HYDROLOGY

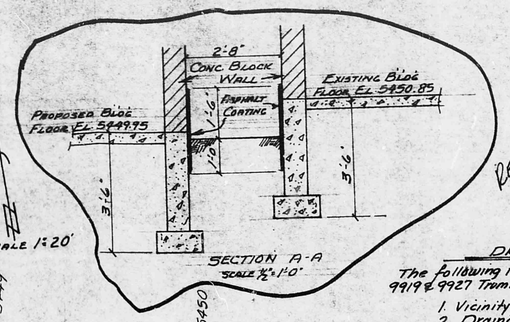
L20/D15

ONE PLAN

1 PLAN FOR

WAREHOUSES
9919-9927 TROMBULL NE.

L 20- D 18



REVISED 10-12-1983

SCALE 1:20'

DRAINAGE PLAN

The following items concerning the drainage plan for Bob Jacobs 9919 & 9927 Trumbull Ave NE are contained herein:

1. Vicinity Map
2. Drainage Plan
3. Drainage Calculations

CALCULATIONS (FOR LOT 9927)

GROUND COVER INFORMATION

1. Same as Lot 9919
2. Same as Lot 9919
3. Developed Conditions
   A_{imp} = 6,400 Sq. Ft.

Rational Method

1. Same as Lot 9919
2. Same as Lot 9919
3. Same as Lot 9919
4. Developed Conditions (All Drainage to Trumbull Ave.)
   $(A_1)\ Q_{100} = 0.39(5.18)(0.05) = 0.09\ C.F.S.$
   $(A_2)\ Q_{100} = 0.70(5.18)(0.15) = 0.54\ C.F.S.$
   $(V_1)\ V_{100} = 0.34 \times 2\frac{48}{12} \times 2{,}180 = 151\ Cu.Ft.$
   $(V_2)\ V_{100} = 0.70 \times 2\frac{48}{12} \times 6{,}400 = 914\ Cu.Ft.$ (1,025 Cu.Ft. Basin)

Controlled Release

1. Same as Lot 9919

Over Flow Weir

1. $Q = 0.54\ C.F.S.$
   $H = 0.07\ Ft. = 0.84$ inch
   (0.15 Ft. Provided)

CALCULATIONS (FOR LOT 9919)

Ground Cover Information

1. From U.S.S.C.S. Bernalillo County Soil Survey Plate 32 EmB - Embudo Gravelly fine sandy loam.
2. Existing Conditions
   A_{total} = 8580 Sq. Ft. = 0.20
   A_{imp} = 0
   "C" = 0.34 (D.P.M. Plate 22.20-1)
3. Developed Conditions
   A_{imp} = 5700 Sq. Ft.

Rational Method

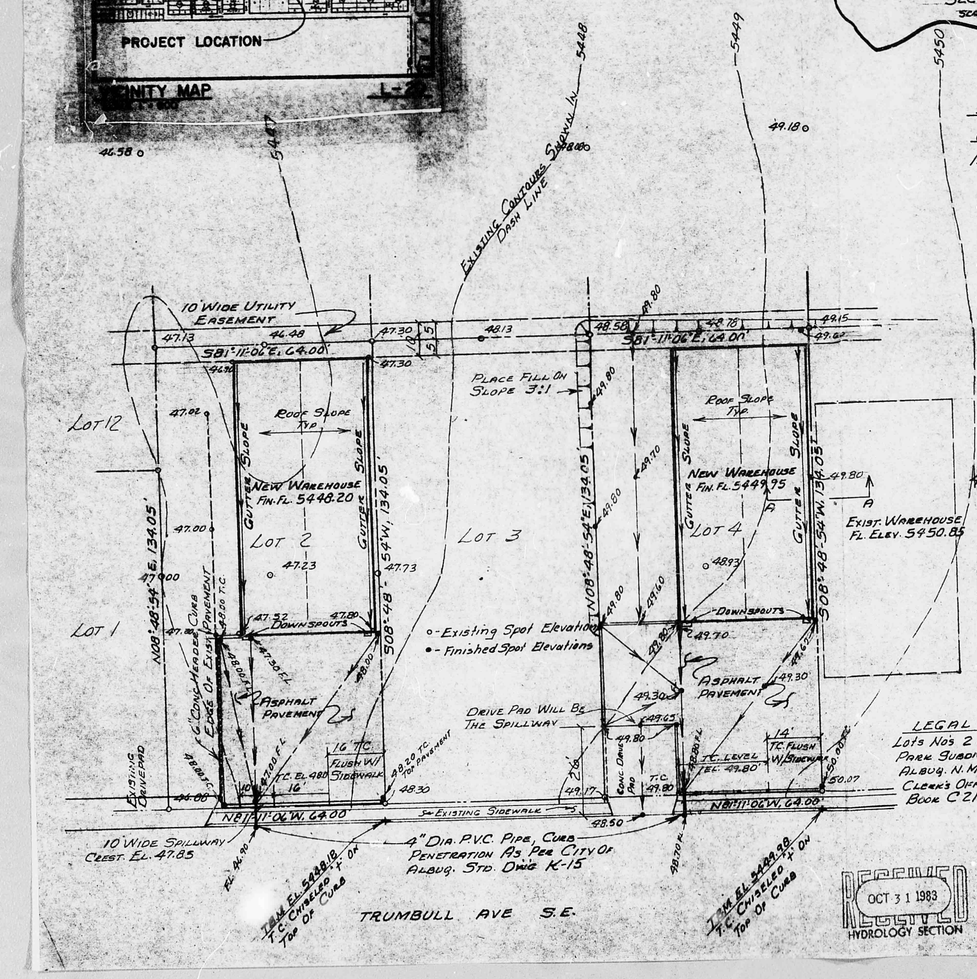
1. Discharge: $Q = CiA$
   Where C varies
   i = 5.18 in/hr from D.P.M. Chart
   A = Area in Acres
2. Volume: $V = CP_6 A (1/12)$
   Where C varies
   P_6 = 2.45 in (D.P.M. Plate 22.20-1)
   A = Area in Sq. Ft.
3. Existing Conditions (Drains to Bell Ave.)
   $Q_{100} = CIA = 0.34(5.18)(0.20) = 0.4\ C.F.S.$
   $V_{100} = 0.34 \times 2.45/12 \times 8580 = 596\ Cu.Ft.$
4. Developed Conditions (Drainage to Trumbull Ave)
   $Q_{100} = CIA = 0.70(5.18)(0.13) = 0.47\ C.F.S.$
   $V_{100} = 0.70(2\frac{48}{12})(5700) = 815\ Cu.Ft.$
   (914 Cu.Ft. Basin Capacity)

Controlled Release

1. $Q = CA\sqrt{2gh} = 0.8(0.0873\ s.f.)\sqrt{2(32.2)0.03} = 0.4\ cfs$
   = 180 gpm

Over Flow Weir:

$Q = 3.33LH^{3/2} = 0.47 = 3.33 \times 10 \times H^{3/2}$
$H = 0.06\ ft. = 0.72$ inches



LEGAL DESCRIPTION

Lots Nos 2 and 4 of the Tumble Weed Park Subdn. Within The City Limits Of Albuq. N.M. Recorded In The Bernalillo Clerk's Office On July 13, 1983 in Book C21 Page 184

SIGNATURE TITLE
APPROVED FOR CONSTRUCTION
10/31/83
DATE
ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED

DRAINAGE PLAN FOR

BOB JACOBS 9919 & 9927 TRUMBULL AVE. N.E.

DRAINAGE PLAN, DRAWING & CALCULATIONS BY
Thomas Martinez
N.M. P.E. & L.S. No. 3345

RECEIVED
OCT 31 1983
HYDROLOGY SECTION

L20/D18