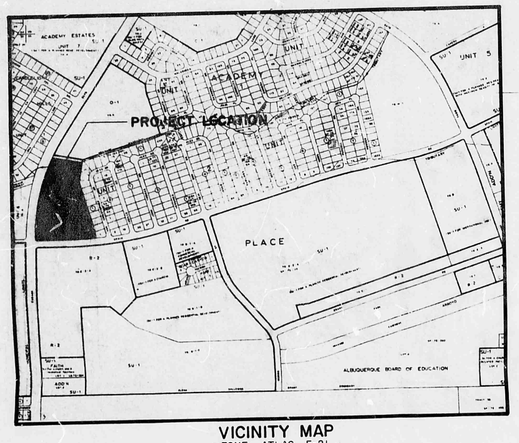
HYDROLOGY

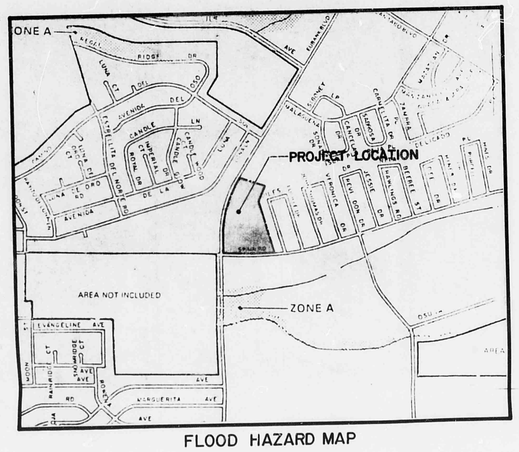
F21/D7
THREE PLA

F21/D7

3 Plans



VICINITY MAP
ZONE ATLAS F-21



FLOOD HAZARD MAP

Drainage Plan

The following items concerning the Spain Apartments are contained hereon:

1. vicinity map
2. flood hazard map
3. calculations
4. grading plan (shown on sheet 4)

The proposed apartments are located at the northeast corner of the intersection of Eubank Boulevard N.E. and Spain Road N.E. The site will contain multilevel apartment buildings, parking areas and landscaping.

The project is bordered on two sides by streets and on two sides by single family residences. The project site is higher than both streets and is separated from the single family residences to the north by the Bear Arroyo Tributary. The land to the east is higher than the project site. The two areas are separated by existing block retaining walls and block garden walls. The project site slopes from east to west in an undulating manner. The project site will not receive any offsite flows. The project does not lie in a flood plain. The project does lie adjacent to a natural water course and contains a drainage easement for that water course.

Runoff in the Bear Arroyo Tributary from the east will be conveyed through the easement in a gunite-lined channel. The north bank of the channel is already gunited. The flow of the channel and the south bank will be gunited during this project. The flow in the channel terminates at Eubank Boulevard where it goes into a street crossing presently being constructed. The majority of the runoff from the site will be conveyed into a pond located in the southwest corner of the site. The pond will be allowed to drain into the existing city storm drain system by a 4-inch PVC pipe with an orifice regulating the flow. At the extreme northeast corner of the site the flow will be conveyed into the Bear Canyon Tributary channel. Also, in the southeast corner of the site, the flow cannot be diverted toward the pond and therefore will run into Spain Road. The remainder of the site is conveyed into the ponding area.

The grading plan shows: (1) existing contours at 1-foot and 2-foot intervals, (2) proposed grades are indicated by contours and spot elevations, (3) swales, (4) continuity between proposed and existing elevations, (5) sidewalks are higher than adjacent curbs, (6) that the majority of the runoff will be conveyed into a pond before leaving the site, and (7) that retaining walls will be required for portions of the east property line and at selected areas throughout the site. The retaining walls within the site will be railroad tie type walls used to enhance the landscaping.

The pond will retain in excess of 100 percent of the runoff that results from a 100 year frequency storm. The pond is less than 18 inches deep except right adjacent to the drop inlet. Therefore, fencing will not be provided.

CALCULATIONS

Area of Parcel = 9.868

Impervious Area = 6.0 acres = 261,360 s.f.

Required Pond Volume = 261,360 x 0.1 = 26,136 c.f.

Area of Pond

$\left(\frac{21.3 + 18.8}{2}\right) 900\ (1) = 18{,}045$

$18.8\ (900)\ \frac{1}{2}\ (1) = 8{,}460$

Total Volume = 26,505 c.f.

POND OUTLET

from "Cameron Hydraulic Data" pg. 67

$Q = 19.636\ kd^2\ h$

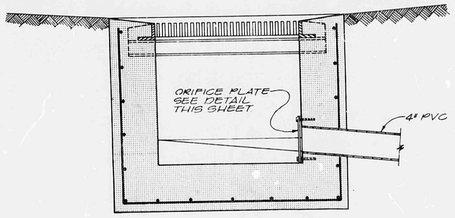
assume avg. h = 1.0 ft.

assume k = 0.61

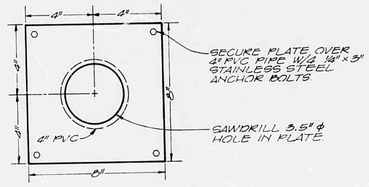
$\frac{26{,}505 \times 7.5}{24 \times 60} = 138$ gpm

$138 = 19.636\ (0.61)\ d^2\ 1$

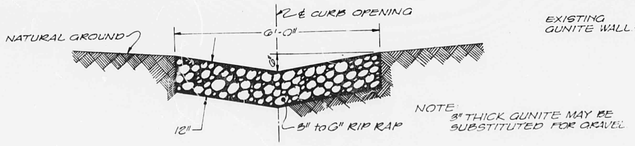
d = 3.39"



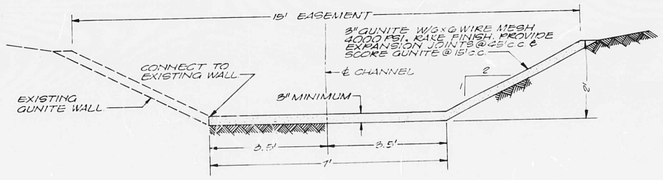
POND DRAIN
NO SCALE



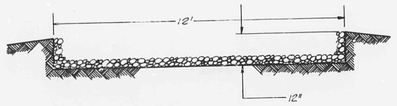
ORIFICE PLATE DETAIL
NO SCALE



GRAVEL RUNDOWN DETAIL
NO SCALE



TYPICAL CHANNEL CROSS SECTION
NO SCALE

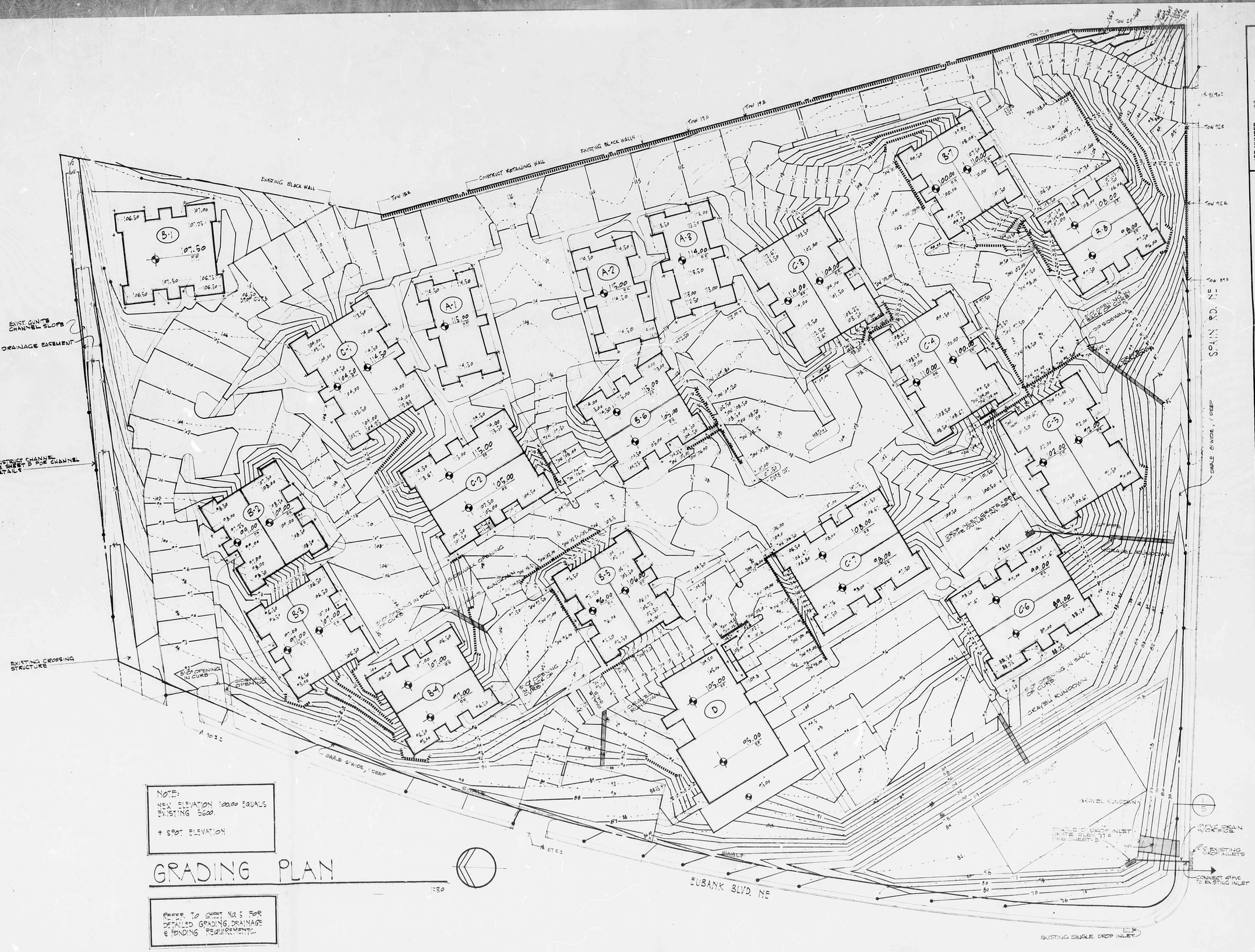


SECTION 1/4
NO SCALE

JOB NUMBER	22
DATE	6-28-79
DRAWN	T.M.
CHECKED	WAG
PROJECT	SPAIN APARTMENTS
OWNER	ROGER COX
TITLE	DRAINAGE PLAN & DETAILS

GATHMAN·MATOTAN ARCHITECTS·PLANNERS INC.
TELEPHONE (505) 265-8329
230 TRUMAN N.E., ALBUQUERQUE, NEW MEXICO 87108

SHEET 5 OF 32



NOTE:
NEW ELEVATION 100.00 EQUALS EXISTING 5600.

+ SPOT ELEVATION

GRADING PLAN

1:30

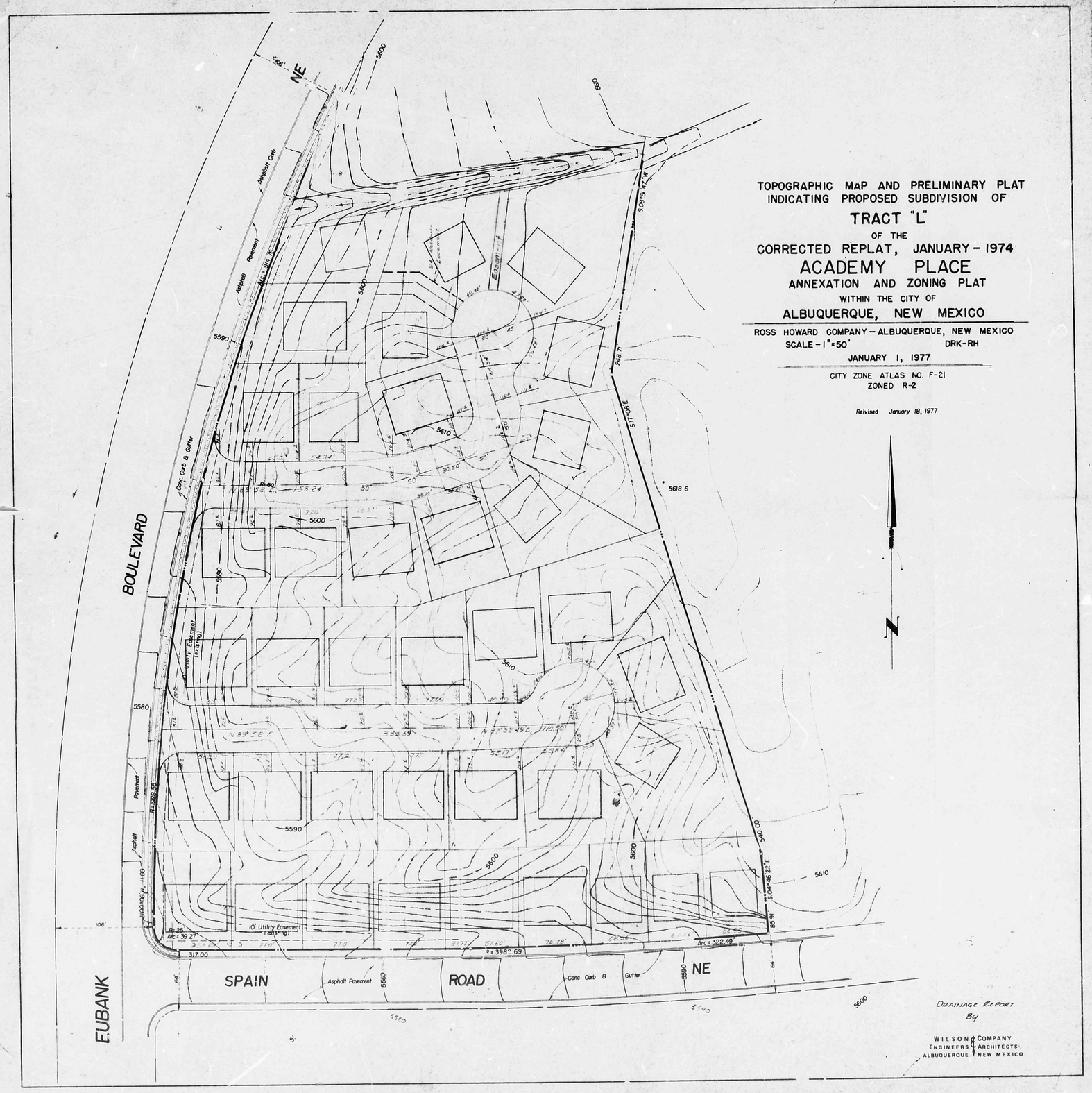
REFER TO SHEET NO. 5 FOR DETAILED GRADING, DRAINAGE & PAVING REQUIREMENTS.

JOB NUMBER	22
DATE	20 JUNE 1979 6-28-79
DRAWN	RG
CHECKED	WAG
PROJECT	SPAIN APARTMENTS
OWNER	ROGER COX
TITLE	GRADING PLAN

GATHMAN-MATOTAN ARCHITECTS-PLANNERS INC.
230 TRUMAN N.E., ALBUQUERQUE, NEW MEXICO 87108
TELEPHONE (505) 265-8329

STATE OF NEW MEXICO WALTER A. GATHMAN ALBUQUERQUE, NEW MEXICO REGISTERED ARCHITECT

SHEET 4 OF 34


TOPOGRAPHIC MAP AND PRELIMINARY PLAT
INDICATING PROPOSED SUBDIVISION OF
TRACT "L"
OF THE
CORRECTED REPLAT, JANUARY - 1974
ACADEMY PLACE
ANNEXATION AND ZONING PLAT
WITHIN THE CITY OF
ALBUQUERQUE, NEW MEXICO
ROSS HOWARD COMPANY - ALBUQUERQUE, NEW MEXICO
SCALE - 1" = 50'
DRK-RH
JANUARY 1, 1977
CITY ZONE ATLAS NO. F-21
ZONED R-2
Revised January 18, 1977
N
BOULEVARD
EUBANK
NE
SPAIN
ROAD
NE
Asphalt Pavement
Conc. Curb & Gutter
10' Utility Easement (Existing)
S 89°45'45" W
248.71
S 17°06' E
S 04°46'27" E
540.00
85.91
Arc = 322.49
317.00
Arc = 39.27
R = 398.69
N 89° 58' E
N 75°24'49" E
110.50
5590
5600
5610
5618.6
Drainage Report
By
WILSON & COMPANY
ENGINEERS & ARCHITECTS
ALBUQUERQUE NEW MEXICO