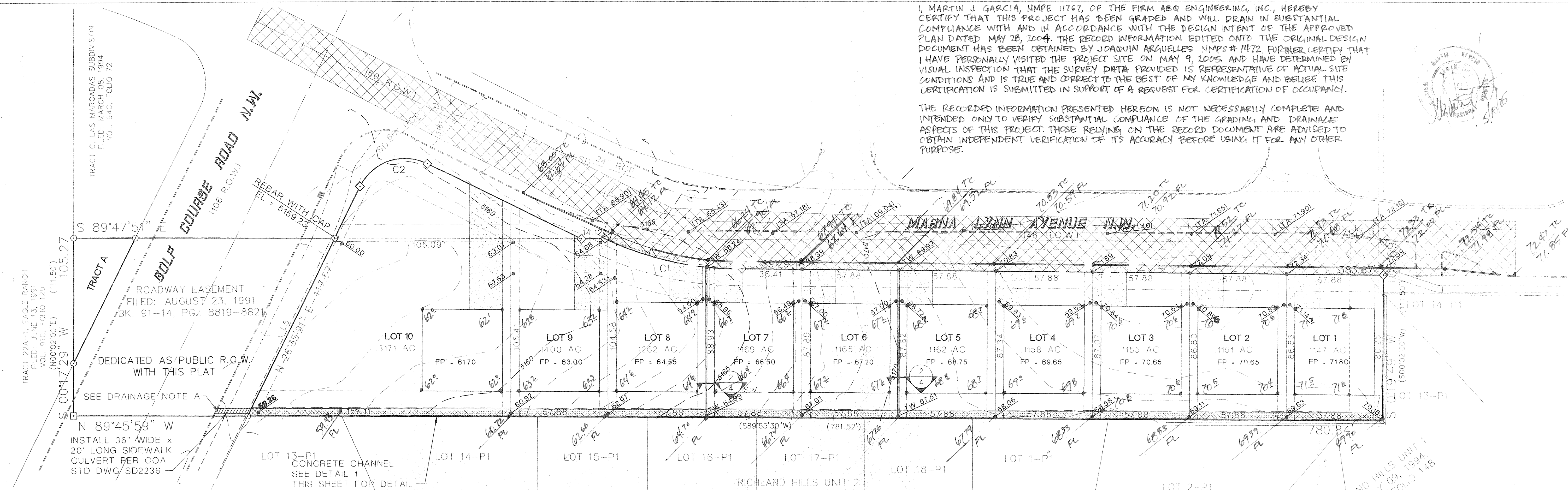
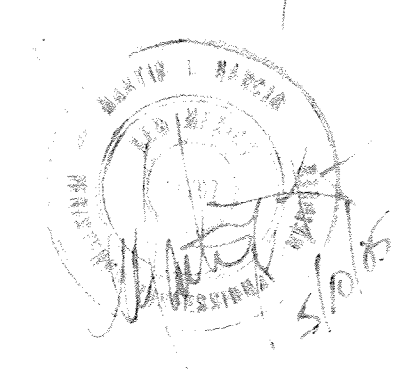




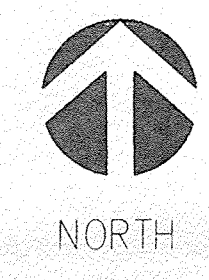
I, MARTIN J. GARCIA, NMPE 11767, OF THE FIRM ABQ ENGINEERING, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED MAY 28, 2004. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY JOAQUIN ARZUELAS, NMPS#7472. FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON MAY 9, 2005 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 CERTIFICATION OF OCCUPANCY.

THE RECORDED INFORMATION PRESENTED HEREON 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.



GRADING PLAN

SCALE: 1" = 30'



Flood Plain Information

THE SUBDIVISION IS DESIGNATED ZONE "X" AND IS NOT WITHIN THE 100 YR FLOOD PLAIN AS DETERMINED IN FEMA PANEL 95001C0116F (116 OF 825) DATED NOVEMBER 19, 2003.

Local Project Benchmark

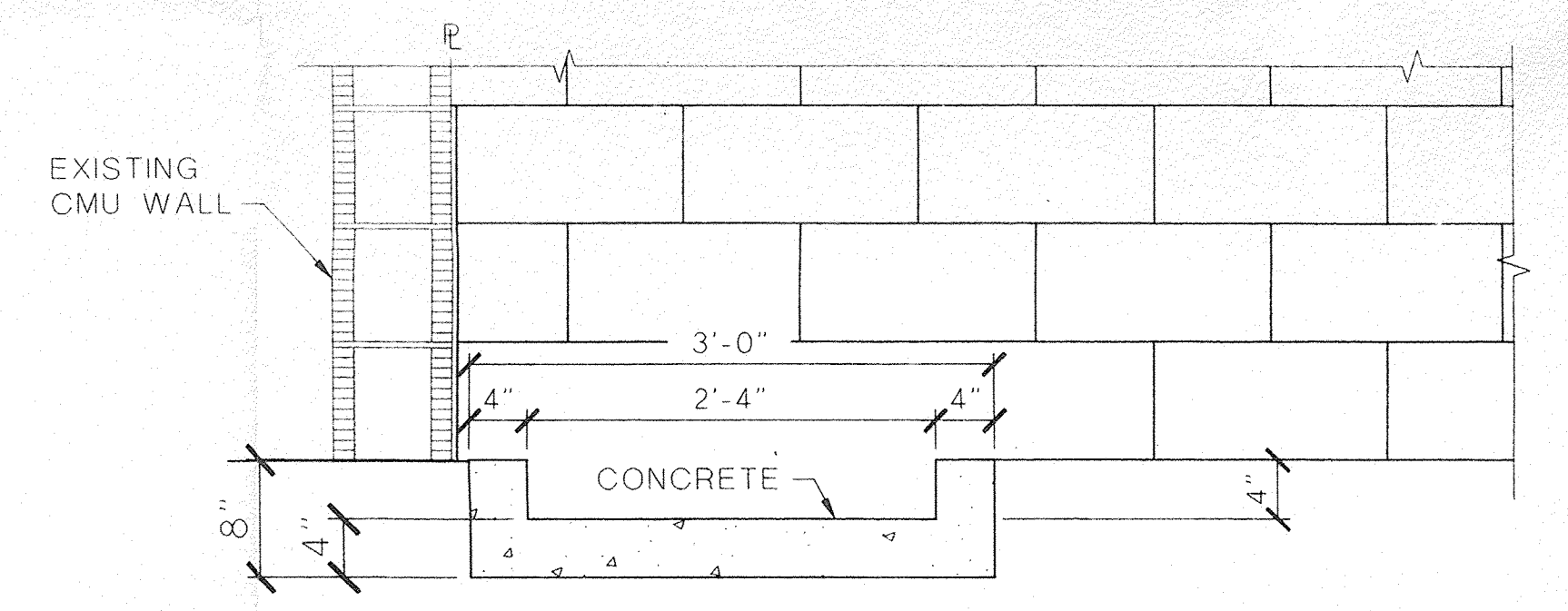
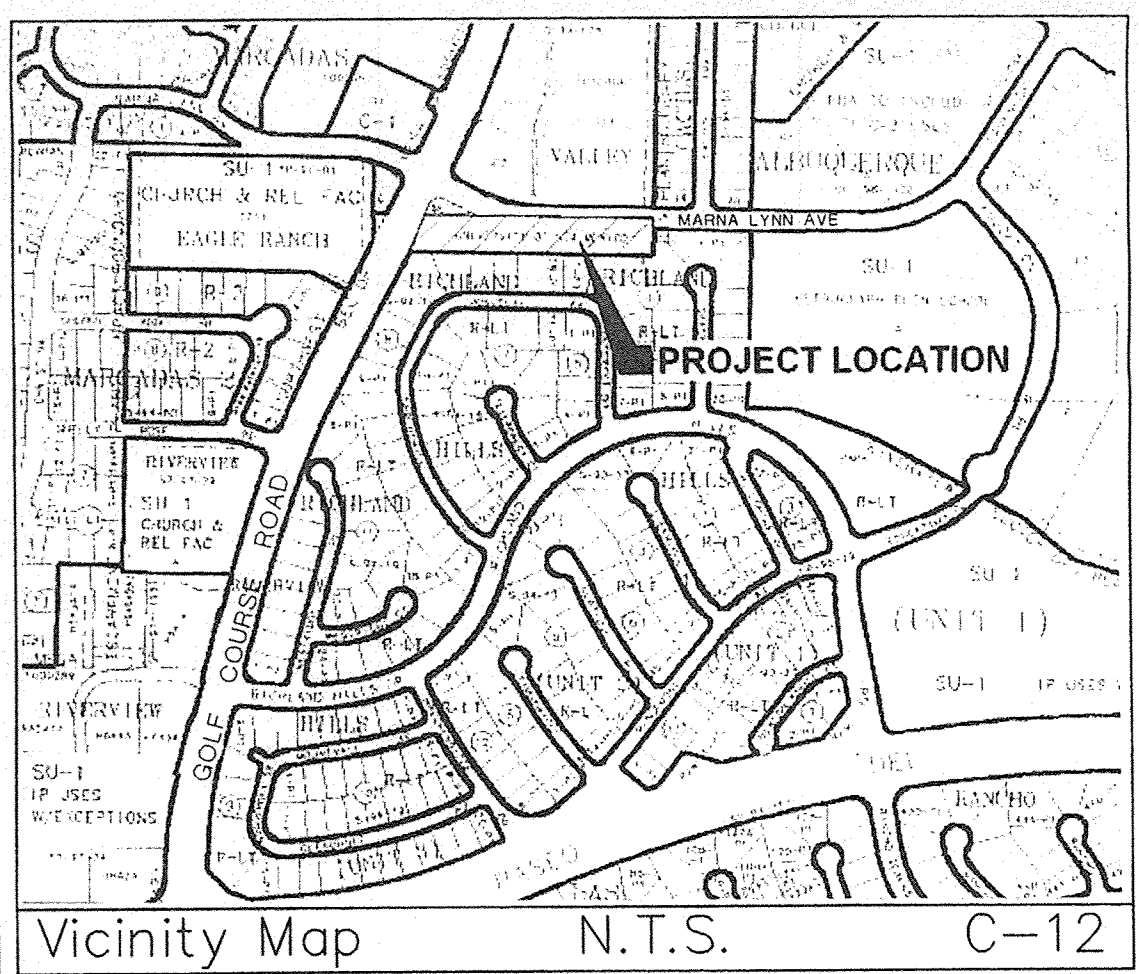
THE LOCAL PROJECT BENCHMARK IS THE NORTHWEST CORNER OF LOT 1, BEING A REBAR WITH CAP STAMPED "LS 8686" ELEV = 5159.23

Drainage Notes

A. TOTAL FLOW AT ANALYSIS POINT A = 4.30 cfs

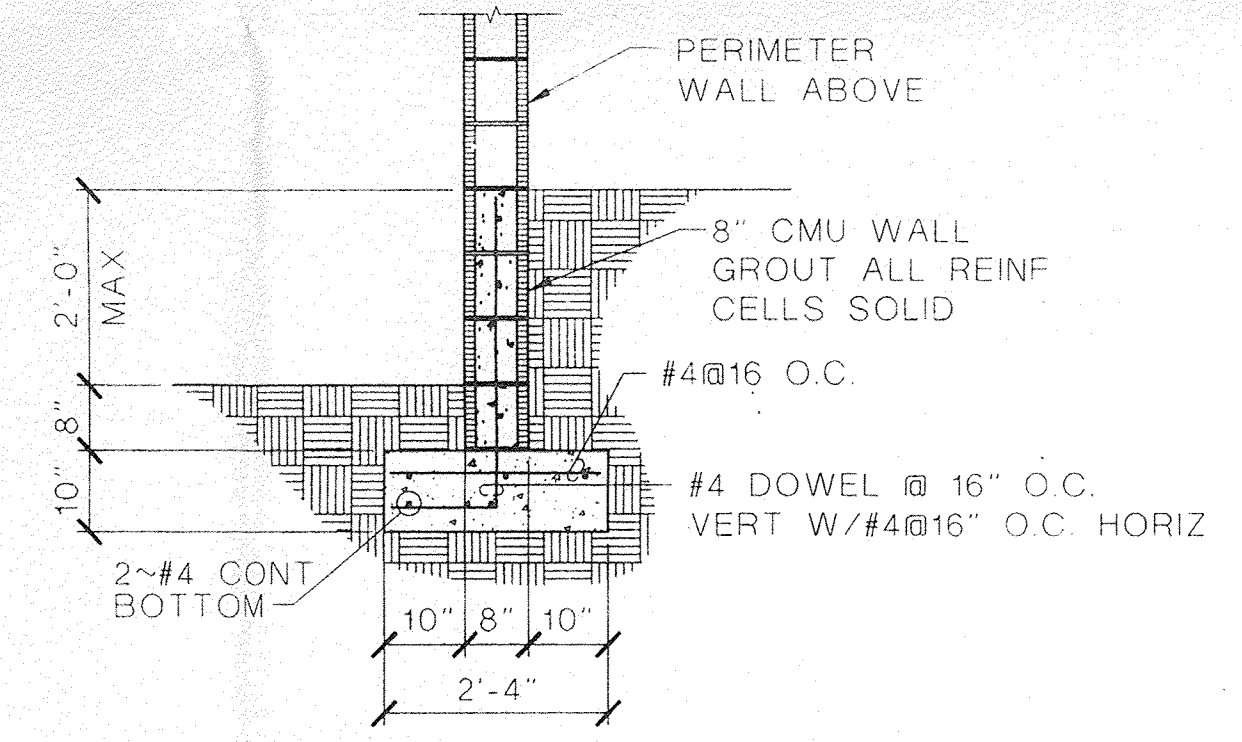
Legend

- EXISTING CONTOUR
- > SWALE
- 71.93 PROPOSED SPOT ELEVATION
- [67.14] EXISTING SPOT ELEVATION
- FP=71.87 FINISH PAD ELEVATION
- [Hatched] ASPHALT PAVING SEE PLAT FOR EASEMENT
- [Hatched] CONCRETE DRAINAGE CHANNEL
- TA TOP OF ASPHALT
- TW TOP OF WALL
- BW BOTTOM OF WALL



CONCRETE CHANNEL DETAIL

SCALE: 1 1/2" = 1'-0"



RETAINING WALL SECTION

SCALE: 1/2" = 1'-0"

Drainage Calculation

Marna Lynn Subdivision - Lot 1-Lot 7
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	Proposed	
Type "D" (Roof)		0	0.07	
Type "C" (Unpaved Roadway)		0	0.00	
Type "B" (Irrigated Lawns)		0	0.05	
Type "A" (Undeveloped)		0.12	0.00	
Total (Acres)		0.12	0.12	
Excess Precipitation(in)		0.44	1.42	
Volume (100), cf		191.66	599.03	
Volume (10), cf		128.41	401.35	
Q (100), cfs		0.15	0.39	
Q (10), cfs		0.10	0.26	

Marna Lynn Subdivision - Lot 8
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	Proposed	
Type "D" (Roof)		0	0.08	
Type "C" (Unpaved Roadway)		0	0.00	
Type "B" (Irrigated Lawns)		0	0.05	
Type "A" (Undeveloped)		0.13	0.00	
Total (Acres)		0.13	0.13	
Excess Precipitation(in)		0.44	1.46	
Volume (100), cf		207.64	669.11	
Volume (10), cf		139.12	448.30	
Q (100), cfs		0.17	0.44	
Q (10), cfs		0.11	0.29	

Marna Lynn Subdivision - Lot 9
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	Proposed	
Type "D" (Roof)		0	0.06	
Type "C" (Unpaved Roadway)		0	0.03	
Type "B" (Irrigated Lawns)		0	0.05	
Type "A" (Undeveloped)		0.14	0.00	
Total (Acres)		0.14	0.14	
Excess Precipitation(in)		0.44	1.31	
Volume (100), cf		223.61	665.30	
Volume (10), cf		149.82	445.75	
Q (100), cfs		0.18	0.45	
Q (10), cfs		0.12	0.30	

Marna Lynn Subdivision - Lot 10
Hydrology Calculations
DPM - Section 22.2
Volume 2, January 1993

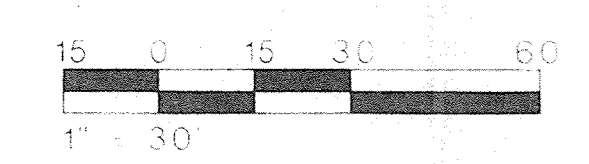
Precipitation Zone	1			
100 Year Storm Depth, P (360)	2.2			
Treatment Area	A	B	C	D
Excess Precipitation Factors	0.44	0.67	0.99	1.97
Peak Discharge Factors	1.29	2.03	2.87	4.37
Land Treatment Area	Acres	Existing	Proposed	
Type "D" (Roof)		0	0.07	
Type "C" (Unpaved Roadway)		0	0.00	
Type "B" (Irrigated Lawns)		0	0.05	
Type "A" (Undeveloped)		0.34	0.21	
Total (Acres)		0.34	0.34	
Excess Precipitation(in)		0.44	0.79	
Volume (100), cf		543.05	961.30	
Volume (10), cf		363.84	644.07	
Q (100), cfs		0.44	0.68	
Q (10), cfs		0.29	0.46	

Design Narrative

The Marna Lynn Subdivision site is a 1.8909 acre vacant site that is located at the Southeast corner of Golf Course Road and Marna Lynn Avenue. The site generally slopes from east to west varying from 0.5 percent on the east to 3.5 percent on the west. Marna Lynn Avenue is a 24 ft wide paved street with curb, gutter and storm drain in the street.

Marna Lynn Subdivision is being developed as a 10-lot residential subdivision. There are no off-site flows entering the property simply because the properties surrounding this parcel are all fully developed. The properties in the subdivision will be graded to drain to a concrete channel within a 5 ft drainage easement that is located along the south property lines of all proposed lots. The swale will convey the 100 yr developed flows to Golf Course Road. The cumulative 100 yr flow where it runs into Golf Course is 4.30 cfs. There is a storm drain system in Golf Course with enough capacity to accommodate the developed flows from this subdivision.

The property is not located within a 100 year floodplain.



ABQ Engineering, Inc.		•Engineers •Planners •Construction Services 6739 Academy Rd NE, Suite 130 Albuquerque, NM 87109 505-255-7802 FAX 505-255-7902 ABQ NO. 24004	
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: MARNA LYNN SUBDIVISION GRADING PLAN			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
Last Design Update			
City Project No.	746081	Zone Map No.	11
SHEET 4		OF 9	