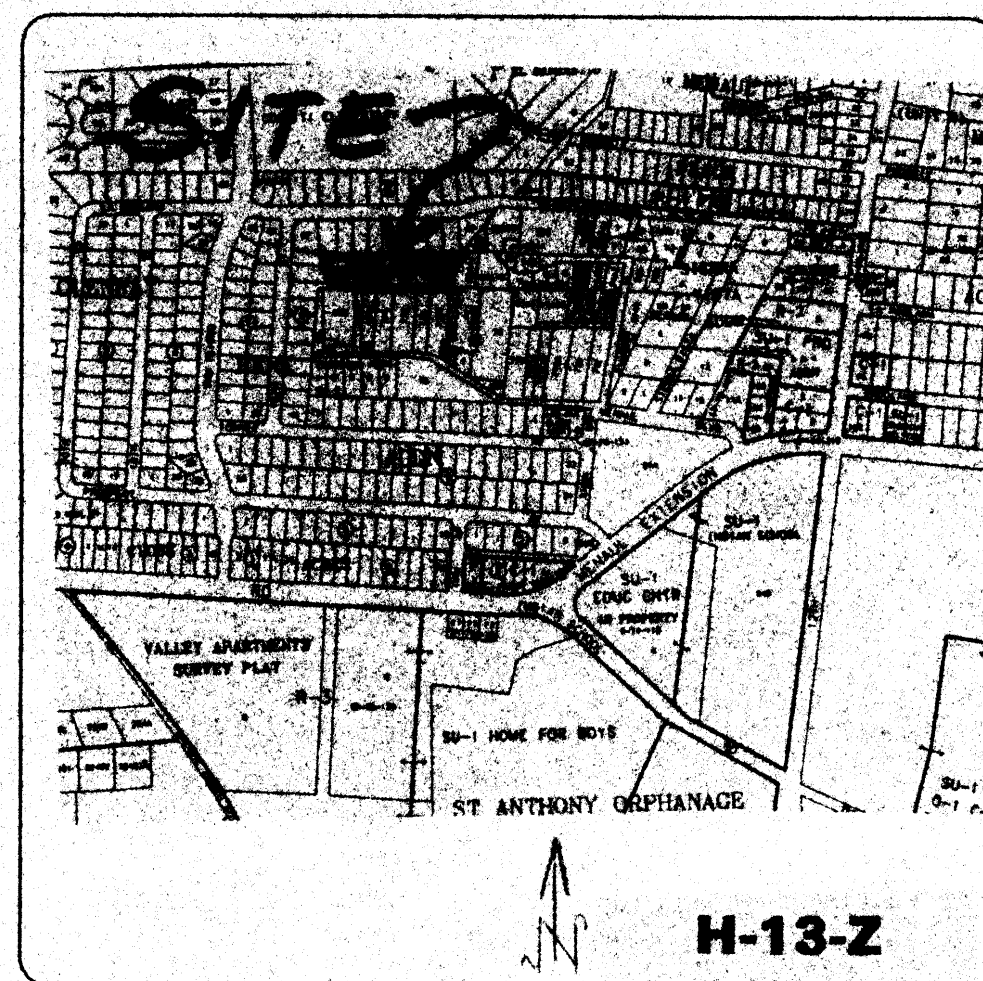




VICINITY MAP
N.T.S.

IMPORTANT NOTE:

1. THIS IS NOT A BOUNDARY SURVEY. PROPERTY CORNERS, BEARINGS AND DISTANCES ARE SHOWN HEREON ARE FOR ORIENTATION PURPOSES ONLY.
2. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON MAPS AND/OR EVIDENCES ON THE GROUND. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL UTILITIES, SHOWN OR NOT SHOWN ON THIS DRAWING, PRIOR TO ANY EXCAVATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
4. CONTRACTOR IS RESPONSIBLE FOR KEEPING RUN-OFF ON SITE DURING CONSTRUCTION AND CLEANING UP SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY AND ADJOINING PROPERTIES AFTER CONSTRUCTION.

DRAINAGE AND GRADING PLAN FOR LA POBLANA SUBDIVISION

LEGAL DESCRIPTION: MRGCD TRACT 65-8, Albuquerque, New Mexico
ADDRESS: (H-13) East of 18th Street, South of La Poblana Road, NW
FLOODPLAIN INFORMATION: The property is located on Zone X, areas determined to be within 500-year flood; 100-year flood with average depths of less than one foot or with drainage areas less than one square mile; and areas protected by levees from 100-year flood, according to the Floodway Boundary and Floodway Map of Bernalillo County, New Mexico and Incorporated Areas, Community Panel 35001C0351 D, effective September 20, 1996.

EXISTING CONDITIONS: The area proposed for development consists of approximately 1.68 acres of vacant land. The tract is level, except for the berm along the north property line and the irrigation ditch berm along the west, south and east boundary lines of the tract. The tract is bounded on all sides by improved housing subdivisions. Access to the property is through Sioux Road, a 20-foot-wide dedicated access and utility easement, from Manual Boulevard, NW.

The property receives no off-site flows.

PROPOSED IMPROVEMENTS: The tract will be developed into a seven-lot housing subdivision. Each lot will contain a minimum net area of 6000 square feet. A private gravel-surfaced out-de-sac will be built to connect to Sioux Road. A four-foot wide concrete sidewalk will be constructed on one side of the access easement.

The tract is within the valley region of Albuquerque. It is flat and can be graded flat. A flat grading scheme will be used, meeting the criterion set forth in City of Albuquerque Development Process Manual, unincorporated Section 22.3.2 - FLAT GRADING SCHEME. The existing berms around the property will serve as the drainage basin limits. The maximum pad will not exceed 45% of the lot area. The grading plan will allow no off-site run-off to enter the site and no on-site run-off to go outside the subdivision.

EROSION CONTROL: Water from activities during construction and/or from rain will be ponded on site.

CALCULATIONS: Data from NOAA Atlas 2, Volume IV, New Mexico Figure 30, isopleths of the 100-Year, 24-Hour Precipitation; City of Albuquerque Development Process Manual, Section 22.2 Hydrology

PRECIPITATION ZONE: 2

LAND TREATMENTS: Runoff calculations are based on three typical types of treatment:
Treatment B - Irrigated landscaping, gravel
Treatment C - Soil composed by human activity, vacant lot
Treatment D - Impervious areas: roofs, sidewalks

EXCESS PRECIPITATION: The amount of rainfall that is not absorbed by the surface on which it falls is called excess precipitation and is measured in inches. The excess precipitation for Zone 2 is tabulated below:

Land Treatment	Excess Precipitation - 6-hour storm
100-Year	1.66
B	0.78
C	1.13
D	2.12

AREAS: Landscaping, gravel (B)
Vacant lot (C)
Roof, asphalt, concrete (D)

PEAK DISCHARGE PER ACRE:	
Land Treatment	100-yr
B	0.45
C	0.57
D	1.00

PEAK DISCHARGE: On-site (C):
Before development, Q100 = 3.14 x 1.66 = 5.21 cfs
PEAK DISCHARGE BEFORE DEVELOPMENT = 5.11 cfs

After development, Q100
Lot pads maximum 45% of lot area; total lot area = 1.26 Ac.
(B) 0.45 x 1.26 = 0.57
(C) 0.57 x 4.70 = 2.68 cfs
(D) (1.00 - 0.57) x 2.28 = 0.95 cfs
TOTAL = 3.63 cfs
PEAK DISCHARGE AFTER DEVELOPMENT = 3.16 cfs

VOLUME OF RUNOFF: On-site:
Before development, Volume, V100
1.66 x 1.13 x 43,560/12 = 6,809 cf
TOTAL VOLUME BEFORE DEVELOPMENT = 6,809 cf
After development, Volume, V100
(B) 1.09/12 x 0.78 x 43,560 = 3,086 cf
(D) 0.57/12 x 2.12 x 43,560 = 4,386 cf
TOTAL = 7,472 cf
TOTAL VOLUME AFTER DEVELOPMENT = 7,472 cf

SIZE OF RETENTION POND: The entire subdivision will serve as a retention pond, the outer limits of which are the berms discussed in Existing Conditions.

Volume of detention for 10-day storm of 100-year frequency:
Impervious areas only = 0.57 Ac. x 43,560 = 24,828 sq ft

V10 = V360 + AD * (P10 - P360)/12
= 7,472 cf + 24,828 (3.95 - 2.35)/12
= 10,782 cf

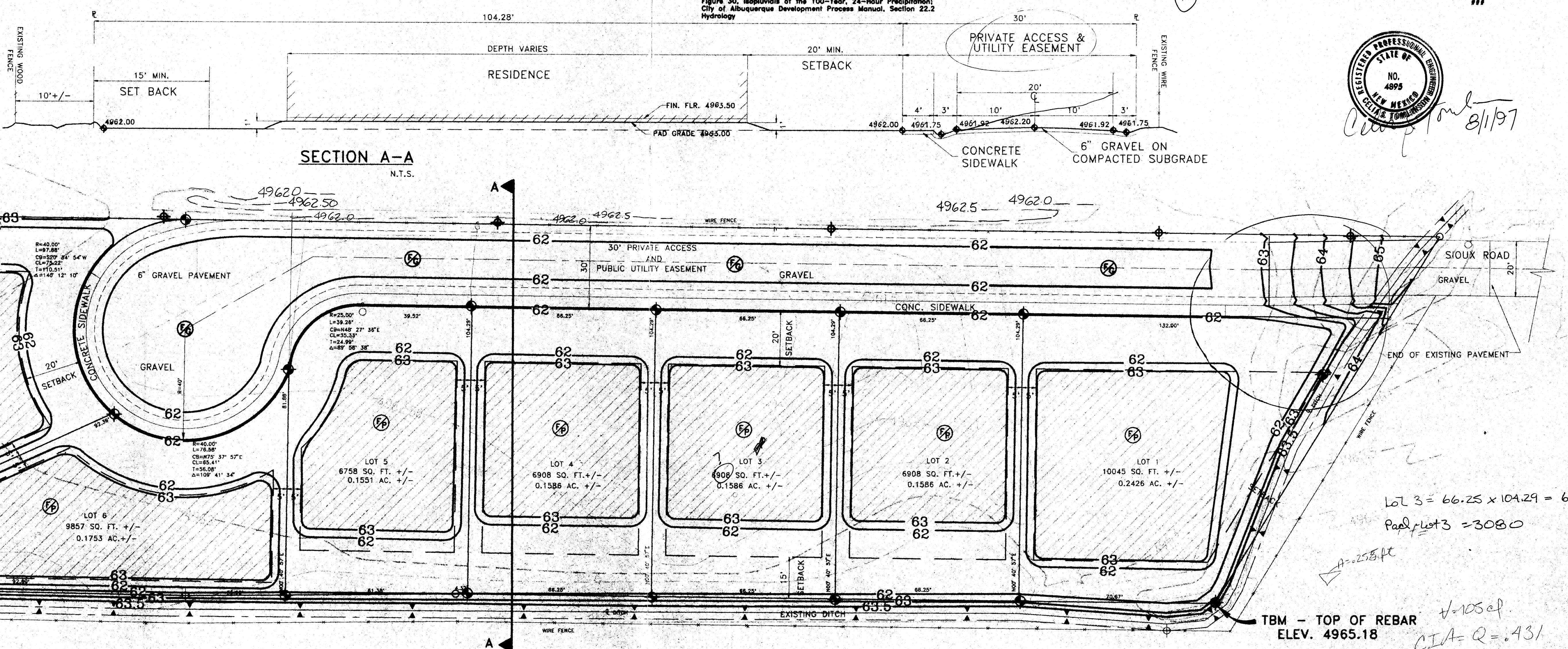
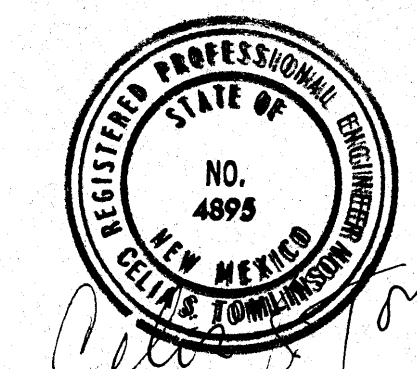
Subdivision Area = 72,310 sq ft
Basin depth = 10,782/71,002 = 0.15 feet

Existing grade used as bottom of basin = 4961.85
Water surface elevation = 4961.85 + 0.15 = 4962.00

Finished pad elevation = 4962.00 + 1.0 = 4963.00
Finished floor elevation = 4963.00 + 0.5 = 4963.50

High point of street, elevation = 4962.20

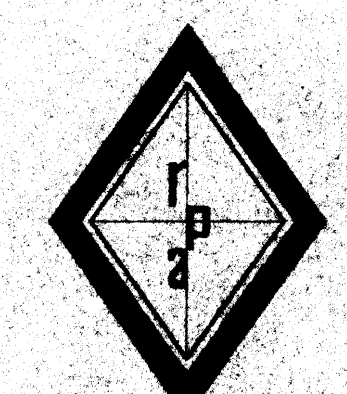
CONCLUSION: The proposed development will not adversely impact nor be adversely impacted by the surrounding environment.



- LEGEND:**
- PROPOSED FINISH SPOT ELEVATION = 4962.00
 - PROPOSED FINISH PAD ELEVATION = 4963.00
 - PROPOSED TOP OF GRAVEL ELEVATION = 4962.20
 - APPROXIMATE AREA OF FUTURE BUILDING PAD (45% OR LESS OF LOT AREA). VERIFY W/ ACTUAL BUILDING FOOT PRINT PRIOR TO CONSTRUCTION.
 - 4962 - EXISTING CONTOUR LINE
 - 63 - PROPOSED CONTOUR LINE

B.M. ACS 7-H13
ELEV. 4961.715

DRAINAGE AND GRADING PLAN LA POBLANA SUBDIVISION



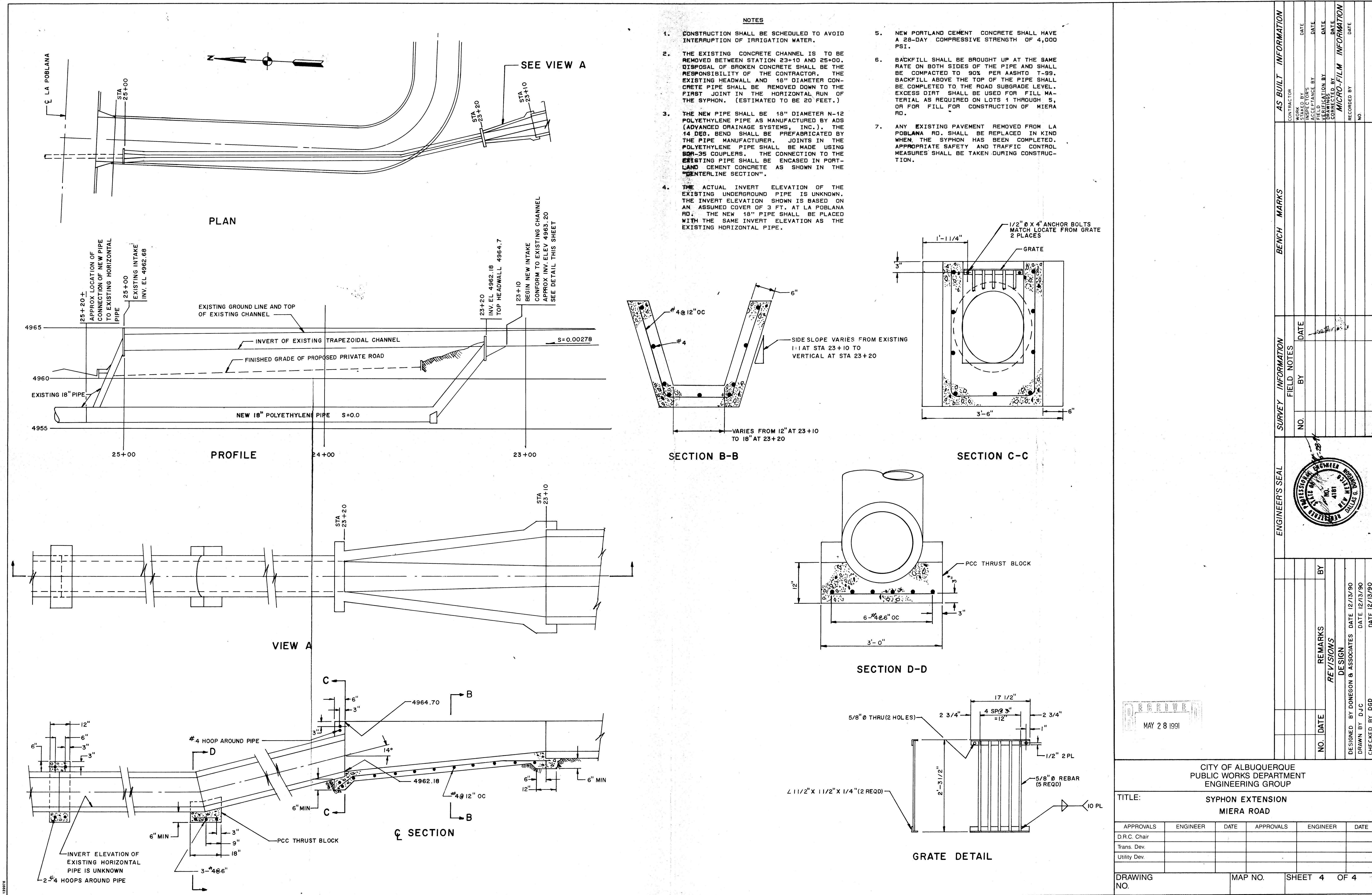
RHOMBUS P.A., INC.
FACILITIES ENGINEERS & ENVIRONMENTAL CONSULTANTS
2620 San Mateo NE SUITE B
Albuquerque, NM 87110
TEL. (505) 881-6690 FAX (505) 881-6896

AUG 01 1997
HYDROLOGY SECTION

SCALE: 1" = 20'-0"

Lot 3 = 66.25 x 104.29 = 6909.21 sq ft
Pad Lot 3 = 3080

TBM - TOP OF REBAR
ELEV. 4965.18
CIA = Q = .431

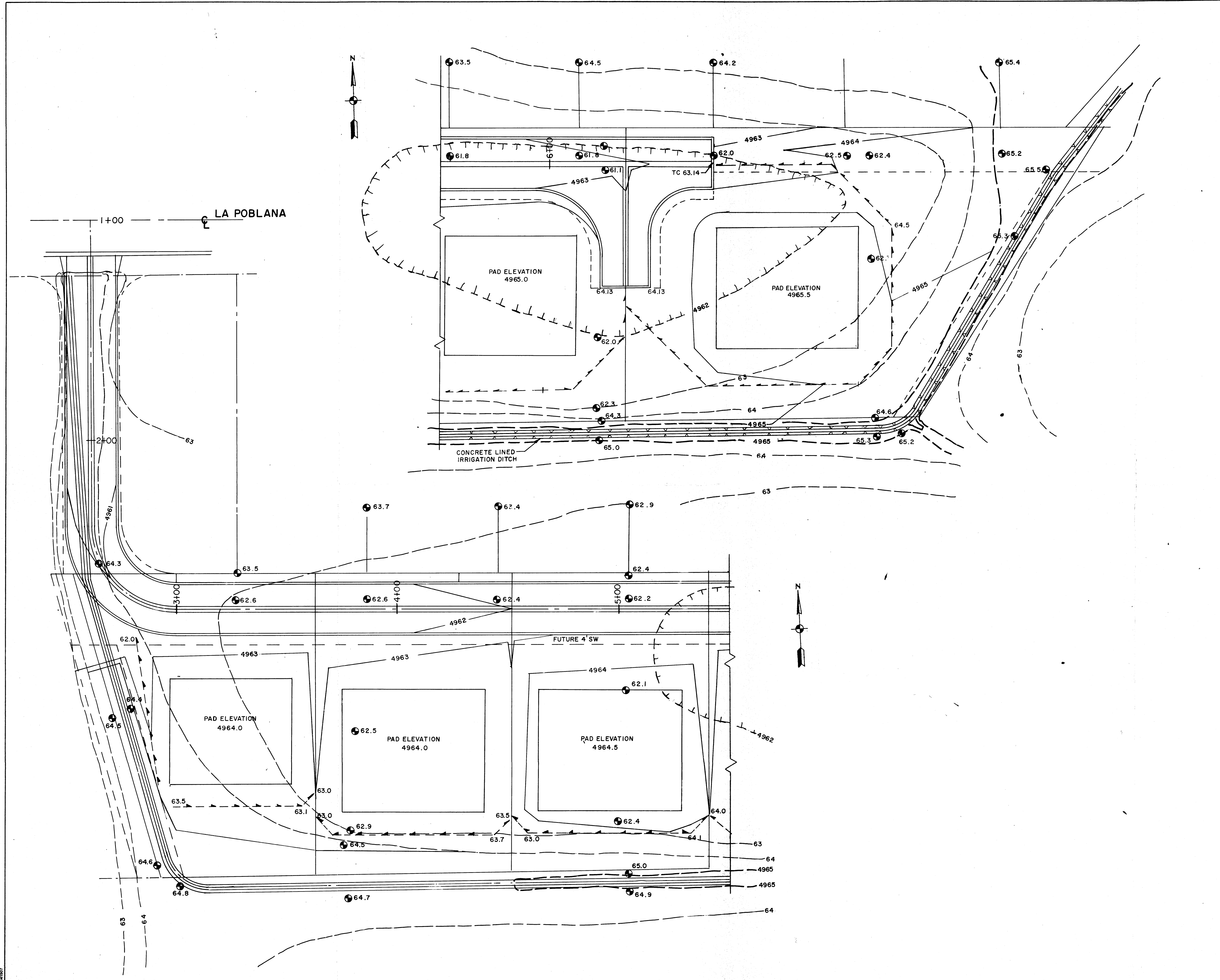


- NOTES**
- CONSTRUCTION SHALL BE SCHEDULED TO AVOID INTERRUPTION OF IRRIGATION WATER.
 - THE EXISTING CONCRETE CHANNEL IS TO BE REMOVED BETWEEN STATION 23+10 AND 25+00. DISPOSAL OF BROKEN CONCRETE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE EXISTING HEADWALL AND 18" DIAMETER CONCRETE PIPE SHALL BE REMOVED DOWN TO THE FIRST JOINT IN THE HORIZONTAL RUN OF THE SYPHON. (ESTIMATED TO BE 20 FEET.)
 - THE NEW PIPE SHALL BE 18" DIAMETER N-12 POLYETHYLENE PIPE AS MANUFACTURED BY ADS (ADVANCED DRAINAGE SYSTEMS, INC.). THE 14 DEG. BEND SHALL BE PREFABRICATED BY THE PIPE MANUFACTURER. JOINTS IN THE POLYETHYLENE PIPE SHALL BE MADE USING SDP-35 COUPLERS. THE CONNECTION TO THE EXISTING PIPE SHALL BE ENCASED IN PORTLAND CEMENT CONCRETE AS SHOWN IN THE "CENTERLINE SECTION".
 - THE ACTUAL INVERT ELEVATION OF THE EXISTING UNDERGROUND PIPE IS UNKNOWN. THE INVERT ELEVATION SHOWN IS BASED ON AN ASSUMED COVER OF 3 FT. AT LA POBLANA RD. THE NEW 18" PIPE SHALL BE PLACED WITH THE SAME INVERT ELEVATION AS THE EXISTING HORIZONTAL PIPE.
 - NEW PORTLAND CEMENT CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
 - BACKFILL SHALL BE BROUGHT UP AT THE SAME RATE ON BOTH SIDES OF THE PIPE AND SHALL BE COMPACTED TO 90% PER AASHTO T-99. BACKFILL ABOVE THE TOP OF THE PIPE SHALL BE COMPLETED TO THE ROAD SUBGRADE LEVEL. EXCESS DIRT SHALL BE USED FOR FILL MATERIAL AS REQUIRED ON LOTS 1 THROUGH 5, OR FOR FILL FOR CONSTRUCTION OF MIERA RD.
 - ANY EXISTING PAVEMENT REMOVED FROM LA POBLANA RD. SHALL BE REPLACED IN KIND WHEN THE SYPHON HAS BEEN COMPLETED. APPROPRIATE SAFETY AND TRAFFIC CONTROL MEASURES SHALL BE TAKEN DURING CONSTRUCTION.

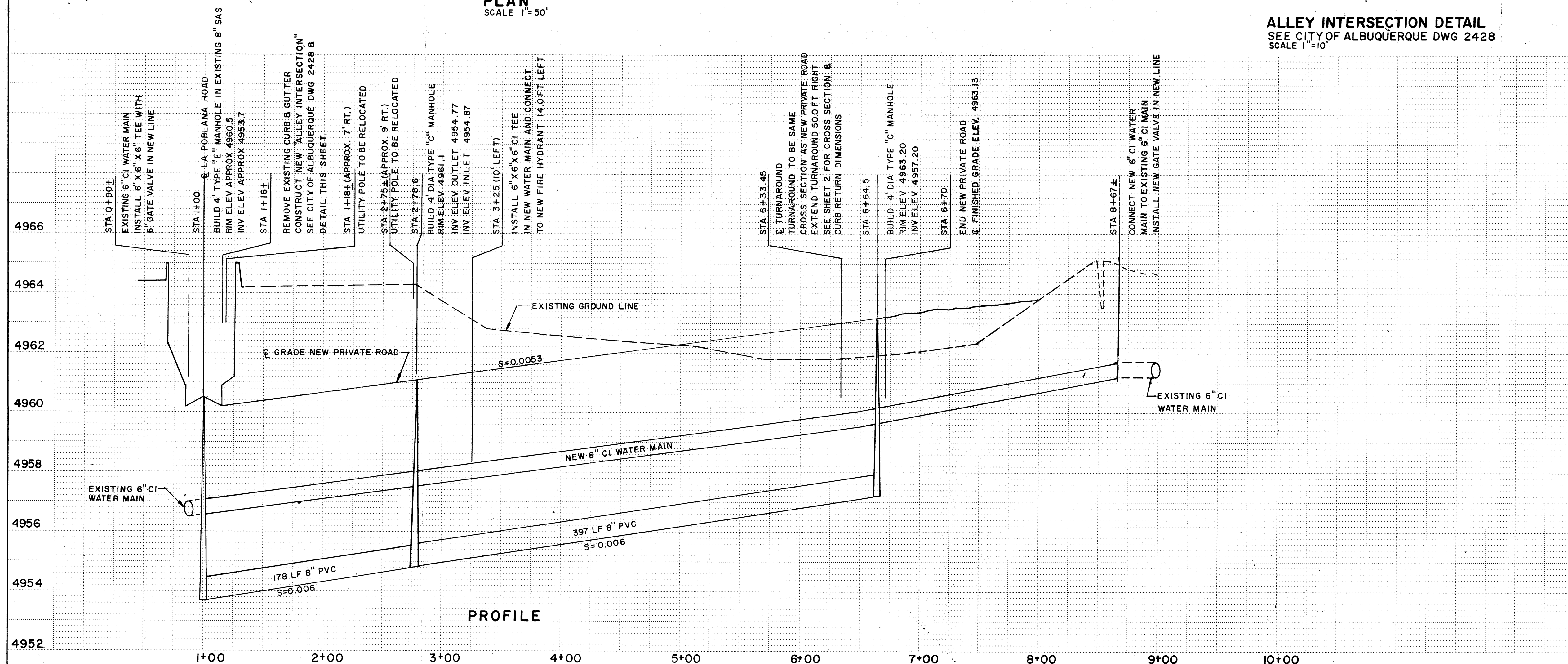
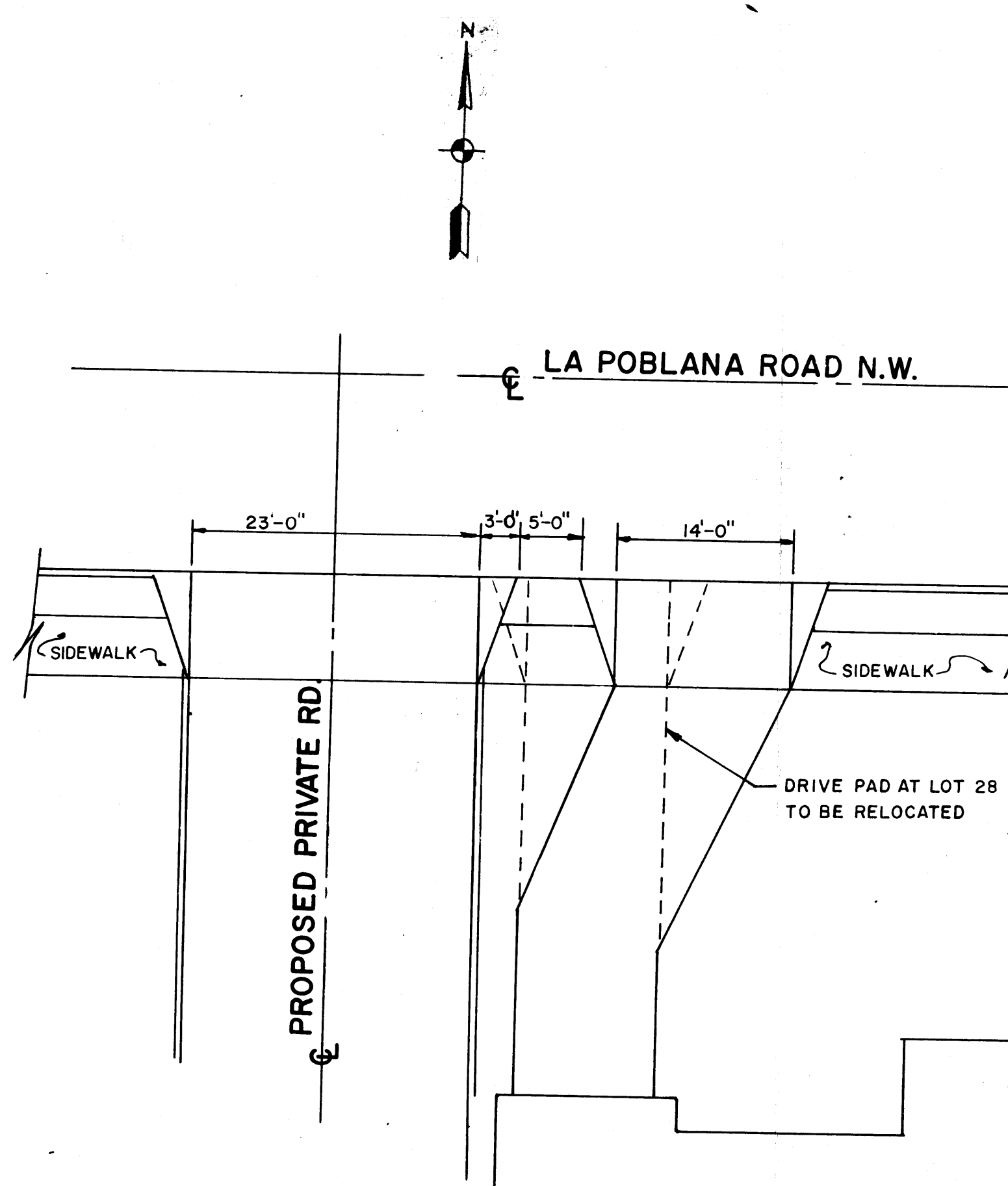
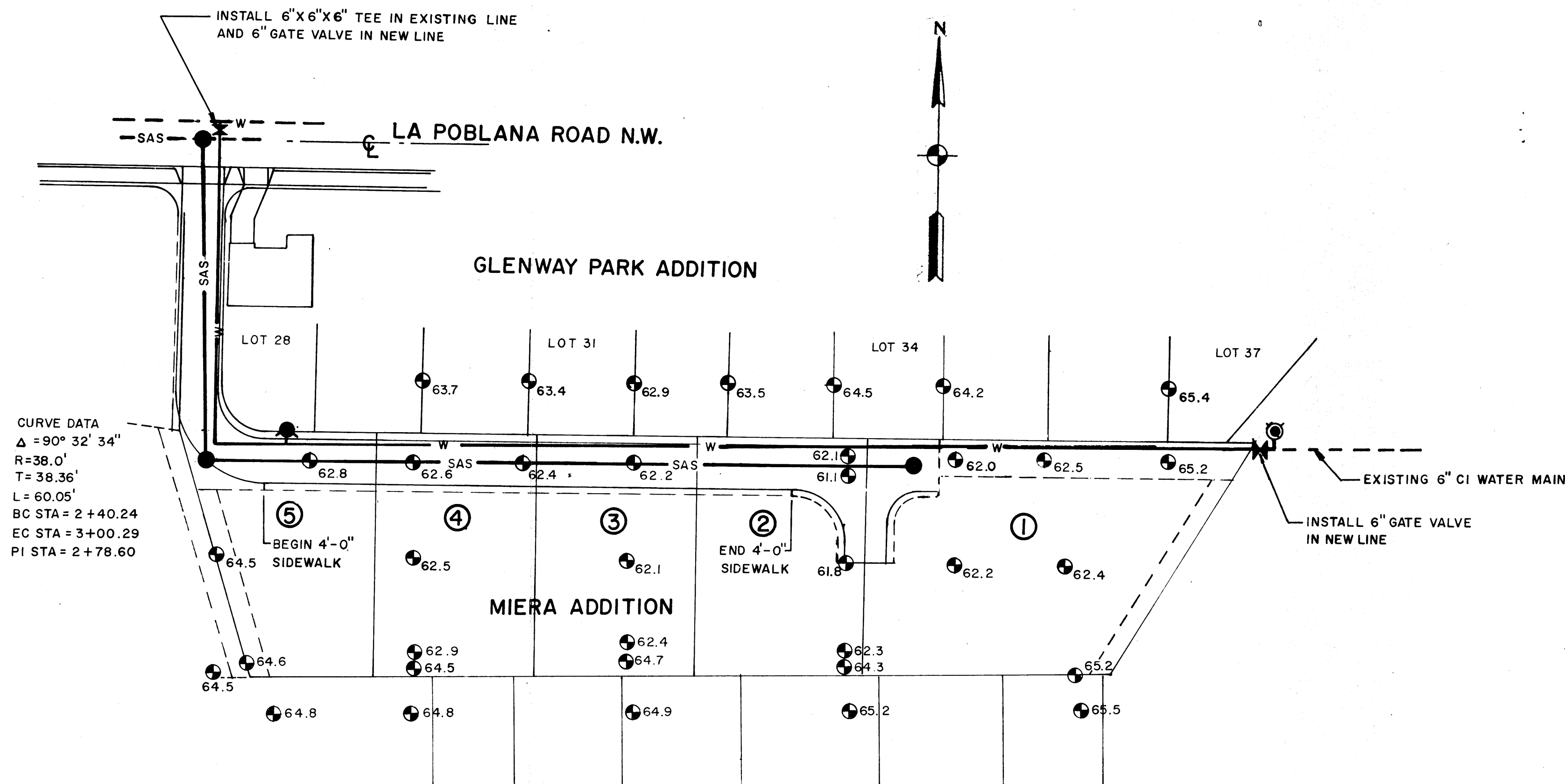
AS BUILT INFORMATION			BENCH MARKS			SURVEY INFORMATION			ENGINEER'S SEAL		
CONTRACTOR	WORK	DATE	NO.	BY	DATE	NO.	BY	DATE	REGISTERED PROFESSIONAL ENGINEER STATE OF NEW MEXICO NO. 4181 DATE 12/13/90		
INSPECTOR	INSPECTION	DATE	NO.	BY	DATE	NO.	BY	DATE			
ACCEPTANCE BY	ACCEPTANCE	DATE	NO.	BY	DATE	NO.	BY	DATE			
VERIFICATION BY	VERIFICATION	DATE	NO.	BY	DATE	NO.	BY	DATE			
MICRO-FILM INFORMATION			REVISIONS			DESIGN			REVISIONS		
RECORDED BY	RECORDED	DATE	NO.	BY	DATE	NO.	BY	DATE	DESIGNED BY DONEGON & ASSOCIATES DATE 12/13/90		
NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	DRAWN BY DJC DATE 12/13/90		
									CHECKED BY DGD DATE 12/13/90		

RECEIVED
MAY 28 1991

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: SYPHON EXTENSION MIERA ROAD					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					
DRAWING NO.		MAP NO.		SHEET 4 OF 4	



138674



ENGINEER'S SEAL			SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
			NO.	BY	DATE	ACS 1-3/4" ALUMINUM DISK STAMPED "ACS-BM, 10-H13", EPOXY TO TOP OF CONC CURB AT THE WNW CURB RETURN, INDIAN SCHOOL RD. & 17TH ST. NW (EL 4960.180)	CONTRACTOR	DATE
DESIGNED BY DONEGON & ASSOCIATES DRAWN BY DJC CHECKED BY DGO			NO.	REMARKS	DATE	ACS 1-3/4" ALUMINUM DISK STAMPED "ACS-BM, 11-H13", EPOXY TO TOP OF CONC CURB AT THE NNW CURB RETURN, INDIAN SCHOOL RD. & 12TH ST. NW (EL 4961.641)	INSPECTOR'S	DATE

MAY 28 1991
HYDROLOGY DIVISION

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: PRIVATE ROAD, SEWER, WATER, MIERA ADDITION

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					

DRAWING NO. MAP NO. SHEET 2 OF 4