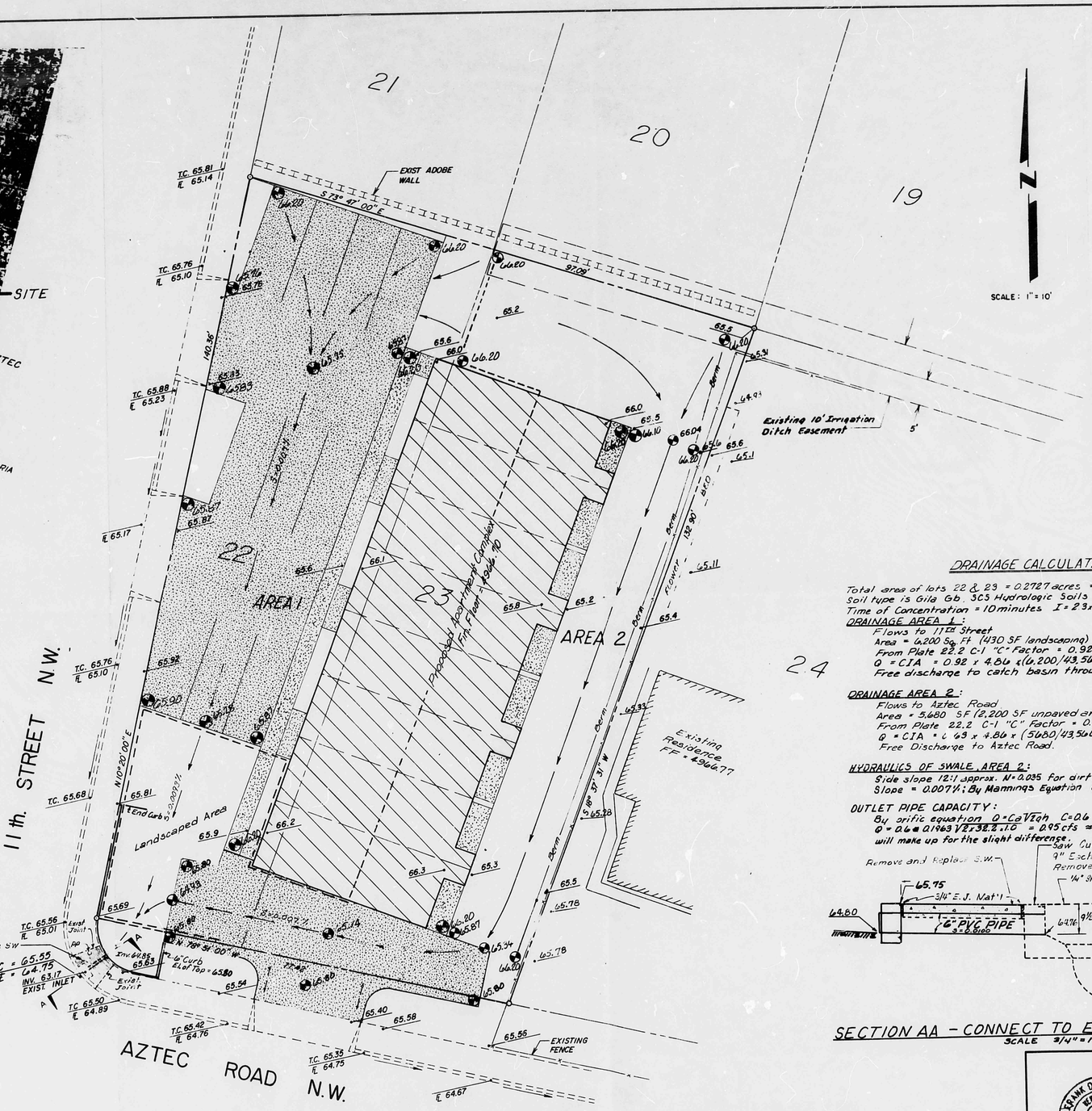
HYDROLOGY

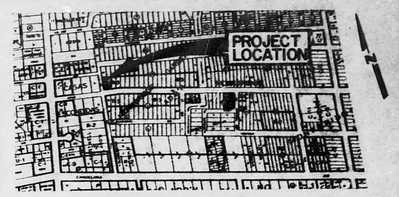
G14/D20
1 PLAN

G14/D20

1 PLAN

FLOOD HAZARD MAP
scale 1"=500'





LOCATION MAP
G-14-Z N.T.S

LEGEND

- PROPERTY LINE
- EXISTING DRAINAGE EASEMENT
- EXISTING CURB
- EXISTING FENCE
- EXISTING ADOBE WALL
- PROPOSED STRUCTURE
- PROPOSED CONC. SIDEWALK
- PROPOSED ASPHALT PARKING AREA
- PROPOSED DRAINAGE FLOW
- 65.5 EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- Drainage Area Boundary

NOTES

1. ALL CORNERS ARE 5/8" REBAR AND SURVCAP STAMPED "HUGG LS 5823"
2. TBM – SQUARE MARKED ON TOP OF CURB AT N.N.W. CURB RETURN. ELEVATION = 4965.56'
3. City Bench Mark 8-G-14 located at the intersection of Candelaria and 12th Street NW at the NW Quadrant of the intersection. A square chiseled on top of concrete curb at the WNW curb return Elev 4966.436
4. Roof is pitched and runoff flows both ways from ridge. Water sheet-flows over edge of roof. No roof drains or gutters are provided.

DRAINAGE CALCULATIONS

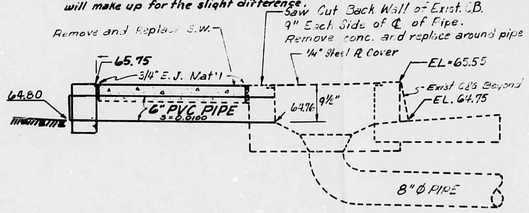
Total area of lots 22 & 23 = 0.2727 acres = 11,880 Square Feet.
Soil type is Gila Gb. SCS Hydrologic Soils Group B
Time of Concentration = 10 minutes $I = 2.3 \times 6.84 \times 10^{-0.51} = 4.86$ in/hr.

DRAINAGE AREA 1:
Flows to 11th Street
Area = 6,200 Sq. ft (4930 SF landscaping) 93% impervious
From Plate 22.2 C-1 "C" Factor = 0.92
Q = CIA = 0.92 x 4.86 x (6,200/43,560) = 0.64 cfs
Free discharge to catch basin through driveway on 11th st.

DRAINAGE AREA 2:
Flows to Aztec Road
Area = 5,680 SF (2,200 SF unpaved area) 61% Impervious
From Plate 22.2 C-1 "C" Factor = 0.63
Q = CIA = 0.63 x 4.86 x (5680/43,560) = 0.40 cfs
Free Discharge to Aztec Road.

HYDRAULICS OF SWALE, AREA 2:
Side slope 12:1 approx. N=0.035 for dirt; Depth 2½"
Slope = 0.007%; By Mannings Equation Q=0.40 cfs V=0.77 fps

OUTLET PIPE CAPACITY:
By orific equation $Q = CA\sqrt{2gh}$ C=0.6 Dia=6" a=0.1963 h=0.9'
$Q = 0.6 \times 0.1963 \sqrt{2 \times 32.2 \times 1.0} = 0.95$ cfs = 1.04 cfs. Parking lot ponding will make up for the slight difference.



SECTION AA – CONNECT TO EXISTING CATCH BASIN
SCALE 3/4" = 1'0"

LEGAL DESCRIPTION

LOTS NUMBERED TWENTY TWO (22) AND TWENTY THREE (23) IN BLOCK LETTERED H, MONKBRIDGE GARDENS, AS THE SAME ARE SHOWN AND DESIGNATED ON THE PLAT OF SAID ADDITION, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON SEPTEMBER 9, 1939, IN VOLUME D, FOLIO 72.

No c.o. RELEASED AS OF 12-28-87

FRANK D. LOVELADY NEW MEXICO REGISTERED PROFESSIONAL ENGINEER 6-12 6-1-84

FLOWERS APARTMENTS DRAINAGE PLAN	APPROVED FOR CONSTRUCTION
	CITY ENGINEER — DATE
PROJECT NO. G14-D20	SHEET 1 OF 1