DRAINAGE REPORT

For

Sandoval

Lowes Pad site
Paseo Del Norte and Louisiana NE

Albuquerque, New Mexico

Prepared by

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June 2012

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Map Pocket
Site Grading and Drainage Plan

PURPOSE

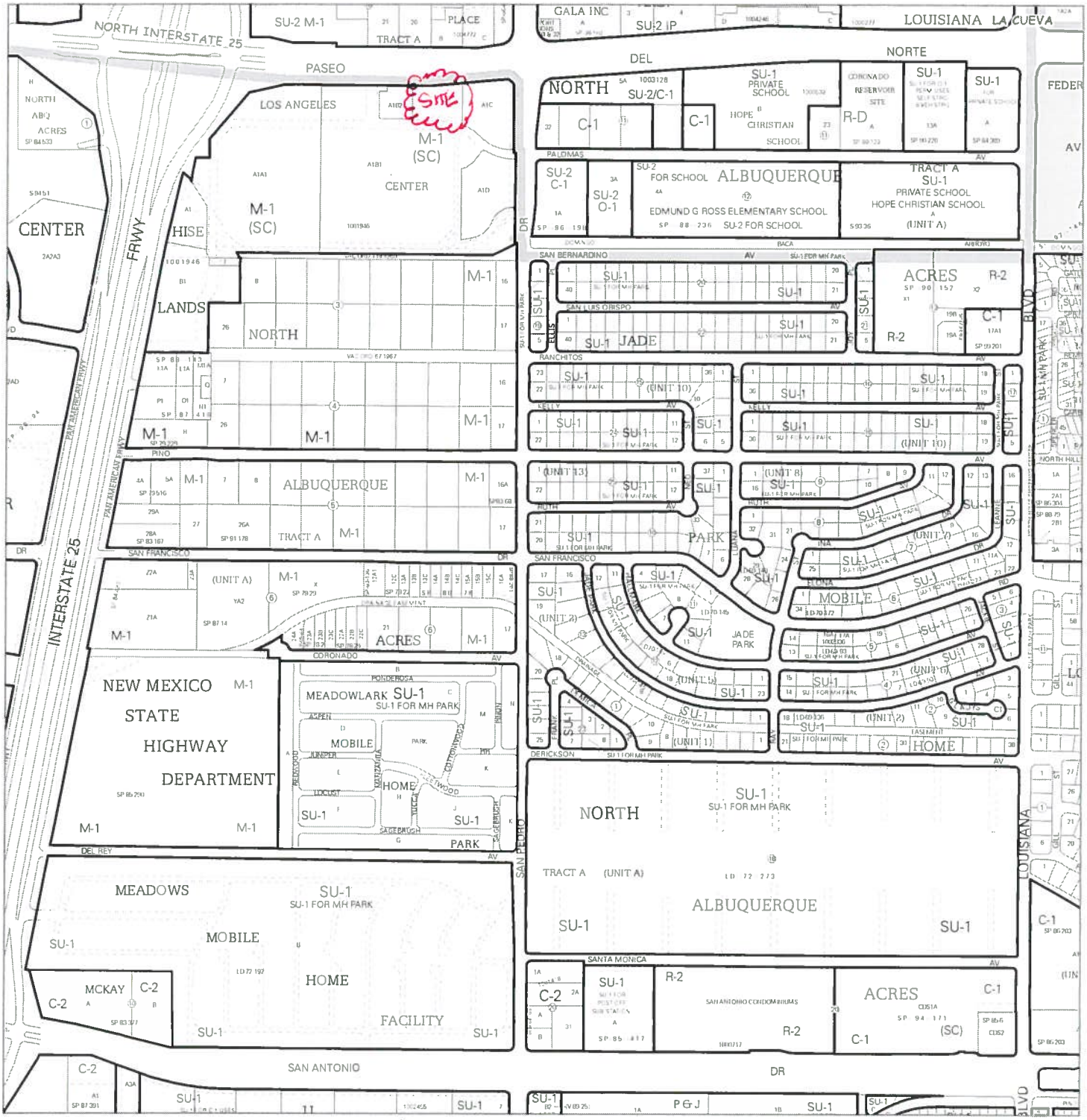
The purpose of this report is to provide the Drainage Management Plan for an approximately 1.26 acre parking lot redevelopment located at 6200 Paseo Del Norte NE. The proposed development consists of removing the asphalt and constructing two retail buildings. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

The subject of this report, as shown on the Exhibit A, is a 1.2-acre parcel of land located on the south side of Paseo Del Norte west of San Pedro. The proposed site is currently governed by an approved grading plan prepared for the entire Lowes development. The current legal description of this site is tract A-1-B-A, Los Angeles Center. The site is in the process of being subdivided. As shown on FIRM map35001C0137F, the entire property is located within Flood Zone X.

EXISTING CONDITIONS

The site is currently a parking lot for the Lowes business center. The site slopes from northeast to the southwest. The site currently has a 3% general grade. The flow sheet flow to a large area drain south west of the site. This drain is in a sump condition and is connected to the onsite storm drain that discharges to the Domingo Baca channel. The site is not impacted by any significant offsite flow due to the construction of the adjacent Walgreens store. The site currently discharges 5.59 cfs as sheet flow along the southern and southwestern boundary of future tract.



For more current information and more details visit: http://www.cabq.gov/gis

Albuquerque Geographic Information System

Map amended through: 2/4/2010

Zone Atlas Page:

D-18-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet

PROPOSED CONDITIONS

The proposed improvements consist of removing the existing pavement and construction of a 3000 sf drive-thru restaurant and a 6000 sf retail store. The site will maintain existing drainage patterns. The site will continue to discharge along the southern and western boundaries. The reduced flows leaving the site will continue to drain to the existing area drain located south and west of this property.

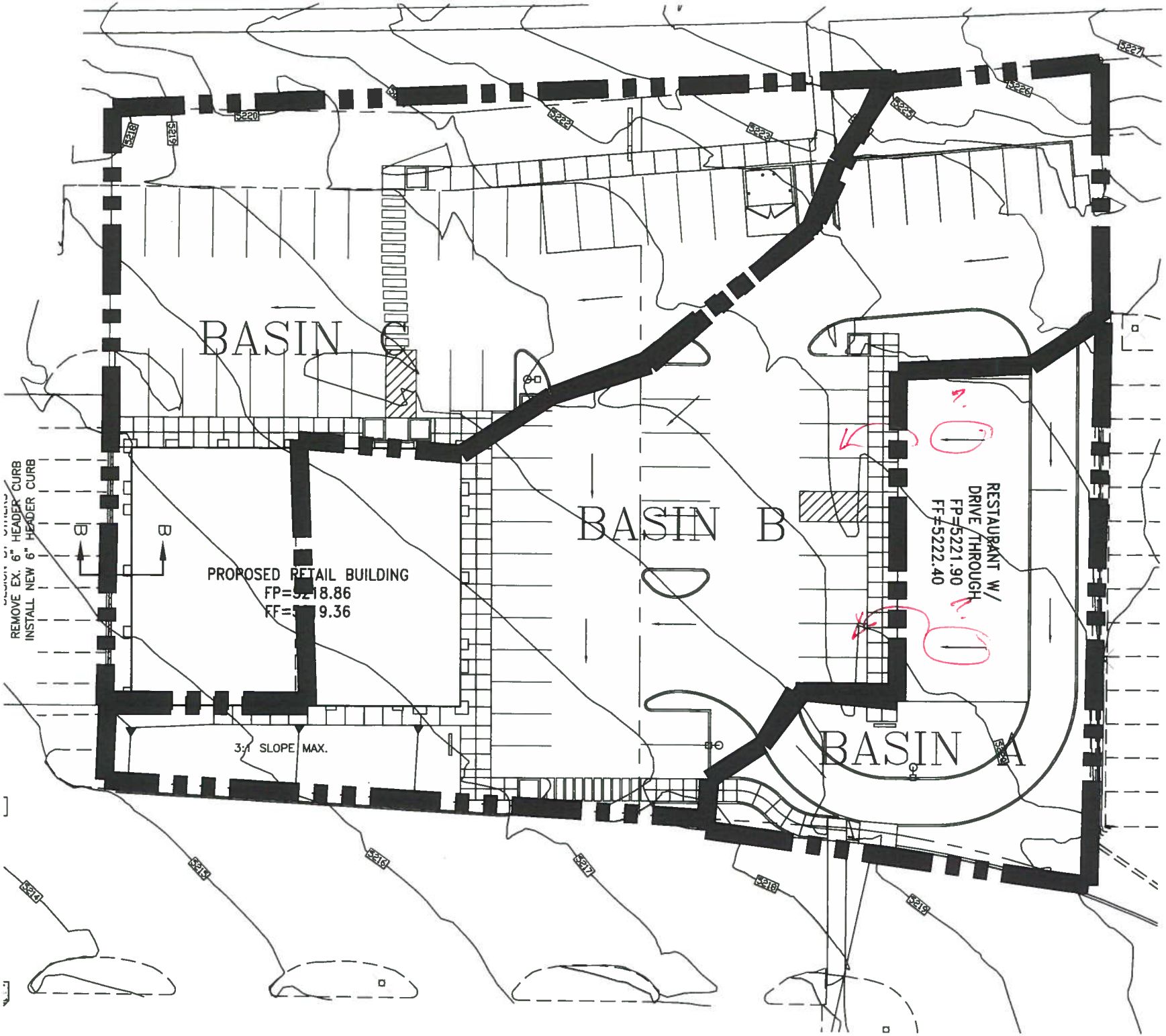
SUMMARY AND RECOMMENDATIONS

This project is a redevelopment of an existing parking lot. The site development maintains the existing drainage patterns and reduces the discharge rates for existing. The site is part of the overall Lowes master drainage plan. The down stream conveyance system is complete and designed for the larger existing flow rate.

The proposed site development does not adversely affect the upstream or downstream facilities. The site was designed in conformance to City of Albuquerque Drainage design policy utilizing the City of Albuquerque DPM criterion. Therefore, we request approval of the site-grading plan. Since this site encompasses more than 1 acre, a NPDES permit might be required prior to construction activity.

APPENDIX A

SITE HYDROLOGY


BASIN C
BASIN B
BASIN A
PROPOSED RETAIL BUILDING
FP=5218.86
FF=5219.36
RESTAURANT W/
DRIVE THROUGH
FP=5221.90
FF=5222.40
REMOVE EX. 6" HEADER CURB
INSTALL NEW 6" HEADER CURB
3:1 SLOPE MAX.
B
B
5227
5226
5225
5224
5223
5222
5221
5220
5219
5218
5217
5216
5215
5214

Weighted E Method

Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	100-Year, 6-hr. Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
EXISTING SITE	51063	1.172	0%	0	0.0%	0.000	16.0%	0.18756	84%	0.985	2.189	0.214	5.59
DEV A	8860	0.203	0%	0	0.0%	0.000	28.0%	0.05695	71%	0.144	2.037	0.035	0.92
DEV B	23313	0.535	0%	0	0.0%	0.000	16.0%	0.08563	84%	0.450	2.189	0.098	2.55
DEV C	18890	0.434	0%	0	0.0%	0.000	20.0%	0.08673	80%	0.347	2.146	0.078	2.04
onsite comparison												0.063	0.076

5.59
5.51
0.08

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm

Ea= 0.66
Eb= 0.92
Ec= 1.29
Ed= 2.36

Qa= 1.87
Qb= 2.6
Qc= 3.45
Qd= 5.02

Site discharges less than existing 0.08 cfs

Narrative
Site is a fully developed parking lot conversion to build commercial buildings. The post construction site has less impervious treatment that does existing. The flwo drains via sheet flow to an existing inlet located within the Lowes parking field

5' drivethru rundown

Weir Equation:

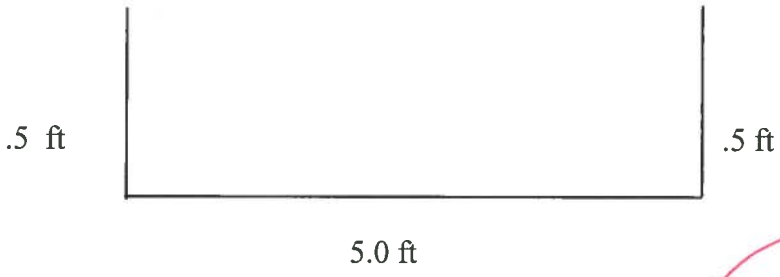
$$Q = CLH^{3/2}$$

Q= .92
C = 2.95
H = .50 ft
L = Length of weir

$$L = \frac{.92}{2.95(.5)^{3/2}}$$

$H^{3/2} = \frac{.92}{2.95(10)}$

L = .88 ft
Use 5.0 feet for length of weir



10' wide shows on plan