



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 1, 1993

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

RE: GRADING/PAVING PLAN FOR ARNO BUILDING (K-14/D55) REVISION DATED
8/23/93.

Dear Mr. Mortensen:

Based on the information provided on your August 23, 1993 resubmittal, the above referenced site is approved for Grading/Paving.

Engineer Certification per the D.P.M. checklist will be required after paving has been completed.

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

Sincerely,

Bernie J. Montoya, CE
Engineer Associate

BJM/ses/WPHYD7948

xc: Alan Martinez
File

PUBLIC WORKS DEPARTMENT

DRAINAGE INFORMATION SHEET

930581

PROJECT TITLE: ARNO BUILDING ZONE ATLAS/DRNG. FILE #: K14/D55

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: PORTION OF LOT 3, BLK 9, HUNING HIGHLAND

CITY ADDRESS: ARNO SE ADDITION

ENGINEERING FIRM: JEFF MORTENSEN & ASSOC. CONTACT: JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250

OWNER: HIGHLAND MEDICAL SUPPLY CONTACT: BILL HAYMAN

ADDRESS: 300 CENTRAL SE PHONE: 243-5664

ARCHITECT: MAHLMAN & MILLS CONTACT: DAVID RITCHIE

ADDRESS: 414 1/2 CENTRAL SE PHONE: 243-0101

SURVEYOR: JEFF MORTENSEN & ASSOC CONTACT: JEFF MORTENSEN

ADDRESS: 6010-B MIDWAY PARK BLVD NE PHONE: 345-4250

CONTRACTOR: NOT KNOWN 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:

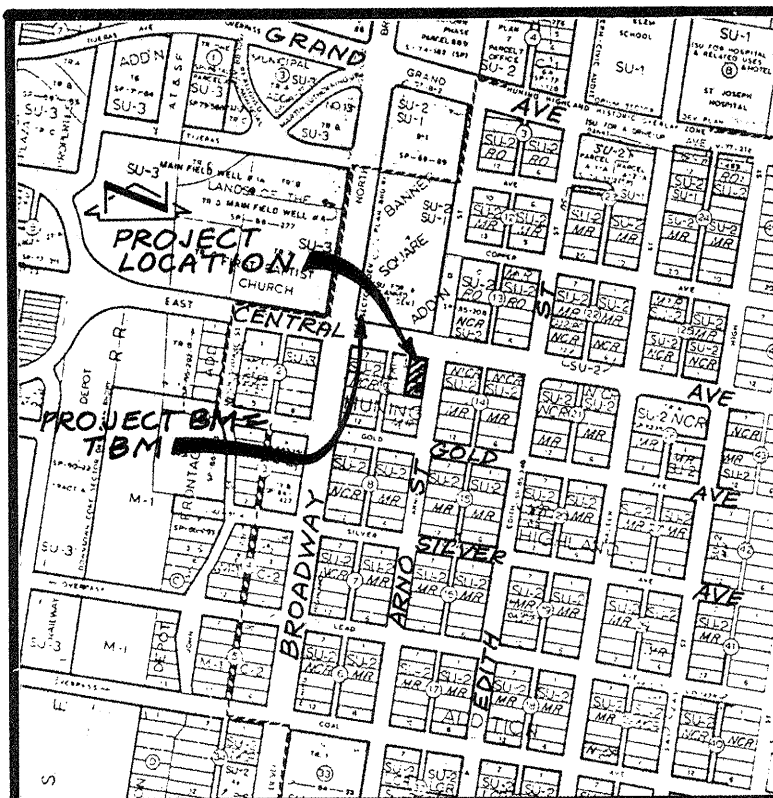
- ☐ SKETCH PLAT APPROVAL
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY APPROVAL
- ☐ GRADING PERMIT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

DATE SUBMITTED:

08/23/93

BY:

JEFFREY G. MORTENSEN



VICINITY MAP
SCALE: 1"=800' (APPROX.)

LEGAL DESCRIPTION:
EASTERLY 92' OF LOT 3, BLOCK 9, HUNING
HIGHLAND ADDITION, ALBUQUERQUE.

PROJECT BENCHMARK = TBM:
STATION 13A STANDARD C.O.A. DISK
STAMPED "6-K14(R) ACS," SET IN THE
SIDEWALK, LOCATED AT THE N.E. QUADRANT
OF THE INTERSECTION OF CENTRAL AVE.
AND BROADWAY.
ELEVATION = 4968.765 FEET (M.S.L.D.)

LEGEND

- EXIST. SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXIST. CONTOUR
- PROPOSED CONTOUR
- EXIST. FLOWLINE
- PROPOSED FLOWLINE
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- TC TOP OF CURB/TOP OF CONCRETE
- TA TOP OF ASPHALT
- FL FLOWLINE

The following items concerning the Arno Building Drainage Plan are contained hereon:

DRAINAGE PLAN

- Vicinity Map
- Grading Plan
- Calculations

As shown by Panel 28 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 hazard zone. Review of this map does not indicate that the site contributes runoff to a designated flood hazard zone. As stated above, the site drains from east to west to retain its runoff at the southwest corner of the site. It is proposed to freely discharge the runoff from this site onto the westerly portion of the lot. From this point, runoff will flow in a southwesterly direction over adjacent lands of Highland Medical Supply, the owner of this property. The right to drain in this manner was established in 1990 per the owner's signature which appears on the attached plan. A public alley conveys the runoff south to Gold Avenue S.E. which drains west to Broadway Boulevard S.E. Broadway Boulevard S.E. drains to the north with runoff eventually flowing to the Central Avenue underpass where runoff is collected by public storm drain facilities which drain to the Central Pumping Station No. 27. This represents the outfall for this site.

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 improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. As shown by this plan, the proposed improvements consist of the construction of a parking lot on currently undeveloped land. Adjacent sites are developed, making this an infill site. As stated above, the runoff generated by this parking lot and its associated landscaping will drain to the west and onto the westerly portion of Lot 3. From this point, the runoff will follow its existing drainage course to Broadway Boulevard S.E. This proposed drainage pattern is consistent with the existing drainage pattern and will eliminate the retention of runoff as currently exists on the property. Due to the relative small size of the project, the fact that this is an infill site, and the negligible increase in runoff, the free discharge of runoff from this site is appropriate.

The Calculations which appear hereon analyze the existing and developed conditions for the 100-year, 6-hour rainfall event. Calculations have been performed for Basin A which is the easterly 92' of Lots 1 and 2, and Basin B which is the easterly 92' of Lot 3, the project site. 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 August, 1991, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these calculations, the runoff generated by Basin A will experience no increase or decrease due to the fact that no construction is proposed within that Basin. The calculations do demonstrate a minor increase in runoff generated by the project site. The increased runoff, as stated above, will continue to flow in its historic path to Broadway Boulevard S.E. Offsite flows do not impact this property. The runoff within Arno Street appears to be contained within that public right-of-way. The adjacent properties to the south and west are topographically lower. The adjacent property to the north is currently developed and discharges its runoff to Central Avenue.

CALCULATIONS

Site Characteristics

- Precipitation Zone 2
- $P_{6,100} = P_{360} = 2.35"$
- Total Area (A_T) 0.32 Acres
- Existing Land Treatment

A. Basin A

Treatment	Area (sf/ac)	%
D	9,200/0.21	100

B. Basin B

Treatment	Area (sf/ac)	%
C	4,300/0.10	93
D	300/0.01	07

5. Developed Land Treatment

A. Basin A

Treatment	Area (sf/ac)	%
D	9,200/0.21	100

B. Basin B

Treatment	Area (sf/ac)	%
B	1,000/0.03	22
D	3,600/0.08	78

Existing Condition

A. Basin A

1. Volume

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = (2.12)(0.21) / 0.32 = 1.39"$$

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

$$V_{100} = (1.39 / 12) 0.32 = 0.0371 \text{ ac.ft.}; 1,650 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = (4.70)(0.21) = 0.99 \text{ cfs}$$

B. Basin B

1. Volume

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = (2.13)(0.10) + (2.12)(0.01) / 0.32 = 0.42"$$

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

$$V_{100} = (0.42 / 12) 0.32 = 0.0112 \text{ ac.ft.}; 500 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = (3.14)(0.10) + (4.70)(0.01) = 0.37 \text{ cfs}$$

Developed Condition

A. Basin A

Values for Peak Discharge and Volume for the Developed Condition are the same as the Existing Condition

B. Basin B

1. Volume

$$E_w = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$$

$$E_w = (0.78)(0.03) + (2.12)(0.01) / 0.32 = 0.61"$$

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

$$V_{100} = (0.61 / 12) 0.32 = 0.0163 \text{ af}; 750 \text{ cf}$$

2. Peak Discharge

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = (2.28)(0.03) + 4.70(0.08) = 0.45 \text{ cfs}$$

Comparison

A. Basin A

- $\Delta V_{100} = 1,650 - 1,650 = 0.0$ (No Change)
- $\Delta Q_{100} = 0.99 - 0.99 = 0.0$ (No Change)

B. Basin B

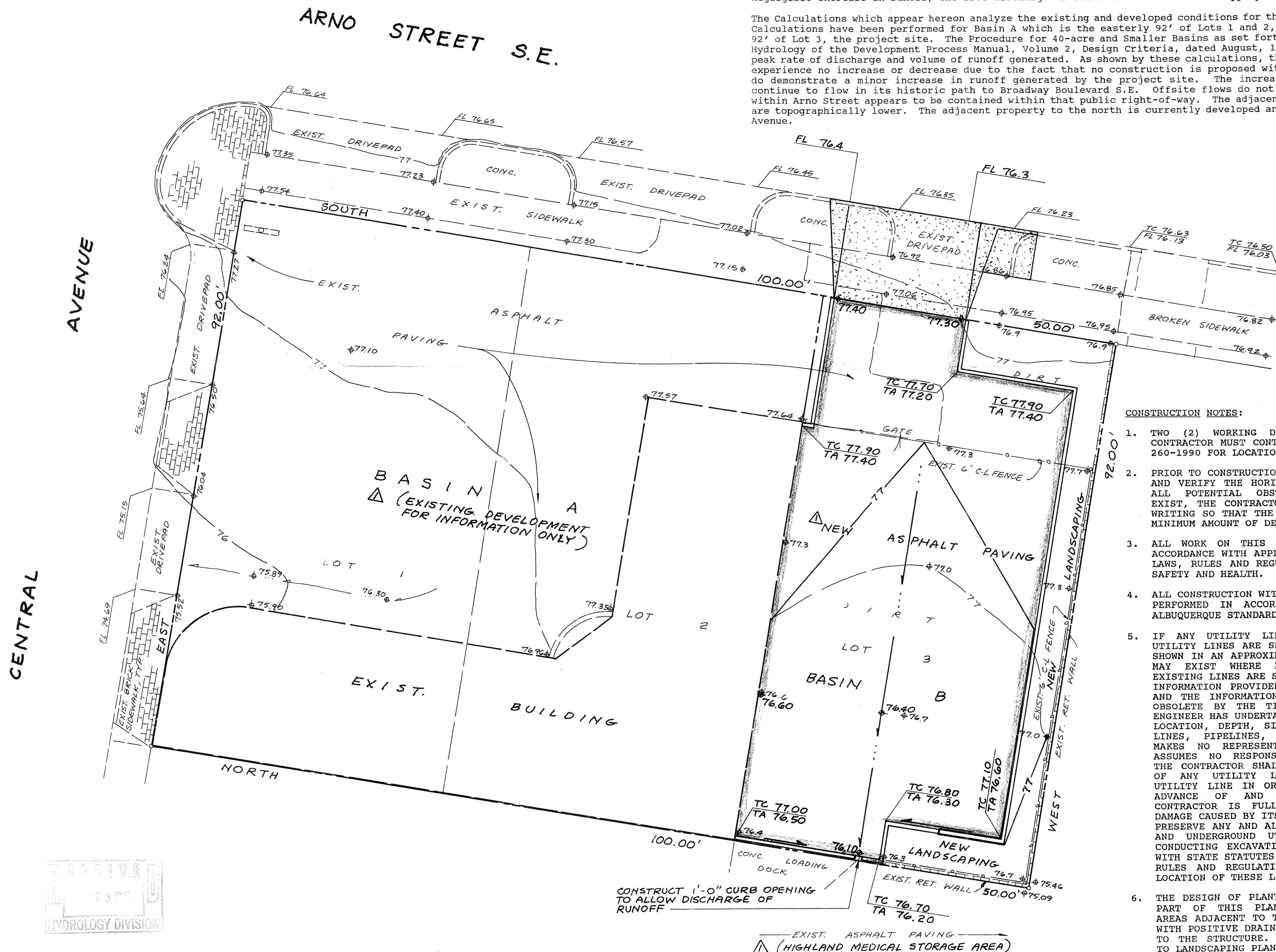
- $\Delta V_{100} = 750 - 500 = 250 \text{ cf}$ (increase)
- $\Delta Q_{100} = 0.45 - 0.37 = 0.08 \text{ cfs}$ (increase)

EROSION CONTROL MEASURES

- 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.
- 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.

CONSTRUCTION NOTES:

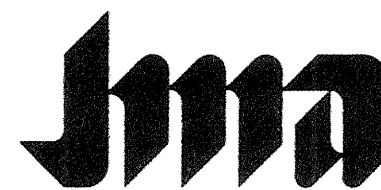
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, 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 CITY OF ALBUQUERQUE 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 UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, 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 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.



EXIST. ASPHALT PAVING
(HIGHLAND MEDICAL STORAGE AREA)

GRADING & DRAINAGE PLAN

ARNO BUILDING



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

DESIGNED BY	NO.	DATE	BY	REVISIONS	JOB NO.
JGM	1	08/93	JGM	REVISE TEXT AND PROPOSED GRADES; CLARIFY STATUS OF ADJACENT PROPERTIES	930581
DRAWN BY					DATE
CEN					06 - 1993
APPROVED BY					SHEET
JGM					1 OF 1

