

LEGEND

RECORD DRAWING

MATERIALS

CONCRETE
RIP-RAP

LINES

SUBDIVISION BOUNDARY
PROPERTY LINE (PLAN)
PROPERTY LINE (SECTION)
CENTERLINE
EASEMENT LINE
MATCH LINE
SECTION CUT LINE

EARTHWORK

EXISTING NEW
CONTOUR LINE
SPOT ELEVATION
PROJECT / PHASE BOUNDARY
SWALE
DIRECTION OF FLOW

MISCELLANEOUS UTILITIES

GAS LINE
UNDERGROUND TELEPHONE
UNDERGROUND ELECTRICAL
STORM DRAIN
STORM DRAIN MANHOLE
STORM DRAIN INLET

SANITARY SEWER

SANITARY SEWER LINE
SANITARY SEWER MANHOLE
SAS SERVICE CONNECTIONS
SAS CAP OR PLUG
ENCASEMENT

WATER

WATER LINE
WATER SERVICE CONNECTIONS
GATE VALVE
FIRE HYDRANT
BUTTERFLY VALVE
REDUCER
WATER PRESSURE ZONE BOUNDARY

WATER FITTINGS

CAPS AND PLUGS
ELBOW
CROSS
TEE

MISCELLANEOUS

CHAINLINK FENCE
FIELD FENCE
COMMON YARD WALL
RETAINING WALL
POWER OR TELEPHONE POLE

CONSTRUCTION PLANS

for

CIBOLA HIGH SCHOOL

STORM DRAIN & ROOF DRAIN MODIFICATIONS

ALBUQUERQUE, NEW MEXICO

JUNE, 1990

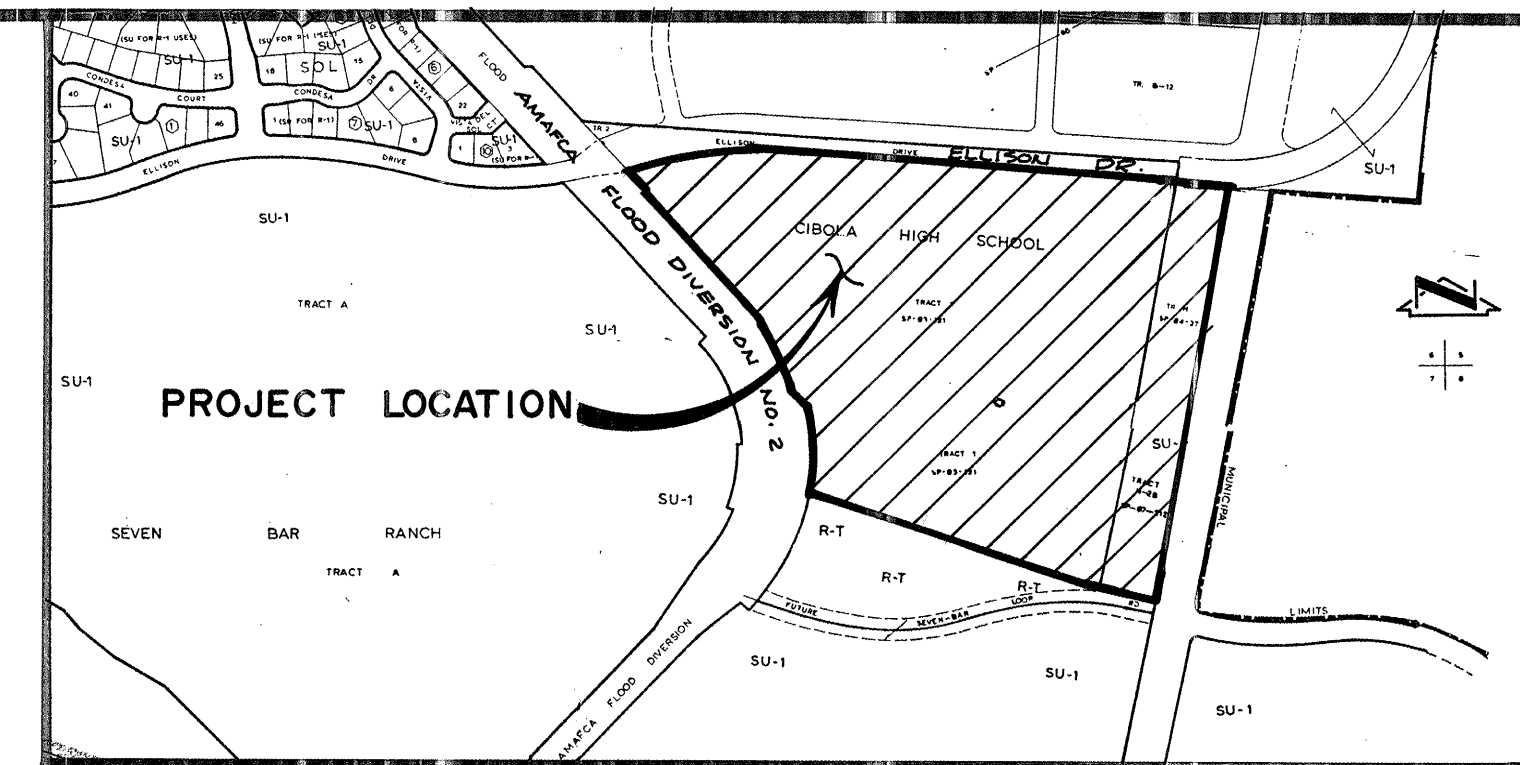
INDEX OF DRAWINGS

- COVER SHEET, INDEX OF DRAWINGS, LEGEND, VICINITY MAP AND GENERAL NOTES
- DRAINAGE EASEMENT INFORMATION
- DRAINAGE IMPROVEMENTS - WEST PORTION
- DRAINAGE IMPROVEMENTS - EAST PORTION
- TEMPORARY DRAINAGE EASEMENT GRADING AND SECTIONS
- DRAINAGE PLAN, CALCULATIONS AND DETAILS
- TEMPORARY DRAINAGE EASEMENT EROSION CONTROL PLAN
- PRIVATE STORM DRAIN BASELINE PLAN
- PRIVATE STORM DRAIN PLAN
- PRIVATE STORM DRAIN PROFILES
- EXISTING ROOF DRAIN SYSTEM (M-1)
- MODIFICATIONS TO ROOF DRAIN SYSTEM (M-2)
- AREA I - ENLARGED PLAN (M-3)
- AREA V - ENLARGED PLAN (M-4)
- AREA II - ENLARGED PLAN (M-5)
- AREA III - ENLARGED PLAN (M-6)
- AREA IV - ENLARGED PLAN (M-7)

SHEETS 11-17 DELETED - NOT PART OF WORK ORDER

CAUTION:

THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.



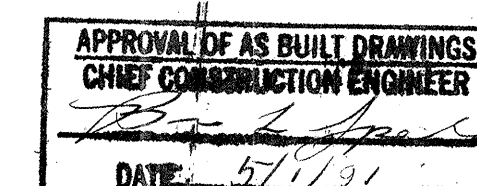
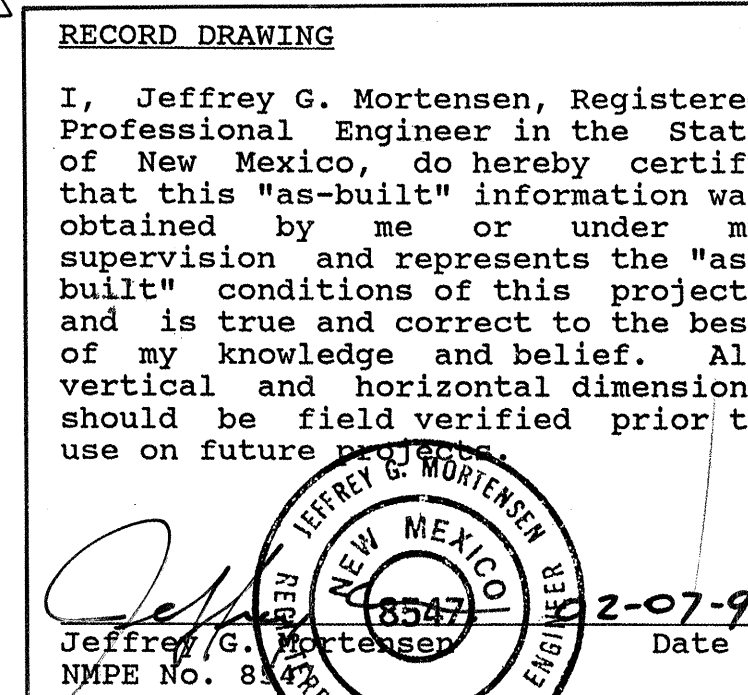
VICINITY MAP

SCALE: 1" = 800'

A-13 & B-13

GENERAL NOTES:

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS - PUBLIC WORKS CONSTRUCTION - 1986.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- 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 COMPLETE, 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.
- SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
- CONTRACTOR SHALL COMPLY WITH SECTION 19 OF THE "STANDARD SPECIFICATIONS".
- ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- TACK COAT REQUIREMENTS SHALL BE DETERMINED DURING CONSTRUCTION BY THE PROJECT ENGINEER.
- SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
- IF CURB IS DEPRESSIONED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF THE CURB AND GUTTER.
- ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
- CONTRACTOR SHALL COORDINATE WITH THE WATER SYSTEM DIVISION FOR THE EXECUTION OF THE VALVE SHUT OFF PLAN, NOT LESS THAN THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT THE EXISTING PUBLIC WATER UTILITIES. ONLY WATER SYSTEM DIVISION PERSONNEL SHALL OPERATE EXISTING VALVES.
- CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE ENGINEER. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED.
- THREE (3) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION CO-ORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION CO-ORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION.
- ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED IN KIND BY CONTRACTOR TO LOCATION AND IN KIND AS EXISTING OR AS INDICATED BY THIS PLAN SET.



REV	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
	1, 3, 4, 5, 6, 7, 9, 10						

JEFF MORTENSEN & ASSOCIATES, INC.
801 DALLAS NE, ALBUQUERQUE, NM 87110
ENGINEERS - TELEPHONE (505) 265-5611

APPROVED FOR CONSTRUCTION

Paul B. Smith
12-7-90 C.E.

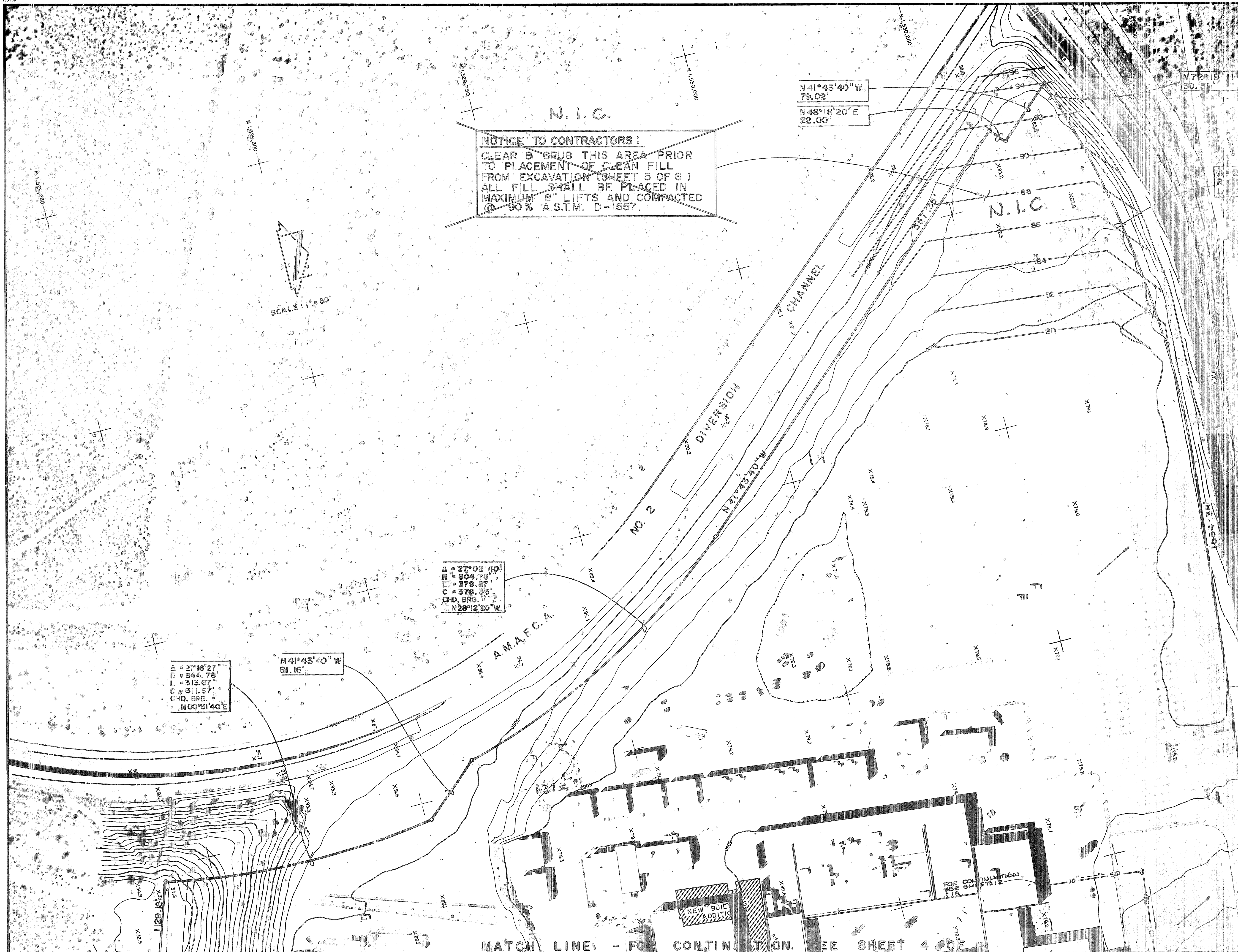
PROJECT NO.
4040.90

SHEET 1 OF 17
10

JMA JOB NO. 30947

06-26-90

PROJECT NO.	4040.90	MAP NO.	A-13, B-13	SHEET	2	OF	1710
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NOTICE TO CONTRACTORS:
CLEAR & GRUB THIS AREA PRIOR
TO PLACEMENT OF CLEAN FILL
FROM EXCAVATION (SHEET 5 OF 6)
ALL FILL SHALL BE PLACED IN
MAXIMUM 8" LIFTS AND COMPACTED
@ 90% A.S.T.M. D-1557.

SCALE: 1" = 50'

A = 27°02'40"
R = 804.73'
C = 379.07'
CHD. BRG. =
N28°12'30"W

A = 2°16'27"
R = 344.78'
C = 313.87'
CHD. BRG. =
N00°51'40"E

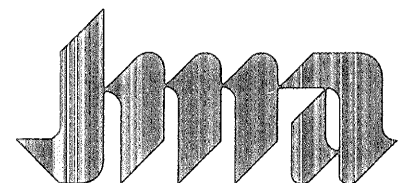
N41°43'40"W
81.16'

N41°43'40"W
79.02'
N48°16'20"E
22.00'

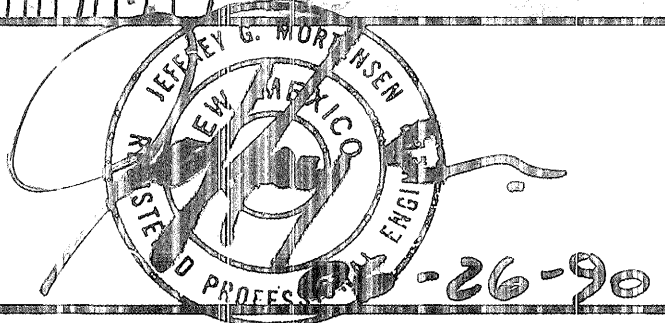
N72°18'
30.3'

A = 2°16'27"
R = 344.78'
C = 313.87'
CHD. BRG. =
N00°51'40"E

MATCH LINE - FOR CONTINUATION. SEE SHEET 4 OF 6



JEFF MORTENSEN & ASSOCIATES, INC.
811 DALLAS, N.E. ALBUQUERQUE, NM 87110
ENGINEERS & TELEPHONE (505) 265-5611



DRAINAGE IMPROVEMENTS - WEST PORTION
CIBOLA HIGH SCHOOL

26 4040.900391

BID LOT
NO. 3

DESIGNED BY J.G.M.
DRAWN BY K.B.P./S.G.H.
APPROVED BY J.G.M.

NO.	DATE	BY
1	01/91	J.G.M.
2		
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

JOB NO.	30947
DATE	6-90
SHEET	3 OF 10



MATCH LINE - FOR CONTINUATION SEE SHEET 5 OF 17



GAS SERVICE TAKEN FROM
TRANSMISSION LINES PER
GAS CO. OF NEW MEXICO. CALL
NEW MEXICO ONE CALL
SERVICE FOR LINE SPOTS
260-1990.

ADDITIONAL WORK PER
CHANGE ORDER NO. 1

NOTES:
1. ALL WORK DETAILED ON THIS SHEET IN BID LOT NO. 3 EXCEPT
SDMH # 1 AND RUNDOWN/SPILLWAY (DETAIL 1) WHICH IS IN BID LOT NO. 2.
2. REFER TO SHEET 5 FOR SECTIONS & SHEET 6 FOR DETAILS.

RECORD DRAWING

I, Jeffrey C. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project and is true and correct to the best of my knowledge and belief. All vertical and horizontal dimensions should be field verified prior to use on future projects.

Jeffrey C. Mortensen
New Mexico No. 8641

SEE DETAIL 1

6

STORM INLET #4

STORM INLET #5

STORM INLET #6

STORM INLET #7

STORM INLET #8

STORM INLET #9

STORM INLET #10

STORM INLET #11

STORM INLET #12

STORM INLET #13

STORM INLET #14

STORM INLET #15

STORM INLET #16

STORM INLET #17

STORM INLET #18

STORM INLET #19

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STORM INLET #288

STORM INLET #289

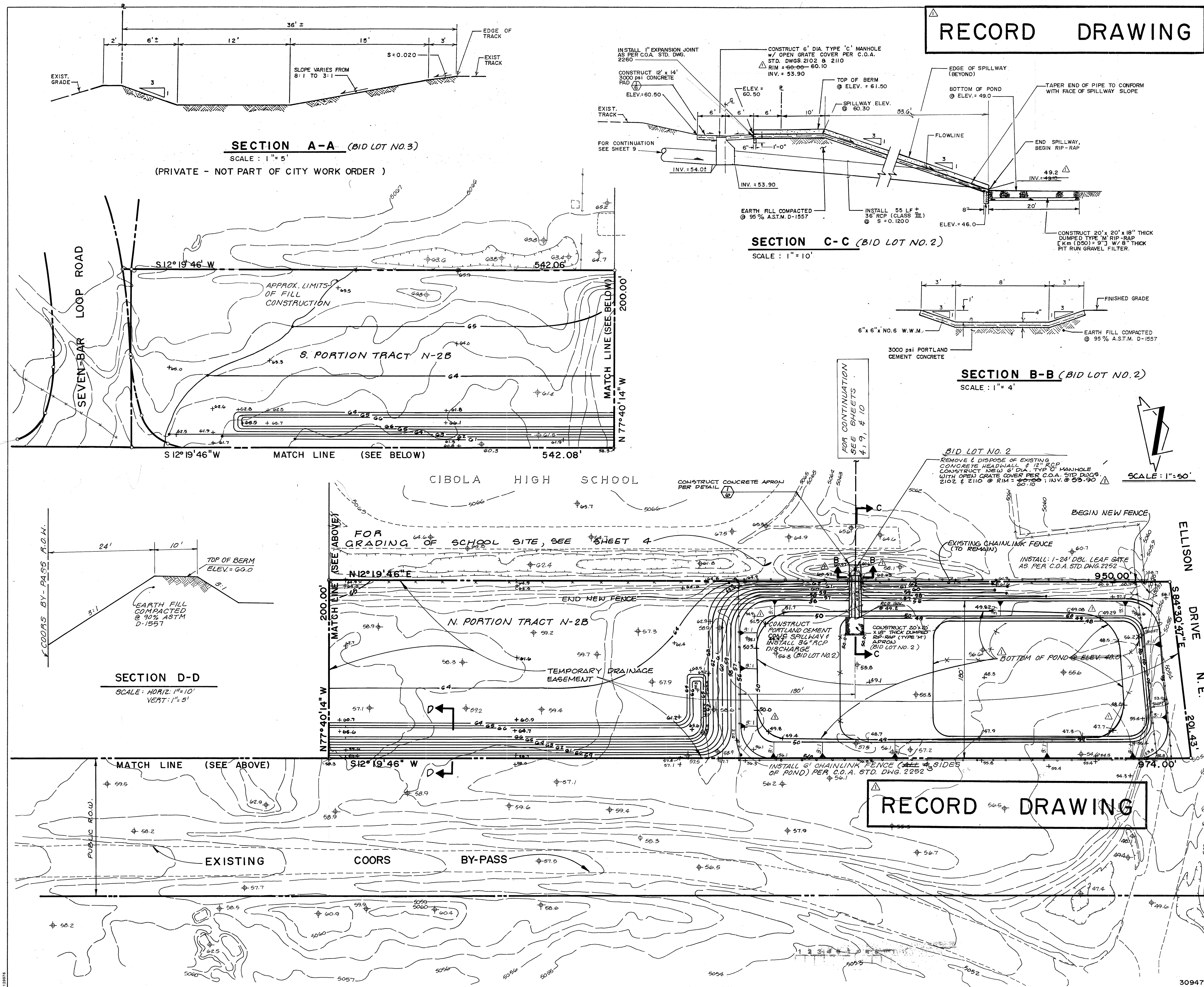
STORM INLET #290

STORM INLET #291

STORM INLET #292

STORM INLET #293

STORM INLET #294



- NOTES:
- EXISTING TOPOGRAPHY PROVIDED COURTESY OF ABO DEVELOPMENT CORPORATION AND EASTERLING AND ASSOCIATES.
 - FOR TEMPORARY DRAINAGE EASEMENT DATA, REFER TO SHEET 2.
 - FOR GRADING ON CIBOLA HIGH SCHOOL PROPERTY, REFER TO SHEET 4.
 - UNLESS OTHERWISE INDICATED, ALL WORK ON THIS SHEET IS PART OF BID LOT NO. 1.
 - ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90% ASTM D-1557, UNLESS OTHERWISE NOTED.
 - THE INTENT OF THE FILL CONSTRUCTION SHOWN HEREON IS TO RETAIN ON-SITE ALL MATERIAL EXCAVATED IN THE GRADING OF THE POND. NO FILL IS TO BE EXPORTED FROM TRACT N-2B. LIKEWISE, NO FILL IS TO BE IMPORTED ONTO TRACT N-2B.

RECORD DRAWING

I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief. All vertical and horizontal dimensions should be field verified prior to use on future projects.

Jeffrey G. Mortensen
New Mexico Professional Engineer
No. 18547
Date 07-91

LEGEND

— 50.02 — EXISTING CONTOUR
— 50.0 — AS DESIGNED CONTOUR
+ 55.0 — EXISTING SPOT ELEVATION
+ 48.34 — AS BUILT SPOT ELEVATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
26 4040.900591

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: CIBOLA HIGH SCHOOL DRAINAGE MODIFICATIONS
TEMPORARY DRAINAGE EASEMENT
GRADING & SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC. CHAIRMAN	R.W. Kane	12-3-90	WATER	R.W. Kane	7-26-90
TRANSPORTATION	R.W. Kane	7-27-90	WASTE WATER	R.W. Kane	7-26-90
HYDROLOGY	R.W. Kane	11-27-90			

PROJECT NO. 4040.90 MAP NO. A-13,B-13 SHEET 5 OF 170

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGN	
NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE
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14	01/91	14	01/91	14	01/91	14	01/91	14	01/91	14	01/91
15	01/91	15	01/91	15	01/91	15	01/91	15	01/91	15	01/91

The following excerpt has been reprinted from the Master Drainage Plan for Cibola High School. The Master Drainage Plan was submitted to the City of Albuquerque Hydrology Section on January 17, 1990. The plan presented two alternatives for consideration. Per the letter of advice (A-13/D4) from the Hydrology Section dated January 30, 1990, Alternate B is preferred. In response, this submittal has been prepared. To answer the conditions of the above referenced letter, we present the following:

1. This set of construction plans addressed the Work Order concerns.
2. Sheet 2 of this submittal is intended to address maintenance.
3. This plan has been prepared cognizant of the "7-Bar Drainage Management Plan" prepared by Easterling & Associates, Inc; Easterling & Associates, Inc., in cooperation, have provided copies for review.
4. Easterling & Associates, Inc., have provided copies of the preliminary design of the proposed regional dewatering pond. Those plans indicate a bottom elevation of 10.0 and a capacity of more than 1,000,000 cubic feet. That design criteria far exceeds the limits of this project.
5. Engineer's Certification can be achieved with construction observation and staking provided by the Owner's engineer.

The following excerpt is provided for information only.

The following items concerning the Cibola High School Master Drainage Plan are contained herein:

1. Vicinity Map
2. Previously Approved Grading & Drainage Plan
3. Topographic Mapping of Existing Conditions
4. Construction Plans for Alternates A and B
5. Calculations

As shown by the Vicinity Map, the site is located on the south side of Ellison Drive N.W.-between the Coors By-Pass and the AMAFCA No. 2 Diversion Channel. At present, the site is developed as a high school campus. Much of the surrounding area is presently undeveloped, however, development is in progress along with plans which will address the development of the surrounding area. Until such time as sufficient drainage infrastructure is constructed to serve this area, interim measures must be taken. The 7-Bar Drainage Management Plan prepared by Easterling & Associates is an effort to address the manner in which runoff generated within this portion of the West Mesa can be handled. In the meantime, the runoff generated by Cibola High School must be addressed and hence is the purpose of this Master Planning effort.

The Grading and Drainage Plan prepared for the original construction of Cibola High School required the excavation of a large retention pond along the east property line of the site. Over the years, this retention area has filled with sediment, thereby reducing its effectiveness. The original design depicted on Sheets 1, 2, and 3. The approved concept for handling the runoff generated by the site is to retain the difference between the existing runoff volume and the developed runoff volume. As shown by the Calculations which appear on Sheet 1, a pond volume of 137,301 cubic feet was required. The design called for a 122,400 cubic feet pond. Sheets 4 and 5 illustrate the existing conditions at this site. This mapping reveals that ponding in this order of magnitude is not presently available onsite. In an effort to restore this volume of ponding, Alternate A has been developed. Alternate A calls for the creation of three retention ponds along the east property line of this site. In an effort to stabilize the slopes of these ponds, gunite has been proposed in accordance with the sections which appear on Sheet 8. Site runoff, which flows from west to east, will be intercepted by these ponds and retained onsite. Runoff will be allowed to infiltrate through the gravel pockets specified for the bottom of each pond. The Calculations which appear on Sheet 8 demonstrate that a volume greater than that required by the original design will be provided under this Alternate solution. This ponding system will intercept the runoff prior to its entry onto the property which lies to the east of the school site.

As stated above, Easterling Associates has prepared the 7-Bar Drainage Management Plan. This plan calls for the construction of a detention facility on that property which lies immediately to the east of the school site. Alternate B, as proposed herein, acknowledges this proposed facility and hence proposes to locate an interim retention pond on that site. This construction would precede the proposed drainage Special Assessment District proposed for this area. This Special Assessment District is in its very preliminary stages since the school district cannot await its completion and must proceed with the further development of the high school site so that the development of the high school site can proceed, it may be possible to implement Alternate B. This, of course, would require the cooperation of the adjacent land owner with whom discussions have already been conducted. At this time, the concept appears feasible, hence negotiations and agreements will follow. The Alternate B concept is to intercept runoff discharging from the school site and divert that runoff into an excavated retention pond on the adjacent property. The volume of this facility has been determined to be twice the volume anticipated from the 100-year, 24-hour rainfall event. In addition, two feet of freeboard have been designed into this facility so that ample capacity will exist to accept and retain the runoff from the school site. The pond will be approximately six feet deep, hence the fencing of this area is recommended. Because of the compatibility of Alternate B to the 7-Bar Drainage Management Plan, Alternate B is the preferred solution to address the drainage requirements imposed upon the Cibola High School site. In the event that agreements cannot be consummated between the two property owners, then Alternate A will be implemented.

The calculations which appear herein analyze the existing condition for the 100-year, 6-hour rainfall event, as well as the 100-year, 24-hour rainfall event for the volume of runoff generated only. The Rational Method has been used to quantify the peak rate of discharge from the site as well as the offsite flows intercepted from the east side slope of the AMAFCA No. 2 Diversion Channel. The SCS Method has been used to quantify the volume of runoff generated. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, coupled with the Mayor's Emergency Rule dated January 14, 1986. As shown by these calculations, the existing site improvements will generate a peak discharge of approximately 80 cfs with a corresponding volume of approximately 80,000 cft. Pond volumes have been estimated based upon the Average End Area Method. The hydraulic capacity of the various components of the Alternate B solution have been based upon the Weir Equation and the Manning's Equation for the analysis of the spillway and property line division, respectively.

Offsite flows, as stated above, are generated by the east slope of the AMAFCA No. 2 Diversion Channel embankment. These offsite flows are quantified in the calculations and are accepted at the west property line of the site. These flows enter the site in the form of sheet flow and are conveyed through the site in combination with the existing site ruhruff. Under both Alternates A and B, this offsite runoff will continue to flow through the site and will be accepted into either of the retention facilities proposed herein.

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 10: BCC - Bluepoint loamy fine sand
Hydrologic Soil Group: A
Pervious CN = 49 (DPM Plate 22.2 C-2
Open Spaces: fair condition)

Time of Concentration/Time to Peak

$$T_C = 0.0078 \text{ L}^{0.77}/\text{s}^{0.385} \text{ (Kirpich Equation)}$$

$$T_p = T_c = T_1 + T_2 + T_3 = 22.4 \text{ min}$$

$T_1 = 8.4 \text{ min}$
Where $L = 670 \text{ ft}$,
 $S = \Delta h/L = 4/670 \text{ ft} = 0.0060$

$T_2 = 3.2 \text{ min}$
 Where $L = 390 \text{ ft}$
 $S = \Delta h/L = 10/390 = 0.0256$

$T_3 = 10.8 \text{ min}$
 Where $L = 1050 \text{ ft}$,
 $S = \Delta h/L = 8/1050 \text{ ft} = 0.0076$

Point Rainfall

P6 = 2.2 in. (DPM Plate 22.2 D-1)
P24 = 2.6 in (NOAA Atlas 2 - Volume IV - New Mexico - Figure 30)

Rational Method

Discharge: $Q = C \Delta V$

where C varies
 $i = P_6 (6.84) T_C^{-0.51} = 3.08 \text{ in/hr}$
 $P_6 = 2.2 \text{ in (DPM Plate 22.2D-1)}$
 $T_C = 10 \text{ min (minimum)}$
 $A = \text{area, acres}$

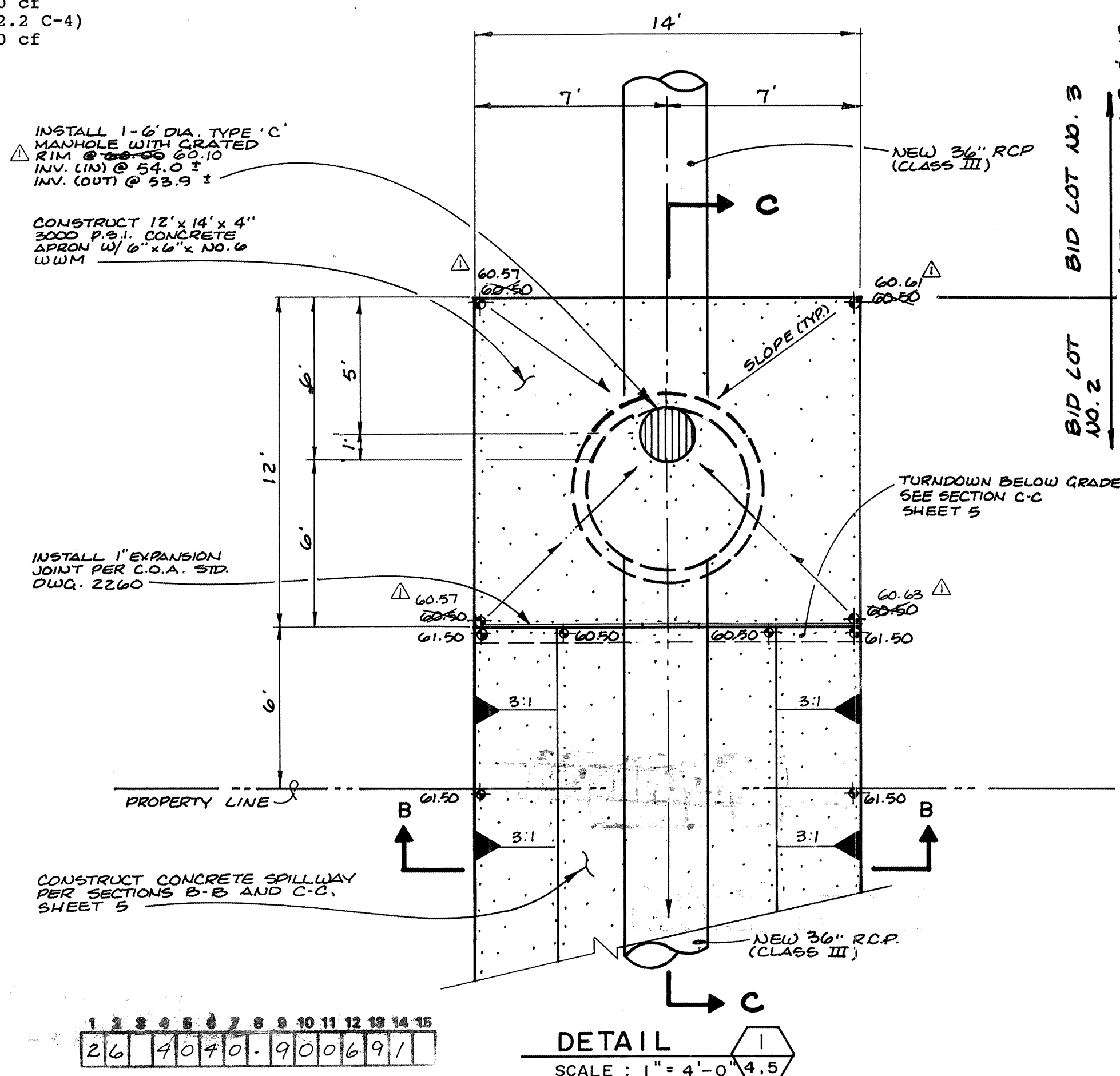
SCS Method

Volume: $V = 3630 \text{ (DRO) A}$

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

Existing Condition


1. Site Hydrology
 Atotal = 1,905,120 sf = 43.75 Ac
 Roof area = 312,950 sf (0.16)
 Paved area = 479,000 sf (0.25)
 Pasture area = 659,700 sf (0.35)
 Landscape area = 453,470 sf (0.24)
 C = 0.58 (Weighted average per Emergency Rule, 1/14/86)
 Q100 = C iA = 0.58(3.08)(43.75) = 78.2 cfs
 Aimp = 791,950 sf; % impervious = 41 %
 Composite CN = 69 (DPM Plate 22.2 C-2)
 DR06 = 0.37 in (DPM Plate 22.2 C-4)
 V100.6 = 3630 (DRO)A = 59,700 cf
 DR0.24 = 0.50 in (DPM Plate 22.2 C-4)
 V100.24 = 3630(DRO)A = 79,400 cf



NOTES:

1. REFER TO SHEET 5 FOR SECTIONS APPEARING ON THIS SHEET.
2. ALL WORK SHOWN HEREON PART OF BID LOT NO. 2

[illegible]

 RECORD DRAWING

I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief. All vertical and horizontal dimensions should be field verified prior to use on future projects.

use on future projects.

Jeffrey G. Mortensen

Jeffrey G. Mortensen
NMPE No. 8547

NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
8547

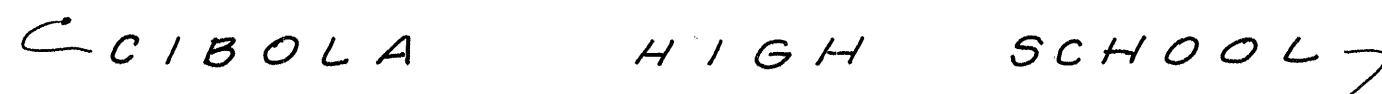
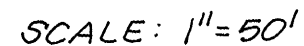
07-9 Date

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: CIBOLA HIGH SCHOOL DRAINAGE MODIFICATIONS
DRAINAGE PLAN, CALCULATIONS & DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC. CHAIRMAN	<i>R.W. Kane</i>	<i>12-3-90</i>	WATER	<i>R.W. Kane</i>	<i>7-26-90</i>
TRANSPORTATION	<i>R. D. Kane</i>	<i>7-27-90</i>	WASTE WATER	<i>R.W. Kane</i>	<i>7-26-90</i>
HYDROLOGY	<i>R.D. Kane</i>	<i>11-29-90</i>			

PROJECT NO.	4040.90	MAP NO.	A-13, B-13	SHEET	6	OF	1110
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VEGETATION FOR EROSION CONTROL

1. SEED RATE:

<u>Species</u>	<u>Pure Live Seed</u> <u>(lbs/acre)*</u>
Annual Rye Grass	8.0
Giant Dropseed	2.0
Sand Dropseed	1.0 3.0
Indian Ricegrass	4.0
Sideoats Grama	<u>6.0</u>
Total:	21.0

* Rates apply to drilled seed. Double rates listed if seed is broadcast.

2. SEED APPLICATION:

a. Flat areas - cultivate area to produce an acceptable, friable seed bed, then drill seed to a depth of 1/4 to 1/2 inches.

b. Slopes 3:1 or greater - hand broadcast and cultivate into top 1/4 to 1/2 inch of soil.

3. FERTILIZER:

16-20-0 @ 200 lbs. per acre applied
simultaneously with seed.

4. MULCH:

5,000 lbs. hay mulch per acre. Hay mulch shall be crimped into the soil so as not to exceed 2 inches in depth.

5. WATERING SCHEDULE:

CONTRACTOR shall maintain a wet seed bed for a period of at least 6 weeks following seeding.

RECORD DRAWING

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Jeffrey G. Mortensen
NMPE (No. 8547) 07-9 Date

BID LOT
NO. 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	6		4	0	4	0	.	9	0	0	7	9	1	

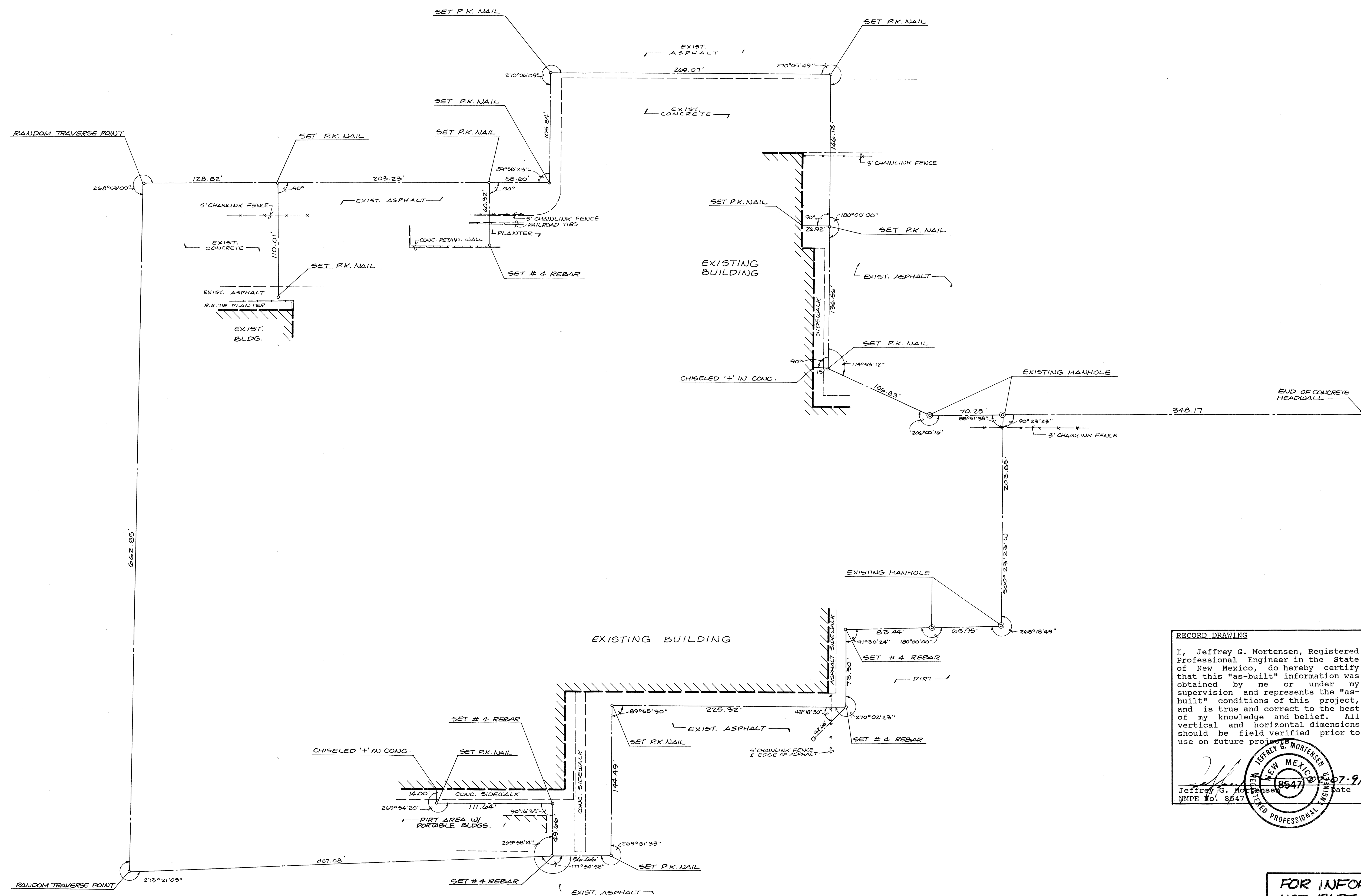
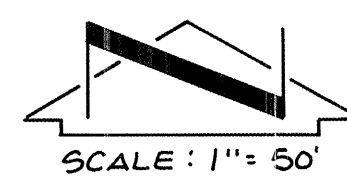
RECORD DRAWING

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: CIBOLA HIGH SCHOOL DRAINAGE MODIFICATIONS
TEMPORARY DRAINAGE EASEMENT
EROSION CONTROL PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chairman	<i>R.W. Kane</i>	12-3-90	Water	<i>R.W. Kane</i>	7-26-90
Transportation	<i>R. Hays</i>	7-27-90	Waste Water	<i>R.W. Kane</i>	7-26-90
Hydrology	<i>Paul Vesperini</i>	11-25-90			

PROJECT NO.	4040.90	MAP NO.	A-13, B-13	SHEET	7	OF	1710
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RECORD DRAWING

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Jeffrey G. Mortensen
N.M.P.E. No. 8547

NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
8547
07-91

FOR INFORMATION ONLY
NOT PART OF CITY WORK ORDER

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4040.90



JEFF MORTENSEN & ASSOCIATES, INC.
811 DALLAS, N.E. ALBUQUERQUE, NM 87110
ENGINEERS & TELEPHONE (505) 265-5611

PRIVATE STORMDRAIN BASELINE PLAN
CIBOLA HIGH SCHOOL

DESIGNED BY J.G.M./RCW
DRAWN BY S.G.H.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS	JOB NO.
				30947
				DATE 6-1990
				SHEET 8 OF 10

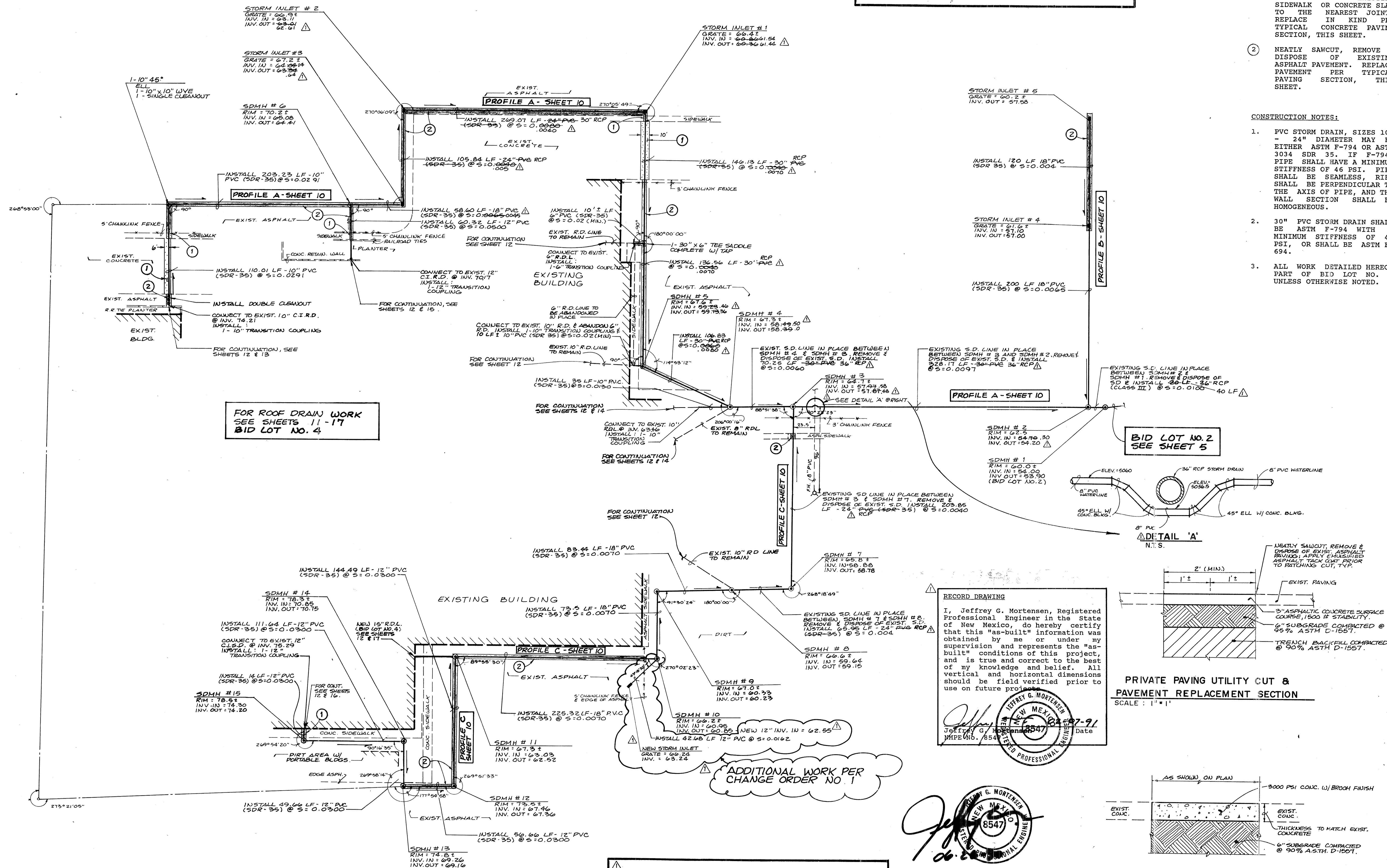
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KEYED NOTES:

- ① NEATLY SAWCUT, REMOVE AND DISPOSE OF EXISTING SIDEWALK OR CONCRETE SLAB TO THE NEAREST JOINT. REPLACE IN KIND PER TYPICAL CONCRETE PAVING SECTION, THIS SHEET.
- ② NEATLY SAWCUT, REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT. REPLACE PAVEMENT PER TYPICAL PAVING SECTION, THIS SHEET.

CONSTRUCTION NOTES:

1. PVC STORM DRAIN, SIZES 10" - 24" DIAMETER MAY BE EITHER ASTM F-794 OR ASTM 3034 SDR 35. IF F-794, PIPE SHALL HAVE A MINIMUM STIFFNESS OF 46 PSI. PIPE SHALL BE SEAMLESS, RIBS SHALL BE PERPENDICULAR TO THE AXIS OF PIPE, AND THE WALL SECTION SHALL BE HOMOGENEOUS.
2. 30" PVC STORM DRAIN SHALL BE ASTM F-794 WITH A MINIMUM STIFFNESS OF 46 PSI, OR SHALL BE ASTM F-694.
3. ALL WORK DETAILED HEREON PART OF BID LOT NO. 3 UNLESS OTHERWISE NOTED.



RECORD DRAWING

TYPICAL CONCRETE PAVING REPLACEMENT SECTION
N.T.S.

4040.90

