HYDROLOGY

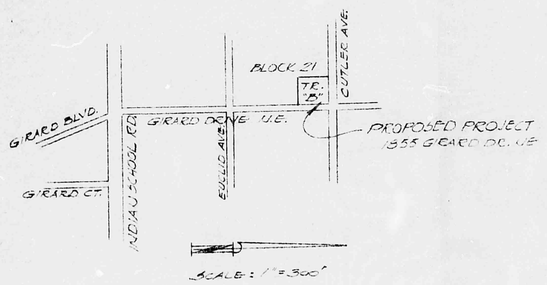
H16/D49
1 PLAN

H16/D49

1 PLAN

VICINITY MAP

H-16-Z



SCALE: 1" = 300'

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING CURBS & WALKS
- EXISTING SPOT ELEVATIONS
- PROPOSED SPOT ELEVATIONS
- FLOW DIRECTION
- DETENTION AREA

OFF-SITE DRAINAGE: NONE

ON-SITE DRAINAGE: 4281 = 175' × 140' = 25,000 S.F. = 0.60 ACRES

2.2" TOTAL C.L.R. - 100 YEAR STORM = I of 2.2/12 = 0.18'

U/DEVELOPED Q = 0.25 × 5.06 × 0.60 = 0.76 CFS

DEVELOPED Q = 0.75 × 5.06 × 0.60 = 2.28 CFS

TOTAL CONDITION 90% IMPERVIOUS = 0.90 × 2.2/12 × 25,000 = 4275 cu.ft.

TOTAL TIME = (4275/2.28) × 2/60 sec = 49.50 MIN.

DISCHARGE CAN BE 0.76 CFS = HW OF 1.25'

AVERAGE FLOW TIME = 3600 / 49.50 = 43.00 MIN. = 2578 sec.

AT 0.76 CFS = 1960 W.FT.

4275 - 1960 = 2315 C.F. = 52.6'D - 15% IN PLANTING AREAS

= 1968 C.F. STORAGE REQ'D

ONE VOLUME = 2000 SQ.FT. SURFACE × 2.0' AVERAGE DEPTH (5117.50 TO 5115.50) = 2000 C.F.

NOT APPLICABLE

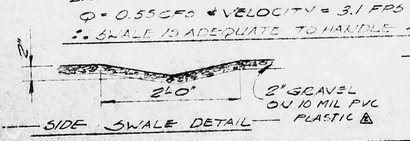
NOT APPLICABLE

REVISED ROOF DRAIN PLAN: AREA TO DOWNSPOUT AT (A) & (B) = 20' × 56' = 1120 SQ.FT. — MAX. Q = 100 × 5.06 × 1120 / 43560 = 0.18 CFS

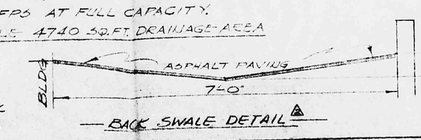
SWALE (AT S = 0.086 & n = 0.025) CAPACITY REQUIRES AREA OF 2.0' WIDTH & 2' DEPTH = 0.17 SQ.FT. FOR 'A', 2.1' FOR P & R = 3.17 S.F. = 0.08

Q = 0.55 CFS & VELOCITY = 3.1 FPS AT FULL CAPACITY.

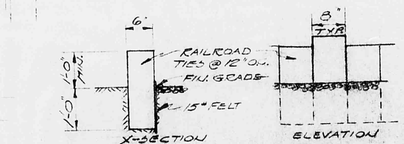
∴ SWALE IS ADEQUATE TO HANDLE 4710 SQ.FT. DRAINAGE AREA



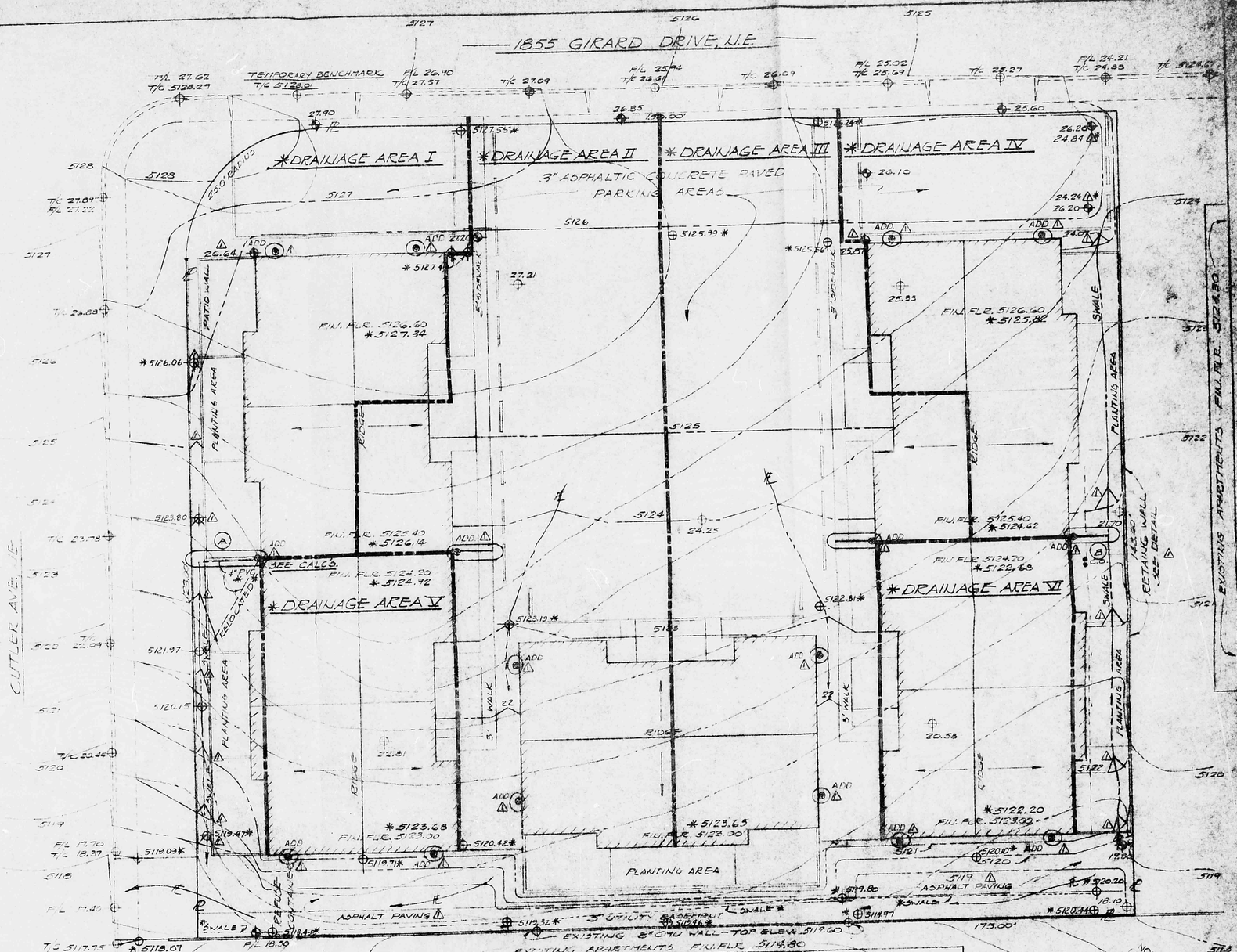
SIDE SWALE DETAIL



BACK SWALE DETAIL



RETAINING WALL DETAILS



DRAINAGE PLAN

TRACT "B" (LOTS 20 THRU 26) - BLOCK 21
NETHERWOOD PARK ADDITION
CITY BENCHMARK 4-H16 ELEV. 5117.142 AT T/C NW RETURN AT GIRARD & INDIAN SCHOOL
ZONED R-3 1978
NO FLOOD HAZARD PER MAP 3 OF 9 OF 12-4-79

SCALE: 1" = 10'

SEE NOTES ON 4-27-83 PRE-DESIGN CONFERENCE

CERTIFICATION DATA

THE CONSTRUCTION, AS BUILT, IS IN SUBSTANTIAL COMPLIANCE WITH THE INTENT OF THE DRAINAGE PLAN APPROVED 2/16/84 - I HEREBY CERTIFY THAT THE CONSTRUCTION & ELEVATIONS SHOWN HEREON ARE TRUE & CORRECT TO THE BEST OF MY KNOWLEDGE & BELIEF.

3-15-84

REVISED 2/13/84

REVISED 1/24/84

REVISED 7/14/83 PER CITY LETTER OF 7/12/83

GEOTECHNICAL RESEARCH & SERVICES, LTD.
501 KINLEY, NE - ALBUQUERQUE, NEW MEXICO 87108
(505) 247-0102

DRAINAGE PLAN	File # H30-[illegible]
For: PHILLIP BAIAMONTE	Date [illegible]
At: 1855 GIRARD DRIVE, N.E.	Drawn [illegible]
ALBUQUERQUE, N.M.	Sheet [illegible]