.

We are requesting Hydrology approval in support of Site Plan for Building Permit approval. Please feel free to contact me at 823-1000 with questions or comments.

Sincerely,



Glenn Broughton, PE
Senior Project Manager
Community Development and Planning

GSB/jcm
Enclosures

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

May 8, 2017

Gleen Broughton
Bohannon Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

RE: Smiles for Kids Dental Office – Phase 2
Conceptual Grading and Drainage Plan
Stamp Date: 4/26/17
Hydrology File: C12D055

Dear Mr. Broughton:

Based upon the information provided in your submittal received 4/26/2017, the Conceptual Grading and Drainage Plan is **not** approved for Site Plan for Building Permit. The following comments need to be addressed for approval of the above referenced project:

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New Mexico 87103

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1. According to "Fountain Hills DMP", Tract G is not supposed to drain thru Tract H and Lots 10A-1 to Eagle Ranch Road so the increased flow from Tract G will not be allowed at Eagle Ranch Road. The flow from Tract G was not anticipated in the "North Coors DMP Revision" and again it was not anticipated in the "Grandma's Pond" drainage design.
2. Please provide a Private Facility Drainage Covenant and Reservation of Private Drainage Easement. This covenant and easement should be between Lot 10A-1 and Tracts G & H and please add a note of the recorded covenant and easement on either Sheet C001 or C100.
3. On Sheet C001. Please provide the legal description of the property.
4. On Sheet C001. Please provide the flood plain note.
5. On Sheet C001. Please provide the benchmark information.
6. On Sheet C001. Under Existing Conditions, the drainage study for Fountain Hills is referenced. Even though Lots 10A-1 and Tract H are shown in the study, these lots are not in the same watershed basin as Fountain Hills. Please reference the drainage study which these sites are part of the watershed, "Proposed Tract 2B Detention Pond (North Coors DMP Revision) by Smith Engineering, 2003 (AMAFCA #353.04.05). The Allowable discharge for from the site is 4.094 cfs/ac.

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

7. On Sheet C001. Under Proposed Ultimate Development Conditions, for Basin 2 please verify that the area shown on the Phase 1 Site Plan listed as future building was included as land treatment D. Correct calculation if needed.
8. On Sheet C001. Please show the Q_{100} for Basin 4 to be discharge on to Nunzion Avenue.
9. On Sheet C001. Please remove Nunzio Avenue (60' R.O.W.) from the drive to Smiles for Kids. Please then label this as a private drive with an access agreement for Lot 10-A-1 and Tract H.
10. On Sheet C001. Please provide the weir calculation for the 2 foot sideways culverts with the total Q for the four culverts.
11. On Sheet C001. Please provide HGL Calculations for the 18-inch pipe system.
12. On Sheet C100. Please provide the existing TC & FL at the corners of the Phase 1 parking lot in a 70 foot radius around the proposed inlet. I would like to insure the drainage pattern for the proposed inlet.
13. On Sheet C100. Along the existing access drive, please provide the existing TC & FL at the proposed curb return for the parking lot entrances.
14. On Sheet C100. There is an existing inlet for the Phase 1 underground parking. This inlet has a sump pump and a pvc discharge pipe that goes into the existing concrete rundown. See photo below. The Phase 2 plan does not show that there is a connection to the proposed storm sewer system. Please provide the connection.

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15. On Sheet C100. The Phase 2 underground parking has a proposed inlet without a connection to the proposed storm sewer system. Please provide the connection.
16. On Sheet C100. Please provide two cross sections of the proposed retention pond. One along Eagle Ranch Road and the other at the proposed sidewalk culverts on Nunzio Avenue.
17. On Sheet C100. Lot 10 A-1 and Tracts G & H are not included in the Fountain Hill financial deferment of the sidewalks. Therefore please show the sidewalk along Nuzio Avenue and Eagle Ranch Road.
18. Phase 1 plans showed a proposed sidewalk along Eagle Ranch Road and Paseo del Norte. However, the sidewalks were never built. Please include the sidewalks in Phase 2.
19. Please note that according to the 2040 Metropolitan Transportation Plan, Eagle Ranch Road may be widened for a bike lane. Please check with Transportation and anticipate this in the pond design.
20. Please show the capacity calculations on Eagle Ranch Road right below the pond's outfall for the 10 year and 100 year storm event.

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

Sincerely,

Renee C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

Date Submitted: _____
Date Site Plan Approved: _____
Date Preliminary Plat Approved: _____
Date Preliminary Plat Expires: _____
DRB Project No. _____

INFRASTRUCTURE LIST

EXHIBIT "A"
TO SUBDIVISION IMPROVEMENTS AGREEMENT
DEVELOPMENT REVIEW BOARD (D.R.B.) REQUIRED INFRASTRUCTURE LIST

SMILE FOR KIDS
LOT 10-A-1
TRACT A1 BIQUELLOE WES (UNIT 1)

COA ORC Project #	SIA Sequence #	Size	Type of Improvement	Location	From	To	Private Inspector	City Inspector	City Crst Engineer
PUBLIC ROADWAY IMPROVEMENTS - OFFSITE PHASE 2 (DEFERRED)									
		12'-14"	ARTERIAL PAVEMENT W/ PCC CURB & GUTTER 6' WIDE PCC SIDEWALK ON THE WESTSIDE	EAGLE RANCH ROAD	NUNZIO AVENUE	SOUTH BOUNDARY	/	/	/
		10'	ASPHALT TRAIL	NUNZIO AVENUE	WEST BOUNDARY	EAGLE RANCH NW ROAD	/	/	/

AGENT/OWNER: _____ PMENT REVIEW BOARD MEMBER APPROVALS: _____

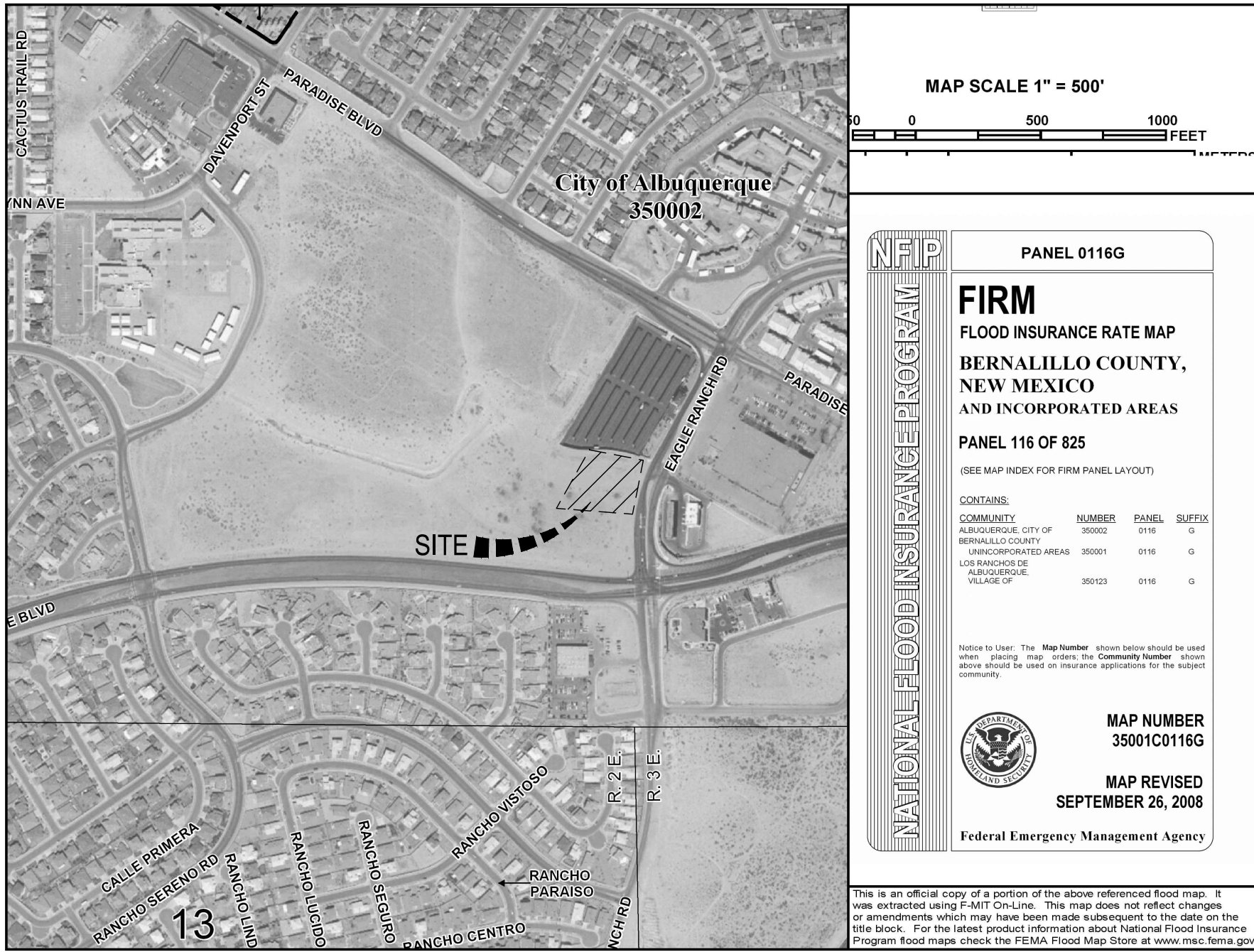
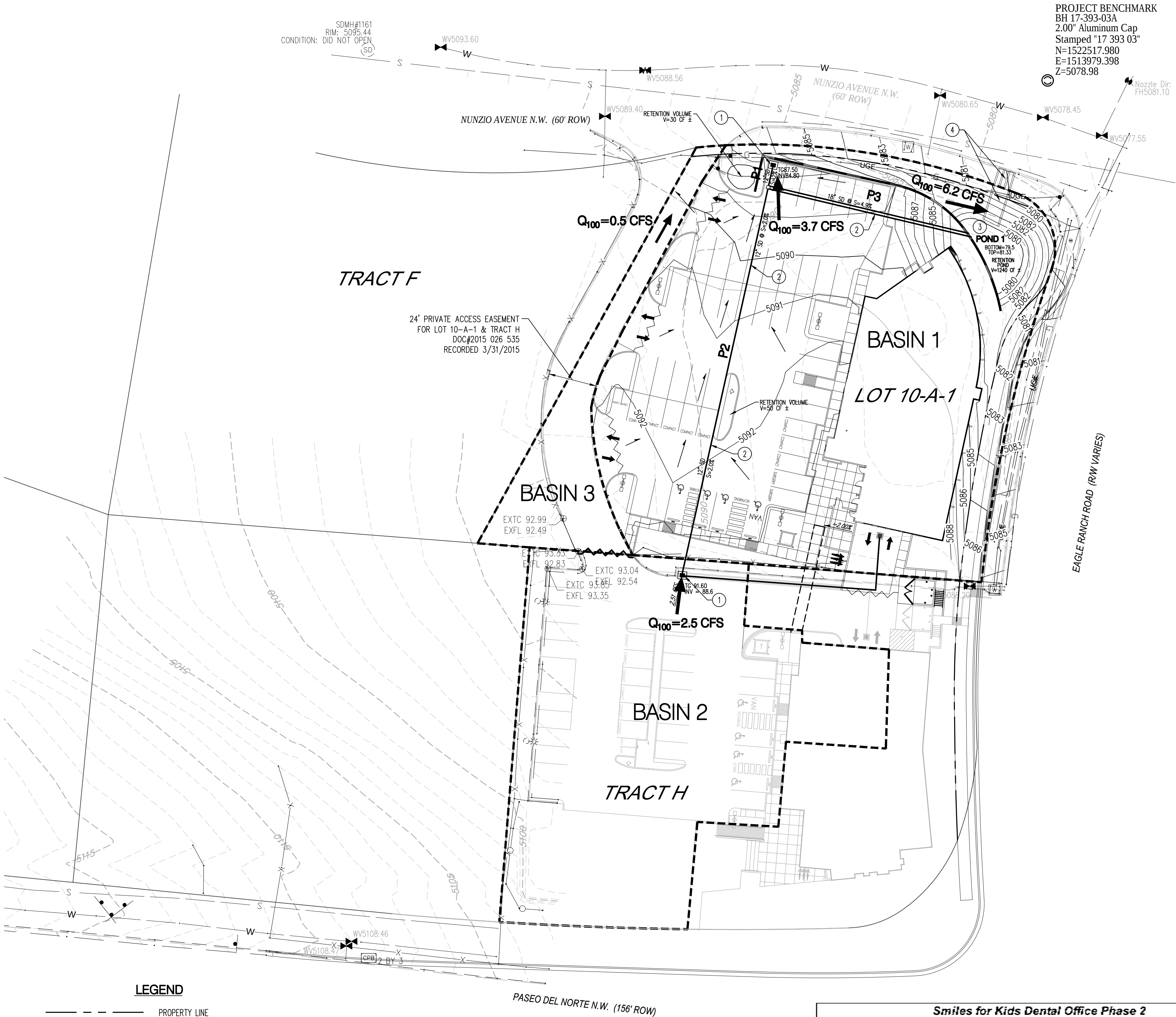
PARKS & RECREATION DATE

AMAFCA	DATE
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CITY ENGINEER _____ DATE _____

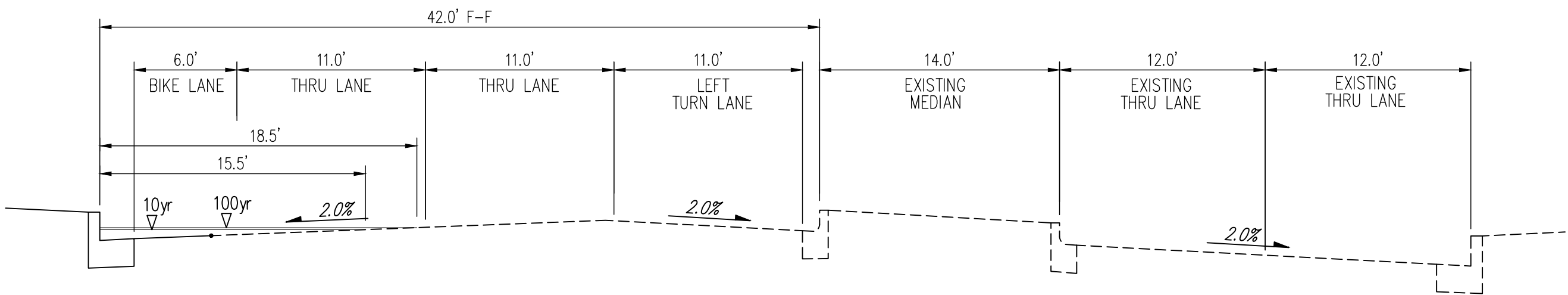
REVIEW COMMITTEE REVISIONS

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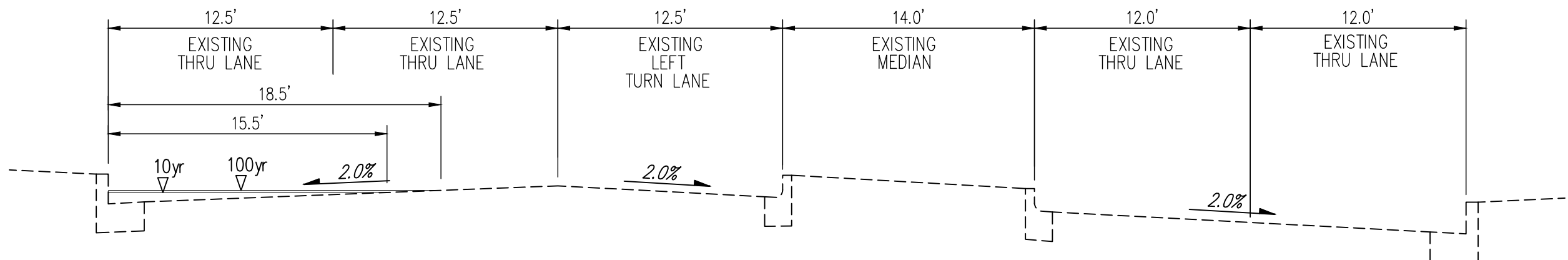




Smiles for Kids Dental Office Phase 2 - Offsite Drainage Basin											
Proposed Ultimate Development Conditions Basin Data Table											
This table is based on the DPM Section 22.2, Zone: 1											
Basin	Area	Area	Land Treatment Percentages				Q _(100yr)	Q _(100yr-6hr)	WTE	V _(100yr-6hr)	V _(100yr-10day)
ID	(SQ. FT)	(AC.)	A	B	C	D	(cfs/ac.)	(CFS)	(inches)	(CF)	CF
Proposed											
1	180627	4.15	0.0%	0.0%	27.0%	73.0%	3.97	16.4	1.71	25670	41823
TOTAL	180627	4.15						16.4			41823



SECTION A - EAGLE RANCH ROAD - PROPOSED CROSS SECTION
NTS



SECTION A - EAGLE RANCH ROAD - EXISTING CROSS SECTION
NTS

INTRODUCTION:

THE SMILES FOR KIDS PHASE 2 PROJECT IS LOCATED ON THE SOUTHWEST CORNER AT THE INTERSECTION OF NUNZIO AVE NW AND EAGLE RANCH RD. THE PURPOSE OF THIS SUBMITTAL IS TO ANALYZE THE CAPCTY OF EAGLE RANCH ROAD IMMEDIATELY DOWNSTREAM OF THE PROJECT. THIS ANALYSIS IS BEING PERFORMED IN SUPPORT OF SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL.

METHODOLOGY:

THE HYDROLOGIC ANALYSIS PROVIDED WITH THIS DRAINAGE MANAGEMENT PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 22.2 OF THE DPM. THE SITE IS LOCATED WEST OF THE RIO GRANDE WITHIN PRECIPITATION ZONE 1. LAND TREATMENT PERCENTAGES WERE CALCULATED BASED ON THE DEVELOPED CONDITIONS AS SUMMARIZED IN THE "PROPOSED BASIN DATA TABLE" (THIS SHEET).

PROPOSED CONDITIONS:

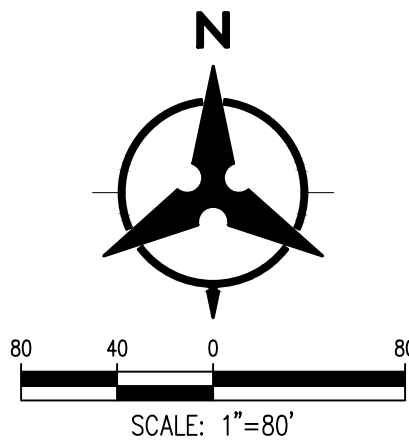
THE PEAK FLOW RATE CALCULATIONS ARE BASED ON FULLY DEVELOPED CONDITIONS AND APPROVED DRAINAGE REPORTS. PEAK FLOW FOR THE 10 AND 100 YEAR STORMS WERE CALCULATED THE DRAINAGE BASIN INCLUDES THE NORTH LANES OF PASEO DEL NORTE, WEST HALF OF EAGLE RANCH, TRACT H AND LOT 10-A-1. THE MAJORITY OF THE FULLY DEVELOPED FIRST BAPTIST CHURCH SITE DISCHARGES TO A PUBLIC STORM DRAIN IN PASEO DEL NORTE. THE NORTHEASTERN PORTION OF THE SITE (BASIN 2-4) DRAINS NORTHEAST AND ULTIMATELY TO THE DETENTION POND NORTH OF NUNZIO.

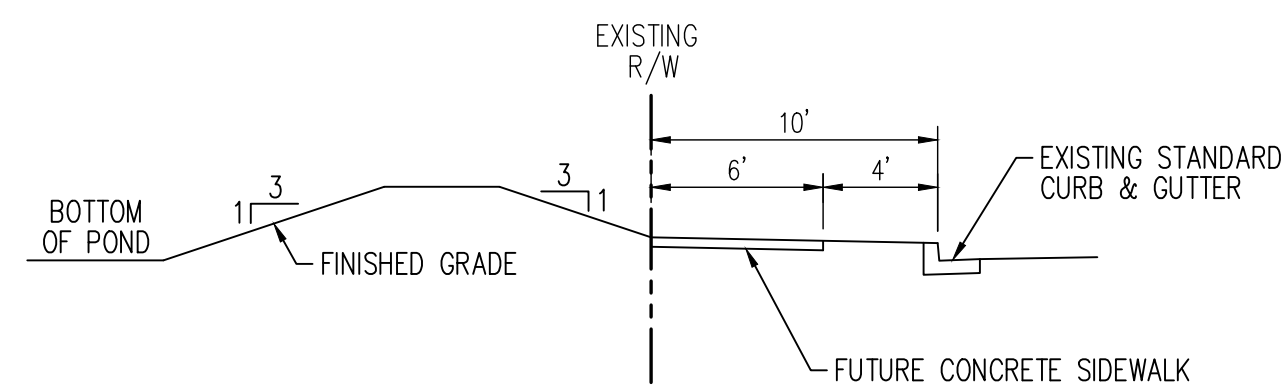
THE CAPACITY OF EAGLE RANCH WAS CALCULATED USING MANNINGS EQUATION. IN THE 10 YEAR STORM THE DEPTH OF FLOW IS 0.4 FEET AND SPREAD IS 18.5 FEET. THE SPREAD IN THE 10 YEAR STORM ENDOACHES INTO THE SECOND THROUGH LANE BY APPROXIMATELY 4 FEET. THIS TECHNICALLY DOES NOT MEET THE CRITERIA SPECIFIED IN THE DPM, BUT LEAVES A 6.5 FOOT DRIVING LANE. THE DEPTH OF FLOW IN THE 100 YEAR STORM IS 0.46 FEET AND IS CONTAINED WITHIN THE ROADWAY.

CONCLUSION:

THE PEAK DISCHARGE FROM THE SITE IS 3.7 CFS WHICH IS LESS THAN THE ALLOWABLE PEAK DISCHARGE RATE, THEREFORE WE ARE IN CONFORMANCE WITH CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS AND REQUEST SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL.

EAGLE RANCH CAPACITY CALCULATION											
MANNING'S N=0.016			SLOPE = 2.7%								
POINT	DIST	ELEV									
1	0	0.67									
2	0	0									
3	2	0.13									
4	25	0.59									
5	37.5	0.34									
6	37.5	0.84									
WSEL	DEPTH	FLOW	FLOW	WETTED	FLOW	TOP WIDTH	TOTAL				
(FT)	INC	AREA	RATE	PER	VEL	(FT)	ENERGY				
	(FT)	SQ.FT.	(CFS)	(FT)	(FPS)		(FT)				
0.02	0.02	0.00	0.0	0.33	0.7	0.3	0.03				
0.04	0.04	0.01	0.0	0.66	1.1	0.6	0.06				
0.06	0.06	0.03	0.0	0.99	1.4	0.9	0.09				
0.08	0.08	0.05	0.1	1.31	1.7	1.2	0.13				
0.1	0.1	0.08	0.2	1.64	2.0	1.5	0.16				
0.12	0.12	0.11	0.2	1.97	2.2	1.8	0.20				
0.14	0.14	0.15	0.3	2.64	2.3	2.5	0.22				
0.16	0.16	0.21	0.5	3.67	2.3	3.5	0.24				
0.18	0.18	0.29	0.7	4.69	2.4	4.5	0.27				
0.2	0.2	0.39	1.0	5.71	2.6	5.5	0.30				
0.22	0.22	0.51	1.4	6.73	2.7	6.5	0.34				
0.24	0.24	0.65	1.9	7.75	2.9	7.5	0.37				
0.26	0.26	0.81	2.5	8.77	3.1	8.5	0.41				
0.28	0.28	0.99	3.3	9.79	3.3	9.5	0.45				
0.3	0.3	1.19	4.2	10.81	3.5	10.5	0.49				
0.32	0.32	1.41	5.2	11.83	3.7	11.5	0.53				
0.34	0.34	1.65	6.4	12.85	3.9	12.5	0.58				
0.36	0.36	1.92	7.5	14.89	3.9	13.5	0.60				
0.38	0.38	2.23	8.8	16.93	4.0	14.5	0.62				
0.4	0.4	2.58	10.4	18.97	4.0	15.5	0.65				
0.42	0.42	2.97	12.3	21.01	4.1	16.5	0.69				
0.44	0.44	3.40	14.5	23.05	4.3	17.5	0.72				
0.46	0.46	3.87	17.0	25.09	4.4	18.5	0.76				
0.48	0.48	4.38	19.8	27.13	4.5	19.5	0.80				
0.5	0.5	4.93	23.0	29.17	4.7	20.5	0.84				
0.52	0.52	5.52	26.6	31.21	4.8	21.5	0.88				
0.54	0.54	6.15	30.5	33.25	5.0	22.5	0.92				
0.56	0.56	6.82	34.8	35.29	5.1	23.5	0.97				
0.58	0.58	7.53	39.5	37.33	5.3	24.5	1.01				
0.6	0.6	8.28	45.4	38.37	5.5	37.5	1.07				
0.62	0.62	9.03	52.5	38.41	5.8	37.5	1.15				
0.64	0.64	9.78	59.9	38.45	6.1	37.5	1.22				
0.66	0.66	10.53	67.7	38.49	6.4	37.5	1.30				





EAGLE RANCH ROAD - SECTION C
NTS

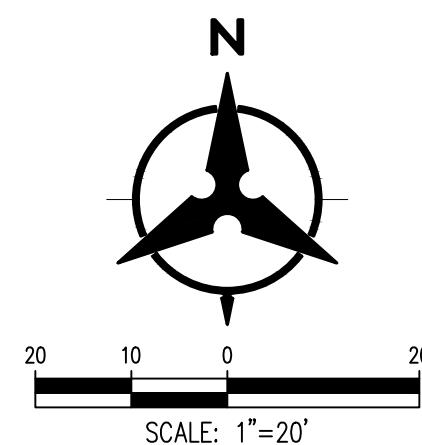


project title	Smiles for Kids Dental Office PHASE 2
sheet title	Conceptual Grading & Drainage Plans

sheet-
C100

1. PROPOSED RETAINING WALL.
2. PROPOSED STORM DRAIN INLET.
3. PROPOSED STORM DRAIN LINE, SEE PLAN FOR SIZE & SLOPE.
4. PROPOSED STORM WATER SUMP PUMP.
5. CONCRETE SPILLWAY WITH 3'-24" WIDE SIDEWALK CULVERTS.
6. EXISTING SUMP PUMP DISCHARGE LINE, CONNECT TO PHASE 2 SUMP PUMP DISCHARGE LINE.
7. PHASE 2 SUMP PUMP DISCHARGE LINE.
8. CONNECT SUMP PUMP DISCHARGE LINE TO PROPOSED INLET.
9. DRAIN BASIN WITH SOLID COVER.

— — — — —	PROJECT LIMITS OF GRADING		DIRECTION OF FLOW
— — — — — 5025	EXISTING INDEX CONTOUR		WATER BLOCK/GRADE BREAK
— — — — — 5024	EXISTING INTERMEDIATE CONTOUR	— — — — —	PROPOSED STORM DRAIN LINE
⊕ 25.25	EXISTING GROUND SPOT ELEVATION		
— — — — — 5025	PROPOSED INDEX CONTOUR		PROPOSED STORM DRAIN INLET
— — — — — 5024	PROPOSED INTERMEDIATE CONTOUR	— — — — —	PROPOSED RETAINING WALL
	PROPOSED FINISHED GRADE SPOT ELEVATION		
	TG=TOP OF CURB,		
	FL=FLOW LINE,		
	FG=FINISHED GRADE		
	TS=TOP OF SIDEWALK		
	TG=TOP OF GRATE,		
	FGH=FINISH GROUND HIGH,		
	FG=FINISH GROUND LOW		
	EXFL=EXISTING FLOW LINE		
	EXTC=EXISTING TOP OF CURB		



Bohannon  **Huston**
www.bhinc.com 800.877.5332