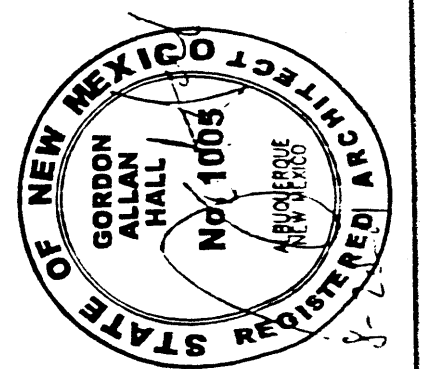
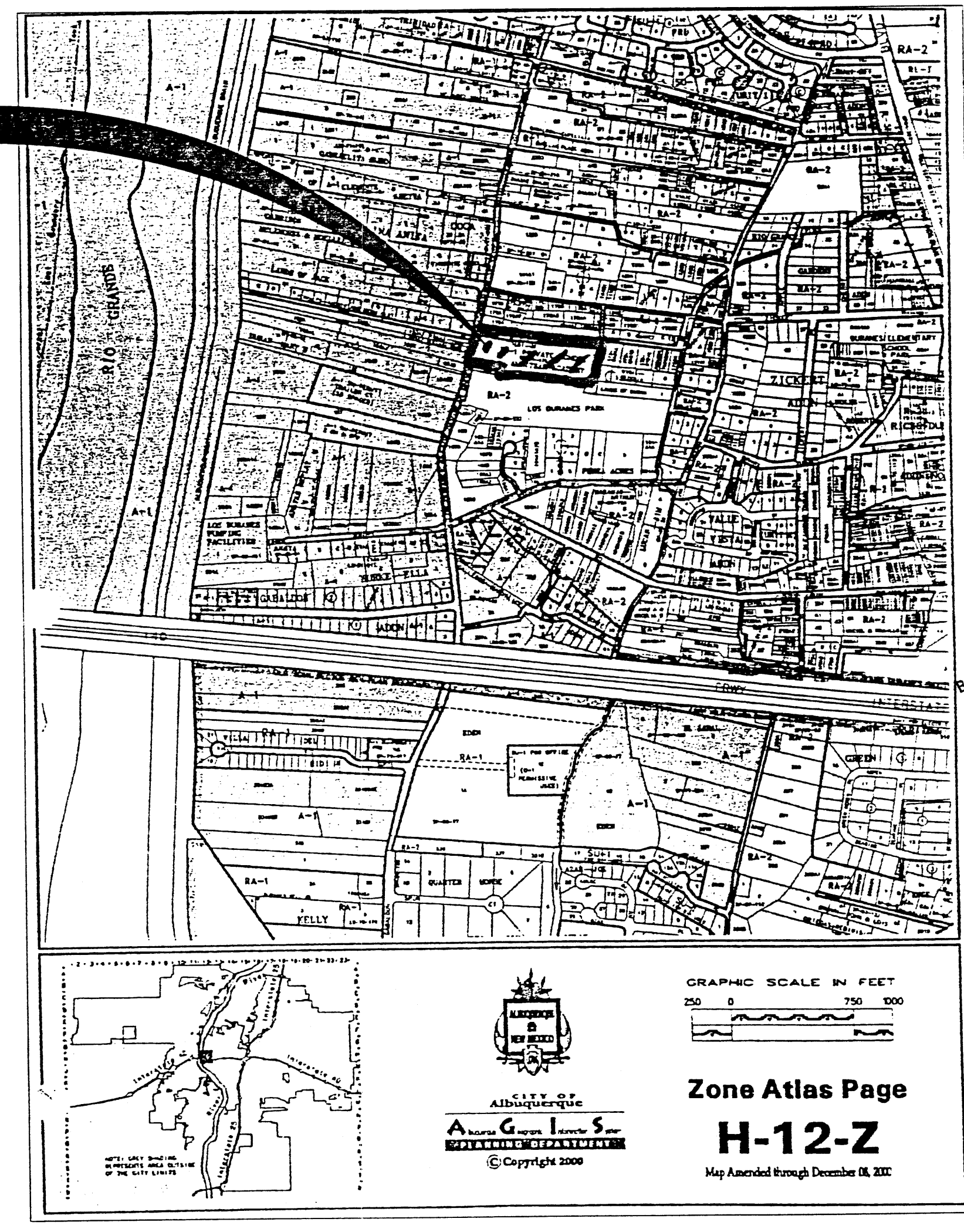


1 SITE PLAN
1" = 30'

MONTESSORI OF THE RIO GRANDE

SITE LOCATION



GORDON ALLAN HALL
ARCHITECT
ALBUQUERQUE, NEW MEXICO
Office: 505-274-1351
Home: (505) 856-0553
e-mail: gahall@att.com

LEGAL DESCRIPTION
LOT NO. 1, A
SUBDIVISION, ARTISAN ACADEMY
ADDRESS
1650 GABALDON RD. NW
ALBUQUERQUE, NEW MEXICO

CLASSROOM ADDITION
MONTESSORI
OF THE RIO GRANDE

ALBUQUERQUE
BUILDING & SAFETY
SEP 08 2001
PLAT
SECTION

SHEET CONTENTS
1. SITE PLAN

DATE
21 AUG '01

SHEET #
1
OF
9

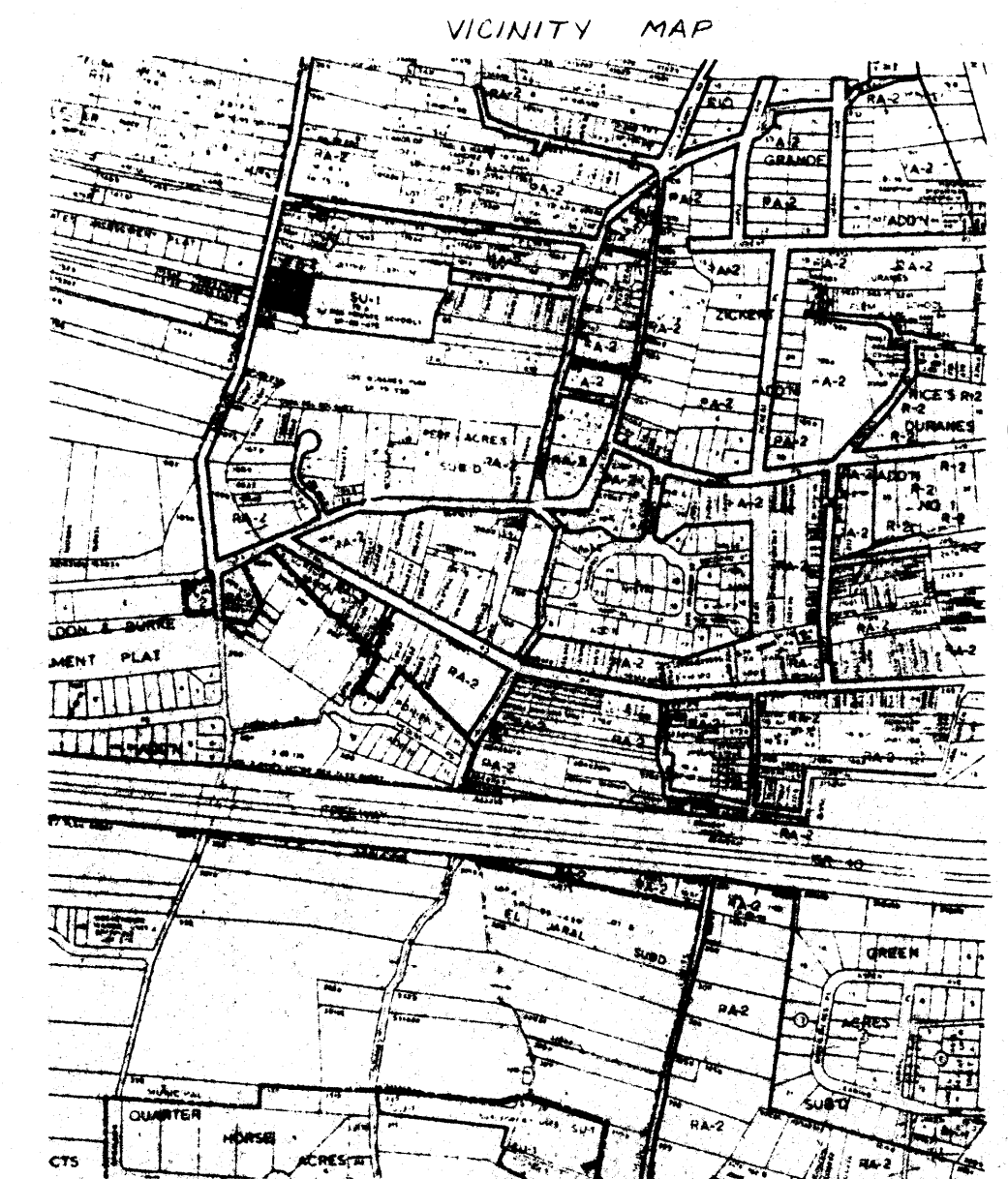
REVISED DRAINAGE PLAN
PARKING LOT, TRACT A, LANDS OF AMRITSAR ACADEMY
ALBUQUERQUE, N.M.
 ZONE MAP H-12 BENCHMARK H-424 ELEV. 4976.798
 FLOOD ZONE MAP NO. 22 SOIL TYPE B
 FILE NO. _____ APPROVED _____

REFERENCE: GRADING AND DRAINAGE PLAN FOR AMRITSAR ACADEMY
 FOR ASBURY SCHOOL (H12-08)
 APPROVED APRIL 20, 1984

THIS GRADING PLAN IS A REVISION TO THE GRADING PLAN FOR THE AREA IDENTIFIED AS DRAINAGE BASIN A ON THE ABOVE REFERENCED PLAN. THE PROPOSED USE OF THIS AREA AS A PARKING LOT IS THE SAME AS THAT ON THE APPROVED PLAN; HOWEVER, THE CONFIGURATION AND AREA OF THE PAVED PORTION IS DIFFERENT.

THE IMPERVIOUS AREA (SIDEWALK AND ASPHALT PAVING) HAS BEEN REDUCED FROM APPROXIMATELY 25,990 SQ. FT. (0.5966 AC.) ON THE ORIGINAL PLAN TO 19,747 SQ. FT. (0.4533 AC.), A REDUCTION OF 24%. THE REMAINDER OF THE BASIN WILL BE LANDSCAPED. NO OTHER CHANGES ARE TO BE MADE.

THE STORM RUNOFF FROM THE REVISED LAYOUT WILL BE LESS THAN THAT COMPUTED FOR THE APPROVED PLAN AND NO DRAINAGE PROBLEMS WILL BE CREATED BY THIS MODIFICATION.

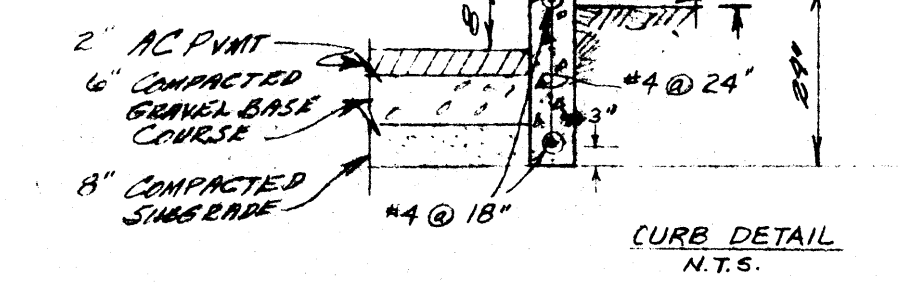
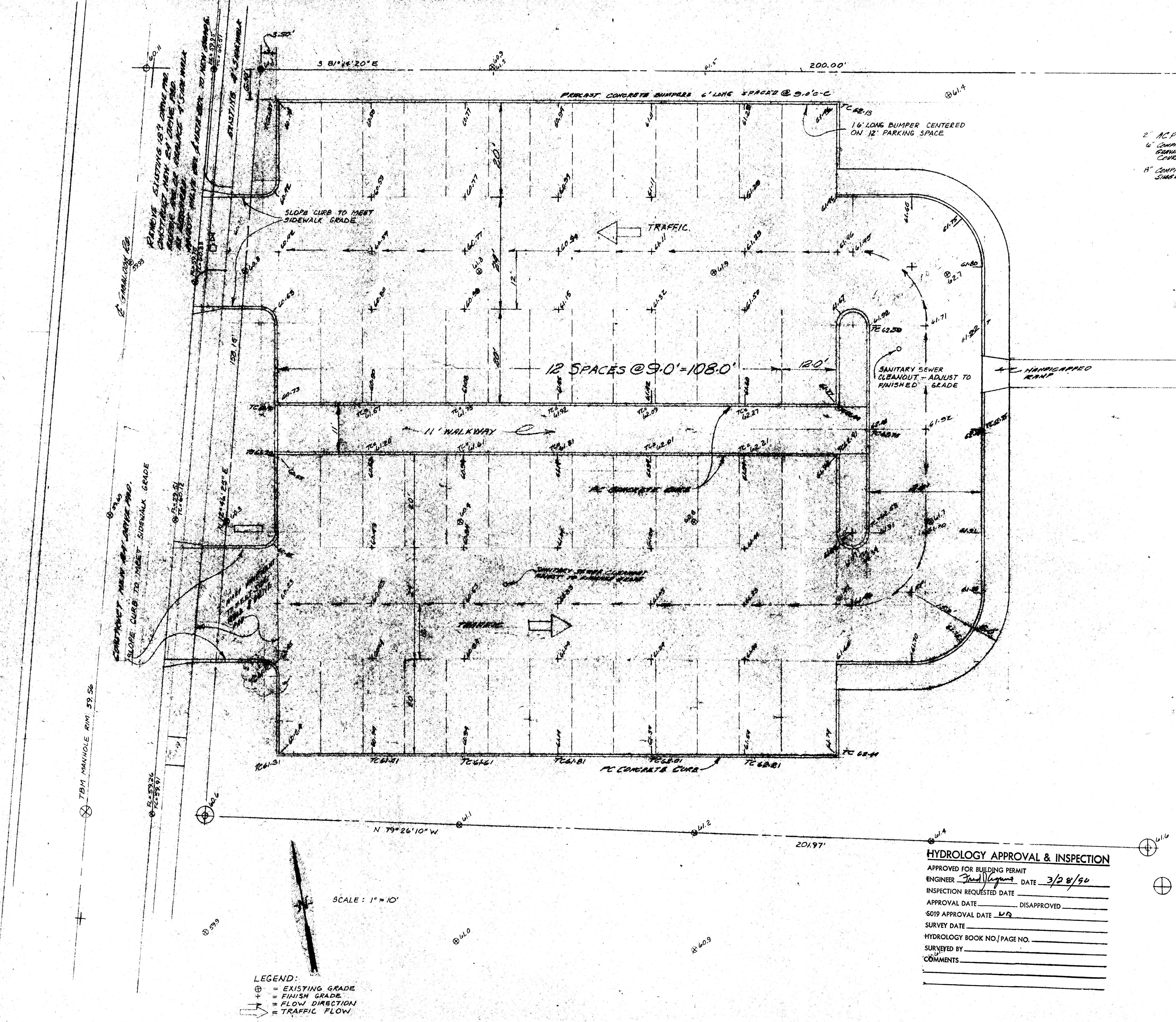


RECEIVED
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 HYDROLOGY DIVISION

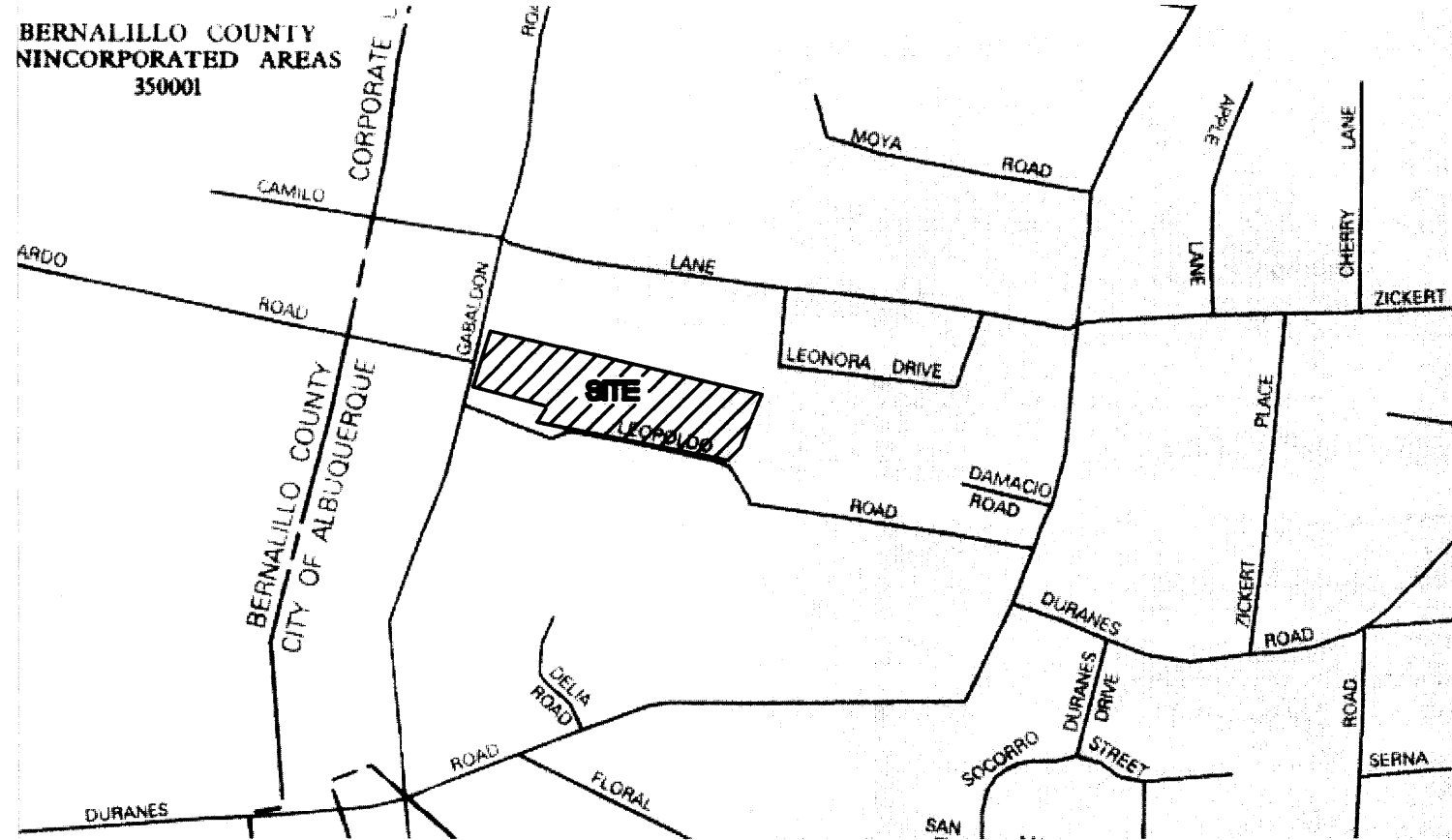
HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR BUILDING PERMIT
 ENGINEER *Thad Vignani* DATE *3/28/90*
 INSPECTION REQUESTED DATE _____
 APPROVAL DATE _____ DISAPPROVED _____
 S019 APPROVAL DATE *4/9*
 SURVEY DATE _____
 HYDROLOGY BOOK NO./PAGE NO. _____
 SURVEYED BY _____
 COMMENTS _____

Prepared by: Southwest Surveying Co., Inc.
 333 Lomas N.E.
 Albuquerque, New Mexico 87102
 (505) 247-4444



FIRM PANEL 331 (1" = 500')



COA TOPOGRAPHIC MAP H-12 (1" = 200')



DRAINAGE REPORT

LOCATION & DESCRIPTION

THE SITE IS AN EXISTING 3.3 ACRE PRIVATE SCHOOL LOCATED EAST OF GABALDON ROAD, NW JUST NORTH OF LOS DURANES PARK, AS SHOWN ON THE VICINITY MAP ON THIS SHEET. IT IS CURRENTLY DEVELOPED WITH 38,290 SQUARE FEET OF BUILDINGS, PARKING LOTS, AND OTHER IMPERVIOUS AREA (TYPE 'D' LAND TREATMENT). THERE IS ALSO 13,210 SQUARE FEET OF SOD AND OTHER LANDSCAPING CLASSIFIED AS TYPE 'B' LAND TREATMENT. THE REMAINING AREA IS HARD COMPACTED DIRT PLAYGROUNDS AND OTHER AREAS CLASSIFIED AS TYPE 'C' LAND TREATMENT. ALL OF THE PROPERTY HAS BEEN DISTURBED BY DEVELOPMENT OR OTHER USE BY THE SCHOOL; THEREFORE, NONE OF THE PROPERTY IS CLASSIFIED AS TYPE 'A' LAND TREATMENT. THE SITE IS TYPICAL OF THE VALLEY AREAS WITH EXTREMELY FLAT TOPOGRAPHY. IN 2001 BEAM DESIGNS PREPARED A PLAN FOR A 2,800 SQUARE FOOT CLASSROOM ADDITION THAT WAS ATTACHED TO THE EAST END OF THE EXISTING SCHOOL BUILDING. RECENTLY 2,945 SQUARE FEET OF CONCRETE SIDEWALKS AND A PORTABLE CLASSROOM BUILDING WERE CONSTRUCTED ADJACENT TO THE PREVIOUS ADDITION. THIS STUDY IS TO UPDATE THE APPROVED 2001 GRADING AND DRAINAGE PLAN. NO OTHER IMPROVEMENTS ARE PLANNED AT THIS TIME.

FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0331 D, DATED SEPTEMBER 20, 1996 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN. HOWEVER, IT IS WITHIN THE ZONE X 500-YEAR FLOODPLAIN AS SHOWN ON THE FIRM PANEL ON THIS SHEET.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT IS ANALYZED USING THE JANUARY 1994 RELEASE OF THE AHYMO COMPUTER PROGRAM. ALL CALCULATIONS ARE IN ACCORDANCE WITH THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

THE 100-YR 6-HR DURATION STORM IS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 2 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION ARE USED TO ESTABLISH THE 1-HOUR, 6-HOUR, AND 24-HOUR PRECIPITATION. AHYMO INPUT AND SUMMARY OUTPUT CALCULATIONS ARE INCLUDED ON THIS SHEET.

EXISTING DRAINAGE CONDITIONS PRIOR OT 2001 STUDY

THE EXISTING SITE IS DEVELOPED AS DESCRIBED ABOVE IN "LOCATION AND DESCRIPTION". THE SITE IS DIVIDED WITH THE MAJORITY OF THE SITE SHEET FLOWING TO LEOPOLDO ROAD ON THE SOUTH EDGE OF THE PROPERTY. THE PARKING LOT AREA DRAINS TO THE WEST INTO GABALDON ROAD. THERE IS APPROXIMATELY 14,136 SQUARE FEET NEAR THE EAST END OF THE SITE THAT DRAINS INTO AN EXISTING MAN-MADE WETLANDS AND THEREFORE DOES NOT CONTRIBUTE TO THE DRAINAGE AREA. THE DRAINAGE BASIN SHOWN ON THIS SHEET IS BOUNDED BY IRRIGATION CHANNELS ON THE EAST AND SOUTH. THE NORTH AND WEST BOUNDARIES WERE DETERMINED BY DRIVING THE BASIN AND DETERMINING THE MAXIMUM AREA THAT COULD DRAIN TO THE EXISTING STREETS THAT DRAIN TO LEOPOLDO DRIVE. THIS 0.02783 SQUARE MILE DRAINAGE BASIN IS COMPRISED OF THE MONTESSORI OF THE RIO GRANDE (14.2%), LOS DURANES PARK (27.4%), LOS DURANES COMMUNITY CENTER (3.2%), AND A RESIDENTIAL AREA DEVELOPED AT 3.35 DWELLING UNITS PER ACRE (55.2%). EACH TYPE OF DEVELOPMENT WAS DIVIDED UP INTO RESPECTIVE LAND TREATMENTS AND THEN A COMPOSITE LAND TREATMENT WAS CALCULATED FOR THE ENTIRE BASIN. THE CONTRIBUTING PORTION OF THE EXISTING SCHOOL SITE IS 0% "A", 20.2% "B", 64.4% "C", AND 15.4% "D". THE PARK IS 0% "A", 99.9% "B", 0% "C", AND 0.1% "D". THE COMMUNITY CENTER IS 0% "A", 5% "B", 5% "C", AND 90% "D". THE RESIDENTIAL AREA IS 0% "A", 31.5% "B", 31.5% "C", AND 37% "D". THE CUMULATIVE LAND TREATMENT FOR THIS BASIN IS 0% "A", 47.8% "B", 26.7% "C", AND 25.5% "D". THERE IS APPROXIMATELY 4' OF ELEVATION CHANGE ALONG THE 1650' DRAINAGE PATH FOR THIS BASIN. USING EQUATION (b-1) FROM SECTION 22.2, THE TIME TO PEAK FOR THIS BASIN IS 0.21 HOURS. FROM THIS INFORMATION THE 100-YEAR PEAK DISCHARGE IS CALCULATED TO BE 41.80 CFS AS SEEN IN THE AHYMO SUMMARY ON THIS SHEET. THIS IS THE MAXIMUM FLOW THAT COULD REACH THE SUMP INLET IN LEOPOLDO ROAD. HOWEVER DUE TO THE FLAT NATURE OF THIS BASIN, LOCALIZED PONDING WILL OCCUR THROUGHOUT THE BASIN REDUCING THE NET FLOW TO THE INLET.

DEVELOPED DRAINAGE CONDITIONS (COMBINED IMPROVEMENTS FROM 2001 AND 2004)

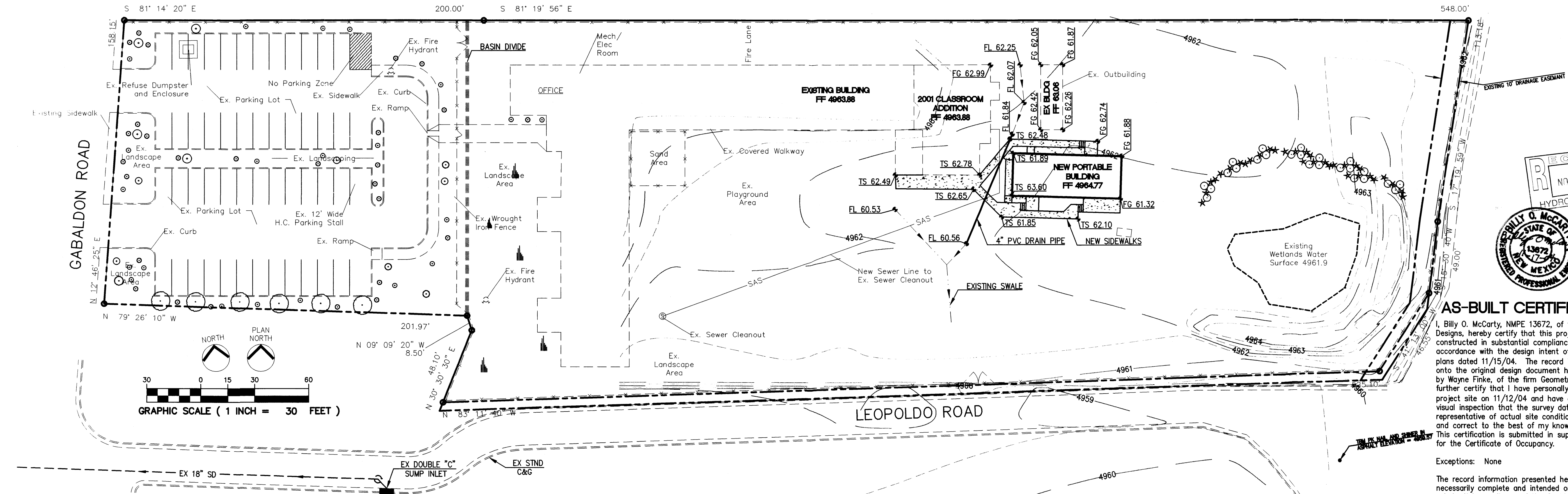
THE AHYMO SUMMARY TABLE, ON THIS SHEET, SUMMARIZES THE EXISTING AND PROPOSED CONDITIONS FOR THIS BASIN. THE ONLY CHANGE TO THE HYDROLOGY WILL BE DECREASING THE SCHOOL SITE LAND TREATMENT "C" BY 5,745 SQUARE FEET AND INCREASING THE SITES "D" LAND TREATMENT BY 5,745 SQUARE FEET. THIS RESULTS IN A NEW COMPOSITE LAND TREATMENT OF 0% "A", 47.8% "B", 25.9% "C", AND 26.3% "D" FOR THE DRAINAGE BASIN. THE BASIN'S INCREASED RUNOFF DUE TO THESE ADDITIONS IS ONLY 0.21 CFS (0.50%) AND 0.012 ACRE-FEET (1.01%). THIS IS A NEGLIGIBLE INCREASE AND WILL NOT ADVERSELY AFFECT THE DOWNSTREAM CAPACITY OF THE STORM DRAIN THAT THIS SITE NATURALLY DRAINS INTO. THEREFORE, THIS ADDITION AS CONSTRUCTED UTILIZING FREE DISCHARGE PERFORMS LIKE THE SITE HAS ALREADY BEEN APPROVED FOR IN THE APRIL 1984 SITE DRAINAGE PLAN PREPARED BY GORDAN & ASSOCIATES AND REVISED PLAN PREPARED BY BEAM DESIGNS IN APRIL 2001.

AHYMO INPUT

*S***** 100 YEAR, 6 HOUR STORM (Section 22.2 Hydrology)
START
RAINFALL
TYPE=1 RAIN QUARTER=0.0 RAIN ONE=2.01
RAIN SIX=2.35 DAY=2.75 DT=0.03333
*S*****
EXISTING CONDITIONS *****
COMPUTE NM HYD
ID=1 HYD=SITE.0 DA=0.02783 SQ MI
%A= 0.00 %B= 47.8 %C= 26.7 %D= 25.5
TP=0.21 RAINFALL=-1
PRINT HYD
*S*****
DEVELOPED CONDITIONS *****
ID=1 HYD=SITE.0 DA=0.02783 SQ MI
%A= 0.00 %B= 47.8 %C= 25.9 %D= 26.3
TP=0.21 RAINFALL=-1
PRINT HYD
FINISH

AHYMO SUMMARY OUTPUT

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IDENTIFICATION ID ID NO. (SQ MI) DISCHARGE (CFS) VOLUME (AC-FT) RUNOFF (INCHES) PEAK (HOURS) PER ACRE NOTATION
*S***** 100 YEAR, 6 HOUR STORM (Section 22.2 Hydrology)
START
RAINFALL TYPE= 1
*S*****
EXISTING CONDITIONS *****
COMPUTE NM HYD
ID=1 HYD=SITE.0 DA=0.02783 SQ MI
%A= 0.00 %B= 47.8 %C= 25.9 %D= 26.3
TP=0.21 RAINFALL=-1
PRINT HYD
FINISH



GRADING AND DRAINAGE PLAN



VICINITY MAP H-12

TOPOGRAPHIC SURVEY NOTES

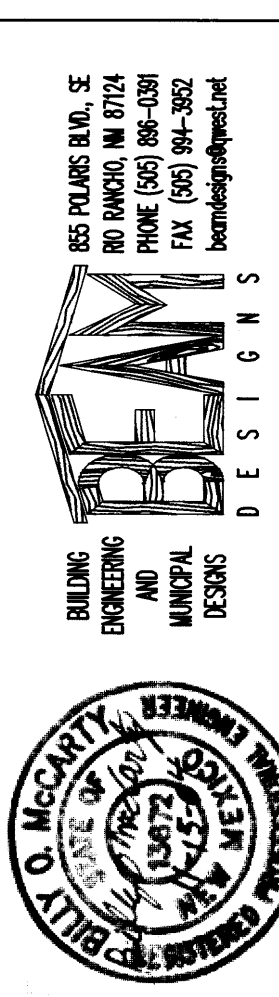
THE RECORD INFORMATION SHOWN HEREON WAS PROVIDED BY THE OWNER. A BOUNDARY SURVEY WAS NOT INCLUDED TO VERIFY THESE DIMENSIONS.

LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION SUPPLIED TO THE ENGINEER BY THE OWNER. ENGINEER DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME UTILITIES MIGHT BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

ACS BENCHMARK

ACS MONUMENT "7-H13", LOCATED AT THE BASE OF A LIGHT POLE ON THE WEST SIDE OF RIO GRANDE BOULEVARD AT THE INTERSECTION OF INDIAN SCHOOL ROAD, ELEVATION = 4961.715.



LEGAL DESCRIPTION
LOT NO.: A
SUBDIVISION: AMRTISAR ACADEMY
ADDRESS
1650 GABALDON RD. NW
ALBUQUERQUE, NEW MEXICO

PORTABLE CLASSROOM ADDITION
MONTESSORI
OF THE RIO GRANDE

SHEET CONTENTS
1. GRADING AND DRAINAGE PLAN

DATE
15 NOV. '04

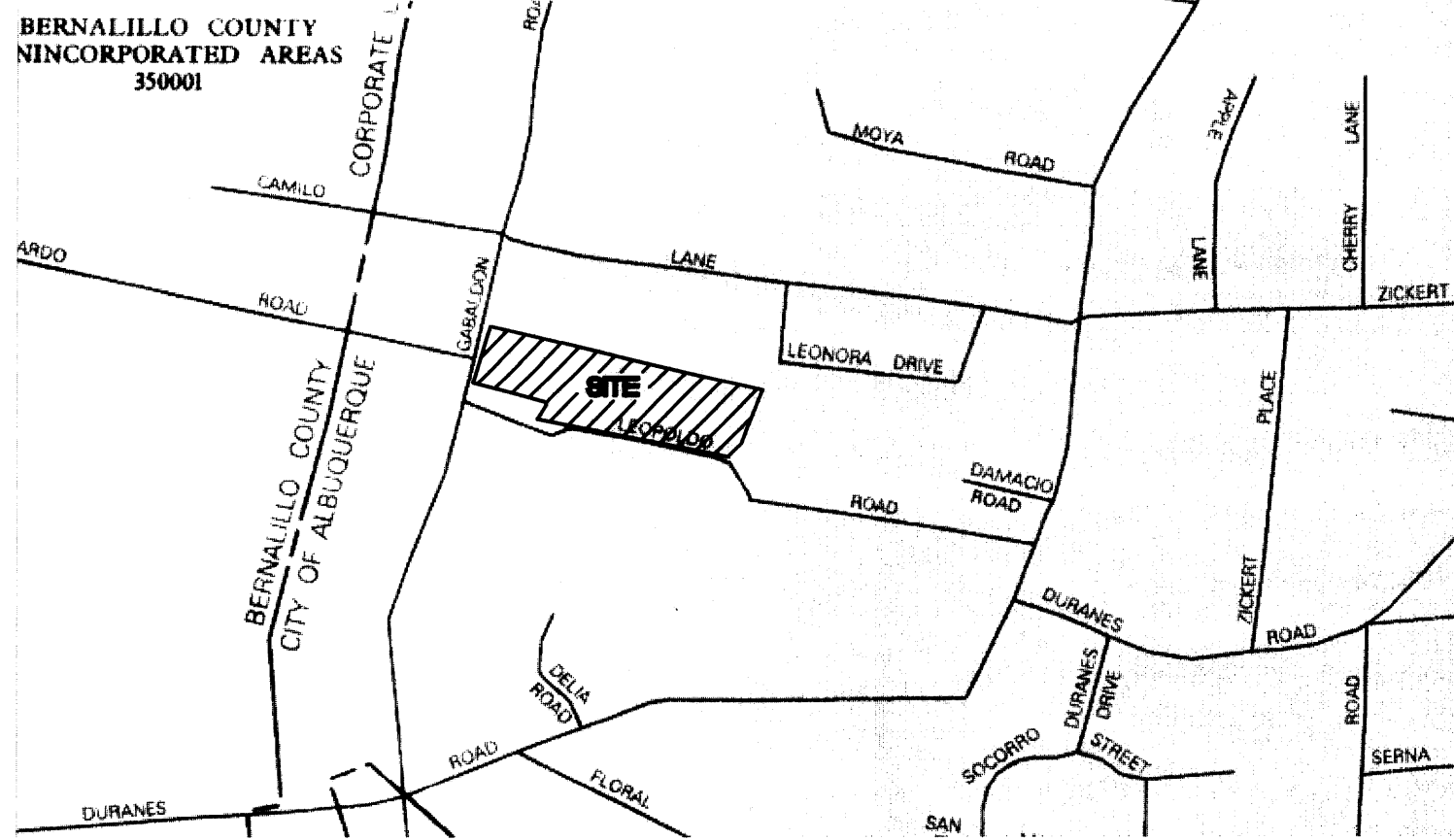
SHEET #
1
OF
1

AS-BUILT CERTIFICATION

I, Billy O. McCarty, NMPE 13672, of the firm BEAM Designs hereby certify that this project has been constructed in substantial compliance with and in accordance with the design intent of the approved plans dated 11/15/04. The record information edited onto the original design document has been obtained by Wayne Finke, of the firm Geometric Services. I further certify that I have personally visited the project site on 11/12/04 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for the Certificate of Occupancy.

Exceptions: None
The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the Construction Drawings for this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

FIRM PANEL 331 (1" = 500')



COA TOPOGRAPHIC MAP H-12 (1" = 200')



DRAINAGE REPORT

LOCATION & DESCRIPTION

THE SITE IS AN EXISTING 3.3 ACRE PRIVATE SCHOOL LOCATED EAST OF GABALDON ROAD, NW JUST NORTH OF LOS DURANES PARK, AS SHOWN ON THE VICINITY MAP ON THIS SHEET. IT IS CURRENTLY DEVELOPED WITH 38,290 SQUARE FEET OF BUILDINGS, PARKING LOTS, AND OTHER IMPERVIOUS AREA (TYPE 'D' LAND TREATMENT). THERE IS ALSO 13,210 SQUARE FEET OF SOD AND OTHER LANDSCAPING CLASSIFIED AS TYPE 'B' LAND TREATMENT. THE REMAINING AREA IS HARD COMPACTED DIRT PLAYGROUNDS AND OTHER AREAS CLASSIFIED AS TYPE 'C' LAND TREATMENT. ALL OF THE PROPERTY HAS BEEN DISTURBED BY DEVELOPMENT OR OTHER USE BY THE SCHOOL. THEREFORE, NONE OF THE PROPERTY IS CLASSIFIED AS TYPE 'A' LAND TREATMENT. THE SITE IS TYPICAL OF THE VALLEY AREAS WITH EXTREMELY FLAT TOPOGRAPHY. IN 2001 BEAM DESIGNS PREPARED A PLAN FOR A 2,800 SQUARE FOOT CLASSROOM ADDITION THAT WAS ATTACHED TO THE EAST END OF THE EXISTING SCHOOL BUILDING. RECENTLY 2,945 SQUARE FEET OF CONCRETE SIDEWALKS AND A PORTABLE CLASSROOM BUILDING WERE CONSTRUCTED ADJACENT TO THE PREVIOUS ADDITION. THIS STUDY IS TO UPDATE THE APPROVED 2001 GRADING AND DRAINAGE PLAN. NO OTHER IMPROVEMENTS ARE PLANNED AT THIS TIME.

FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0331 D, DATED SEPTEMBER 20, 1996 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN. HOWEVER, IT IS WITHIN THE ZONE X 500-YEAR FLOODPLAIN AS SHOWN ON THE FIRM PANEL ON THIS SHEET.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT IS ANALYZED USING THE JANUARY 1994 RELEASE OF THE AHYMO COMPUTER PROGRAM. ALL CALCULATIONS ARE IN ACCORDANCE WITH THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

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EXISTING DRAINAGE CONDITIONS PRIOR TO 2001 STUDY

THE EXISTING SITE IS DEVELOPED AS DESCRIBED ABOVE IN "LOCATION AND DESCRIPTION". THE SITE IS DIVIDED WITH THE MAJORITY OF THE SITE SHEET FLOWING TO LEOPOLDO ROAD ON THE SOUTH EDGE OF THE PROPERTY. THE PARKING LOT AREA DRAINS TO THE WEST INTO GABALDON ROAD. THERE IS APPROXIMATELY 14,136 SQUARE FEET NEAR THE EAST END OF THE SITE THAT DRAINS INTO AN EXISTING MAN-MADE WETLANDS AND THEREFORE DOES NOT CONTRIBUTE TO THE DRAINAGE AREA. THE DRAINAGE BASIN SHOWN ON THIS SHEET IS BOUNDED BY IRRIGATION CHANNELS ON THE EAST AND SOUTH. THE NORTH AND WEST BOUNDARIES WERE DETERMINED BY DRIVING THE BASIN AND DETERMINING THE MAXIMUM AREA THAT COULD DRAIN TO THE EXISTING STREETS THAT DRAIN TO LEOPOLDO DRIVE. THIS 0.02783 SQUARE MILE DRAINAGE BASIN IS COMPRISED OF THE MONTESSORI OF THE RIO GRANDE (14.2%), LOS DURANES PARK (27.4%), LOS DURANES COMMUNITY CENTER (3.2%), AND A RESIDENTIAL AREA DEVELOPED AT 3.35 DWELLING UNITS PER ACRE (55.2%). EACH TYPE OF DEVELOPMENT WAS DIVIDED UP INTO RESPECTIVE LAND TREATMENTS AND THEN A COMPOSITE LAND TREATMENT WAS CALCULATED FOR THE ENTIRE BASIN. THE CONTRIBUTING PORTION OF THE EXISTING SCHOOL SITE IS 0% "A", 20.2% "B", 64.4% "C", AND 15.4% "D". THE PARK IS 0% "A", 99.9% "B", 0% "C", AND 0.1% "D". THE COMMUNITY CENTER IS 0% "A", 5% "B", 5% "C", AND 90% "D". THE RESIDENTIAL AREA IS 0% "A", 31.5% "B", 31.5% "C", AND 37% "D". THE CUMULATIVE LAND TREATMENT FOR THIS BASIN IS 0% "A", 47.8% "B", 26.7% "C", AND 25.5% "D". THERE IS APPROXIMATELY 4' OF ELEVATION CHANGE ALONG THE 1650' DRAINAGE PATH FOR THIS BASIN. USING EQUATION (b-1) FROM SECTION 22.2, THE TIME TO PEAK FOR THIS BASIN IS 0.21 HOURS. FROM THIS INFORMATION THE 100-YEAR PEAK DISCHARGE IS CALCULATED TO BE 41.80 CFS AS SEEN IN THE AHYMO SUMMARY ON THIS SHEET. THIS IS THE MAXIMUM FLOW THAT COULD REACH THE SUMP INLET IN LEOPOLDO ROAD. HOWEVER DUE TO THE FLAT NATURE OF THIS BASIN, LOCALIZED PONDING WILL OCCUR THROUGHOUT THE BASIN REDUCING THE NET FLOW TO THE INLET.

DEVELOPED DRAINAGE CONDITIONS (COMBINED IMPROVEMENTS FROM 2001 AND 2004)

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AHYMO INPUT

*S***** 100 YEAR, 6 HOUR STORM (Section 22.2 Hydrology)
 START 0.00
 RAINFALL TYPE=1 RAIN QUARTER=0.0 RAIN ONE=2.01
 RAIN SIX=2.35 DAY=2.75 DT=0.03333
 *S***** EXISTING CONDITIONS *****
 COMPUTE NM HYD ID=1 HYD=SITE.0 DA=0.02783 SQ MI
 %A= 0.00 %B= 47.8 %C= 26.7 %D= 25.5
 TP=0.21 RAINFALL=-1
 ID=1 CODE=1
 PRINT HYD *S***** DEVELOPED CONDITIONS *****
 COMPUTE NM HYD ID=1 HYD=SITE.0 DA=0.02783 SQ MI
 %A= 0.00 %B= 47.8 %C= 25.9 %D= 26.3
 TP=0.21 RAINFALL=-1
 ID=1 CODE=1
 PRINT HYD
 FINISH

AHYMO SUMMARY OUTPUT

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COMMAND	HYDROGRAPH IDENTIFICATION	FROM TO NO. NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1
*S***** 100 YEAR, 6 HOUR STORM (Section 22.2 Hydrology)									
START	RAINFALL TYPE= 1						TIME=	.00	
COMPUTE NM HYD	EXISTING CONDITIONS		.02783	41.80	1.784	1.20189	1.600	2.347 PER IMP=	25.50
COMPUTE NM HYD	DEVELOPED CONDITIONS		.02783	42.01	1.796	1.21001	1.600	2.359 PER IMP=	26.30
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VICINITY MAP H-12

TOPOGRAPHIC SURVEY NOTES

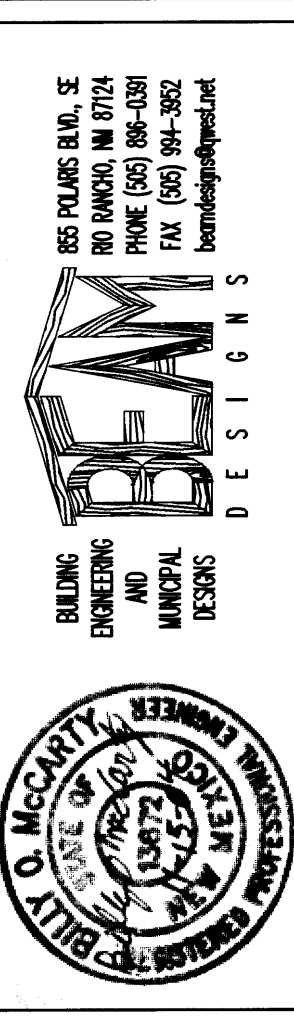
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THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

ACS BENCHMARK

ACS MONUMENT "7-H13", LOCATED AT THE BASE OF A LIGHT POLE ON THE WEST SIDE OF RIO GRANDE BOULEVARD AT THE INTERSECTION OF INDIAN SCHOOL ROAD, ELEVATION = 4961.715.



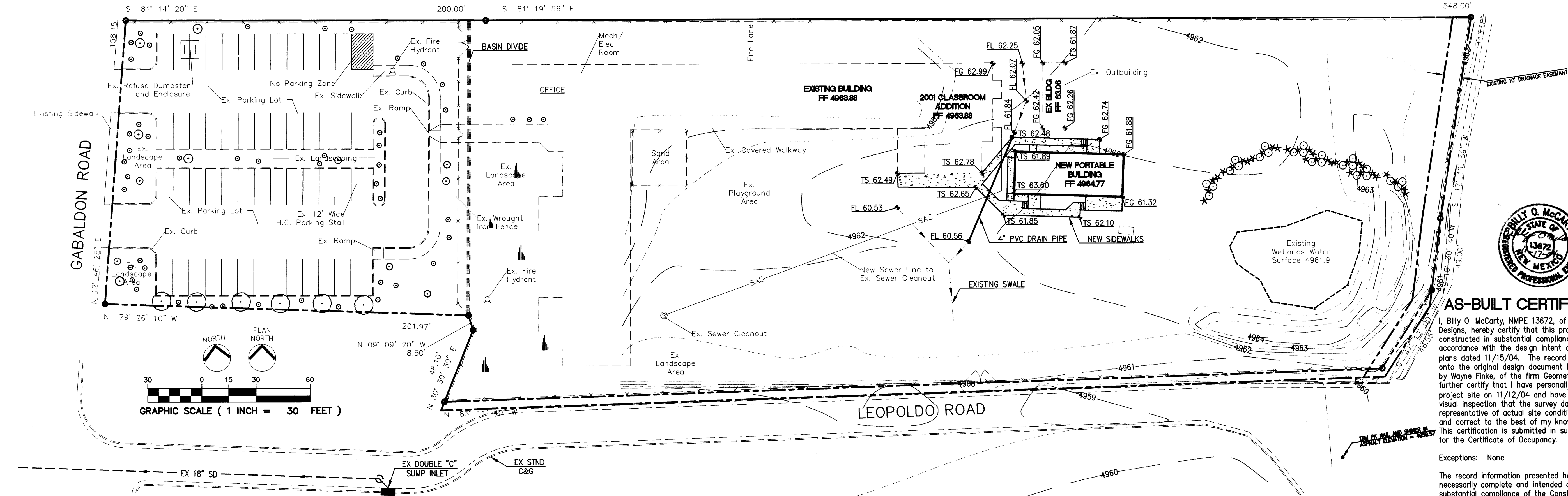
LEGAL DESCRIPTION
 LOT NO.: A
 SUBDIVISION: AMRTSAR ACADEMY
 ADDRESS: 1650 GABALDON RD. NW
 ALBUQUERQUE, NEW MEXICO

PORTABLE CLASSROOM ADDITION
 MONTESSORI
 OF THE RIO GRANDE

SHEET CONTENTS
 1. GRADING AND DRAINAGE PLAN

DATE
 15 NOV. '04

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 1
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 1



AS-BUILT CERTIFICATION

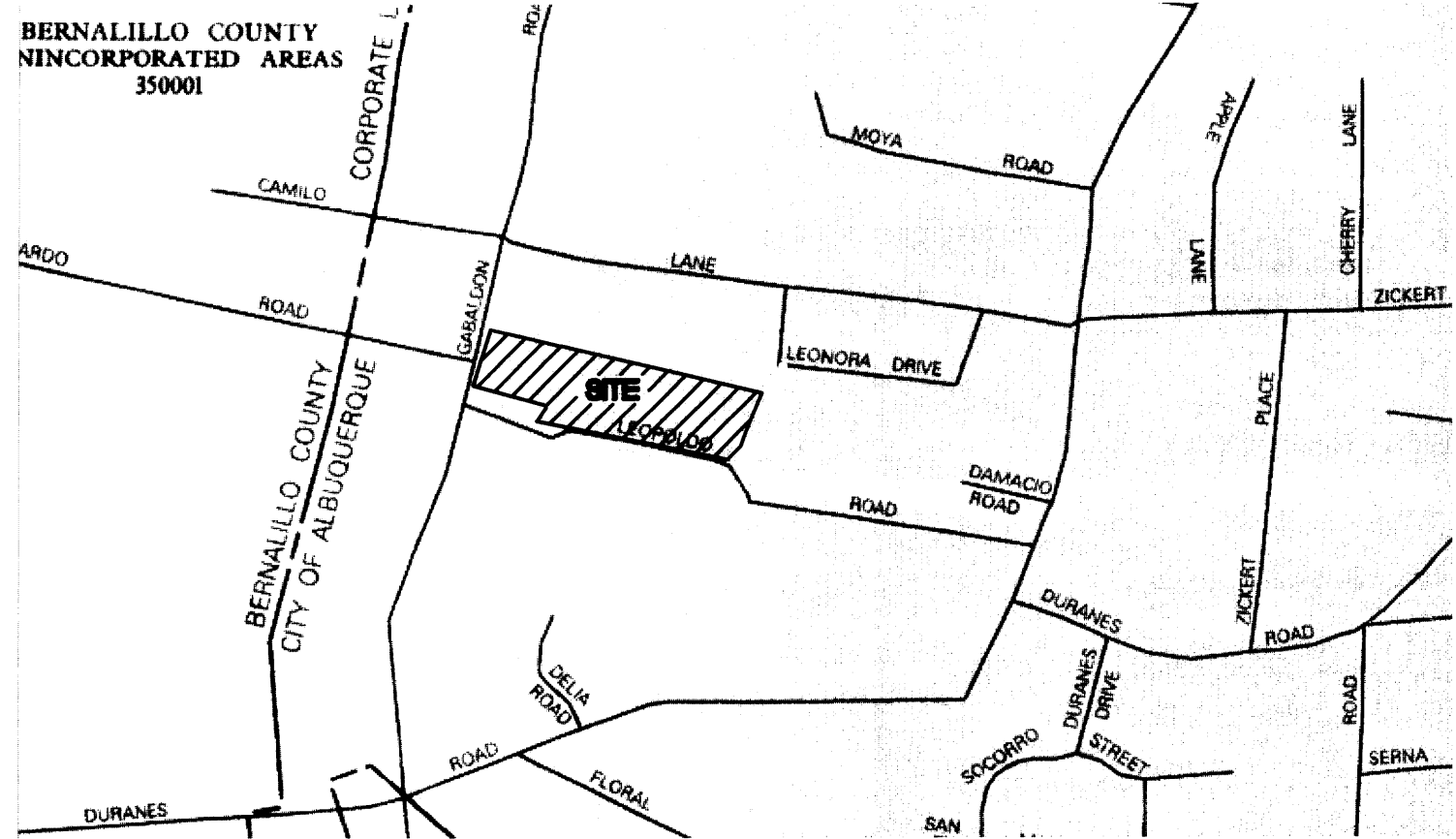
I, Billy O. McCarty, NMPE 13672, of the firm BEAM Designs, hereby certify that this project has been constructed in substantial compliance with and in accordance with the design intent of the approved plans dated 11/15/04. The record information edited onto the original design document has been obtained by Wayne Finkbe, of the firm Geometric Services. I further certify that I have personally visited the project site on 11/12/04 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for the Certificate of Occupancy.

Exceptions: None

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GRADING AND DRAINAGE PLAN

FIRM PANEL 331 (1" = 500')



COA TOPOGRAPHIC MAP H-12 (1" = 200')



DRAINAGE REPORT

LOCATION & DESCRIPTION

THE SITE IS AN EXISTING 3.3 ACRE PRIVATE SCHOOL LOCATED EAST OF GABALDON ROAD, NW JUST NORTH OF LOS DURANES PARK, AS SHOWN ON THE VICINITY MAP ON THIS SHEET. IT IS CURRENTLY DEVELOPED WITH 38,290 SQUARE FEET OF BUILDINGS, PARKING LOTS, AND OTHER IMPERVIOUS AREA (TYPE 'D' LAND TREATMENT). THERE IS ALSO 13,210 SQUARE FEET OF SOD AND OTHER LANDSCAPING CLASSIFIED AS TYPE 'B' LAND TREATMENT. THE REMAINING AREA IS HARD COMPACTED DIRT PLAYGROUNDS AND OTHER AREAS CLASSIFIED AS TYPE 'C' LAND TREATMENT. ALL OF THE PROPERTY HAS BEEN DISTURBED BY DEVELOPMENT OR OTHER USE BY THE SCHOOL. THEREFORE, NONE OF THE PROPERTY IS CLASSIFIED AS TYPE 'A' LAND TREATMENT. THE SITE IS TYPICAL OF THE VALLEY AREAS WITH EXTREMELY FLAT TOPOGRAPHY. IN 2001 BEAM DESIGNS PREPARED A PLAN FOR A 2,800 SQUARE FOOT CLASSROOM ADDITION THAT WAS ATTACHED TO THE EAST END OF THE EXISTING SCHOOL BUILDING. RECENTLY 2,945 SQUARE FEET OF CONCRETE SIDEWALKS AND A PORTABLE CLASSROOM BUILDING WERE CONSTRUCTED ADJACENT TO THE PREVIOUS ADDITION. THIS STUDY IS TO UPDATE THE APPROVED 2001 GRADING AND DRAINAGE PLAN. NO OTHER IMPROVEMENTS ARE PLANNED AT THIS TIME.

FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0331 D, DATED SEPTEMBER 20, 1996 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN. HOWEVER, IT IS WITHIN THE ZONE X 500-YEAR FLOODPLAIN AS SHOWN ON THE FIRM PANEL ON THIS SHEET.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT IS ANALYZED USING THE JANUARY 1994 RELEASE OF THE AHYMO COMPUTER PROGRAM. ALL CALCULATIONS ARE IN ACCORDANCE WITH THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

THE 100-YR 6-HR DURATION STORM IS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 2 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION ARE USED TO ESTABLISH THE 1-HOUR, 6-HOUR, AND 24-HOUR PRECIPITATION. AHYMO INPUT AND SUMMARY OUTPUT CALCULATIONS ARE INCLUDED ON THIS SHEET.

EXISTING DRAINAGE CONDITIONS PRIOR TO 2001 STUDY

THE EXISTING SITE IS DEVELOPED AS DESCRIBED ABOVE IN "LOCATION AND DESCRIPTION". THE SITE IS DIVIDED WITH THE MAJORITY OF THE SITE SHEET FLOWING TO LEOPOLDO ROAD ON THE SOUTH EDGE OF THE PROPERTY. THE PARKING LOT AREA DRAINS TO THE WEST INTO GABALDON ROAD. THERE IS APPROXIMATELY 14,136 SQUARE FEET NEAR THE EAST END OF THE SITE THAT DRAINS INTO AN EXISTING MAN-MADE WETLANDS AND THEREFORE DOES NOT CONTRIBUTE TO THE DRAINAGE AREA. THE DRAINAGE BASIN SHOWN ON THIS SHEET IS BOUNDED BY IRRIGATION CHANNELS ON THE EAST AND SOUTH. THE NORTH AND WEST BOUNDARIES WERE DETERMINED BY DRIVING THE BASIN AND DETERMINING THE MAXIMUM AREA THAT COULD DRAIN TO THE EXISTING STREETS THAT DRAIN TO LEOPOLDO DRIVE. THIS 0.02783 SQUARE MILE DRAINAGE BASIN IS COMPRISED OF THE MONTESSORI OF THE RIO GRANDE (14.2%), LOS DURANES PARK (27.4%), LOS DURANES COMMUNITY CENTER (3.2%), AND A RESIDENTIAL AREA DEVELOPED AT 3.35 DWELLING UNITS PER ACRE (55.2%). EACH TYPE OF DEVELOPMENT WAS DIVIDED UP INTO RESPECTIVE LAND TREATMENTS AND THEN A COMPOSITE LAND TREATMENT WAS CALCULATED FOR THE ENTIRE BASIN. THE CONTRIBUTING PORTION OF THE EXISTING SCHOOL SITE IS 0% "A", 20.2% "B", 64.4% "C", AND 15.4% "D". THE PARK IS 0% "A", 99.9% "B", 0% "C", AND 0.1% "D". THE COMMUNITY CENTER IS 0% "A", 5% "B", 5% "C", AND 90% "D". THE RESIDENTIAL AREA IS 0% "A", 31.5% "B", 31.5% "C", AND 37% "D". THE CUMULATIVE LAND TREATMENT FOR THIS BASIN IS 0% "A", 47.8% "B", 26.7% "C", AND 25.5% "D". THERE IS APPROXIMATELY 4' OF ELEVATION CHANGE ALONG THE 1650' DRAINAGE PATH FOR THIS BASIN. USING EQUATION (b-1) FROM SECTION 22.2, THE TIME TO PEAK FOR THIS BASIN IS 0.21 HOURS. FROM THIS INFORMATION THE 100-YEAR PEAK DISCHARGE IS CALCULATED TO BE 41.80 CFS AS SEEN IN THE AHYMO SUMMARY ON THIS SHEET. THIS IS THE MAXIMUM FLOW THAT COULD REACH THE SUMP INLET IN LEOPOLDO ROAD. HOWEVER DUE TO THE FLAT NATURE OF THIS BASIN, LOCALIZED PONDING WILL OCCUR THROUGHOUT THE BASIN REDUCING THE NET FLOW TO THE INLET.

DEVELOPED DRAINAGE CONDITIONS (COMBINED IMPROVEMENTS FROM 2001 AND 2004)

THE AHYMO SUMMARY TABLE, ON THIS SHEET, SUMMARIZES THE EXISTING AND PROPOSED CONDITIONS FOR THIS BASIN. THE ONLY CHANGE TO THE HYDROLOGY WILL BE DECREASING THE SCHOOL SITE LAND TREATMENT "C" BY 5,745 SQUARE FEET AND INCREASING THE SITES "D" LAND TREATMENT BY 5,745 SQUARE FEET. THIS RESULTS IN A NEW COMPOSITE LAND TREATMENT OF 0% "A", 47.8% "B", 25.9% "C", AND 26.3% "D" FOR THE DRAINAGE BASIN. THE BASIN'S INCREASED RUNOFF DUE TO THESE ADDITIONS IS ONLY 0.21 CFS (0.50%) AND 0.012 ACRE-FEET (1.01%). THIS IS A NEGLIGIBLE INCREASE AND WILL NOT ADVERSELY AFFECT THE DOWNSREAM CAPACITY OF THE STORM DRAIN THAT THIS SITE NATURALLY DRAINS INTO. THEREFORE, THIS ADDITION AS CONSTRUCTED UTILIZING FREE DISCHARGE PERFORMS LIKE THE SITE HAS ALREADY BEEN APPROVED FOR IN THE APRIL 1984 SITE DRAINAGE PLAN PREPARED BY GORDAN & ASSOCIATES AND REVISED PLAN PREPARED BY BEAM DESIGNS IN APRIL 2001.

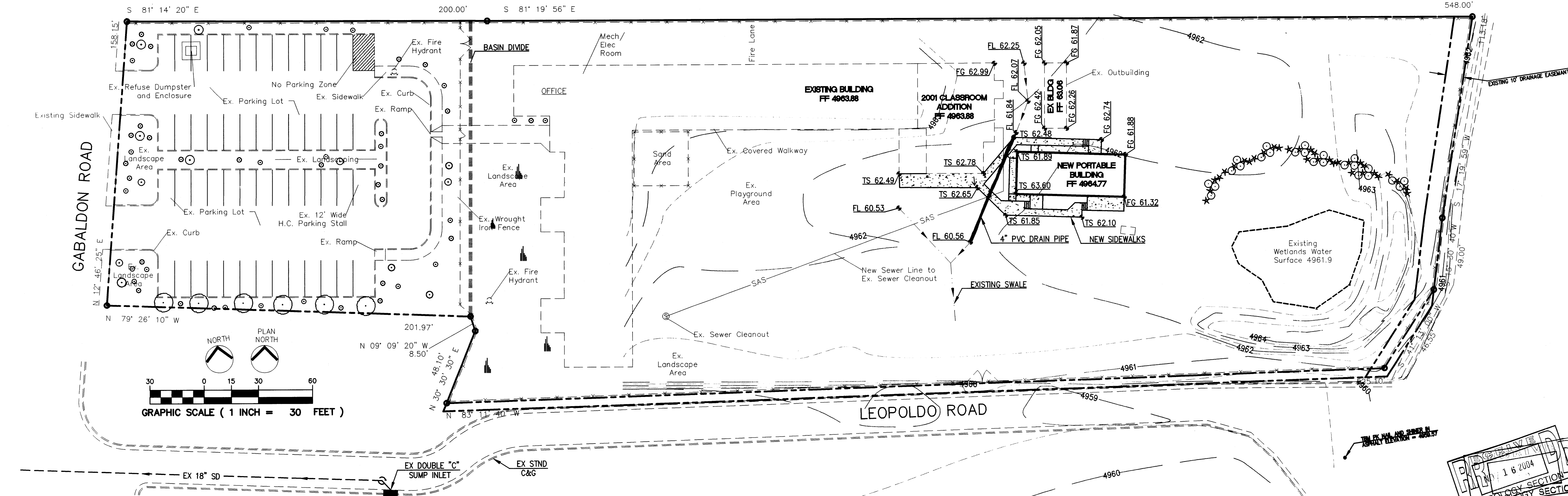
AHYMO INPUT

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 RAIN SIX=2.35 DAY=2.75 DT=0.03333
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 TP=0.21 RAINFALL=1
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 PRINT HYD *S***** DEVELOPED CONDITIONS *****
 *S***** ID=1 HYD=SITE.0 DA=0.02783 SQ MI
 COMPUTE NM HYD %A= 0.00 %B= 47.8 %C= 25.9 %D= 26.3
 TP=0.21 RAINFALL=1
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 PRINT HYD
 FINISH

AHYMO SUMMARY OUTPUT

AHYMO PROGRAM SUMMARY TABLE (AHYMO 97) -
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COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1	NOTATION
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START											TIME= .00
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*S***** DEVELOPED CONDITIONS *****											
COMPUTE NM HYD	SITE.0	-	1	.02783	42.01	1.796	1.21001	1.600	2.359 PER IMP		26.30
FINISH											



GRADING AND DRAINAGE PLAN



VICINITY MAP H-12

TOPOGRAPHIC SURVEY NOTES

THE RECORD INFORMATION SHOWN HEREON WAS PROVIDED BY THE OWNER. A BOUNDARY SURVEY WAS NOT INCLUDED TO VERIFY THESE DIMENSIONS.

LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS ARE BASED ON INFORMATION SUPPLIED TO THE ENGINEER BY THE OWNER. ENGINEER DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME UTILITIES MIGHT BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

ACS BENCHMARK

ACS MONUMENT '7-H13', LOCATED AT THE BASE OF A LIGHT POLE ON THE WEST SIDE OF RIO GRANDE BOULEVARD AT THE INTERSECTION OF INDIAN SCHOOL ROAD, ELEVATION = 4961.715.

LEGAL DESCRIPTION

LOT NO.: A
 SUBDIVISION: AMRITSAR ACADEMY
 ADDRESS: 1650 GABALDON RD. NW
 ALBUQUERQUE, NEW MEXICO

PORTABLE CLASSROOM ADDITION

MONTESSORI
 OF THE RIO GRANDE

SHEET CONTENTS

1. GRADING AND DRAINAGE PLAN

DATE

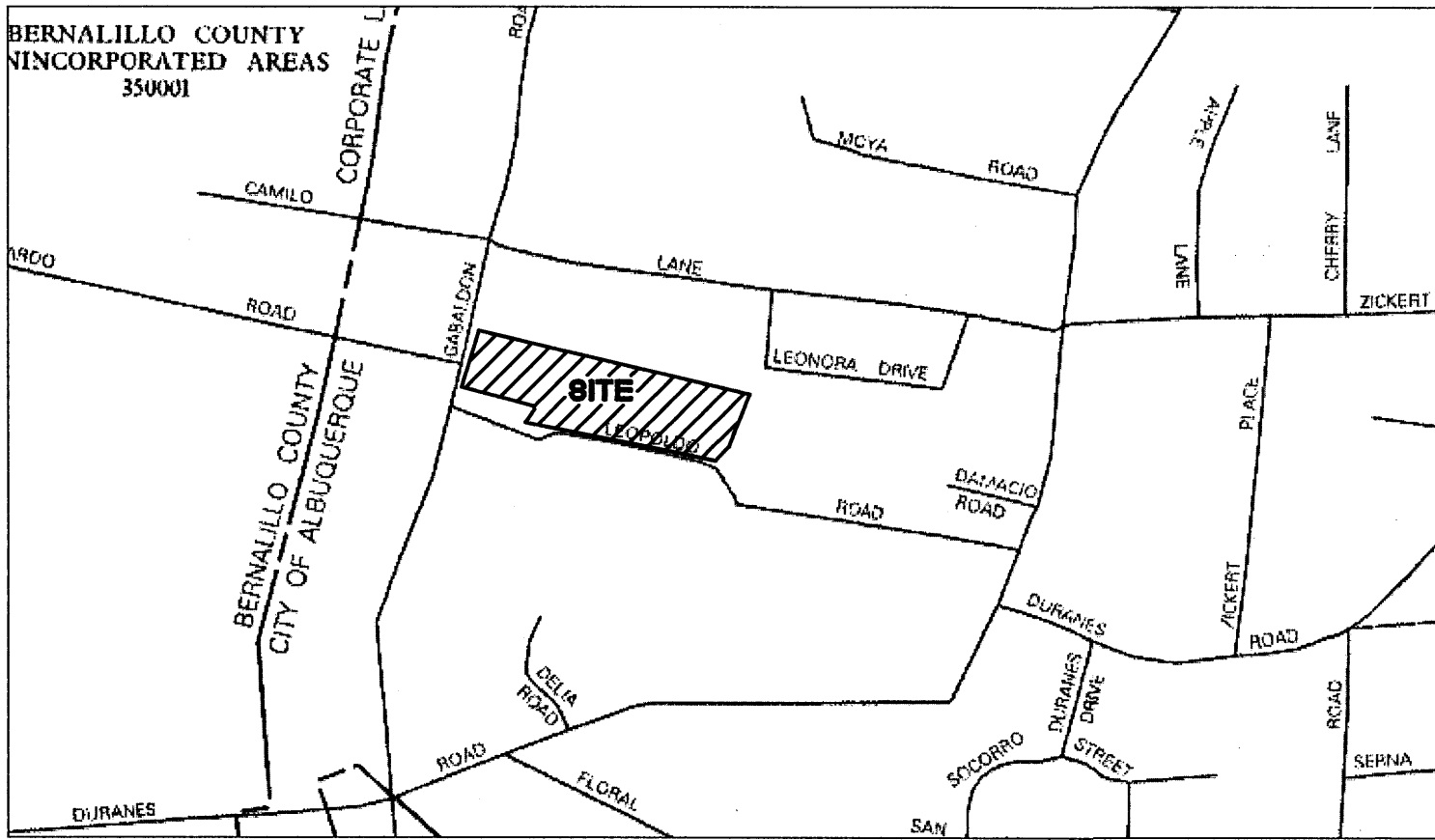
15 NOV. '04

SHEET

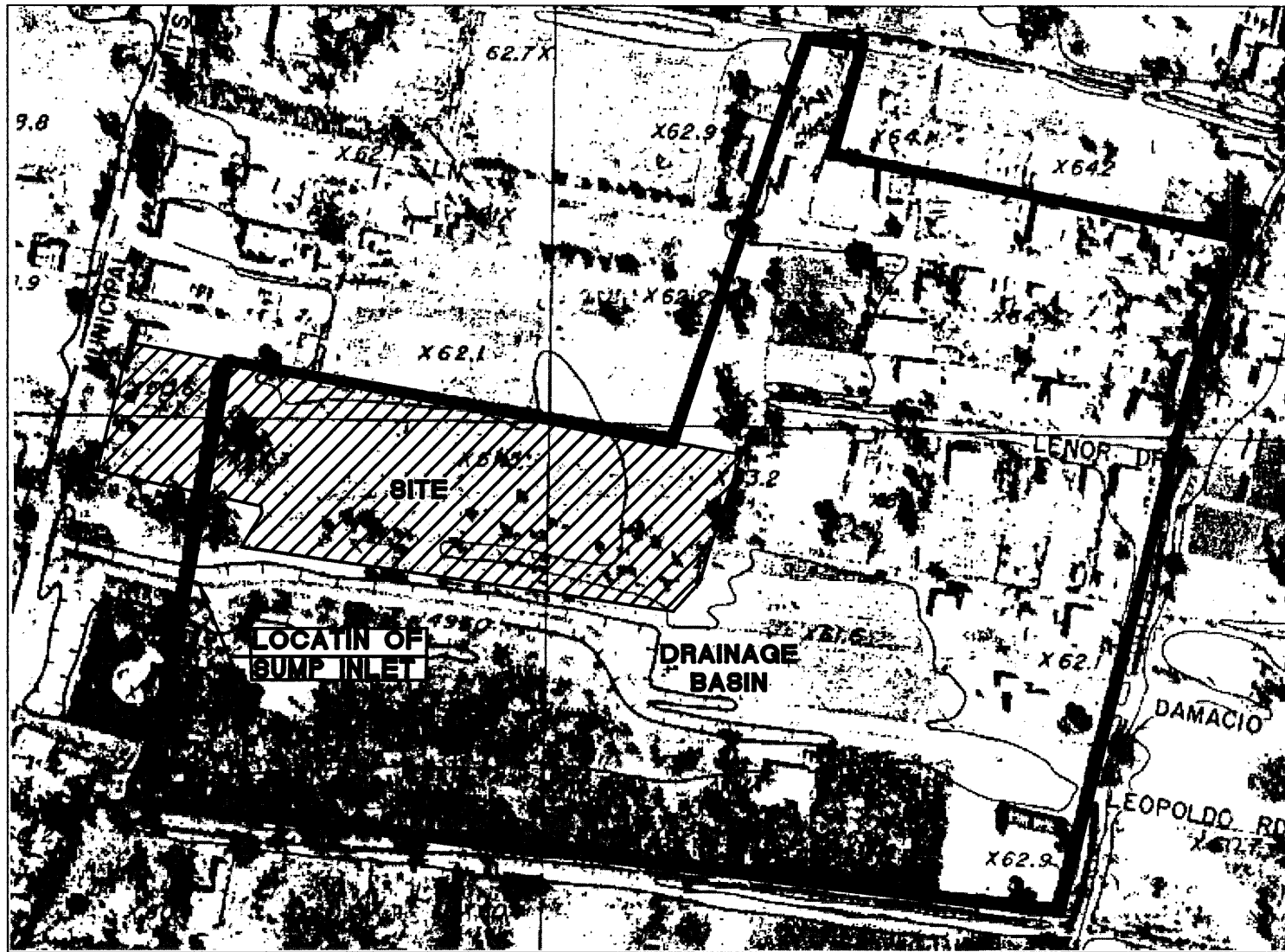
1
 OF
 1

16 NOV. 2004
 HYDROLOGY SECTION

FIRM PANEL 331 (1" = 500')



COA TOPOGRAPHIC MAP H-12 (1" = 200')



DRAINAGE REPORT

LOCATION & DESCRIPTION

THE SITE IS AN EXISTING 3.3 ACRE PRIVATE SCHOOL LOCATED EAST OF GABALDON ROAD, NW JUST NORTH OF LOS DURANES PARK, AS SHOWN ON THE VICINITY MAP ON THIS SHEET. IT IS CURRENTLY DEVELOPED WITH 38,290 SQUARE FEET OF BUILDINGS, PARKING LOTS, AND OTHER IMPERVIOUS AREA (TYPE 'D' LAND TREATMENT). THERE IS ALSO 13,210 SQUARE FEET OF SOD AND OTHER LANDSCAPING CLASSIFIED AS TYPE 'B' LAND TREATMENT. THE REMAINING AREA IS HARD COMPACTED DIRT PLAYGROUNDS AND OTHER AREAS CLASSIFIED AS TYPE 'C' LAND TREATMENT. ALL OF THE PROPERTY HAS BEEN DISTURBED BY DEVELOPMENT OR OTHER USE BY THE SCHOOL; THEREFORE, NONE OF THE PROPERTY IS CLASSIFIED AS TYPE 'A' LAND TREATMENT. THE SITE IS TYPICAL OF THE VALLEY AREAS WITH EXTREMELY FLAT TOPOGRAPHY. THE PROPOSED IMPROVEMENTS ARE LIMITED TO A 2,800 SQUARE FOOT CLASSROOM ADDITION THAT WILL BE ATTACHED TO THE EAST END OF THE EXISTING SCHOOL BUILDING. NO OTHER IMPROVEMENTS ARE PLANNED AT THIS TIME.

FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0331 D, DATED SEPTEMBER 20, 1996 IS NOT WITHIN ANY DESIGNATED 100-YEAR FLOODPLAIN. HOWEVER, IT IS WITHIN THE ZONE X 500-YEAR FLOODPLAIN AS SHOWN ON THE FIRM PANEL ON THIS SHEET.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT IS ANALYZED USING THE JANUARY 1994 RELEASE OF THE AHYMO COMPUTER PROGRAM. ALL CALCULATIONS ARE IN ACCORDANCE WITH THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

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EXISTING DRAINAGE CONDITIONS

THE EXISTING SITE IS DEVELOPED AS DESCRIBED ABOVE IN "LOCATION AND DESCRIPTION". THE SITE IS DIVIDED WITH THE MAJORITY OF THE SITE SHEET FLOWING TO LEOPOLDO ROAD ON THE SOUTH EDGE OF THE PROPERTY. THE PARKING LOT AREA DRAINS TO THE WEST INTO GABALDON ROAD. THERE IS APPROXIMATELY 14,136 SQUARE FEET NEAR THE EAST END OF THE SITE THAT DRAINS INTO AN EXISTING MAN-MADE WETLANDS AND THEREFORE DOES NOT CONTRIBUTE TO THE DRAINAGE AREA. THE DRAINAGE BASIN SHOWN ON THIS SHEET IS BOUNDED BY IRRIGATION CHANNELS ON THE EAST AND SOUTH. THE NORTH AND WEST BOUNDARIES WERE DETERMINED BY DRYING THE BASIN AND DETERMINING THE MAXIMUM AREA THAT COULD DRAIN TO THE EXISTING STREETS THAT DRAIN TO LEOPOLDO DRIVE. THIS 0.02783 SQUARE MILE DRAINAGE BASIN IS COMPRISED OF THE MONTESSORI OF THE RIO GRANDE (14.2%), LOS DURANES PARK (27.4%), LOS DURANES COMMUNITY CENTER (3.2%), AND A RESIDENTIAL AREA DEVELOPED AT 3.35 DWELLING UNITS PER ACRE (55.2%). EACH TYPE OF DEVELOPMENT WAS DIVIDED UP INTO RESPECTIVE LAND TREATMENTS AND THEN A COMPOSITE LAND TREATMENT WAS CALCULATED FOR THE ENTIRE BASIN. THE CONTRIBUTING PORTION OF THE EXISTING SCHOOL SITE IS 0% "A", 20.2% "B", 64.4% "C", AND 15.4% "D". THE PARK IS 0% "A", 99.8% "B", 0% "C", AND 0.1% "D". THE COMMUNITY CENTER IS 0% "A", 5% "B", 5% "C", AND 90% "D". THE RESIDENTIAL AREA IS 0% "A", 31.5% "B", 31.5% "C", AND 37% "D". THE CUMULATIVE LAND TREATMENT FOR THIS BASIN IS 0% "A", 47.8% "B", 26.7% "C", AND 25.5% "D". THERE IS APPROXIMATELY 4' OF ELEVATION CHANGE ALONG THE 1650' DRAINAGE PATH FOR THIS BASIN. USING EQUATION (b-1) FROM SECTION 22.2, THE TIME TO PEAK FOR THIS BASIN IS 0.21 HOURS. FROM THIS INFORMATION THE 100-YEAR PEAK DISCHARGE IS CALCULATED TO BE 41.80 CFS AS SEEN IN THE AHYMO SUMMARY ON THIS SHEET. THIS IS THE MAXIMUM FLOW THAT COULD REACH THE SUMP INLET IN LEOPOLDO ROAD. HOWEVER DUE TO THE FLAT NATURE OF THIS BASIN, LOCALIZED PONDING WILL OCCUR THROUGHOUT THE BASIN REDUCING THE NET FLOW TO THE INLET.

DEVELOPED DRAINAGE CONDITIONS

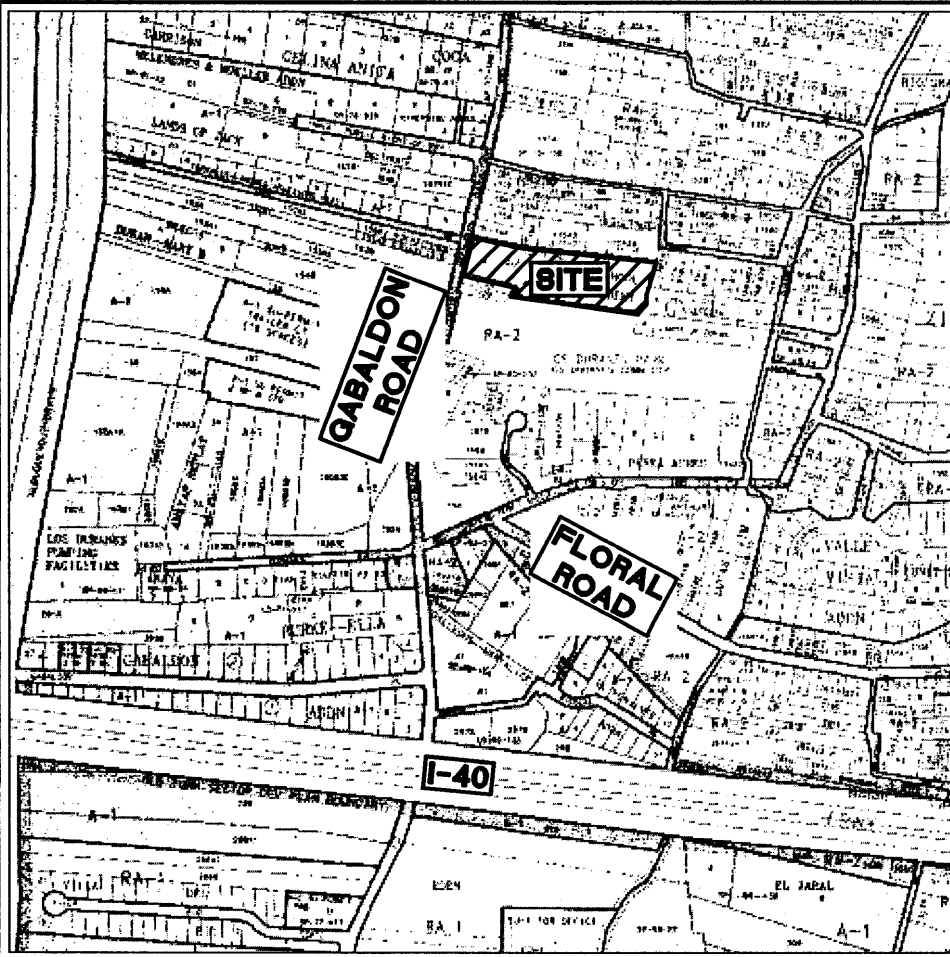
THE AHYMO SUMMARY TABLE, ON THIS SHEET, SUMMARIZES THE EXISTING AND PROPOSED CONDITIONS FOR THIS BASIN. THE ONLY CHANGE TO THE HYDROLOGY WILL BE DECREASING THE SCHOOL SITE LAND TREATMENT "C" BY 2,800 SQUARE FEET AND INCREASING THE SITES "D" LAND TREATMENT BY 2,800 SQUARE FEET. THIS RESULTS IN A NEW COMPOSITE LAND TREATMENT OF 0% "A", 47.8% "B", 26.3% "C", AND 25.9% "D" FOR THE DRAINAGE BASIN. THE BASIN'S INCREASED RUNOFF DUE TO THIS ADDITION IS 0.11 CFS (0.28%) AND 0.006 ACRE-FEET (0.34%). THIS IS A NEGLIGIBLE INCREASE AND WILL NOT ADVERSELY AFFECT THE DOWNSTREAM CAPACITY OF THE STORM DRAIN THAT THIS SITE NATURALLY DRAINS INTO. THEREFORE, THIS ADDITION CAN BE CONSTRUCTED UTILIZING FREE DISCHARGE LIKE THE SITE HAS ALREADY BEEN APPROVED FOR IN THE APRIL 1984 SITE DRAINAGE PLAN PREPARED BY GORDAN & ASSOCIATES.

AHYMO INPUT

*S***** 100 YEAR, 6 HOUR STORM (Section 22.2 Hydrology)
START 0.00
RAINFALL TYPE=1 RAIN QUARTER=0.0 RAIN ONE=2.01
RAIN SIX=2.35 DAY=2.75 DT=0.03333
*S***** EXISTING CONDITIONS *****
ID=1 HYD=SITE.0 DA=0.02783 SQ MI
%A= 0.00 %B= 47.8 %C= 26.7 %D= 25.5
TP=0.21 RAINFALL=-1
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*S***** DEVELOPED CONDITIONS *****
ID=1 HYD=SITE.0 DA=0.02783 SQ MI
%A= 0.00 %B= 47.8 %C= 26.3 %D= 25.9
TP=0.21 RAINFALL=-1
PRINT HYD ID=1 CODE=1
FINISH

AHYMO SUMMARY OUTPUT

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INPUT FILE = ahymoin.txt									
COMMAND	HYDROGRAPH	FROM TO	ID	AREA	PEAK DISCHARGE	RUNOFF VOLUME	RUNOFF	TIME TO PEAK	CFS PER ACRE
IDENTIFICATION NO. NO. (SQ MI) (CFS) (AC-FT) (INCHES) (HOURS)									
*S***** 100 YEAR, 6 HOUR STORM (Section 22.2 Hydrology)									
START	RAINFALL	TYPE=1							
*S***** EXISTING CONDITIONS *****									
COMPUTE NM HYD	SITE.0	-	1	.02783	41.80	1.784	1.20189	1.600	2.347 PER IMP= 25.50
*S***** DEVELOPED CONDITIONS *****									
COMPUTE NM HYD	SITE.0	-	1	.02783	41.91	1.790	1.20595	1.600	2.353 PER IMP= 25.90
FINISH									



VICINITY MAP H-12

TOPOGRAPHIC SURVEY NOTES

THE RECORD INFORMATION SHOWN HEREON WAS PROVIDED BY THE OWNER. A BOUNDARY SURVEY WAS NOT INCLUDED TO VERIFY THESE DIMENSIONS.

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THIS IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE USED BY THE OWNER AS SUCH.

ACS BENCHMARK

ACS MONUMENT '7-H13', LOCATED AT THE BASE OF A LIGHT POLE ON THE WEST SIDE OF RIO GRANDE BOULEVARD AT THE INTERSECTION OF INDIAN SCHOOL ROAD, ELEVATION = 4961.715.

LEGAL DESCRIPTION

LOT NO.: A
SUBDIVISION: AMRISAR ACADEMY
ADDRESS: 1650 GABALDON RD. NW
ALBUQUERQUE, NEW MEXICO

CLASSROOM ADDITION
MONTESSORI
OF THE RIO GRANDE

SHEET CONTENTS

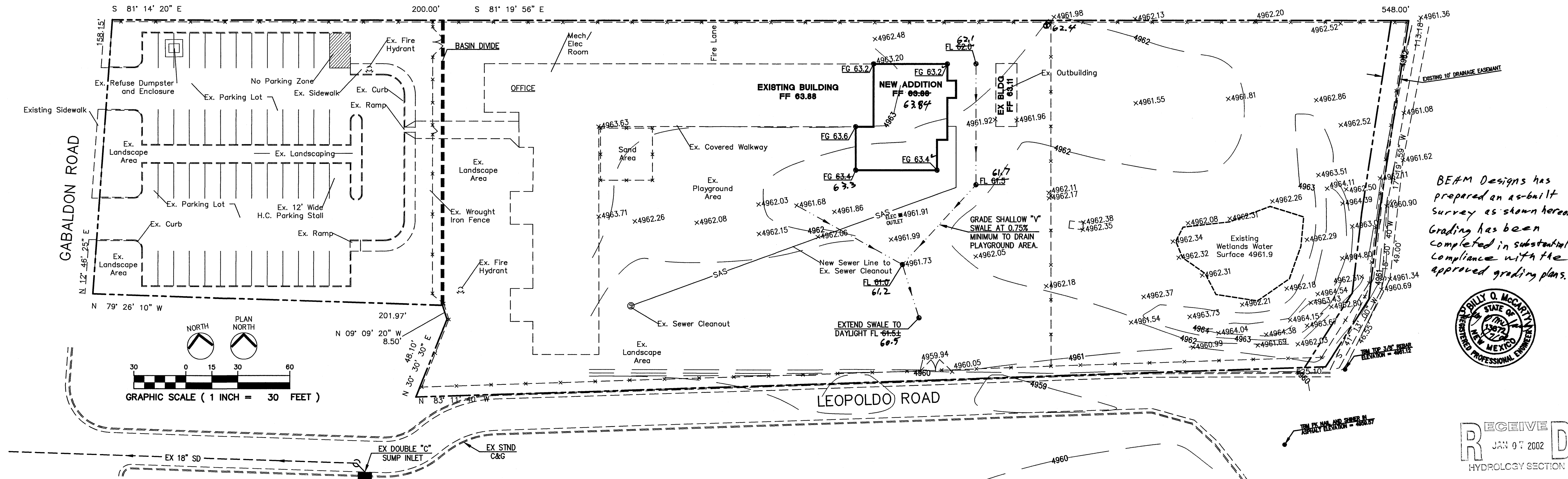
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2. GRADING AND DRAINAGE PLAN
3. TRAFFIC CIRCULATION LAYOUT

DATE

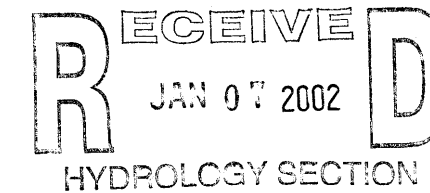
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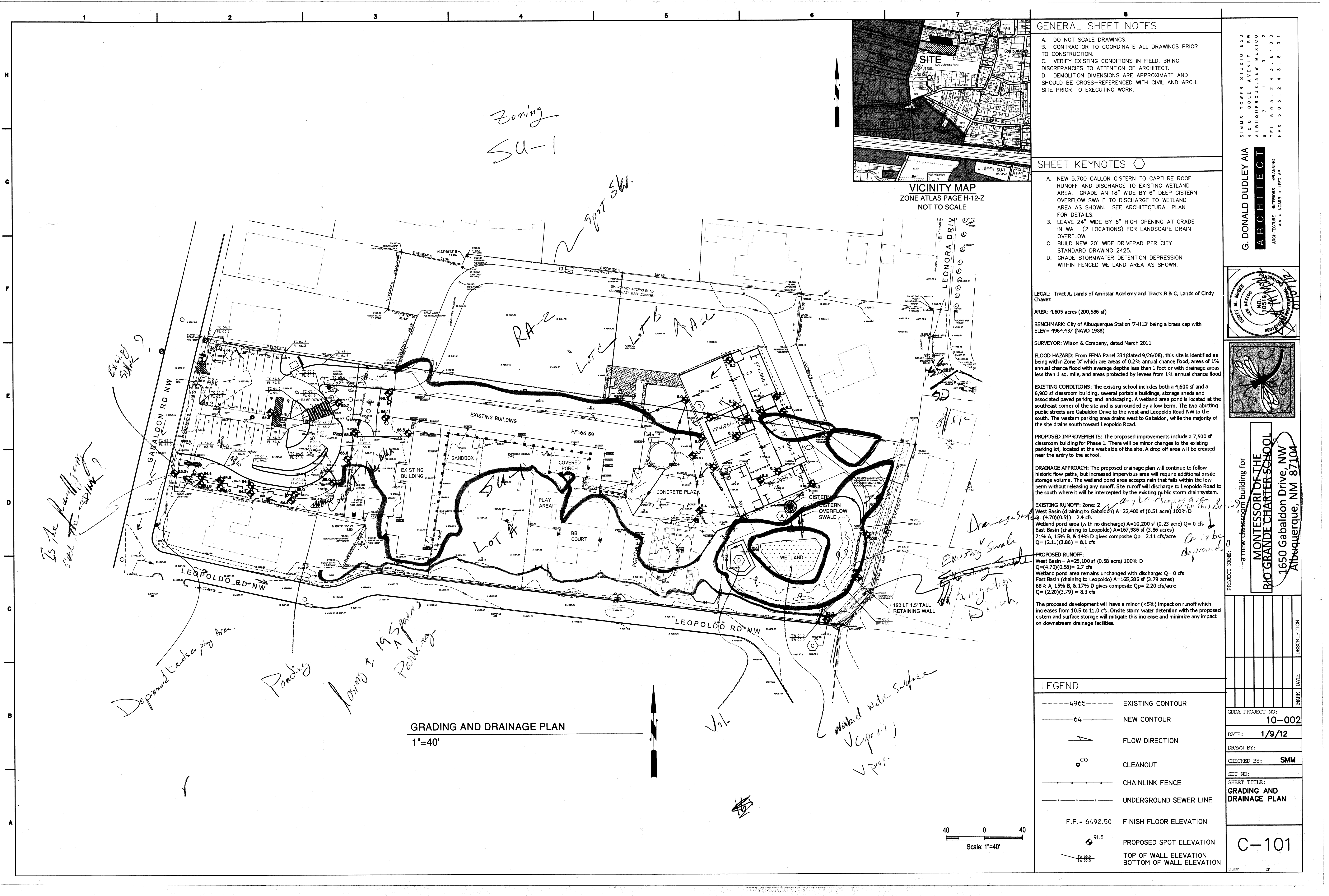
SHEET #

2
OF
3



GRADING AND DRAINAGE PLAN





RECEIVED

JAN 19 2012

HYDROLOGY
SECTION

GENERAL SHEET NOTES

- DO NOT SCALE DRAWINGS.
- CONTRACTOR TO COORDINATE ALL DRAWINGS PRIOR TO CONSTRUCTION.
- VERIFY EXISTING CONDITIONS IN FIELD. BRING DISCREPANCIES TO ATTENTION OF ARCHITECT.
- DEMOLITION DIMENSIONS ARE APPROXIMATE AND SHOULD BE CROSS-REFERENCED WITH CIVIL AND ARCH. SITE PRIOR TO EXECUTING WORK.

LEGAL: Tract A, Lands of Amstar Academy and Tracts B & C, Lands of Cindy Chavez

AREA: 4.605 acres (200,586 sf)

BENCHMARK: City of Albuquerque Station "7-H13" being a brass cap with ELEV= 4964.437 (NAVD 1988)

SURVEYOR: Wilson & Company, dated March 2011

FLOOD HAZARD: From FEMA Panel 331 (dated 9/26/08), this site is identified as being within Zone "X" which are areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths less than 1 foot or with drainage areas less than 1 sq. mile, and areas protected by levees from 1% annual chance flood

EXISTING CONDITIONS: The existing school includes both a 4,600 sf and a 9,900 sf classroom building, several portable buildings, storage sheds and associated paved parking and landscaping. A wetland area pond is located at the southeast corner of the site and is surrounded by a low berm. The two abutting public streets are Gabaldon Drive to the west and Leopoldo Road NW to the south. The western parking area drains west to Gabaldon, while the majority of the site drains south toward Leopoldo Road.

OFFSITE FLOW: A residential area discharges through the site within an existing concrete-lined drainage easement as shown based on the following:
40% A, 15% B, 45% C, 45% D = 3.5 CFS/ACRE Q= 3.5 x 2.42 AC = 8.5 CFS
No change is proposed to this historic drainage pattern.

PROPOSED IMPROVEMENTS: The proposed improvements include a 7,500 sf classroom building for Phase 1. There will be minor changes to the impervious area of the existing parking lot, located at the west side of the site. A drop off area will be created near the entry to the school.

DRAINAGE APPROACH: The proposed drainage plan will continue to follow historic flow paths, but increased impervious area will require additional onsite storage volume. The wetland pond area accepts rain that falls within the low berm without releasing any runoff. Site runoff will discharge to Leopoldo Road to the south where it will be intercepted by the existing public storm drain system.

EXISTING RUNOFF: Zone: 2
West Basin (draining to Gabaldon) A=22,400 sf (0.51 acre) 100% D
Q=(4.70)(0.51)= 2.4 cfs
Wetland pond area (with no discharge) A=10,200 sf (0.23 acre) Q= 0 cfs
East Basin (draining to Leopoldo) A=167,966 sf (3.86 acres)
71% A, 15% B, & 14% D gives composite Qp= 2.11 cfs/acre
Q= (2.11)(3.86) = 8.1 cfs

PROPOSED RUNOFF:
West Basin - A=25,100 sf (0.58 acre) 100% D
Q=(4.70)(0.58)= 2.7 cfs
Wetland pond area remains unchanged with discharge: Q= 0 cfs
[Additional detention volume of approximately 2,400 CF exist above the normal water surface elevation of 4964 for cistern overflow]
East Basin (draining to Leopoldo) A=165,286 sf (3.79 acres)
68% A, 15% B, & 17% D gives composite Qp= 2.20 cfs/acre
Q= (2.20)(3.79) = 8.3 cfs
[Detention pond volume provided to EL=4965.0 is 1,180 CF]

The proposed development will have a minor (<5%) impact on runoff which increases from 10.5 to 11.0 cfs. Onsite storm water detention with the proposed 5,700-gallon cistern and surface storage will mitigate this increase and minimize any impact on downstream drainage facilities.

SHEET KEYNOTES

- NEW 5,700 GALLON CISTERN TO CAPTURE ROOF RUNOFF AND DISCHARGE TO EXISTING WETLAND AREA. GRADE AN 18" WIDE BY 6" DEEP CISTERN OVERFLOW SWALE TO DISCHARGE TO WETLAND AREA AS SHOWN. SEE ARCHITECTURAL PLAN FOR DETAILS.
- LEAVE 24" WIDE BY 6" HIGH OPENING AT GRADE IN WALL (2 LOCATIONS) FOR LANDSCAPE DRAIN OVERFLOW.
- BUILD NEW 20" WIDE DRIVEPAD PER CITY STANDARD DRAWING 2425.
- GRADE STORMWATER DETENTION DEPRESSION WITHIN FENCED WETLAND AREA AS SHOWN.



VICINITY MAP
ZONE ATLAS PAGE H-12-Z
NOT TO SCALE

SIMMS TOWER STUDIO 850
400 GOLD AVENUE SW
ALBUQUERQUE, NEW MEXICO
8 7 1 0 2
TEL 505.243.8100
FAX 505.243.8101

G. DONALD DUDLEY AIA
ARCHITECT
ARCHITECTURE INTERIORS PLANNING
AIA • NCARB • LEED AP

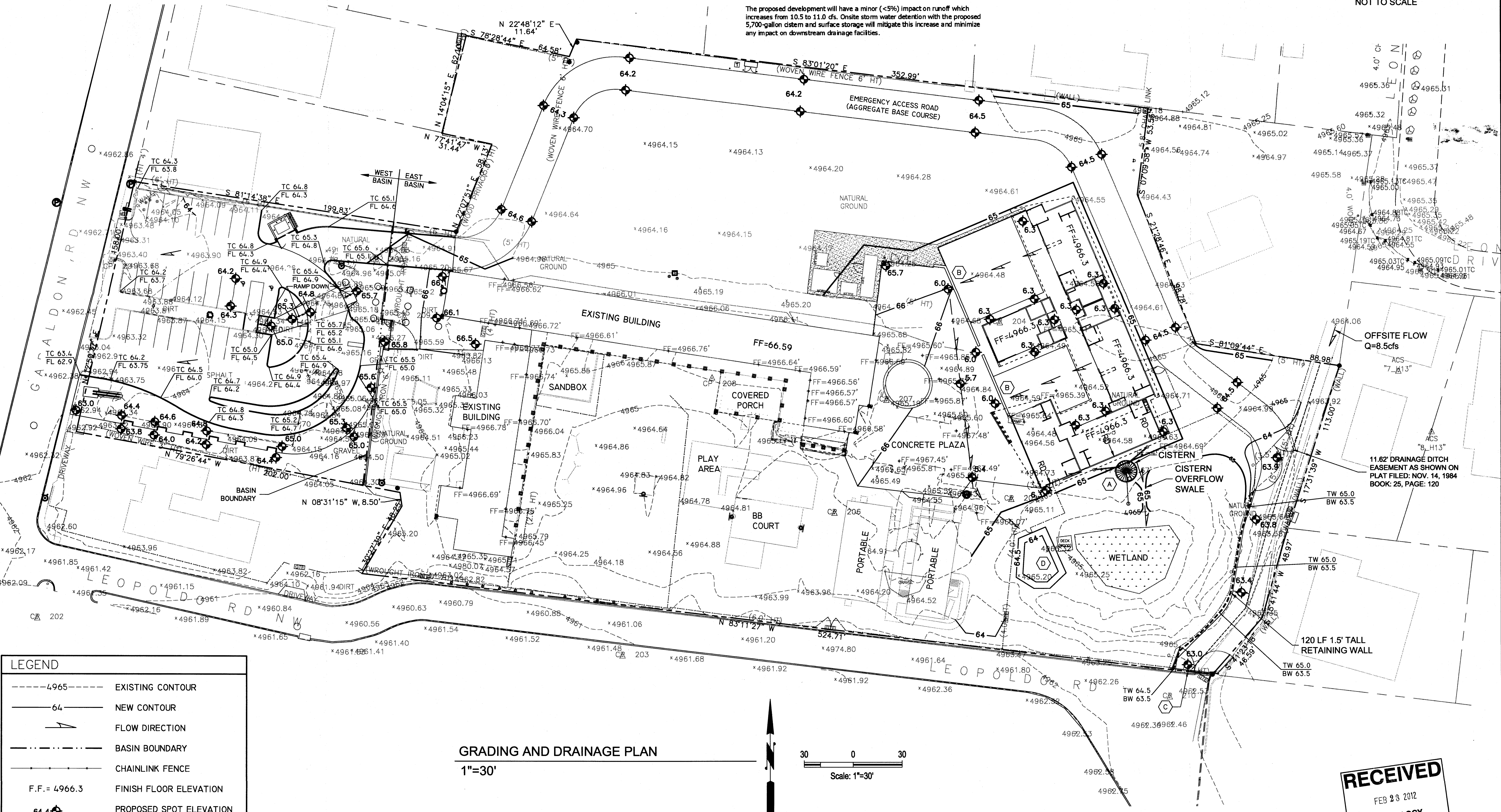


PROJECT NAME:
a new classroom building for
MONTESSORI OF THE
RIO GRANDE CHARTER SCHOOL
1650 Gabaldon Drive, NW
Albuquerque, NM 87104

MARK	DATE	DESCRIPTION

GDDA PROJECT NO:
10-002
DATE: 2/27/12
DRAWN BY:
CHECKED BY: SMM
SET NO:
SHEET TITLE:
GRADING AND DRAINAGE PLAN

C-101



LEGEND	
---	EXISTING CONTOUR
---	NEW CONTOUR
→	FLOW DIRECTION
---	BASIN BOUNDARY
---	CHAINLINK FENCE
F.F. = 4966.3	FINISH FLOOR ELEVATION
64.4	PROPOSED SPOT ELEVATION
TW 65.0 BW 63.5	TOP OF WALL ELEVATION BOTTOM OF WALL ELEVATION

GRADING AND DRAINAGE PLAN
1"=30'

30 0 30
Scale: 1"=30'

RECEIVED
FEB 23 2012
HYDROLOGY
SECTION

GENERAL SHEET NOTES

- DO NOT SCALE DRAWINGS.
- CONTRACTOR TO COORDINATE ALL DRAWINGS PRIOR TO CONSTRUCTION.
- VERIFY EXISTING CONDITIONS IN FIELD. BRING DISCREPANCIES TO ATTENTION OF ARCHITECT.
- DEMOLITION DIMENSIONS ARE APPROXIMATE AND SHOULD BE CROSS-REFERENCED WITH CIVIL AND ARCH. SITE PRIOR TO EXECUTING WORK.

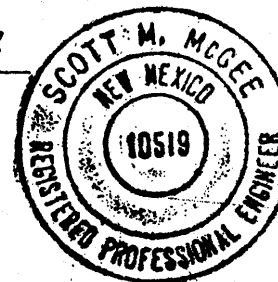
DRAINAGE CERTIFICATION

I, SCOTT M. MCGEE, NMPE 10519, OF THE FIRM SCOTT M. MCGEE P.E., LLC, HEREBY CERTIFY THAT THIS SITE HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 2/27/12. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY KELLY MELTON, NMPS 17534, OF THE FIRM SOUDER MILLER. I FURTHER CERTIFY THAT I PERSONALLY VISITED THE PROJECT SITE ON 8/08/13 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION SHOWN HEREON IS NOT NECESSARILY COMPLETE AND IS ONLY INTENDED TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING/DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT ACCURACY VERIFICATION BEFORE USING IT FOR ANY PURPOSE.

Scott M. McGee 8/8/13

SCOTT M. MCGEE, NMPE 10519



LEGAL: Tract A, Lands of Amstar Academy and Tracts B & C, Lands of Cindy Chavez

AREA: 4.605 acres (200,586 sf)

BENCHMARK: City of Albuquerque Station '7-H13' being a brass cap with ELEV= 4964.437 (NAVD 1988)

SURVEYOR: Wilson & Company, dated March 2011

FLOOD HAZARD: From FEMA Panel 331 (dated 9/26/08), this site is identified as being within Zone 'X' which are areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths less than 1 foot or with drainage areas less than 1 sq. mile, and areas protected by levees from 1% annual chance flood.

EXISTING CONDITIONS: The existing school includes both a 4,600 sf and a 8,900 sf classroom building, several portable buildings, storage sheds and associated paved parking and landscaping. A wetland area pond is located at the southeast corner of the site and is surrounded by a low berm. The two abutting public streets are Gabaldon Drive to the west and Leopoldo Road NW to the south. The western parking area drains west to Gabaldon, while the majority of the site drains south toward Leopoldo Road.

OFFSITE FLOW: A residential area discharges through the site within an existing concrete-lined drainage easement as shown based on the following:
40% B 15% C 45% D = 3.5 CFS/ACRE Q=3.5 x 2.42 AC= 8.5 CFS
No change is proposed to this historic drainage pattern.

PROPOSED IMPROVEMENTS: The proposed improvements include a 7,500 sf classroom building for Phase 1. There will be minor changes to the impervious area of the existing parking lot, located at the west side of the site. A drop off area will be created near the entry to the school.

DRAINAGE APPROACH: The proposed drainage plan will continue to follow historic flow paths, but increased impervious area will require additional onsite storage volume. The wetland pond area accepts rain that falls within the low berm without releasing any runoff. Site runoff will discharge to Leopoldo Road to the south where it will be intercepted by the existing public storm drain system.

EXISTING RUNOFF: Zone: 2
West Basin (draining to Gabaldon) A=22,400 sf (0.51 acre) 100% D
Q=(4.70)(0.51)= 2.4 cfs
Wetland pond area (with no discharge) A=10,200 sf (0.23 acre) Q= 0 cfs
East Basin (draining to Leopoldo) A=167,986 sf (3.86 acres)
71% A, 15% B, & 14% D gives composite Qp= 2.11 cfs/acre
Q= (2.11)(3.86) = 8.1 cfs

PROPOSED RUNOFF:
West Basin - A=25,100 sf (0.58 acre) 100% D
Q=(4.70)(0.58)= 2.7 cfs
Wetland pond area remains unchanged with discharge: Q= 0 cfs
[Additional detention volume of approximately 2,400 CF exist above the normal water surface elevation of 4964 for cistern overflow]
East Basin (draining to Leopoldo) A=165,286 sf (3.79 acres)
68% A, 15% B, & 17% D gives composite Qp= 2.20 cfs/acre
Q= (2.20)(3.79) = 8.3 cfs
[Detention pond volume provided to EL=4965.0 is 1,180 CF]

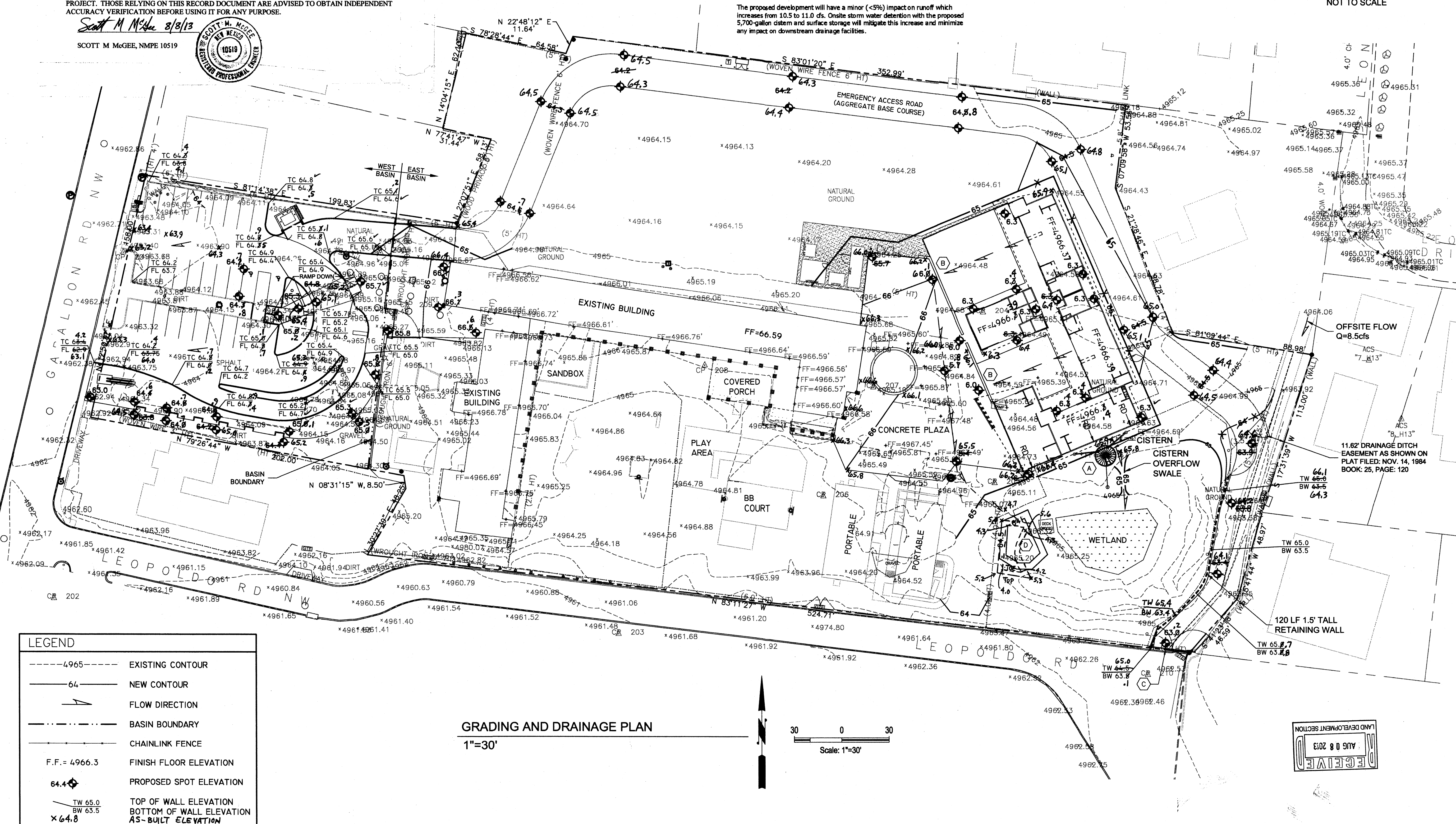
The proposed development will have a minor (<5%) impact on runoff which increases from 10.5 to 11.0 cfs. Onsite storm water detention with the proposed 5,700-gallon cistern and surface storage will mitigate this increase and minimize any impact on downstream drainage facilities.

SHEET KEYNOTES

- NEW 5,700 GALLON CISTERN TO CAPTURE ROOF RUNOFF AND DISCHARGE TO EXISTING WETLAND AREA. GRADE AN 18" WIDE BY 6" DEEP CISTERN OVERFLOW SWALE TO DISCHARGE TO WETLAND AREA AS SHOWN. SEE ARCHITECTURAL PLAN FOR DETAILS.
- LEAVE 24" WIDE BY 6" HIGH OPENING AT GRADE IN WALL (2 LOCATIONS) FOR LANDSCAPE DRAIN OVERFLOW.
- BUILD NEW 20' WIDE DRIVEPAD PER CITY STANDARD DRAWING 2425.
- GRADE STORMWATER DETENTION DEPRESSION WITHIN FENCED WETLAND AREA AS SHOWN.



VICINITY MAP
ZONE ATLAS PAGE H-12-Z
NOT TO SCALE



LEGEND

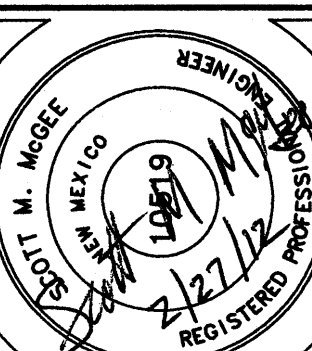
- 4965 --- EXISTING CONTOUR
- 64 — NEW CONTOUR
- FLOW DIRECTION
- - - - - BASIN BOUNDARY
- - - - - CHAINLINK FENCE
- F.F.= 4966.3 FINISH FLOOR ELEVATION
- 64.4 PROPOSED SPOT ELEVATION
- TW 65.0 TOP OF WALL ELEVATION
- BW 63.5 BOTTOM OF WALL ELEVATION
- x 64.8 AS-BUILT ELEVATION

GRADING AND DRAINAGE PLAN

1"=30'

Scale: 1"=30'

G. DONALD DUDLEY AIA
ARCHITECT
INTERIORS
PLANNING
AIA • NCARB • LEED AP



PROJECT NAME:
a new classroom building for
MONTESSORI OF THE
RIO GRANDE CHARTER SCHOOL
1650 Gabaldon Drive, NW
Albuquerque, NM 87104

MARK	DATE	DESCRIPTION

GDDA PROJECT NO: 10-002

DATE: 2/27/12

DRAWN BY:

CHECKED BY: SMM

SET NO:

SHEET TITLE:
GRADING AND
DRAINAGE PLAN

C-101