HYDROLOGY

H14/D22
1 PLAN

H14/D22

1 PLAN

DRAINAGE PLAN

THE GRADING PLAN SHOWS (1) EXISTING GRADES INDICATED BY CONTOURS AT 1' = 0" INTERVALS (2) PROPOSED GRADES INDICATED BY SPOT EVEL AND CONTOURS AT 1' = 0" INTERVALS, (3) PROPOSED PONDING AREAS (4) THE LIMIT AND GHARACTER OF PROPOSED IMPROVEMENTS.

THE CALCULATIONS WHICH APPEAR ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL EVENT THIS ANALYSIS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL VOLUME II.

THE SITE DOES NOT LIE WITHIN A FLOOD HAZARD ZONE, AS SHOWN BY THE FLOOD HAZARD MAP 350002. THE FLOOD HAZARD MAP WAS TAKEN FROM THE "CITY OF ALBUQUERQUE, NEW MEXICO, BERNALILLO COUNT, FLOOD HAZARD BOUNDARY MAP" PREPARED BY THE U.S. OF H.U.P. FEDERAL INSURANCE PROGRAM.

UNDEVELOPED RUNOFF

Q = cia C = 0.40 Natural ground
C = .4 a = 0.26 Ac Total undeveloped (Developed 0.13 Ac; gravel balance of Lot = 0.13 Ac)
t_c = 10 min
$i_{100} = \frac{163}{t_c + 20} = \frac{163}{30} = 5.43$
A = area developed 0.26
Q = cia
(= 0.40) x 5.43 x 0.26 = 0.~~57~~ .6 cfs

DEVELOPED RUNOFF (A = 0.13 Ac - pavement building & sidewalk)

Q = cia
C = 0.95
i_{100} = 5.43
A = 0.13
Q = cia (C = 0.1 (gravel 2" min on balance of Lot)
Q = 0.95 x 5.43 x 0.13 = 0.67 cfs + Q = 0.10 x 5.43 x 0.13 = 0.07 cfs
Q_{TOTAL} = 0.67 + 0.07 = 0.74 cfs

ORIFICE CALCULATION (Determine if ponding is required)

$Q = CA\sqrt{2gh}$ l = 4" diameter pipe
$Q = 0.60(0.09)\sqrt{2(32.2)(1.5)}$ h = 1.5 ft
Q = (0.6)(0.09) (8.02)
Q = 0.53 cfs
Q = cia
Q = (0.90) (5.43) (0.13) = 0.63 cfs

The 4" pipe would carry the outflow generated by the development

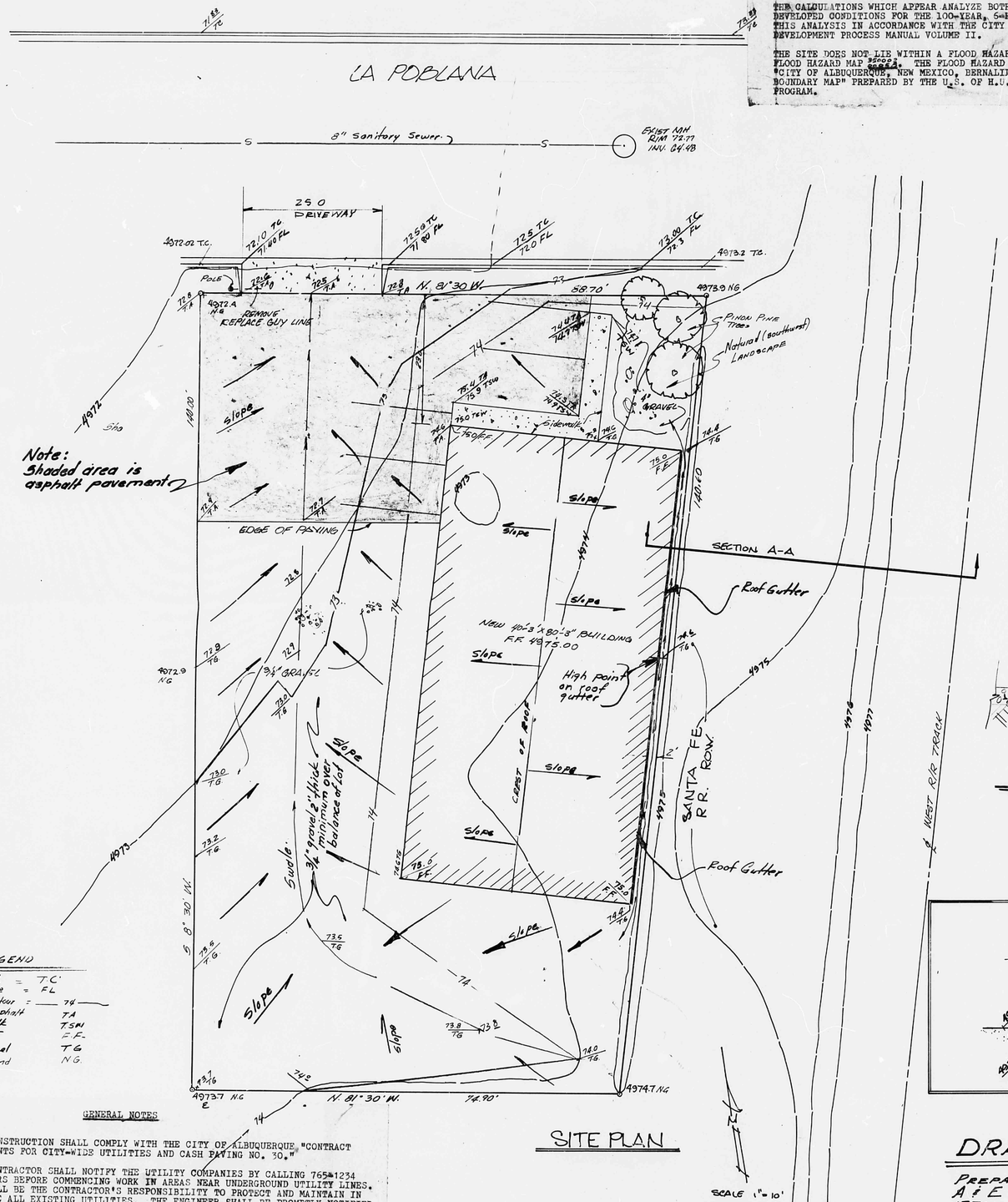
The ponding required will be met by placing 2" of 3/4" gravel surfacing on the balance of the lot.

PERMIT NOTES

ZONING
LEGAL DESCRIPTION: LOT 8, BLK 5, MANDELL ADDITION #2
ZONED : M-1 MAP: M-14
USE : WAREHOUSE :
PARKING 4 SPACES
LANDSCAPING : 200 #

UBC
SQ FOOTAGE : 3200 #
OCCUPANCY : B-2 (WAREHOUSE
OCCUPANT LOAD : 11 PEOPLE
CONSTRUCTION TYPE : V-N
METAL BLDG. MFG: : MESCO MFG, GRAPEVINE, TX.

KOLLE TILE
ALBUQUERQUE, N.M.



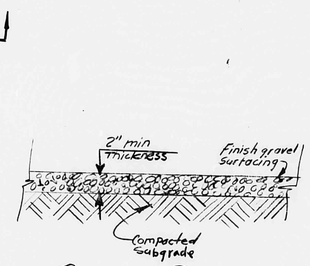
SITE PLAN

LEGEND

Top of Curb	TC
Flow Line	FL
Existing Contour	74
Top of Asphalt	TA
Top Sidewalk	TSW
Finish Floor	F.F.
Top of Gravel	TG
Natural Ground	N.G.

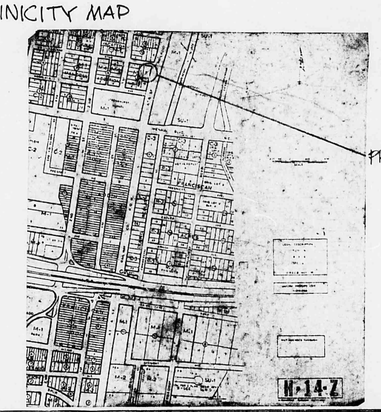
GENERAL NOTES

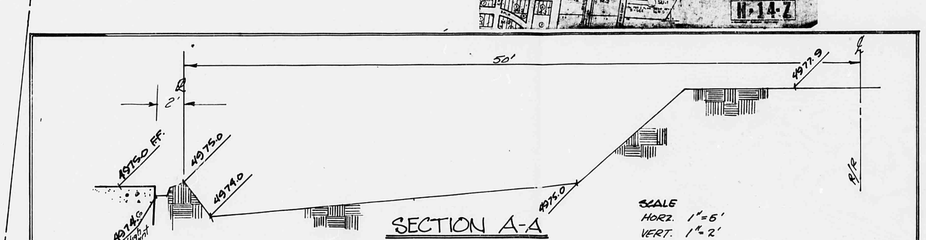
1. ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF ALBUQUERQUE "CONTRACT DOCUMENTS FOR CITY-WIDE UTILITIES AND CASH PAVING NO. 30."
2. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES BY CALLING 765-1234 48 HOURS BEFORE COMMENCING WORK IN AREAS NEAR UNDERGROUND UTILITY LINES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN IN SERVICE ALL EXISTING UTILITIES. THE ENGINEER SHALL BE PROMPTLY NOTIFIED OF ANY PROBLEMS OR CONFLICTS THAT ARE ENCOUNTERED.
3. ALL CONCRETE SHALL BE 3000 PSI CONCRETE WITH 3/4" AGGREGATE.



GRAVEL PAVING DETAIL
Not to Scale

VINICITY MAP





SECTION A-A

DRAINAGE REPORT

PREPARED BY
A & E ENGINEERING INC.
1330 SAN PEDRO N.E.
SUITE 101
ALBUQUERQUE N.M.

J. M. Connally

BENCH MARK
NMSHC BRASS CAP NM 47 - 12 LOCATED ON SECOND STREET ISLAND JUST NORTH OF PHOENIX STREET MEAN SEA LEVEL 4967.899

Revised 2/8/03 T.M.C. & I.F.E.