HYDROLOGY

J11/D8
1 PLAN
NO DOCUMENTS

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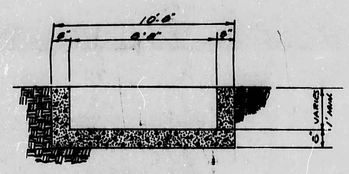
CITY OF ALBUQUERQUE

DITCH TO BE USED IN
DRAINAGE EASEMENT



SECTION A-A
SCALE 1" = 2 FT.

FLOW IN CONCRETE TRENCH
A: CROSS SECTION AREA
$\frac{1.49}{.013}$ = FRICTION FACTOR
.71 : R = HYDRAULIC RADIUS
.006 = SLOPE
Q: QUANTITY FT^3/SEC

5' WIDE
$\left(\frac{1.49}{.013} \times .71^{\frac{2}{3}} \times .0065^{\frac{1}{2}} = 6.78\ FT^3/SEC\right)$

10' WIDE
$\left(\frac{1.49}{.013} \times 1.83^{\frac{2}{3}} \times .0065^{\frac{1}{2}} = 7.04\ FT^3/SEC.\right)$
70.4 Cu. Ft. Sec.

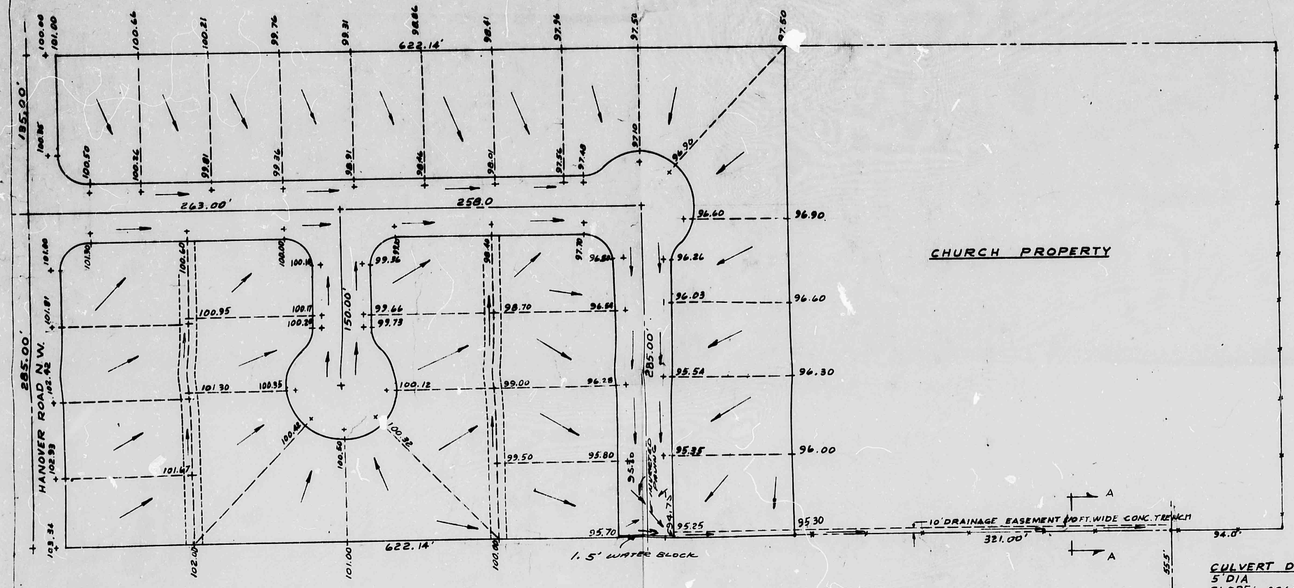
6.78 X 5.0 FT^2 = 33.90 FT^3 PER SEC.

RUNOFF DATA FOR 100 YEAR FLOOD	
SLOPE: 4.0 FT DROP PER 1000.00 FT	= S
AREA: 6.0 ACRES	= A
RAINFALL INTENSITY: 4.2 INCHES PER HOUR	= I
IMPERVIOUS: 80%	= C
QUANTITY: CU. FT. PER SECOND	= Q

FORMULA: ACI = Q
6.0 X .80 X 4.2 = 20.16 CU. FT. PER SEC.

1" = 50 FT.
N

NOTE: ELEVATIONS ARE AT THE LOT CORNERS EXCEPT MARKED + ARE TOP OF CURB ALONG STREETS.



CULVERT DATA
5' DIA
SLOPE: .0064 FT. PER FT.
FLOW: 179.69 FT^3 PER SEC.
INVERT EL. 93.35 FT.

NOTE: REVISED FOR TYPICAL CONC. DITCH TO BE USED IN DRAINAGE EASEMENT DECEMBER 3, 1973

SHEET NO. 2 OF 2 SHEETS.

DRAINAGE PROPOSAL FOR REDIVISION OF HERMOSURA ADDITION

FOR: BEST HOMES INC.
ALBUQUERQUE, NEW MEXICO

PREPARED BY: HALL SURVEYING CO.
801 SAN MATEO N.E.
ALBUQUERQUE, NEW MEXICO

DATE: MAY, 1972
REVISED OCTOBER, 1972

CITY OF ALBUQUERQUE
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2A 2D 1B 1A
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