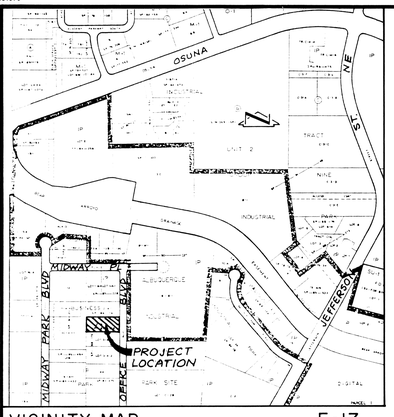


VICINITY MAP E-17

SCALE: 1"= 800' (APPROX.)

PROJECT BENCHMARK

STANDARD BLM BRASS CAP, SET IN CONCRETE MONUMENT STAMPED SC 27|26, WHICH PROJECTS 1.0' ABOVE GROUND. 34|35 THE STATION IS LOCATED 5.1' MILES NORTHEAST OF DOWNTOWN ALBUQ. EAST OF THE NORTH DIVERSION CHANNEL AND SOUTH OF OSUNA RD. N.E. ELEV.= 5110.406 FEET (M.S.L.D.)

TBM #1

TOP OF CURB ELEVATION AT A PROJECTION OF THE NORTHEASTERN PROPERTY CORNER AS SHOWN ON THE DRAWING BELOW. ELEV.= 5121.03 FEET (M.S.L.D.)

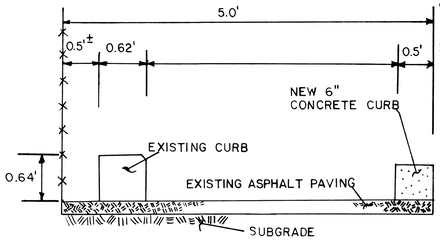
TBM #2

A SQUARE, □, CHISELED IN THE E AND G OF THE CONCRETE CHANNEL. CHANNEL LOCATED AT THE SOUTHWEST PROPERTY CORNER AS SHOWN ON THE DRAWING BELOW. ELEV.= 5114.53 FEET (M.S.L.D.)

LEGAL DESCRIPTION

LOT 2B, MIDWAY BUSINESS PARK.

SCALE: 1"=20'



SECTION A-A

SCALE: 1"= 1'

LEGEND

TC	TOP OF CURB
TA	TOP OF ASPHALT
—→···	FLOWLINE
—•—•—	EXISTING FENCE
+	EXISTING SPOT ELEVATION

DRAINAGE PLAN

The following items concerning the Lot 2B, Midway Business Park Office Warehouse Drainage Plan are contained hereon:

1. Vicinity Map 2. Grading Plan 3. Calculations

As shown by the Vicinity Map, the site is located on the west side of Office Boulevard N.E. within Midway Business Park. The site is currently developed commercially. Much of the surrounding area is also developed commercially.

As shown by Panel 16 of 50 of the National Flood Insurance Program, Flood Insurance Rate Maps prepared for the City of Albuquerque, Bernalillo County, New Mexico, dated October 14, 1983, this site does not lie within a designated flood hazard zone. The site drains to the AMAFCA North Diversion Channel via public and private infrastructure which is already in place. More specifically, the site drains from east to west to an existing 20' private drainage easement located along the west side of the site. The easement drains from north to south to an existing concrete drainage channel which drains to Midway Park Boulevard N.E. From this point, runoff flows within the street to another concrete drainage channel which discharges into the North Diversion Channel.

Offsite flows enter the site from the north. These flows are identified by the drainage plan for the Association Office Complex (E17/D41L). Offsite flows do not enter from the west or south due to the fact that those sites are topographically lower. Offsite flows do not enter from the east due to the presence of Office Boulevard N.E., which is a fully improved public street. It is the intent of this plan to accept the offsite flows from the north and to convey that runoff through the site within a reduced private drainage easement. The reduction in easement width will require that certain improvements be made within the private drainage easement. Once these improvements have been made, a reduction in easement width will be possible.

The Calculations which appear hereon analyze the existing condition of the site for the 100-year, 6-hour rainfall event. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated by this site. The Manning Equation has been used to evaluate the hydraulic capacity of the proposed improvements within the private drainage easement. As demonstrated by these calculations, and Section A-A, the easement can be reduced to a 5' width for the majority of its length. Widening of the easement is required at the north and south ends.

CALCULATIONS

Site Characteristics

1. Precipitation Zone = 2
2. $P_{6,100} = P_{360}$ = 2.35 in.
3. Total Area (A_T) = 1.09 Acres
4. Existing Land Treatment

Treatment	Area (sf/ac)	%
B	520/0.01	1.1
D	47,120/1.08	98.9

Existing Condition

1. Volume
   $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$
   $E_W = [(0.78)(0.01) + (2.12)(1.08)]/(1.09) = 2.11$ in.
   $V_{100} = (E_W/12)A_T$
   $V_{100} = (2.11/12)1.09 = 0.1914$ ac.ft.; 8,340 cf
2. Peak Discharge
   $Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
   $Q_p = Q_{100} = (2.28)(0.01) + (4.70)(1.08) = 5.1$ cfs

Manning's Equation (Assume Cross Slope = 0)
$Q = (1.49/n)AR^{2/3}S^{\frac{1}{2}}$
n = 0.013 A = 0.5w R = A/P S = 1/130 = 0.0077
Width = (outside edge of curb to outside edge of curb)

Width = 6' A = 2.44 ft² R = 0.4067 ft Q = 13.65 cfs

Width = 5' A = 1.94 ft² R = 0.3975 ft Q = 10.55 cfs

Width = 4' A = 1.44 ft² R = 0.3711 ft Q = 7.48 cfs

Width = 3' A = 0.94 ft² R = 0.3264 ft Q = 4.48 cfs

Manning's Equation (With 2.18% cross slope)

Width = 6' A = 2.70 ft² R = 0.4603 ft Q = 16.24 cfs

Width = 5' A = 2.13 ft² R = 0.4373 ft Q = 12.36 cfs

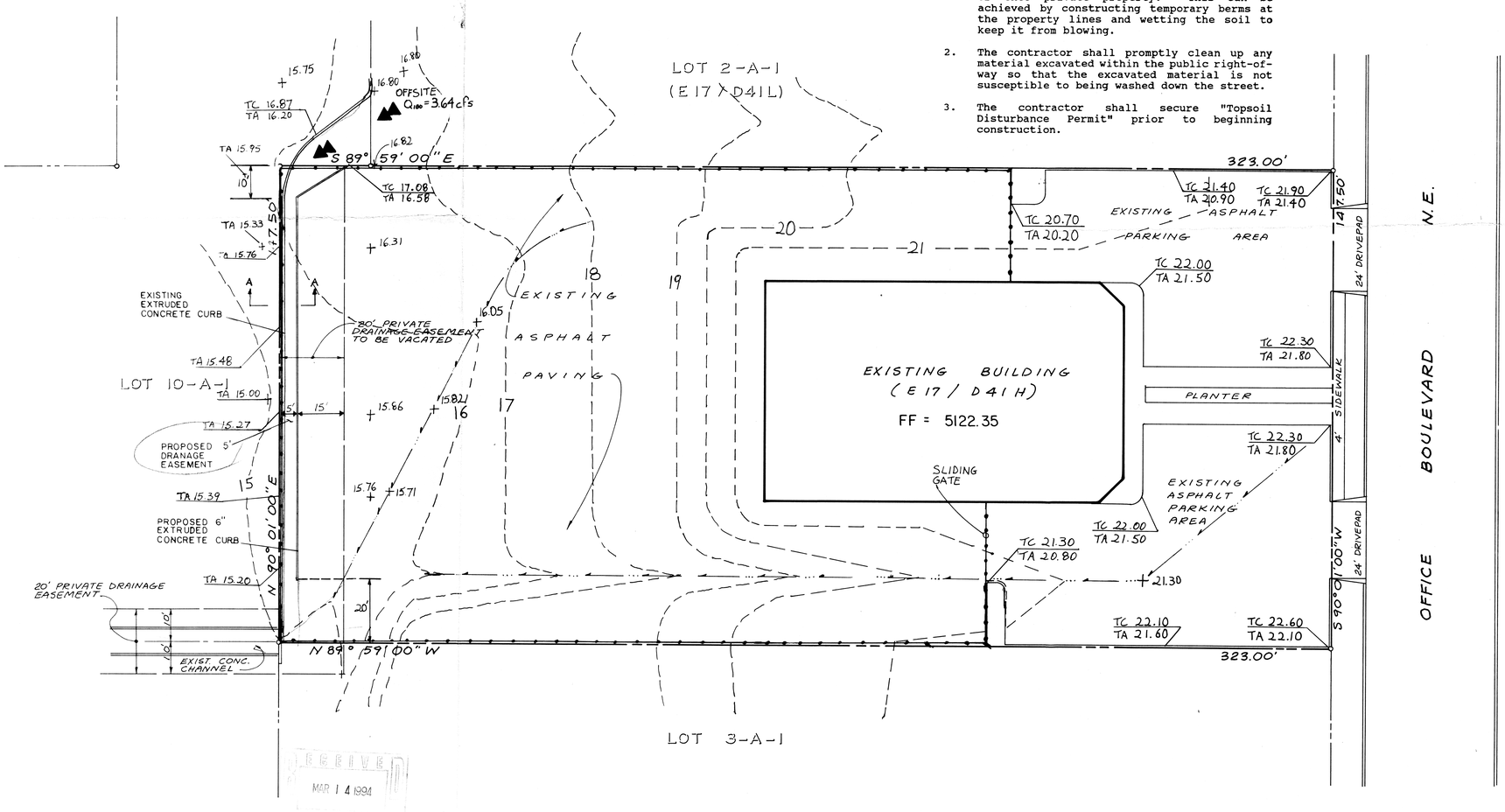
Width = 4' A = 1.55ft² R = 0.4008 ft Q = 8.50 cfs

Width = 3' A = 0.99 ft² R = 0.3458 ft Q = 4.93 cfs

Distance from Property Line to existing curb approx. 0.5'
Easement width = 5'
Channel width approximately 4.5'
Q of 4' channel = 7.48 cfs
$Q_{required}$ = 3.64 cfs
Q of 4' channel > $Q_{required}$

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.



RECEIVED
MAR 14 1994

Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990, 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 conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, 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.
6. The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.
7. This is not a Boundary Survey; all boundary data is from the plat filed: 12-14-1984, Vol. C-25, Folio 168.

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

DRAINAGE PLAN

LOT 2-B, MIDWAY BUSINESS PARK

DESIGNED BY MFD
DRAWN BY MFD
APPROVED BY JGM

NO.	DATE	BY	REVISIONS

JOB NO. 51112
DATE 3/94
SHEET 1 OF 1