



Martin J. Chávez, Mayor

Robert E. Gurulé, Director

January 15, 1997

Mark D. Goodwin
D. Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, New Mexico 87121

R.E.: Revised Drainage Plan For Virginia Street Apartments (K19-D114) Revision dated 1/3/97

Dear Mr. Goodwin:

Based on the information provided on your January 3, 1997 resubmittal, the above referenced site is approved for Grading/ Paving and Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the D.P.M. guidelines will be required.

If I can be of further assistance, please feel free to contact me at 924-3986.

Sincerely

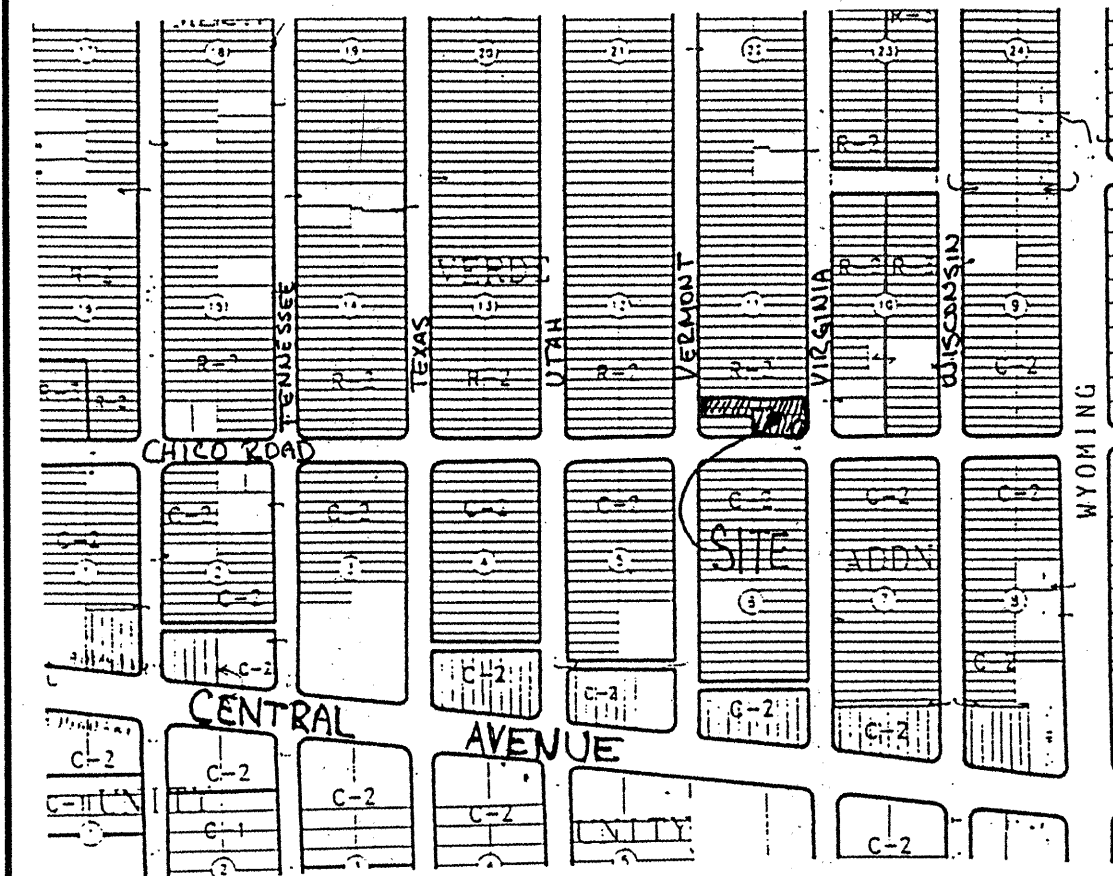
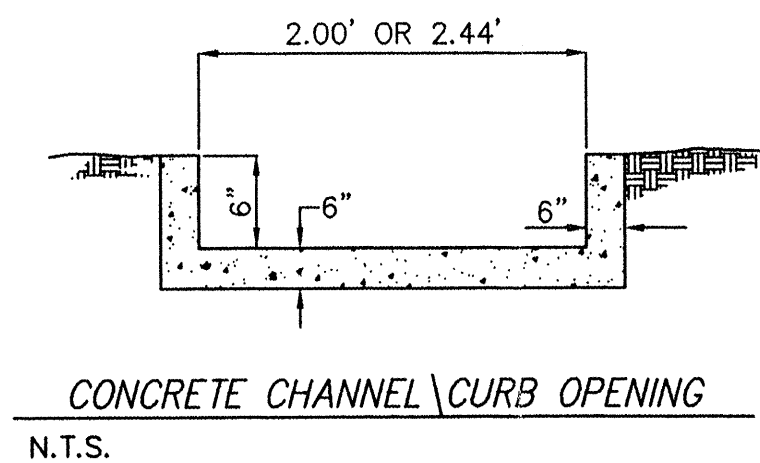
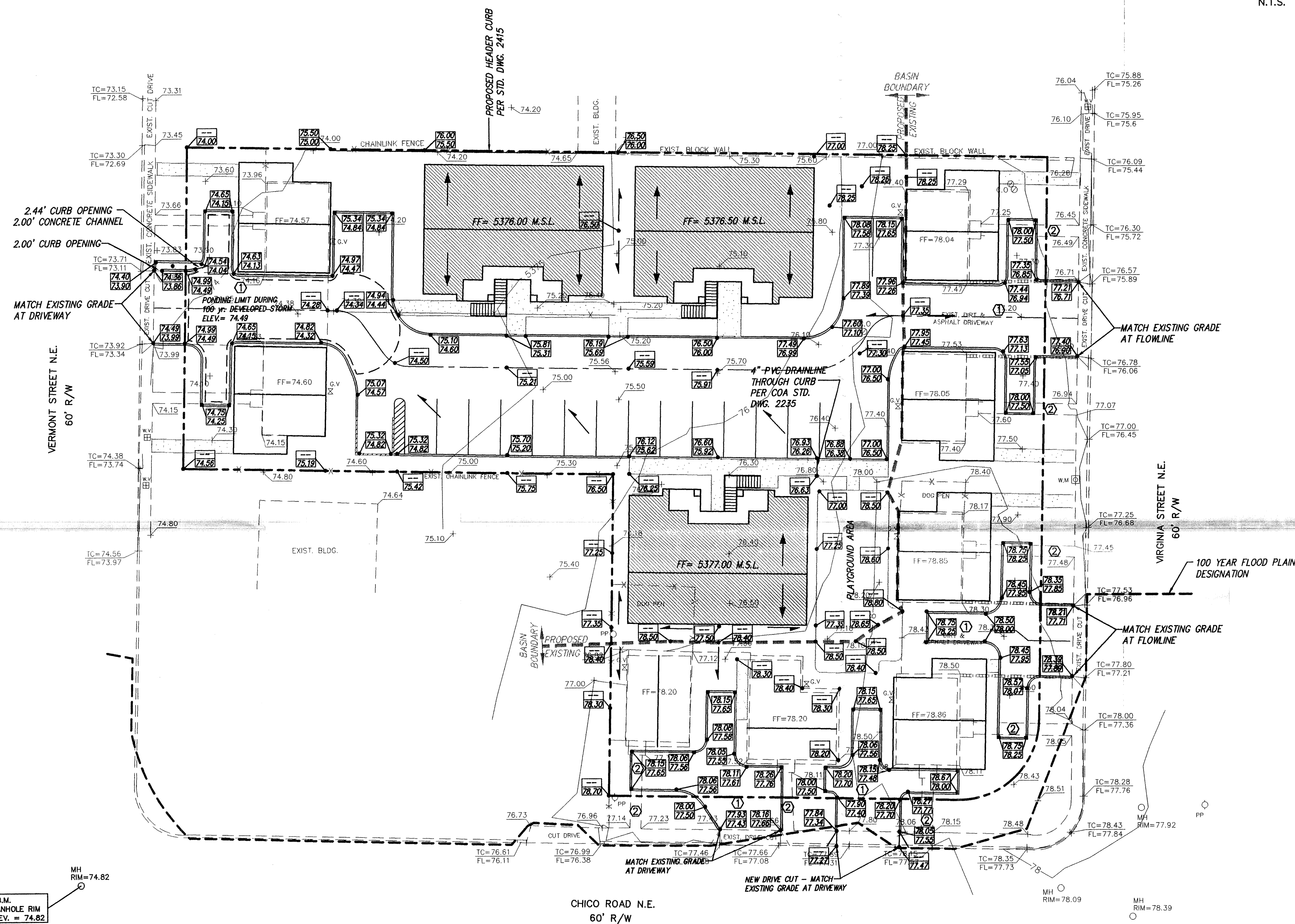
A handwritten signature in cursive script that reads 'Bernie J. Montoya'.

Bernie J. Montoya C.E.
Engineering Associate

C: Andrew Garcia

Good for You. Albuquerque!





VICINITY MAP ZONE MAP: K-19-Z

TBM (TEMPORARY BENCHMARK)

TOP OF MANHOLE LOCATED AT THE INTERSECTION OF VERMONT ST. AND CHICO RD.
ELEV. = 5374.82

ACS BENCHMARK

STATION IS A STANDARD ACS BRASS DISK SET IN CURB,
STAMPED "6-K20 (R) 1987."
X = 410,236.75
Y = 1,482,226.93
Z = 5390.694

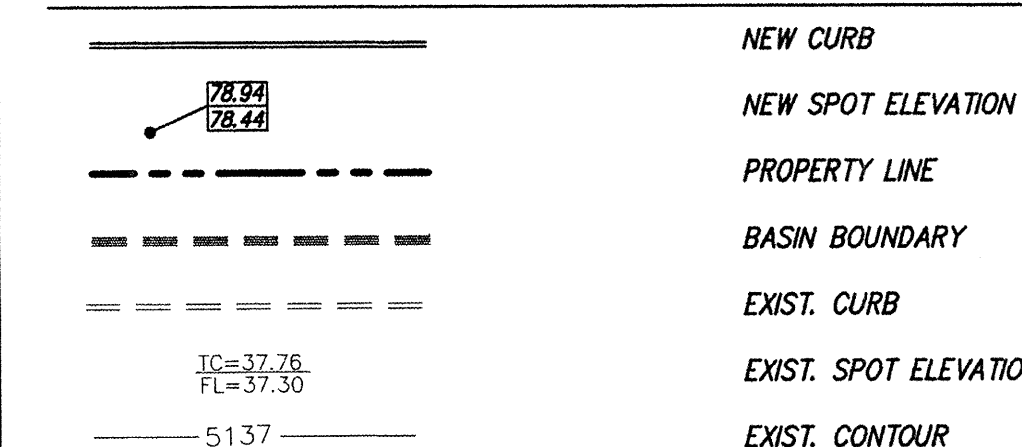
LEGAL DESCRIPTION

LOTS 5 THROUGH 8 AND 41 THROUGH 44 AND 45A THROUGH 48A, BLOCK 11,
MESA VERDE ADDITION,
BERNALILLO COUNTY, NEW MEXICO.
JAN. 1995.

KEYED NOTES

- ① REMOVE AND REPLACE EXISTING ASPHALT.
- ② REMOVE & DISPOSE EXISTING SIDEWALK.

LEGEND



PROJECT DESCRIPTION

THE SCOPE OF WORK IS TO CONSTRUCT 2 NEW APARTMENTS AND RENOVATION OF THE EXISTING APARTMENTS. NO IMPROVEMENTS TO EXISTING DRIVEWAYS AND ONE DRIVEWAY TO BE CONSTRUCTED IN CHICO ROAD. EXISTING DRAINAGE BASIN ON VIRGINIA AND CHICO SHALL CONTINUE TO DRAIN TOWARDS VERMONT VIA A 2.00' CONCRETE CHANNEL AT A RATE OF 2.50 cfs. THE CHICO ROAD PORTION OF THE SITE LIES WITHIN THE 100 yr. - 01 FLOOD PLAIN ACCORDING TO FEMA PANEL 358 OF 825.

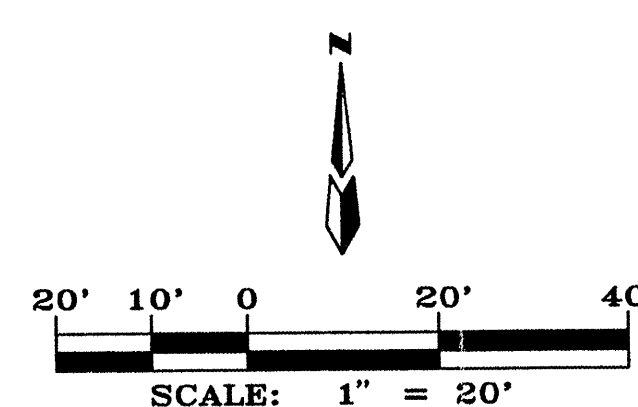
VIRGINIA STREET APARTMENTS
GRADING & DRAINAGE PLAN

dmg D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 345-2010

Designed: RMJ Drawn: MCG Checked: DMG
Scale: 1" = 20' Date: 05/96 Job: 96085 Sheet 1 of 1

DRAINAGE CALCULATIONS

1. TOTAL AREA	2. PROPOSED BASIN	3. EXISTING BASIN	4. OUTLET CONTROL	5. 2' CHANNEL CAPACITY	6. DETAINED VOLUME
A = 0.9298 AC. = 0.0015 SQ. MI. LAND TREATMENT TYPE "A" = 0.0% TYPE "B" = 15.0% TYPE "C" = 0.0% TYPE "D" = 85.0%	BASIN NOT TO EXCEED Q = 2.50 cfs DISCHARGE ZONE 3 AHYMO METHODOLOGY A = 0.6198 AC. TABLE A-8, EXCESS PRECIPITATION, E(INCHES)-6hr STORM A=0.66 B=0.92 C=1.29 D=2.36 E = (0+0.66)+(0.0930+0.92)+(0+1.29)+(0.2634+2.36)/0.6198 E = 2.144 INCHES VOLUME = (2.144+0.6198)/12 V = 0.1107 AC. FT. TABLE A-9, PEAK DISCHARGE (cfs/acre) 100 yr STORM A=1.87 B=2.60 C=3.45 D=5.02 Qp=(0+1.87)+(0.0930+2.60)+(0+3.45)+(0.5269+5.02) Qp=2.89 cfs > Q=2.50 cfs CONTROLLED OUTLET REQUIRED SEE PARAGRAPH 4 OF DRAINAGE CALCULATIONS.	A = 0.3099 AC. TABLE A-8, EXCESS PRECIPITATION, E(INCHES)-6hr STORM A=0.66 B=0.92 C=1.29 D=2.36 E = (0+0.66)+(0.0465+0.92)+(0+1.29)+(0.2634+2.36)/0.3099 E = 0.6645 INCHES VOLUME = (0.6645+0.3099)/12 V = 0.0172 AC. FT. TABLE A-9, PEAK DISCHARGE (cfs/acre) 100 yr STORM A=1.87 B=2.60 C=3.45 D=5.02 Qp=(0+1.87)+(0.0465+2.60)+(0+1.29)+(0.2634+5.02) Qp=1.44 cfs	WEIR EQUATION Q=CLH^{1.5} WHERE: Q=2.50, C=2.90, H=0.5' L=2.50/(2.90*(0.5)^{1.5}) L=2.44' CONSTRUCT WEIR 2.44' SEE PLAN FOR PLACEMENT. SEE DETAIL THIS SHEET.	FLOW EQUATION Q = k A R^{0.67} S^{0.5} Q = 1.49*(1)*(0.333)^{0.67} * (0.01)^{0.5} Q = 0.013 Q = 5.51 cfs > Q = 2.50 cfs CHANNEL CONTAINS THE CAPABILITY TO CONVEY 2.50 cfs. SEE DETAIL THIS SHEET.	DEVELOPED Qp= 2.89 cfs VOLp= 0.1107 AC. FT. ALLOWED Q = 2.50 VOL = 0.0958 AC. FT. DETAINED Q = 0.39 cfs VOL = 0.0149 AC. FT.



6085VIRG\6085CD20\01-02-97