

# CITY OF ALBUQUERQUE

*Planning Department*  
Alan Varela, Director



*Mayor Timothy M. Keller*

April 13, 2022

Dennis Lorenz, PE  
Lorenz Design & Consulting LLC  
3308 Calle de Daniel NW  
Albuquerque, NM 87104

**RE: The Learning Experience**  
**4850 Nunzio Ave. NW**  
**Permanent C.O. - Accepted**  
**Engineer's Certification Date: 4/11/22**  
**Engineer's Stamp Date: 10/7/2020**  
**Hydrology File: C12D003C**

Dear Mr. Lorenz:

PO Box 1293

Based on the Certification received 4/13/22 and site visit on 4/13/22, this certification is approved in support of release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

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

Sincerely,

NM 87103

[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 6/2018)

**Project Title:** The Learning Experience **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** C12-D003C  
**DRB#:** NA **EPC#:** NA **Work Order#:** NA  
**Legal Description:** Tract F, Fountain Hills Plaza Subdivision  
**City Address:** 4580 Nunzio Ave NW

**Applicant:** Lorenz Design & Consulting LLC **Contact:** Dennis A Lorenz  
**Address:** 3308 Calle De Daniel NW, Albuquerque, NM  
**Phone#:** 505-220-0869 **Fax#:** \_\_\_\_\_ **E-mail:** dennisl@lorenznm.com

**Other Contact:** SCM Partners **Contact:** S. Haynes  
**Address:** PO Box 9043, Albuquerque, NM 87119  
**Phone#:** 505-898-6622 **Fax#:** \_\_\_\_\_ **E-mail:** Scooter@SCM Partners.com

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT (# of lots) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? ☒ Yes \_\_\_\_\_ No

**DEPARTMENT** \_\_\_\_\_ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

### TYPE OF SUBMITTAL:

- ☒ ENGINEER/ARCHITECT CERTIFICATION  
 \_\_\_\_\_ PAD CERTIFICATION  
 \_\_\_\_\_ 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  
 \_\_\_\_\_ 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:** April 11, 2022 **By:** Dennis A. Lorenz PE

COA STAFF:

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

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



April 11, 2022

Ernst Armijo PE  
Development and Building Services  
City of Albuquerque  
Plaza Del Sol  
Albuquerque, New Mexico 87102

**SUBJECT:        *THE LEARNING EXPERIENCE - C12-D003C***  
***Engineer's Grading & Drainage Certification for Permanent CO.***

Dear Ernest:

Submitted herewith for review and approval is the Engineer's Grading & Drainage Certification for Permanent Certificate of Occupancy. The Temporary Certification for CO required completion of the public sidewalk along Nunzio Avenue NW. The sidewalk has been completed. (see attached Photo ).

Thank you for your assistance. If you have any questions regarding this request, please call me.

Sincerely,

**LORENZ DESIGN & CONSULTING, LLC**

Dennis A. Lorenz, PE

PI20-005\EA04112022







IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DRAINAGE ORDINANCE, EFFECTIVE MAY 12, 2014, ALL NEW DEVELOPMENT PROJECTS ARE REQUIRED TO MANAGE THE RUNOFF WHICH OCCURS DURING THE 90TH PERCENTILE STORM EVENT. IN ORDER TO COMPLY WITH THIS CRITERIA, WHERE PRACTICAL, ALL SURFACE DRAINAGE SHALL BE ROUTED THROUGH LANDSCAPED AREAS BEFORE RELEASE INTO DOWNSTREAM DRAINAGE FACILITIES. THIS PLAN RECOMMENDS ALL LANDSCAPED AREAS BE DEPRESSED A MINIMUM OF 3-INCHES BELOW THE ADJACENT PAVED SURFACE TO RETAIN THE FIRST FLUSH RUNOFF.

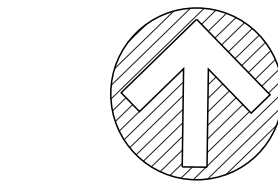
CONTRACTOR SHALL PREVENT DIRT FROM GETTING INTO THE STREET. IF DIRT IS PRESENT IN THE STREET, THE DIRT IS TO BE REMOVED AT THE END OF EACH DAY OR DURING THE DAY IF RAIN IS IMMINENT OR IF THE CONTRACTOR INTRODUCES WATER INTO THE STREET.

C3	FL
1	89.14
2	88.80
3	89.90

STORM WATER  
QUALITY POND  
VOL=408-cf (336 cf)

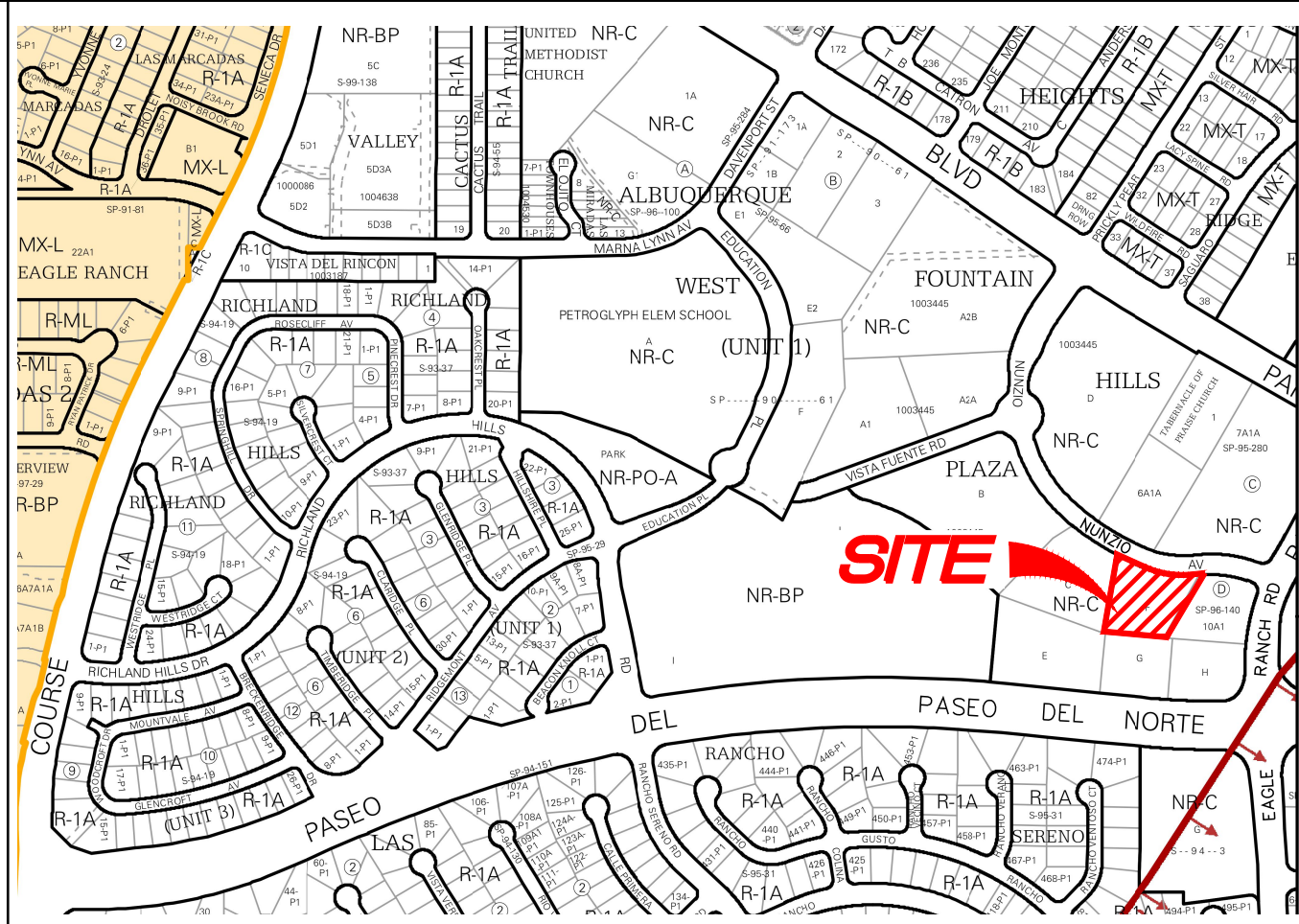
PROPOSED  
BUILDING  
FF 5099.50

EXISTING 25.5' PRIVATE  
CROSS ACCESS AND CROSS  
DRAINAGE EASEMENT



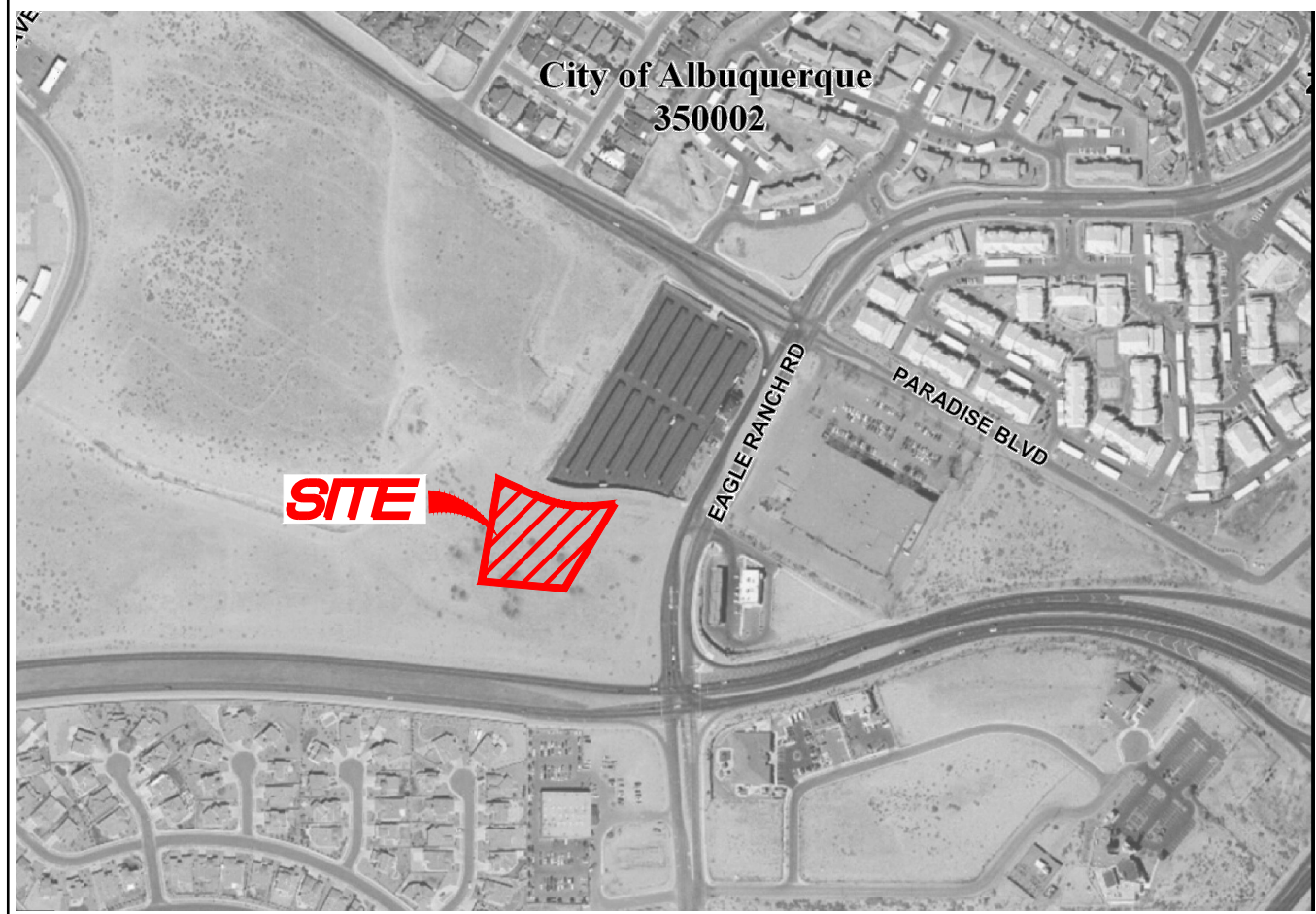
SCALE : 1" = 20'

NOTE:  
ALL AS-BUILT CHANGES  
ARE SHOWN IN RED



LOCATION MAP

NOT TO SCALE



FIRM PANEL 35001C0116G

NOT TO SCALE

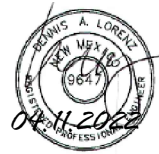
### KEYED NOTES

- EXISTING CONCRETE CURB AND GUTTER.
- EXISTING ASPHALT PAVEMENT.
- EXISTING GRAVEL SURFACING.
- REMOVE & DISPOSE EXISTING CURB & GUTTER. CONSTRUCT CONCRETE VALLEY GUTTER WITH ACCESSIBLE RAMP. SEE COA STD DWGS 2420 & 2426.
- CONSTRUCT 6" PUBLIC SIDEWALK. SEE COA STD DWG 2430.
- REMOVE & DISPOSE EXISTING ASPHALT CURB TO LIMITS SHOWN. CONSTRUCT 6-INCH CONCRETE CURB. SEE DETAIL B/C004.
- REMOVE & DISPOSE EXISTING ASPHALT PAVEMENT TO LIMITS SHOWN. CONSTRUCT ASPHALT PAVEMENT. SEE DETAIL A/C004.
- CONSTRUCT 6-INCH CONCRETE CURB. SEE DETAIL B/C004.
- CONSTRUCT TURNDOWN SIDEWALK. SEE DETAIL C/C004.
- CONSTRUCT 6" CONCRETE PEDESTRIAN CONNECTION TO NUNZIO AVENUE.
- CONSTRUCT CONCRETE SIDEWALK.
- CONSTRUCT HANDICAP RAMP TYPE-1. SEE DETAIL D/C004.
- CONSTRUCT HANDICAP RAMP TYPE-2. SEE DETAIL E/C004.
- INSTALL HANDICAP PARKING SIGNAGE. SEE DETAIL F/C.004. (BUILDING MOUNTED).
- CONSTRUCT MOTOR CYCLE PARKING SIGN. SEE DETAIL G/C.004. (BUILDING MOUNTED).
- PROVIDE STRIPING AT ACCESSIBLE AREA PER CODE.
- INSTALL CONCRETE TIRE STOPS.
- CONSTRUCT ASPHALT PAVEMENT. SEE DETAIL A/C004.
- CONSTRUCT RETAINING WALL. DETAIL BY OTHERS.
- CHILD PLAY AREA.
- CONSTRUCT NEW REFUSE ENCLOSURE.
- INSTALL NEW BICYCLE RACK - 3 SPACES MINIMUM.
- CONSTRUCT PVC FENCING AND GATES.
- NEW LANDSCAPING. SEE LANDSCAPE PLAN.
- CONSTRUCT 4" DIA TYPE 'C' MANHOLE AT EXISTING 24" SD PER COA STD DWG 2101.
- CONSTRUCT 12" STORM DRAIN.
- CONSTRUCT SINGLE TYPE 'D' STORM INLET PER COA STD DWG 2206.
- CONSTRUCT 8" STORM DRAIN.
- CONSTRUCT 4" STORM DRAIN.
- CONSTRUCT CLEANOUT. SEE DETAIL G/C004.
- CONSTRUCT 4" PVC ROOF DRAIN UNDER SIDEWALK. PENETRATE THRU TURN DOWN SIDEWALK.
- CONSTRUCT 6" PVC ROOF DRAIN UNDER SIDEWALK. CONNECT TO 8" STORM DRAIN.
- REMOVE & DISPOSE EXISTING SD PLUG.  
INSTALL:  
1-45° 18" RCP BEND  
6 LF 18" RCP CLASS III  
INV 94.50  
INSTALL 18" PLUG.  
CONSTRUCT 24" STORM DRAIN.  
CONSTRUCT: 2-24" - 45° ELBOWS  
1-24" MANHOLE TEE  
INV 91.00
- INSTALL 24" SD PLUG.
- CONSTRUCT TEMPORARY BERM/SWALE. SEE SECTION J/C004.
- EDGE OF PAVEMENT. NO CURB.
- TEMPORARY SEDIMENTATION POND.

DRAINAGE CERTIFICATION WITH SURVEY WORK BY PROFESSIONAL SURVEYOR  
PERMANENT CERTIFICATE OF OCCUPANCY

I, Dennis A. Lorenz, NMPE 9647, of the firm Lorenz Design & Consulting, LLC, 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 10-07-2020. The record information edited onto the original design document has been obtained by Breakline Engineering LLC. I further certify that I have personally visited the project site on 04-04-2022 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 permanent certificate of occupancy.

The record information presented herein is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.



DENNIS A. LORENZ, NMPE 9647

### LEGEND

ITEM	EXISTING	PROPOSED
PROPERTY LINE	---	---
EASEMENT	---	---
CURB AND GUTTER	---	---
6" CONCRETE CURB	---	---
RETAINING WALL	R/R	---
SPOT ELEVATION	75.5	01.5
CONTOUR W/ ELEVATION	5800	5800
DIRECTION OF FLOW	---	---
CONCRETE	---	---
RIP RAP ROCK	---	---
AS-BUILT SPOT ELEVATION		01.17 04.16

### PROJECT DATA

PROPERTY ADDRESS:

4580 NUNZIO AVENUE NW  
ALBUQUERQUE, NEW MEXICO 87114

LEGAL DESCRIPTION:

TRACT F, FOUNTAIN HILLS PLAZA SUBDIVISION

SURVEY:

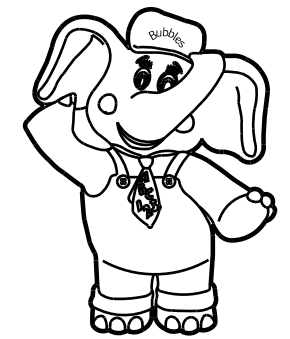
ALL PROJECT SURVEYING BY  
RUSS P. HUGG NMPLS 9750  
ATE OF SURVEY: APRIL 2019

PROJECT BENCHMARK:

ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE  
STATION NO. "10-C12", HAVING AN ELEVATION OF  
5095.033 FEET, NAVD 1988

### DRAINAGE PLAN NOTES

- LDC recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
- This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
- Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
- This Plan is prepared to establish on-site drainage and grading criteria only. LDC assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
- LDC recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
- The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.
- All spot elevations are finished grade or top of pavement, unless noted otherwise.



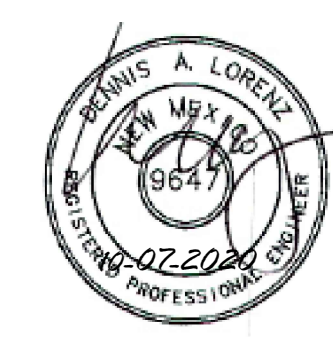
THE LEARNING  
EXPERIENCE  
ACADEMY OF  
EARLY EDUCATION  
NUNZIO AVENUE  
ALBUQUERQUE, NM 87114



REVISIONS PER CITY ENGINEER

10-07-2020

THE LEARNING EXPERIENCE  
GRADING & DRAINAGE PLAN



LORENZ  
DESIGN & CONSULTING, LLC  
Civil Engineering & Construction Management

2501 Rio Grande Blvd NW, Suite A  
Albuquerque, New Mexico 87104  
Ph: 505-888-6088 Fax:  
505-242-6655

DRAWN BY: DAL DATE: June 2020

CHECKED BY: DAL

FILE: 20-005

C001



GRADING AND DRAINAGE PLAN

PURPOSE AND SCOPE

Pursuant to the Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Grading and Drainage Plan outlines the drainage management criteria for controlling developed runoff from the project site. The project consists of the design and construction of The Learning Experience, a child day care facility, located at 4580 Nunzio Avenue NW. The project includes a 9,587 square foot building with paving, landscaping, utility, grading, and drainage improvements to support the project. The purpose of this Plan is to support building permit approval. The scope of this plan is to present grading and drainage criteria for the safe management of excess runoff impacting the site from upstream drainage basins, and controlling excess runoff from the project site in a well-managed, non-erosive manner.

EXISTING CONDITIONS

The property is located at 4580 Nunzio Avenue NW, west of Eagle Ranch Road NW. The site is undeveloped. Site topography slopes to the east. All on-site runoff drains east onto the shared access drive with Lot 10-A-1 (Smiles for Kid's Dental Office). The access drive conveys these flows north to Nunzio Avenue. The site is impacted by off-site drainage areas to the west and south. Excess runoff from the west drains through the site to Lot 10-A-1. Excess runoff from the south drain eastward to Lot 10-A-1.

As shown by the attached FIRM Panel the site does not lie within a mapped 100 year Flood Zone.

DRAINAGE MASTERPLAN

This Plan is based on the drainage management criteria outlined in the Fountain Hill Grading and Drainage Management Plan, prepared by Bohannon Huston, dated June 4, 2007. Existing Public Masterplan improvements include public storm drains in Nunzio Avenue that drain to a constructed public detention pond located north of Nunzio Avenue within Tract 6-A-1. The bulk of the project site is programmed to discharge to the public storm drain by connection to an existing 24-inch stubout. The remaining site acreage is allowed to free discharge to Nunzio Avenue. The off-site drainage areas are to drain through Tract C and Lot 10-A-1 to Nunzio Avenue. A Public storm drain stubout is provided on Tract C to drain flows to the Public Detention Pond located on Tract 6-A-1.

PROPOSED IMPROVEMENTS

As stated above, the project consists of the construction of a 9,587 square foot building with paving, landscaping, utility, grading, and drainage improvements. All onsite drainage flows will be routed overland within drainage swales and storm drains in accordance with the Masterplan.

The site is divided into several drainage basins (see Onsite Drainage Basin Map) that discharge developed flows to the existing public storm drainage system and Nunzio Avenue. Each drainage basin is described as follows:

- Basin A.1 drains overland to a storm inlet that drains by a 12-inch storm drain. The storm drain connects to an existing 24-inch storm drain stubout from the Nunzio public storm drain. This storm drain conveys flows to the regional detention pond located on Tract 6-A-1.
- Basin A.2 represents the building roof. The roof drains by an 8-inch storm drain that connects to the storm inlet and 12-inch storm drain described above. A small water feature in the play area also connects to the storm drain.
- Basins B.1, B.2 and B.3 drain east to Lot 10-A-1 and Nunzio Avenue.
- Basin C is a front landscape buffer that drains to a shallow retention pond.
- Basin D is a portion of the west driveway that drains to Nunzio Avenue.

The off-site drainage areas affecting the site from the west and east will be routed around the site with temporary erosion control measures. A berm-swale will be constructed to route undeveloped excess runoff north and east. Future developed runoff will be managed by the offsite properties upon development. A 24-inch storm drain will be extended from the Nunzio storm drain stub (at the proposed manhole) south through the proposed private access, utility and drainage easement, for use by Tracts E & G. The existing 18" storm drain stubout from Nunzio located near the west access drive, will be extended into Tract F to eliminate future roadway demolition.

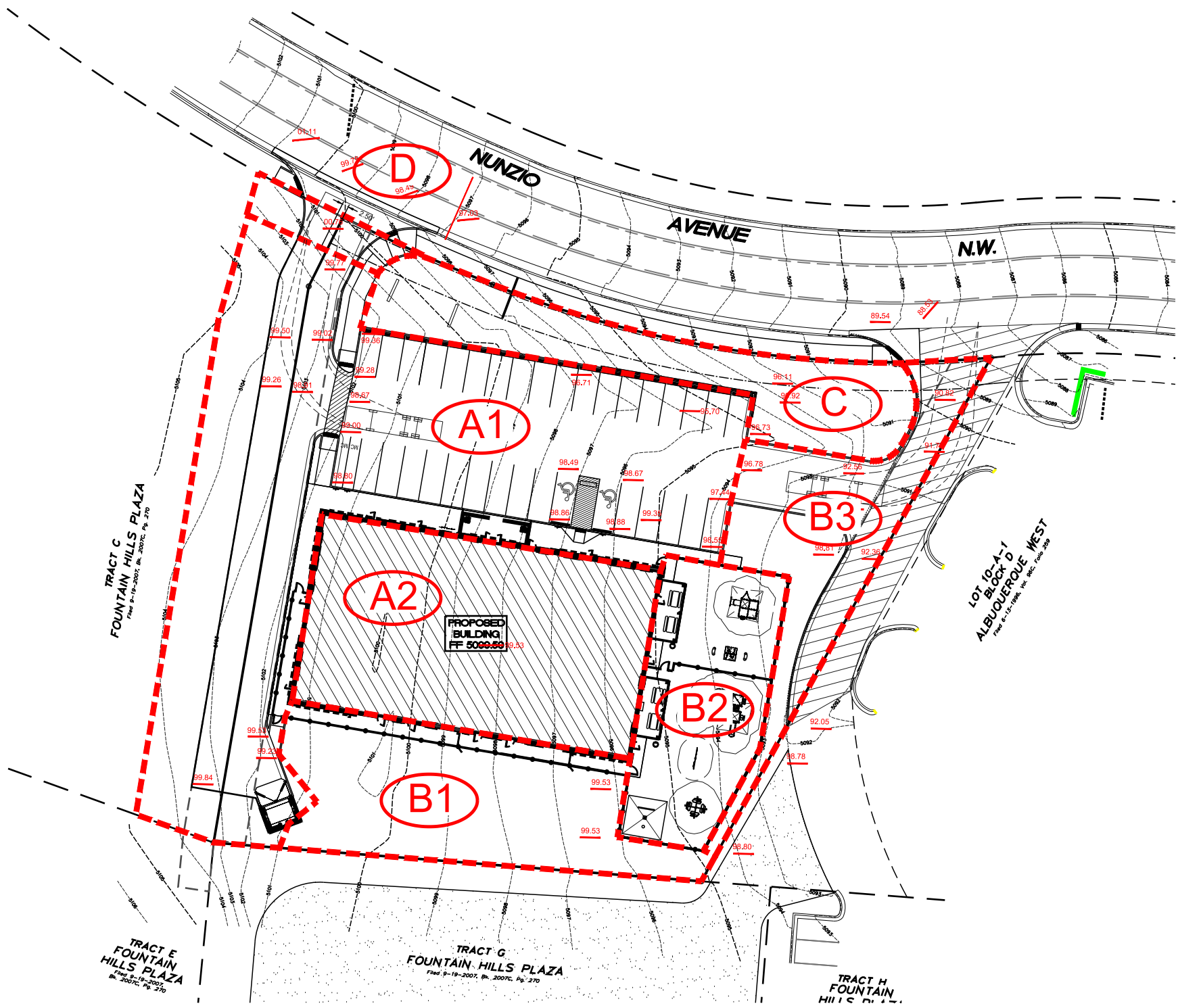
First flush storage will be attained within the Basin 'C' storm water quality pond and landscaped areas. First flush calculations are provided on this Sheet. Construction will disturb an area of more than 1.0 acre; therefore a Storm Water Pollution Prevention Plan will be required.

CALCULATIONS

The calculations are provided on this Sheet that define the 100-year/6 hour design storm falling within the project area under existing and proposed conditions. The hydrology is per "Section 22.2, Part A, Development Process Manual, Vol 2", dated June 1997.

Private Drainage Facilities within City Right-of-Way  
Notice to Contractor  
(Special Order 19 ~ "SO-19")

- An excavation permit will be required before beginning any work within City Right-Of-Way.
- 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.
- 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.
- 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.
- Backfill compaction shall be according to traffic/street use.
- Maintenance of the facility shall be the responsibility of the owner of the property being served.
- Work on arterial streets may be required on a 24-hour basis.
- Contractor must contact Augie Armijo at (505) 857-8607 and Construction Coordination at 924-3416 to schedule an inspection.



ONSITE DRAINAGE BASIN MAP  
NOT TO SCALE

PROJECT HYDROLOGY THE LEARNING EXPERIENCE CHILDCARE AHYMO								
ZONE:	1							
P <sub>6</sub> HOUR	2.20							
P <sub>10</sub> DAY	3.67							
EXISTING CONDITIONS								
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)
SITE	1.12	0.00	0.00	1.08	0.04	1.03	3.27	0.096
PROPOSED CONDITIONS								
BASIN	AREA (ac)	A (ac)	B (ac)	C (ac)	D (ac)	E	Q (cfs)	VOL (ac ft)
SITE	1.12	0.00	0.14	0.35	0.63	1.50	4.04	0.140
A.1	0.54	0.00	0.00	0.12	0.42	1.75	2.18	0.079
A.2	0.22	0.00	0.00	0.00	0.22	1.97	0.96	0.036
A.1+2	0.76	0.00	0.00	0.12	0.64	1.82	3.14	0.115
B.1	0.16	0.00	0.07	0.07	0.02	0.97	0.43	0.013
B.2	0.11	0.00	0.00	0.11	0.00	0.99	0.32	0.009
B.3	0.12	0.00	0.04	0.04	0.04	1.21	0.37	0.012
B.1+2+3	0.39	0.00	0.11	0.22	0.06	1.05	1.12	0.034
C	0.12	0.00	0.06	0.06	0.00	0.83	0.29	0.008
D	0.02	0.00	0.00	0.00	0.02	1.97	0.09	0.003

FIRST FLUSH CALCULATION

BASINS A.1 AND A.2 CONNECT DIRECTLY TO THE PUBLIC STORM DRAIN SYSTEM WHICH DRAINS TO THE REGIONAL DETENTION POND LOCATED NORTH OF NUNZIO AVENUE. THE FIRST FLUSH POND REQUIREMENT WILL BE BASED ON THE REMAINING SITE AREA THAT DRAINS TO NUNZIO AVENUE - BASINS B.1, B.2, B.3, C AND D.

90TH PERCENTILE DEPTH = 0.44"  
LESS INITIAL ABSTRACTIONS = -0.10"  
REQUIRED RETAINED DEPTH = 0.34"

POND REQUIREMENT = Ad(0.34") = 0.14 AC(43,560sf/ac/12")(0.34") = 173 CF  
VOLUME PROVIDED = BASIN C POND = 408 cf

STORM DRAIN INVENTORY

CONTRIB BASINS	Q100 cfs	DRAINAGE STRUCTURE	PIPE SLOPE %	CAPACITY cfs	COMMENTS
A.2	0.96	8" SD	1.9	1.5	CONNECTS TO PUBLIC SD
A.1+A.2	3.14	12" SD	1.5	4.0	CONNECTS TO INLET

DRAINAGE CERTIFICATION WITH SURVEY WORK BY PROFESSIONAL SURVEYOR  
PERMANENT CERTIFICATE OF OCCUPANCY

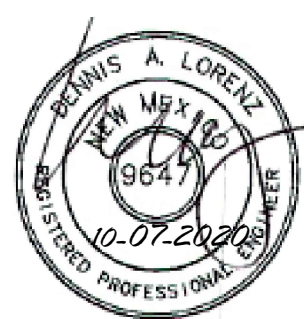
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DENNIS A. LORENZ, NMPE 9647

THE LEARNING EXPERIENCE  
GRADING & DRAINAGE PLAN



**LORENZ**  
DESIGN & CONSULTING, LLC  
Civil Engineering | Construction Management

2501 Rio Grande Blvd NW, Suite A  
Albuquerque, New Mexico 87104  
Ph: 505-888-6088 Fax: 505-242-6655

DRAWN BY: DAL  
CHECKED BY: DAL  
FILE: 20-005  
DATE: June 2020  
**C002**