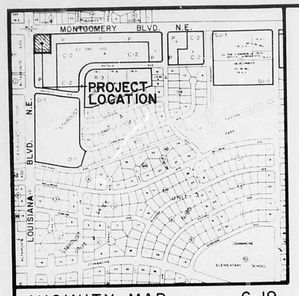
HYDROLOGY

G19/D20
ONE PLAN

G 19- D 20

1 PLAN



VICINITY MAP G-19

SCALE 1" = 800'

LEGEND

- 5805 — EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING FENCE
- EXISTING WALL
- 05 — PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED ASPHALT PAVING
- PROPOSED CONCRETE

LEGAL DESCRIPTION

PARCEL II, STARDUST SKIES SUBDIVISION

PROJECT BENCHMARK

ACS STATION "M-8A" A STANDARD ACS BRASS TABLET STAMPED "M-8A," SET IN TOP OF A CONCRETE POST PROJECTING 0.3 FEET ABOVE GROUND. THE STATION IS LOCATED @ THE INTERSECTION OF MONTGOMERY BLVD. & LOUISIANA BLVD. N.E. IN THE WEST MEDIAN ON MONTGOMERY BLVD. APPROXIMATELY 92 FEET WEST OF CENTERLINE LOUISIANA BLVD.
ELEVATION = 5505.938 FEET (M.S.L.D.)

TEMPORARY BENCHMARK

TOP OF CURB @ ANGLE POINT IN CURB, AS SHOWN.
ELEVATION - 5810.78 FEET (M.S.L.D.)

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY NATERIAL 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.

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, 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 SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
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.

DRAINAGE PLAN

The following items concerning the Phillips Petroleum Drainage Plan are contained hereon:

1. Vicinity Map 2. Grading Plan 3: Calculations

The proposed improvements, as shown by the Vicinity Map, are located on the south side of Montgomery Boulevard and the west side of Louisiana Boulevard. At the present time, the site is fully developed as a service station. All of the surrounding parcels are also developed.

As shown by Plate G-19 of the Albuquerque Master Drainage Study, the site does not lie within a designated Flood Hazard Zone. At the present time, there is a service station and car wash located on the site. The site drains from northeast to southwest into Louisiana Boulevard. There is not any ponding on the site at the present time.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1' 0" intervals, 2) continuity between existing and proposed elevations, 3) the limit and character of the existing improvements and 4) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements consist of a new service station and car wash with associated paving and landscaping. The proposed construction is essentially identical with what currently exists on the site with the exception that there will be slightly less landscaping. However, the existing landscaping is gravel underlaid by plastic. Therefore, the reduction of landscaping does not affect the runoff characteristics of the site. The site will drain to Louisiana Boulevard utilizing as much of the existing asphalt as possible. Since there is no change between the existing and proposed runoff conditions, and no flooding adjacent to the site, then the same drainage scheme of not utilizing ponding is appropriate.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these calculations, the proposed improvements will not result in any increase in runoff discharged from the site. There was no pre-design conference since the site is not being radically altered.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 21:
Embudo, Tijeras EtC
Hydrologic Soil Group B

Rational Method

Discharge: $Q = CiA$
where C varies
$i = P_6 (6.84) T_c^{-0.51} = 5.07$ in./hr
$P_6 = 2.4$ in (DPM Plate 22.2 D-1)
$T_c = 10$ min (minimum)
A = area, acres

Volume: $V = CP_6A(1/12)$
where C varies
$P_6 = 2.4$ in (DPM Plate 22.2 D-1)
A = area, sf

Existing Condition

$A_{total} = 34865$ sf $= 0.80$ Ac
$A_{imp} = 34865$ sf; % impervious =100%
$C = 1.0$ (DPM Plate 22.2 C-1)
$Q_{100} = CiA = 1.0\ (5.07)\ 0.80 = 4.1$ cfs
$V_{100} = CP_6A = 1.0(2.4/12)34865 = 6973$ cf

Developed Condition

$A_{total} = 34865$ sf $= 0.80$ Ac
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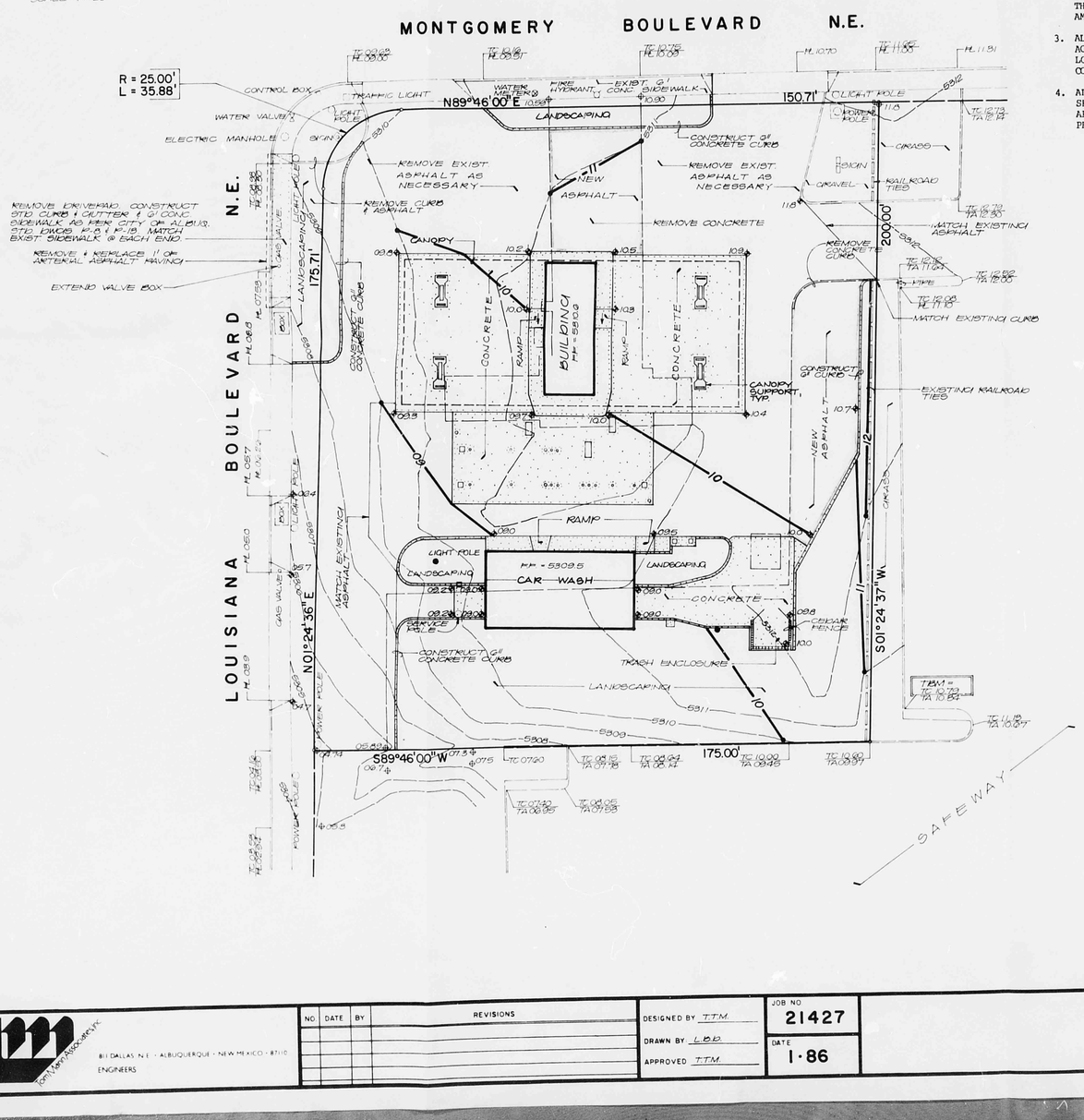
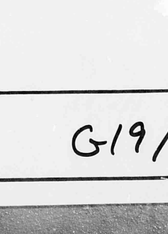
Comparison

$Q_{100} = 4.1 - 4.1 = 0$ cfs no increase
$V_{100} = 6973 - 6973 = 0$ c.f. no increase





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HYDROLOGY SECTION

TRUN MANN ASSOCIATES, P.C.
811 DALLAS N.E. · ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS

NO	DATE	BY	REVISIONS

DESIGNED BY T.T.M.
DRAWN BY L.B.D.
APPROVED T.T.M.

JOB NO 21427
DATE 1·86

GRADING & DRAINAGE PLAN
PHILLIPS PETROLEUM - LOUISIANA

G19/D20

FILE NO

SHEET 1 OF 1

HYDROLOGY

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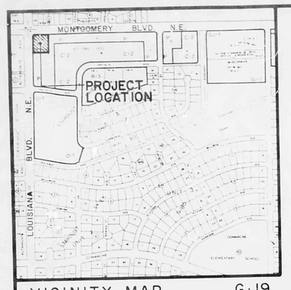

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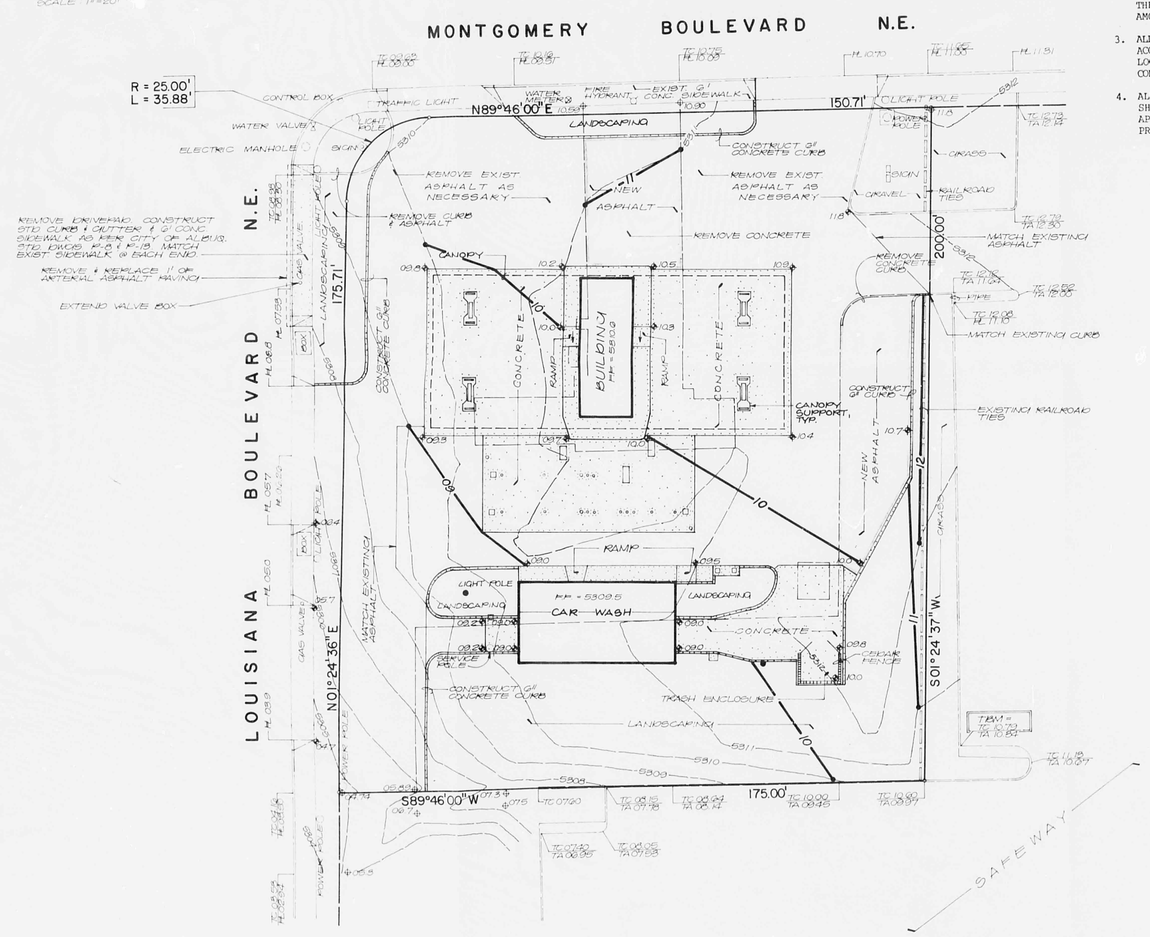

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BOHANNAN-HUSTON INC. ENGINEERS, 8111 DALLAS N.E. - ALBUQUERQUE - NEW MEXICO - 87110	NO. / DATE / BY / REVISIONS	DESIGNED BY TT / DRAWN BY LBD / APPROVED TTM	JOB NO 21427 / DATE 1·86	GRADING & DRAINAGE PLAN PHILLIPS PETROLEUM - LOUISIANA	FILE NO G19/D20 / SHEET 1 OF 1