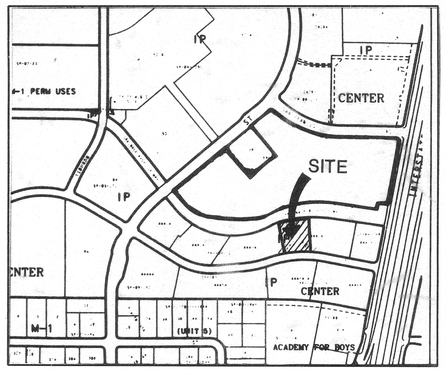
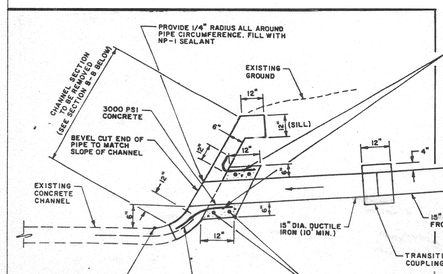


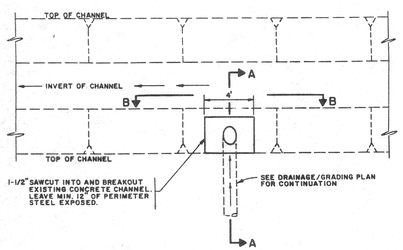
VICINITY MAP

ZONE ATLAS
D-17 Z



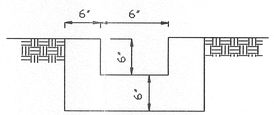
SECTION A-A

NO SCALE



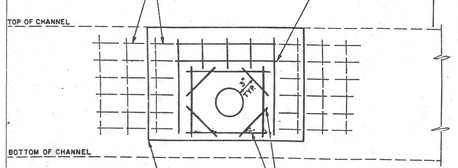
PLAN

NO SCALE



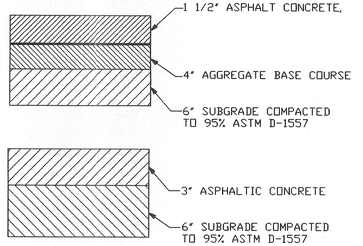
DRAINAGE CHANNEL

NO SCALE



SECTION B-B

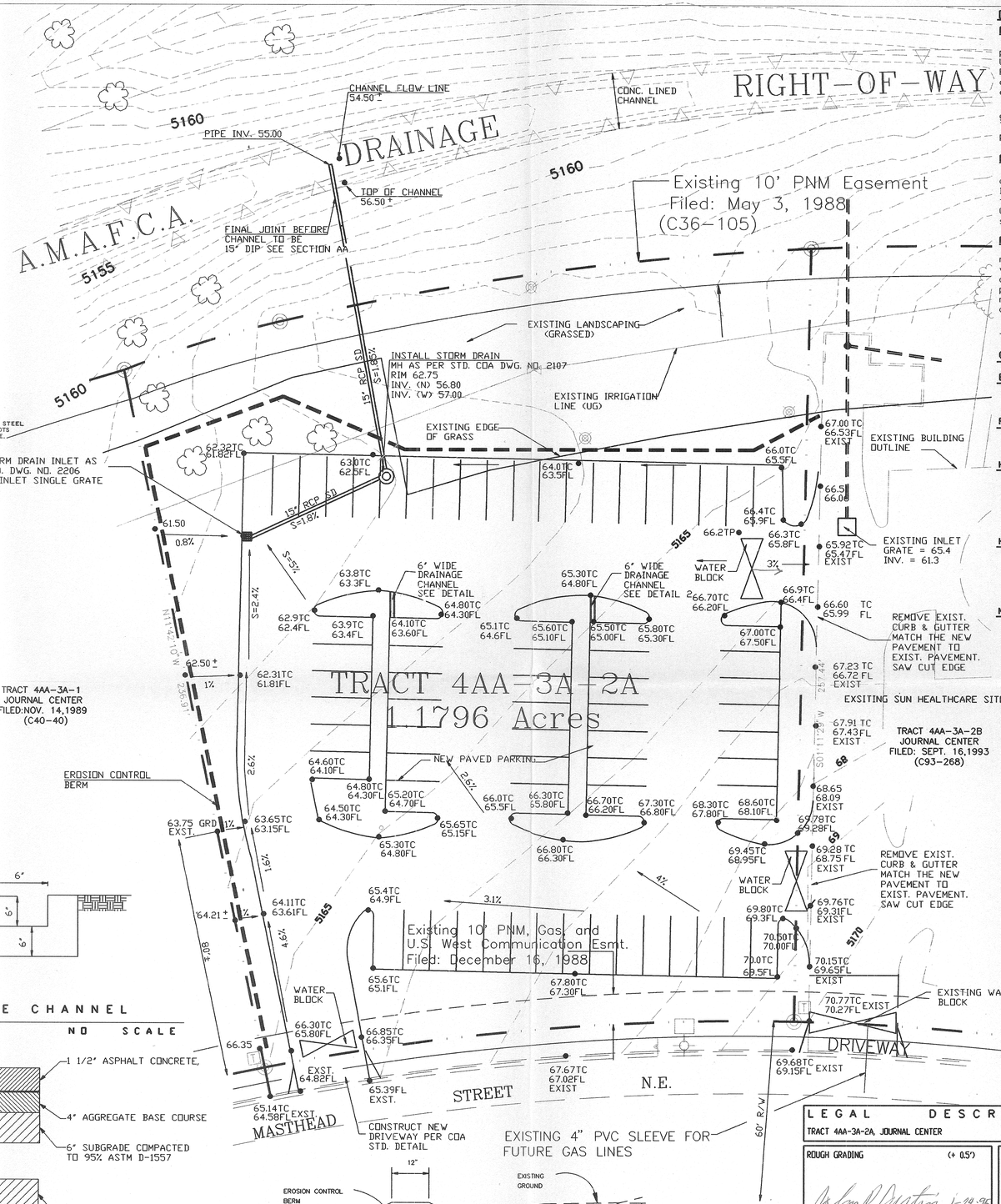
NO SCALE

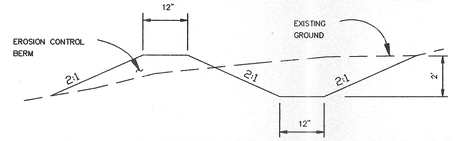


NOTE: EITHER SECTION SHOWN ABOVE MAY BE USED BY THE CONTRACTOR (BUT NOT BOTH.)

PAVEMENT SECTIONS

NO SCALE





A BERM WITH THE DIMENSIONS SHOWN ABOVE SHALL BE BUILT ALONG THE WESTERN AND NORTHERN CONSTRUCTION BOUDRAIES, AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION, UNTIL THE DRAINAGE SYSTEM PRESENTED HEREON IS FULLY FUNCTIONAL. TO PROVIDE REASONABLE COMPACTION, MOISTEN SOIL, AND WHEEL ROLL IN 12" LIFTS.

EROSION CONTROL

NO SCALE

DRAINAGE MANAGEMENT/GRADING PLAN

PURPOSE

The purpose of this Drainage Management/Grading Plan is to present existing and proposed hydrological conditions and grading for the proposed construction of a new parking lot. The parking lot will provide extra parking for the existing Sun Healthcare Corporate Office Facility that is located immediately to the east on Tract 4AA-3A-2. The existing tract designation for this proposed new parking lot is Tract 4AA-3A-2A, Journal Center. No platting action is being requested.

This plan is prepared and submitted to Hydrology Division in order to support a request for grading/paving permit and a Site Development Plan review at the Development Review Board. The property's current IP zoning requires that all proposed site development plans, including parking lot proposals, be submitted to the Development Review Board for review.

EXISTING CONDITIONS

The site is currently a vacant piece of ground sloping downstream in a northwesterly direction at a slope of approximately 3% to 4%. This 1.2 acre site generates approximately 1.87 cfs in the existing condition during a 100-year storm event. Storm run off is discharged to the north and west portion of the property where it flows into the existing North Pino Arroyo Channel. This concrete lined channel, with existing grass landscaping and trees on either side, is owned and is maintained by AMAFCA.

PROPOSED CONDITIONS

Under proposed conditions, the parking lot will be constructed and graded to drain to the northwest corner of the tract. There, an inlet is proposed to collect flows and discharge them via a 15" storm drain directly into the existing AMAFCA channel. The inlet will be designed to collect approximately 4.5cfs (100 year storm) from the developed parking lot. The perimeter portion of the property on the extreme north (existing grass area) is not proposed for modification, and will continue to drain in its historic manner, while the portion of the tract west of the parking lot will be graded to drain into the parking lot and storm drain inlet.

A license agreement will be required by AMAFCA. A copy of this plan has been provided to AMAFCA for review and comment.

CALCULATIONS

EXISTING CONDITIONS:

Zone 2; DPM.
Q100 = 1.2 ac. (1.56 cfs/ac.) = 1.87 cfs

62.5% D
37.5% B

PROPOSED CONDITIONS:

Q100 = 0.75 acres (4.7 cfs/ac.) + 0.45 ac. (2.28 cfs/ac.) = 4.55
(0.75 ac. Treatment D, 0.45 ac. Treatment B)

HEAD REQUIRED FOR FLOW THROUGH A SINGLE, TYPE 'D' GRATE

This calculation is controlled by the weir equation, a coefficient of 3.0 has been assumed, the weir crest length was calculated using three sides of the grate (the grate is against the curb);

$Q = 3.0\ (P)\ H^{1.5}$, where P = The weir crest length = 6.04ft.
$Q = 3.0\ (6.04)\ 0.5^{1.5} = 6.41$cfs > 4.5 cfs, so OK.

HEAD REQUIRED FOR ENTRANCE FLOW INTO THE 15" SD

This calculation is controlled by the orifice equation, and a coefficient of 0.6 was conservatively assumed.

$Q = 0.6\ A\ (2\ g\ H)^{0.5}$, where A=The area of the pipe, and H=The head above the center of the orifice=The distance from the center of the pipe to the bottom of the grate=25".
$Q = 0.6\ (1.23)(6.4.4 \times 2.08)^{0.5} = 8.53$cfs > 4.5cfs, OK.

MINIMUM SLOPE REQUIRED FOR THE 15" STORM DRAIN

Using Manning's equation, a manning's n of 0.13, and a slope of 1.8%, the capacity of the 15" pipe is 9.32cfs > 4.5cfs, OK.

GRADING NOTES:

1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PREFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE TYPICAL SECTIONS SHOWN ON THIS PLAN.
2. CONTRACTOR SHALL OBTAIN AND ABIDE BY A TOPSOIL DISTURBANCE PERMIT FROM THE CITY OF ALBUQUERQUE. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION," AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREIN, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS OR CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.
4. TWO WORKING DAYS PRIOR TO EXCAVATION, CONTRACTOR MUST CONTRACT LINE LOCATING SERVICE (765-1264) FOR LOCATION OF EXISTING UTILITIES.
5. PRIOR TO GRADING, ALL VEGETATION, DERBIS, AND NEAR SURFACE ORGANICALLY CONTAMINATED SOIL, SHALL BE STRIPPED FROM ALL AREAS TO BE GRADED. VEGETATION AND DERBIS SHALL BE DISPOSED OF OFF-SITE. TOPSOIL STRIPPINGS SHALL BE DISPOSED OF OFF-SITE OR STOCKPILED FOR USE IN PLANTERS AND NON-STRUCTURAL FILLS.
6. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
7. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES. UNLESS REQUIRED BY THIS PLAN.

APPROVED FOR CHANNEL CONNECTIONS:

AMAFCA DATE

0 10 20
SCALE: 1" = 20'

LEGAL DESCRIPTION:

TRACT 4AA-3A-2A, JOURNAL CENTER

ROUGH GRADING (+ 0.5')

1-24-95

APPROVED FOR ROUGH GRADING DATE

REVISIONS:

PAVEMENT SECTIONS AND STORM DRAIN ALIGNMENT. 01/04/95

LEGEND

W WATER LINE	TRAFFIC SIGN
SS SANITARY SEWER LINE	TREE
G GAS LINE	SPRINKLER HEAD
EDGE OF GRASS	STREET LIGHTING CONTROL BOX
WATER VALVE	TELEPHONE RELAY BOX
FOUND 5/8" REBAR W/CAP "WEAVER LS 6544"	CHAIN LINK FENCE
STREET LIGHT	WATER BLOCK
EROSION CONTROL BERM	

Fanning · Bard · Tatum
ARCHITECTS · AIA · LTD.
6100 Indian School Road NE Suite 210
Albuquerque, New Mexico 87110 505-883-5200

Project: SUN HEALTH CARE GROUP INC. PHASE II

Sheet Title: FINAL DRAINAGE/GRADING FOR TRACT 4AA-3A-2A PARKING LOT

BOHANNAN HUSTON INC.

BHI JOB NO. 94297.47

1/5/95

Sheet Of

S. Devs, R. Grading, Paving & Bldg Permit

NAME: D:\BHI JOB NO. 9429747 FILE NAME: SUNPARK.DWG DATE: JAN04, 1995 PLOT SCALE: 1" = 20'-0"