

DRAINAGE PLAN

I. INTRODUCTION AND EXECUTIVE SUMMARY

THIS PROJECT, LOCATED ON ALBUQUERQUE'S WEST SIDE WEST OF THE BLACK DIVERSION CHANNEL, REPRESENTS A MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA. THE PROPOSED IMPROVEMENTS WILL CONSIST OF THOSE DEPICTED AS PHASE II BY THE MASTER DRAINAGE PLAN FOR THE SITE (A-13/D14). THE DRAINAGE CONCEPT WILL BE CONSISTENT WITH THE MASTER DRAINAGE PLAN. THE MASTER PLAN ADDRESSES ONSITE AND OFFSITE FLOWS AS WELL AS DOWNSTREAM CAPACITY. THE SITE WILL DISCHARGE DEVELOPED RUNOFF INTO SEVEN BAR LOOP NW WHICH THEN DIRECTS RUNOFF INTO THE BLACK DIVERSION CHANNEL.

THIS SUBMITTAL IS MADE IN SUPPORT OF A BUILDING PERMIT FOR THE PROPOSED PHASE II BUILDING AND ASSOCIATED SITE IMPROVEMENTS.

II. PROJECT DESCRIPTION

AS SHOWN BY THE VICINITY MAP, THE SITE IS LOCATED AT THE SOUTHEAST CORNER OF ELLISON DRIVE NW AND SEVEN BAR LOOP NW. THE CURRENT LEGAL DESCRIPTION IS TRACT A2-B, SEVEN-BAR RANCH. AS SHOWN BY PANEL 108 OF 825 OF THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR BERNALILLO COUNTY, NEW MEXICO, SEPTEMBER 20, 1996, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD ZONE (ZONE A).

III. BACKGROUND DOCUMENTS

THE FOLLOWING IS A BRIEF LIST OF DRAINAGE PLANS RELEVANT TO THE DEVELOPMENT OF THE SITE:

1. MASTER DRAINAGE PLAN (A-13/D14) FOR SEVEN BAR ELEMENTARY SCHOOL PREPARED BY JEFF MORTENSEN & ASSOC, DECEMBER 2000. THIS PLAN ALLOWS DEVELOPED RUNOFF TO ENTER THE BLACK DIVERSION CHANNEL VIA THE SEVEN BAR LOOP RIGHT OF WAY AND DEMONSTRATES ADEQUATE STREET AND STORM DRAIN CAPACITIES TO DO SO. THE MAXIMUM DISCHARGE INTO SEVEN BAR LOOP NW ALLOWED BY THE MASTER PLAN IS 36.5 CFS.

2. GRADING AND DRAINAGE PLAN FOR SEVEN BAR ELEMENTARY SCHOOL PORTABLES (A-13/D14), PREPARED BY JEFF MORTENSEN & ASSOC., DECEMBER 2000.

3. GRADING AND DRAINAGE PLAN FOR NEW WESTSIDE ELEMENTARY SCHOOL, PHASE I-CORE FACILITY, PREPARED BY JEFF MORTENSEN & ASSOC., OCTOBER 2001.

IV. EXISTING CONDITIONS

CURRENTLY, THE SITE IS DEVELOPED AS AN ELEMENTARY SCHOOL. THE SITE CONSISTS OF SEVERAL PORTABLE CLASSROOM BUILDINGS AND TWO PERMANENT BUILDINGS CONSTRUCTED AS PART OF PHASE I. PAVED PARKING LOTS ARE LOCATED ALONG THE EAST, SOUTH, AND WEST PORTIONS OF THE SITE. TWO DRAINAGE BASINS MAKE UP THE SITE. BASIN A CONSISTS OF THE UNDEVELOPED AREA BETWEEN THE EXISTING GAS EASEMENT LOCATED ALONG THE NORTH PORTION OF THE SITE AND ELLISON DRIVE NW. THIS BASIN DRAINS UNDEVELOPED RUNOFF INTO ELLISON DRIVE NW. THE REMAINDER OF THE SITE CONSISTS OF BASIN B WHICH DRAINS TO THE SOUTHEAST CORNER OF THE SITE AND THEN DISCHARGES INTO SEVEN BAR LOOP ROAD NW THROUGH THE EXISTING PRIVATE ENTRANCE AS ALLOWED BY THE ABOVE LISTED MASTER DRAINAGE PLAN. RUNOFF WITHIN SEVEN BAR LOOP ROAD NW TRAVELS TOWARD THE SOUTHEAST AND DISCHARGES INTO THE BLACK DIVERSION CHANNEL WHICH IS A FULLY IMPROVED DRAINAGE FACILITY.

V. DEVELOPED CONDITIONS

THE PROPOSED IMPROVEMENTS WILL CONSIST OF THOSE LISTED IN THE MASTER DRAINAGE PLAN UNDER PHASE II. THESE WILL INCLUDE THE CONSTRUCTION OF A PERMANENT CLASSROOM BUILDING AND A PAVED PARKING LOT IN THE NORTH PORTION OF THE SITE AS WELL AS A NEW PAVED SCHOOL BUS TURNAROUND IN THE EASTERN PORTION OF THE SITE. THE PROPOSED PARKING LOT WILL CONNECT TO THE EXISTING PARKING LOT LOCATED ALONG THE EAST SIDE OF THE SITE AS WELL AS CONNECT TO THE EXISTING PARKING LOT LOCATED ON THE WEST SIDE OF THE SITE. THE NEW PARKING LOT WILL DISCHARGE RUNOFF INTO THE EXISTING PARKING LOT LOCATED ALONG THE EAST SIDE OF THE SITE WHICH THEN DISCHARGES INTO SEVEN BAR LOOP NW.

THE PROPOSED IMPROVEMENTS WILL TAKE PLACE WITHIN DRAINAGE BASIN B. THE DRAINAGE CONCEPT FOR BASIN A WILL REMAIN UNCHANGED. BASIN B WILL DISCHARGE RUNOFF INTO SEVEN BAR LOOP NW THROUGH THE EXISTING PRIVATE ENTRANCE LOCATED AT THE SOUTHEAST CORNER OF THE SITE. THE ABOVE LISTED MASTER DRAINAGE PLAN FOR THE SITE DEMONSTRATES ADEQUATE STREET CAPACITY AND STORM DRAIN CAPACITY TO FACILITATE THIS CONCEPT.

VI. GRADING PLAN

THE GRADING PLAN SHOWS: 1) EXISTING GRADES WITHIN SEVEN BAR LOOP NW AND ELLISON DRIVE NW INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS AS TAKEN FROM THE TOPOGRAPHIC SURVEY PREPARED BY THIS OFFICE, DATED OCTOBER 2000, 2) EXISTING GRADES FOR THE SCHOOL SITE INDICATED BY CONTOURS AT 1'-0" INTERVALS TAKEN FROM THE GRADING PLAN FOR NEW WESTSIDE ELEMENTARY SCHOOL, PHASE I-CORE FACILITY, PREPARED BY THIS OFFICE, OCTOBER, 2001 3) PROPOSED GRADES INDICATED BY SPOT ELEVATIONS AND CONTOURS AT 1'-0" INTERVALS, 4) THE LIMIT AND CHARACTER OF THE EXISTING IMPROVEMENTS, 5) THE LIMIT AND CHARACTER OF THE PROPOSED IMPROVEMENTS, AND 6) CONTINUITY BETWEEN EXISTING AND PROPOSED GRADES.

VII. CALCULATIONS

THE CALCULATIONS CONTAINED HEREIN ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL. THE PROCEDURE FOR 40-ACRE AND SMALLER BASINS, AS SET FORTH IN THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993, HAS BEEN USED TO QUANTIFY THE PEAK RATE OF DISCHARGE AND VOLUME OF RUNOFF GENERATED. AS DEMONSTRATED BY THE HYDROLOGIC CALCULATIONS CONTAINED HEREIN, THE PEAK RATE OF DISCHARGE OF 35.1 CFS GENERATED BY THE PROPOSED CONDITION IS LESS THAN THE MAXIMUM ALLOWABLE DISCHARGE OF 36.5 CFS DICTATED BY THE MASTER DRAINAGE PLAN.

VIII. CONCLUSION

THE CONTINUED FREE DISCHARGE OF DEVELOPED RUNOFF FROM THIS SITE INTO SEVEN BAR LOOP NW IS APPROPRIATE DUE TO THE FOLLOWING FACTORS:

1. THIS PLAN CONFORMS WITH THE PREVIOUSLY APPROVED MASTER DRAINAGE PLAN FOR THE SITE.
2. THE PEAK FLOWRATE GENERATED BY THE SITE IN THE PROPOSED CONDITION IS LESS THAN THE MAXIMUM ALLOWED BY THE MASTER DRAINAGE PLAN.
3. ADEQUATE DOWNSTREAM CAPACITY EXISTS AS DEMONSTRATED BY THE MASTER DRAINAGE PLAN.
4. THE IMPROVEMENTS CONSIST OF THE MODIFICATION TO AN EXISTING SITE WITHIN AN INFILL AREA.
5. THIS PROJECT WILL HAVE NO ADVERSE IMPACT ON DOWNSTREAM FLOOD HAZARD ZONES.

CALCULATIONS

I. PRECIPITATION ZONE = 1

$$II. P_{6,100} = P_{360} = 2.20$$

$$III. TOTAL AREA (A_T) = 500640 SF/11.49 AC$$

IV. EXISTING LAND TREATMENT

$$A. BASIN A = 46390 SF/1.07 AC$$

TREATMENT	AREA (SF/AC)	%
C	46390/1.07	100
B. BASIN B	422620 SF/9.70 AC	
TREATMENT	AREA (SF/AC)	%
B	35350/1.05	08
C	219330/5.04	52
D	167940/3.86	40

V. DEVELOPED LAND TREATMENT

$$A. BASIN A = 44590 SF/1.02 AC$$

TREATMENT	AREA (SF/AC)	%
C	44590/1.02	100
B. BASIN B	422620 SF/9.70 AC	
TREATMENT	AREA (SF/AC)	%
B	45750/1.05	11
C	136960/3.15	33
D	239880/5.51	57

VI. EXISTING CONDITION

A. BASIN A

1. VOLUME

$$E_w = (E_{A,A} + E_{A,B} + E_{A,C} + E_{A,D}) / A_T$$

$$E_w = [0.99(1.07)] / 1.07 = 0.99 \text{ IN}$$

$$V_{100,6-HR} = (E_w / 12) A_T$$

$$V_{100,6-HR} = (0.99 / 12) 1.07 = 0.0883 \text{ AC-FT} = 3850 \text{ CF}$$

2. PEAK DISCHARGE

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = 2.87(1.07) = 3.1 \text{ CFS}$$

B. BASIN B

1. VOLUME

$$E_w = (E_{A,A} + E_{B,B} + E_{C,C} + E_{D,D}) / A_T$$

$$E_w = [0.67(0.81) + 0.99(5.04) + 1.97(3.86)] / 9.70 = 1.35 \text{ IN}$$

$$V_{100,6-HR} = (E_w / 12) A_T$$

$$V_{100,6-HR} = (1.35 / 12) 9.70 = 1.0947 \text{ AC-FT} = 47690 \text{ CF}$$

2. PEAK DISCHARGE

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = 2.03(0.81) + 2.87(5.04) + 4.37(3.86) = 33.0 \text{ CFS}$$

VII. DEVELOPED CONDITION

A. BASIN A

1. VOLUME

$$E_w = (E_{A,A} + E_{A,B} + E_{A,C} + E_{A,D}) / A_T$$

$$E_w = [0.99(1.02)] / 1.02 = 0.99 \text{ IN}$$

$$V_{100,6-HR} = (E_w / 12) A_T$$

$$V_{100,6-HR} = (0.99 / 12) 1.02 = 0.0842 \text{ AC-FT} = 3670 \text{ CF}$$

2. PEAK DISCHARGE

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = 2.87(1.02) = 2.9 \text{ CFS}$$

B. BASIN B

1. VOLUME

$$E_w = (E_{A,A} + E_{B,B} + E_{C,C} + E_{D,D}) / A_T$$

$$E_w = [0.67(1.05) + 0.99(3.15) + 1.97(5.51)] / 9.70 = 1.51 \text{ IN}$$

$$V_{100,6-HR} = (E_w / 12) A_T$$

$$V_{100,6-HR} = (1.51 / 12) 9.70 = 1.2231 \text{ AC-FT} = 53280 \text{ CF}$$

2. PEAK DISCHARGE

$$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

$$Q_p = Q_{100} = 2.03(1.05) + 2.87(3.15) + 4.37(5.51) = 35.3 \text{ CFS}$$

VIII. COMPARISON

A. BASIN A

1. VOLUME

$$\Delta V_{100} = 3670 - 3850 = 180 \text{ CF (DECREASE)}$$

2. PEAK DISCHARGE

$$\Delta Q_{100} = 2.9 - 3.1 = 0.2 \text{ CFS (DECREASE)}$$

B. BASIN B

1. VOLUME

$$\Delta V_{100} = 53280 - 47690 = 5590 \text{ CF (INCREASE)}$$

2. PEAK DISCHARGE

$$\Delta Q_{100} = 35.3 - 33.0 = 2.3 \text{ CFS (INCREASE)}$$

$$Q_{100} = 35.3 < Q_{ALLOW} = 36.5 \text{ (PER MDP)}$$

DRAINAGE CERTIFICATION

I, JEFFREY G. MORTENSEN, NMPE 8547, OF THE FIRM JEFF MORTENSEN & ASSOCIATES, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND DRAINED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 03-31-2003 WITH EXCEPTIONS AS NOTED BELOW. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR TEMPORARY CERTIFICATE OF OCCUPANCY.

THE FOLLOWING ITEMS REQUIRE CORRECTION AND/OR COMPLETION PRIOR TO ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY:

1. CONSTRUCT WHEELCHAIR RAMP AT THE NORTH SIDE OF THE BUILDING IN THE PROPER HORIZONTAL LOCATION AND GRADE AS SPECIFIED ON THE APPROVED PLAN TO PROVIDE POSITIVE DRAINAGE OF THE LANDSCAPED AREA ON THE NORTH SIDE OF THE BUILDING.
2. CONSTRUCT 24-INCH SIDEWALK CULVERT ON THE NORTH SIDE OF THE BUILDING IN THE PROPER HORIZONTAL LOCATION AND GRADE AS SPECIFIED ON THE APPROVED PLAN TO PROVIDE POSITIVE DRAINAGE OF THE LANDSCAPED AREA AT THE NORTHWEST CORNER OF THE BUILDING.
3. COMPLETE THE ASPHALT PAVING (CLOUDED)
4. COMPLETE THE CURB AND GUTTER (CLOUDED)

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

JEFFREY G. MORTENSEN, NMPE 8547

DATE

DRAINAGE CERTIFICATION FOR PERMANENT CERTIFICATE OF OCCUPANCY

I, JEFFREY G. MORTENSEN, NMPE 8547, OF THE FIRM JEFF MORTENSEN & ASSOCIATES, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND DRAINED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 03-31-2003 WITH THE EXCEPTIONS OF THE AREA NOTED BELOW. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANENT CERTIFICATE OF OCCUPANCY.

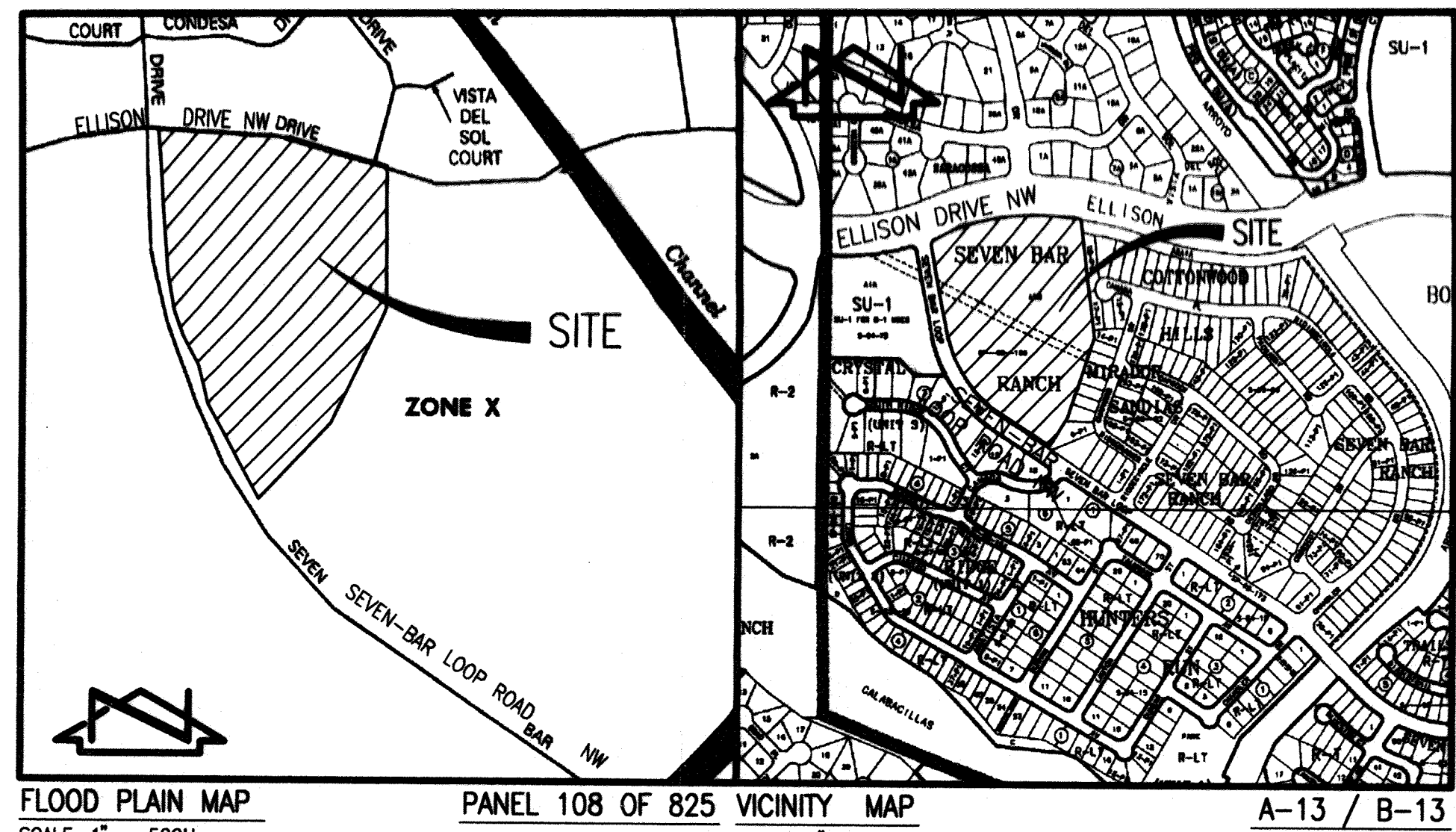
THE FOLLOWING EXCEPTION IS NOTED, HOWEVER, DOES NOT APPEAR TO HAVE AN ADVERSE EFFECT ON THE PERFORMANCE OF THE SITE DRAINAGE:

THE AREA BETWEEN THE NORTH FACE OF THE BUILDING AND THE BACK OF SIDEWALK HAS BEEN LANDSCAPED BY SEPARATE CONTRACT AND HAS THEREFORE ASSUMED THE RESPONSIBILITY FOR THE DRAINAGE OF THE AREA IN QUESTION ON THE NORTH SIDE OF THE BUILDING

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

JEFFREY G. MORTENSEN, NMPE 8547

DATE



FLOOD PLAIN MAP

SCALE: 1" = 500'

PANEL 108 OF 825 VICINITY MAP

SCALE: 1" = 750'

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 280-1990 (ALBUQUERQUE AREA), 1-800-321-ALERT(2537) (STATEWIDE), 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 IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
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 CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE CONSIDERED, THEREFORE, 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. THE DESIGN OF PLANTERS AND LANDSCAPED AREAS IS NOT PART OF THIS PLAN. ALL PLANTERS AND LANDSCAPED AREAS ADJACENT TO THE BUILDING(S) SHALL BE PROVIDED WITH POSITIVE DRAINAGE TO AVOID ANY PONDING ADJACENT TO THE STRUCTURE. FOR CONSTRUCTION DETAILS, REFER TO LANDSCAPING PLAN.

EROSION CONTROL MEASURES:

1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY.
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.
4. ANY AREAS OF EXCESS DISTURBANCE (TRAFFIC ACCESS, STORAGE YARD, EXCAVATED MATERIAL, ETC.) SHALL BE RE-SEEDING ACCORDING TO C.O.A. SPECIFICATION 1012 "NATIVE GRASS SEEDING". THIS WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.

NO.	DATE	BY	REVISION
1	03/03	J.G.M.	ADD ADDITIONAL PARKING; EXTEND VALLEY GUTTER; ADD SIDEWALK
2	07/04	J.G.M.	DRAINAGE CERT. FOR C.O. (TEMP)
3	07/04	J.G.M.	RECERTIFICATION
4	01/08	J.G.M.	CERTIFICATION FOR PERMANENT C.O.

2000.052.A.B

Jma

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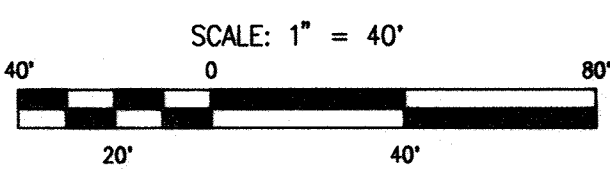
DRAINAGE PLAN AND
CALCULATIONS

SEVEN BAR ELEMENTARY SCHOOL
PHASE II- CLASSROOM ADDITION
4501 SEVEN BAR LOOP NW
ALBUQUERQUE, NEW MEXICO
APRIL 2003

MAHLMAN &
MILES
ARCHITECTS
414-12 CENTRAL S.E. #4
ALBUQUERQUE, NEW MEXICO 87102 / 505-243-0101

C-1

ELISON DRIVE, N.W.
(156'6" R.O.W.)



BOUNDARY CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA
C1	616.00'	491.30'	N 34°26'57" W	478.38'	45°41'50"
C2	25.00'	36.33'	N 30°11'32" E	33.21'	83°15'08"
C3	1122.00'	408.33'	N 82°04'39" E	406.08'	20°51'06"
C4	2132.70'	172.16'	S 85°10'35" E	172.11'	04°37'30"

BOUNDARY LINE TABLE		
LINE	DIRECTION	DISTANCE
L1	S 07°27'36" E	459.93'
L2	S 18°52'24" W	378.00'
L3	S 32°42'08" W	149.38'
L4	N 57°17'52" W	232.26'
L5	N 11°36'02" W	327.73'
L6	N 71°39'06" E	89.44'

NOTES:
1. THIS IS NOT A BOUNDARY SURVEY. BOUNDARY DATA SHOWN HEREON WAS TAKEN FROM A SURVEY PERFORMED BY JEFF NORTENSEN AND ASSOCIATES INC. AND IS SHOWN FOR ORIENTATION ONLY.
2. EXISTING TOPOGRAPHIC INFORMATION WAS TAKEN FROM THE NEW WESTSIDE ELEMENTARY SCHOOL PHASE 1 GRADING PLAN, OCTOBER 2001, SHOWN THEREON AS THE PROPOSED TOPOGRAPHIC CONDITION.

NCL	DATE	BY	REVISION
03/03	J.G.M.	ADD ADDITIONAL PARKING; EXTEND VALLEY GUTTER; ADD SIDEWALK	
07/04	J.G.M.	DRAINAGE CERT FOR TEMP C.O.	
08/04	J.G.M.	RECERT FOR PERMANENT C.O.	
01/05	J.G.M.	VERIFY CORRECTIONS	

2000.052.4B

JMA
JEFF NORTENSEN & ASSOCIATES, INC.
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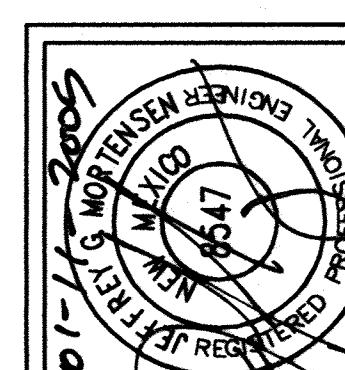
C-2

MAHLMAN & MILES
ARCHITECTS
414-172 CENTRAL S.E. #4
ALBUQUERQUE, NEW MEXICO 87102 / 505-243-0101

REVISIONS		
NO.	DATE	REMARKS

SEVEN BAR ELEMENTARY SCHOOL
PHASE II- CLASSROOM ADDITION
4501 SEVEN BAR LOOP NW
ALBUQUERQUE, NEW MEXICO
APRIL 2003

GRADING PLAN



- LEGEND**
- CMU CONC
 - DWS DASHED WHITE STRIPE
 - DYS DOUBLE SOLID YELLOW STRIPE
 - ECF EROSION CONTROL FENCE
 - EXC EXTRUDED CONCRETE CURB
 - FF FINISH FLOOR
 - FL FLOWLINE
 - ID IDENTIFICATION
 - INV INVERT
 - MH MANHOLE
 - PXW PEDESTRIAN CROSSWALK
 - R.O.W. RIGHT-OF-WAY
 - SAS SANITARY SEWER
 - STD C&G STANDARD CURB AND GUTTER
 - SW SIDEWALK
 - SWS SOLID WHITE STRIPE
 - TA TOP OF ASPHALT
 - TC TOP OF CURB
 - TCB TELEPHONE CABINET
 - TCO TOP OF CONCRETE
 - TMB TRAFFIC MAST ARM BASE
 - TOF TOP OF FOOTING
 - TS TRAFFIC SIGN
 - TSG TRAFFIC SIGNAL
 - TSPB TRAFFIC SIGNAL PULLBOX
 - TSW TOP SIDEWALK
 - TW TOP OF WALL
 - VG VALLEY GUTTER
 - VHPG VERY HIGH PRESSURE GAS LINE
 - W WATER
 - W/ WITH
 - WCR WHEEL CHAIR RAMP
 - WS WOOD SIGN
 - WVB WATER VALVE BOX
 - PC PROPERTY CORNER
 - MH MANHOLE
 - WVB WATER VALVE BOX
 - TS TRAFFIC SIGN
 - TS TRAFFIC SIGNAL
 - TSB TRAFFIC SIGNAL PULLBOX
 - TCB TELEPHONE CABINET
 - UPM UTILITY PAINT MARK
 - CL CONTOUR LINE
 - EL EASEMENT LINE
 - ADJ ADJOINER LINE
 - PL PROPERTY LINE
 - PR PROPOSED RETAINING WALL
 - PC PROPOSED CONTOUR
 - SE EXISTING SPOT ELEVATION
 - HP HIGH POINT
 - SE EXISTING SPOT ELEVATION
 - FL EXISTING FLOWLINE
 - FL PROPOSED FLOWLINE
 - PC PROPOSED CONCRETE
 - PA PROPOSED ASPHALT
 - PG PROPOSED GARDEN WALL

RECORD INFORMATION
RECORD INFORMATION = AS-DESIGNED
28.00
4.16
91.03
PROJECT BENCHMARK
USGS BRASS TABLET "BLACK-2 1977", SET FLUSH WITH GROUND, NEAR THE SOUTHWEST CORNER OF THE INTERSECTION OF GOLF COURSE ROAD N.W. WITH McMAHON BOULEVARD N.W.
ELEVATION = 5213.93 FEET (M.S.L.D.)
T.B.M. #1
CHISELED "C" ON TOP OF EAST CURB ON SEVEN-BAR LOOP ROAD N.W. NEAR NORTHWEST PROPERTY CORNER
ELEVATION = 5187.14 FEET (M.S.L.D.)

LEGAL DESCRIPTION
TRACT A-2B, SEVEN-BAR RANCH, ALBUQUERQUE, NEW MEXICO, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON JANUARY 05, 1995, BOOK 95C, PAGE 2.

KEYED EASEMENT AND MONUMENTATION NOTES

- 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT C40-21
- 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT 95C-2
- 36" GAS COMPANY OF NEW MEXICO RIGHT OF WAY AND EASEMENT GRANTED BY DOCUMENT EXECUTED ON 07-12-1995 (UNRECORDED)
- 10' NEW MEXICO UTILITY, INC. WATER LINE EASEMENT GRANTED BY DOCUMENT FILED 09-01-1995, BOOK 95-21, PAGE 3880, DOC. #95089330
- NOT USED
- NOT USED
- 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT 99C-169 (OFFSITE)
- 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT 99C-170 (OFFSITE)
- NOT USED
- #5 REBAR W/CAP STAMPED "NEW MEXICO PS 11184"
- P.K. NAIL (NO I.D.) IN WALL FOOTING
- #5 REBAR (NO I.D.), W/WASHER STAMPED "NMPS 11184"
- #5 REBAR WITH CAP STAMPED "PS6544", NOT HONORED (0.08' EAST OF PROPERTY LINE)
- MAG NAIL W/WASHER STAMPED "NMPLS10042" IN TOP OF WALL
- ASPHALT NAIL W/WASHER STAMPED "PS6544" IN TOP OF WALL
- P.K. NAIL W/WASHER STAMPED "NMPS 11184" IN TOP OF WALL