

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



January 13, 2017

Richard J. Berry, Mayor

Martin J. Garcia
1035 S. Bosque Loop
Bosque Farms, NM, 87068

RE: Star Limo
800 Avenida Caesar Chavez, Albuquerque, NM
Grading and Drainage Plan
Stamp Date 1/13/2017 (File: L15D059)

Dear Mr. Garcia:

Based upon the information provided in your submittal received 1/13/2017, the above referenced Grading and Drainage plan is approved for Building Permit.

Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

PO Box 1293

If you have any questions you can contact me at 924-3999.

Albuquerque

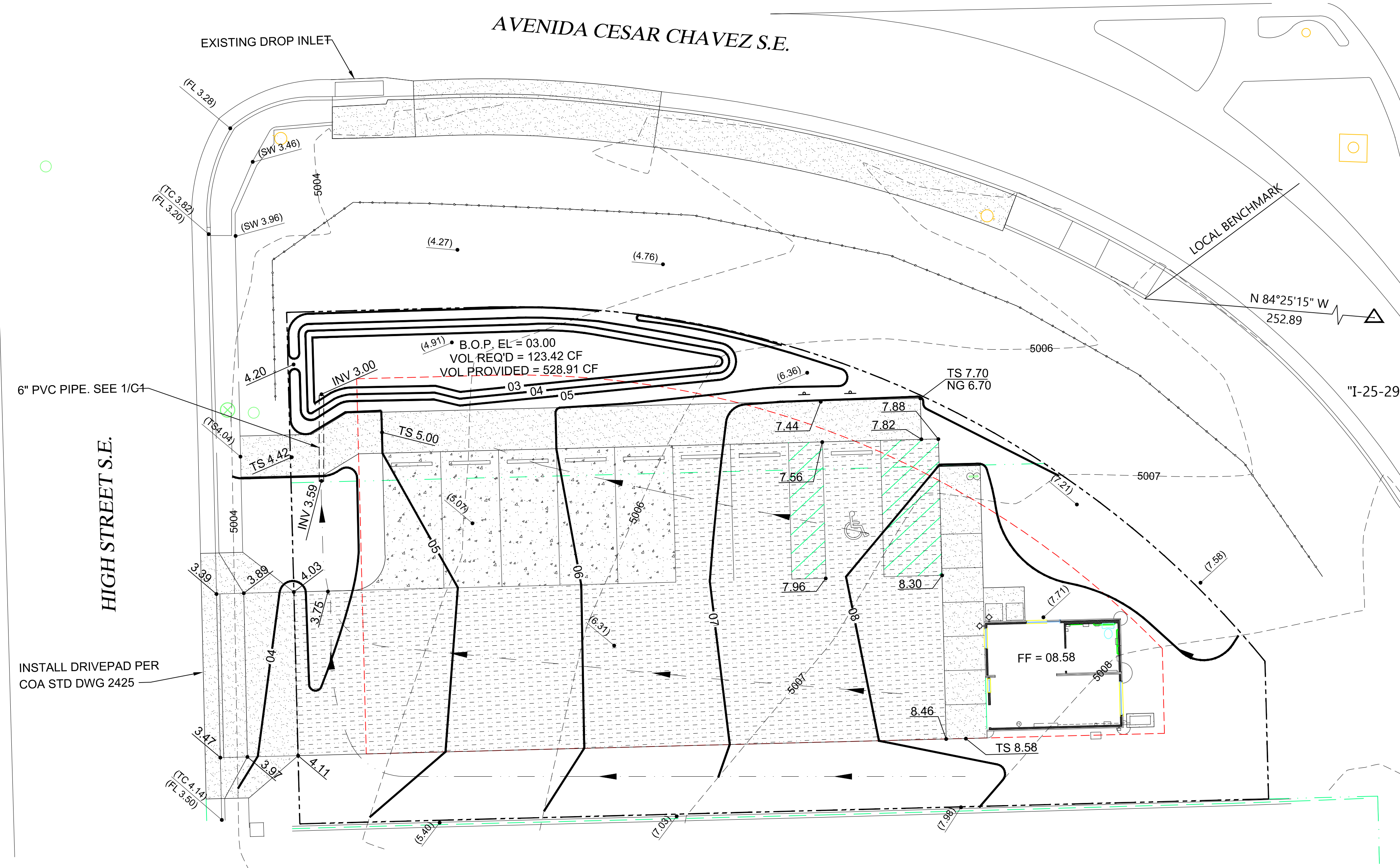
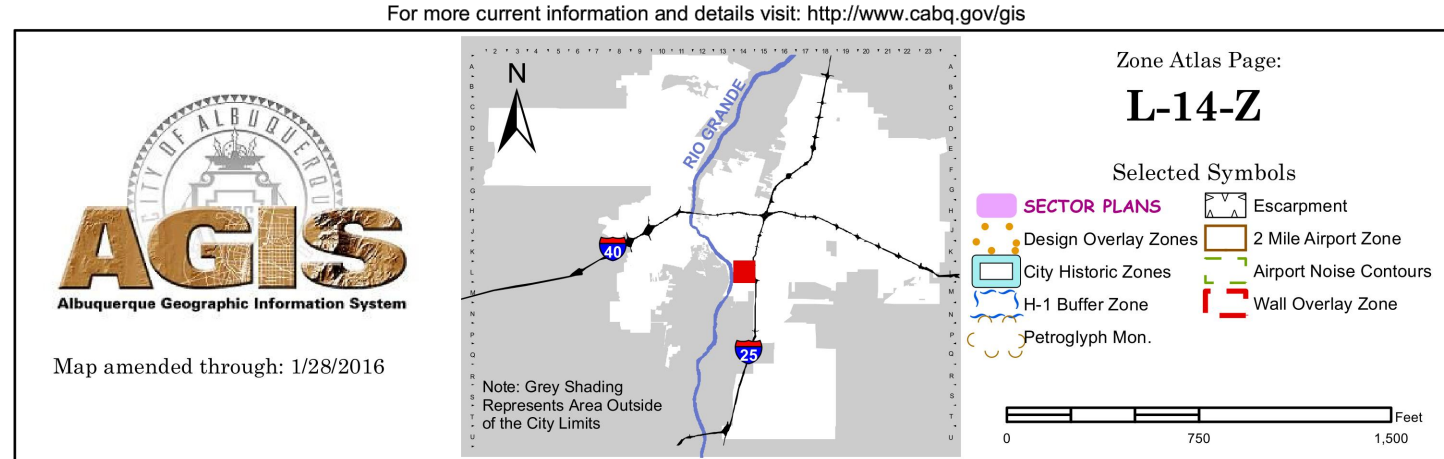
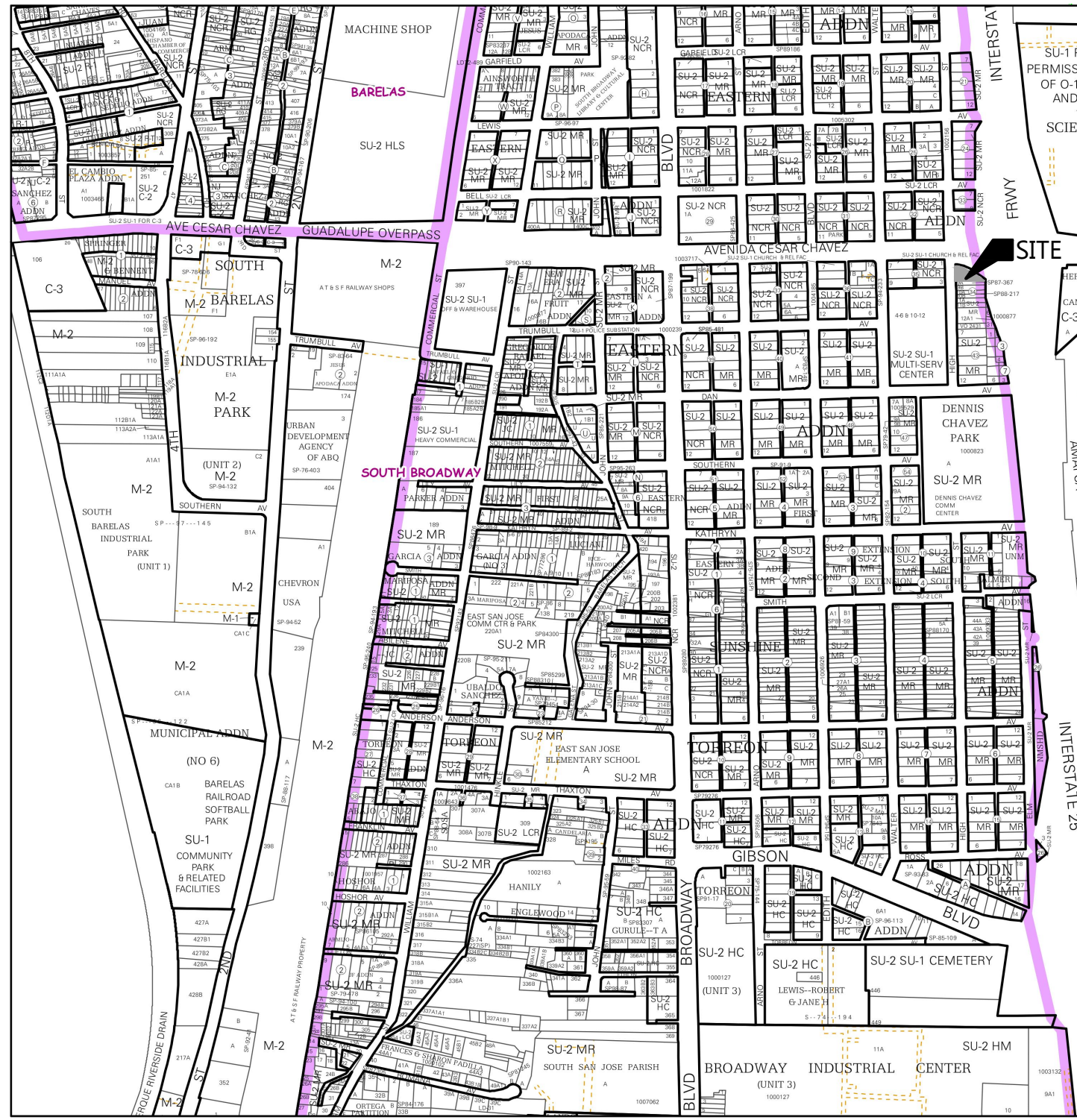
Sincerely,

New Mexico 87103

Shahab Biazar, P.E.
City Engineer, Planning Dept.
Development Review Services

www.cabq.gov

MA/SB



Project Benchmark Δ
 THE PROJECT BENCHMARK IS A FOUND NMDOT
 3 1/4" ALUMINUM DISC ALONG INTERSTATE 25
 APPROX 1,020.85 FEET FROM
 THE SOUTHEAST CORNER OF THE PROPERTY
 X = 1523926.061
 Y = 1480816.003
 NAD83
 Z = 5035.39 (NAVD88)
 G-G FACTOR: 0.999678639

LOCAL BENCHMARK
 THE LOCAL BENCHMARK IS A SET SPIKE ALONG THE EDGE
 OF THE EXISTING HANDICAP RAMP ALONG THE I-25
 ON RAMP
 X = 1523674.463
 Y = 1480840.623
 Z = 5007.18

- Legend**
- 5005 EXISTING CONTOUR
 - (7.58) EXISTING SPOT ELEVATION
 - EXISTING WALL
 - 05 NEW CONTOUR
 - BENCHMARK
 - FP EL FINISH PAD ELEVATION
 - FF EL FINISH FLOOR ELEVATION
 - DIRECTION OF FLOW
 - ASPHALT PAVING
 - GRAVEL BASECOURSE
 - CONCRETE SIDEWALK

Drainage Calculations

STAR LIMO
 Hydrology Calculations
 DPM - Section 22.2
 Volume 2, January 1993

Precipitation Zone	2
100 Year Storm Depth, P (360)	2.35

Treatment Area	A	B	C	D
Excess Precipitation Factors	0.53	0.78	1.13	2.12
Peak Discharge Factors	1.56	2.28	3.14	4.70

Land Treatment Area	Acres	Existing	Proposed
Type "D" (Roof)	0.00	0.70	0.70
Type "C" (Unpaved Roadway)	0.31	0.02	0.02
Type "B" (Irrigated Lawns)	0.00	0.19	0.19
Type "A" (Undeveloped)	0.00	0.00	0.00
Total (Acres)		0.31	0.31

Excess Precipitation(in)		1.13	1.23
Volume (100), cf	1271.59	1389.56	
Volume (10), cf	851.96	931.01	
Q (100), cfs	0.97	0.97	
Q (10), cfs	0.65	0.65	

Drainage Narrative

THIS GRADING AND DRAINAGE PLAN PROVIDES FOR DEVELOPMENT OF A VACANT LOT AT 800 AVENIDA CESAR CHAVEZ AND HIGH STREET. THE SITE IS CURRENTLY VACANT WITH A GRAVEL SURFACE AND DRAINS SOUTHEAST TO NORTHWEST. THE SITE IS BOUNDED BY NMDOT RIGHT OF WAY ON THE NORTH AND EAST, BY HIGH STREET ON THE WEST AND PRIVATE PROPERTY ON THE SOUTH. THE PROPOSED IMPROVEMENTS INCLUDE A PARKING LOT AND OFFICE BUILDING. THE SITE DOES NOT ACCEPT OFF-SITE RUNOFF AND IS NOT WITHIN A 100-YEAR FLOOD ZONE PER FEMA MAP 35001C0334G. THE EXISTING RUNOFF FROM THE SITE IS 0.97 CFS AND NOT INCREASE AFTER DEVELOPMENT OF THE SITE. THE RUNOFF WILL BE DIRECTED TO A CLEAR WATER POND ON THE NORTHWEST PORTION OF THE PROPERTY AND WILL DRAIN TO HIGH STREET THROUGH AN OVERFLOW AT THE WEST END OF THE POND. A WATER BLOCK HAS BEEN PLACED AT THE DRIVEPAD TO DIRECT THE RUNOFF TO THE POND.

GRADING PLAN

SCALE: 1" = 10'

Pond Volume
 IMPRVIOUS AREA $0.10 \times 43560 = 4356$ SF
 PONDING REQUIRED $4356 \times \frac{.34}{12} = 123.42$ CF

POND 1:
 A4 = 530.48 SF
 A3 = 395.00 SF

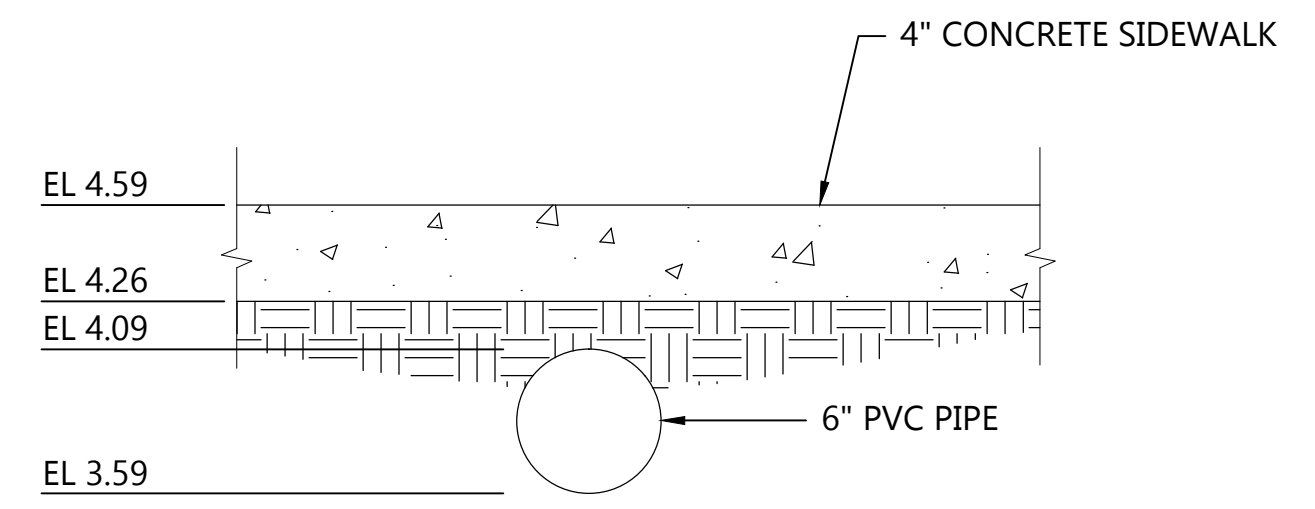
VOL 3 & 4: $530.48 + 395.00 = \frac{925.48}{2} \times 1 = 462.74$ CF

POND VOLUME PROVIDED: 462.74 CF

DEPTH OF WATER $\frac{123.42}{462.74} = .27$

WATER SURFACE ELEV = $5003.00 + .27 = 5003.27$

Pipe Capacity
 $S = .0393$ $S_{0.5} = .1983$ $N = .015$
 $A_6 = \frac{\pi d^2}{4} = \frac{\pi (.5)^2}{4} = .1963$
 $PER = \pi d = \pi (.5) = 1.57$
 $R_n = \frac{A}{P} = \frac{.1963}{1.57} = .125$ $R_n^{2/3} = .2499$
 $Q_{cap} = \frac{1.49}{.015} (.1963) (.2499) (1.983)$
 $Q_{cap} = 0.97$ cfs $Q_{100 FLOW} = 0.97$ cfs



PIPE CROSSING AT SIDEWALK

SCALE: NTS

Anchor Engineering, LLC
 1035 S. Bosque Lp. Bosque Farms, NM 87068
 505-362-1530 NO. 16-026

LEE GAMELSKY ARCHITECTS P.C.
 2412 MILES ROAD SE
 ALBUQUERQUE, NM 87106
 505-842-8865 FAX 842-1693
 lga@wvcp.com

MARTIN J. GARCIA
 REGISTERED PROFESSIONAL ENGINEER
 NEW MEXICO
 11767

STAR LIMO
 Albuquerque, New Mexico
 PROJECT ARCHITECT:
 LEE GAMELSKY, AIA

Project #: 16-05-P
 Date: 11 November 2016

GRADING AND DRAINAGE PLAN

By: _____ Sheet: Of: _____
 File: _____ C1