LEGAL DESCRIPTION

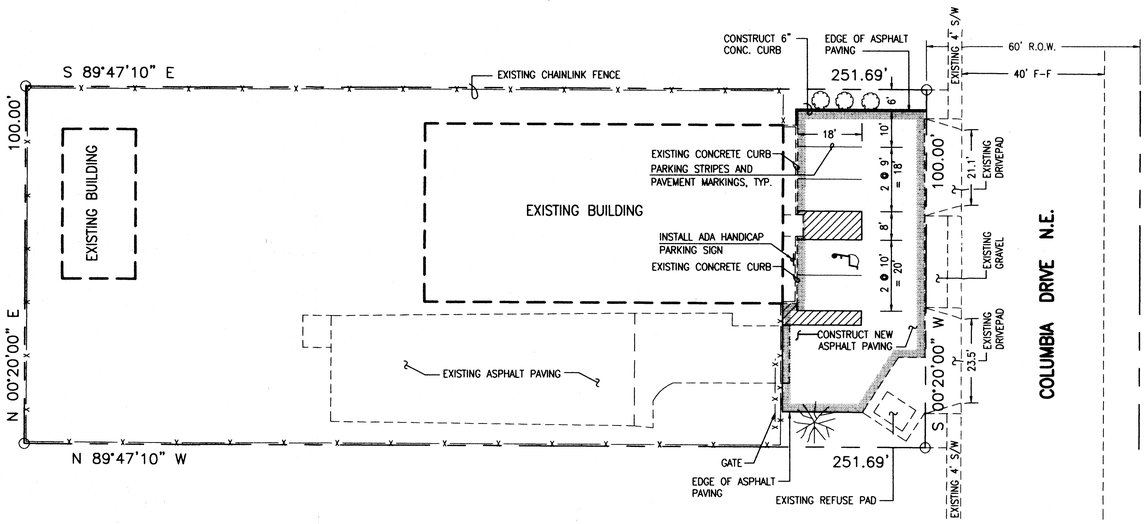
LOT 7, UNIT 7, CUTTER INDUSTRIAL PARK
BOOK 308, PAGE 154
(PLAT OF RECORD)

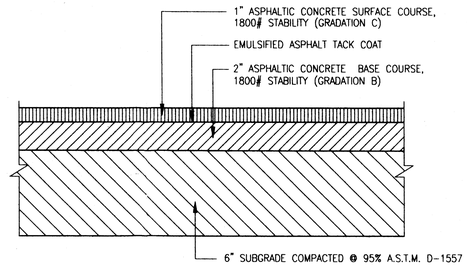
LEGEND

+ 4.6	EXISTING SPOT ELEVATION
TC	TOP OF CURB
FL	FLOWLINE
NG	NATURAL GRADE
x ——— x	EXISTING CHAINLINK FENCE
	EXISTING TREE
	PROPOSED ASPHALT PAVING

SCALE: 1" = 20'

20' 0 40'
10' 20'





TYPICAL PAVEMENT SECTION

SCALE: 1" = 5"

RECEIVED
AUG 20 1999
HYDROLOGY SECTION

REGISTERED JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER
08-20-99

File Path: L:\MKWORK\990681\
File Name: 990651P.DWG
Plot Date: 08-19-1999
Plot Time: 3:42 pm

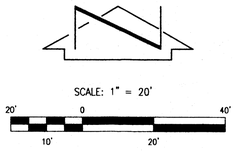
JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE NEW MEXICO 87109
ENGINEERS SURVEYORS (505) 345-4250

PAVING SITE PLAN
DANLIN PRODUCTS INC.
3321 COLUMBIA DRIVE N.E.

DESIGNED BY J.G.M.
DRAWN BY S.G.H.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 990681
DATE 08-1999
SHEET 1 OF 2



PROJECT BENCHMARK

STATION MARK IS A STANDARD USCE BRASS CAP, STAMPED "AA-SITE-1 NO. 3" SET IN TOP OF A CONCRETE POST PROJECTING 1 FOOT ABOVE GROUND. STATION IS LOCATED 2.5 MILES N.E. OF DOWNTOWN ALBUQUERQUE, ON THE EAST SIDE OF U.S. HIGHWAY 25 (I-25). TO REACH THE STATION FROM THE INTERSECTION OF I-25 AND CANDELARIA RD., GO EAST ON CANDELARIA RD., 0.10 MILES TO THE EAST FRONTAGE RD., THEN GO NORTH ON THE EAST FRONTAGE RD., 0.25 MILES TO THE STATION ON THE LEFT.

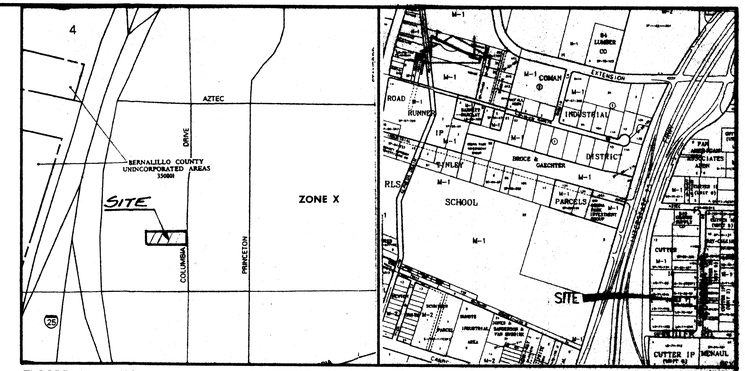
ELEVATION = 5079.035 FEET (M.S.L.D.)

LEGAL DESCRIPTION

LOT 7, UNIT 7, CUTTER INDUSTRIAL PARK
BOOK 308, PAGE 154
(PLAT OF RECORD)

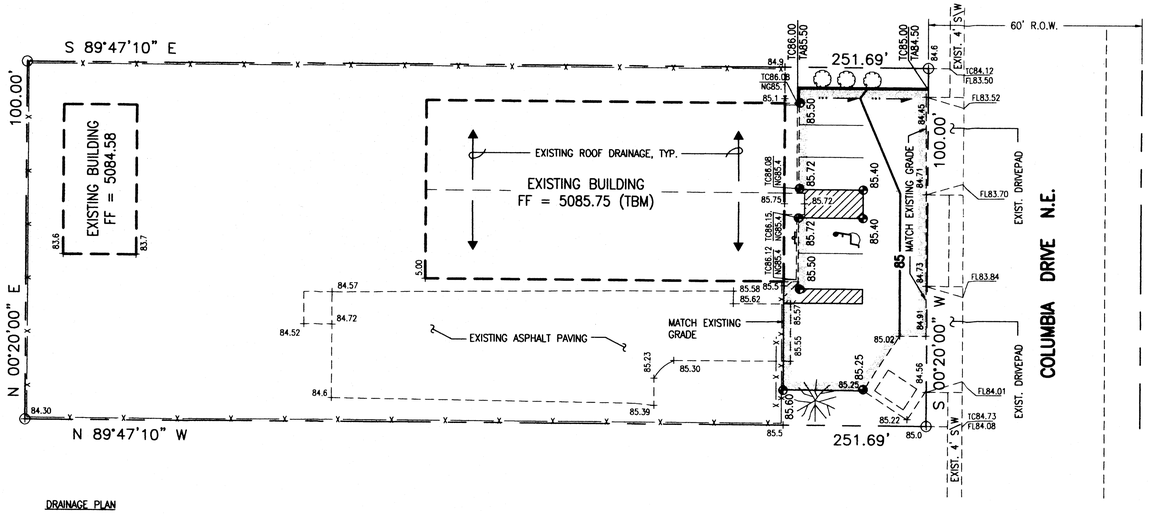
LEGEND

+ 4.6	EXISTING SPOT ELEVATION
85.50	PROPOSED SPOT ELEVATION
TC	TOP OF CURB
FL	FLOWLINE
NG	NATURAL GRADE
x ——— x	EXISTING CHAINLINK FENCE
	EXISTING TREE
	PROPOSED ASPHALT PAVING
	DIRECTION OF FLOW
85	PROPOSED CONTOUR



FLOODPLAIN MAP — PANEL 351 OF 825 — VICINITY MAP — G-15

SCALE: 1" = 500' — SCALE: 1" = 750'±



DRAINAGE PLAN

I. INTRODUCTION AND EXECUTIVE SUMMARY

THIS PROJECT, LOCATED IN THE LOWER NORTHEAST HEIGHTS NORTH OF THE BIG I, REPRESENTS A MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA. THE DRAINAGE CONCEPT WILL BE THE CONTINUED FREE DISCHARGE OF RUNOFF TO THE FRONTING CITY STREET. FROM THIS POINT, DEVELOPED RUNOFF FLOWS NORTH TO AZTEC NE AND EVENTUALLY ENTERS THE I-25 STORM DRAIN SYSTEM AT THE EAST FRONTAGE ROAD.

THIS SUBMITTAL IS MADE IN SUPPORT OF A GRADING AND PAVING PERMIT FOR A RELATIVELY SMALL AREA OF NEW PAVING PROPOSED FOR THE SITE.

II. PROJECT DESCRIPTION

AS SHOWN BY THE VICINITY MAP, THE SITE IS LOCATED ON THE WEST SIDE OF COLUMBIA NE JUST NORTH OF CUTTER NE. THE CURRENT LEGAL DESCRIPTION IS LOT 7, CUTTER INDUSTRIAL PARK, UNIT 7. AS SHOWN BY PANEL 351 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, SEPTEMBER 20, 1996, THIS SITE DOES NOT LIE WITHIN NOR ADVERSELY IMPACT A DESIGNATED FLOOD HAZARD ZONE (ZONE A). AS STATED ABOVE, THIS PROJECT INVOLVES PAVING A SMALL PORTION OF THE SITE WHICH IS CURRENTLY EXISTS AS UNPAVED ACCESS AND PARKING.

III. BACKGROUND DOCUMENTS

REVIEW OF HYDROLOGY DEVELOPMENT DIVISION RECORDS INDICATES NO PREVIOUSLY SUBMITTED AND/OR APPROVED DRAINAGE SUBMITTALS FOR THIS SITE.

IV. EXISTING CONDITIONS

AT PRESENT, THE FRONT PORTION OF THE SITE SERVES AS UNPAVED ACCESS AND PARKING. THE REMAINDER OF THE SITE IS ALREADY DEVELOPED AS ILLUSTRATED BY THE GRADING PLAN. THE FRONT PORTION OF THE SITE DISCHARGES ITS DEVELOPED RUNOFF TO AN EXISTING PAVED CITY STREET, COLUMBIA NE. FROM THIS POINT, RUNOFF FLOWS NORTH WITHIN THE IMPROVED STREET TO THE INTERSECTION WITH AZTEC NE. FROM THIS POINT, RUNOFF FLOWS WEST TO BE INTERCEPTED BY THE I-25 STORM DRAIN SYSTEM, THE OUTFALL FOR THIS SITE.

V. DEVELOPED CONDITIONS

THE PROPOSED CONSTRUCTION CONSISTS OF THE PAVING OF A RELATIVELY SMALL PORTION OF THE SITE FRONTING COLUMBIA NE. THE DEVELOPED RUNOFF GENERATED BY THE NEW PAVING WILL BE DISCHARGED TO THE STREET VIA THE EXISTING DRIVEPADS. FROM THIS POINT, RUNOFF WILL FOLLOW THE FLOW PATH DESCRIBED ABOVE IN THE PRECEDING SECTION.

VI. GRADING PLAN

THE GRADING PLAN SHOWS 1.) EXISTING GRADES INDICATED BY SPOT ELEVATIONS AT CRITICAL LOCATIONS, 2.) PROPOSED GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1?-0? INTERVALS, 3.) THE LIMIT AND CHARACTER OF THE EXISTING IMPROVEMENTS, 4.) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS, AND 5.) CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES. AS SHOWN BY THIS PLAN, THE MAJORITY OF THE SITE IS ALREADY DEVELOPED. THE PROPOSED PAVING AFFECTS ONLY A SMALL PORTION OF THE SITE. THIS PLAN FURTHER ILLUSTRATES THE DRAINAGE PATTERNS DESCRIBED IN THE SECTION ABOVE.

VII. CALCULATIONS

THE CALCULATIONS WHICH APPEAR HEREON ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS 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. AS SHOWN BY THESE CALCULATIONS, THERE WILL BE A NEGLIGIBLE INCREASE IN RUNOFF ASSOCIATED WITH THE PROPOSED CONSTRUCTION.

VIII. CONCLUSION

THE CONTINUED FREE DISCHARGE OF RUNOFF FROM THIS SITE TO COLUMBIA NE IS APPROPRIATE DUE TO FOLLOWING FACTORS:
1. MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA
2. NEGLIGIBLE INCREASE IN DEVELOPED RUNOFF
3. PROXIMITY TO DOWNSTREAM FACILITIES AND APPARENT DOWNSTREAM CAPACITY
4. NO IMPACT ON DOWNSTREAM FLOOD ZONE

CALCULATIONS

SITE CHARACTERISTICS

1. PRECIPITATION ZONE = 2

2. $P_{6,100} = P_{360} = 2.35$ IN.

3. TOTAL AREA (A_T) = 4.000 sf/0.09 AC

4. EXISTING LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
B	747/0.02	20.0
C	2,940/0.07	70.0
D	316/0.01	10.0

5. DEVELOPED LAND TREATMENT

TREATMENT	AREA (SF/AC)	%
B	747/0.02	22.2
D	3,253/0.07	77.8

EXISTING CONDITION

1. VOLUME

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(0.78)(0.02)+(1.13)(0.07)+(2.12)(0.01)]/0.09 = 1.29$ IN.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.29/12)0.09 = 0.0097$ AC.FT.; 420 CF

2. PEAK DISCHARGE

$Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_P = Q_{100} = (2.28)(0.02)+(3.14)(0.07)+(4.70)(0.01) = 0.3$ CFS

DEVELOPED CONDITION

1. VOLUME

$E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(0.78)(0.02)+(2.12)(0.07)]/0.09 = 1.82$ IN.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.82/12)0.09 = 0.0137$ AC.FT.; 600 CF

2. PEAK DISCHARGE

$Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$

$Q_P = Q_{100} = (2.28)(0.02)+(4.70)(0.07) = 0.4$ CFS

COMPARISON

$\Delta V_{100} = 600 - 420 = 180$ CF (INCREASE)

$\Delta Q_{100} = 0.4 - 0.3 = 0.1$ CFS (INCREASE)

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 260-1990 (ALBUQUERQUE AREA), 1-800-321-ALERT(2537) (STATEWIDE), 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. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.

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.

EROSION CONTROL MEASURES:

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.

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.

JEFFREY G. MORTENSEN — NEW MEXICO — 8547 — REGISTERED PROFESSIONAL ENGINEER

08-20-99

File Path: E:\MWA\DWG\990651\
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Plot Date: 08-19-1999
Plot Time: 1:51 pm

JEFF MORTENSEN & ASSOCIATES, INC.
8010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE NEW MEXICO 87109
ENGINEERS SURVEYORS (505) 345-4250

GRADING AND DRAINAGE PLAN
DANLIN PRODUCTS INC.
3321 COLUMBIA DRIVE N.E.

DESIGNED BY J.G.M.
DRAWN BY S.G.H./J.Y.R.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS

JOB NO. 990681
DATE 08-1999
SHEET 2 OF 2