



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 29, 1994

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

RE: ENGINEER CERTIFICATION FOR 48 UNIT ADDITION TO SUPER 8 MOTEL
& 2500 UNIVERSITY BLVD. NE (H15-D4) CERTIFICATION STATEMENT
DATED 7/21/94.

Dear Mr. Mortensen:

Based on the information provided on your July 22, 1994 submittal, Engineer Certification for the above referenced site is acceptable.

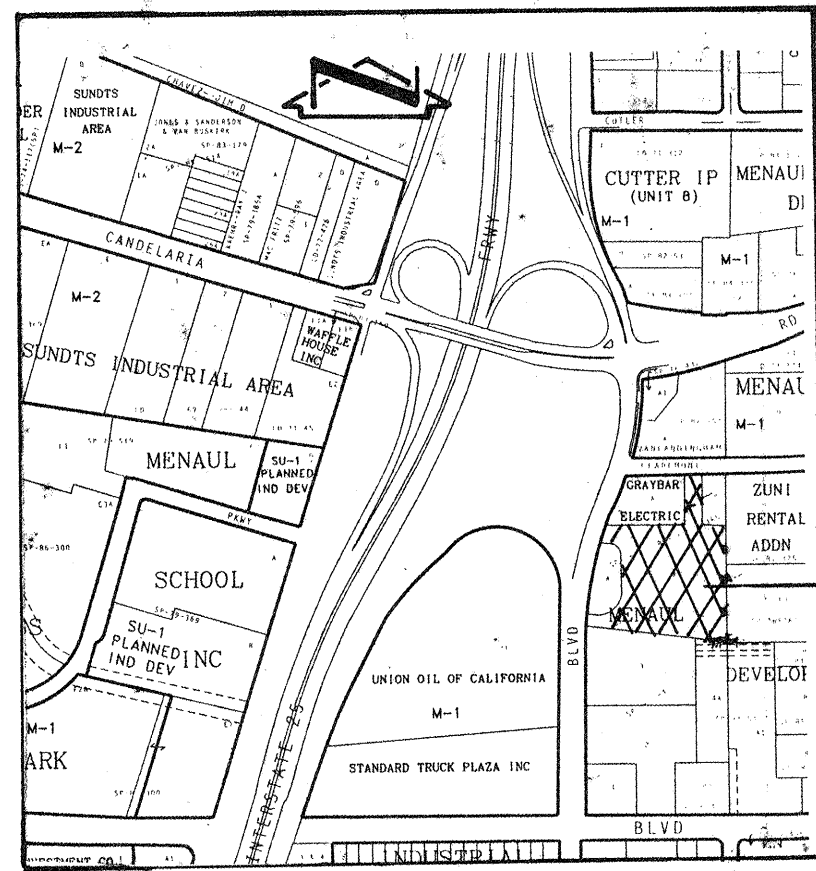
If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya
Bernie J. Montoya, CE
Engineering Associate

BJM/d1/WPHYD/8347

c: Andrew Garcia
File



VICINITY MAP

SCALE: 1" = 750'

CALCULATIONS

Site Characteristics:

- Precipitation Zone 2
- $P_{6,1000} = P_{360} = 2.35$ in
- Total Area (A_T) = 5.49 ac
- Existing Land Treatment

| Treatment | Area (sf/ac) | % |
|-----------|--------------|------|
| B | 71490/1.64 | 29.9 |
| C | 37300/0.86 | 15.7 |
| D | 130530/2.99 | 54.4 |

Developed Land Treatment

| Treatment | Area (sf/ac) | % |
|-----------|--------------|------|
| B | 54260/1.25 | 22.8 |
| C | 23630/0.54 | 09.8 |
| D | 161430/3.7 | 67.4 |

Existing Condition

1. Volume

$$E_W = (E_{PA} + E_{PB} + E_{PC} + E_{PD}) / A_T$$

$$E_W = [(0.78)(1.64) + (1.13)(0.86) + (2.12)(2.99)] / 5.49 = 1.56 \text{ in}$$

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

$$V_{100} = (1.56 / 12) (5.49) = 0.7137 \text{ ac ft} = 31092 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} + Q_{PB} + Q_{PC} + Q_{PD}$$

$$Q_p = Q_{100} = (1.64)(2.28) + (0.86)(3.14) + (2.99)(4.70) = 20.5 \text{ cfs}$$

Developed Condition

$$E_W = (E_{PA} + E_{PB} + E_{PC} + E_{PD}) / A_T$$

$$E_W = [(0.78)(1.25) + (1.13)(.54) + (2.12)(3.7)] / 5.49 = 1.72 \text{ in}$$

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

$$V_{100} = (1.72 / 12) (5.49) = 0.7857 \text{ ac ft} = 34228 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} + Q_{PB} + Q_{PC} + Q_{PD}$$

$$Q_p = Q_{100} = (1.25)(2.28) + (.54)(3.14) + (3.7)(4.7) = 21.9 \text{ cfs}$$

$$Q_{100} = 21.9 \text{ cfs}$$

Comparison

- $\Delta V_{100} = 34228 - 31092 = 3137 \text{ cf (Increase)}$
- $\Delta Q_{100} = 21.9 - 20.5 = 1.4 \text{ cfs (Increase)}$

As Built Treatment

| Treatment | Area (sf/ac) | % |
|-----------|--------------|------|
| B | 54,360/1.25 | 22.8 |
| C | 20,000/0.46 | 08.4 |
| D | 164,960/3.78 | 68.8 |

As Built Condition

1. Volume

$$E_W = (E_{PA} + E_{PB} + E_{PC} + E_{PD}) / A_T$$

$$E_W = [(0.78)(1.25) + (1.13)(0.46) + (2.12)(3.78)] / 5.49 = 1.73 \text{ in}$$

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

$$V_{100} = (1.73 / 12) (5.49) = 0.7924 \text{ ac ft} = 34,515 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} + Q_{PB} + Q_{PC} + Q_{PD}$$

$$Q_p = Q_{100} = (2.28)(1.25) + (3.14)(0.46) + (4.70)(3.78) = 22.1 \text{ cfs}$$

As Built v.s. As Designed Comparison

- $\Delta V_{100} = 34,515 - 34,228 = 287 \text{ cf (Increase)}$
- $\Delta Q_{100} = 22.1 - 21.9 = 0.2 \text{ cfs (Increase)}$

PROJECT BENCHMARK

NMSHC BRASS TABLET STAMPED "STA 1-40-12"

LOCATED IN THE CENTER OF THE MEDIAN OF

MENAU BLVD. @ THE CROSSING OF THE

AMAFCA NORTH DIVERSION CHANNEL.

ELEVATION IN FEET = 5114.549

T.B.M.

LOCATED NEAR THE NORTHEAST PROPERTY

CORNER TOP OF SPIKE IN POWER POLE

ELEVATION IN FEET = 5086.28

LEGAL DESCRIPTION

PARCEL "B" OF THE MENAU

DEVELOPMENT AREA

SURVEY DATA

SURVEY DATA PROVIDED BY D.T. MORRISON

NMLS. NO. 1010, FEBRUARY & JULY 1985

LEGEND

- TC TOP OF CURB
- TA TOP OF ASPHALT
- FLOW LINE
- PROPOSED CONTOUR
- NEW ASPHALT PAVEMENT
- EXISTING CONTOUR
- ROOF DRAINAGE
- PROPOSED SPOT ELEVATION

DRAINAGE PLAN

The following items concerning the 48-unit Addition to the Super 8 Motel Grading and Drainage Plan are contained hereon:

- Vicinity Map
- Grading Plan
- Calculations

As shown on the Vicinity Map, the site is located east of University Boulevard N.E., south of Claremont Avenue N.E. At present, the site contains an existing motel which will be expanded. Further improvements to the site will consist of new asphalt paving with some associated landscaping. Free discharge is appropriate since the site is an infill site, is already developed, and it maintains its historical drainage pattern, per the plan prepared by Chavez-Grievies & Associates dated 8/5/85.

As shown on Panel 23 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps for the City of Albuquerque, New Mexico, dated October 14, 1983, this site does not lie within a designated flood hazard zone. A flood hazard zone designated A0 (Depth 1) lies approximately 750 feet south of the site. At present, the site drains onto University Boulevard via the southwest entrance to the motel. The downstream flooding, however, is currently being relieved by the Menaul/Mildred storm drain improvements which is under construction.

The Grading and Drainage Plan shows: 1) existing and proposed grades indicated by spot elevations and contours at 1'0" and 2'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. The developed site will be characterized as one basin which will drain to University Boulevard N.E. No flows will encroach the site from the east since the site is topographically higher on that side. Flows from the north side of the site will continue to flow in their historical pattern. This flow is minimal (approximately 0.32 cfs per the Grading and Drainage Plan prepared by Chavez-Grievies and Associates dated 8/5/85). The south side is also topographically higher than the adjacent site and onsite curbing conveys onsite flows to the west onto University Boulevard, which is topographically lower than the site.

The calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 24-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, the proposed development will result in a small increase in runoff generated.

DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, the Super 8 Motel 48-unit addition has been constructed in substantial conformance with the intent of the approved Grading & Drainage Plan. Certain modifications have been made by change order and contractor discretion. Although these changes represent significant alterations to the approved design, the intent of the plan has been preserved. The additional paved parking has been created for cars at the south end of the project, while additional paved parking for trucks has been created at the north end of the project. The additional impervious area results in a slight increase in peak discharge as calculated hereon. As previously stated, the intent of the plan has been preserved. It is based upon this review and analysis that issuance of a Permanent Certificate of Occupancy is hereby recommended.

Jeffrey S. Mortensen 07-21-94
Date



AS-BUILT FLOWLINE

CONCRETE VALLEY GUTTER



Jeff Mortensen & Associates, Inc.
6010 S. MIDWAY PARK BLVD. NE
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS SURVEYORS (SOS) 345-4250
940131

940133

Kevin Georges & Associates
Architecture & Planning

127 Jefferson Street NE - Suite A Albuquerque, New Mexico 87108-1216 505/265-4976

Construction Notes:

- Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990, for location of existing utilities.
- 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.
- 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.
- All construction within public right-of-way shall be performed in accordance with applicable Bernalillo County Standards and Procedures.
- 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.
- The design of planters and landscaped areas is no 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:

- The contractor shall ensure that no soil erode from the site into public right-of-way or onto private property. This can be achieved by constructing temporary berms at the property line and wetting the soil to keep it from blowing.
- 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.
- The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.



48 Unit Addition To
Super 8 Motel
2500 University Boulevard NE
Albuquerque, New Mexico

Project Title

Drawn By _____ Checked By _____

Proj. No. _____ Date _____

AS BUILT & CERTIFY JGM 07/94

Revisions Architect Engineer

Sheet Title Sheet of

C2

GRADING AND DRAINAGE PLAN

1" = 40'

