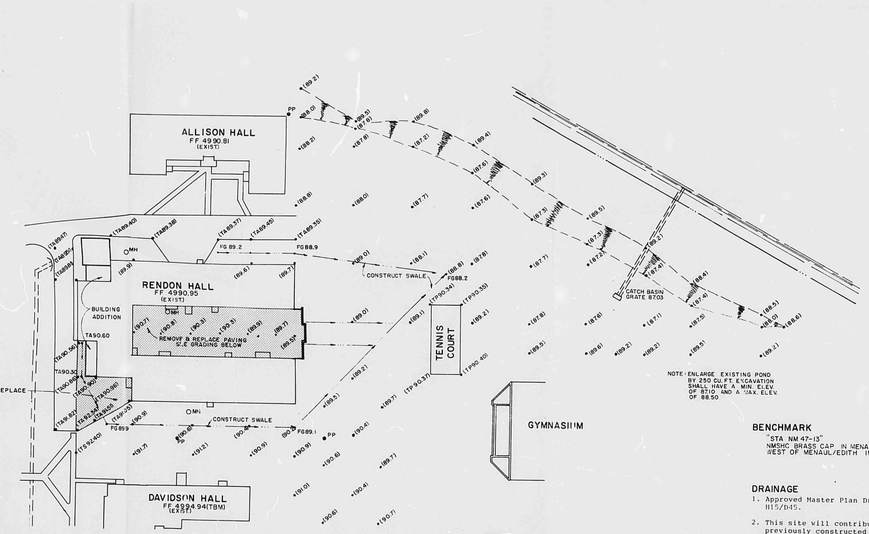
LEGEND

TBM	TEMPORARY BENCH MARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
TA	TOP OF ASPHALT
TC	TOP OF CURB
TP	TOP OF PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
MH	MAN HOLE
PP	POWER POLE
RD	ROOF DRAIN
PED	POWER OR TEL. PEDESTAL
WV	WATER VALVE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING ELEVATION
	PROPOSED ELEVATION
	AS-BUILT ELEVATION



SITE GRADING PLAN

1" = 40'

GRADING NOTES

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 260-1990 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.

EROSION CONTROL NOTES

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.

HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR PERMANENT USE
ENGINEER 12/11/90 DATE 9/14/91
INSPECTION REQUESTED DATE
APPROVAL DATE
SCHEDULE APPROVAL DATE
SURVEY DATE
HYDROLOGY BOOK NO./PAGE NO.
SURVEYED BY
COMMENTS

BENCHMARK

"STA NM 47-13" ELEV 4997.41
NMSHC BRASS CAP IN MENAUL BLVD. MEDIAN WEST OF MENAUL/EDITH INTERSECTION.

DRAINAGE

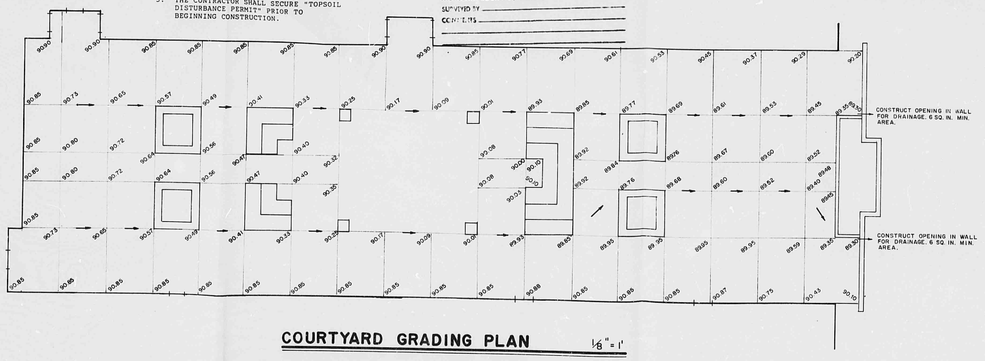
1. Approved Master Plan Drainage Report H15/D45.
2. This site will contribute to a previously constructed pond and outfall system. The existing pond shall be increased in volume to accomodate the 100 year, 6 hour runoff from the proposed impervious surfaces located on previously pervious surfaces.
3. Calculations

   Impervious Area = 1391 s.f.
   6 hour rainfall = 2.2 in.
   volume = (2.2)(1391)/12
   = 255 c.f.
   USE 270 c.f.

4. The site is not located in a flood hazard area per the FEMA FHBM #23 dated Oct. 14, 1983.

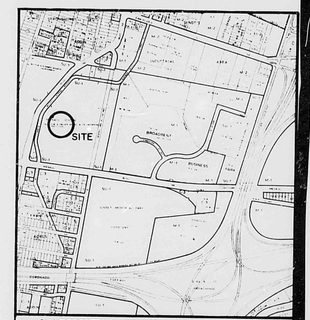
LEGAL

LANDS OF MENAUL SCHOOL

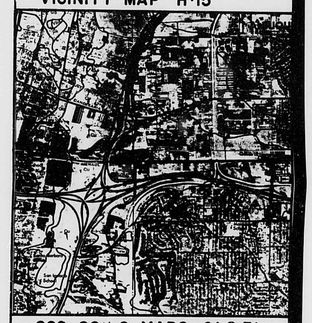


COURTYARD GRADING PLAN

1/8" = 1'



VICINITY MAP H-15



SCS SOILS MAPS 21 & 31

FHBM PANEL 23

BARKER · FRIEDMAN & ASSOCIATES
ARCHITECTS
PLANNERS
208 GOLD AVE. S.W., ALBUQUERQUE, NEW MEXICO 87102, 842-9769

JOB NO.
REVISIONS:
DATE: 9/10/90

MENAUL SCHOOL
RENDON HALL
RENOVATION

SITE GRADING PLAN

C-1

RECEIVED
SEP 17 1990
HYDROLOGY DIVISION

FILE 21 DATE 2-24-93 OF 1-5-93

CITY OF ALBUQUERQUE

This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the PUBLIC WORKS DEPARTMENT - HYDROLOGY DIVISION and was filmed in the normal course of business. The photographic processes used meet the Basic Microfilm Standards of the National Micrographics Association (NS115-1977).

Kathy Aaron
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires MAY 8 1994
Norberta Sanchez

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

PLANS/PLATS ON FILE

FILE DESC: H-15/D045

PLANS/PLATS 4

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D F

LEGEND

TBM — TEMPORARY BENCH MARK
FF — FINISH FLOOR
FG — FINISH GRADE
FL — FLOW LINE
AC — TOP OF ASPHALT
TC — TOP OF CURB
CP — TOP OF PAD
SW — TOP OF SIDEWALK
TW — TOP OF WALL
FH — FIRE HYDRANT
MH — MAN HOLE
PP — POWER POLE
RT — ROOF TOP
TED — POWER TV TEL. PEDESTAL
WV — WATER VALVE
EX — EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING ELEVATION
PROPOSED ELEVATION
MS-PELEV — MEAN SEA LEVEL ELEVATION

SITE GRADING PLAN 1" = 40'

GRADING NOTES

WORKING DAYS PRIOR TO ANY EXCAVATION CONTACT NEW MEXICO ONE CALL SYSTEM (1-800-321-ALERT) FOR LOCATION OF EXISTING UTILITIES.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL INTERFERENCES. IN THE EVENT OF ANY INTERFERENCE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL NOT BE REQUIRED TO EXCAVATE UNDER THIS CONTRACT MORE THAN A MAXIMUM AMOUNT OF 5 FEET.

ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARDS AND SPECIFICATIONS, LATEST EDITION, UNLESS OTHERWISE SPECIFIED.

EROSION CONTROL NOTES

THE CONTRACTOR SHALL ENSURE THAT NO MATERIAL EROSION OCCURS ON THE RIGHT-OF-WAY OF THE PRIVATE PROPERTY. THIS MAY BE ACHIEVED BY INSTALLING TEMPORARY BERMS AT THE PROPERTY LINE OR AROUND THE SOIL PILE TO KEEP IT FROM BLOWING.

THE CONTRACTOR SHALL PROVIDE CLEAN FILL MATERIAL EROSION RESISTANT MATERIAL TO BE PLACED ON THE PROPERTY IN A WAY SO THAT THE PROPERTY WILL NOT BE DISTURBED BEYOND WHAT IS ACCEPTABLE TO THE OWNER AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL PROVIDE TEMPORARY BERMS, SILT FENCE TO PREVENT EROSION DURING CONSTRUCTION.

BENCHMARK

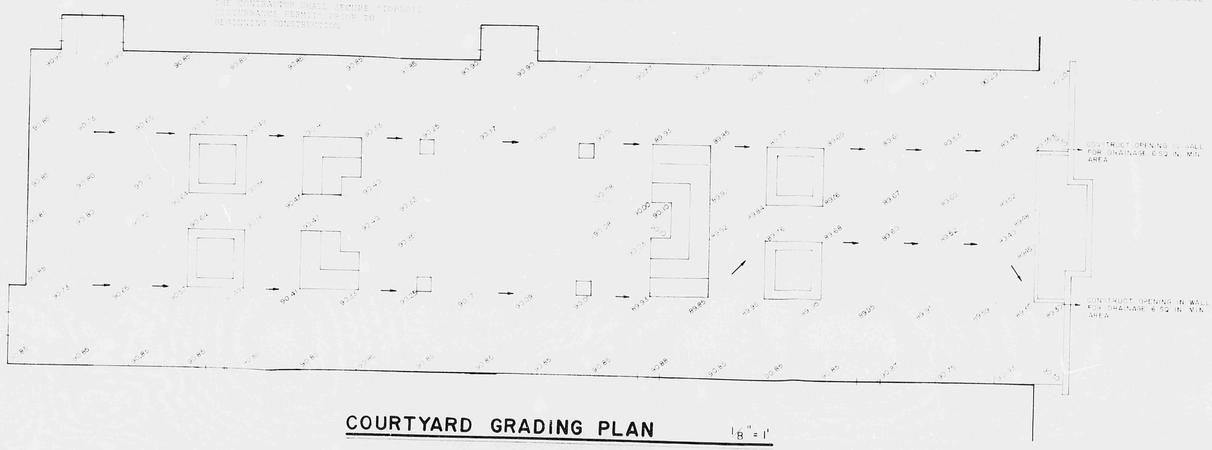
STA NM 47-13 ELEV. 4997.4
NGS BRASS CAP IN SIDEWALK ON MEDIAN WEST OF MENAUL/EDITH INTERSECTION

DRAINAGE

As Approved Master Plan Drainage Report

LEGAL

LANDS OF MENAUL SCHOOL



COURTYARD GRADING PLAN 1/8" = 1'

VICINITY MAP H-15

SCS SOILS MAPS 21 & 31

FHBM PANEL 23

BARKER • FRIEDMAN & ASSOCIATES
ARCHITECTS & PLANNERS
209 GOLD AVENUE S.W., ALBUQUERQUE, NEW MEXICO 87102 842-6769

JOB NO.:
REVISIONS:
DATE:

MENAUL SCHOOL
RENDON HALL
RENOVATION

SITE GRADING PLAN

C-1

THIS PLAN SHOT TWICE
ONCE ON LIGHT AND
ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

By DATE OF

CITY OF ALBUQUERQUE

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CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires

09/07/90

HYDROLOGY DIVISION

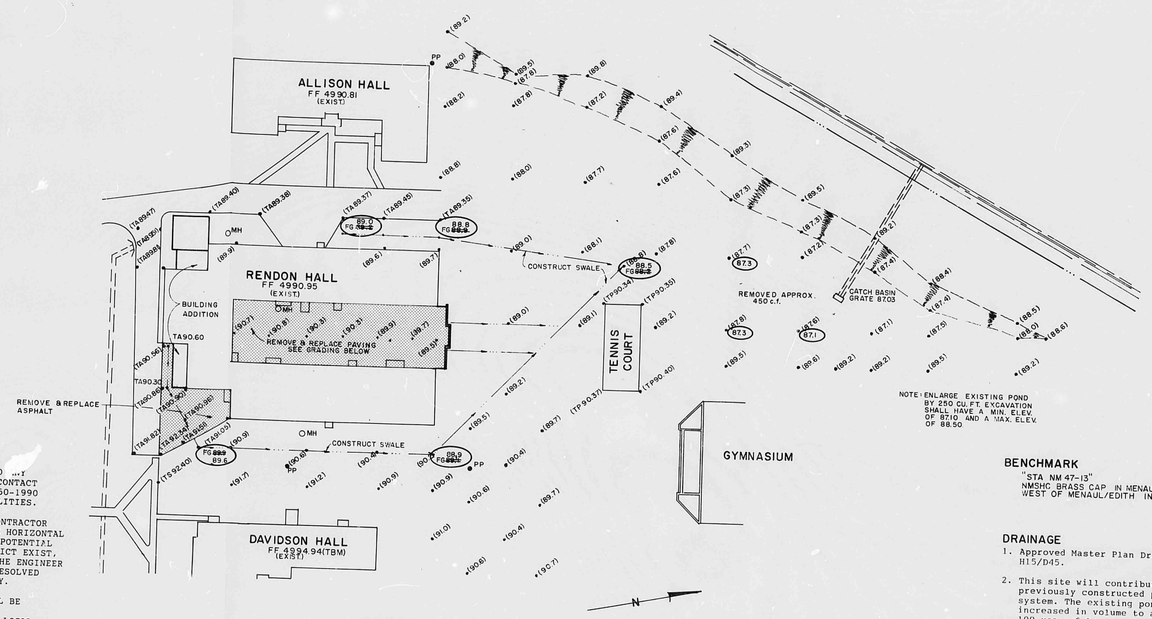
D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D

LEGEND

TBM	TEMPORARY BENCH MARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
TA	TOP OF ASPHALT
TC	TOP OF CURB
TP	TOP OF PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
MH	MAN HOLE
PP	POWER POLE
RD	ROOF DRAIN
PED	POWER OR TEL. PEDESTAL
WV	WATER VALVE
	EXISTING CONTOUR
	PROPOSED CONTOUR
(XX.X)	EXISTING ELEVATION
XX.X	PROPOSED ELEVATION
XX.X (circled)	AS-BUILT ELEVATION



SITE GRADING PLAN 1" = 40'

GRADING NOTES

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 260-1990 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.

EROSION CONTROL NOTES

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.

THIS IS TO CERTIFY THAT I HAVE OBTAINED AS-BUILT INFORMATION AND THAT THE CONSTRUCTION IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING PLAN.
11/18/91
JOHN J. BORDENAVE, PE & PS 5110
NEW MEXICO
JOHN J. BORDENAVE

BENCHMARK

STA NM 47-13" ELEV. 4997.41
NMSHC BRASS CAP IN MENAUL BLVD MEDIAN WEST OF MENAUL/EDITH INTERSECTION.

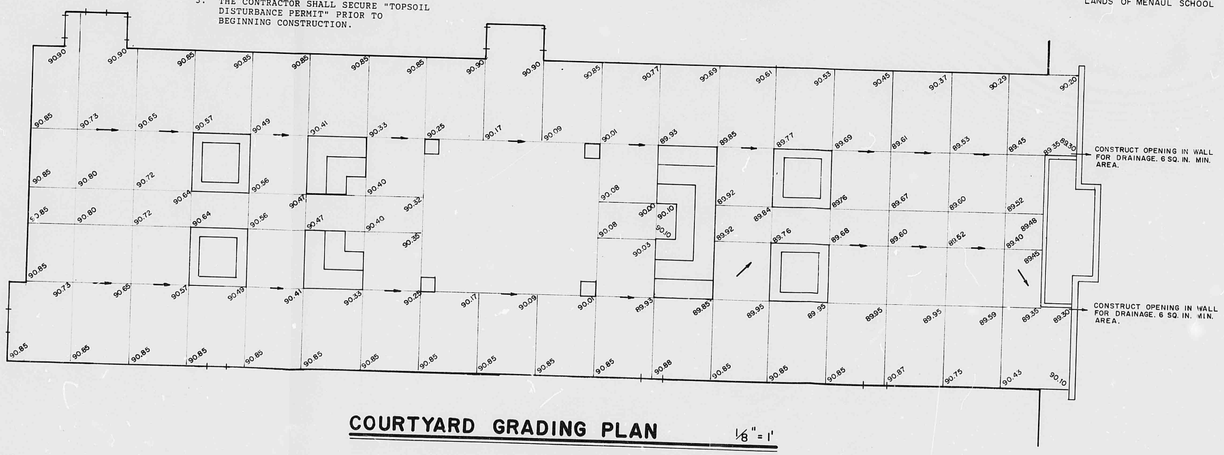
DRAINAGE

1. Approved Master Plan Drainage Report H15/D45.
2. This site will contribute to a previously constructed pond and outfall system. The existing pond shall be increased in volume to accomodate the 100 year, 6 hour runoff from the proposed impervious surfaces located on previously pervious surfaces.
3. Calculations

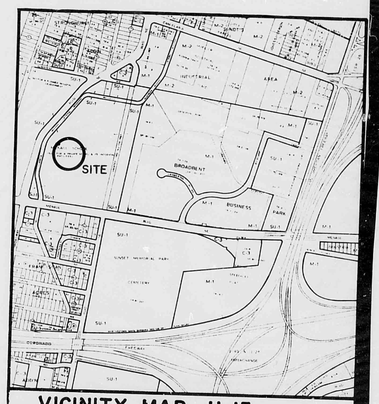
   Impervious Area = 1391 s.f.
   6 hour rainfall = 2.2 in.
   volume = (2.2)(1391)/12
   = 255 c.f.
   USE 270 c.f.
4. The site is not located in a flood hazard area per the FEMA FHBM #23 dated Oct. 14, 1983.

LEGAL

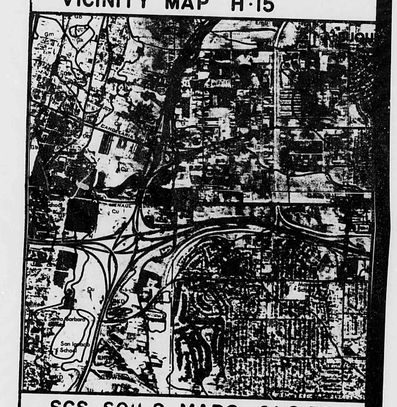
LANDS OF MENAUL SCHOOL



COURTYARD GRADING PLAN 1/8" = 1'



VICINITY MAP H-15



SCS SOILS MAPS 21 & 31

FHBM PANEL 23

BARKER • FRIEDMAN & ASSOCIATES
ARCHITECTS & PLANNERS
209 GOLD AVENUE, S.W., ALBUQUERQUE, NEW MEXICO 87102, 842-6789

JOB NO.
REVISIONS:
DATE: 4/10/90

MENAUL SCHOOL
RENDON HALL
RENOVATION

SITE GRADING PLAN

C-1

RECEIVED
NOV 18 1991
HYDROLOGY DIVISION

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

REF 21 DATE 2-24-92 OP. ESP

CITY OF ALBUQUERQUE

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CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires May 8 1993

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D

LEGEND

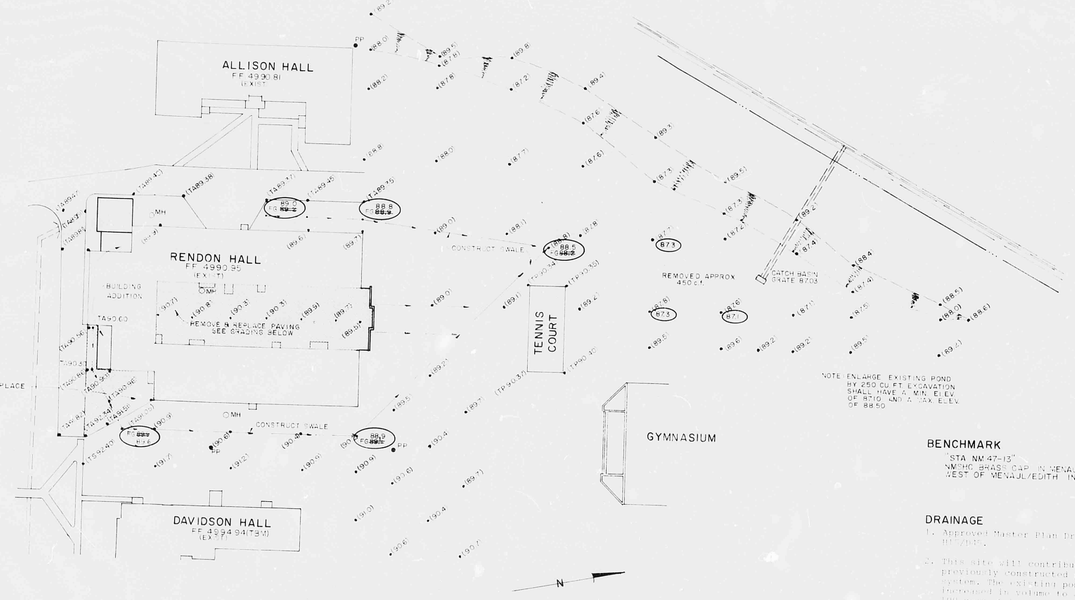
TBM	TEMPORARY BENCH MARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
TA	TOP OF ASPHALT
TC	TOP OF CURB
TF	TOP OF PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
MH	MAN HOLE
PP	POWER POLE
RD	ROOF DRAIN
PED	POWER OR TEL. PEDESTAL
WV	WATER VALVE
	EXISTING CONTOUR
	PROPOSED CONTOUR
x.x.x	EXISTING ELEVATION
x.x.x	PROPOSED ELEVATION
(x.x.x)	AS-BUILT ELEVATION

GRADING NOTES

TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 260-1990 FOR LOCATION OF EXISTING UTILITIES.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL UNDERGROUND UTILITIES. IF CONFLICTS ARISE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICTS 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 INCLUDING CONSTRUCTION SAFETY AND HEALTH.



SITE GRADING PLAN 1"=40'

EROSION CONTROL NOTES

THE CONTRACTOR SHALL PREVENT ANY SOIL EROSION FROM ENTERING PUBLIC RIGHT-OF-WAY OR INTO PRIVATE PROPERTY. THIS MAY BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS ON THE PROPERTY LINES AND REPAIRING THE SOIL TO KEEP IT FROM BLOWING.

THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT POSSIBLE TO BEGIN WASHED DOWN THE STREET.

THE CONTRACTOR SHALL SECURE TOPSOIL DISTURBANCE PERMITS PRIOR TO BEGINNING CONSTRUCTION.

BENCHMARK

"STA NM 47-13" ELEV 4999.74
NGS DISC BRASS CAP IN MENAUL BLVD. MEDIAN WEST OF MENAUL/EDITH INTERSECTION

DRAINAGE

1. Approved Master Plan Drainage Report

2. This site will contribute to a previously constructed pond and outfall system. The existing pond shall be lowered in volume to accommodate the runoff from the proposed impervious surfaces located on previously pervious surfaces.

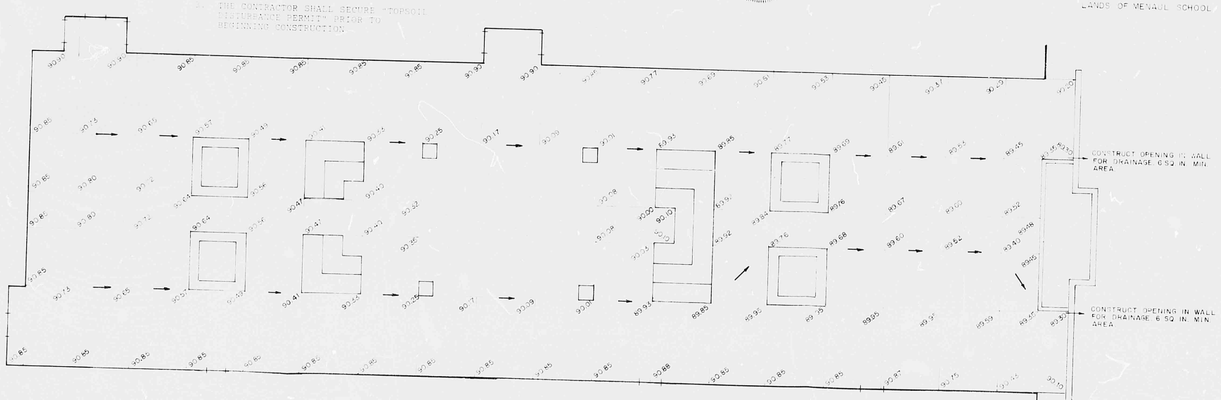
3. Calculation:

Impervious Area = [illegible]
6 hour rainfall = [illegible] in.
Volume = [illegible] cu.ft.
[illegible] cu.ft.

4. This site is not located in a flood hazard area per the FEMA FIRM map, Panel no. [illegible].

LEGAL

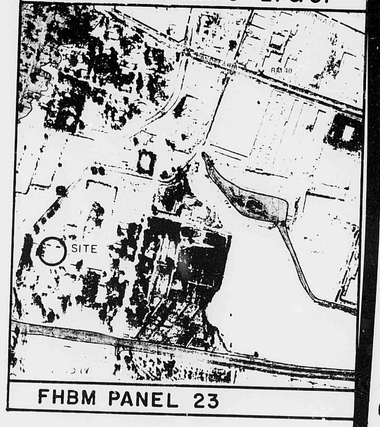
LANDS OF MENAUL SCHOOL



COURTYARD GRADING PLAN 1/8"=1'

VICINITY MAP H-15

SCS SOILS MAPS 21 & 31



FHBM PANEL 23

BARKER • FRIEDMAN & ASSOCIATES
ARCHITECTS & PLANNERS
209 GOLD AVENUE, S.W., ALBUQUERQUE, NEW MEXICO 87102, 842-6789

JOB NO.
REVISIONS:
DATE:

MENAUL SCHOOL
RENDON HALL
RENOVATION

SITE GRADING PLAN

C-1

THIS PLAN SHOT TWICE
ONCE ON LIGHT AND
ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

REF 21 DATE [illegible] OP [illegible]

CITY OF ALBUQUERQUE

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CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires [illegible]

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D

T.	T
CA	CA
CC	CC

VICINITY MAP H 15

SCALE 1" = 800'

LEGEND

- PROPOSED CONCRETE
- 88 PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING CONCRETE
- 88 EXISTING CONTOUR

PROJECT BENCHMARK

THE STATION MARK IS A STANDARD NMSHC BRASS TABLET STAMPED "STA NM 47-13", SET IN TOP OF CONCRETE POST FLUSH WITH THE GROUND, LOCATED IN THE CENTER OF THE MEDIAN ON MENAUL BLVD. JUST WEST OF THE INTERSECTION OF EDITH BLVD. & MENAUL BLVD. ELEVATION: 4997.410 FT. (M.S.L.D.)

T B M

SAME AS PROJECT BENCHMARK

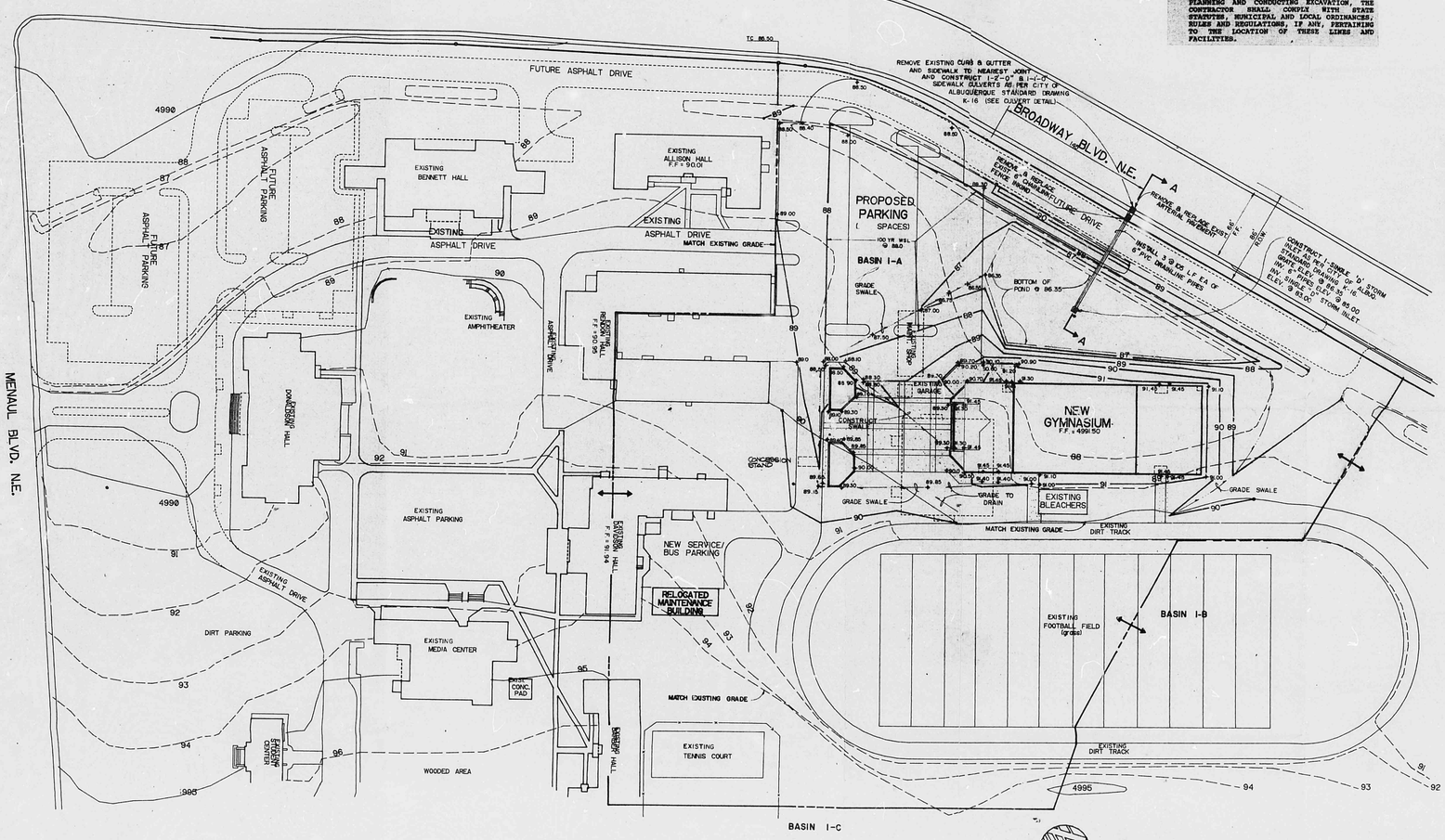
LEGAL DESCRIPTION

LANDS OF MENAUL SCHOOL

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.
6. 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.
7. BACKFILL COMPACTION SHALL BE ACCORDING TO STREET USE.
8. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

APPROVALS	NAME	DATE
A.C.E./DESIGN		
INSPECTOR		
A.C.E./FIELD		



GRADING PLAN

1" = 40'-0"

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.

GRADING AND DRAINAGE PLAN PREPARED UNDER THE SUPERVISION OF

JAMES E. MONTOYA
NEW MEXICO
8547
REGISTERED PROFESSIONAL ENGINEER

TOPOGRAPHIC SURVEY PREPARED BY OTHERS AND PROVIDED BY OTHERS. ITS ADEQUACY IS HEREBY DISCLAIMED AS IT RELATES TO THIS DRAWING.

JOB NO. 30402

PLW ARCHITECTS & ENGINEERS, INC.
AMERICAN FINANCIAL CENTER
2400 LOUISIANA BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87110
(505) 881-2753

ARCHITECT

ENGINEER

GRADING PLAN

SHEET TITLE

MENAUL SCHOOL GYMNASIUM FOR MENAUL HIGH SCHOOL

301 MENAUL BLVD. N.E. ALBUQUERQUE, NEW MEXICO 87107

PROJECT NO. 8650

DATE

SHEET NO.

RECEIVED OCT 08 1986 HYDROLOGY SECTION

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
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Karen Aiken
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: MAY 8 1995
Norberta Sanchez

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CITY OF ALBUQUERQUE

C D F

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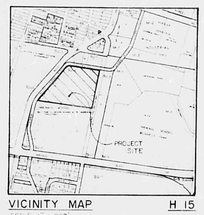
CA	CA
CC	CC



VICINITY MAP H 15

SCALE: 1" = 1000'

LEGEND

- PROPOSED CONCRETE
- 88 PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING CONCRETE
- 88 EXISTING CONTOUR

PROJECT BENCHMARK

THE STATION MARK IS A STANDARD 3"MSHC BRASS TABLET STAMPED "STA NM 47-13", SET IN TOP OF CONCRETE POST FLUSH, WITH THE GROUND, LOCATED IN THE CENTER OF THE MEDIAN ON MENAUL BLVD. JUST WEST OF THE INTERSECTION OF EDITH BLVD. & MENAUL BLVD. ELEVATION 4997.410 FT. (M.S.L.D.)

T.B.M.

SAME AS PROJECT BENCHMARK

LEGAL DESCRIPTION

LANDS OF MENAUL SCHOOL

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 PEIFORMED 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.

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7. BACKFILL COMPACTION SHALL BE ACCORDING TO INTERNAL STREET USE.

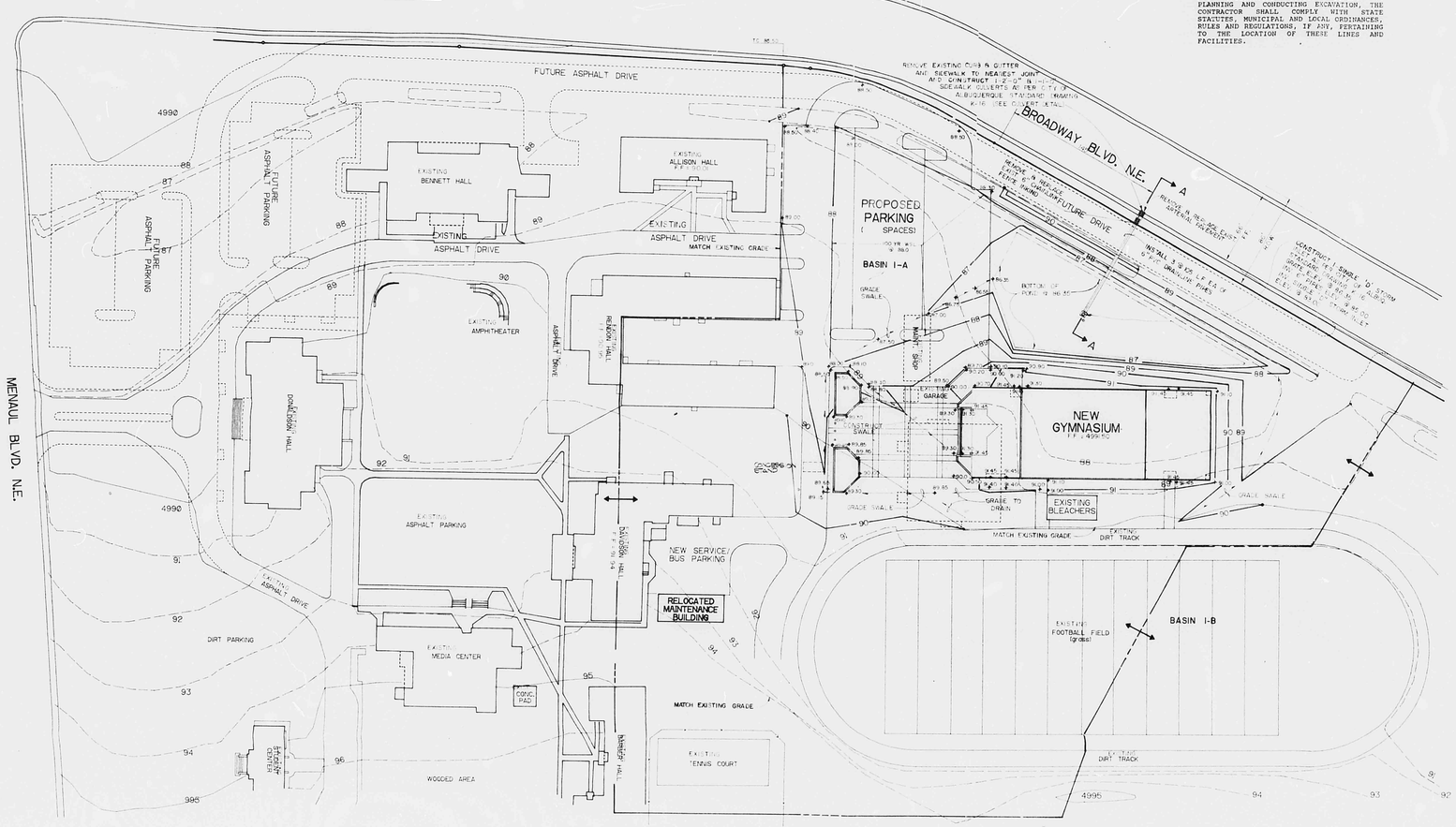
8. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

APPROVALS	NAME	DATE
A.C.E./DESIGN		
INSPECTOR		
A.C.E./FIELD		

GRADING AND DRAINAGE PLAN PREPARED UNDER THE SUPERVISION OF

JOHN T. BURGETT & MORTON ASSOCIATES, INC. CONSULTING PROFESSIONAL ENGINEERS NEW MEXICO 8547

TOPOGRAPHIC SURVEY PREPARED BY OTHERS AND PROVIDED BY OTHERS. ITS ADEQUACY IS HEREBY DISCLAIMED AS IT RELATES TO THIS DRAWING



GRADING PLAN

1" = 40'-0"

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 MULCHING 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.

JOB NO. 30402

BPLW

ARCHITECT

ENGINEER

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BY 21 DATE 1998 OCT 12

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CITY CLERK RECORDER

OFFICIAL SEAL NORBERTA SANCHEZ NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D F

DRAINAGE PLAN

The following items concerning the Menaul School Drainage Plan are contained hereon:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located on the northeast corner of the intersection of Broadway Boulevard N.E. and Menaul Boulevard N.E. At present, the site is developed. Much of the surrounding area is currently developed, thereby making this an infill site. As shown by Plate H-15 of the Albuquerque Master Drainage Study, this site does not lie within a designated Flood Hazard Zone, however there is apparent downstream flooding at Edith Boulevard N.E. and Candelaria Road N.E.. However, the proposed gymnasium is located within an existing depressed area located at the north end of the existing football field. No offsite flows enter the site along the west and south property lines since the adjacent streets route runoff away from the project site. No offsite flows enter the site along the east side of the basin boundary since the adjacent access road is graded in a manner which will route runoff away from the project site. Basin 1 is composed of three sub-basins: 1-A, 1-B, and 1-C. These areas have been combined as a single basin for analysis due to the fact that the ridge lines separating the sub-basins are not clearly defined. Also a minor alteration in grading of the campus in this vicinity would consequently alter, if not perhaps eliminate, one or more of the existing ridge lines. At present, runoff generated onsite, also known as Basin 1-A of the Master Drainage Study attached hereto flows to the existing depression located on the north side of the football field. The runoff which now enters this depressed area is retained indefinitely until it evaporates and/or infiltrates into the soil.

The Grading Plan shows 1) existing and proposed grades indicated by contours at 1'0" intervals, 2) continuity between existing and proposed grades, 3) the limit and character of the proposed improvements. As shown by this Plan, the proposed improvements consist of the construction of a new gymnasium, along with adjacent paving. Flows generated by this site will be routed from east to west through the existing retention pond which will also be graded to accommodate the total 100-year, 6-hour volume of runoff determined by the Master Plan and discharge onto Broadway Boulevard N.E. From that point, the runoff will flow north along the east edge of Broadway Boulevard N.E. to an existing catch basin located at the intersection of Broadway Boulevard N.E. and Candelaria Road N.E. which is the outfall for this site.

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. An analysis of the pond release rate is based upon the Orifice Equation. The analysis of the pond volume is based upon the Average End Area Method. As shown by these Calculations, the proposed improvements will result in a net increase of 6 cfs.

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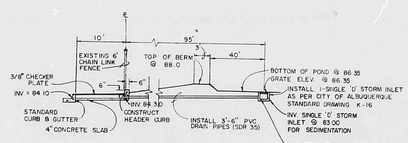
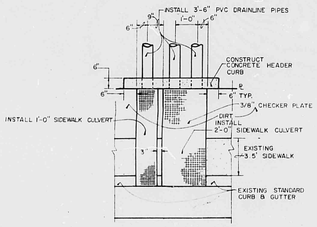


SECTION A-A
N.T.S.



SIDEWALK CULVERT DETAIL
SCALE H 1" = 2'
V 1" = 1'

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plates 21 and 31: Gb - Gila Loam
Hydrologic Soil Group: B
Existing Pervious CN = 70 (DPM Plate 22.2 C-2
Pasture or Range Land: fair condition)
Developed Pervious CN = 61 (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

$P_6 = 2.2$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CiA$

where C varies
$i = P_6\ (6.84)\ T_C^{-0.51} = 4.65$ in/hr
$P_6 = 2.2$ 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

$A_{total} = 635,976$ sf = 14.6 Ac
Roof area = 41,310 sf (0.06)
Paved area = 21,110 sf (0.03)
Landscaped area = 573,556 sf (0.23)
C = 0.32 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.32)(4.65)(14.6) = 21.7$ cfs
$A_{imp} = 62,420$ sf; % impervious = 10 %
Composite CN = 73 (DPM Plate 22.2 C-3)
DRO = 0.45 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 23,850$ cf

Developed Condition

$A_{total} = 635,976$ sf = 14.6 Ac
Roof area = 49,230 sf (0.07)
Paved area = 88,910 sf (0.13)
Landscaped area = 497,836 sf (0.20)
C = 0.40 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = (0.40)(4.65)(14.6) = 27.2$ cfs
$A_{imp} = 138,140$ sf; % impervious = 22 %
Composite CN = 76 (DPM Plate 22.2 C-3)
DRO = 0.6 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)\ A = 31,800$ cf

$V_{required} = 19,080$ cf (By Hydrograph Analysis)

$V = 1/2[(A_{88.0} + A_{87.0})(88.0 - 87.0) + (A_{88.0} - A_{87.35})(88.0 - 87.35)]$

$V = 1/2[(39,330 + 15,375)(1.0) + (15,375 + 11,000)(0.65)]$

$V = 36,025\ cf > V_{100}$

$Q_{release} = CA\sqrt{2gh} = 2.0$ cfs
Where C = 0.70
A = 0.1964 (6" dia. pipe)
g = 32.2 ft/sec^2
h = 3.25 ft
The required number of drains is 7.3/2 = 3.65
Therefore, use 3 - 6" dia. pipes

Comparison

$\Delta Q_{100} = 6.0 - 0 = 6.0$ cfs (increase)
$\Delta V_{100} = 31,800 - 23,850 = 7,950$ cf (increase)

GRADING AND DRAINAGE PLAN PREPARED UNDER THE SUPERVISION OF

BOHNER, MERRIFIELD, SZABO & ASSOCIATES, INC.
ENGINEERS
SURVEYORS
PLANNERS
10-3-86

TOPOGRAPHIC SURVEY PREPARED BY OTHERS AND PROVIDED BY OTHERS. ITS ACCURACY IS HEREBY DECLARED AS IT RELATES TO THIS DRAWING.

RECEIVED
OCT 03 1986
HYDROLOGY SECTION

JOB NO. 30402

H-15/D045

REF. 21 DATE 2/24/93 BY EQP
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