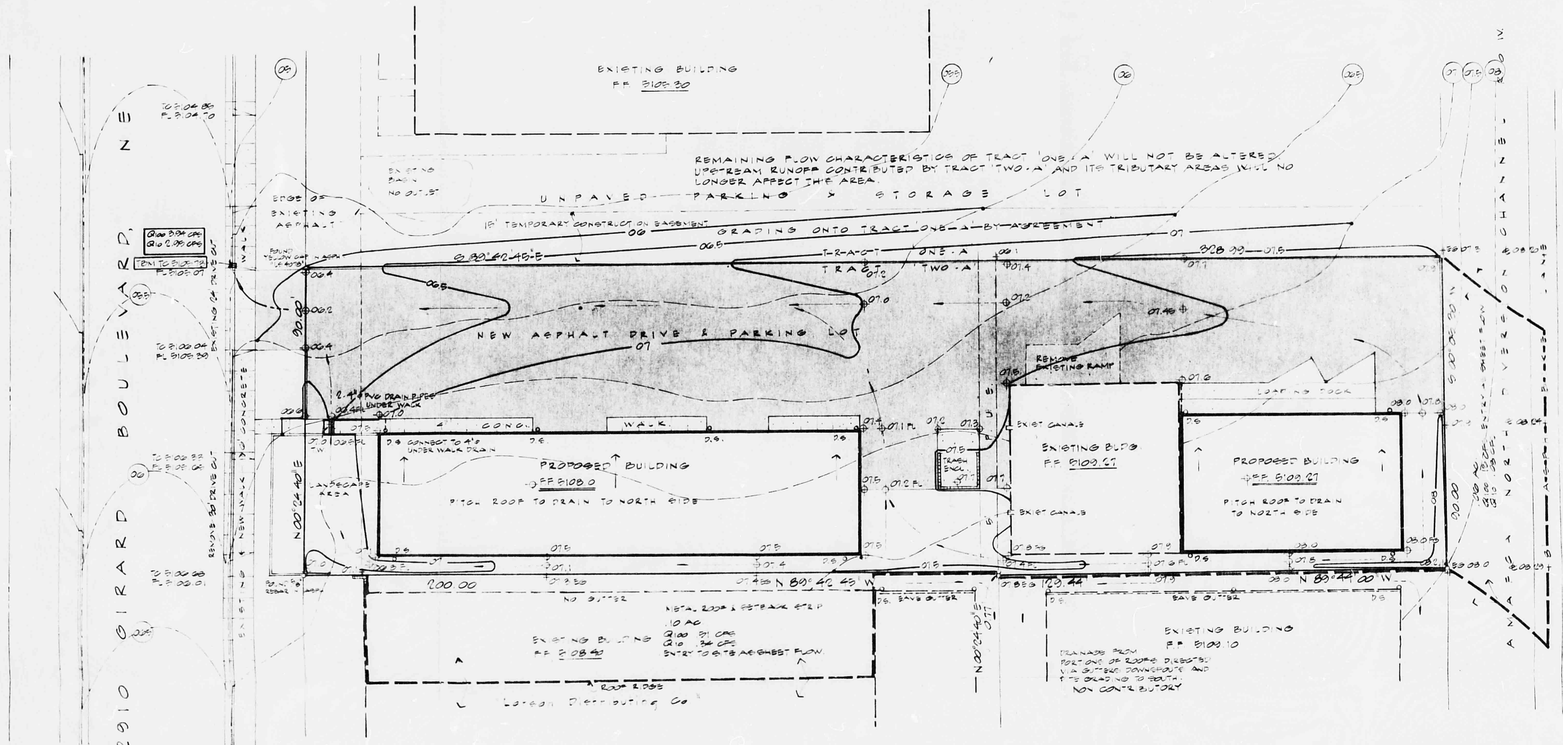
HYDROLOGY

H16/D82

H16/D82
Cummings Ofc./
Warehouse

1 Plan



EXISTING CONTOURS APPEARING HEREON ARE DERIVED FROM SPOT ELEVATIONS OF A TOPO SURVEY PERFORMED BY ALBUQUERQUE SURVEYING CO., INC. DATED MAY 1985

DATA

AREA OF SITE	2.9468 TO 6.0 FT (.676 AC)
SLOPE	1.8% SE TO NW
SOIL GROUP	B
TIME OF CONCENTRATION	10 MINUTES
RAINFALL (P.100 0.1 DPM)	0.2 IN
INTENSITY (P.100 / 0.0 DPM)	5.4 IN/HR

EXISTING ON-SITE CONDITIONS

UNPAVED SITE WITH EXISTING BUILDING, LOADING RAMP SURFACE COMPACTED BY TRAFFIC, NO STANDS OF VEGETATION OCCUR.

IMPERVIOUS COVERAGE	87%
C-FACTOR (P.100 0.1 DPM)	.83

Q100 = .83 x 5.4 IN/HR x .68 AC = 3.00 CFS, PEAK

Q10 = .67 Q100 = 2.00 CFS

EXISTING RUNOFF DISCHARGES TO TRACT 'ONE-A' AS A SHEET FLOW AND IS CONVEYED ACROSS SAID TRACT INTO GIRARD BOULEVARD, NE

UPSTREAM CONTRIBUTORY FLOWS

FROM CENTER CROWN OF BIKE LANE TO EAST PROPERTY LINE ONLY. SEE DELINEATION ON PLAN

.06 AC

IMPERVIOUS COVERAGE	15%
C-FACTOR	.33

Q100 = .33 x 5.4 IN/HR x .06 AC = .13 CFS, PEAK

Q10 = .67 Q100 = .08 CFS

FROM SOUTH - ONE-HALF OF ROOF AREA OF METAL BLDG AS SHOWN ON 5 FOOT SETBACK STRIP. C = .95, AREA .10 ACRE

Q100 = .95 x 5.4 IN/HR x .10 AC = .51 CFS, PEAK

Q10 = .67 Q100 = .34 CFS

PROPOSED SITE RUNOFF

TWO NEW BUILDINGS PROPOSED TOGETHER WITH NEW ASPHALT DRIVE & PARKING AREA.

IMPERVIOUS COVERAGE	94%
C-FACTOR	.90

Q100 = .90 x 5.4 IN/HR x .68 = 3.30 CFS, PEAK

Q10 = .67 Q100 = 2.17 CFS

TOTAL DISCHARGE FROM SITE

Q100 = 3.30 - .13 + .51 = 3.74 CFS, PEAK

Q10 = 2.17 + .08 + .34 = 2.59 CFS

BENCH MARK

SPIKE AS AN ANCHOR BOLT BRASS CAP LOCATED AT CANDELARIA ROAD NE & THE ANCHOR BOLT DIVERSION CHANNEL, 40±' NORTH OF ℄ OF CANDELARIA ROAD NE AND 4.5±' NORTHWEST OF NORTHWEST CORNER OF BRIDGE

ELEV. 5110.100

TBM

SPIKE 'D' ON TOP OF EAST DRIVEWAY CURB ON GIRARD BOULEVARD NE ADJ TO N.W. PROPERTY CORNER OF SITE

ELEV. 5107.79

DISCHARGE

FREE DISCHARGE TO GIRARD BOULEVARD.

INCREASE IN PEAK RUNOFF RATE (Q100) = 1.05 CFS

INCREASE IN RUNOFF VOLUME

.90 x 2.9468 x 2/12 = 4801 CU FT. PROPOSED

.83 x 2.9468 x 5.4/12 = 4483 CU FT EXISTING

+ 318 CU FT. NET INCREASE

RUNOFF TRAVELS NORTH ON GIRARD TO CANDELARIA ROAD; WEST ON CANDELARIA TO PRINCETON DRIVE; SOUTH ON PRINCETON TO MENAUL BOULEVARD; STORM DRAIN IN MENAUL CATCHES SURFACE FLOW AND ROUTES TO A DETENTION BASIN SOUTHEAST OF THE INTERSECTION OF CANDELARIA ROAD & 8TH BOULEVARD CONTROLLED RELEASE FROM BASIN TO ALAMEDA DRAIN

THIS SITE DEVELOPMENT IS URBAN INFILL AREA.

LEGEND

CONTOUR INTERVAL ONE-HALF FOOT (.5 ft)

EXISTING CONTOUR

PROPOSED CONTOUR

EXISTING SPOT ELEVATION

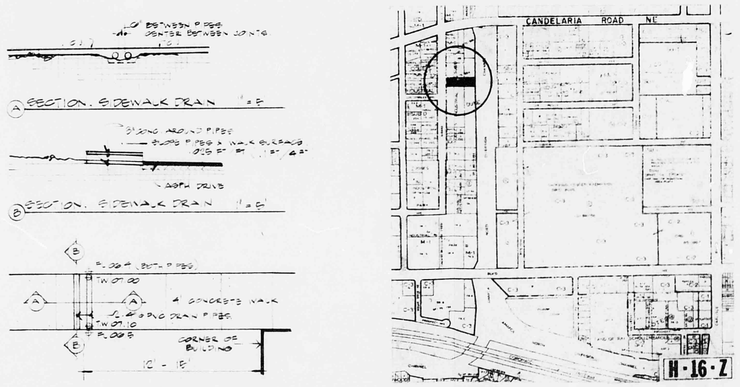
PROPOSED SPOT ELEVATION

BUILDING OF EXISTING BUILDING

INTERIOR AND EXTERIOR DIVISION OF CONTRIBUTORY AREAS

PROPOSED SPOT ELEVATIONS AND CONTOURS ARE SHOWN ABS TO FINISHED GRADES. CONTRACTOR SHALL REFERENCE APPROPRIATE ELEVATIONS.

CONTRACTOR IS RESPONSIBLE FOR THE ABATEMENT OF SEDIMENT FROM SITE ONTO ADJACENT PRIVATE PROPERTIES AND PUBLIC RIGHTS-OF-WAY DURING CONSTRUCTION.



VICINITY MAP NO SCALE

SECTION - SIDEWALK DRAIN 1" = 5'

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SIDEWALK DRAIN 1" = 5'

RECEIVED
OCT 15 1985
HYDROLOGY SECTION

PREPARED FOR:

METRON ARCHITECTS GROUP

SEPTEMBER 18, 1985

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