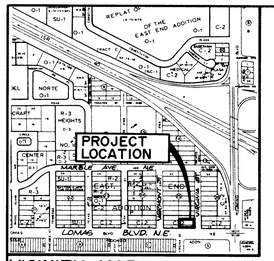


VICINITY MAP J-19

SCALE : 1" = 100'

PROJECT BENCHMARK

STATION IS AN OLD ACS BRASS DISK 1.5 INCHES IN DIAMETER, SET IN A DRILLED HOLE ON THE CURB, STAMPED "4-J19, 1975, ACS." STATION IS LOCATED AT THE NNW QUADRANT OF THE INTERSECTION OF WYOMING BLVD. N.E. & LOMAS BLVD. N.E.
ELEVATION = 5362.15 FEET (M.S.L.D.)

T. B. M.

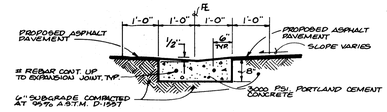
A '+' ON THE TOP OF CURB LOCATED ON A LINE PROJECTING FROM THE SOUTHWEST PROPERTY CORNER AS SHOWN ON THE DRAWING.
ELEVATION = 5357.19 FEET (M.S.L.D.)

LEGAL DESCRIPTION

LOT 11 AND A PORTION OF LOTS 10 & 12, BLOCK 25, EAST END ADDITION

LEGEND

5350	EXISTING CONTOUR
58	PROPOSED CONTOUR
+	EXISTING SPOT ELEVATION
+	PROPOSED SPOT ELEVATION
	EXISTING FLOWLINE
	PROPOSED ASPHALT
	PROPOSED CONCRETE
	PROPOSED FLOWLINE
T.C.	TOP OF CURB
T. DRIVE	TOP OF DRIVEWAY
BTM. DRIVE	BOTTOM OF DRIVEWAY
F. L.	FLOW LINE



SECTION A-A

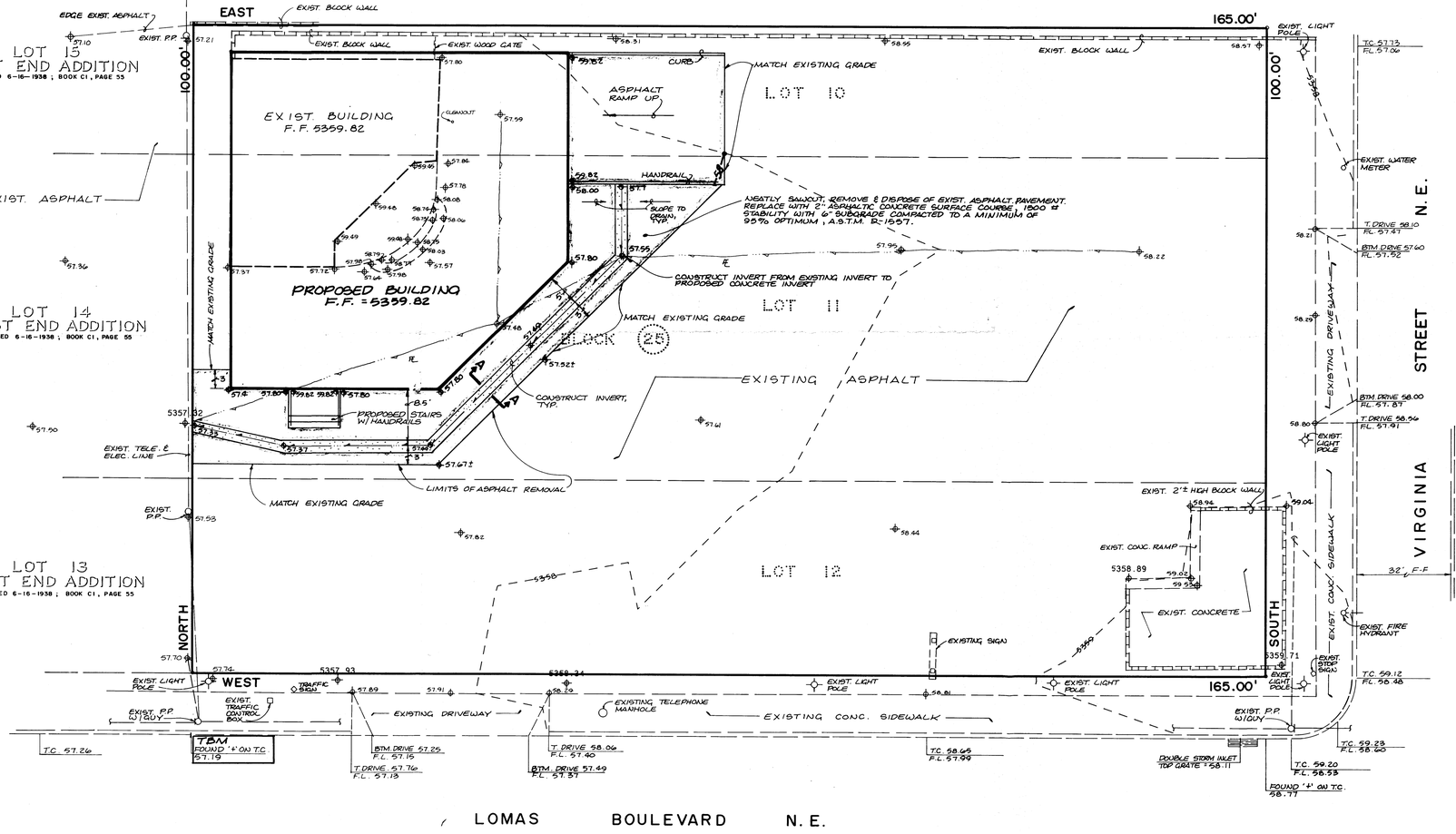
SCALE: 1"=2'

NOTES:
1. PROVIDE CONTRACTION JOINTS @ 10'.0.C.
2. PROVIDE ½" EXPANSION JOINTS @ 50'.0.C. AND ADJACENT STRUCTURES, AND DIRECTION CHANGE (TRIM FLUSH WITH FINISHED SURFACE).

SCALE : 1" = 10'

10' 5' 0 10'

PORTION OF LOT 10 EAST END ADDITION
FILED 6-16-1938 ; BOOK C1, PAGE 55



DRAINAGE PLAN

The following items concerning the "Quality Pontiac" 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 northwest corner of the intersection of Lomas Boulevard N.E. and Virginia Street N.E. At present, the site is developed, making this a modification to an existing site. Much of the surrounding area is currently developed, thereby making this an infill site. As shown by Plate J-19 of the Albuquerque Master Drainage Study, this site does not lie within a designated flood hazard zone. Downstream flooding is not apparent and therefore does not appear to be a problem. At present, runoff generated by this site flows from east to west onto Lots 13 and 14, then south onto Lomas Boulevard N.E. From that point, runoff flows west along the north edge of Lomas Boulevard N.E. onto existing storm drain inlets located at the intersection of Lomas Boulevard N.E. and Vermont Street N.E. No offsite flows enter the site along the north property line since the existing block wall routes runoff away from the project site. No offsite flows enter the site along the west property line since existing lots are graded in a manner which will route runoff away from the project site. No apparent offsite flows enter the site along the east and south property lines since the existing streets route runoff away from the project site.

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 new addition and the removal and replacement of existing paving. Flows generated by this site will be routed from east to west as discussed above. This pattern is consistent with existing site drainage pattern and will improve the existing drainage by decreasing the amount of runoff discharged onto Lots 13 and 14. Based upon the fact that this site is an infill site, the proximity of downstream facilities, and a decrease in runoff discharged to Lots 13 and 14, the free discharge of runoff from this site is appropriate.

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 to quantify the peak rate of discharge and the SCS Method has been used to quantify the volume of runoff. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, and the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will decrease the total discharge from this site by approximately 0.03 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 31: TgB - Tijeras gravelly fine sandy loam
Hydrologic Soil Group: B
Existing Pervious CN = 70 (DPM Plate 22.2 C-2
Pasture or Range Land: fair condition)
Developed Pervious CN = 61 (DPM Plate 22.2 C-2

Time of Concentration/Time to Peak

$T_C = 0.0078\ L^{0.77}/S^{0.385}$ (Kirpich Equation)

$T_p = T_C + 10$ min.

Point Rainfall

P_6 = 2.4 in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CiA$

where C varies
$i = P_6\ (6.84)\ T_C^{-0.51} = 5.07$ in/hr
$P_6 = 2.4$ in (DPM Plate 22.2D-1)
$T_C = 10$ min (minimum)
A = area, acres

SCS Method

Volume: V = 3630(DRO) A

Where DRO = Direct runoff in inches
A = area, acres

Existing Condition

A_{total} = 16,500 sf = 0.38 Ac
Roof area = 840 sf (0.05)
Paved area = 15,250 sf (0.92)
Landscaped area = 410 sf (0.03)
C = 0.93 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.93(5.07)(0.38) = 1.8$ cfs
A_{imp} = 16,090 sf; % impervious = 97 %
Composite CN = 97 (DPM Plate 22.2 C-3)
DRO = 2.1 in (DPM Plate 22.2 C-4)
$V_{100} = 3630$ (DRO)A = 2,900 cf

Developed Condition

A_{total} = 16,500 sf = 0.38 Ac
Roof area = 2,576 sf (0.15)
Paved area = 13,514 sf (0.82)
Landscaped area = 410 sf (0.03)
C = 0.92 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.92(5.07)(0.38) = 1.77$ cfs
A_{imp} = 16,090 sf; % impervious = %
Composite CN = 97 (DPM Plate 22.2 C-3)
DRO = 2.1 in (DPM Plate 22.2 C-4)
V100 = 3630 (DRO)A = 2,900 cf

Comparison

$\Delta Q_{100} = 1.8 - 1.77 = 0.03$ cfs (decrease)
$\Delta V_{100} = 2{,}900 - 2{,}900 = 0$ cf (no change)

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 IN WRITING 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.
5. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

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.

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

RECEIVED SEP 16 1988 HYDROLOGY SECTION

JEFF MORTENSEN & ASSOCIATES, INC.
811 DALLAS, N.E. □ ALBUQUERQUE, NM 87110
□ ENGINEERS □ TELEPHONE (505) 265-5611 □

GRADING AND DRAINAGE PLAN
QUALITY PONTIAC SHOWROOM

DESIGN BY L.P.U.
DRAWN BY S.G.H.
APPROVED BY J.G.M.

No.	Date	By	Revision

JOB NO. 880931
DATE 9-88
SHEET 1 OF 1