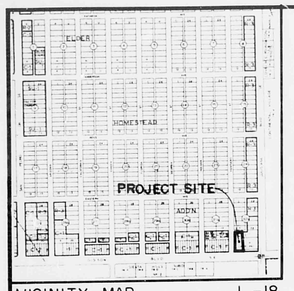
HYDROLOGY

L18/D31

L18 / D31

SKIPPERS SEAFOOD RESTAURANT

1 PLAN



VICINITY MAP L-18

SCALE 1" = 800'

PROJECT BENCHMARK

STATION MARK IS A STANDARD N.M.S.H.C. BRASS TABLET, STAMPED "STA. Q-2". SET IN TOP OF A CONCRETE POST FLUSH WITH THE GROUND. STATION IS LOCATED 5 MILES SOUTHEAST OF DOWNTOWN ALBUQUERQUE, AT THE INTERSECTION OF GIBSON BOULEVARD & LOUISIANA BOULEVARD. TO REACH THE STATION FROM THE INTERSECTION OF CENTRAL AVENUE & LOUISIANA BLVD., GO SOUTH ON LOUISIANA BLVD. 1.2 MILES TO GIBSON BLVD & THE STATION. THE STATION IS LOCATED ON GIBSON BLVD., IN THE CENTER OF THE MEDIAN STRIP.

ELEVATION = 5334.797 FEET (M.S.L.D.)

TBM

TOP OF CURB ELEVATION AT THE ENE CURB RETURN @ THE INTERSECTION OF KENTUCKY STREET S.E. & GIBSON BOULEVARD S.E. AS SHOWN ON THE DRAWING BELOW.

ELEVATION = 5330.83 FEET (M.S.L.D.)

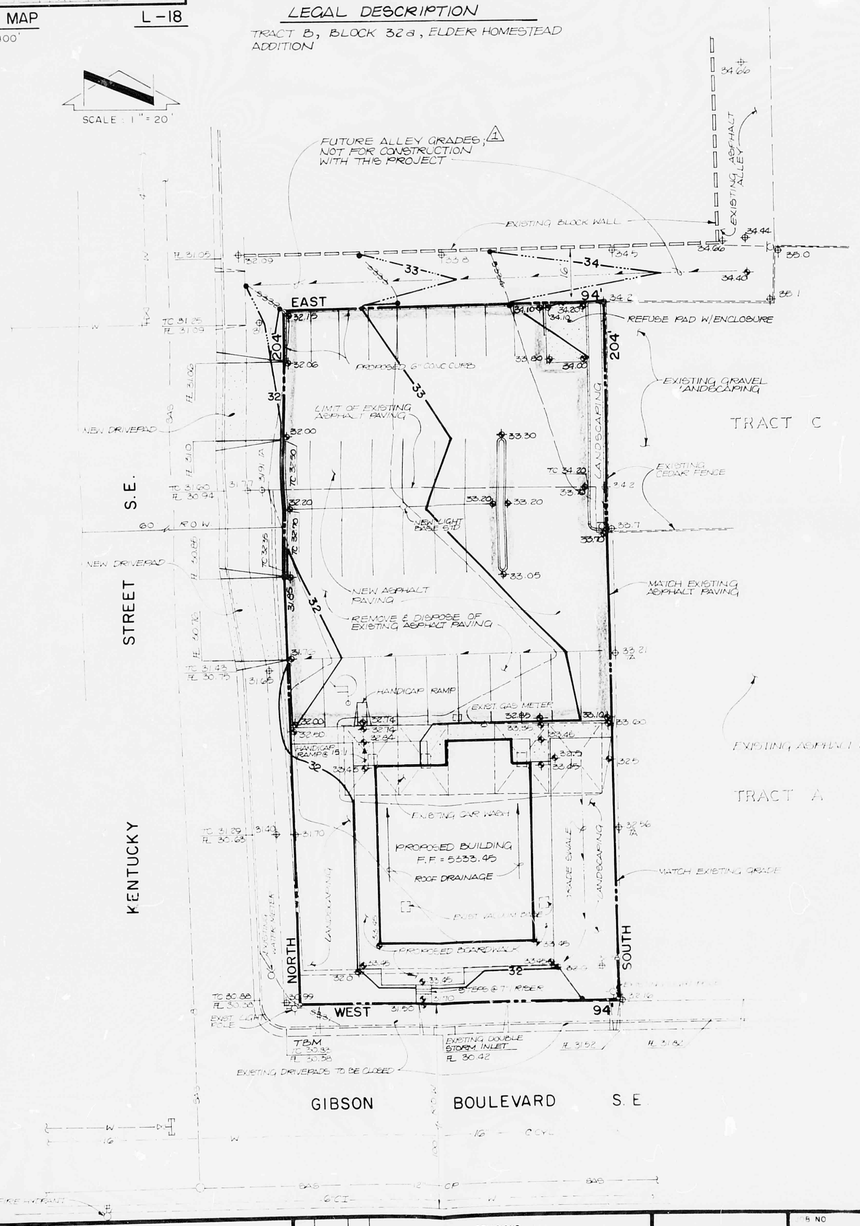
LEGAL DESCRIPTION

TRACT B, BLOCK 32 a, ELDER HOMESTEAD ADDITION

LEGEND

- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- 5334 EXISTING CONTOUR
- 34 PROPOSED CONTOUR
- PROPERTY LINE
- EXISTING WOOD FENCE
- EXISTING BLOCK WALL
- PROPOSED CONCRETE
- EXISTING WATER VALVE

SCALE : 1" = 20'



DRAINAGE PLAN

The following items concerning the Skipper's Restaurant Grading and Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Preliminary Alley Grades
4. Calculations

As shown by the Vicinity Map, the project site is located at the northeast corner of the intersection of Gibson Boulevard S.E. and Kentucky Street S.E. At present, the site is developed as a car wash. The proposed improvements will involve the removal of the existing onsite improvements and the construction of a new Skipper's Restaurant facility complete with building, asphalt parking and landscaping.

As shown by Plate L-18 of the Albuquerque Master Drainage Study, this site lies adjacent to a designated Flood Hazard Zone. It would appear from the existing mapping that the flooding is confined to the street right-of-way. This would indicate that the finished floor must be established at an elevation which is 2' above the corresponding flowline of the existing curb. The flowline of the curb adjacent to the building is approximately 5330.5. The proposed finished floor of the building is 5333.45, which is approximately 3' higher, thereby protecting the structure from potential flooding from the street. The Albuquerque Master Drainage Study also identifies System 206-02A as proposed construction which will eliminate flooding on Gibson Boulevard below the Kirtland Air Force Base detention basin, which is also in place, and on Eastern Avenue, Ross Avenue, Anderson Avenue, Kathryn Avenue, Southern Avenue, Trumbull Avenue and Bell Avenue down to San Mateo Boulevard as stated in the Albuquerque Master Drainage Study. In view of these improvements which are currently in place, the mapped flooding in Gibson Boulevard S.E. does not exist, however, measures have been taken to elevate the structure above the previous floodplain level to comply with the Flood Hazard Ordinance. Lastly, in view of the fact that this is a modification to an existing site, that the existing site is already improved with a high level of imperviousness, that this is an infill site, that the previously mentioned drainage facilities are in place, and that only a minor increase in runoff is anticipated due to the proposed development, the free discharge of runoff from this site is appropriate.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'-0" intervals, 2) the limit and character of the existing and proposed improvements, and 3) continuity between existing and proposed grades. At present, the site drains from east to west into Kentucky Street S.E. Kentucky Street S.E. drains in a southerly direction to Gibson Boulevard S.E. Gibson Boulevard S.E. drains from east to west with its runoff being collected by the storm drainage improvements of System 206-02A. Offsite flows are anticipated in the form of sheetflow from the adjacent site to the east designated on the Vicinity Map as Tract A. These offsite flows are quantified hereon. These flows will be accepted at the property line as sheetflow and conveyed through the site.

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 utilized for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these calculations, a very minor increase in runoff is anticipated due to the proposed development.

PRELIMINARY ALLEY GRADES 1

The alley grades shown hereon are preliminary in nature. They demonstrate that the proposed Skipper's Restaurant can be constructed without adversely impacting the existing alley which lies to the north of the site. At present, that portion of the alley which runs in a north-south direction and lies northeast of the site is already paved and used for access to an existing apartment complex which lies along the west side of Louisiana Boulevard S.E. just south of Eastern Avenue S.E. The west side of this alley is an existing CMU wall which separates the alley and the apartment development from the single-family dwelling units to the west. The east side of the alley is an existing asphalt parking lot to serve the previously mentioned apartments. With these constraints, this portion of the alley is not subject to any substantial changes in grade. Review of that portion of the alley which lies directly north of the subject site indicates that the alley drains directly to Kentucky Street S.E. As shown by the future grades which appear on the grading plan, the alley can attain a grade of approximately 1.6 percent which will enable it to freely drain to the street. These future grades are compatible with the existing grades along the existing CMU wall which lies along the north side of this section of the alley, and the grades proposed for the south edge of the alley for the Skipper's Restaurant. It is recommended that the alley be graded with an inverted section which will serve to protect all properties from any runoff carried within the public alley. Lastly, it should be mentioned that this is the last property along the alley to be developed and that the northerly portions of the alley are currently used for access, as determined by field observation. In conclusion, the proposed development will not adversely impact the ability to grade the adjacent alley.

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.

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 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.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 31:
WeB - Wink-Embudo Complex
Hydrologic Soil Group B

Rational Method

Discharge: $Q = CiA$
where C varies
$i = P_6(6.84)T_c^{-0.51} = 4.98$ in/hr
$P_6 = 2.35$ in (DPM Plate 22.2 D-1)
$T_c = 10$ min (minimum)
A = area, acres

Volume: $V = CP_6A(1/12)$
where C varies
$P_6 = 2.35$ in (DPM Plate 22.2 D-1)
A = area, sf

Existing Condition

$A_{total} = 19{,}176$ sf $= 0.44$ Ac
$A_{imp} = 14{,}100$ sf; % impervious = 74%
'C' = 0.71 (DPM Plate 22.2 C-1)
$Q_{100} = CiA = 0.71(4.98)(0.44) = 1.6$ cfs
$V_{100} = CP_6A = 0.71(2.35/12)(19{,}176) = 2{,}670$ cf

Developed Condition

$A_{total} = 19{,}176$ sf $= 0.44$ Ac
$A_{imp} = 16{,}015$ sf; % impervious = 84%
'C' = 0.78 (DPM Plate 22.2 C-1)
$Q_{100} = CiA = 0.78(4.98)(0.44) = 1.7$ cfs
$V_{100} = CP_6A = 0.78(2.35/12)(19{,}176) = 2{,}930$ cf

Comparison

$\Delta Q_{100} = 1.7 - 1.6 = 0.1$ cfs (increase)
$\Delta V_{100} = 2{,}930 - 2{,}670 = 260$ cf (increase)

Offsite Flows

$A_{total} = 0.5$ Ac ±
% impervious = 90% (estimated)
'C' = 0.86
$Q_{100} = CiA = 0.86(4.98)(0.5) = 2.1$ cfs (sheet flow)

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JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

Fanning / Bard Architects AIA

Skipper's

GRADING AND DRAINAGE PLAN

C1

L18/D31

NO	DATE	BY	REVISIONS
1	8/85	JGM	PROVIDE DISCUSSION OF ALLEY GRADES

DESIGNED BY J.G.M.
DRAWN BY S.G.H.
APPROVED J.G.M.
JOB NO 50941
DATE 8 85

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CITY OF ALBUQUERQUE
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