HYDROLOGY

E17/D410
ONE PLAN

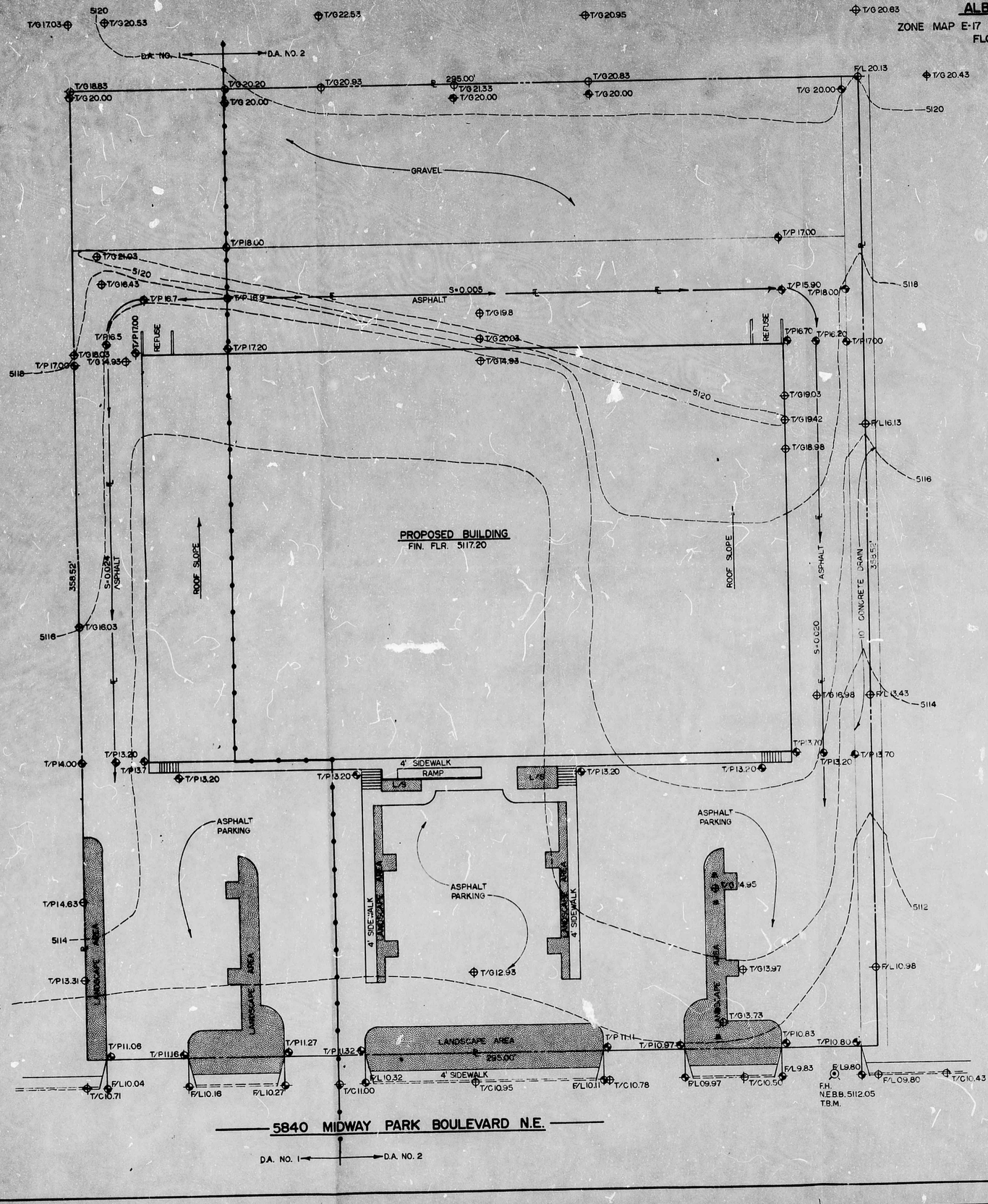
E 17/ D 410

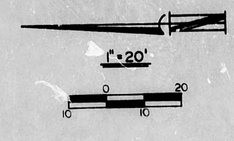
1 PLAN

DRAINAGE PLAN

LOT 9, MIDWAY BUSINESS PARK
ALBUQUERQUE, NEW MEXICO

ZONE MAP E-17 BENCHMARK "SC" ELEVATION 5110.41
FLOOD MAP 16 SOIL TYPE "B"





HYDROLOGY & HYDRAULICS

DRAINAGE AREA NO. 1

ROOF	= 4800 X 0.90 =	4320
ASPHALT & GRAVEL	= 18,108 X 0.95 =	17,203
LANDSCAPING	= 1488 X 0.25 =	372
	24,396	21,895

C = 0.90, Tc = 10 MIN., 6HR.-100YR. = 2.2"
I = 2.3 X 2.2 = 5.06 A = 0.56 AC.

Q = 0.90 X 5.06 X 0.56 = 2.6CFS
MASTER PLAN: Q = 0.82 X 5.06 X 0.4 = 1.7CFS
INCREASE OVER MASTER PLAN = 0.9CFS

DRAINAGE AREA NO. 2

ROOF	= 31,050 X 0.90 =	27,945
ASPHALT & GRAVEL	= 47,731 X 0.95 =	45,344
LANDSCAPING	= 2586 X 0.25 =	647
	81,367	73,936

C = 0.91, Tc = 10 MIN., 6HR.-100YR. = 2.2"
I = 2.3 X 2.2 = 5.06 A = 1.86 AC.

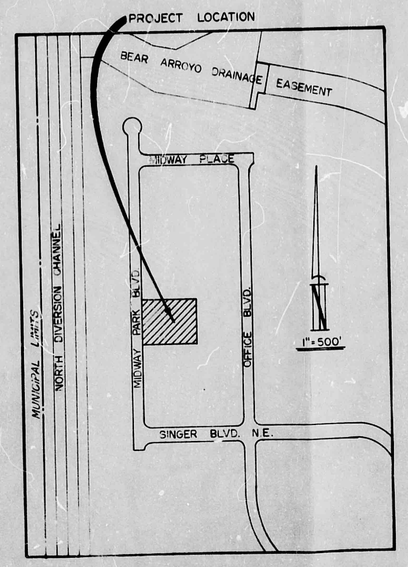
Q = 0.91 X 5.06 X 1.86 = 8.6 CFS
MASTER PLAN: Q = 0.82 X 5.06 X 2.03 = 8.4 CFS
INCREASE OVER MASTER PLAN = 0.2 CFS

NOTE: THE MASTER PLAN USED C = 0.82, Tc = 10 MIN. AND AN I = 4.65. THE DIFFERENCE IN AREAS AND C FACTORS CAUSE THE DIFFERENCE IN FLOWS. THE DIFFERENCE OF C VALUES WILL INCREASE FLOWS APPROXIMATELY 11% THROUGHOUT THE MIDWAY BUSINESS PARK BECAUSE OF THE WAY THE PARK IS BEING DEVELOPED. SINCE THE FLOWS ARE BEING CARRIED BY STREETS AND CHANNELS, AN 11% INCREASE IN THE FLOW WILL NOT SUBSTANTIALLY INCREASE THE DEPTH OF FLOW IN THE CONVEYANCES. FOR EXAMPLE, A 28' WIDE RECTANGULAR CHANNEL ON A SLOPE OF 0.005 CARRYING 55 CFS USING AN n = 0.17 WILL HAVE A NORMAL FLOW DEPTH OF 0.51 FEET. BY INCREASING THE FLOW BY 11% OR TO 61CFS, THE NORMAL DEPTH IS 0.54 FEET. A 10' WIDE RECTANGULAR CHANNEL ON A SLOPE OF 0.005 CARRYING 55CFS USING AN n = 0.017 WILL HAVE A DEPTH OF 1.00 FEET. AGAIN, INCREASING THE FLOW BY 11% OR 61CFS, THE NORMAL DEPTH WILL BE 1.07 FEET.

EROSION CONTROL NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE TO THE FOLLOWING:

1. NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE THE SITE DURING CONSTRUCTION.
2. DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ALL ADJACENT PROPERTY, RIGHTS-OF-WAY AND EASEMENTS SHALL BE PROTECTED FROM FLOODING.
3. ANY AND ALL SEDIMENTATION ORIGINATING ON THE SITE WHICH IS DEPOSITED WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PROMPTLY AND COMPLETELY REMOVED BY THE CONTRACTOR.
4. CONTROL OF SEDIMENT-LADEN FLOOD WATERS WILL BE ACCOMPLISHED BY THE USE OF A COMPACTED EARTH BERM AT LEAST 12" HIGH. BERM SHALL BE LOCATED ALONG THE DOWNSTREAM PERIMETERS OF THE PROPERTY.



VICINITY MAP

LEGEND

- PROPERTY LINE
- EXISTING CONTOURS 5112
- PROPOSED CONTOURS 5110
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- FLOW DIRECTION
- EXISTING CURB
- PROPOSED CURB
- LANDSCAPE AREAS
- EXISTING FIRE HYDRANT
- POWER POLES
- DRAINAGE AREA BOUNDARY

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HYDROLOGY SECTION

12/9/86

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ALBUQUERQUE, NEW MEXICO 87102

DRAINAGE PLAN
FOR:
AT 5840 MIDWAY PARK BLVD.
ALBUQUERQUE, NEW MEXICO

FILE # H-18A
DATE 11/25/86
DRAWN C.L.L.
SHEET 1 OF 1