HYDROLOGY

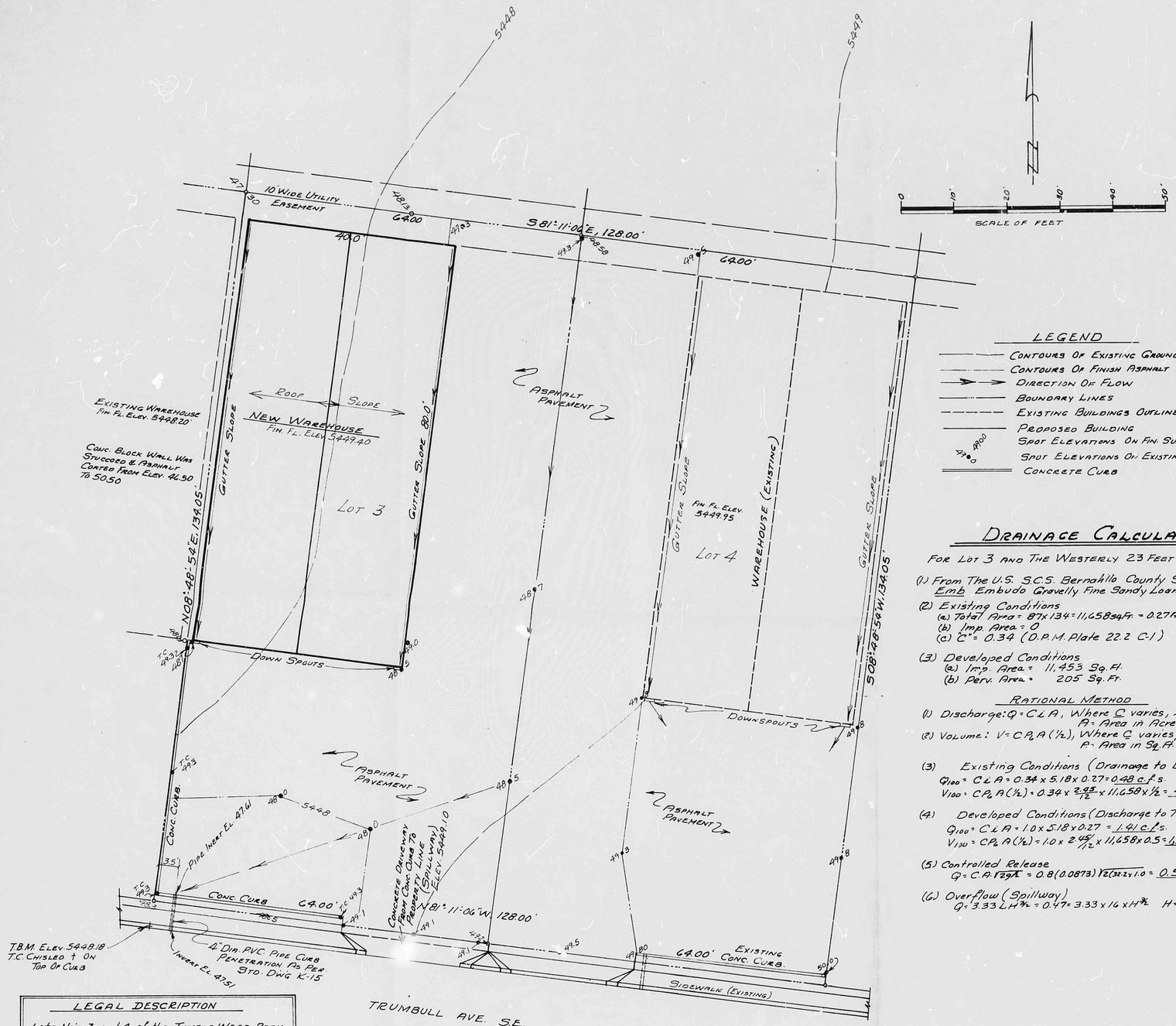
L20/D13C.

ONE PLAN

1 PLAN FOR

BOB JACOBS WAREHOUSE

L20-D21



PLOT PLAN

LEGEND

- Contours Of Existing Ground Surface
- Contours Of Finish Asphalt Surfacing
- Direction Of Flow
- Boundary Lines
- Existing Buildings Outline
- Proposed Building
- Spot Elevations On Fin. Surface
- Spot Elevations On Existing Surface
- Concrete Curb

LEGAL DESCRIPTION

Lots Nos 3 and 4 of the Tumble Weed Park Subdiv. Within the City Limits Of Albuquerque, Bernalillo Co. N. Mex. Recorded in the Bernalillo Co. Clerk's office on July 13, 1983 in Bk. C21 Page 184.

DRAINAGE CALCULATIONS

For Lot 3 and The Westerly 23 Feet Of Lot 4.

(1) From The U.S. S.C.S. Bernalillo County Soil Survey Plate 32
Emb Embudo Gravelly Fine Sandy Loam.

(2) Existing Conditions
(a) Total Area = 87x134 = 11,658 sq.Ft. = 0.27 Acre
(b) Imp. Area = 0
(c) C = 0.34 (D.P.M. Plate 22.2 C-1)

(3) Developed Conditions
(a) Imp. Area = 11,453 Sq. Ft.
(b) Perv. Area = 205 Sq. Ft.

RATIONAL METHOD

(1) Discharge: $Q = CLA$, Where C varies, $L = 5.18$ in./hr. (D.P.M. Plate)
A = Area in Acres.

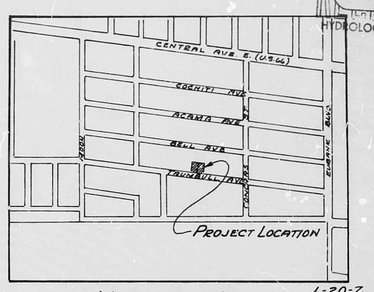
(2) Volume: $V = CP_6A(1/12)$, Where C varies, $P_6 = 2.45$ in. (D.P.M. Plate 22.2 D-1)
A = Area in Sq. Ft.

(3) Existing Conditions (Drainage to Bell Ave.)
$Q_{100} = CLA = 0.34 \times 5.18 \times 0.27 = \underline{0.48\ c.f.s.}$
$V_{100} = CP_6A(1/12) = 0.34 \times \frac{2.45}{12} \times 11{,}658 \times 1/2 = \underline{405\ Cu.Ft.}$

(4) Developed Conditions (Discharge to Trumbell Ave.)
$Q_{100} = CLA = 1.0 \times 5.18 \times 0.27 = \underline{1.41\ c.f.s.}$
$V_{100} = CP_6A(1/12) = 1.0 \times \frac{2.45}{12} \times 11{,}658 \times 0.5 = \underline{1{,}191\ Cu.Ft.}$ Pond Capacity 2,200 Cu. Ft.

(5) Controlled Release
$Q = C.A.\sqrt{2gh} = 0.8(0.0873)\sqrt{2(32.2)1.0} = \underline{0.56\ c.f.s.} = \underline{252\ g.p.m.}$

(6) Overflow (Spillway)
$Q = 3.33\,LH^{3/2} = 0.47 = 3.33 \times 16 \times H^{3/2}$ $H = \underline{0.06\ ft.} = \underline{3/4\ in.}$



VICINITY MAP

L-20-Z
1" = 800'

BENCH MARK DATA

B.M. Station No. I-L21 (R) Elev. 5534.543 (S.L.D. 1929) The Station is located on the median strip of Central Ave., 5 ft. North of the Centerline of the street and is 81 ft. west of the centerline of Juan Tabo Blvd. The Station is a standard A.C.S. Brass tablet.

NOTES:
The natural slope of the area is to the northwest consequently the flows from Lots 3 & 4 drained to northwest lands. Drainage plans were submitted, approved and constructed for Lots 2 and 5 To drain via 4" dia. drain pipe into Trumbull St.
This area is in a very low flood hazard area. This area is not located in a flood hazard Zone.
There are no off site flows into this property.

The Following Items Contained Herein For The Drainage Plan For Bob Jacobs,

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

DRAINAGE PLAN FOR

Bob Jacobs, 9935 Trumbull Ave. S.E.
Albuquerque N. Mex.
87123

May 3, 1984
Revised 6-21-84

By Thomas Martinez
N.M. P.E. & L.S. No. 3345

RECEIVED JUN 21 1984 HYDROLOGY SECTION

L20/D21