

DRAINAGE CALCULATIONS:

EXISTING CONDITIONS:

The site is located at the SW corner of the intersection of 12th Street and Candelaria Road, N.W. The site is presently developed as an auto service station. The site is presently nearly completely impervious except for the south 30' of the site. There is a storm sewer in 12th Street. The flow in Candelaria adjacent to the site is from west to east. The flow in 12th Street adjacent to the site is from north to south. There is an inlet on the west side of 12th Street approximately 30' south of the site. All runoff from the site will enter this inlet.

PROPOSED CONDITIONS:

It is proposed to construct two new canopies and some new underground fuel tanks on the site as shown on the plan. Grading of the site will be essentially as it is now with possible exception of minor adjustments adjacent to the new canopies and fuel tanks. The south 30' of the site will also be paved with a landscaped strip along the south property line. The increase in peak discharge from the proposed development will be minimal as shown in the calculations.

DRAINAGE CRITERIA:

The calculations shown on this plan were prepared in accordance with Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque, in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Arroyo Flood Control Authority, January, 1993.

PRECIPITATION ZONE:

The site is between the Rio Grande River and San Mateo Blvd. and is, therefore, in Precipitation Zone 2.

LAND TREATMENT AREAS, EXCESS PRECIPITATION AND UNIT PEAK DISCHARGE:

The peak discharge per acre and excess precipitation are shown for the four land treatments in Zone 2 in the table below, and the values shown are from the Albuquerque D.P.M. Also shown are the existing and proposed land treatment areas.

LAND TREATMENT	100-yr. 10-yr.	100-yr. 10-yr.	100-yr. 10-yr.	100-yr. 10-yr.	Existing Site Areas	Developed Site Areas
	100-yr.	10-yr.	100-yr.	10-yr.	% Sq. Ft. Acres	% Sq. Ft. Acres
A	1.56	0.38	0.53	0.13	0.0	0.0000
B	2.28	0.95	0.78	0.28	0.0	0.0000
C	3.14	1.71	1.13	0.52	19.3	3,976
D	4.70	3.14	2.12	1.34	80.7	16,624
Totals			100.0		20,600	0.4729

PEAK DISCHARGE:

EXISTING CONDITIONS:

Q100 = 0.0913 * 3.14 + 0.3816 * 4.70 = 2.08 cfs
Q10 = 0.0913 * 1.71 + 0.3816 * 3.14 = 1.35 cfs

DEVELOPED CONDITIONS:

Q100 = 0.0315 * 2.28 + 0.4414 * 4.70 = 2.15 cfs

Q10 = 0.0315 * 0.95 + 0.4414 * 3.14 = 1.42 cfs

VOLUME, 100-YEAR, 6-HOUR:

EXISTING CONDITIONS:

V100 = (3,976 * 1.13 + 16,624 * 2.12) / 12 = 3,311 cf
V10 = (3,976 * 0.52 + 16,624 * 1.34) / 12 = 2,029 cf

DEVELOPED CONDITIONS:

V100 = (1,373 * 0.78 + 19,227 * 2.12) / 12 = 3,486 cf

V10 = (1,373 * 0.28 + 19,227 * 1.34) / 12 = 2,179 cf

SUMMARY OF ON-SITE VOLUMES AND PEAK DISCHARGE RATES:

	V100(CF)	V10(CF)	Q100(CFS)	Q10(CFS)
DEVELOPED	3,486	2,179	2.15	1.42
EXISTING	3,311	2,029	2.08	1.35
INCREASE	175	150	0.07	0.07

ANALYSIS OF DOWNSTREAM CAPACITY:

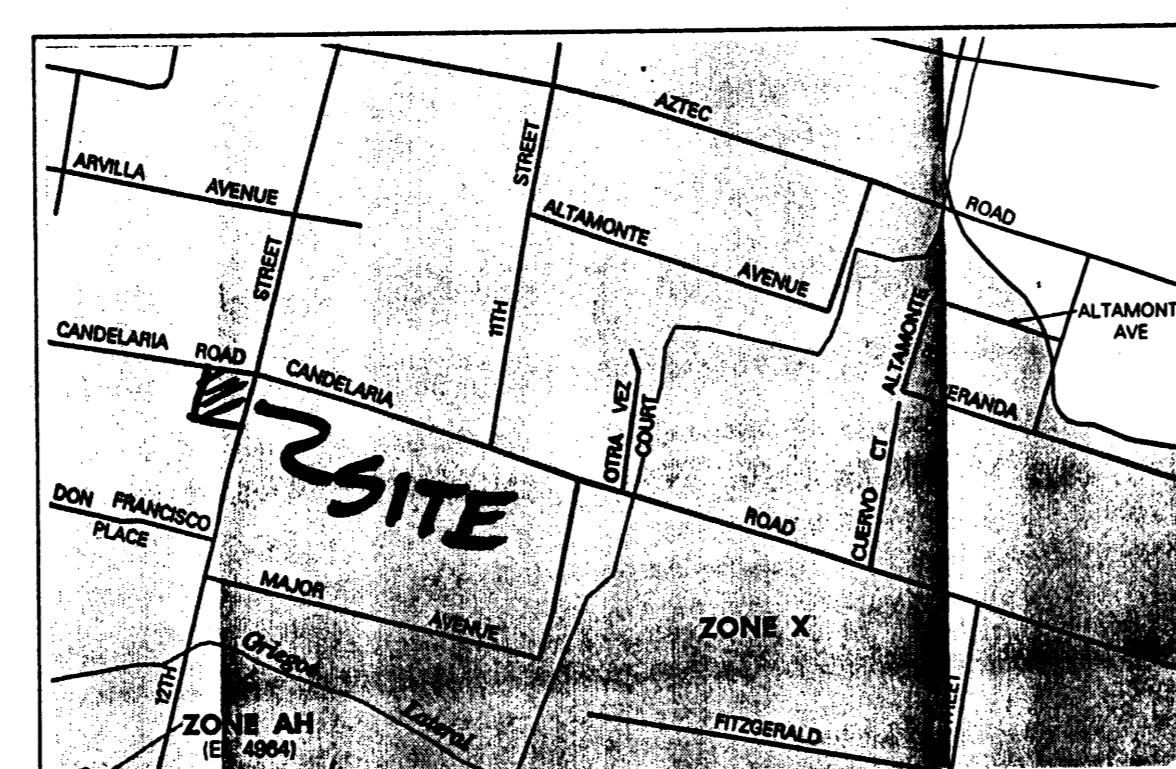
THERE IS A 54" STORM SEWER IN 12TH STREET WHICH RUNS SOUTH AND EMPTIES INTO THE ALAMEDA DRAIN. ALL RUNOFF FROM THIS SITE ENTERS THE STORM SEWER A SHORT DISTANCE SOUTH OF THE SITE. THIS SITE IS AN INFILL SITE AND HAS VERY LITTLE INCREASE IN RUNOFF AS A RESULT OF THE ADDITIONAL DEVELOPMENT THAT WILL BE DONE WITH THIS PROJECT.

ANALYSIS OF OFF-SITE FLOW:

THIS SITE HAS ESSENTIALLY NO OFF-SITE FLOW ASSOCIATED WITH IT. THE PLANTER STRIP JUST OUTSIDE THE WEST PROPERTY LINE WOULD POSSIBLY DRAIN ON TO THE SITE AS SHOWN.



VICINITY MAP ZONE ATLAS NO. G-14-Z

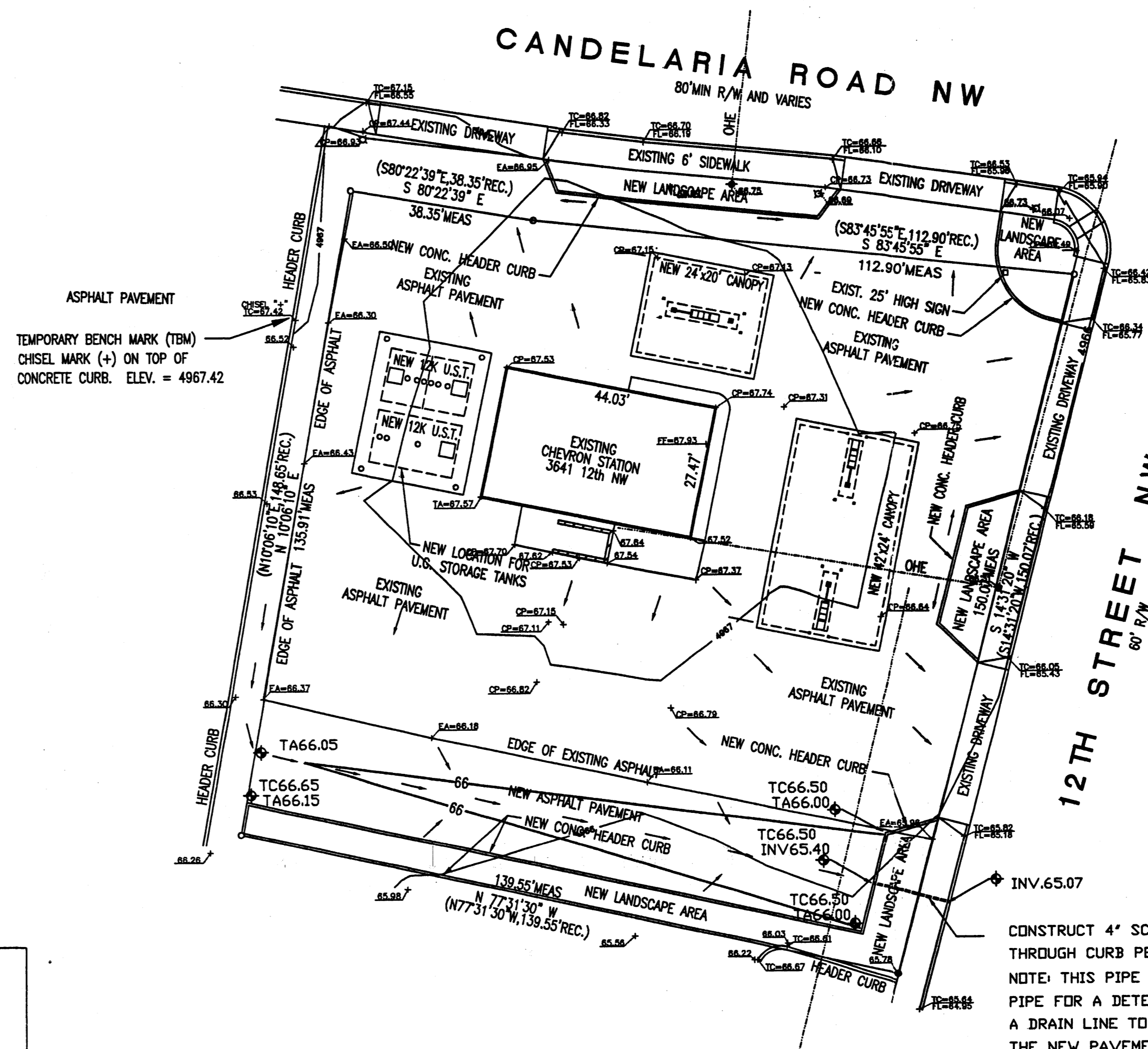


FRM MAP MAP NO. 35001C0332 D

CITY OF ALBUQUERQUE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY (S.O. 19) NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THIS PLAN TO BE PERFORMED UNDER CONTRACT, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREIN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, AS UPDATED THROUGH REVISION NO. 6.
3. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, INC., 260-1990, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. THE ADDRESS OF THE PROPERTY SERVED IS 3641 12TH STREET, N.W.

APPROVALS:		
HYDROLOGY	NAME	DATE
INSPECTOR	NAME	DATE
CONSTRUCTION	NAME	DATE



GRADING + DRAINAGE PLAN

SCALE: 1"=20'

LEGEND:

- Found Boundary Cor.
- pp Utility Pole
- Overhead Lines
- c CATV Pedestal
- e Electric Pedestal
- + Telephone Pedestal
- g Gas Meter
- em Electric Meter
- wrm Water Meter
- w Water Valve
- g Gas Valve
- © Sanitary Sewer MH
- W Storm Sewer Manhole
- SD Storm Drain Catch Basin
- Light Pole
- * Fence
- Arroyo or watercourse
- Fire Hydrant
- Exist. Spot Elev.
- New Spot Elevation
- 4950.5 EXISTING CONTOUR
- NEW CONTOUR
- FLOW DIRECTION
- ROOF SLOPE

M.R.G.C.D. MAP NO. 34
SECTION 5, TOWNSHIP 10 NORTH, RANGE 3 EAST, N.M.P.M.
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
AUGUST, 1998

LEGAL DESCRIPTION
A CERTAIN TRACT OF LAND BEING SITUATE WITHIN SECTION 5, TOWNSHIP 10 NORTH, RANGE 3 EAST OF THE N.M.P.M., CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, BEING IDENTIFIED AS TRACT 70-B-2-B AS SHOWN ON THE MIDDLE RIO GRANDE CONSERVANCY DISTRICT MAP NUMBER 34, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT, BEING A POINT ON THE WESTERLY LINE OF 12TH STREET, BEING A COMMON CORNER WITH THE MOST EASTERLY CORNER OF TRACT B, LAND OF BRADBURY AND STAMM, AS FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON APRIL 15, 1977 IN VOLUME C29, FOLIO 168, RUNNING THENCE N. 77° 31' 30" W., A DISTANCE OF 139.55 FEET TO THE SOUTHWEST CORNER; THENCE N. 10° 06' 10" E., A DISTANCE OF 135.91 FEET TO THE NORTHWEST CORNER; BEING A POINT ON THE SOUTHERLY LINE OF CANDELARIA ROAD; THENCE S. 80° 22' 39" E. ALONG THE SOUTHERLY LINE OF CANDELARIA ROAD, A DISTANCE OF 38.35 FEET TO A POINT; THENCE CONTINUING ALONG THE SOUTHERLY LINE OF CANDELARIA ROAD, S. 83° 45' 55" E., A DISTANCE OF 112.90 FEET TO THE NORTHEAST CORNER, BEING A POINT ON THE WESTERLY LINE OF 12TH STREET; THENCE S. 14° 31' 20" W., ALONG THE WESTERLY LINE OF 12TH STREET, A DISTANCE OF 150.07 FEET TO THE SOUTHEAST CORNER AND PLACE OF BEGINNING CONTAINING 0.4729 ACRES MORE OR LESS.

GENERAL NOTES:

1. ADD 4900 TO SPOT ELEVATIONS TO SHOW TRUE ELEVATION.
2. CONTOUR INTERVAL IS ONE (1) FOOT.
3. ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE CONTROL STATION "7-G14", HAVING AN ELEVATION OF 4986.39 FEET ABOVE SEA LEVEL.



**Chevron Station Gasoline Canopies
for Rio Grande Oil Company**
LOCATED AT 3641 12TH NW, ALBUQUERQUE, NEW MEXICO

KEN HOVEY, ARCHITECT
6501 254-0083 • FAX 608 254-1001 • 3008 5th Ave. SE • ALBUQUERQUE, NM • 87108

JOB NO:	9826
DATE:	22 SEPTEMBER 1998
REVISIONS	

SHEET NO.
2