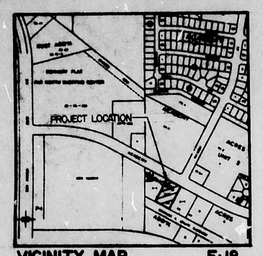
HYDROLOGY

E18/D13
2 PLANS

E18/D13

2 Plans



VICINITY MAP E·18

SCALE: 1" = 800'

FLOOD HAZARD MAP 2·3

SCALE: 1" = 1000'

SCALE: 1" = 20'

LEGEND

EXISTING CONTOURS
PROPOSED CONTOURS

BENCHMARK

CITY OF ALBUQUERQUE BRASS CAP 1-E18A 1978 · ELEVATION = 5222.43 LOCATED IN MEDIAN OF ACADEMY EAST OF SAN MATEO.

SOILS

EmB – EMBUDO

LEGAL DESCRIPTION

LOT A-3 RHODES ACRES ADDITION.

ADDRESS

6012 ACADEMY RD. NE.

DRAINAGE PLAN

The following items concerning the showroom addition for Perfection Motor Car Limited are contained hereon:

1. Vicinity Map
2. Flood Hazard Map
3. Grading Plan
4. Calculations

The proposed building is an addition to an existing car dealership facility. The addition will be utilized as an enclosed showroom for the display of automobiles.

At the present time a car dealership is existing on the project site. An additional building will be constructed over some parking and landscaped area to provide additional showroom. Since the building addition is being constructed over areas that already are essentially impervious, the additional amount of runoff is negligible. All flows from the site flow to the southwest corner of the site. At that location is an existing earth detention pond with an 18-inch diameter pipe outlet. The pond is eroding from the flows entering the pond and there is no detention due to the size of the outlet. The 18-inch pipe discharges onto a concrete pad which in turn allows the flow to go over the side of the Bear Canyon Arroyo which is concrete lined.

The proposed Grading Plan will allow all flows to continue as they do now, however, it is recommended that the pond be either asphalt or concrete lined to deter erosion. The 18-inch pipe is capable of handling the peak runoff from the site and conveying it to the Bear Canyon Arroyo. The project is low enough in the Bear Canyon watershed that it would be best to discharge the flows directly and have them out of the system prior to any peaking that might be generated upstream in the drainage basin.

This Grading and Drainage Plan essentially shows the as-built conditions except for the lining of the pond. The Grading Plan shows (1) existing contours at 1'-0" intervals, (2) existing grades indicated by spot elevations and contours, (3) swales, (4) that all runoff will be conveyed into a pond before exiting the site, (5) that retaining walls will not be required and (6) that erosion will not result from upland runoff or proposed construction.

CALCULATIONS

Area of Parcel = 1.72 ac

Impervious Area = 1.66 ac

Pervious Area = 0.06 ac

Composite $C_N = \frac{0.06}{1.72}(0.40) + \frac{1.66}{1.72}(0.95) = 0.93$

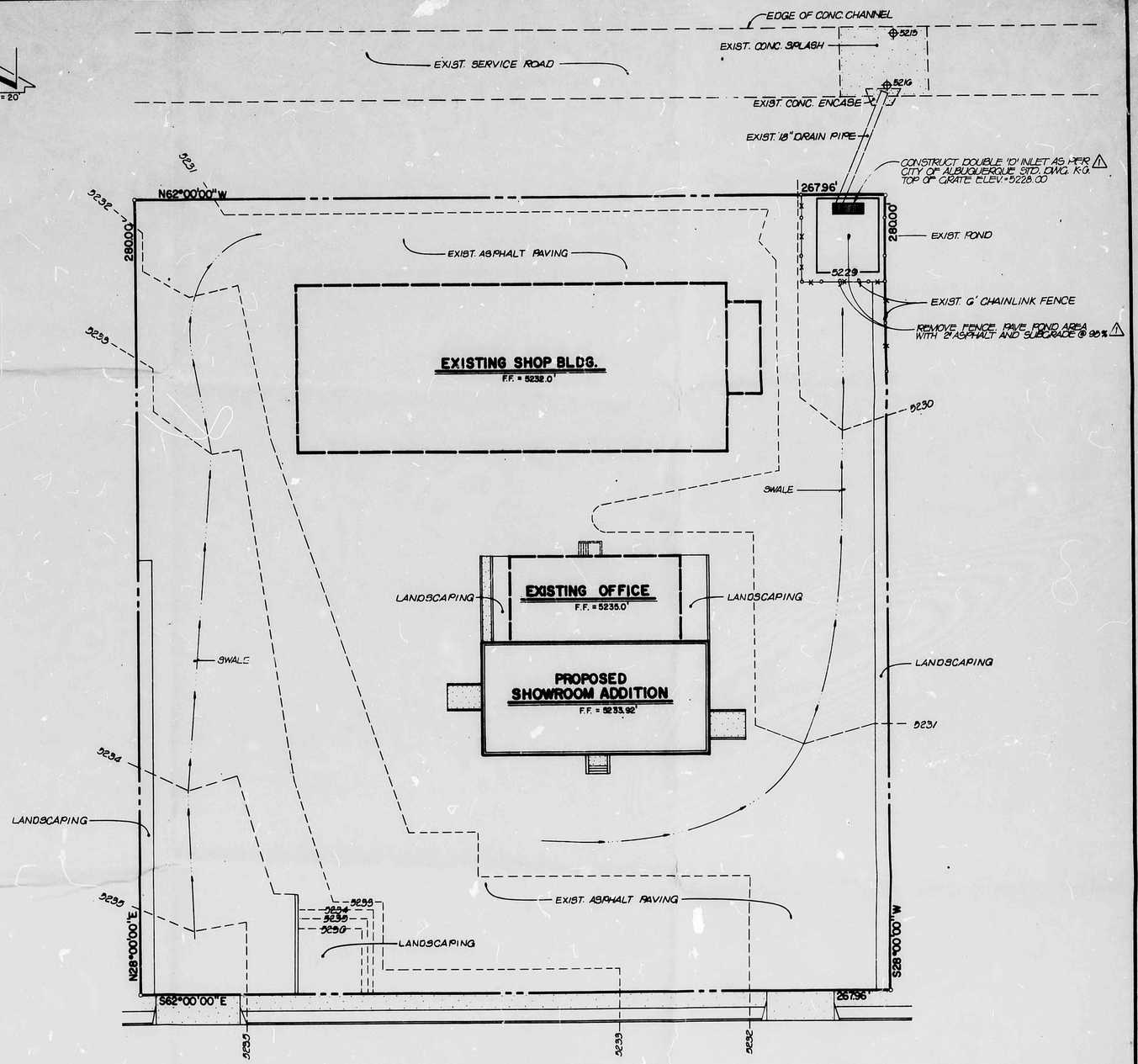
$Q_{100} = CiA = 0.93(5.4)1.72 = 8.65$ cfs

18" orifice

$Q = \frac{19.636}{7.5x60} kd^2\sqrt{h} = \frac{19.636}{7.5x60}(0.61)(18)^2\sqrt{2} = 12.20$ cfs

REGISTERED PROFESSIONAL ENGINEER · STATE OF NEW MEXICO · THOMAS T. MANOUS · 3 · CIVIL · LAND SURVEYOR

5/7/82
5/10/82



DRAINAGE PLAN

○ T.B.M. MANHOLE RIM ELEV. = 5132.16'

NO.	DATE	BY	REVISIONS
1	5/10/82	T.M.	Removed Pond

DESIGNED BY: T.T.M.
DRAWN BY: J.M.C.
APPROVED: T.T.M.

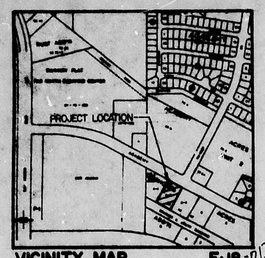
JOB NO. 2-048
DATE 5-82

DRAINAGE PLAN
PERFECTION MOTOR CAR LTD.

FILE NO.

SHEET 1 OF 1

CONLON-MARTIN ASSOCIATES INC.
811 DALLAS N.E. · ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS



VICINITY MAP E-18-D13

SCALE: 1" = 800'

FLOOD HAZARD MAP 2-3

SCALE: 1" = 1000'

LEGEND

EXISTING CONTOURS
PROPOSED CONTOURS

LEGAL DESCRIPTION

LOT A-3 RHODES ACRES ADDITION.

BENCHMARK

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ADDRESS

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SOILS

EmB - EMBUDO

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18" orifice

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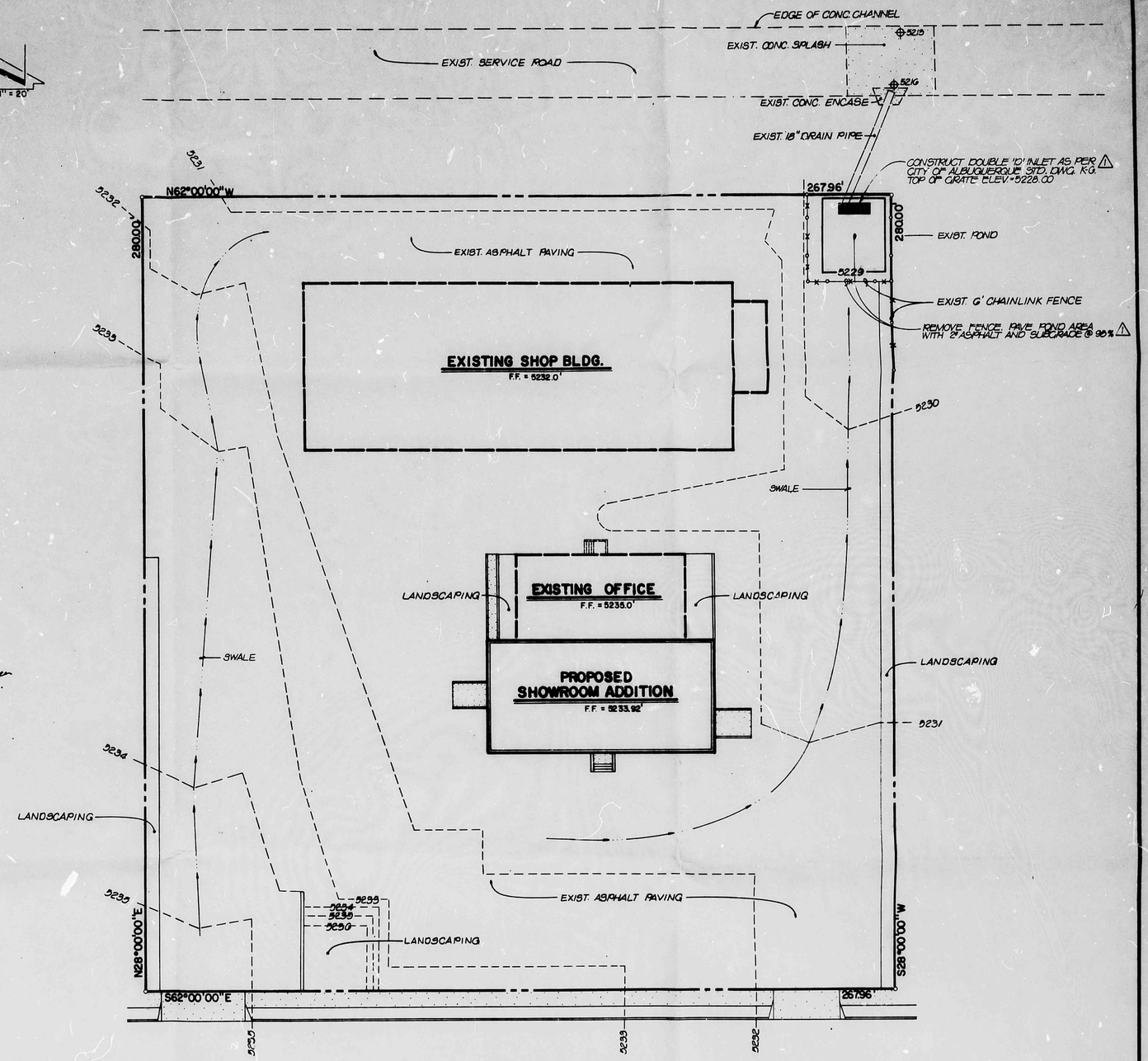
E18-D13

APPROVED FOR DRAINAGE
8-18-82
DATE
SIGNATURE TITLE
ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED
Certified by Engineer



DRAINAGE PLAN

TBM. MANHOLE RIM ELEV. = 5132.16'

JOHN VARGAS ASSOCIATES, INC.
811 DALLAS, N.E. · ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS

NO.	DATE	BY	REVISIONS
1	8/10/82	TM	REMOVED POND

DESIGNED BY: T.T.M.
DRAWN BY: J.M.C.
APPROVED: T.T.M.

JOB NO. 2-048
DATE 5-82

DRAINAGE PLAN
PERFECTION MOTOR CAR LTD.

FILE NO.
SHEET 1 OF 1