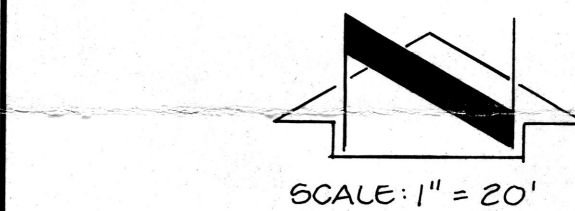
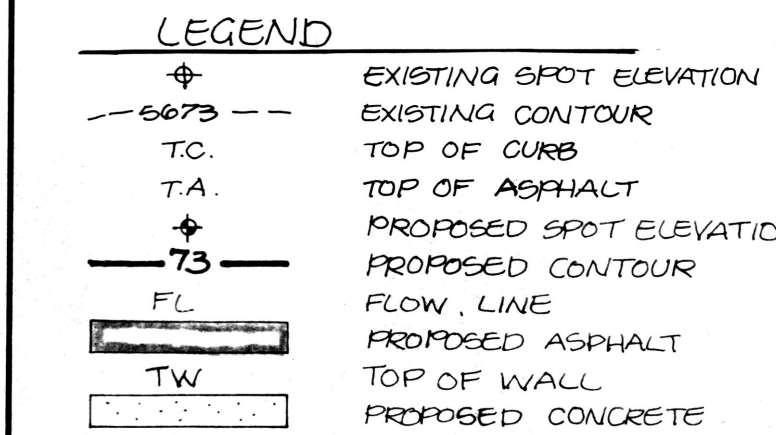


VICINITY MAP
SCALE: 1" = 800'



PROJECT BENCHMARK

THE STATION MARK IS A STANDARD ACS BRASS TABLE STAMPED "21-22-1018" SET FLUSH WITH CURB TO REACH THE STATION FROM THE INTERCHANGE. T-22 AND MONTGOMERY BVD, 90 EAST ON MONTGOMERY 5.2 MILES TO THE STATION ON THE N.M.L. ELEVATION: 5630.35 FT. (M.S.L.D.)

LEGAL DESCRIPTION

LOT A OF ALBUQUERQUE BOARD OF EDUCATION

T.B.M.

FINISHED FLOOR ELEVATION @ NORTHERLY ENTRANCE TO EXIST. BLDG. AS SHOWN.
ELEVATION: 5634.08 FT. (M.S.L.D.)

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. NAMES 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 NETTING 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.

DRAINAGE PLAN

The following items concerning the T-VI Phase XVII Drainage Plan are contained hereon:

1. Vicinity Map
2. Watershed Map
3. Grading Plan
4. Calculations

As shown by the Vicinity Map, the site is located within Lot A, Albuquerque Board of Education. This is also known as the Albuquerque T-VI North Campus. This is an existing school facility. The proposed project is a building expansion within the already developed campus. The site is bounded on the east by Juan Tabo Boulevard N.E., on the south by developed and undeveloped properties, on the west by Morris Street N.E. and on the north by the Bear Arroyo.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. As shown by this plan, the proposed improvements consist of the construction of a new building within an existing landscaped area. The building site is bounded on the east by an existing building and the south by an existing access road and on the north and west by an existing parking lot. At present, the site drains onto both the paved access road and the paved parking lot. These areas drain in a westerly direction to an existing retention pond delineated on the watershed map. The drainage of the site to the retention pond is an interim condition which can be eliminated now that the Bear Arroyo has been fully improved with concrete channel lining. Unfortunately, this project does not have sufficient funding to include that work, hence the elimination of the retention pond and the conveyance of the developed runoff from the site to the Bear Arroyo will have to be accomplished under a separate contract. This discharge of runoff to the existing channel should be relatively easy to accomplish due to the fact that an existing side inlet has been constructed in the channel to accept this runoff. Due to the fact that the extent of the proposed improvements are relatively minor and it is recognized that the retention pond can be eliminated with discharge directly to the channelized arroyo, the discharge of the runoff from this small project to the retention pond is appropriate as an interim solution.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. Due to the vastness of the overall site, the analysis has been limited to the immediate area of the proposed improvements. These limits are delineated on the grading plan. 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 result in a minor increase in runoff from this site.



WATERSHED MAP

SCALE: 1" = 500'

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 22: ETC - Embudo
Hydrologic Soil Group: B
Existing Pervious CN = 61 (DPM Plate 22.2 C-2)
Pasture or Range Land: good condition
Developed Pervious CN = 61 (DPM Plate 22.2 C-2)

Time of Concentration/Time to Peak

$T_c = 0.0078 (10.77/g0.385)$ (Kirpich Equation)

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.5$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CIA$

where C varies
 $i = P_6 (6.84) T_c^{-0.51} = 5.28$ in/hr
 $P_6 = 2.5$ 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

$A_{total} = 55,290$ sf = 1.3 Ac
Roof area = 13,280 sf (0.24)
Paved area = 31,320 sf (0.62)
 $C = 0.64$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = 0.64(5.28)(1.3) = 4.9$ cfs
 $A_{imp} = 21,180$ sf & impervious = 38 %
Composite CN = 76 (DPM Plate 22.2 C-3)
DRO = 0.65 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630 (DRO) A = 3,070$ cf

Developed Condition

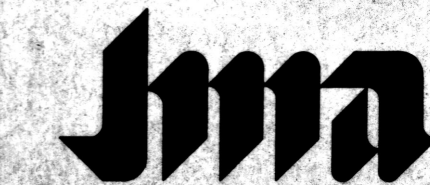
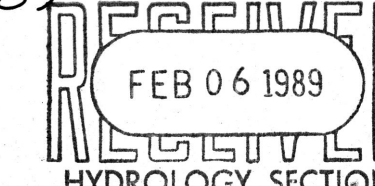
$A_{total} = 55,290$ sf = 1.3 Ac
Roof area = 13,280 sf (0.24)
Paved area = 31,320 sf (0.57)
Landscaped area = 10,690 sf (0.19)
 $C = 0.61$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = (0.61)(5.28)(1.3) = 5.6$ cfs
 $A_{imp} = 44,600$ sf; & impervious = 81 %
Composite CN = 91 (DPM Plate 22.2 C-3)
DRO = 1.6 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630 (DRO) A = 7,550$ cf

Comparison

$\Delta Q_{100} = 5.6 - 4.9 = 0.7$ cfs (increase)
 $\Delta V_{100} = 7,550 - 3,070 = 4,480$ cf (increase)



01-29-88



JEFF MORTENSEN & ASSOCIATES, INC.
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GRADING & DRAINAGE PLAN **T-VI PHASE XVII**

DESIGN BY	J.G.M.	No.	Date	By	Revision	JOB NO.	881101
DRAWN BY	R.A.R.					DATE	12/88
APPROVED BY	J.G.M.					SHEET	OF 1