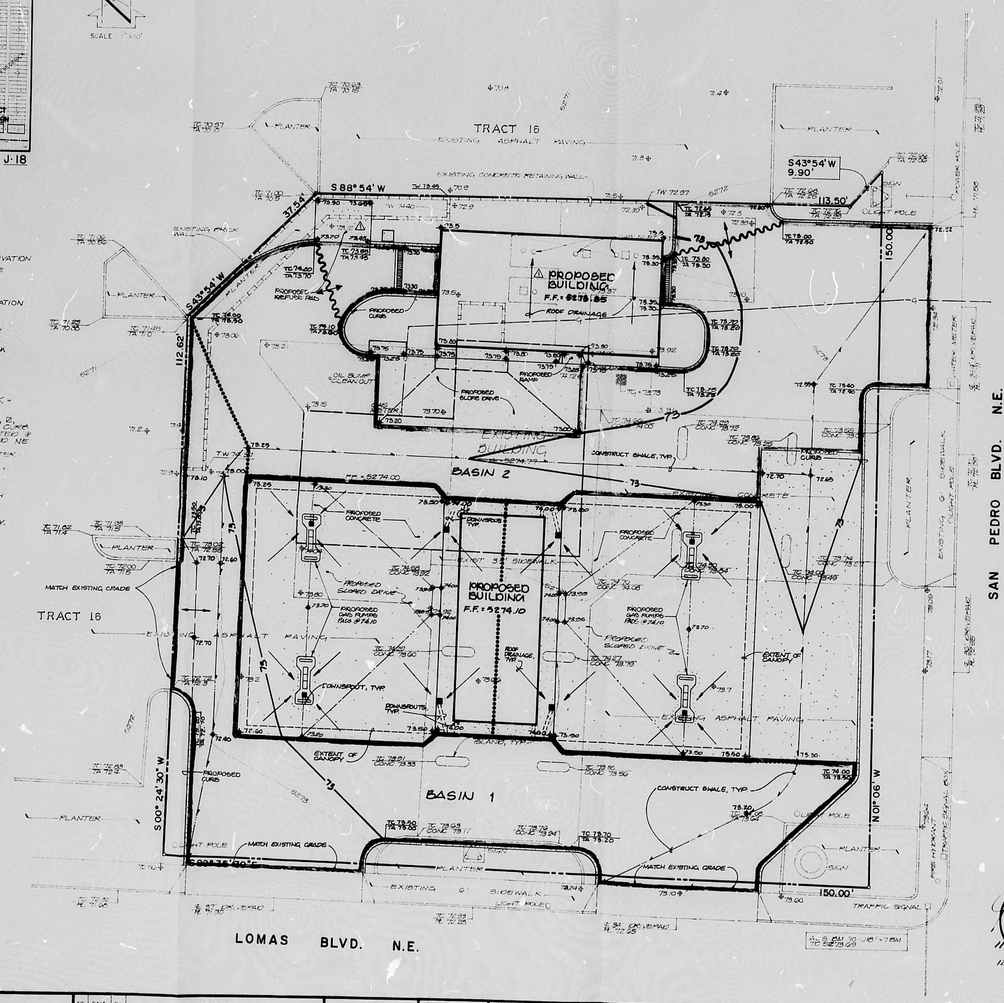
VICINITY MAP J-18
SCALE 1" = 800'

SCALE 1" = 40'



LEGEND

- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING CONCRETE
- EXISTING WALL
- EXISTING CURB
- PROPOSED SPOT ELEVATION
- PROPOSED CONTOUR
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- BASIN BOUNDARY
- PROPOSED WATER BLOCK

TEMPORARY BENCHMARK - PERMANENT BENCHMARK

A.C.S. STATION "8-J18", A SQUARE, 2" CHISELLED ON TOP OF A CONCRETE CURB AT THE INTERSECTION OF LOMAS BLVD. N.E. & SAN PEDRO BLVD. N.E. IN THE NORTHWEST QUADRANT OF THE INTERSECTION.
ELEVATION = 5275.30 FEET

LEGAL DESCRIPTION

A PORTION OF TRACT 16, MILE HIGH ADDITION

NOTE: LEGAL DESCRIPTION DOES NOT CLOSE MATHEMATICALLY.

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL REQUEST LINE LOCATIONS FROM "ONE-CALL" FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE HORIZONTAL, VERTICAL, ELEVATION AND TYPES OF THE HORIZONTAL CONTROL SHALL BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT COULD AFFECT THE DESIGN BY MORE THAN A NOMINAL AMOUNT.
3. ALL WORK ON "PUBLIC" PROJECTS SHALL BE PERFORMED, FURNISHED AND INSTALLED IN ACCORDANCE WITH APPLICABLE CITY REGULATIONS CONCERNING SAFE, SOUND AND ORDERLY CONSTRUCTION.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS" AND "STANDARD DETAILS" OF ALBUQUERQUE.
5. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THE PLANS, OR ARE KNOWN TO EXIST WITHIN THE APPROXIMATE AREA BUT ARE NOT SHOWN ON THE PLANS, THE EXACT LOCATION OF SUCH LINES MAY BE OBTAINED BY CONTACTING THE UTILITY LOCATION SERVICE PROVIDED BY THE OWNER OF EACH UTILITY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL AT LEAST TWO WORKING DAYS BEFORE CONSTRUCTION IS COMMENCED. THE INDICATED LOCATIONS OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER, AND HE ASSUMES NO RESPONSIBILITY OR LIABILITY FOR THE ACCURACY OF SUCH INFORMATION, OR FOR THE EXISTENCE OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE SHOWN OR NOT SHOWN ON THE PLANS, EXACTLY DURING THE PUBLIC UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE LOCATION SERVICE PROVIDED BY THE OWNER OF EACH UTILITY. THE CONTRACTOR SHALL COMPLY WITH STATE LAWS AND REGULATIONS RELATIVE TO THE LOCATION OF THESE UTILITIES.

EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL MATERIAL, EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN THE EXCAVATION LIMITS OF CONSTRUCTION EQUIPMENT SHALL BE ALLOWED TO FALL OR BE TRACKED BEYOND THE SOIL TO FALL IF FROM ELSEWHERE.
2. THE CONTRACTOR SHALL PROVIDE CLEAN UP ANY MATERIAL TRACKED WITHIN THE PUBLIC RIGHT-OF-WAY BY THE EXCAVATED EQUIPMENT. NO DIRT SHALL BE ALLOWED TO REMAIN DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE "STORMWATER DISCHARGE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

DRAINAGE PLAN

The following items concerning the Phillips 66 Gradirg and 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 northwest quadrant of the intersection of Lomas Boulevard N.E. and San Pedro Boulevard N.E. At present, the site is developed, making this a modification to an existing site. Much of the surrounding area is currently developed, therefore this is an infill site. As shown by Plate J-18 of the Albuquerque Master Drainage Study, this site does not lie within a designated Flood Hazard Zone. Also, downstream flooding is not apparent. However, there appears to be a flooding problem located at the intersection of San Pedro Boulevard N.E. and Marble Avenue N.E. The decrease in developed runoff from this site will have a negligible impact on this existing condition. No offsite flows enter this site along the east and south property lines since the existing roads route runoff away from the project site. No offsite flows enter this site from the west property lines since the existing site is graded in a manner which will route runoff away from the project site. Based upon the fact that this site is an infill site and in view of the runoff generated by the proposed improvements, the free discharge of runoff from this site is appropriate. The proposed development will also not adversely impact the existing flooding problem.

The Grading Plan shows 1) existing grades indicated by contours at 1'or' intervals, 2) continuity between existing and proposed grades, 3) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements consist of the removal of the existing building along with adjacent paving and the construction of a new service station building along with adjacent paving and landscaping. Flows generated by Basin 1 will be routed from north to south along the west edge of Lomas B.E. From that point, runoff flows west along the north edge of Lomas Boulevard N.E. to existing storm drain inlets located on the north side of Lomas Boulevard N.E. between San Pedro Boulevard N.E. and Louisiana Drive N.E. Flows generated by Basin 2 will be routes from west to east onto San Pedro Boulevard N.E. From that point, runoff will flow north along the west edge of San Pedro Boulevard N.E. to existing storm drain inlets located at the intersection of San Pedro Boulevard N.E. and Marble Avenue N.E. This pattern is consistent with existing site drainage.

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 to quantify the peak rate of discharge, and the SCS Method has been used to quantify the volume of runoff. Both Methods have been utilized in accordance with the City of Albuquerque Development Process Manual, Volume II, and the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will decrease the discharge by approximately 0.1 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate: 30 (Zo) - Tabudo gravelly fine sandy loam
Hydrologic Soil Group = B
Existing Pervious CN = 70 (DPM Plate 22.2 C-2)
Pasture or Range Land: (fair condition)
Developed Pervious CN = 61 (DPM Plate 22.2 C-2)

Time of Concentration/Time to Peak

$T_c = 0.0078\ L^{0.77}/s^{0.385}$ (Kirpich Equation)

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.36$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CIA$

where C varies
I = P_6 (6.84) $T_c^{-0.51}$ = 4.99 in/hr
P_6 = 2.36 in (DPM Plate 22.2D-1)
T_c = 10 min (Minimum)
A = area, acres

S-2 Method

Volume: $V = 3630\ (DBO)\ A$

Where DBO = Direct runoff in inches
A = area, acres

Existing Condition

Basin 1
Acres = 21,026 sf = 0.48 Ac
Roof Area = 1,000 sf (0.10)
Paved area = 7,100 sf (0.32)
Landscaped area = 13,026 sf (0.05)
C = 0.61 (Weighted average per Emergency Rule, 1/14/86)
Qloc = CIA = (0.61)(4.99)(0.48) = 2.2 cfs
Alog = 9,936 sf; % impervious = 95 %
DPM Plate 22.2 C-2, CP = 96 (DPM Plate 22.2 C-3)
DBO = 1.9 in (DPM Plate 22.2 C-4)
Vloc = 3630 (DBO) A = 3,310 cf

Developed Condition

Basin 1
Acres = 9,026 sf = 0.13 Ac
Roof Area = 1,000 sf (0.02)
Paved area = 7,563 sf (0.11)
Landscaped area = 563 sf (0.01)
C = 0.92 (Weighted average per Emergency Rule, 1/14/86)
Qloc = CIA = (0.45)(4.99)(0.13) = 0.5 cfs
Alog = 8,463 sf; % impervious = 93 %
Composite CP = 96 (DPM Plate 22.2 C-3)
DBO = 1.9 in (DPM Plate 22.2 C-4)
Vloc = 3630 (DBO) A = 700 cf

Developed Condition

Basin 2
Acres = 15,998 sf = 0.36 Ac
Roof Area = 7,150 sf (0.21)
Paved area = 11,478 sf (0.72)
Landscaped area = 1,000 sf (0.07)
C = 0.92 (Weighted average per Emergency Rule, 1/14/86)
Qloc = CIA = (0.92)(4.99)(0.36) = 1.6 cfs
Alog = 14,956 sf; % impervious = 93 %
Composite CP = 96 (DPM Plate 22.2 C-3)
DBO = 1.9 in (DPM Plate 22.2 C-4)
Vloc = 3630 (DBO) A = 2,480 cf

Comparison

Qloc = 2.2 - (0.5 + 1.6) = 0.1 cfs (decrease)
ΔVloc = 3310 - (760 + 2480) = 70 cf (decrease)

NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER
12-12-87

RECEIVED DEC 11 1987 HYDROLOGY SECTION

NO	DATE	BY	REVISIONS
1	11/87	LPU	REVISE GARDEN LAYOUT, GRADES & TRAFFIC ENCLOSURE LOCATION

DESIGNED BY LPU
DRAWN BY TSM
APPROVED JGM

JOB NO. 61522
DATE 11-87

GRADING & DRAINAGE PLAN
PHILLIPS 66 / 6121 LOMAS BLVD. N.E. (#25478)

SHEET 1 OF 1

RM 21 DATE 2453 OF 458
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My Commission Expires MAY 8 1988
Normeta Sanchez

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CITY OF ALBUQUERQUE
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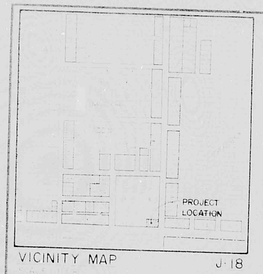
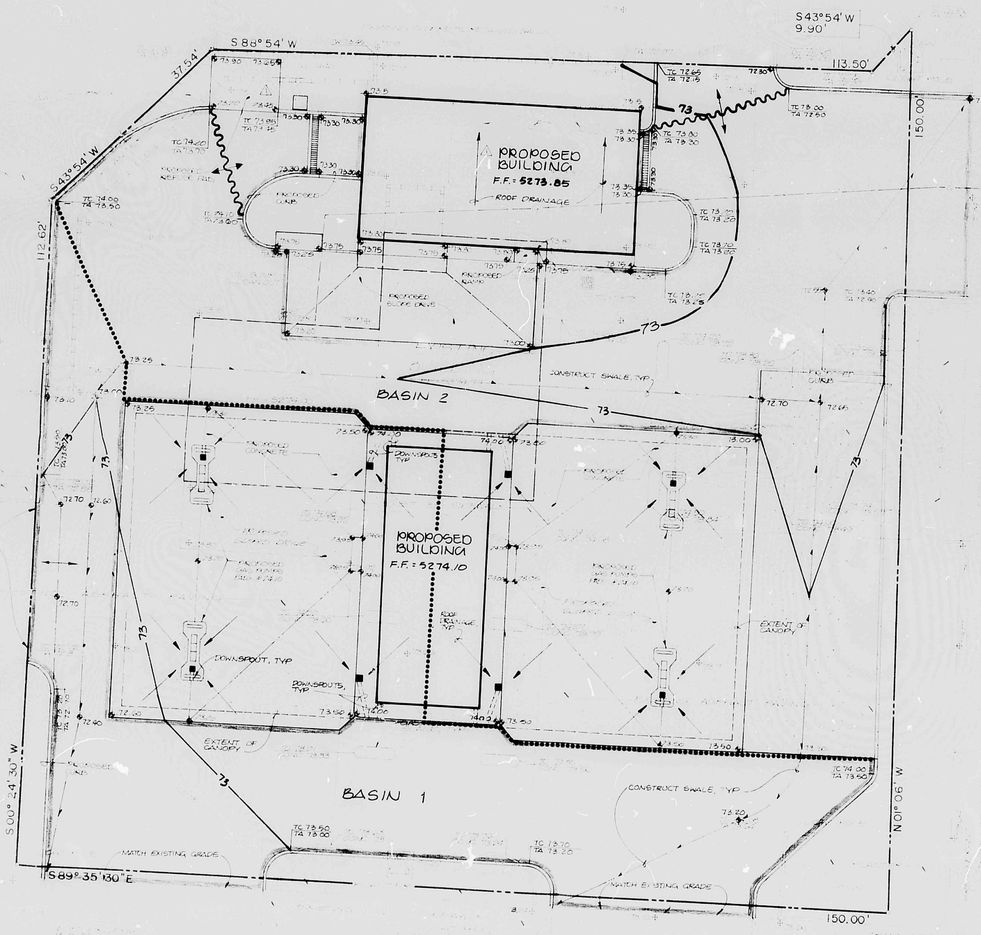
PLANS/PLATS ON FILE
FILE DESC: J-18/0021A
PLANS/PLATS 1

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE C D F



VICINITY MAP J-18



GRADING & DRAINAGE PLAN

PHILLIPS 66 / 6121 LOMAS BLVD. N.E. (# 25478)

61522

11-87

DESIGN PLAN

The following items concerning the Building as Grading and Drainage Plan are contained thereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

The proposed improvements, as shown by the Vicinity Map, are located in the northwest quadrant of the intersection of Lomas Boulevard N.E. and San Pedro Boulevard N.E. At the surrounding area is currently developed, thereby making this an existing site. Map of Bernalillo County Flood Hazard Zone, Area, Downstream Study, this site is not in any designated Flood Hazard Zone. Also, downstream study does not appear to be required. Lomas Boulevard N.E. and Marble Avenue N.E. intersect at the intersection of San Pedro Boulevard N.E. and Marble Avenue N.E. The existing topography of the site slopes from the north and west property lines down to the center of the site. All of the north and west property lines along the east and south property lines are at a higher elevation than the site. Therefore, no off-site flows enter this site from the east or south. The off-site flows enter this site from the north and west property lines along the existing curb and gutter. The proposed development will not increase the existing flooding problem.

The existing flow shows all existing grades indicated by contours at five foot intervals, property lines, existing and proposed drainage, the limit and character of the portions of an existing building along with adjacent paving and the construction of a new building. Building along with adjacent paving and landscaping. Flows generated by paved, landscaped and roof areas are directed to the proposed inlets which are connected to the storm drain in Lomas Boulevard N.E. to existing storm drain and Madeira Drive in Basin 2. Basin 2 is bounded by San Pedro Boulevard N.E. on the East, Lomas Boulevard N.E. from that point, runoff will be routed from west to east into San Pedro Boulevard N.E. to existing storm drain along San Pedro Boulevard N.E. and Marble Avenue N.E. at the inlets located at the intersection of San Pedro Boulevard N.E. and Marble Avenue N.E. This inlets intercept all of the on-site drainage.

The calculations which appear hereon analyze runoff generated by developed conditions for the one-year, six-hour rainfall event. The Rational Method was used to determine the peak flow rates. Both Methods have been used in accordance with the City of Albuquerque Hydrology Section Criteria. The Albuquerque Metropolitan Arroyo Flood Control Authority Rule adopted January 14, 1986. As shown by those calculations, the proposed improvements will increase the discharge by approximately 2.1 cfs.

CALCULATIONS

Ground cover information

From SCS Bernalillo County Soil Survey,
Plates 31, 32 - Tesuque gravelly, fine sandy loam
Hydrologic Soil Group: B
Existing Condition: Pasture or Range Lands (fair condition)
Developed Pervious CN = 69 (DPM Plate 22.2 C-2)

Time of Concentration, Tc or Tlag

$T_c = 0.0078\ (L^{0.77}/S^{0.385})$ (Kirpich Equation)

$T_p = T_c = 10$ Min.

Point Rainfall

$P_6 = 2.16$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CIA$

Where C varies
$I = P_6 \cdot P_d$ (6.84) $I_n = 1.81 = 4.09$ in/hr
$P_d = 2.36$ in (DPM Plate 22.2D-4)
$Q = CIA$ cfs (Rational)
A = area, acres

SCS Method

Volumes: $V = 3630(DRO)\ A$

Where DRO = Direct runoff in inches
A = area, acres

Existing Condition

Basin 1
Area = 21,926 sf = 0.48 Ac
Roof area = 2,100 sf (0.04)
Paved area = 19,826 sf (0.45)
Landscaped area = 1,000 sf (0.06)
$C = \Sigma(A)$ (Weighted average per Emergency Rule, 1/14/86)
$Q(cfs) = CIA = (19.93)(4.99)(0.48) = 0.48$ cfs
Area = 21,926 sf; % impervious = 95 %
Composite CN = 94 (DPM Plate 22.2 C-3)
DRO = 1.9 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)\ A = 2,100$ cf

Developed Condition
Basin 1
Area = 21,926 sf = 0.48 Ac
Roof area = 2,100 sf (0.04)
Paved area = 19,826 sf (0.45)
Landscaped area = 1,000 sf (0.06)
$C = \Sigma(A)$ (Weighted average per Emergency Rule, 1/14/86)
$Q(cfs) = CIA = (19.93)(4.99)(0.48) = 0.48$ cfs
Area = 21,926 sf; % impervious = 95 %
Composite CN = 94 (DPM Plate 22.2 C-3)
DRO = 1.9 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)\ A = 2,100$ cf

Developed Condition
Basin 2
Area = 15,998 sf = 0.36 Ac
Roof area = 3,400 sf (0.23)
Paved area = 11,478 sf (0.72)
Landscaped area = 1,000 sf (0.05)
$C = \Sigma(A)$ (Weighted average per Emergency Rule, 1/14/86)
$Q(cfs) = CIA = (19.93)(4.99)(0.36) = 1.4$ cfs
Area = 14,908 sf; % impervious = 93 %
Composite CN = 94 (DPM Plate 22.2 C-3)
DRO = 1.9 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)\ A = 2,480$ cf

Comparison

$Q_{100} = 2.2 - (0.5 + 1.6) = 0.1$ cfs (Decrease)
$V_{100} = 3910 - (760 - 2480) = 70$ cf (Decrease)

THIS PLAN SHOT TWICE
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