HYDROLOGY K19/D69 1 PLAN

K19/D69

1 Plan

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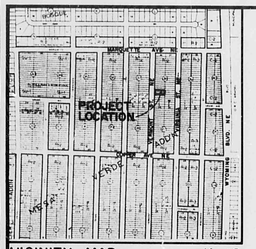


VICINITY MAP K-19

SCALE : 1" = 800'

PROJECT BENCHMARK

A SQUARE "D" CHISELED ON TOP OF CONCRETE CURB LOCATED @ THE INTERSECTION OF LOMAS BLVD. N.E. AND UTAH ST. N.E. IN THE NORTHWEST QUADRANT OF THE INTERSECTION. APPROXIMATELY 20' WEST OF THE MAIN CURB RETURN. (B.M. # 2-J13)

ELEVATION = 5390.12 FEET (M.S.L.D.)

TBM

A SQUARE "D" CHISELED ON TOP OF CONCRETE CURB AT A PROJECTION OF THE SOUTHWEST PROPERTY CORNER AS SHOWN ON THE DRAWING BELOW.

ELEVATION = 5365.78 FEET (M.S.L.D.)

LEGAL DESCRIPTION

LOT 5A, BLOCK 38, MESA VERDE ADDITION

LEGEND

66.0	PROPOSED SPOT ELEVATION
66.0	EXISTING SPOT ELEVATION
5670	PROPOSED CONTOUR
5665	EXISTING CONTOUR
	SWALE
	PROPERTY LINE
	CONCRETE
	PROPOSED ASPHALT
	PROPOSED FENCE
x x	EXISTING FENCE
TC 62.00	TOP OF CURB
FL 61.65	FLOW LINE

CONSTRUCTION NOTES:

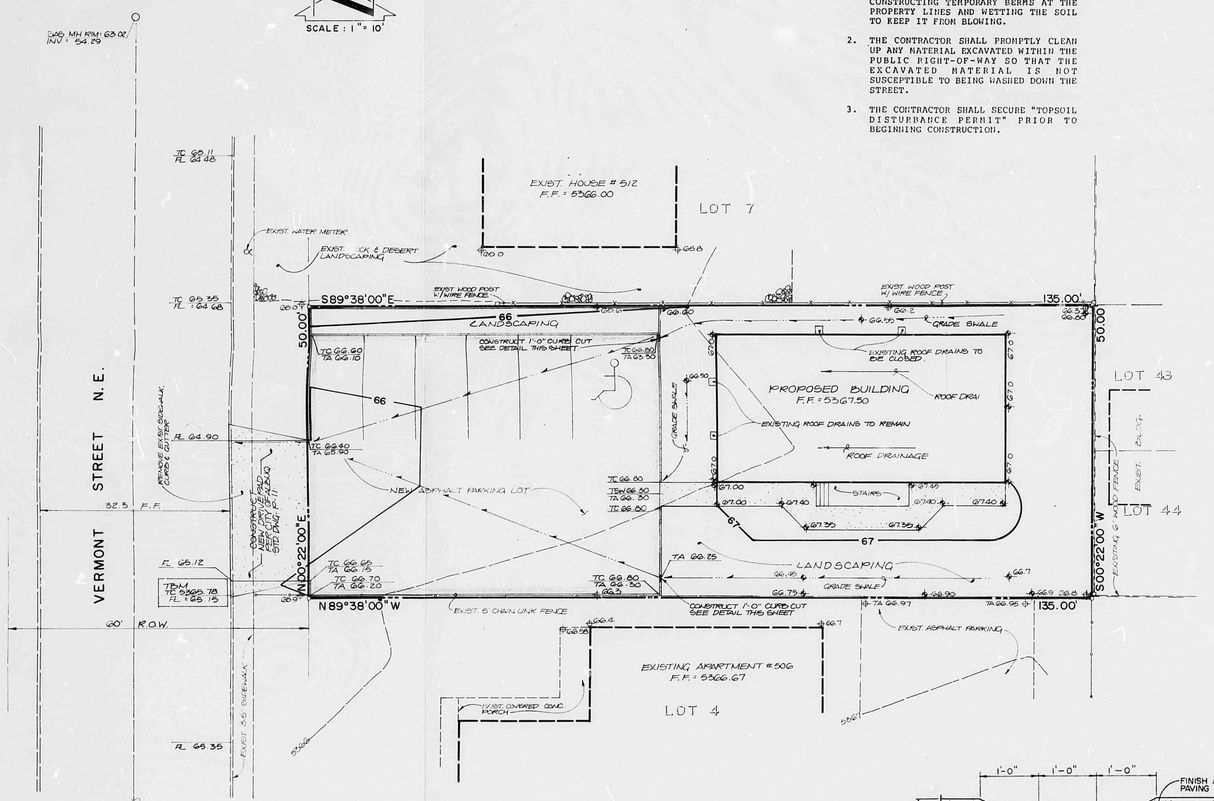
1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

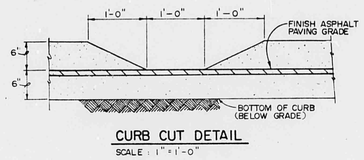
All S. Building is portable will be transported to Site.

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

SCALE : 1" = 10'





CURB CUT DETAIL

SCALE : 1" = 1'-0"

DRAINAGE PLAN

The following items concerning the Vermont 4-Plex Drainage Plan are contained hereon:

1. Vicinity Map 2. Grading Plan 3. Calculations

The proposed improvements, as shown by the Vicinity Map, are located on the east side of Vermont Street N.E. between Marquette Avenue N.E. and Copper Avenue N.E. At present, much of the surrounding area is developed residentially. The site is undeveloped making it an infill site.

As shown by Plate K-19 of the Albuquerque Master Drainage Study, the site does not lie within a designated Flood Hazard Zone. At present the runoff generated by this site flows west to Vermont Street N.E., then north to Marquette Avenue N.E. The runoff continues west to Nesilla Street N.E. and outfalls to the Fairgrounds Relief System.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'-0" intervals, 2) continuity between existing and proposed grades, and 3) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements consist of the construction of a four-plex along with adjacent landscaping and paving. Flows generated by this site flow westward over the drivepad located on Vermont Street N.E. to the Fairgrounds Relief System as discussed above. No existing offsite flows enter from the east due to the existing 6' wood fence. If the fence were removed, still no offsite flows would be anticipated because Lots 43 and 44 slope toward Virginia Street N.E. No offsite flows enter from the north or south because the land parallels that of the project site.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these calculations, the proposed improvements will increase the peak discharge to Vermont Street N.E. by only 0.2 cfs (approximately). Based upon this negligible increase in runoff, combined with the fact that this is an infill site that contributes to an existing Fairgrounds Stormwater Relief System, the free discharge of runoff from this site is appropriate.

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CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 31:
TgB, Tijeras; Gravelly Fine Sandy Loam
Hydrologic Soil Group B

Rational Method

Discharge: $Q = CiA$
where C varies
$i = P_6 (6.8) T_c^{-0.51} = 4.86$ in./hr
$P_6 = 2.3$ in (DPM Plate 22.2 D-1)
$T_c = 10$ min (minimum)
A = area, acres

Volume: $V = CP_6A(1/12)$
where C varies
$P_6 = 2.3$ in (DPM Plate 22.2 D-1)
A = area, acres

Existing Condition

$A_{total} = 6,750$ sf = 0.15 Ac
$A_{IMP} = 0$ sf; % impervious = 0%
$C = 0.34$ (DPM Plate 22.2 C-1)
$Q_{100} = CiA = 0.34(4.86)(0.15) = 0.3$ cfs
$V_{100} = CP_6A = 0.34(2.3/12)(6,750) = 440$ cf

Developed Condition

$A_{total} = 6,750$ sf = 0.15 Ac
$A_{IMP} = 4,290$ sf; % impervious = 64%
$C = 0.65$ (DPM Plate 22.2 C-1)
$Q_{100} = CiA = 0.65(4.86)(0.15) = 0.5$ cfs
$V_{100} = CP_6A = 0.65(2.3/12)(6,750) = 840$ cf

Comparison

$\Delta Q_{100} = 0.5 - 0.3 = 0.2$ cfs (increase)
$\Delta V_{100} = 840 - 440 = 400$ cf (increase)

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REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR THOMAS T. MANN 3792 NEW MEXICO

11-11-85
11-13-85

CITY OF ALBUQUERQUE
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811 DALLAS, N.E. · ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS

NO.	DATE	BY	REVISIONS

DESIGNED BY J.G.M.
DRAWN BY S.G.H.
APPROVED T.T.M.

JOB NO. 51331
DATE 10-85

GRADING & DRAINAGE PLAN
VERMONT 4-PLEXES

FILE NO.
SHEET 1 OF 1

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CITY OF ALBUQUERQUE

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