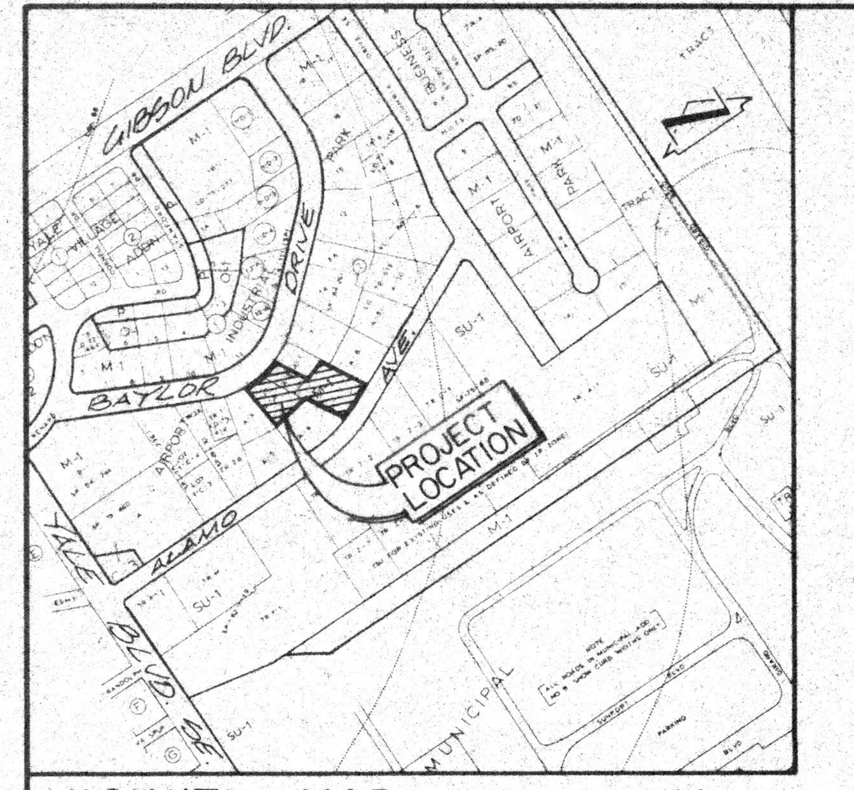


VICINITY MAP M-16
SCALE 1" = 800'

PROJECT BENCHMARK

A.C.S. BENCHMARK 11-L16. A SQUARE "□", CHISELED IN TOP OF CONCRETE CURB @ THE SSW RETURN LOCATED @ THE INTERSECTION OF VAIL AVE. S.E. & GIRARD BLVD. S.E.
ELEVATION = 5270.72 FEET (M.S.L.D.)

TEMPORARY BENCHMARK

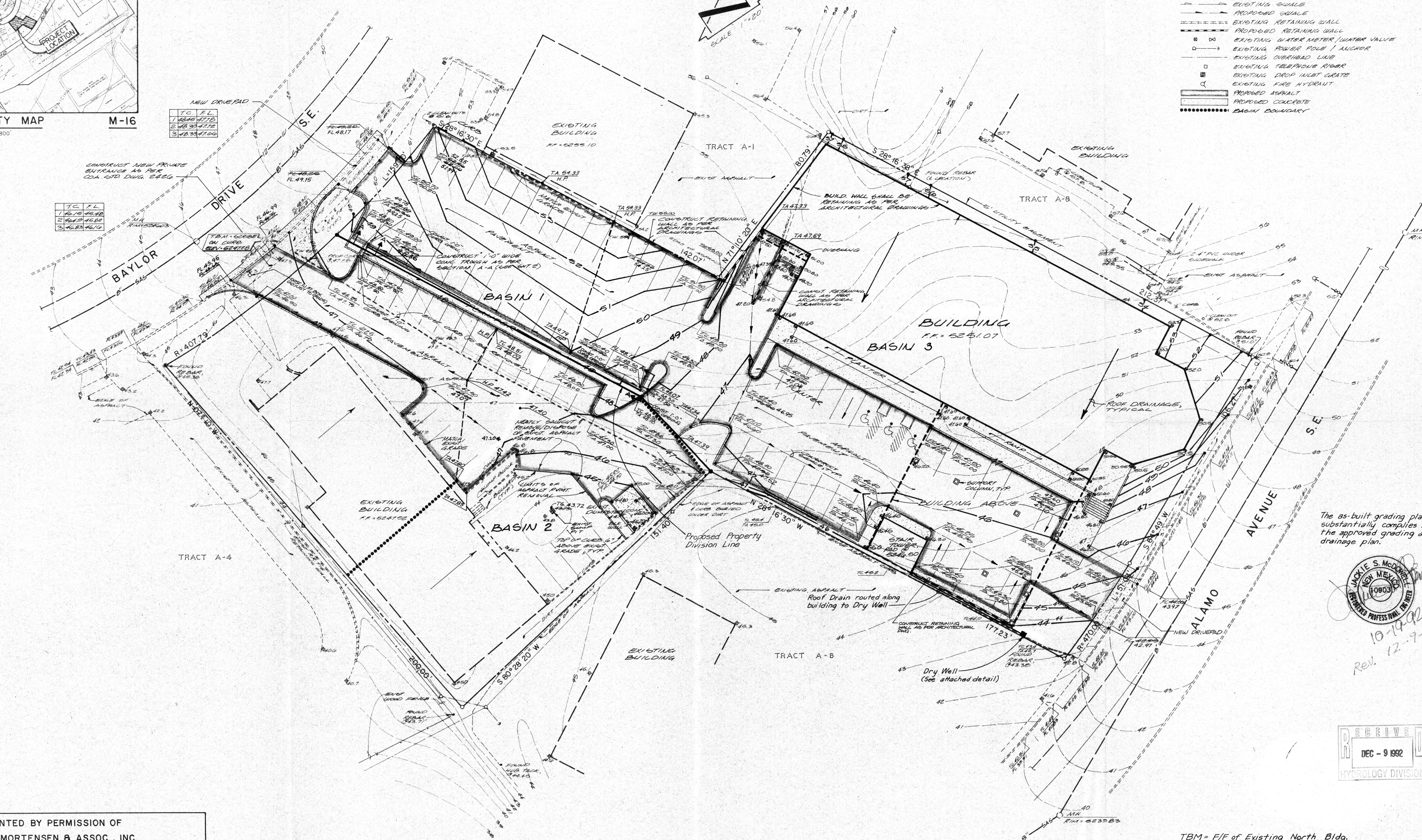
T.B.M. = CURB SCRIBE ON BAYLOR DRIVE S.E. SCRIBE IS ON SOUTHERN CURB - ON A PROJECTED PROPERTY LINE COMMON TO TRACTS A-2 & A-3, AS SHOWN HEREON.
ELEVATION = 5247.28 FEET (M.S.L.D.)

LEGAL DESCRIPTION

TRACT A-2-A, BLOCK 2,
AIRPORT INDUSTRIAL PARK,
ALBUQUERQUE, NEW MEXICO

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING SWALE
- PROPOSED SWALE
- EXISTING RETAINING WALL
- PROPOSED RETAINING WALL
- EXISTING WATER METER / WATER VALVE
- EXISTING POWER POLE / ANCHOR
- EXISTING OVERHEAD LINE
- EXISTING TELEPHONE RISER
- EXISTING DROP INLET GRATE
- EXISTING FIRE HYDRANT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- BASIN BOUNDARY



The as-built grading plan substantially complies with the approved grading and drainage plan.

JACKIE S. McDONELL NEW MEXICO 10903 REGISTERED PROFESSIONAL ENGINEER

10-19-92

Rev. 12-9-92

RECEIVED DEC - 9 1992 HYDROLOGY DIVISION

TBM = F/F of Existing North Bldg. 5247.92 Asbuilt 9/08/92

REPRINTED BY PERMISSION OF
JEFF MORTENSEN & ASSOC., INC.
10-14-92

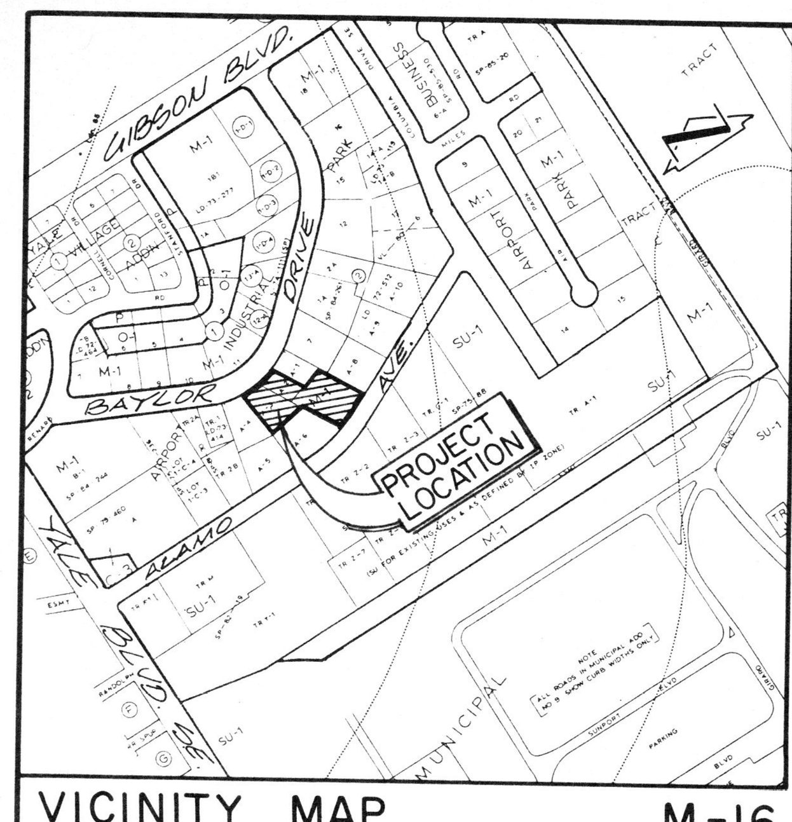
GRADING & DRAINAGE PLAN

ORTHO-MEDICS, INC.

DESIGN BY ______
DRAWN BY ______
APPROVED BY ______

No.	Date	By	Revision

JOB NO. 871091
DATE 01-1988
SHEET 1 OF 2



PROJECT BENCHMRK

A.C.S. BENCHMARK 11-L16. A QUARE, "□", CHISELED IN TOP OF CONETE CURB @ THE SSW RETURN LATED @ THE INTERSECTION OF VAIL E. S.E. & GIRARD BLVD. S.E.
ELEVATION = 5270.72 FEET (S.L.D.)

TEMPORARY BENCHMARK

T.B.M. = CURB SCRIBE ON BAYLOR DRIVE S.E. SCRIBE IS ON SOUTHERN CURB - ON A PROJECTED PROPERTY LINE COMMON TO TRACTS A-2 & A-3, AS SHOWN HEREON.
ELEVATION = 5247.28 FEET (M.S.L.D.)

LEGAL DESCRIPTION

TRACT A-2-A, BLOCK 2,
AIRPORT INDUSTRIAL PARK,
ALBUQUERQUE, NEW MEXICO

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING SWALE
- PROPOSED SWALE
- EXISTING RETAINING WALL
- PROPOSED RETAINING WALL
- EXISTING WATER METER / WATER VALVE
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- EXISTING OVERHEAD LINE
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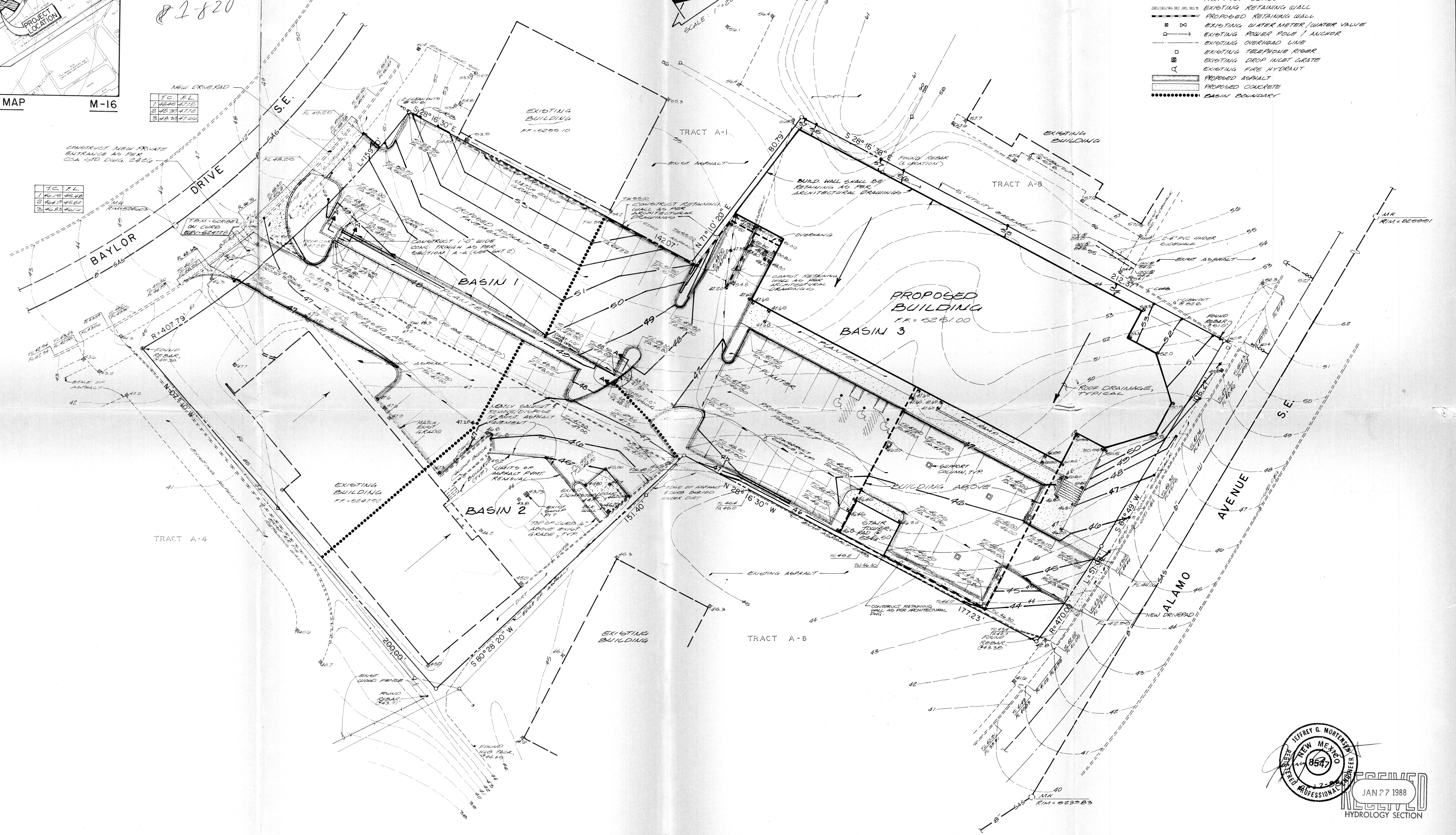
- EXISTING DROP INLET GRATE
- EXISTING FIRE HYDRANT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- BASIN BOUNDARY



GRADING & DRAINAGE PLAN

ORTHO-MEDICS, INC.

Tom Mann & Associates, Inc.
811 DALLAS N.E. • ALBUQUERQUE • NEW MEXICO • 87110
ENGINEERS

DESIGN BY	L.P.U.
DRAWN BY	C.V.M.
APPROVED BY	J.G.M.

No.	Date	By	Revision

JOB NO.	871091
DATE	01-1988
SHEET	1 OF 2

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, 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 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 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.

EROSION CONTROL MEASURES

1. 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.

2. 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.

3. THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

DRAINAGE PLAN

The following items concerning the Ortho-Medic, Inc. Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located between Baylor Drive S.E. and Alamo Avenue S.E., east of Yale Boulevard S.E. At present, a portion of the site is developed. Much of the surrounding area is developed commercially. As shown by Plate M-16 of the Albuquerque Master Drainage Study, this site does not lie within a designated flood hazard zone. Downstream flooding is not apparent, and therefore does not appear to be a problem. At present, a portion of the site, also known as Basin 1, drains from east to west onto Baylor Drive S.E. Baylor Drive S.E. drains west to Yale Boulevard S.E. From that point, runoff will flow north along the east edge of Yale Boulevard S.E. to Gibson Boulevard S.E. Gibson Boulevard S.E. drains west to the South Diversion Channel located on the east side of Interstate 25. Basin 2 drains to an existing sump pit. The remainder of the site, known as Basin 3, drains from north to south onto Tract A-6, with a small portion draining onto Alamo Avenue S.E. No offsite flows enter the site along the north and south property lines since existing streets route runoff away from the project site. No offsite flows enter the site along the west property line since the existing lot is graded in a manner which will route runoff away from the project site. Some offsite flows enter the site along the east property line which will be accepted and conveyed through the project site.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) continuity between existing and proposed grades, and 3) the limit and character of the proposed improvements. As shown by this plan, the proposed improvements consist of the construction of a new warehouse/office building along with adjacent paving and landscaping. Flows generated by Basin 1 will be routed from south to north onto Baylor Drive S.E. From that point, runoff will flow to the aforementioned South Diversion Channel discussed above. The previous submittal prepared by our office (M16/D19) has established that the free discharge of runoff from this basin is appropriate. Flows generated by Basin 2 will continue to enter an existing sump pit located within the southerly portion of Basin 2. Flows generated by Basin 3 will be routed from north to south onto Alamo Avenue S.E. Alamo Avenue S.E. drains west to a series of storm inlets located within Alamo Avenue S.E. which connect to an existing 60" RCP storm system. Based upon the fact that this site is an infill site and the proximity of downstream facilities, the free discharge of runoff from this site is appropriate.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used to quantify the peak rate of discharge and the SCS Method has been used to quantify the volume of runoff. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, and the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements by Basin 1 will increase the peak rate of discharge by approximately 0.7 cfs. The decrease in runoff generated by Basin 2 will be approximately 0.6 cfs. The increase in peak rate of discharge by Basin 3 will be approximately 1.9 cfs.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate: 31, Cu - Cut and fill land
Hydrologic Soil Group: A
Existing Pervious CN = 54 (DPM Plate 22.2 C-2
Pasture or Range Land: fair condition)
Developed Pervious CN = 39 (DPM Plate 22.2 C-2)

Time of Concentration/Time to Peak

$T_c = 0.0078\ L^{0.77}/S^{0.385}$ (Kirpich Equation)

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.29$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CiA$

where C varies
$i = P_6\ (6.84)\ T_c^{-0.51} = 4.84$ in/hr
$P_6 = 2.29$ in (DPM Plate 22.2D-1)
$T_c = 10$ min (minimum)
A = area, acres

SCS Method

Volume: $V = 3630(DRO)\ A$

Where DRO = Direct runoff in inches
A = area, acres

Existing Condition
Basin 1
A_{total} = 16,258 sf = 0.37 Ac
Roof area = 1,505 sf (0.09)
Paved area = 7,900 sf (0.49)
Landscaped area = 2,110 sf (0.13)
Dirt area = 4,743 sf (0.29)
C = 0.69 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.69)(4.84)(0.37) = 1.2$ cfs
A_{imp} = 9,405 sf; % impervious = 58 %
Composite CN = 73 (DPM Plate 22.2 C-3)
DRO = 0.45 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO)A = 605 cf

Basin 2
A_{total} = 19,020 sf = 0.44 Ac
Roof area = 7,530 sf (0.40)
Paved area = 6,620 sf (0.35)
Dirt area = 4,870 sf (0.25)
C = 0.79 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.79)(4.84)(0.44) = 1.7$ cfs
A_{imp} = 14,150 sf; % impervious = 75 %
Composite CN = 84 (DPM Plate 22.2 C-3)
DRO = 4.05 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO)A = 1,680 cf

Basin 3
A_{total} = 32,680 sf = 0.75 Ac
C = 0.40 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.40)(4.84)(0.75) = 1.5$ cfs
A_{imp} = -0- sf; % impervious = -0-%
Composite CN = 54 (DPM Plate 22.2 C-3)
DRO = 0.04 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO)A = 110 cf

Developed Condition
Basin 1
A_{total} = 19,668 sf = 0.45 Ac
Roof area = 3,630 sf (0.18)
Paved area = 14,110 sf (0.72)
Landscaped area = 1,928 sf (0.10)
C = 0.87 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.87)(4.84)(0.45) = 1.9$ cfs
A_{imp} = 17,740 sf; % impervious = 90 %
Composite CN = 92 (DPM Plate 22.2 C-3)
DRO = 1.52 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO) A = 2,480 cf

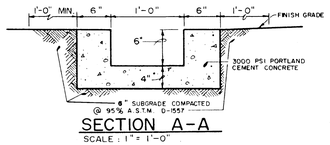
Basin 2
A_{total} = 12,030 sf = 0.28 Ac
Roof area = 3,890 sf (0.33)
Paved area = 6,165 sf (0.51)
Landscaped area = 1,975 sf (0.16)
C = 0.82 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.82)(4.84)(0.28) = 1.1$ cfs
A_{imp} = 10,055 sf; % impervious = 84 %
Composite CN = 88 (DPM Plate 22.2 C-3)
DRO = 1.25 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO) A = 1,270 cf

Basin 3
A_{total} = 36,260 sf = 0.83 Ac
Roof area = 14,925 sf (0.41)
Paved area = 16,535 sf (0.46)
Landscaped area = 4,800 sf (0.13)
C = 0.84 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.84)(4.84)(0.83) = 3.4$ cfs
A_{imp} = 31,460 sf; % impervious = 87 %
Composite CN = 91 (DPM Plate 22.2 C-3)
DRO = 1.5 in (DPM Plate 22.2 C-4)
V_{100} = 3630 (DRO) A = 4,520 cf

Comparison
Basin 1
ΔQ_{100} = 1.9 - 1.2 = 0.7 cfs (increase)
ΔV_{100} = 2,480 - 605 = 1,875 cf (increase)

Basin 2
ΔQ_{100} = 1.7 - 1.1 = 0.6 cfs (decrease)
ΔV_{100} = 1,680 - 1,270 = 410 cf (decrease)

Basin 3
ΔQ_{100} = 3.4 - 1.5 = 1.9 cfs (increase)
ΔV_{100} = 4,520 - 110 = 4,410 cf (increase)



SECTION A-A
SCALE: 1" = 1'-0"

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

RECEIVED
JAN 27 1988
HYDROLOGY SECTION

GRADING & DRAINAGE PLAN

ORTHO-MEDICS, INC.

DESIGN BY L.P.U.
DRAWN BY C.V.M.
APPROVED BY J.G.M.

No.	Date	By	Revision

JOB NO. 871091
DATE 01-1988
SHEET 2 OF 2