City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 8, 1994

Mark Goodwin, P.E.
D. Mark Goodwin & Assoc.
P.O.Box 90606
Albuquerque, N.M.   87199

RE: ENGINEER'S CERTIFICATION FOR QUANZ CAR CARE (C12/D5)
     RECEIVED FEBRUARY 23, 1994 FOR CERTIFICATE OF OCCUPANCY APPROVAL
     ENGINEER'S STAMP DATED 2-21-94

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above and the
As-built Work Order drawings received March 2, 1994, City Hydrology releases a
Permanent Certificate of Occupancy for this project.

The Financial Guaranty will be released when the Agreement & Covenant is
executed & recorded.

If I can be of further assistance, you may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: INSPECTOR
     Lynda-Michelle DeVanti, City Project No. 4715.90

WPHYD/7769/jpc

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Quant
SUBJECT Asbuilts
BY GJK DATE 2-21-94
CHECKED_____ DATE_____
SHEET 2 OF____

ON SITE POND

PLANIMETER WAS USED

TOP CONTOUR
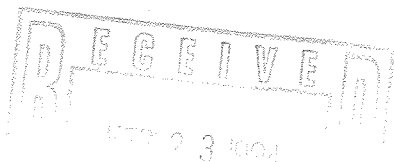
86.8

$1717 \times 9 = 15,453$ SF

BOTTOM CONTOUR

83.0

$710 \times 9 = 6390$ SF

$$\frac{15453 + 6390}{2} = 10,921.5$$

Volume $= 10,921.5 \times 86.8 - 83.0$

$= 41,501.7$ CF $> 39,875$ CF

__OK__

$V_{10 Day} = 19,937 + 2.004(43560)(3.67-2.20)/12$

$= 30,631$ cf

GREGORY JAMES KRENIK
NEW MEXICO
11929
2-21-94
REGISTERED PROFESSIONAL ENGINEER

dmg D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT QUAN 2
SUBJECT ASBUILTS
BY GJK DATE 2-21-94
CHECKED _____ DATE _____
SHEET 1 OF _____

OFF-SITE POND

PLANIMETER WAS USED

TOP CONTOUR
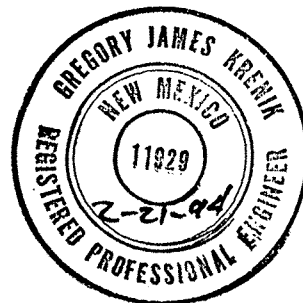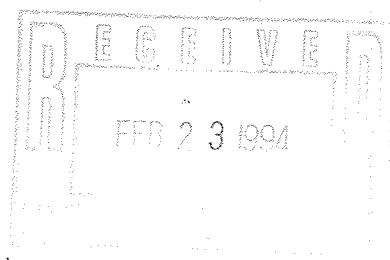74.4

$715 \times 9 = 6435 \ SF$

BOTTOM CONTOUR
71.2

$240 \times 9 = 2160 \ SF$

$$\frac{6435 + 2160}{2} = 4297.5$$

$$VOLUME = 4297.5 \times (74.4 - 71.2)$$
$$= 13,752 \ CF > 13,516 \ CF$$

OK

$V_{100 \ Day} = 7,776 + 1.076 (43,560)(3.67 - 2.20)/12$
$= 13,518 \ cf$

October 4, 1993

Mark Goodwin, P.E.
D. Mark Goodwin & Assoc.
P.O.Box 90606
Albuquerque, N.M.   87199

> RE: GRADING & DRAINAGE PLAN FOR QUANZ CAR CARE (C12/D5)
>   ENGINEER'S STAMP DATED 9-23-93, RECEIVED SEPTEMBER 24, 1993
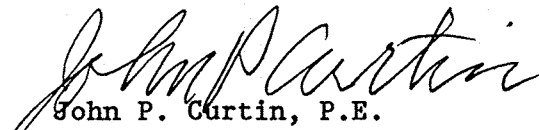>   FOR WORK ORDER APPROVAL.

Dear Mr. Goodwin:

Based on the information included in the submittal referenced above, City Hydrology APPROVES this project for Work Order.

The following comments must be addressed prior to Engineer's Certification approval:

1.   Letter from Norm Gregory dated August 18, 1993 does not mention grading a swale on his property.

2.   Any retention pond constructed with a berm must have an emergency spillway designed to convey the 100-year peak flow per the Mayor's Emergency Rule published 5-14-91. Also, Retention pond volume must be based on the 100-year/10 day storm or 2 x 100 year/6 hour storm.

If you have any questions about this project, you may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

xc: Billy Goolsby
     Alan Martinez
     File

WPHYD/7769/jpc

DRAINAGE CALCULATIONS

I. REFERENCES:

A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) VOL. 2 DESIGN CRITERIA, CHAPTER 22.2: DRAINAGE,FLOOD CONTROL, AND EROSION CONTROL DESIGN CRITERIA FOR CITY OF ALBUQUERQUE, NEW MEXICO, IN COOPERATION WITH BERNALILLO COUNTY AND THE AMAFCA.

B. FLOODWAY, FLOOD BOUNDARY AND FLOODWAY MAP, CITY OF ALBUQUERQUE, NEW MEXICO, PANEL 8 OF 50.

C. ZONE ATLAS PAGE C-12/13-Z.

II. IMPERVIOUSNESS:

TREATMENT TYPE	TYPES OF SURFACES	EXISTING SQ.FT	EXISTING ACRES	PROPOSED SQ.FT	PROPOSED ACRES
A	UNDEVELOPED	0	0.0000	0	0.0000
B	LANDSCAPE	0	0.0000	13,500	0.3099
C	VACANT LAND	155,139	3.5615	51,000	1.1708
D	IMPERVIOUS AREA	0	0.0000	90,639	2.0808
	SITE TOTAL	155,139	3.5615	155,139	3.5615

III. PEAK DISCHARGE 100 YEAR-6 HOUR RAINFALL:

TREATMENT TYPE	TYPES OF SURFACES	EXISTING CFS/Ac	EXISTING Qp(100)	PROPOSED CFS/Ac	PROPOSED Qp(100)
A	UNDEVELOPED	1.29	0.00	1.29	0.00
B	LANDSCAPE	2.03	0.00	2.03	0.63
C	VACANT LAND	2.87	10.22	2.87	3.36
D	IMPERVIOUS AREA	4.37	0.00	4.37	9.09
	PEAK DISCHARGE (CFS)		10.22		13.08

IV. VOLUME 100 YEAR-6 HOUR RAINFALL:

TREATMENT TYPE	TYPES OF SURFACES	EXISTING E (IN)	EXISTING ExA	PROPOSED E (IN)	PROPOSED ExA
A	UNDEVELOPED	0.44	0.00	0.44	0.00
B	LANDSCAPE	0.67	0.00	0.67	0.21
C	VACANT LAND	0.99	3.53	0.99	1.16
D	IMPERVIOUS AREA	1.97	0.00	1.97	4.10
	WEIGHTED "E"		0.99		1.53
	VOLUME	0.294 AC-FT		0.455 AC-FT	
		12,798.97 CU-FT		19,841.15 CU-FT	
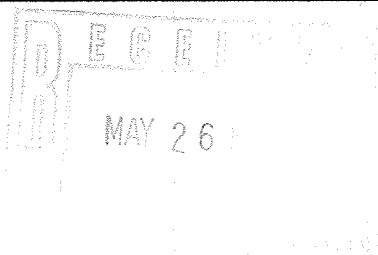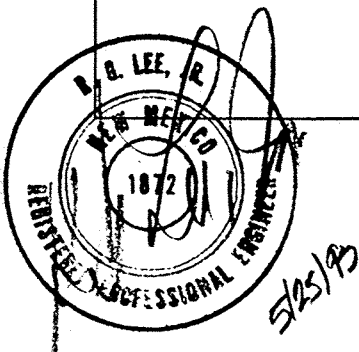
QUANZ MOTORS

DRAINAGE CALCULATIONS

GREGORY JAMES KRENIK
NEW MEXICO
11929
REGISTERED PROFESSIONAL ENGINEER
9-23-93
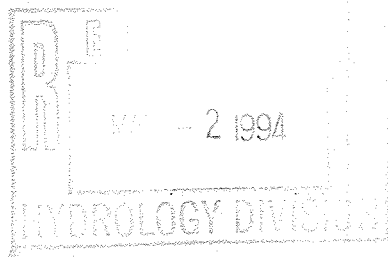
10-11-93
1-10-94

August 18, 1993

Rick Quantz
988 Alameda Blvd.
Albuquerque, NM 87114

Dear Rick:

This letter is a follow up to our August 3, 1993 meeting regarding the common boundary wall of our properties at Eagle Ranch Road and Paseo del Norte.

1. You will grade a 10:1 slope to the bottom of the west property line wall.

2. You will lower the existing grade at the west property line approximately 3' to 4' with the overdig extending 20' ± onto the Centex property. Any excess soil will be stock piled for future use by Centex Homes.

3. Excess <u>clean</u> soil from your site may be placed on the stockpile.

If you have any questions feel free to call me anytime.

Best Regards,

Norm Gregory
Land Development Coordinator

Centex Homes New Mexico Division

dmg — D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT Quanz Motors
SUBJECT Drainage Calcs
BY GJK   DATE 6-11-93
CHECKED_____ DATE _____
REVISED 10-11-93   SHEET 1 OF____

TOTAL SITE : 3,5605 AC = 0.00556 S.M.

   ROOF : 0.36489 AC   TREATMENT D

   PLANTERS : 0.05332 AC   TREATMENT B

   PAVEMENT : 1.63911 AC   TREATMENT D

  REGRADED GROUND : 1.50318 AC   TREATMENT C

PERCENTAGES

  TREATMENT $B = 1.50$

            $C = 42.22$

            $D = 56.28$

100 yr STORM

$P_{1H} = 1.90$ in

$P_{6H} = 2.20$ in

$P_{24H} = 2.67$ in

$t_P = 0.1333$ HR

$0T = 0.0333$ HR

FROM THE HYMO RUN SHEETS 2 & 3

  THE VOLUME REQUIRED FOR ONSITE RETENTION IS **2x**

    $V = 0.4577$ AC-FT

    $= 19,937.412$ CF $\times 2 = \underline{39,874.824 \text{ CF}}$

FIND POND VOLUME

ELEV.	AREA (SF)	VOLUME CF
81.5	8,898	$\frac{8898 + 9509}{2(2)} = 4,602$
82	9,509	$\frac{9509 + 10774}{2} = 10,142$
83	10,774	$\frac{10774 + 12705}{2} = 11,740$
84	12,705	$\frac{12705 + 14635}{2} = 13,670$
85	14,635	

TOTAL VOLUME = 40,154 CF > 39,874.824 CF **OK**