

CALCULATIONS

THE FOLLOWING CALCULATIONS WERE DEVELOPED USING THE CITY OF ALBUQUERQUE DPM SECTION 22.2

SITE CHARACTERISTICS:
SITE LOCATION: ZONE 2
PRECIPITATION: P = 2.60 inches

LAND TREATMENT:
UNCOMPACTED SOIL - TREATMENT A
LANDSCAPE - TREATMENT B
COMPACTED SOIL - TREATMENT C
BUILDINGS & PAVING - TREATMENT D

EXCESS PRECIPITATION:
TREATMENT A E = 0.53 inches
TREATMENT B E = 0.78 inches
TREATMENT C E = 1.13 inches
TREATMENT D E = 2.12 inches

PEAK DISCHARGE:
TREATMENT A = 1.56 cfs/acre
TREATMENT B = 2.28 cfs/acre
TREATMENT C = 3.14 cfs/acre
TREATMENT D = 4.70 cfs/acre

	EXISTING	PROPOSED
TOTAL AREA	= 2.04 AC.	
TREATMENT A	= 0.00 AC. = 0.0%	0.00 AC. = 0.0%
TREATMENT B	= 0.00 AC. = 0.0%	0.30 AC. = 14.7%
TREATMENT C	= 2.04 AC. = 100.0%	0.18 AC. = 8.8%
TREATMENT D	= 0.00 AC. = 0.0%	1.56 AC. = 76.5%

ONSITE - EXCESS PRECIPITATION & VOLUMETRIC RUNOFF:
EXISTING RUNOFF:

WEIGHTED $E = [(0.53)(0.00) + (0.78)(0.00) + (1.13)(2.04) + (2.12)(0.00)] / 2.04$
= 1.13 inches

$V_{100-6hr} = (1.13)(2.04) / 12 = 0.192$ acre ft = 8,370 cf

DEVELOPED RUNOFF:

WEIGHTED $E = [(0.53)(0.00) + (0.78)(0.30) + (1.13)(0.18) + (2.12)(1.56)] / 2.04$
= 1.83 inches

$V_{100-6hr} = (1.83)(2.04) / 12 = 0.311$ acre ft = 13,550 cf

ONSITE - PEAK DISCHARGE:

EXISTING DISCHARGE:
 $Q_{100} = (1.56)(0.00) + (2.28)(0.00) + (3.14)(2.04) + (4.70)(0.00) = 6.41$ cfs

DEVELOPED DISCHARGE:
 $Q_{100} = (1.56)(0.00) + (2.28)(0.30) + (3.14)(0.18) + (4.70)(1.56) = 8.58$ cfs

RESULTS:

DEVELOPED VOLUMETRIC RUNOFF:
 $13,550 - 8,370 = 5,180$ cf INCREASE IN RUNOFF VOLUME

DEVELOPED PEAK DISCHARGE:
 $8.58 - 6.41 = 2.17$ cfs INCREASE IN PEAK DISCHARGE

NAME	DATE
HYDROLOGY	
INSPECTOR	
A.C.E./FIELD	

"S.O. 19 FOR PRIVATE ENTRANCES"

GENERAL LEGEND

EXISTING CONTOUR	
PROPOSED CONTOUR	24
EXISTING SPOT ELEVATION	48.11
PROPOSED SPOT ELEVATION	56.4
FLOWLINE	
FLOW DIRECTION ARROW	
PROPOSED CONCRETE	
TOP OF CURB ELEVATION	TC
TOP OF WALL ELEVATION	TW
FLOWLINE ELEVATION	FL
TOP OF ASPHALT	TA
POWER POLE	PP
ROOF DRAIN/DOWN SPOUT	D.S.
RECORD DRAWING ELEV.	x 27.28

DRAINAGE PLAN

THIS SITE IS LOCATED ON THE WEST SIDE OF JEFFERSON STREET NORTH OF PASEO DEL NORTE AND SOUTH OF ALAMEDA BLVD. AS SHOWN ON PANEL 137 OF THE NATIONAL FLOOD INSURANCE PROGRAM "FIRM" MAP, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD AREA. NO OFFSITE FLOWS ENTER THIS SITE OTHER THAN THOSE WITHIN THE EXISTING DRAINAGE EASEMENT.

THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF A NEW OFFICE/WAREHOUSE FACILITY AND THE INSTALLATION OF TWO NEW PRIVATE ENTRANCES TO JEFFERSON STREET. THE SITE CURRENTLY DRAINS TO THE REAR OF THE PROPERTY TO A CONSTRUCTED EARTH CHANNEL WITHIN AN EXISTING DRAINAGE EASEMENT. THE PROPOSED DRAINAGE PLAN MAINTAINS THESE CURRENT PATTERNS.

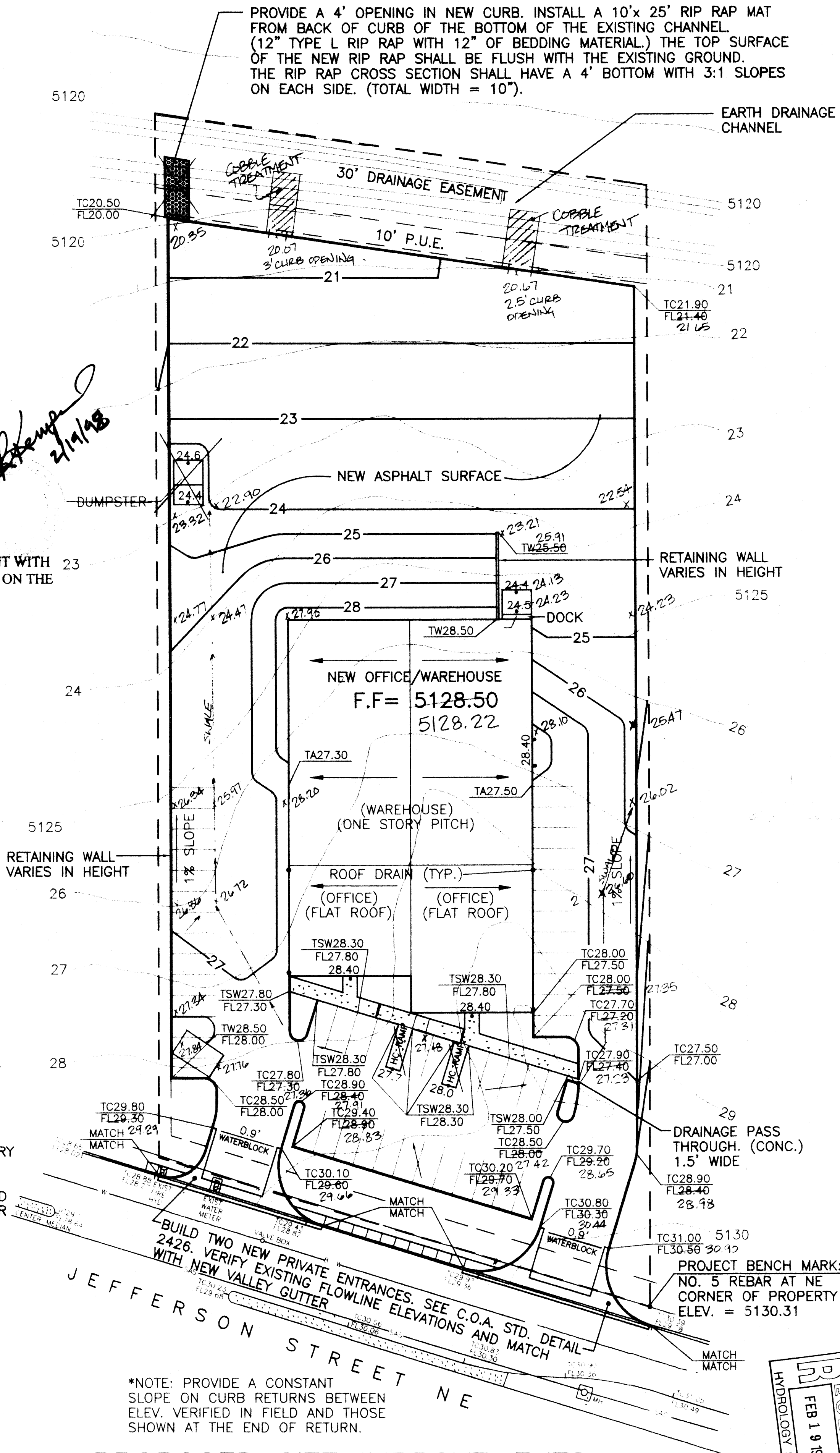
THERE IS A "DRAINAGE REPORT FOR LOTS 1-15, UNIT V, LOOP INDUSTRIAL DISTRICT" PREPARED BY GORDON HERKENHOFF & ASSOCIATES IN NOVEMBER 1981(C-17/D13). THIS REPORT ALLOWS FOR AN ALLOWABLE STORM WATER DISCHARGE OF 4.6cfs PER ACRE FROM THE SUBJECT LOT. THE PROPOSED CONSTRUCTION RESULTS IN A CONTRIBUTION OF 4.2cfs PER ACRE AND; THEREFORE, CONFORMS TO THE ORIGINAL REPORT.

THE EXISTING SURVEY INFORMATION SHOWN HEREON WAS PREPARED FROM A FIELD SURVEY DONE BY CHRISTOPHER J. DEHLER, P.S., IN FEBRUARY OF 1997. A SUBSEQUENT FIELD REVIEW BY THIS OFFICE REVEALED THAT THE INFORMATION SHOWN HEREON IS CONSISTENT WITH THE ACTUAL CONDITIONS THAT EXIST IN THE FIELD.

THE SITE DRAINAGE PATTERNS ARE CONSISTANT WITH THOSE ORIGINALLY PROPOSED AND APPROVED ON THE PLAN WITH ENGINEERS SEAL DATED 6/16/97.

GENERAL NOTES

- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE TO RESOLVE THE CONFLICT WITH A MINIMUM AMOUNT OF DELAY.
- ALL WORK ON THIS PLAN SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE LOCATION ONLY, AND LINES MAY EXIST WHERE NONE ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OWNER OR FROM EXISTING PLANS, AND THIS INFORMATION MAY BE INCOMPLETE, OR OBSOLETE AT THE TIME OF CONSTRUCTION. THE ENGINEER HAS NOT UNDERTAKEN ANY FIELD VERIFICATION OF THESE LOCATIONS, LINE SIZES OR MATERIAL TYPE, MAKES NO REPRESENTATION THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE OR UNDERGROUND INSTALLATION IN OR NEAR THE AREA IN ADVANCE OF AND DURING ANY EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES AND UNDERGROUND FACILITIES. IN PLANNING AND CONDUCTING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH ALL STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- THE CONTRACTOR SHALL INSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHTS-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND BY WETTING THE SOIL TO KEEP IT FROM BLOWING.
- THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY THE CITY OF ALB. FOR THE COMPLETION OF THE WORK PRIOR TO BEGINNING CONSTRUCTION.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AND ALL CURRENT UPDATES.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR PERMIT.
- TWO WORKING DAYS PRIOR TO AN EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE A 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- BACKFILL COMPACTION SHALL BE ACCORDING TO COLLECTOR STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.



PROPOSED SITE IMPROVEMENTS

LEGAL DESCRIPTION

LOT 5, UNIT V, LOOP INDUSTRIAL DISTRICT SUBDIVISION, ALBUQUERQUE, NEW MEXICO, AS FILED AT THE OFFICE OF THE BERNALILLO COUNTY CLERK, NEW MEXICO ON AUGUST 26, 1981, VOLUME C18, FOLIO 171.

BENCH MARK

CITY OF ALBUQUERQUE CONTROL STATION "LOOP IND. UNIT IV", ELEVATION 5131.89 FEET PER RECORDED PLAT FILED IN VOLUME C18, FOLIO 171.

SCOTT'S FENCING COMPANY
GRADING AND DRAINAGE PLAN

KEMPER-VAUGHAN
CONSULTING ENGINEERS

3700 COORS RD. N.W. • ALBUQUERQUE, NEW MEXICO 87120 • (505) 831-4520
Designed KRK Drawn SE Checked KRK Sheet 1 of 1
File SCOTT-JEFFERSON Date MAY 1997