

PROJECT TITLE: 214 ALCAZAR SE ZONE ATLAS/DRNG. FILE #: K19/104
DRB #: _____ EPC #: _____ WORK ORDER #: _____
LEGAL DESCRIPTION: LOT 10, BLOCK 11, LA MESA NO. 2
CITY ADDRESS: 214 ALCAZAR STREET SE.
ENGINEERING FIRM: JEFF MORTENSEN & Assoc. CONTACT: GARY BITTNER
ADDRESS: 6010 B MIDWAY PARK BLVD NE PHONE: 345-4250
OWNER: SHEDS Plus CONTACT: ENGINEER
ADDRESS: 10620 CENTRAL AVE SE PHONE: _____
ARCHITECT: BILL BURK CONTACT: BILL BURK
ADDRESS: 9617 LA PLAYA NE PHONE: 292-6566
SURVEYOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____
CONTRACTOR: NOT SELECTED CONTACT: _____
ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION
☐ OTHER

PRE-DESIGN MEETING:

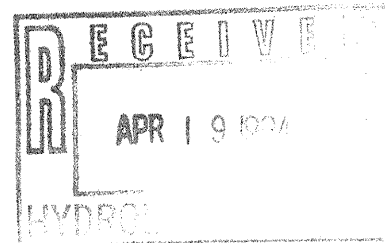
- ☐ YES
☒ NO
☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☒ GRADING PERMIT APPROVAL
☒ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 4/19/94
BY: GARY R. BITTNER

8496





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 2, 1994

Gary Bittner
Jeff Mortensen & Assoc.
6010-B Midway Park Blvd NE
Albuquerque, N.M. 87109

RE: GRADING & DRAINAGE PLAN FOR 214 ALCAZAR SE (K-19/D104)
RECEIVED APR 19 1994 FOR BUILDING & G/P PERMIT APPROVAL
ENGINEER'S STAMP DATED 04-19-94

Dear Mr. Bittner:

Based on the information included in the submittal referenced above, City Hydrology approves this project for Building Permit. A separate Grading/Paving Permit is not required with a Building Permit.

Include a copy of the approved Grading & Drainage Plan in the set of construction document that will be submitted to the "one stop" for the Building Permit.

Engineer's Certification of grading & drainage per DPM checklist must be approved before any Certificate of Occupancy will be released.

If you have any questions about this project, You may contact mew at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer/Hydrology

c: Andrew Garcia

WPHYD/8496/jpc

LEGAL DESCRIPTION

LOT 10, BLK 11, LA MESA
No. 2

PROJECT BENCHMARK

A STANDARD ACS BRASS CAP SET IN CONCRETE
MARKED "7-K19, 1974, ACS" LOCATED IN THE NOSE
OF THE EAST MEDIAN OF CENTRAL AVENUE AT THE
INTERSECTION OF LOUISIANA BOULEVARD AND
CENTRAL AVENUE.
ELEV. = 5323.308 FEET (M.S.L.D.)

T. B. M.

A " " CHISELED IN TOP OF CONCRETE
CURB @ SOUTH END OF EXISTING DRIVEPAD
@ NW CORNER OF 214 ALCAZAR S.E.
ELEV. = 5326.61 FT (MSLD)

DRAINAGE PLAN

The following items concerning the 214 Alcazar S.E. Drainage Plan are contained herein:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the vicinity Map, the site is located on the east side of Alcazar S.E. between Central Avenue S.E. and Zuni Avenue S.E. At present, the site is partially developed. The proposed development of the site consists of an office building addition and paving of the parking area adjacent to the building. Much of the surrounding area is also developed, making this a modification to an existing site within an infill area.

As shown by Panel 30 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps for the City of Albuquerque, dated October 14, 1983, this site does not lie within a designated flood zone. Flooding is designated within Central Avenue north of the site, and Zuni Avenue south of the site. This site does contribute runoff to these designated flood hazard zones. These zones have been removed through the implementation of improvements presented in the "Restudy of the Albuquerque Master Drainage Study, Volume 2" prepared by Bohannan-Huston, Inc. 1987. Furthermore, this site contributes runoff to the Fairgrounds Stormwater Collection System which is a designated flood hazard area in the neighborhood surrounding New Mexico State Fair Property. It is based upon the removal of the floodplain, combined with the fact that this is a modification to an existing site within an infill area, that the free discharge of runoff from this site is still 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. The site is currently developed with a 10' wide, 12' high, concrete graded parking area. The proposed improvements include an office building expansion and paving of the parking area. As shown by this plan, the site currently drains from east to west with free discharges onto Alcazar Street S.E. The proposed improvements will not alter this existing drainage pattern. The proposed improvements will solve the erosion problem on Alcazar Street S.E., relieving the public maintained storm drain system from sedimentation.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-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.

Site Characteristics

1. Precipitation Zone = 3
2. $P_{6,100} = P_{360} = 2.60$ in.
3. Total Area (A_T) = 0.16 acre
4. Existing Land Treatment

<u>Treatment</u>	<u>Area (sf/ac)</u>	<u>%</u>
C	6,600/0.15	94.3
D	400/0.01	5.7

- ## 5. Developed Land Treatment

<u>Treatment</u>	<u>Area (sf/ac)</u>	<u>%</u>
B	350/0.01	5.0
C	2,100/0.05	30.0
D	4,550/0.10	65.0

Existing Condition

1. Volume

$$\begin{aligned} E_W &= (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T \\ E_W &= (1.29(0.15) + 2.36(0.01)) / 0.16 = 1.36 \\ V_{100} &= (E_W / 12) A_T \\ V_{100} &= (1.36 / 12) 0.16 = 0.018 \text{ ac.ft.}; 780 \text{ cf} \end{aligned}$$

- ## 2. Peak Discharge

$$\begin{aligned} Q_p &= Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D \\ Q_p &= Q_{100} = 3.45(0.15) + 5.02(0.01) = 0.6 \text{ cfs} \end{aligned}$$

Developed Condition

1. Volume

$$\begin{aligned} E_W &= (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T \\ E_W &= (0.92(0.01) + 1.29(0.05) + 2.36(0.10)) / 0.16 = 1.94 \\ V_{100} &= (E_W / 12) A_T \\ V_{100} &= (1.94 / 12) 0.16 = 0.026 \text{ ac.ft.}; 1,130 \text{ cf} \end{aligned}$$

- ## 2. Peak Discharge

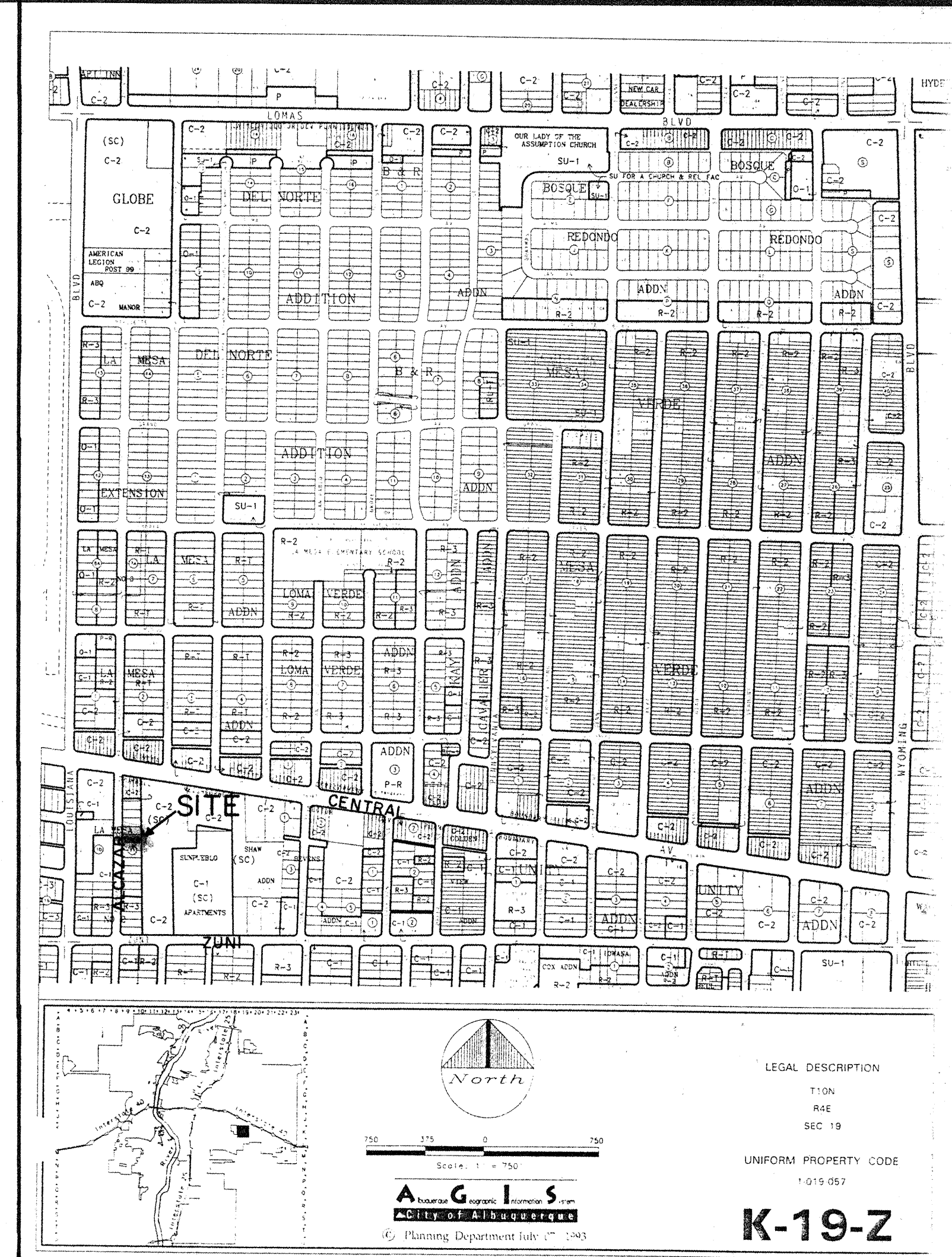
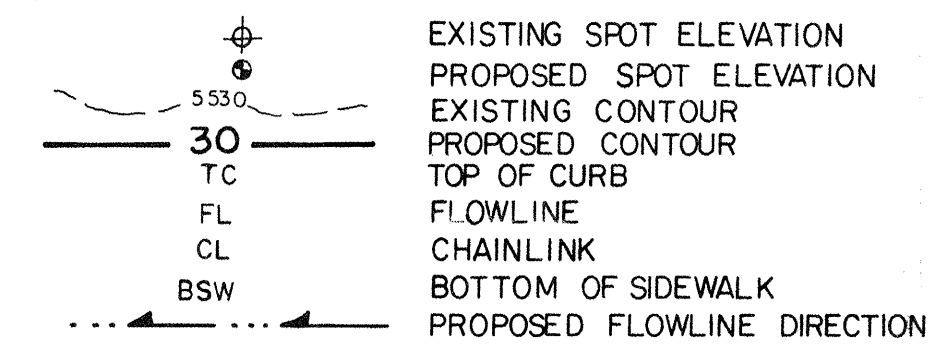
$$Q_p = Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D$$

$$Q_p = Q_{100} = 2.60(0.01) + 3.45(0.05) + 5.02(0.10) = 0.7 \text{ cfs}$$

Comparison

1. $\Delta V_{100} = 1,130 - 780 = 350 \text{ cf (increase)}$
2. $\Delta Q_{100} = 0.7 - 0.6 = 0.1 \text{ cfs (increase)}$

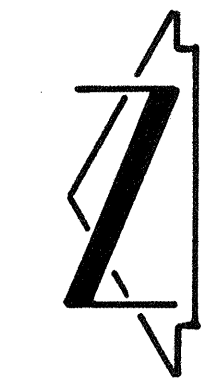
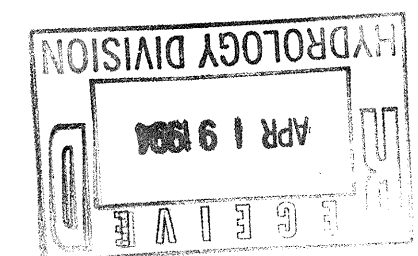
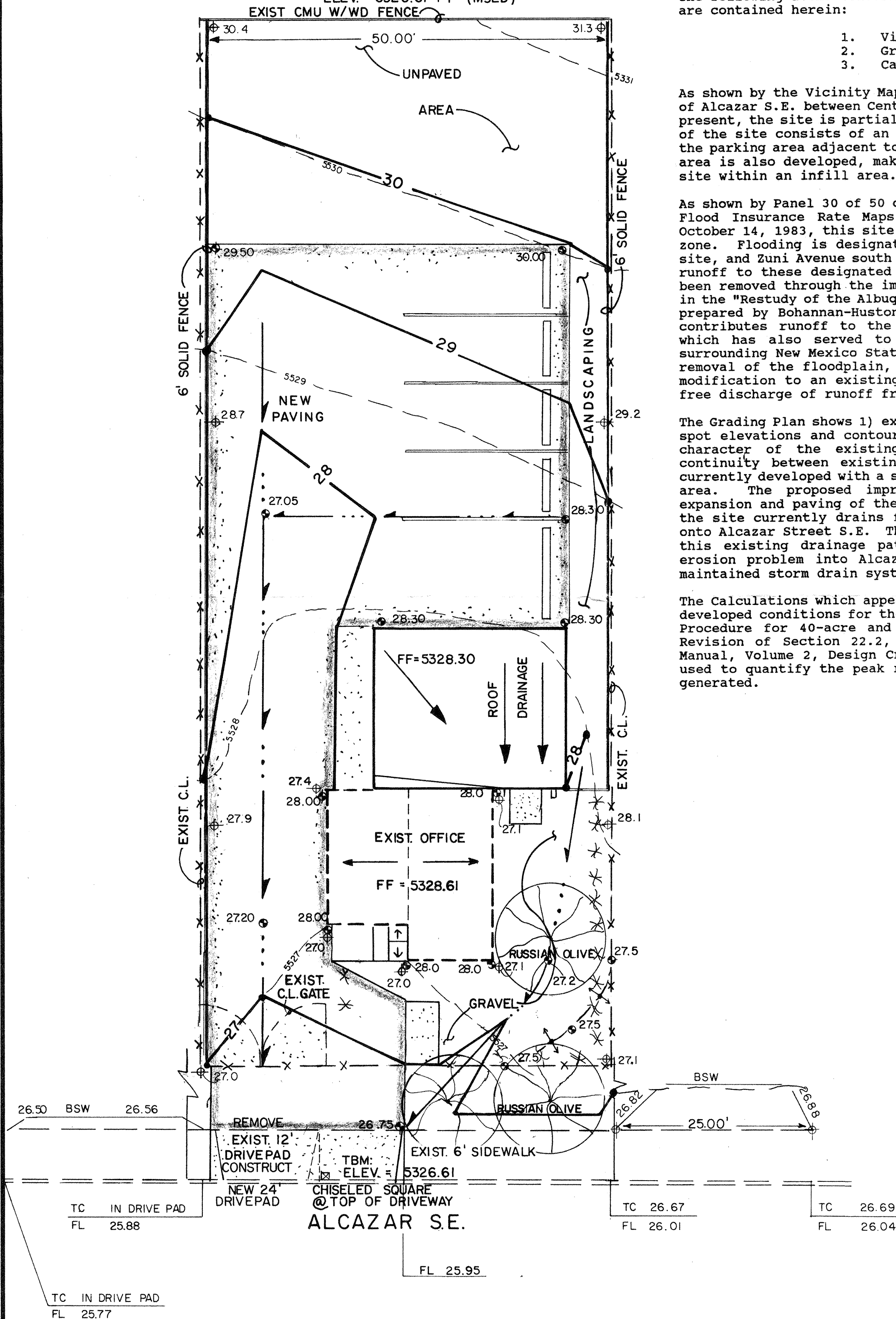
LEGEND



VICINITY MAP

Erosion Control Measures:

1. Two (2) working days prior to any excavation, the contractor must contact New Mexico One Call System 260-1990, 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 in writing 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.
5. 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.
6. The design of planters and landscaped areas is not 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.


$$1'' = 10'$$


GRADING AND DRAINAGE PLAN
214 ALCAZAR S.E.



JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

DESIGNED BY <u>J.G.M.</u> DRAWN BY <u>C.J.H.</u> APPROVED BY <u>J.G.M.</u>	NO.	DATE	BY	REVISIONS	JOB NO.
					940321
					DATE
					04/94
					SHEET OF