

# CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

April 11, 2017

Martin Garcia, PE  
1035 S. Bosque Loop  
Bosque Farms, NM, 87123

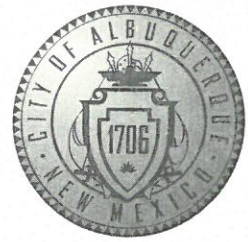
**RE: 1428 Stagecoach Rd SE**  
**Grading and Drainage Plan**  
**Stamp Date: 1/16/17**  
**Hydrology File: M23D019**

Dear Mr. Garcia:

Based upon the information provided in your submittal received 4/7/2017, the Grading and Drainage Plan **is not** approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. This site appears to be replatted. The lot size from the Appraisal District is listed as 0.4849 ac and the lot size that is quoted in the calculations is 0.60 ac. Please clarify which is correct.
2. Please label the access easement. Is it a 20 ft easement?
3. On the drainage calculations, this site is in Precipitation Zone 3. Therefore all the drainage calculations needs to reflect Zone 3 and not Zone 1.
4. In the drain pipe cross section, please add 1 ft cover (min.) between the drive and the 18" CMP.
5. The water surface elevation for the pond does not match the pond volume calculations. Please correct.
6. Please provide a drainage swale along the west property line towards the pond. The proposed finish floor is higher than the adjacent property. I would like to lessen the impact of the increase runoff onto the adjacent property.
7. Please continue the swale along the driveway past the existing tree to the road. Again, I do not want this property's runoff to cause issues with the adjacent property.

# CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

Sincerely,

*Renee C. Brissette*

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

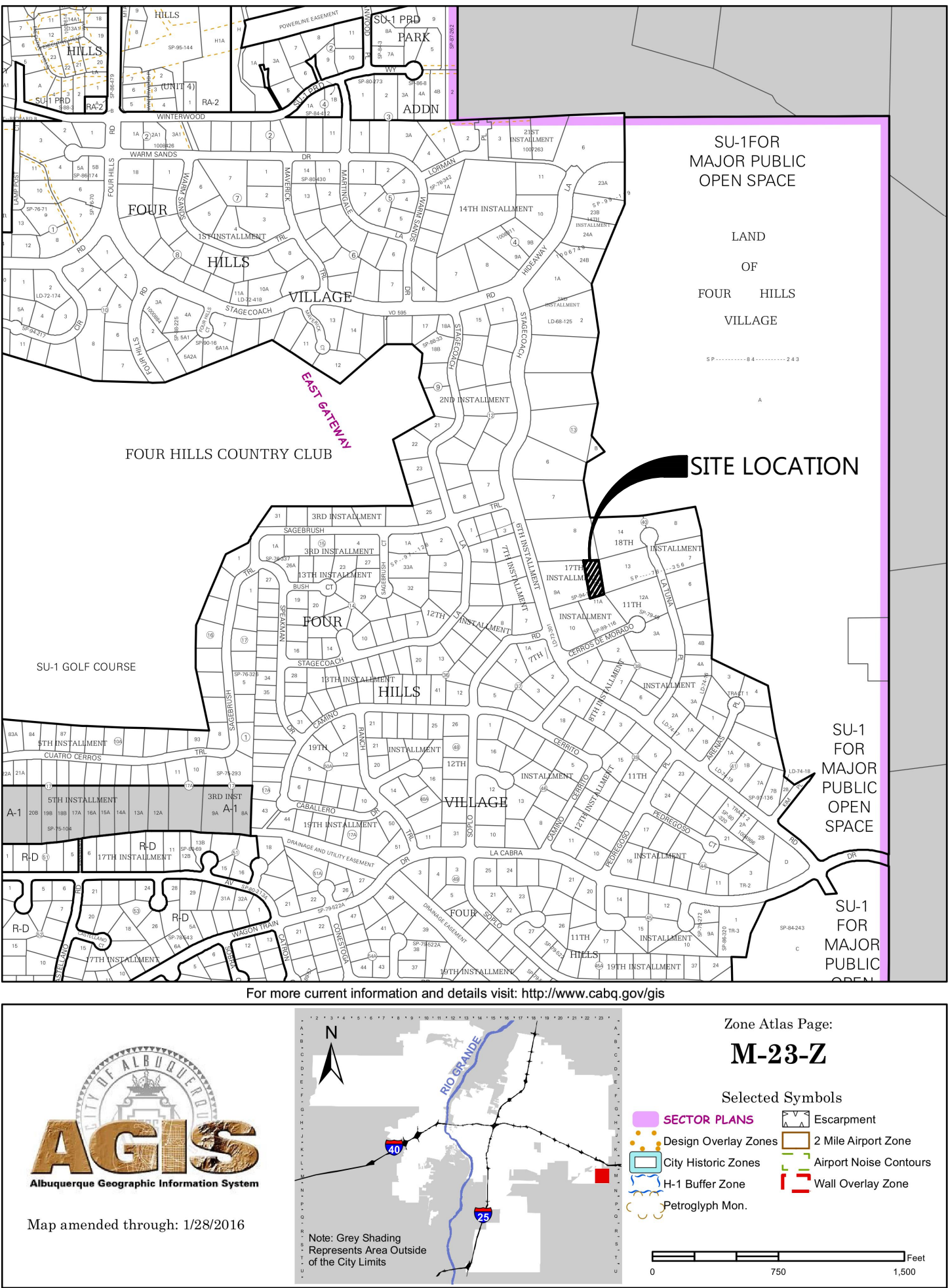
PO Box 1293

Albuquerque

New Mexico 87103

[www.cabq.gov](http://www.cabq.gov)





**Drainage Narrative**

THE PURPOSE OF THIS GRADING AND DRAINAGE PLAN LOCATED AT 1428 STAGECOACH ROAD, S.E., ALBUQUERQUE, NM IS TO ACCOMMODATE A NEW RESIDENCE. THE SITE CURRENTLY IS AN UNIMPROVED LOT SURROUNDED BY IMPROVED RESIDENTIAL LOTS. THE PROPOSED IMPROVEMENT INCLUDES A NEW RESIDENCE.

THE SITE ACCEPTS MINIMAL OFF-SITE RUNOFF FROM THE EAST. THOSE FLOWS WILL CONTINUE TO FLOW AS IT HAS HISTORICALLY. THE EXISTING RUNOFF OF THE SITE IS 0.77 CFS AND WILL INCREASE TO 1.71 CFS AFTER DEVELOPMENT OF THE SITE. THE RUN OFF WILL BE DIRECTED TO A CLEAR WATER POND WEST OF THE PROPOSED DRIVEWAY AND WILL DRAIN TO THE WEST AS IT HAS HISTORICALLY DONE VIA AN EXISTING DRAINAGE SWALE

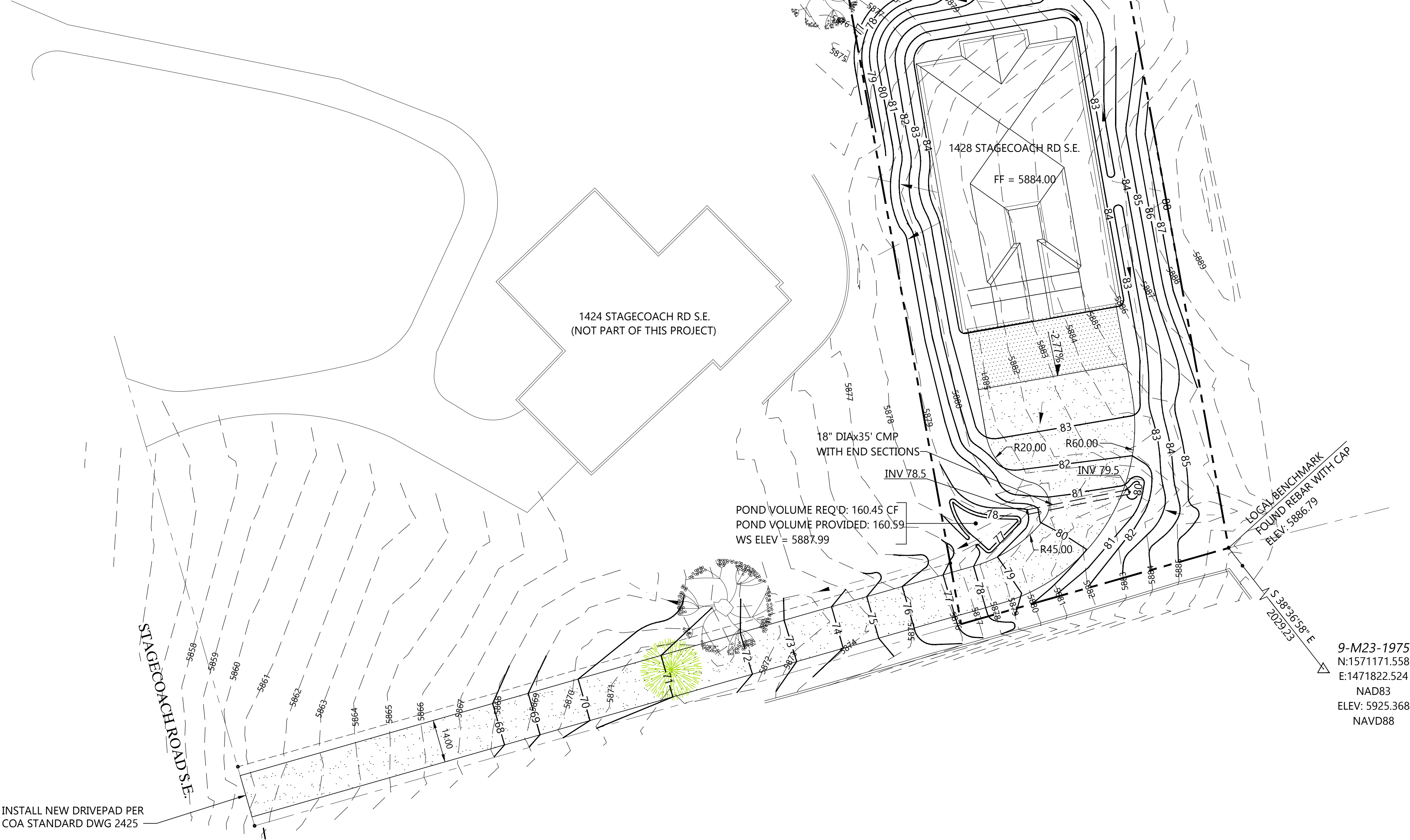
THE SITE IS NOT WITHIN THE 100 YR FLOOD PLAIN PER FEMA FIRM PANEL NO. 35001C0386G, DATED SEPTEMBER 26, 2008, DESIGNATED AS ZONE "X".

Drainage Calculations				
Roensch Residence				
1428 Stagecoach Road S.E.				
Hydrology Calculations				
DPM - Section 22.2				
Volume 2, January 1993				
Precipitation Zone	1			
100 Year Storm Depth, P (360)	2.2			
Treatment Area	A	B	C	D
Excess Precipitation Factors	0.44	0.67	0.99	1.97
Peak Discharge Factors	1.29	2.03	2.87	4.37
Land Treatment Area	Acres	Existing	Allowable	Proposed
Type "D" (Roof)		0	0.10	0.13
Type "C" (Unpaved Roadway)		0	0.12	0.28
Type "B" (Irrigated Lawns)		0	0.12	0.19
Type "A" (Undeveloped)		0.6	0.26	0.00
Total (Acres)		0.6	0.60	0.60
Excess Precipitation(in)		0.44	0.88	1.10
Volume (100), cf		958.32	1916.86	2397.98
Volume (10),cf		642.07	1284.29	1606.65
Q (100), cfs		0.77	1.39	1.76
Q (10), cfs		0.52	0.93	1.18

**Benchmark** △

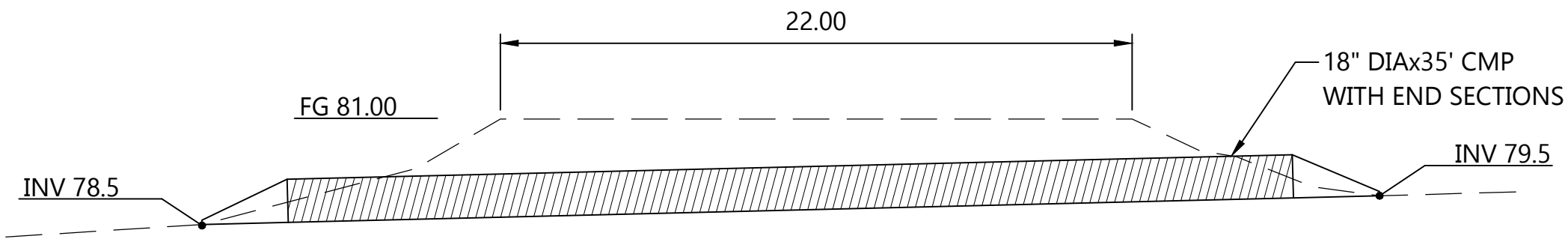
**PROJECT BENCHMARK:**  
THE PROJECT BENCHMARK IS A FOUND ACS BRASS CAP  
STAMPED "9-M23 1975"  
N: 1571171.558  
E: 1471822.524  
ELEV: 5925.368

**LOCAL BENCHMARK:**  
THE SOUTHEAST CORNER OF THE PROJECT LOT BEING A  
FOUND REBAR WITH CAP  
ELEV: 5886.79



## GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'



## DRAIN PIPE CROSS SECTION

SCALE: NTS

**Pond Volume**

IMPERVIOUS AREA — 0.13 x 43560 = 5663 SF

PONDING REQUIRED —  $5663 \times \frac{.34}{12} = 160.45$  CF

POND 1:  
A78 = 191.12 SF  
A77 = 130.06 SF

VOL 3 & 4:  $161.35 + 110.00 = \frac{321.18}{2} \times 1 = 160.59$  CF

POND VOLUME PROVIDED: 160.59 CF

DEPTH OF WATER  $\frac{160.45}{160.59} = .99$

WATER SURFACE ELEV =  $5877 + .99 = 5877.99$

**Legend**

--- PROPERTY BOUNDARY

— 5870 — EXISTING CONTOUR

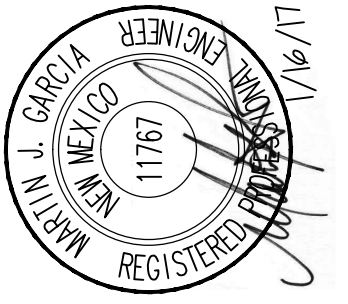
— 70 — NEW CONTOUR

NEW GRAVEL DRIVE

NEW CONCRETE APRON

FF FINISH FLOOR

—> DIRECTION OF FLOW



**Anchor**  
Engineering, LLC

1035 S. Bosque Ln. Bosque Farms, NM 87068  
505.862.1530

PROJECT NO.	16-056
DATE	1.16.2017
DRAWN BY	F PHILLIPS
CHECKED BY	M GARCIA
SCALE	1" = 20'

PROJECT TITLE	ROENSCH RESIDENCE
1428 STAGECOACH ROAD S.E.	
ALBUQUERQUE, NEW MEXICO	

SHEET TITLE	GRADING AND DRAINAGE PLAN
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SHEET

C1