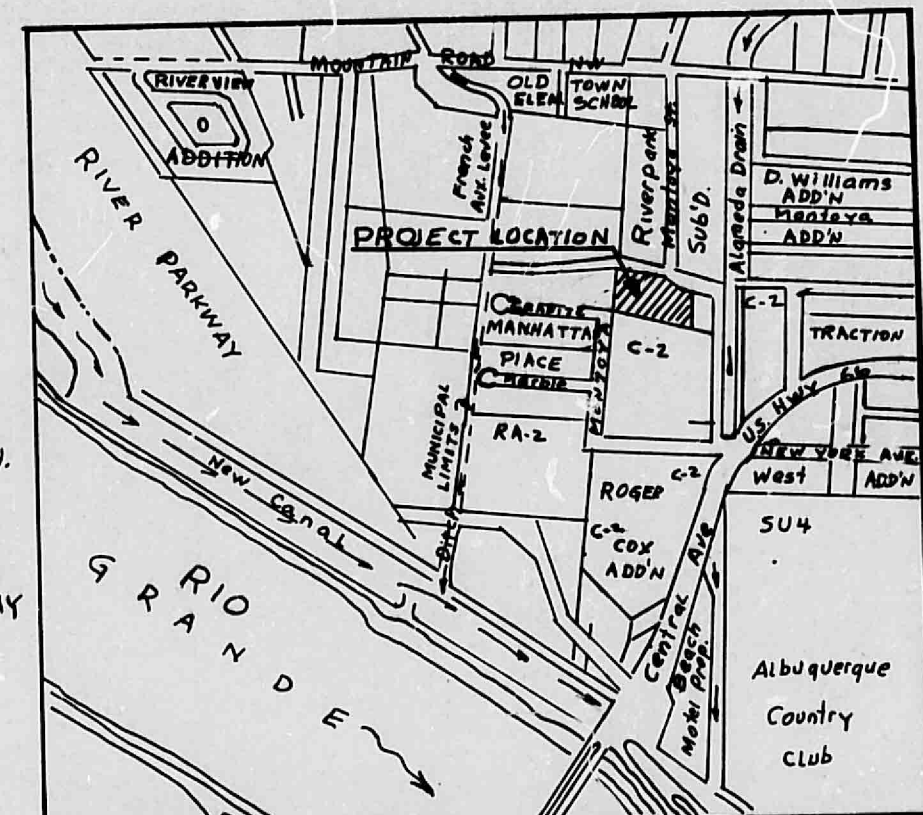


DRB NO. 24 AS OF 9/18/84 FINAL PLAT HAS NOT BEEN COMPLETED NOR FILED

SITE BM 'A' TOP OF EAST BOLT  
ON FIRE HYDRANT EL. 4954.72

ELEV. TIED TO CITY OF ALBUQ.  
BENCHMARK 10 J 12-BOLT W/X  
FIRE HYDRANT ON CENTRAL AVE. IN  
FRONT OF CASA GRANDE MOTEL.  
EL. 4956.20

SCALE 1" = 20'



VICINITY MAP J 12 Z

1. CONSTRUCT MANHOLE TO 'TIE-IN' NEW STORM DRAIN TO THE EXISTING PIPELINE.
2. REMOVE EXISTING C&G AND SIDEWALK AS SHOWN. CONSTRUCT NEW C&G AND SW. & BLEND W/ EXISTING WORKS & W/ NEW WORKS AT THOMPSON OOR. ALSO CONSTRUCT WHEEL CHAIR RAMPS AS PER CITY OF ALBUQ. DWG. P-16-1 & CONSTRUCT A STANDARD DRIVEWAY PAD FOR NW. STREET.
3. SAME AS 2, EXCEPT REMOVAL OF C&G & SW.
4. REMOVE EXISTING WORKS & CONSTRUCT DRIVEWAY PAD.

DRAINAGE PLAN

The following items concerning the MADRID-ZAMORA REPLAT Drainage Plan are contained herein:  
1. Vicinity Map 2. Grading Plan 3. Calculations

The proposed Subdivision is located on the south side of Thompson Road, adjacent and north of a trailer park, west of the Alameda Drain. The Subdivision will include 8 lots (A thru H) and a private street to be named Thompson Loop, which will serve 6 of the lots. The street will have a 30' C&G, R.O.W. and will include a suitable curb, roll type, on both sides, and a 4' foot wide sidewalk on the west, south and east sides. The street will have the standard crown at centerline and will slope toward the 2 storm sewer inlets to be constructed at the northeast end of the street.

Since the site is located in the valley, the land is relatively flat, with small depressions and sounds throughout. In general, it slopes toward the south and west to a low area located at the southwest portion of the project area. There are several trees, in the area, most of which will be removed. The land to the west is relatively flat and generally slopes to the west away from the project area. On the north, Thompson Road intercepts runoff that originates on the lots north of the site and runoff conveyed by Montoya Street. Calculations indicate that the existing concrete "v" shaped section, storm sewer inlet, standard street section and the planned standard curb, gutter and sidewalk to tie with the existing curb, gutter and sidewalk along the south side of Thompson Road will carry the expected 100 year storm runoff from lands north of the site. On the east, an existing residence has an adobe wall along the lot line, which extends 110 feet from the northeast corner of the Subdivision. The rest of the land on the east side, about 50 feet, is very undulating with ponds and bays and in general does drain to the west. The land on the south has a mobile home park. The general slope of valley lands is to the south as evidenced by the flow of the Rio Grande and the Alameda Drain and also as shown by spot elevations from the City contour map, and therefore runoff from the south does not drain into the site. This subject 1, does not tie in a flood hazard map, 2, is not adjacent to a natural or artificial water course and 3, does not have drainage easements on the property.

The site will be graded such that the runoff will drain toward the planned private street, Thompson Loop. Roof top drainage will drop from casement to be located toward Thompson Loop and will flow into the street. Backyards and other yard areas will be graded so that they flow to the street in shallow swales along the lot lines. All the runoff will accumulate in the street and flow toward the storm sewer inlets at the northeast end of the street. The two storm sewer inlets will be connected by 18 inch pipe and are located at the south end of the street. The runoff will be conveyed from the inlets to the existing storm sewer pipeline located along the south side of Thompson Road. There a manhole will be constructed to connect the new line with the existing line.

The Grading Plan shows: 1. existing contours at 0.5 foot intervals, 2. proposed grades indicated by spot elevations, 3. swales, 4. easements between proposed and existing elevations, 5. that sidewalks are adjacent to the curb, 6. that all runoff will be conveyed by Thompson Loop and 7. that erosion will not result from upland runoff or the proposed construction activities.

CALCULATIONS

Area of Subdivision = 1.44 Acres  
Impervious Area = 0.73 Acres  
Pervious Area = 0.73 Acres  
SCS Soils Group = B (Agua Silty Clay Loam Ag)  
C = 0.58 (From Plate 22.2 C-1)  
C = 0.34 (From Plate 22.2 C-1) Undeveloped  
6 hr. Vol. = 2.2" (From Plate 22.2 D-1)  
I = 2.16 (From Plate 22.2 D-2) Tc = 10 min.  
L = 2.2 x 2.16 = 4.75  
Developed Runoff = Q = 0.58 x 4.75 x 1.46 = 4.02 c.f.s.  
Undeveloped Runoff = Q = 0.34 x 4.75 x 1.46 = 2.36 c.f.s.  
Runoff from area north of concrete Section of Thompson Road: A = 0.95 Acres 20% impervious  
C = 0.43 (Houses small in relation to lots & no driveways)  
L = 4.75  
Q = 0.43 x 4.75 x 0.95 = 1.94 c.f.s.

HYDRAULICS - PIPELINES -  
Q<sub>100</sub> = 5.96 c.f.s. D=15" A=123" L=188'  
V = 4.88 f.p.s. Kp=.0232 Ke=.05  
Hp = Kp \* L \* V<sup>3</sup> / 1.49 = 1.59'  
He = Ke \* V<sup>3</sup> / 1.49 = 0.18'  
Total Headloss = 1.77'  
W.S. EL. @ New manhole = 50.28  
Q<sub>100</sub> = 4.02 c.f.s. D=18" A=177" L=48'  
V = 2.27 f.p.s. Kp=.0182 Ke=.05  
Hp = 0.07' He = 0.04' Total H = 0.11'  
W.S. EL. @ Project Inlets = 50.39  
Q<sub>100</sub> = 1.94 c.f.s. 118' of 15" & 30' of 18"  
V<sub>15</sub> = 1.58 f.p.s. V<sub>18</sub> = 1.10 f.p.s.  
Hp = 0.11' He = 0.02' Total H = 0.13'  
Total H = 0.14'  
W.S. @ Existing Inlet = 50.42

STREETS -  
"V" Concrete Section  
Q = 196 c.f.s. S = .0033 F/H  
n = .013 Z = .02 Z<sub>2</sub> = .03  
F.D. = 3" A = 2.6' R = .125  
V = (1.486 ÷ n) S<sup>1/2</sup> F<sup>2/3</sup> = 1.64 f.p.s.  
Q = 4.26 c.f.s. (Exceeds Q<sub>100</sub>)  
Thompson Loop  
W = 2' 12" 3' = .021  
Q<sub>100</sub> = 4.02 c.f.s. S = .002 n = .06  
F.D. = 4" A = 2.5' W = .121 R = .021  
V = 1.45 f.p.s.  
Q = 3.63 c.f.s. on each side of street  
Q<sub>Total</sub> = 7.26 c.f.s. (Exceeds Q<sub>100</sub>)

APPROVED FOR DRAINAGE  
10/2/84  
RIVERA ENGINEERING  
2624 VALENCIA DR. N.E.  
ALBUQUERQUE, NM 87110

Raul A. Rivera 9/18/84  
RAUL A. RIVERA PE:LS.NO 1693 DATE

TITLE: MADRID-ZAMORA REPLAT	
SCALE:	APPROVED BY:
DATE:	DRAWN BY:
DRAINAGE PLAN	
DRAWING NUMBER:	