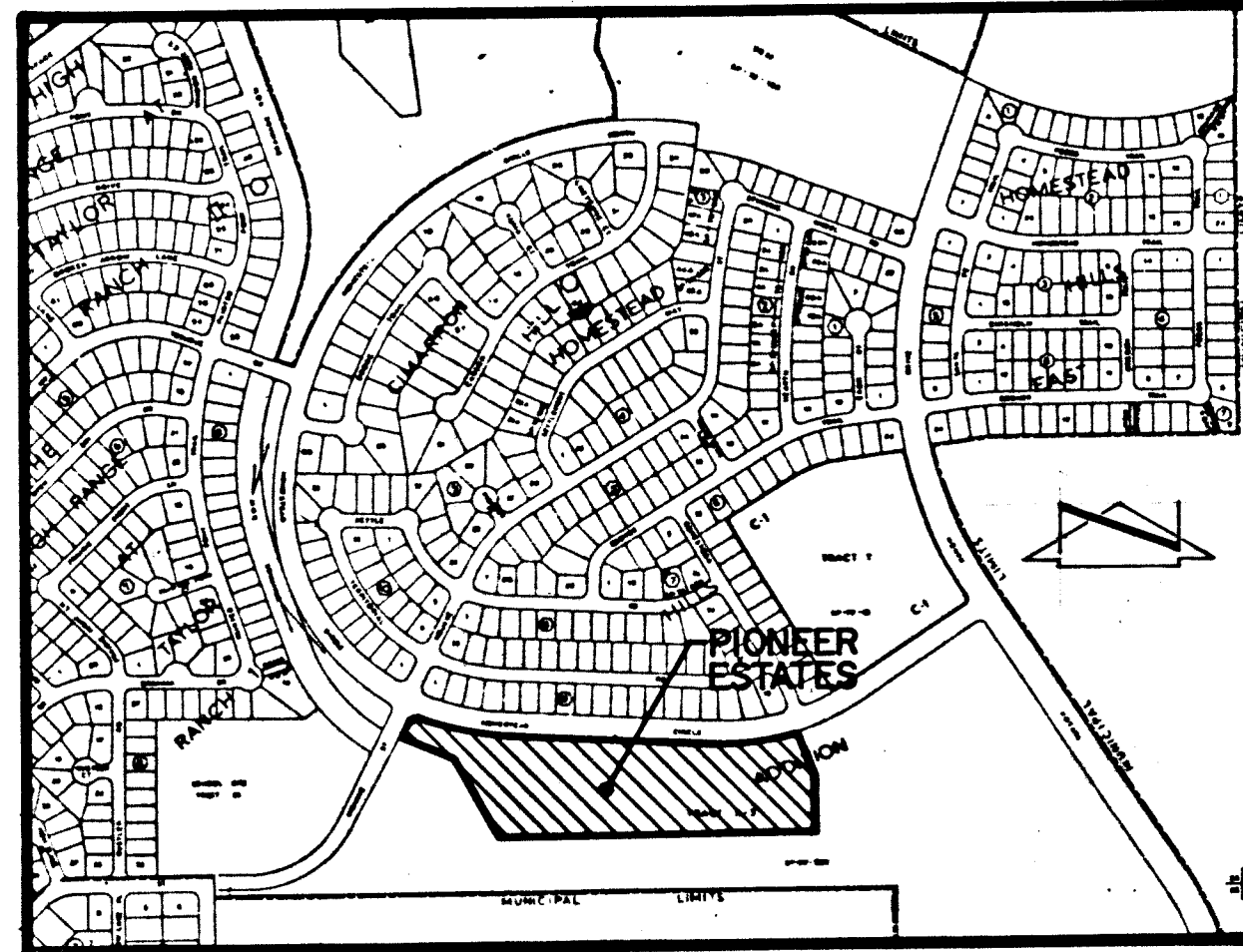




VICINITY MAP

D-11-Z

CONSTRUCTION PLANS
FOR THE
DEVELOPMENT OF
PIONEER ESTATES
ALBUQUERQUE, NEW MEXICO
DECEMBER, 1983

PREPARED FOR:

BELLAMAH COMMUNITY DEVELOPMENT
6121 INDIAN SCHOOL, N.E.
ALBUQUERQUE, NEW MEXICO 87110

PREPARED BY:

TOM MANN & ASSOCIATES
811 DALLAS, N.E.
ALBUQUERQUE, NEW MEXICO 87110

PROJECT BENCHMARK:

A 1/4 CORNER COMMON TO SECTIONS
23 AND 26 TOWNSHIP 11 NORTH, RANGE
2 EAST, N.M.P.M.
ELEVATION = 5119.74 FEET

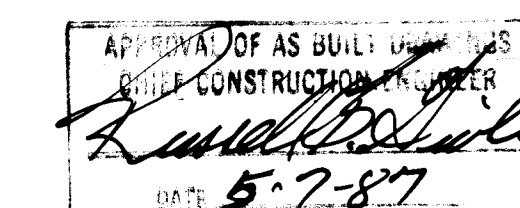
SHEET

DESCRIPTION

1	TITLE & INDEX SHEET
2	SUBDIVISION PLAT
3	SYMBOLS, GENERAL NOTES & MISCELLANEOUS DETAILS
4	GRADING PLAN
5	GRADING PLAN
6	GRADING & DRAINAGE DETAILS
7	PAVING, UTILITY & DRAINAGE IMPROVEMENTS SITE PLAN
	PAVING IMPROVEMENTS PLAN & PROFILE
8	GOLD RUSH DRIVE STA. 0+00 TO STA. 11+52.08
9	GOLD RUSH DRIVE STA. 11+52.08 TO STA. 17+66.74 AND FLINT COURT
10	GOLD RUSH DRIVE STA. 50+00 TO STA. 51+94.12 AND CHUCKWAGON TRAIL STA. 0+00 TO STA. 17+66.74
	UTILITY IMPROVEMENTS PLAN & PROFILE
11	GOLD RUSH DRIVE STA. 0+00 TO STA. 11+52.08
12	GOLD RUSH DRIVE STA. 11+52.08 TO STA. 17+66.74 AND FLINT COURT
13	GOLD RUSH DRIVE STA. 50+00 TO STA. 51+94.12 AND CHUCKWAGON TRAIL STA. 0+00 TO STA. 17+66.74
14	OFFSITE SEWER
	STORM DRAINAGE IMPROVEMENTS PLAN & PROFILE
15	CHANNEL "C"
16	MISCELLANEOUS STORM DRAINAGE DETAILS & CALCULATIONS
16a	CHANNEL C REVISIONS (ADD THIS SHEET)

RE-ENTRY APPROVALS	
<i>[Signature]</i> City Engineer	2/15/84 Date
<i>[Signature]</i> Water Resources	2/15/84 Date
<i>[Signature]</i> Traffic Engineer	2/16/84 Date
<i>[Signature]</i> ACE - Design	1/5/84 Date
<i>[Signature]</i> ACE - Hydrology	2/15/84 Date

RE-ENTRY APPROVALS	
<i>[Signature]</i> City Engineer	6/2/86 Date
<i>[Signature]</i> Water Resources	5/16/86 Date
<i>[Signature]</i> Traffic Engineer	5/19/86 Date
<i>[Signature]</i> ACE - Design	5/20/86 Date
<i>[Signature]</i> ACE - Hydrology	5/24/86 Date



REV.	SHEETS	DATE	USER	DEPARTMENT	DATE	USER	DEPARTMENT	DATE
	5, 6, 6A	11/18/86	for	CITY ENGINEER	11/18/86			
APPROVAL OF REVISIONS								

		APPROVED FOR CONSTRUCTION 811 DALLAS, N.E. ALBUQUERQUE - NEW MEXICO - 87110 ENGINEERS <i>[Signature]</i> 7/1/86 C.E.
2031	SHEET 1 OF 16	

1 2 3 4 5 6 7 8 9 10 11 12
26 20310187

JOB No. 0-0642

C-29-373

18-28-2

C18-28-2

5031

All ingress and egress to the subdivision shall be via dedicated streets. There shall be no direct access from any individual lots to Homestead Circle.

51 1364

PIONEER ESTATES
A SUBDIVISION IN
SECTION 23, TOWNSHIP 11 NORTH, RANGE 2 EAST
ALBUQUERQUE, NEW MEXICO
SEPTEMBER, 1980
SHEET 2 OF 2

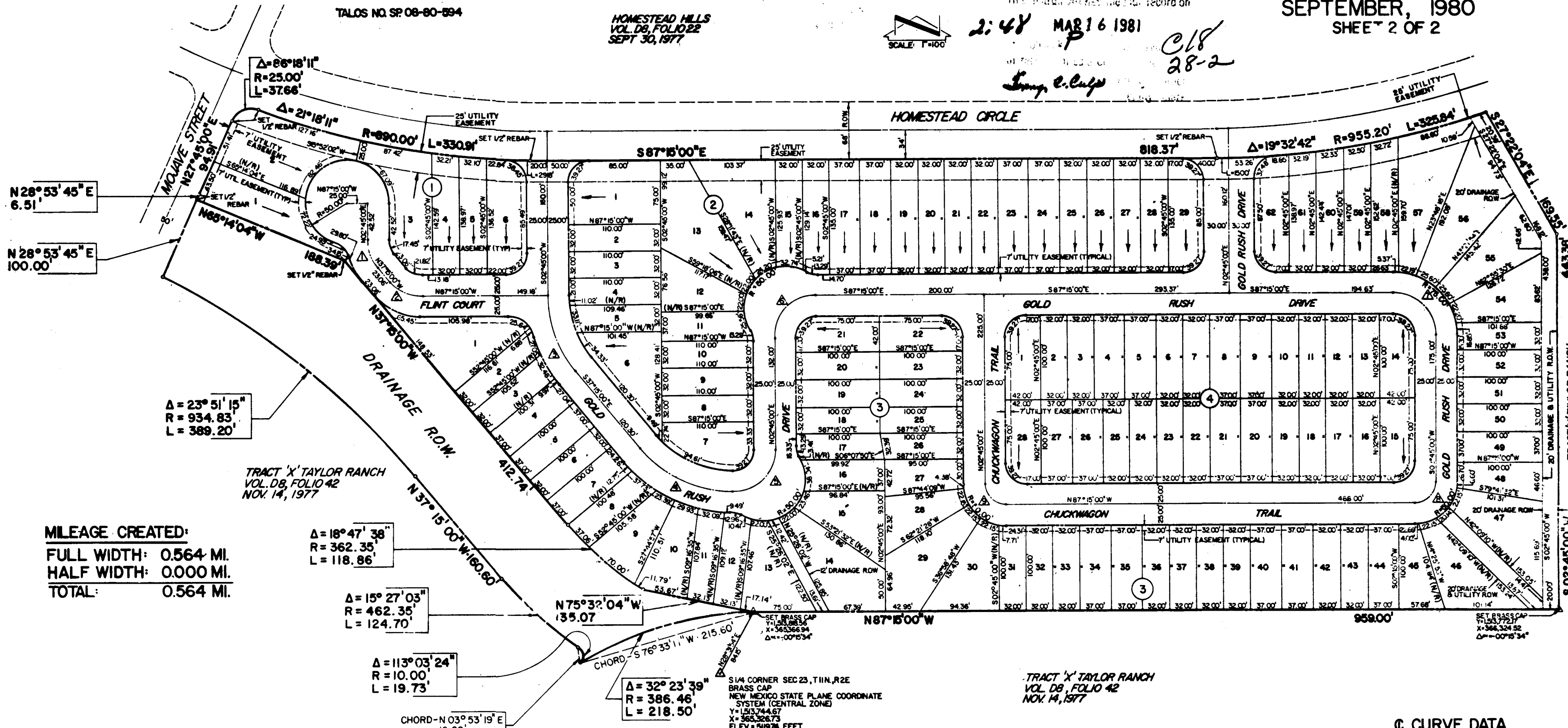
TALOS NO. 97-08-80-894

HOMESTEAD HILLS
VOL. 18, FOLIO 22
SEPT. 30, 1977

2:48 MAR 16 1981

2:48 MAR 16 1981

28-2



TRAJECT X-TAYLOR RANCH
VOL. 18, FOLIO 42
NOV. 14, 1977

Δ = 18° 47' 38"
R = 362.35'
L = 118.86'

Δ = 15° 27' 03"
R = 462.35'
L = 124.70'

Δ = 113° 03' 24"
R = 10.00'
L = 19.73'

Δ = 32° 23' 39"
R = 386.46'
L = 218.50'

SIM. CORNER SEC. 23, T11N, R2E
NEW MEXICO STATE PLANE COORDINATE
SYSTEM (CENTRAL ZONE)
NAD 83
ELEV. 5600.00 FEET

TRAJECT X-TAYLOR RANCH
VOL. 18, FOLIO 42
NOV. 14, 1977

Block	Lot	Area (Ac.)	Block	Lot	Area (Ac.)	Block	Lot	Area (Ac.)	Block	Lot	Area (Ac.)	Block	Lot	Area (Ac.)
1	1	0.1670	2	20	0.0992	3	16	0.0815	4	41	0.0849	5	5	0.0849
	2	0.2293		21	0.0992		17	0.0747		42	0.0735		6	0.0735
	3	0.1952		22	0.0992		18	0.0735		43	0.0735		7	0.0735
	4	0.1034		23	0.1147		19	0.0735		44	0.0849		8	0.0849
	5	0.1011		24	0.1147		20	0.0735		45	0.0969		9	0.0849
	6	0.1403		25	0.0992		21	0.0933		46	0.1579		10	0.0735
2	1	0.1863		26	0.0992		22	0.0933		47	0.1680		11	0.0735
	2	0.0808		27	0.0992		23	0.0735		48	0.0918		12	0.0735
	3	0.0808		28	0.0992		24	0.0735		49	0.0849		13	0.0735
	4	0.0808		29	0.1240		25	0.0735		50	0.0735		14	0.0933
	5	0.0781	3	1	0.1766		26	0.0716		51	0.0735		15	0.0933
	6	0.1586		2	0.0815		27	0.0841		52	0.0735		16	0.0735
	7	0.1227		3	0.0752		28	0.1077		53	0.0737		17	0.0735
	8	0.0808		4	0.0850		29	0.1693		54	0.1293		18	0.0735
	9	0.0808		5	0.0849		30	0.1409		55	0.1534		19	0.0735
	10	0.0808		6	0.0735		31	0.0735		56	0.2042		20	0.0849
	11	0.0886		7	0.0850		32	0.0735		57	0.2229		21	0.0849
	12	0.1154		8	0.0872		33	0.0735		58	0.1146		22	0.0735
	13	0.2168		9	0.1143		34	0.0849		59	0.1076		23	0.0735
	14	0.1926		10	0.1193		35	0.0849		60	0.1062		24	0.0735
	15	0.0924		11	0.0793		36	0.0735		61	0.1033		25	0.0735
	16	0.0983		12	0.0806		37	0.0735		62	0.1267		26	0.0849
	17	0.1147		13	0.1410		38	0.0735	4	1	0.0933		27	0.0849
	18	0.1147		14	0.1884		39	0.0735		2	0.0735		28	0.0933
	19	0.0992		15	0.1377		40	0.0849		3	0.0735			

CURVE DATA

Curve No.	Delta	Radius	Tangent	Length
1	40°00'00"	50.00'	18.20'	34.91'
2	50°00'00"	50.00'	23.32'	43.63'
3	40°00'00"	137.37'	50.00'	95.90'
4	50°00'00"	144.29'	67.28'	125.92'
5	90°00'00"	50.00'	50.00'	78.54'
6	90°00'00"	50.00'	50.00'	78.54'
7	90°00'00"	50.00'	50.00'	78.54'
8	90°00'00"	25.00'	25.00'	39.27'
9	90°00'00"	25.00'	25.00'	39.27'

NOTES:

- ALL PROPERTY LINE RADII ARE 25 FEET UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ALONG CURVE LINES ARE MEASURED ALONG THE ARC.
- ALL DISTANCES SHOWN ARE GROUND DISTANCES.
- BEARINGS SHOWN ARE ON LOCAL SYSTEM, FOR STATE PLANE GRID SYSTEM ROTATE ALL BEARINGS CLOCKWISE 00°00'24"
- COMBINED SCALE FACTOR = 0.999685
- LOT FRONTS DESIGNATED BY
- LOT LINES MARKED (N/R) ARE NONRADIAL.

CASE No. _____

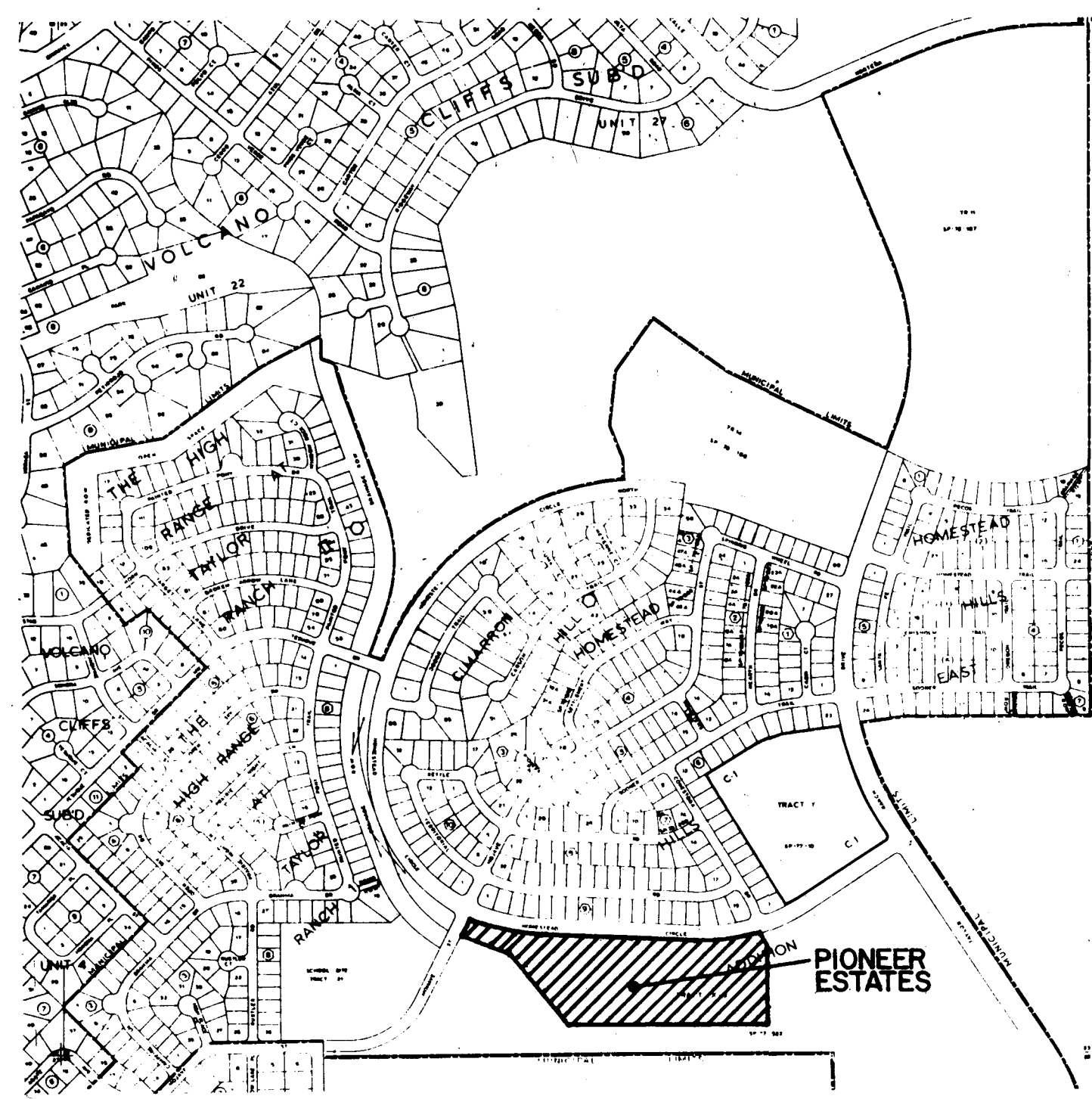


Goldberg - Mann & Associates, Inc.
Engineers - Planners
811 Dallas St., N.E.
Albuquerque, New Mexico 87110

JOB NO. 0-64

C18-28-2
1-88-813

C18-28-2
1-88-813



LOCATION MAP

SCALE: 1"=800'

D-11-Z

2:48 MAR 16 1981
28-1

51 1364

PIONEER ESTATES
A SUBDIVISION IN
SECTION 23, TOWNSHIP 11 NORTH, RANGE 2 EAST
ALBUQUERQUE, NEW MEXICO
SEPTEMBER, 1980
SHEET 1 OF 2

DESCRIPTION

A certain tract of land located within the city limits of Albuquerque, New Mexico, comprising a portion of Tract "X-3" Taylor Ranch as shown on the plat filed in the office of the County Clerk of Bernalillo County on November 14, 1977, folio D8, page 42, and comprising a portion of the vacated right-of-way on Homestead Circle, N.W., adjacent to Homestead Hills Subdivision as shown on the plat filed in the office of the County Clerk of Bernalillo County on October 24, 1979, folio C15, page 162, and being more particularly described as follows:

Beginning at a point along the southern boundary of the Pioneer Estates Subdivision whence a brass cap which is the south & corner of Section 23, T11N, R2E, N.M.P.M., bears S 28°31'54" W a distance of 84.15 feet; thence along the arc of a curve to the left with Δ = 32°23'39", R = 386.46 feet, L = 218.50 feet and a Long Chord which bears S 76°33'11" W a distance of 215.60 feet; thence along the arc of a curve to the left with Δ = 113°03'24", R = 10.00 feet, L = 19.73 feet and a Long Chord which bears N 03°23'19" E a distance of 16.68 feet; thence along the arc of a curve to the right with Δ = 15°27'03", R = 462.35 feet, and L = 124.70 feet; thence N 37°15'00" W a distance of 160.60 feet; thence along the arc of a curve to the left with Δ = 23°51'15", R = 934.83 feet and L = 389.20 feet; thence along the east right-of-way of Mojave Street, N.W., N 28°53'45" E a distance of 106.51 feet; thence along the east right-of-way of Mojave Street, N.W., N 27°45'00" E a distance of 94.91 feet; thence along the arc of a curve to the right with Δ = 86°18'11", R = 25.00 feet, and L = 37.66 feet; thence along the south right-of-way of Homestead Circle, N.W., along the arc of a curve to the left with Δ = 21°18'11", R = 890.00 feet, and L = 330.91 feet; thence along the south right-of-way of Homestead Circle, N.W., S 87°15'00" E a distance of 818.37 feet; thence along the south right-of-way of Homestead Circle, N.W., along the arc of a curve to the left with Δ = 19°32'42", R = 955.20 feet, and L = 325.84 feet; thence S 27°22'04" E a distance of 169.55 feet; thence S 02°45'00" W a distance of 443.38 feet; thence N 87°15'00" W a distance of 959.00 feet to the point of beginning and containing 18.4221 acres more or less.

DEDICATION

The undersigned owners of the land shown hereon do hereby consent to the subdivision of said land in the manner shown on this plat and do hereby dedicate all public rights of way, drainage way and utility easements including the right of ingress and egress and the right to trim interfering trees.

TAYLOR RANCH JOINT VENTURE
DALE BELLAMAH LAND CO., INC., Managing Partner

D. T. Robertson, Vice President
Date 1/6/81

Connie Lou Soto, Secretary
Date 1/6/81

ACKNOWLEDGEMENT

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

The foregoing instrument was acknowledged by me on this 6th day of January, 1981 by D. T. Robertson and Connie Lou Soto, Vice President and Secretary respectively of Dale Bellamah Land Co., Inc., a New Mexico Corporation, on behalf of said corporation.

My Commission Expires on 5-20-84
Notary Public

CERTIFICATION

I, Thomas T. Mann, Jr., do hereby certify that I am a registered Land Surveyor under the laws of the State of New Mexico, and that this plat was prepared by me or under my supervision, shows all easements noted in a title report prepared by First American Title Company on July 27, 1973, meets the minimum requirements of monumentation and surveys of the Albuquerque Subdivision Ordinance, and is true and correct to the best of my knowledge and belief.

Date of Survey 11/17/80
Thomas T. Mann, Jr., NMPE # LS No. 3792



Goldberg - Mann & Associates, Inc.
Engineers - Planners
811 Dallas St., N.E.
Albuquerque, New Mexico 87110

JOB NO. 0-64

SHEET 2 OF 16

C18-28-2

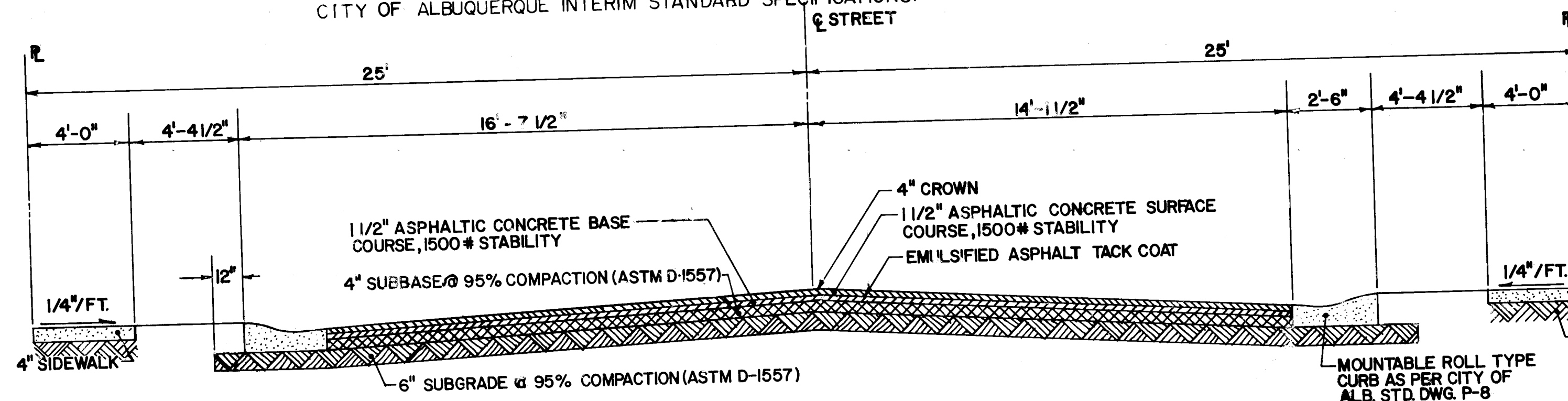
C18-28-2

LEGEND

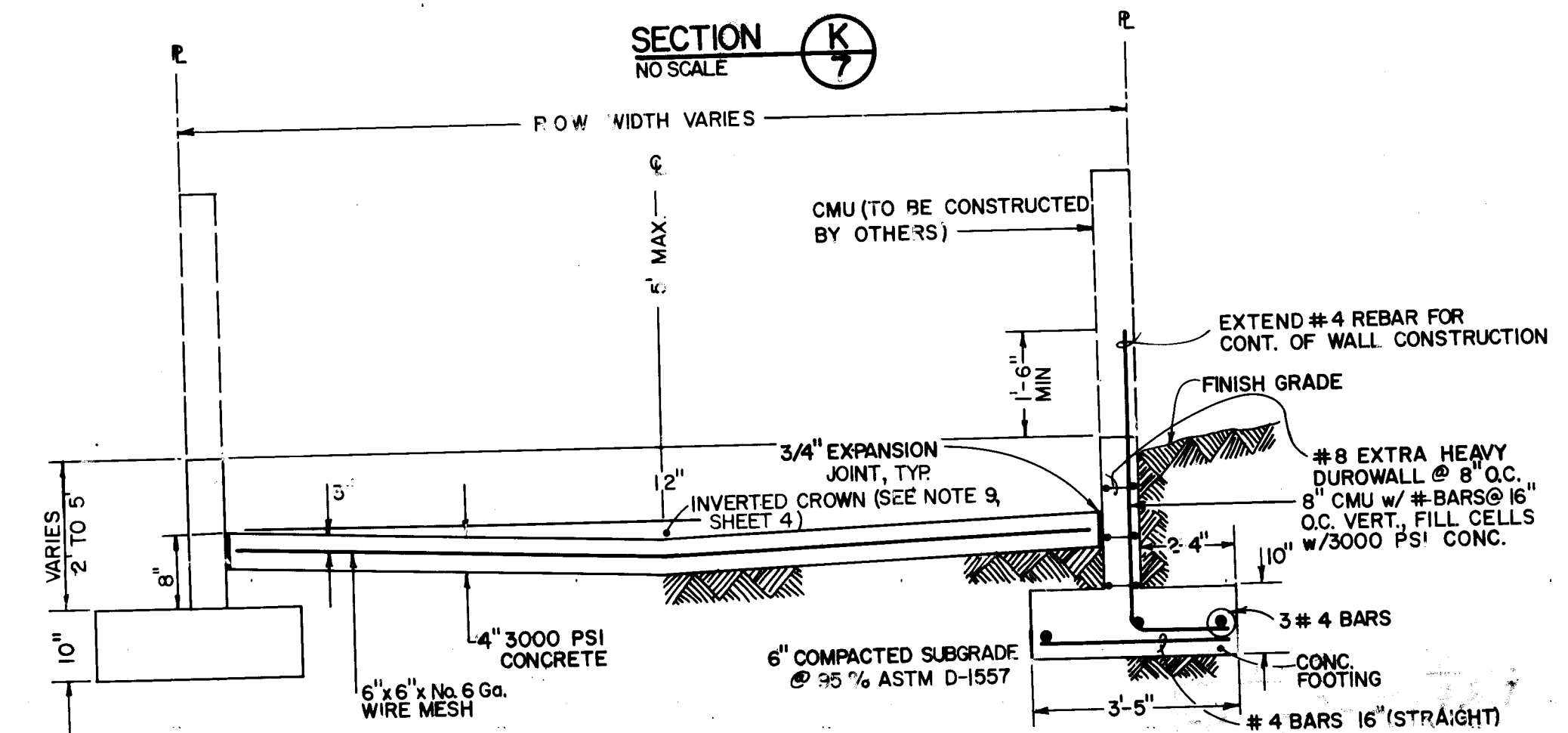
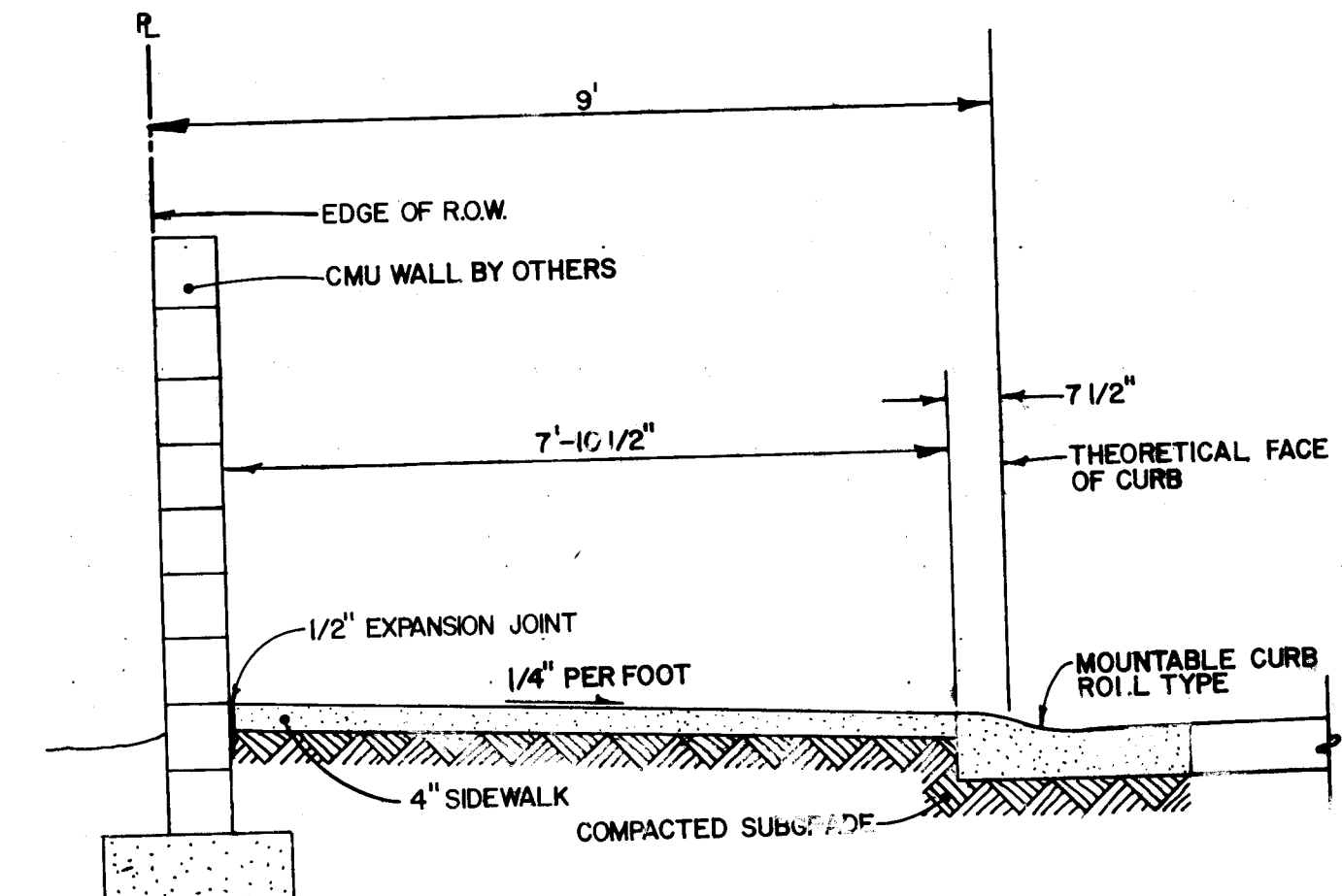
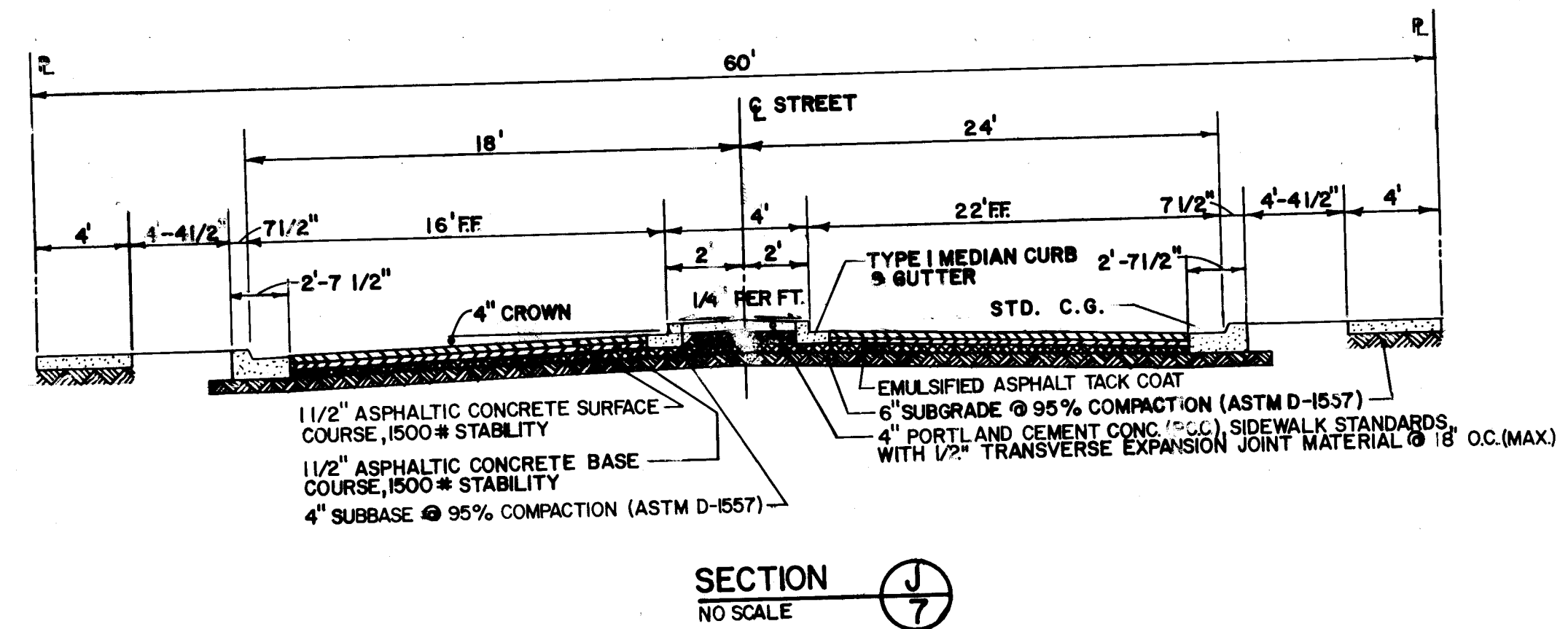
EXISTING	PROPOSED	ITEM
		CURB & GUTTER
		CONCRETE VALLEY GUTTER
		CONCRETE SIDEWALK
		CONCRETE CUT-OFF WALL
		CONCRETE WHEELCHAIR RAMP
		NO CROWN AREA & NO CROWN TRANSITION
		SANITARY SEWER LINE W/ LATERAL
		DUCTILE IRON SANITARY SEWER LINE
		SANITARY SEWER MANHOLE
		SANITARY SEWER PLUG
		SANITARY SEWER CLEANOUT
		STORM SEWER LINE
		STORM SEWER MANHOLE
		WATER LINE
		GATE VALVE & BOX
		CHECK VALVE
		BUTTERFLY VALVE
		PRESSURE REDUCING VALVE
		REDUCER
		FIRE HYDRANT
		WATER FITTINGS CAP
		CROSS
		ELBOW
		TEE
		BUILDING
		TREES & SHRUBS
		TRAFFIC SIGNS
		TRAFFIC SIGNAL CONTROL BOX
		TRAFFIC SIGNAL LIGHT
		POWER POLE
		TELEPHONE POLE
		MAIL BOX
		TRASH RECEPTACLE
		DROP INLET
		PARKING METER
		CENTER LINE
		PROPERTY LINE
		LOT LINE
		EASEMENT LINE
		MATCH LINE
		COMMON YARD WALL
		RETAINING WALL
		SPOT ELEVATION

GENERAL NOTES

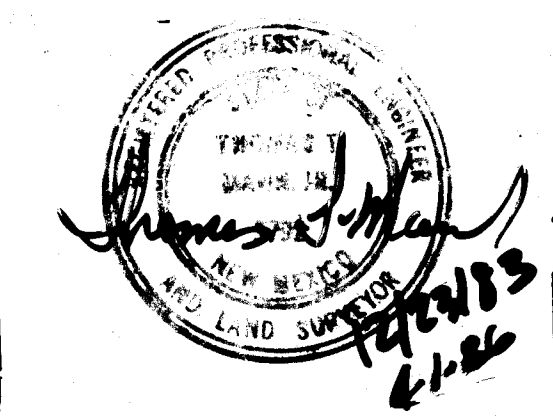
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATION—PUBLIC WORKS CONSTRUCTION—1985.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING DIMENSIONS & LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. THE ENGINEER SHALL BE PROMPTLY NOTIFIED OF ANY PROBLEMS OR CONFLICTS THAT ARE ENCOUNTERED.
 - ALL SIDEWALKS SHALL BE EITHER 4' OR 6' WIDE AS SHOWN ON PLANS AND CONSTRUCTED ADJACENT TO PUBLIC RIGHT-OF-WAY.
 - ALL CURB RETURNS ARE 25' RADIUS UNLESS OTHERWISE NOTED.
 - ALL SLOPES AS SHOWN ON PROFILES ARE BASED ON CENTERLINE STATIONING, EXCEPT CUL-DE-SACS WHICH STARTING AT THE P.C. OF THE RETURN, SHOW THE STATIONS AND CORRESPONDING SLOPES BASED ON TRUE DISTANCES.
 - WHERE REMOVAL OF EXISTING CURB, GUTTER, SIDEWALK OR PAVEMENT IS REQUIRED, SAWCUT AND/OR REMOVE TO NEAREST JOINT.
- STREET PAVING IMPROVEMENTS
- ALL STATIONING IS BASED ON CENTERLINE DATA.
 - SLOPES SHOWN ON THE PROFILES ARE BASED ON TRUE DISTANCES, NOT CENTERLINE STATIONING.
 - ALL MANHOLES SHALL BE 4' DIA., TYPE 'C', ALBUQUERQUE CITY STANDARD S-1, UNLESS OTHERWISE NOTED.
 - SANITARY SEWER MANHOLES SHALL BE LOCATED ON PUBLIC RIGHT-OF-WAY CENTERLINE, UNLESS OTHERWISE NOTED.
 - SEWER LATERALS SHALL BE CONSTRUCTED TO THE PROPERTY LINE AND LOCATED AT THE CENTERLINE STATIONS INDICATED. E.M.D. SHALL BE REQUIRED.
 - WHERE SEWER AND WATER LINES CROSS, IF VERTICAL CLEARANCE DOES NOT EXCEED 3'-0" INSTALL DUCTILE IRON SEWER PIPE, 10' EACH SIDE OF WATERLINE.
- SANITARY SEWER SYSTEM
- WATERMAIN SHALL BE (P.V.C. C-900) OR AS APPROVED BY THE CITY OF ALBUQUERQUE WATER RESOURCES DIVISION.
 - WATERLINE SHALL HAVE A MINIMUM COVER 4'-0" (TOP OF CURB TO TOP OF PIPE).
 - WATERLINE SHALL BE LOCATED 10'-0" FROM AND PARALLEL TO CENTERLINE OF PUBLIC RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
 - PROVIDE METERED WATER SERVICE LATERALS FOR TWO ADJOINING LOTS TO THE COMMON LOT LINE. NOTE THE POLICY ON THE PROXIMITY OF THE WATER AND SEWER LINES, SECTION 708.8.1, CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS.
- WATER DISTRIBUTION SYSTEM



TYPICAL PAVING SECTION
NO SCALE



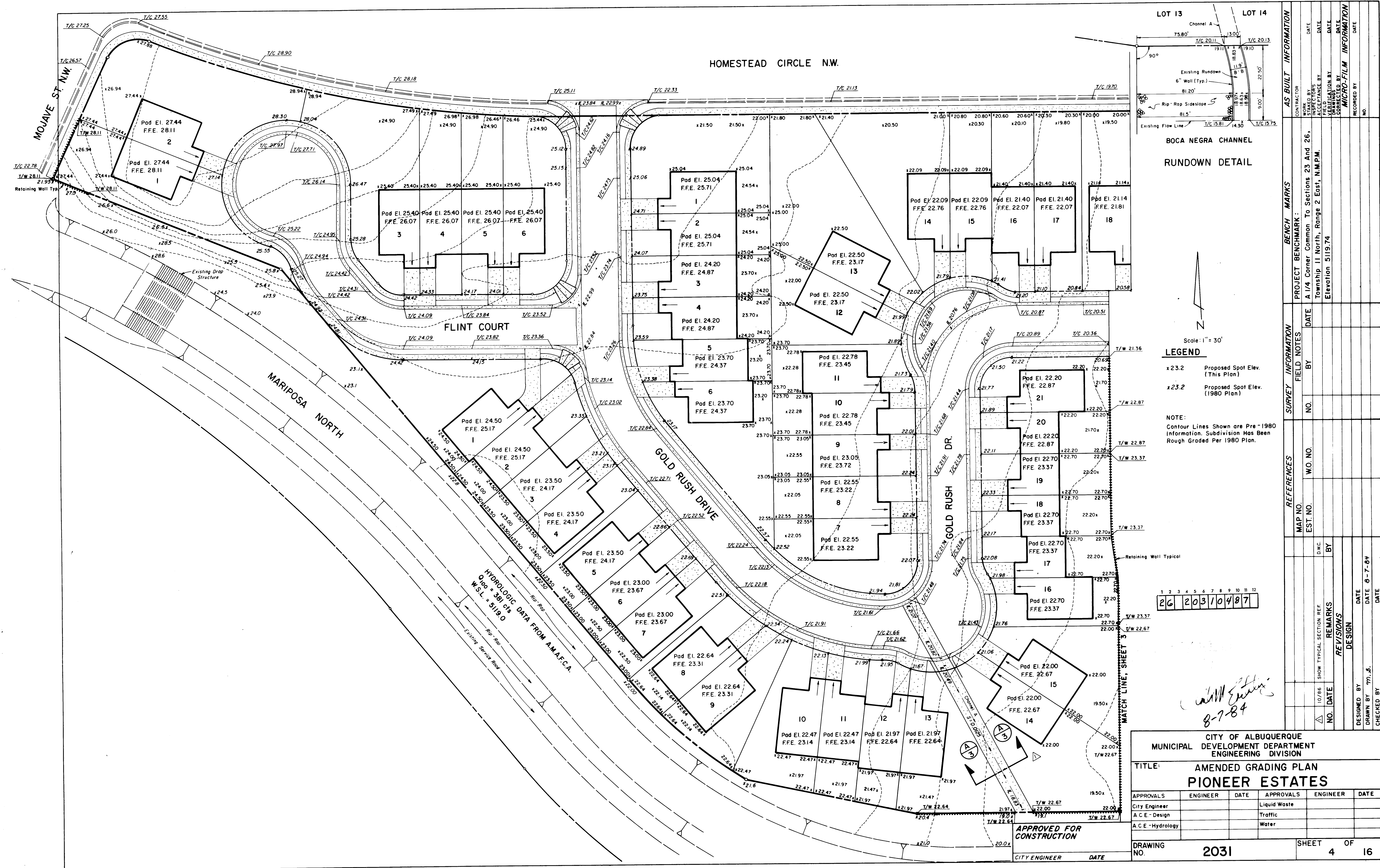
SECTION A
NO SCALE



26 203 10387

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION			
TITLE: PIONEER ESTATES SYMBOLS, GEN. NOTES & MISC. DETAILS			
APPROVALS	ENGINEER	DATE	APPROVALS
City Engineer	<i>[Signature]</i>	11/16/81	Liquid Waste
A.C.E.-Design	<i>[Signature]</i>	11/16/81	Traffic
A.C.E.-Hydrology	<i>[Signature]</i>	11/16/81	Water
DRAWING NO.	2031		SHEET 3 OF 16
CITY ENGINEER	DATE		

AS BUILT INFORMATION	BENCH MARKS	SURVEY INFORMATION	REFERENCES	REVISIONS	DESIGN
CONTRACTOR WORK STATED BY DATE ACCEPTANCE BY DATE FIELD VERIFICATION BY DATE DRAWINGS CORRECTED BY DATE RECORDED BY DATE	A 1/4 CORNER COMMON TO SECTIONS 23 AND 26, TOWNSHIP 11 NORTH, RANGE 2 EAST, N.M.P.M. ELEVATION = 5107.4 FEET	FIELD NOTES NO. BY DATE	MAP NO. D-11 EST. NO. W.O. NO.	REMARKS NO. DATE	DESIGNED BY J.M. DRAWN BY R.J. CHECKED BY T.M. DATE 9/80 DATE 9/80 DATE 9/80



HOMESTEAD CIRCLE N.W.

GOLD RUSH DRIVE

CHUCKWAGON TRAIL

LEGEND

- x23.2 Proposed Spot Elev. (This Plan)
- x23.2 Proposed Spot Elev. (1980 Plan)

NOTE:
Contour Lines Shown are Pre-1980 Information. Subdivision has been Rough Graded Per 1980 Plan.

TITLE: AMENDED GRADING PLAN
PIONEER ESTATES

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Liquid Waste		
A.C.E.-Hydrology			Water		

DRAWING NO. 2031 SHEET 5 OF 16

x23.2	Proposed Spot Elev. (This Plan)
x23.2	Proposed Spot Elev. (1980 Plan)

NOTE:
Contour Lines Shown are Pre-1980
Information. Subdivision has Been
Rough Graded Per 1980 Plan.

Retaining Wall Typical											
1	2	3	4	5	6	7	8	9	10	11	12
2	6		2	0	3	1	0	5	8	7	

14.47
OR 11.81

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

LE: AMENDED GRADING PLAN
PIONEER ESTATES

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.- Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO.	2031	SHEET	OF
		5	16

HYDROLOGIC DATA FROM A.M.A.F.C.A.
Q100 = 2721 cfs
W.S.L. = 5115.5 (Before Drop)
W.S.L. = 5110.0 (After Drop)

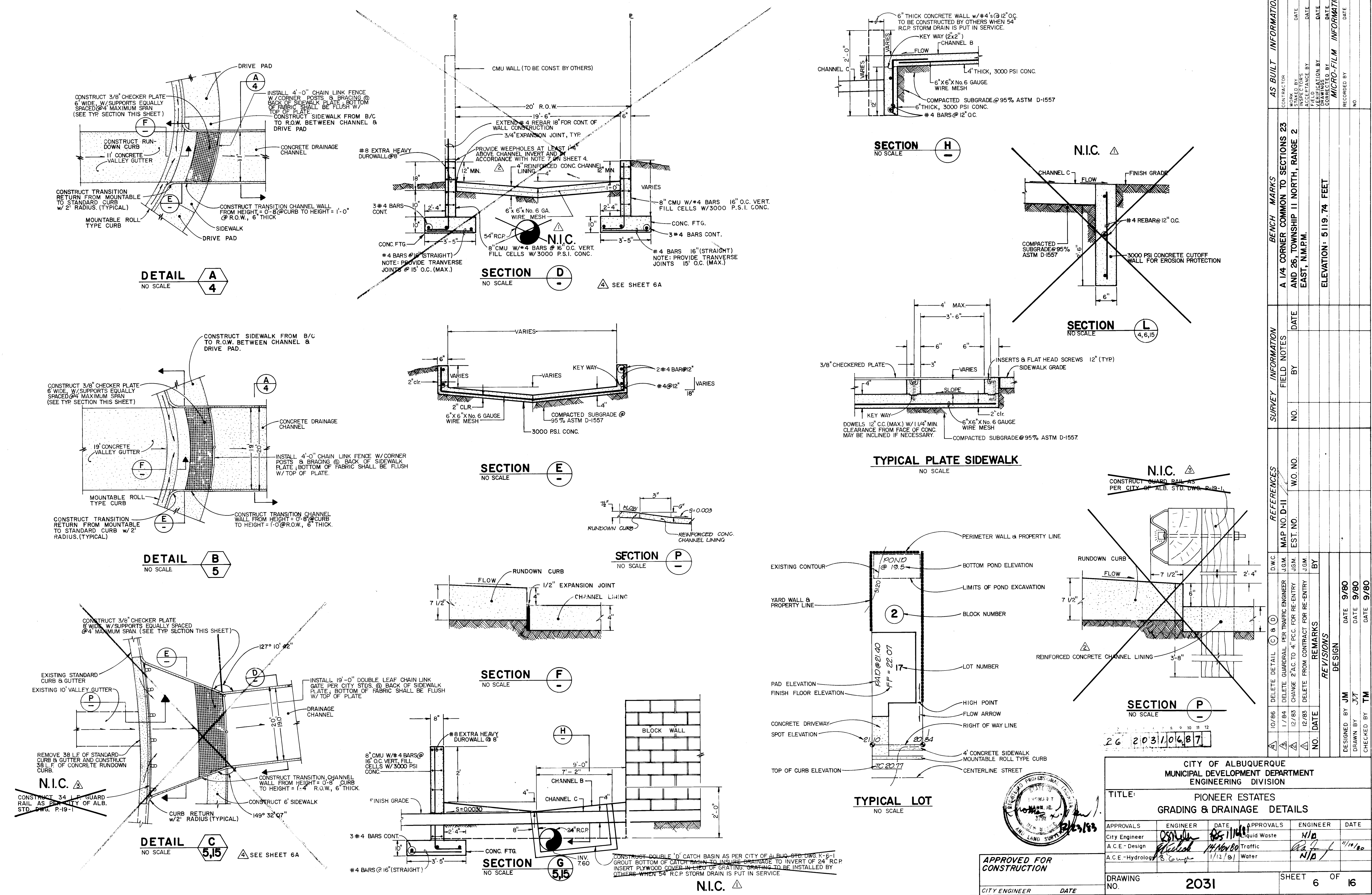
APPROVED FOR CONSTRUCTION

ENGINEER

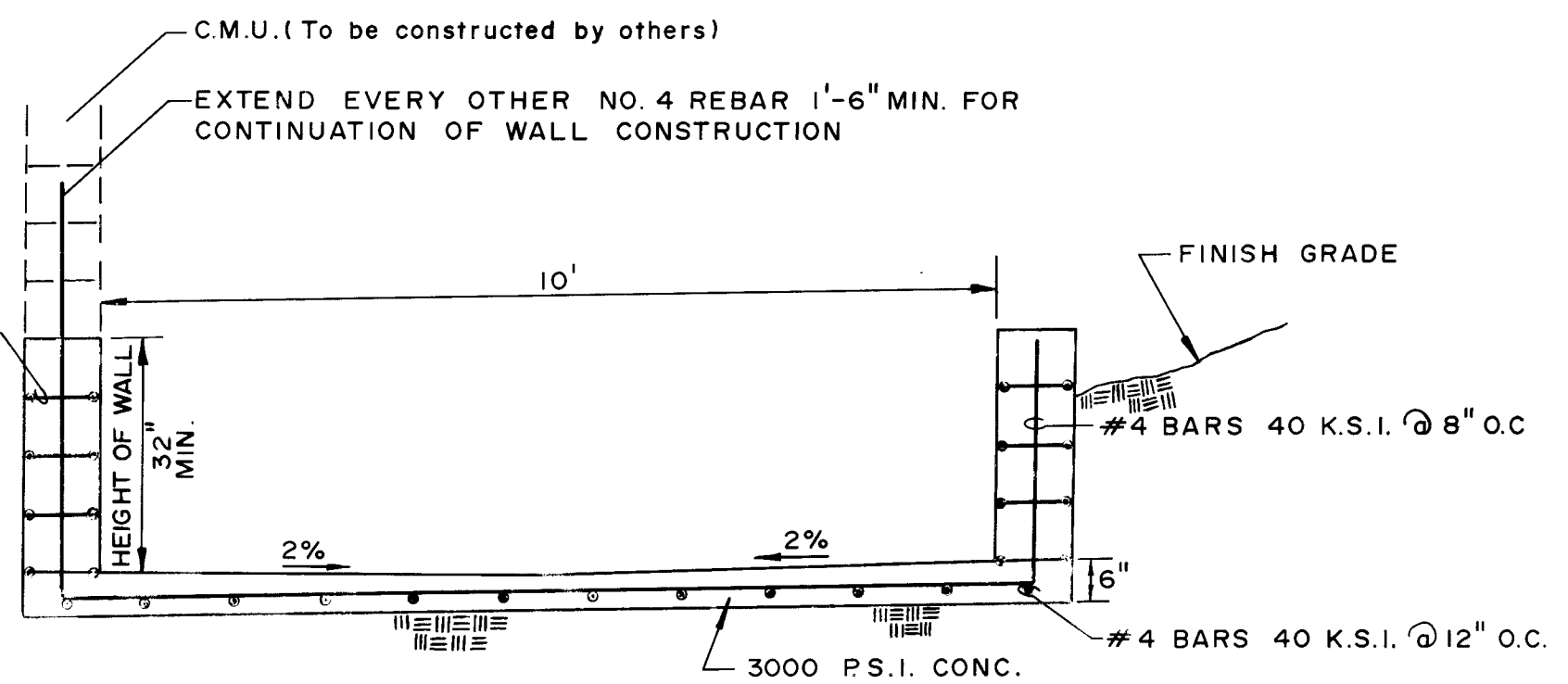
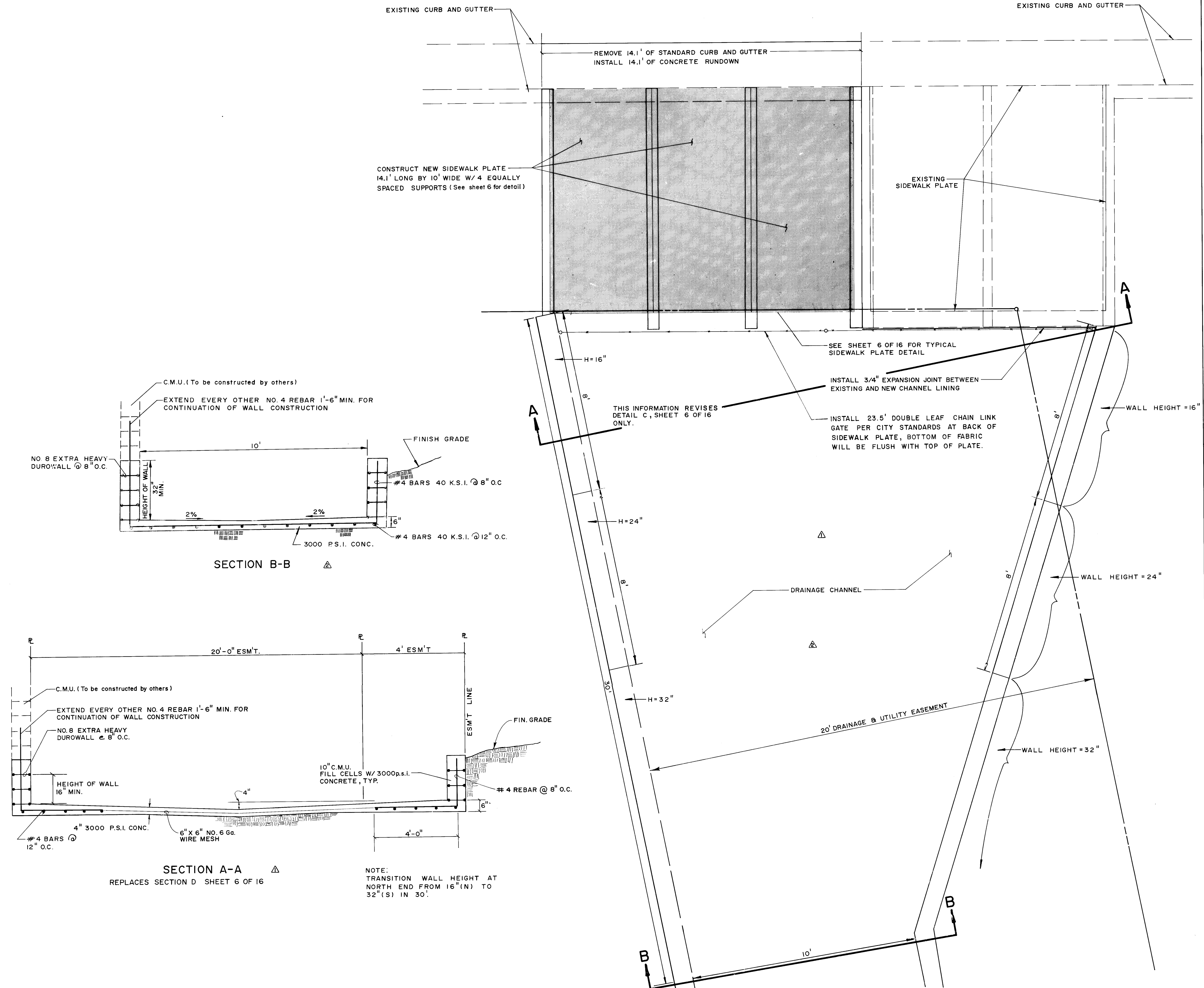
11/11/11

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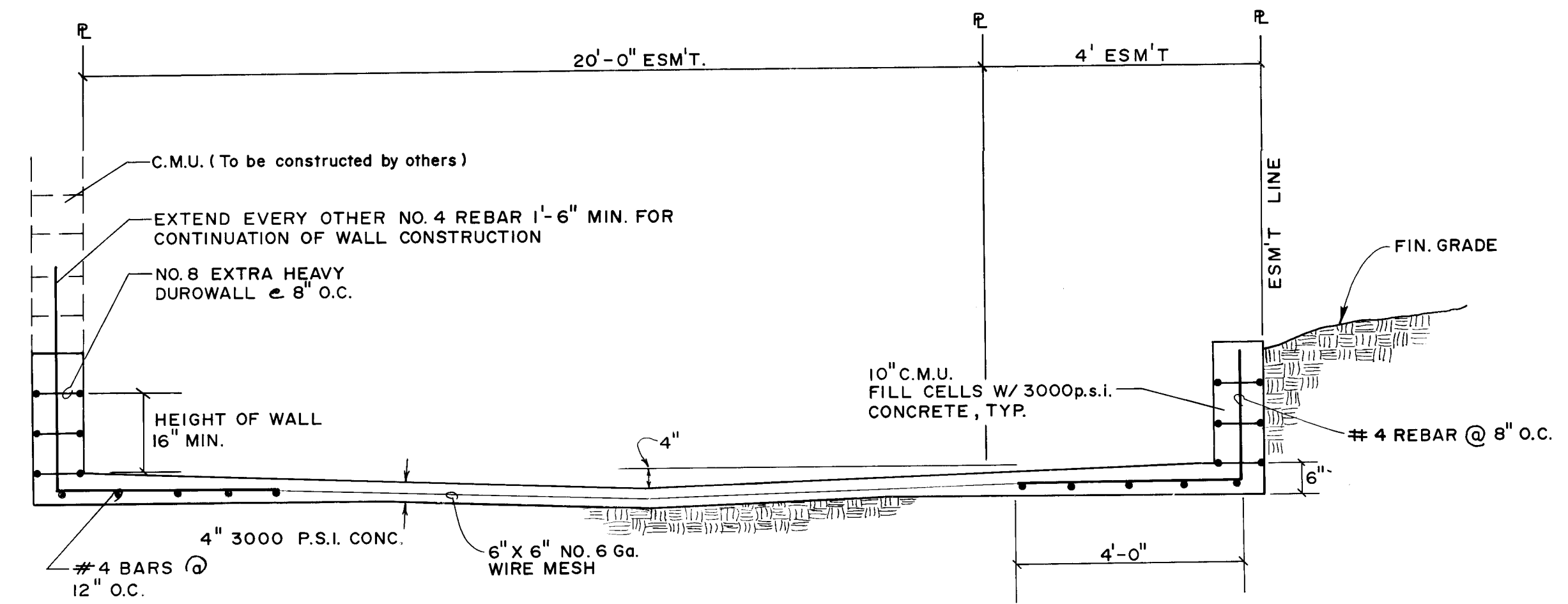
1503



CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: PIONEER ESTATES GRADING & DRAINAGE DETAILS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	11/11/81	Liquid Waste	<i>[Signature]</i>	11/10/80
A.C.E.-Design	<i>[Signature]</i>	11/16/80	Traffic	<i>[Signature]</i>	
A.C.E.-Hydrology	<i>[Signature]</i>	11/13/81	Water	<i>[Signature]</i>	
REVISIONS					
NO.	DATE	REMARKS	BY	DATE	DESIGNED
1	10/86	DELETE DETAIL C & D	J.M.	9/80	J.M.
2	1/84	DELETE GUARDRAIL PER TRAFFIC ENGINEER	J.M.	9/80	J.M.
3	12/83	CHANGE 2' AC TO 4' P.C.C. FOR RE-ENTRY	J.M.	9/80	J.M.
4	12/83	DELETE FROM CONTRACT FOR RE-ENTRY	J.M.	9/80	J.M.
DESIGNED BY J.M. DATE 9/80					
DRAWN BY J.T. DATE 9/80					
CHECKED BY T.M.					
APPROVED FOR CONSTRUCTION			CITY ENGINEER DATE		
DRAWING NO. 2031			SHEET 6 OF 16		

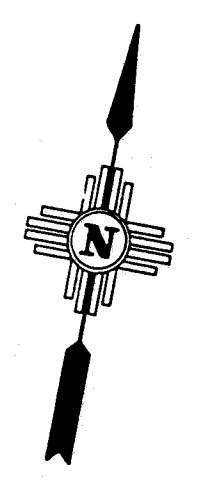


SECTION B-B



SECTION A-A
REPLACES SECTION D SHEET 6 OF 16

NOTE:
TRANSITION WALL HEIGHT AT
NORTH END FROM 16\"/>



SCALE: 1"=2' HORZ. & VERT.

NOTE:
THE INFORMATION ON THIS SHEET
IS PROVIDED TO REVISE DETAIL C,
SHEET 6 OF 16, AND TO REVISE
SECTION D SHEET 6 OF 16, ONLY.

26 20310687A

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: PIONEER ESTATES
CHANNEL C REVISIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A C E - Design			Traffic		
A C E - Hydrology			Water		

DRAWING NO. 2031 MAP NO. SHEET 6A OF 16

AS BUILT INFORMATION			BENCH MARKS			SURVEY INFORMATION			ENGINEER'S SEAL			REVISIONS		
CONTRACTOR	DATE		NO.	DATE		NO.	DATE					NO.	DATE	
WORK STARTED BY	DATE		BY	DATE		BY	DATE					DESIGNED BY	DATE	
INSPECTED BY	DATE											DRAWN BY	DATE	
FIELD	DATE											CHECKED BY	DATE	
VERIFICATION BY	DATE													
CORRECTED BY	DATE													
RECORDED BY	DATE													

1. WATER MAIN SHALL BE P.V.C. (C-900) OR AS APPROVED BY THE CITY OF ALBUQUERQUE WATER RESOURCES DIVISION. DUCTILE IRON AND ASBESTOS CEMENT ARE ACCEPTABLE PIPE MATERIALS IN LIEU OF PVC.
2. ALL SEWER PIPE SHALL BE P.V.C. (SDR 35) OR AS APPROVED BY THE CITY OF ALBUQUERQUE WATER RESOURCES DIVISION. VITRIFIED CLAY AND DUCTILE IRON ARE ACCEPTABLE PIPE MATERIALS IN LIEU OF PVC.

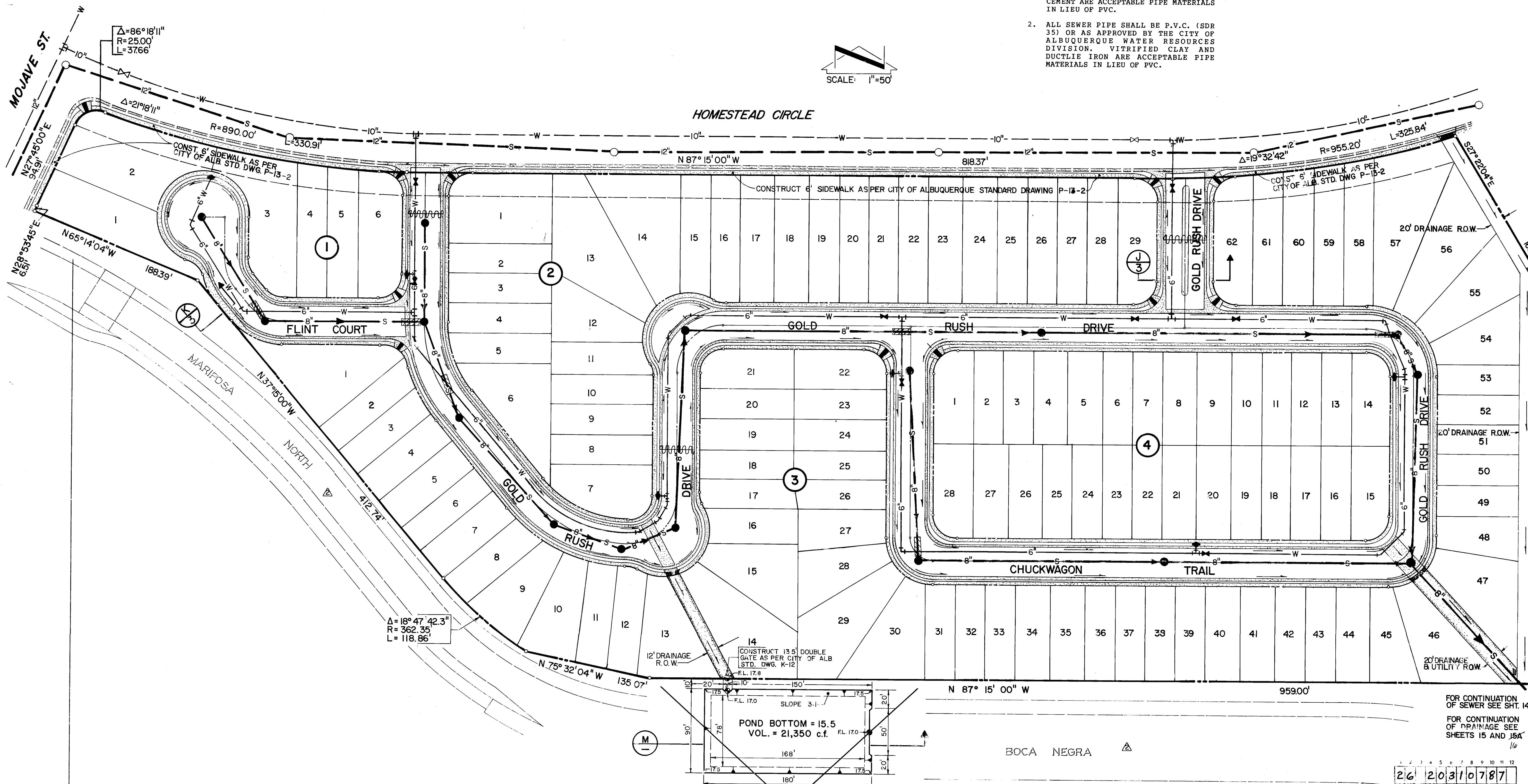


Diagram illustrating the cross-section of a pond and spillway structure. Key dimensions and elevations are provided:

- TOP OF BERM ELEV. 17.5**
- 6'** (Berm top width)
- 168'** (Pond top width)
- 2.0'** (Vertical distance from pond bottom to berm top)
- 4.5'** (Spillway crest width)
- SPILLWAY CREST ELEV. 17.0**
- 1.5'** (Vertical distance from pond bottom to spillway crest)
- POND BOTTOM ELEV. 15.5**
- EXISTING GROUND** (indicated by dashed lines)
- Stationing markers: 1, 2, 3, 4**

SECTION _____ M
NO SCALE

**APPROVED FOR
CONSTRUCTION**

James J. Mann
12/24/83

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

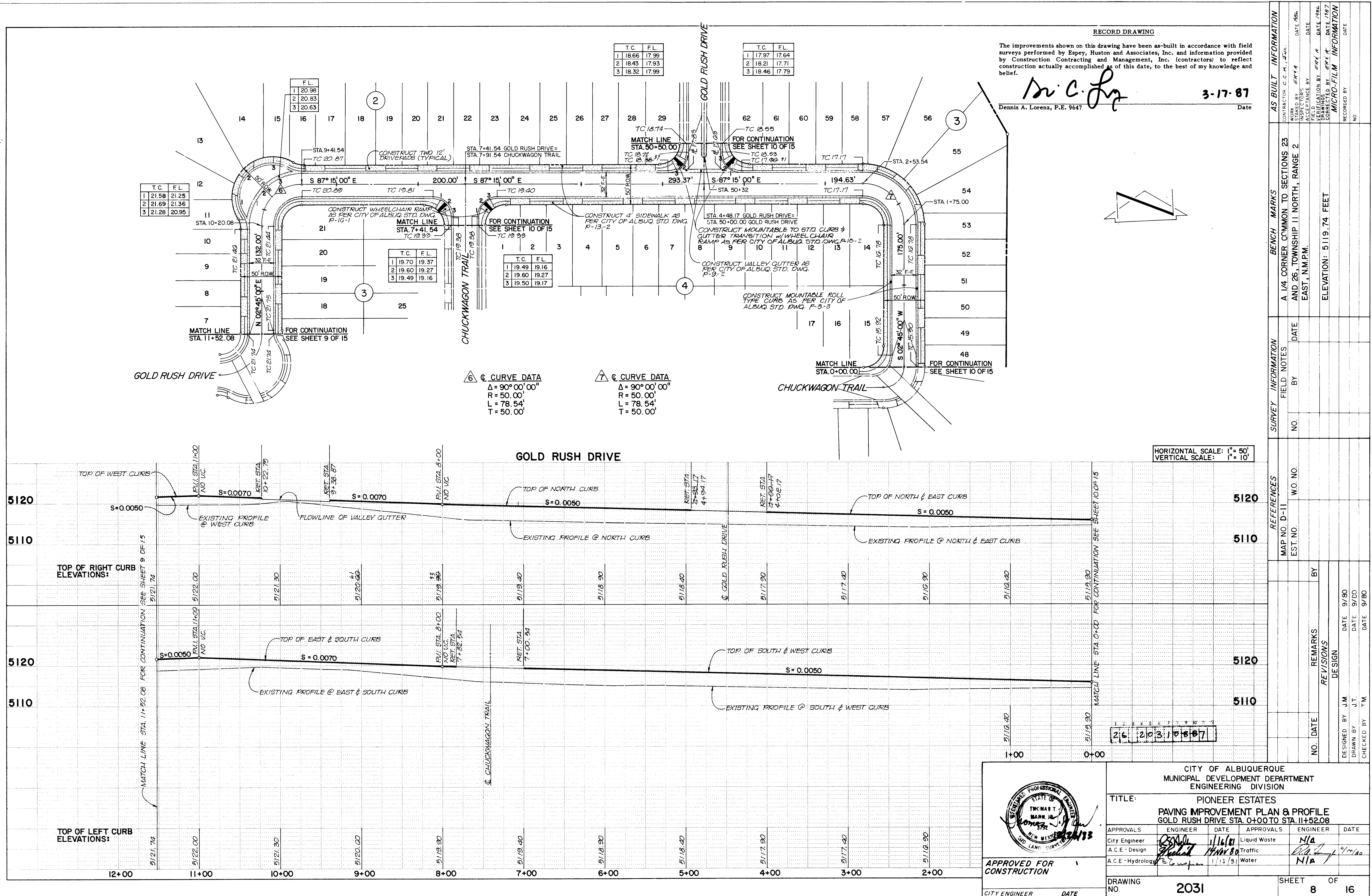
TITLE: PIONEER ESTATES
PAVING, UTILITY & DRAINAGE
IMPROVEMENTS SITE PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	11/16/81	Liquid Waste	<i>[Signature]</i>	11/16/81
A.C.E. - Design	<i>[Signature]</i>	11/16/81	Traffic	<i>[Signature]</i>	11/16/81
A.C.E. - Hydrology	<i>[Signature]</i>	11/13/81	Water	<i>[Signature]</i>	11/16/81

DRAWING NO.	2031	SHEET 7 OF 16
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REFERENCES				SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
MAP NO. D-II		FIELD NOTES							
EST. NO.	W/O. NO.	NO.	BY	DATE					
12/83	ADD BOCA NEGRA & MARIPOSA NORTH	JGM							
12/83	DELETED FROM CONTRACT FOR RE-ENTRY	JGM							
NO.	DATE	REMARKS							
REVISIONS									
DESIGN									
DESIGNED BY	JM.	DATE	9/80						
DRAWN BY	PJ	DATE	9/80						
CHECKED BY	TM.	DATE	9/80						

5031



RECORD DRAWING

The improvements shown on this drawing have been as-built in accordance with field surveys performed by Espey, Huston and Associates, Inc. and information provided by Construction Contracting and Management, Inc. (contractors) to reflect construction actually accomplished as of this date, to the best of my knowledge and belief.

Dennis A. Lorenz
Dennis A. Lorenz, P.E. 9647

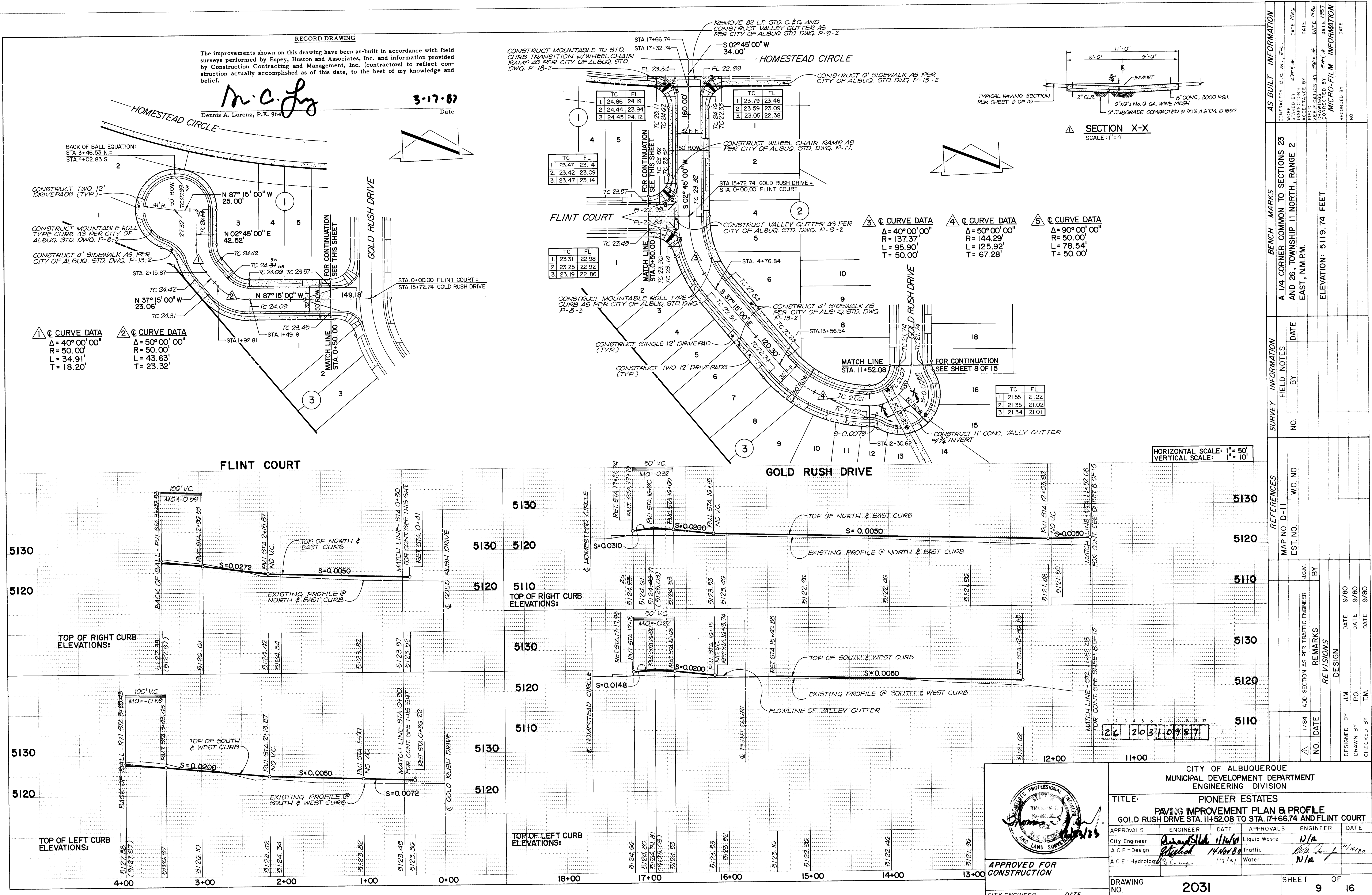
3-17-87
Date

AS BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				REFERENCES			
CONTRACTOR	C. C. M., INC.	DATE	DATE	MARK	SECTION	DATE	DATE	NO.	BY	DATE	DATE	MAP NO.	W.O. NO.	DATE	DATE
WORK	PAVING	DATE	DATE	STAKED BY	SECTION 23	DATE	DATE	EST. NO.	DATE	DATE	DATE	EST. NO.	W.O. NO.	DATE	DATE
ACCEPTANCE BY	DATE	DATE	DATE	FIELD	SECTION 23	DATE	DATE	NO.	DATE	DATE	DATE	EST. NO.	W.O. NO.	DATE	DATE
CORRECTED BY	DATE	DATE	DATE	DRAWINGS	SECTION 23	DATE	DATE	NO.	DATE	DATE	DATE	EST. NO.	W.O. NO.	DATE	DATE
RECORDED BY	DATE	DATE	DATE	DATE	SECTION 23	DATE	DATE	NO.	DATE	DATE	DATE	EST. NO.	W.O. NO.	DATE	DATE

ELEVATION: 5119.74 FEET			
-------------------------	--	--	--

5031

2031



AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		REFERENCES		REVISIONS	
CONTRACTOR	C.C.M. & A.	DATE	1986	FIELD NOTES	NO.	MAP NO.	D-11	NO.	DATE
INSPECTOR	DATE	DATE	DATE	BY	NO.	EST. NO.	NO.	DATE	DATE
ACCEPTANCE BY	DATE	DATE	DATE	NO.	NO.	NO.	NO.	DATE	DATE
VERIFICATION BY	DATE	DATE	DATE	NO.	NO.	NO.	NO.	DATE	DATE
CORRECTED BY	DATE	DATE	DATE	NO.	NO.	NO.	NO.	DATE	DATE
MICRO-FILM INFORMATION		ELEVATION: 5119.74 FEET		NO.		NO.		NO.	
RECORDED BY		NO.		NO.		NO.		NO.	

26 2031 0987

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: PIONEER ESTATES
PAVING IMPROVEMENT PLAN & PROFILE
GOI.D RUSH DRIVE STA. 11+52.08 TO STA. 17+66.74 AND FLINT COURT

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	1/14/80	Liquid Waste	N/A		
A.C.E. - Design	14 NOV 80	Traffic	N/A		
A.C.E. - Hydrology	1/13/81	Water	N/A		

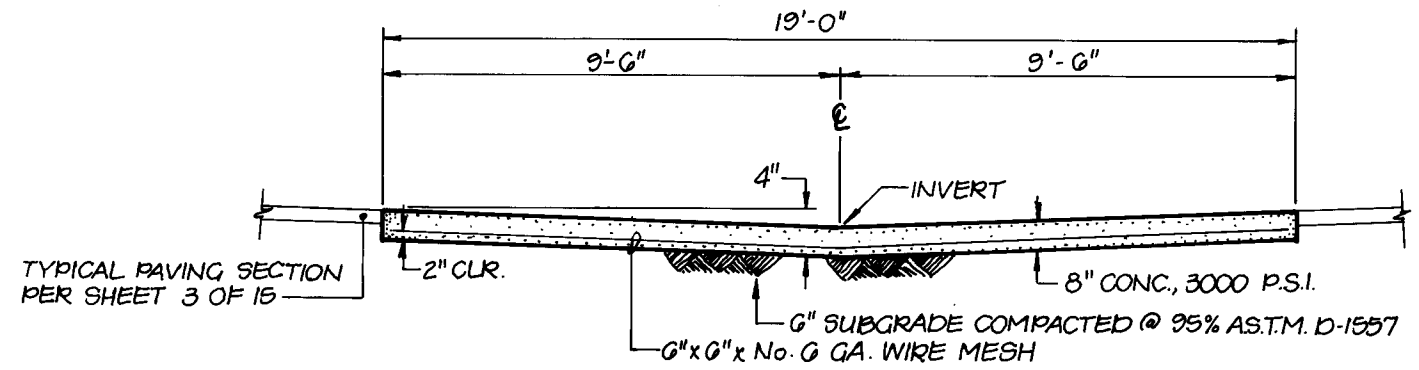
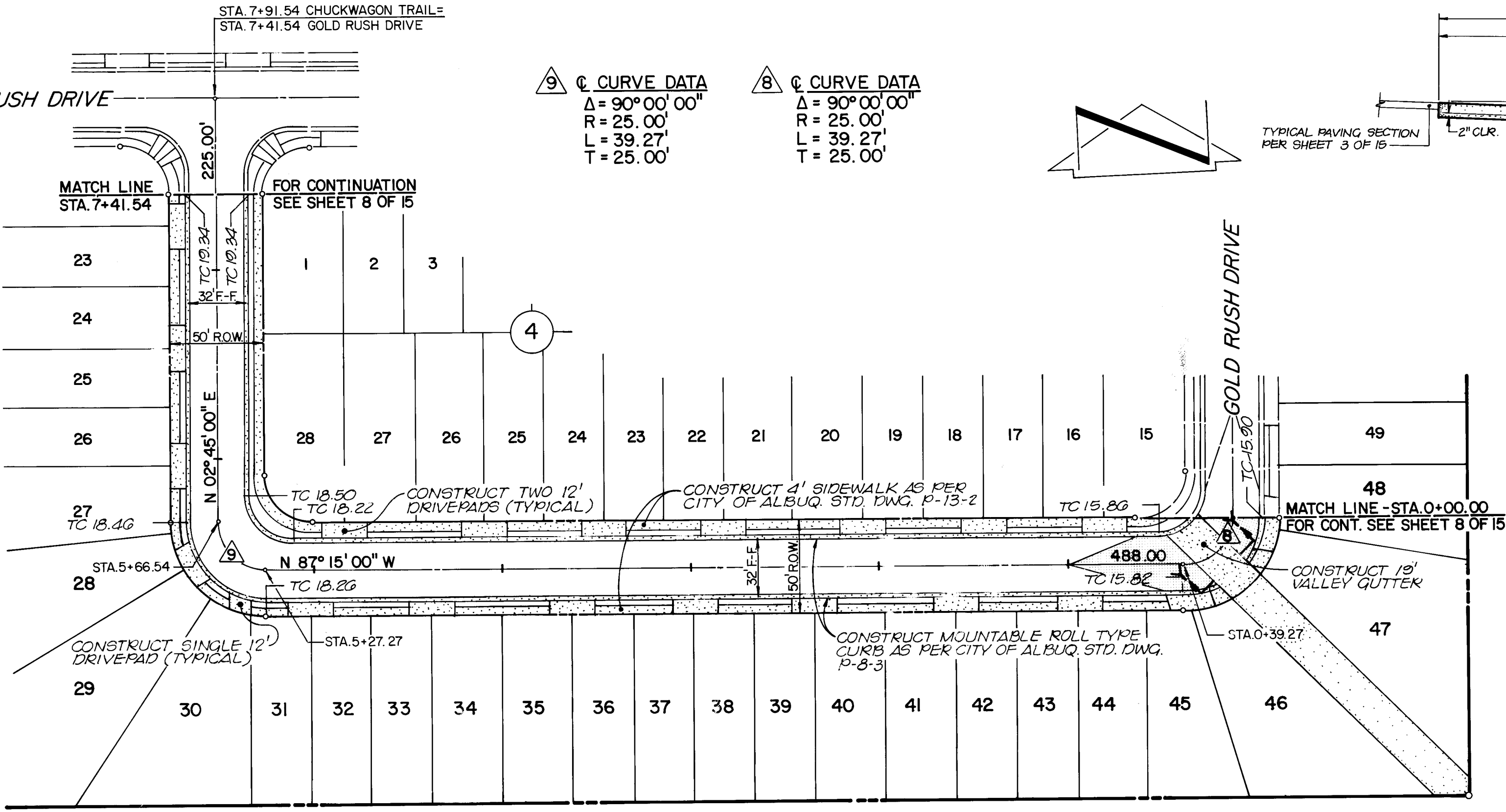
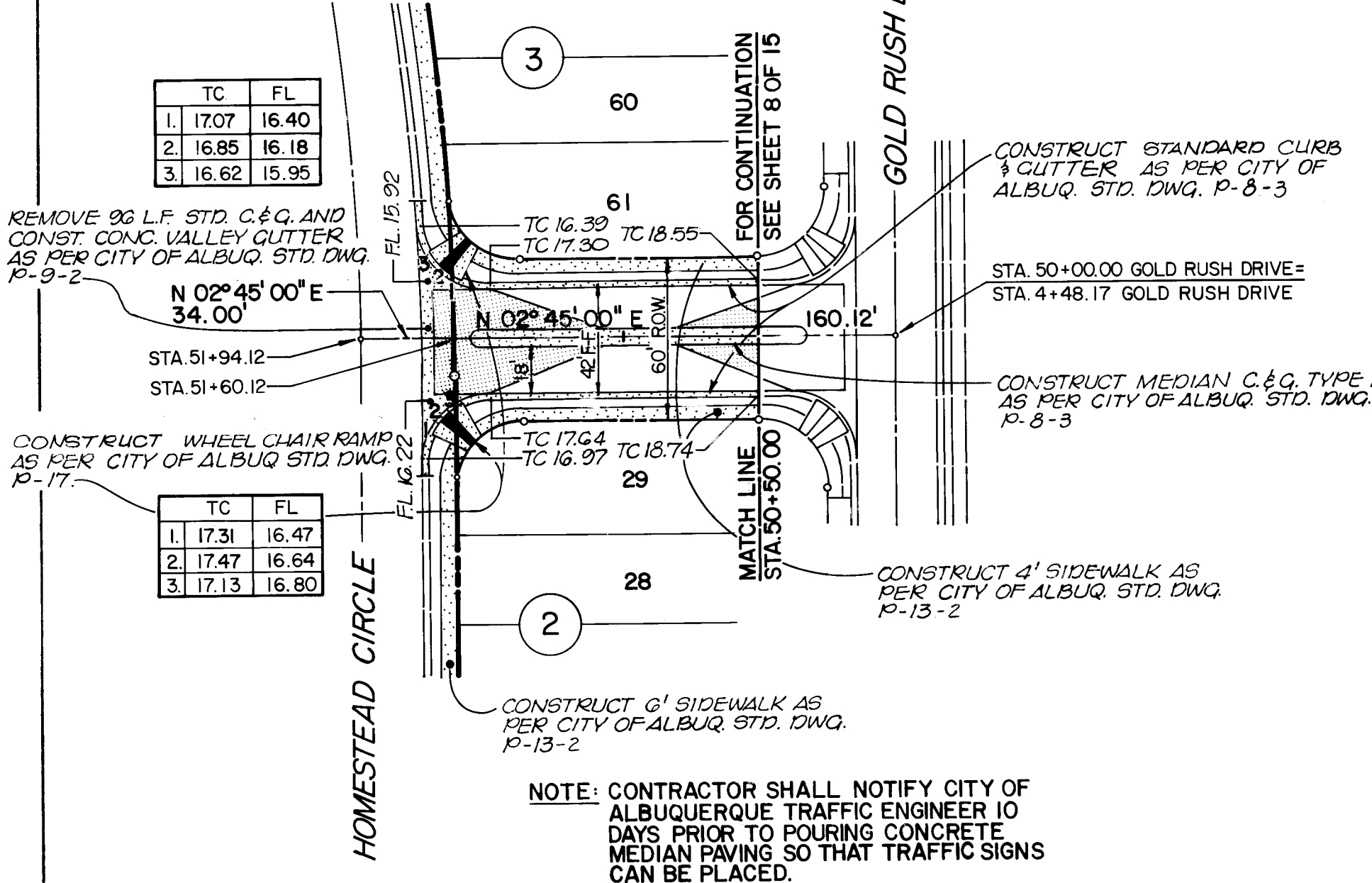
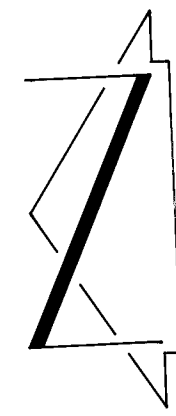
DRAWING NO. 2031 SHEET 9 OF 16

RECORD DRAWING

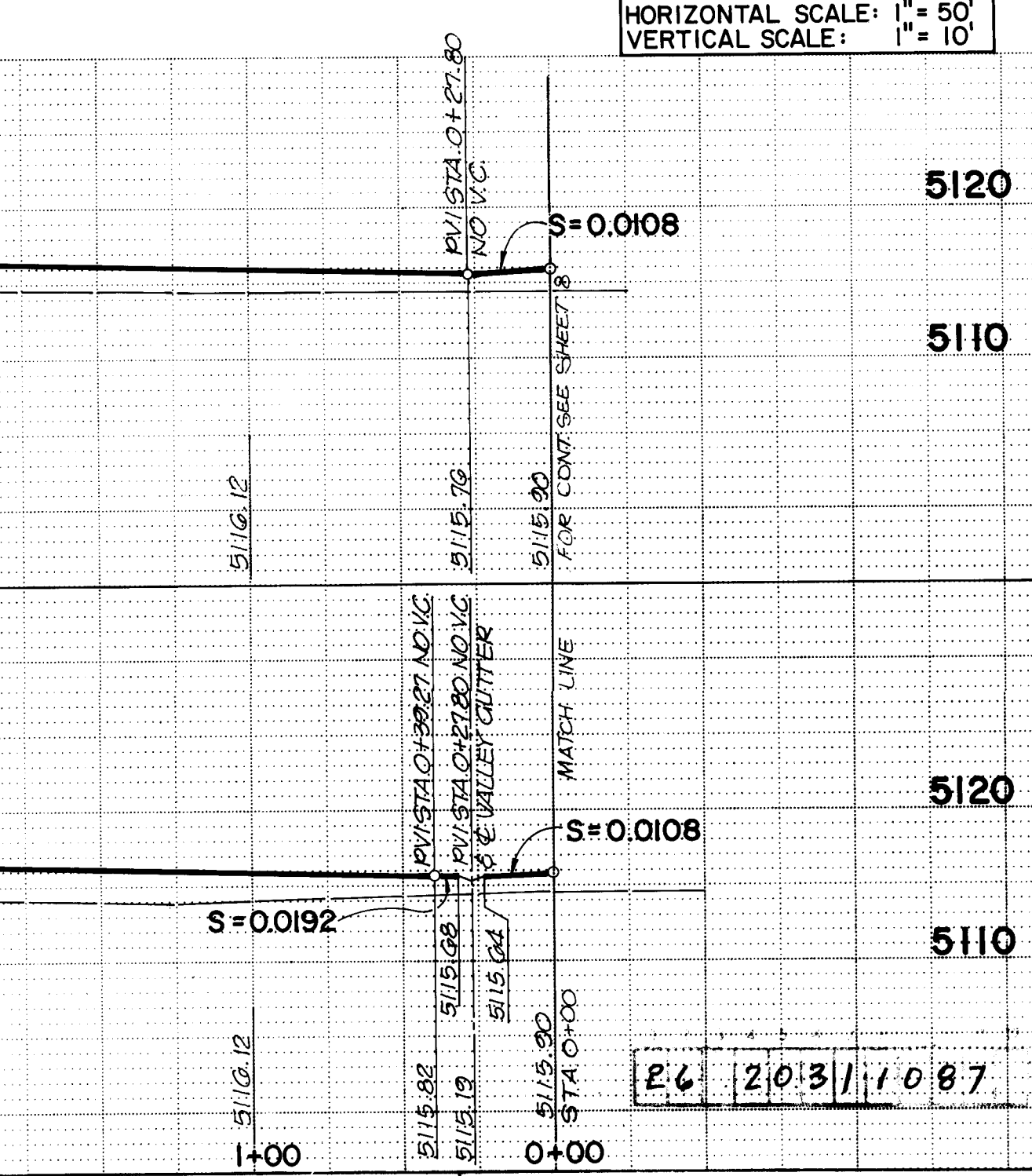
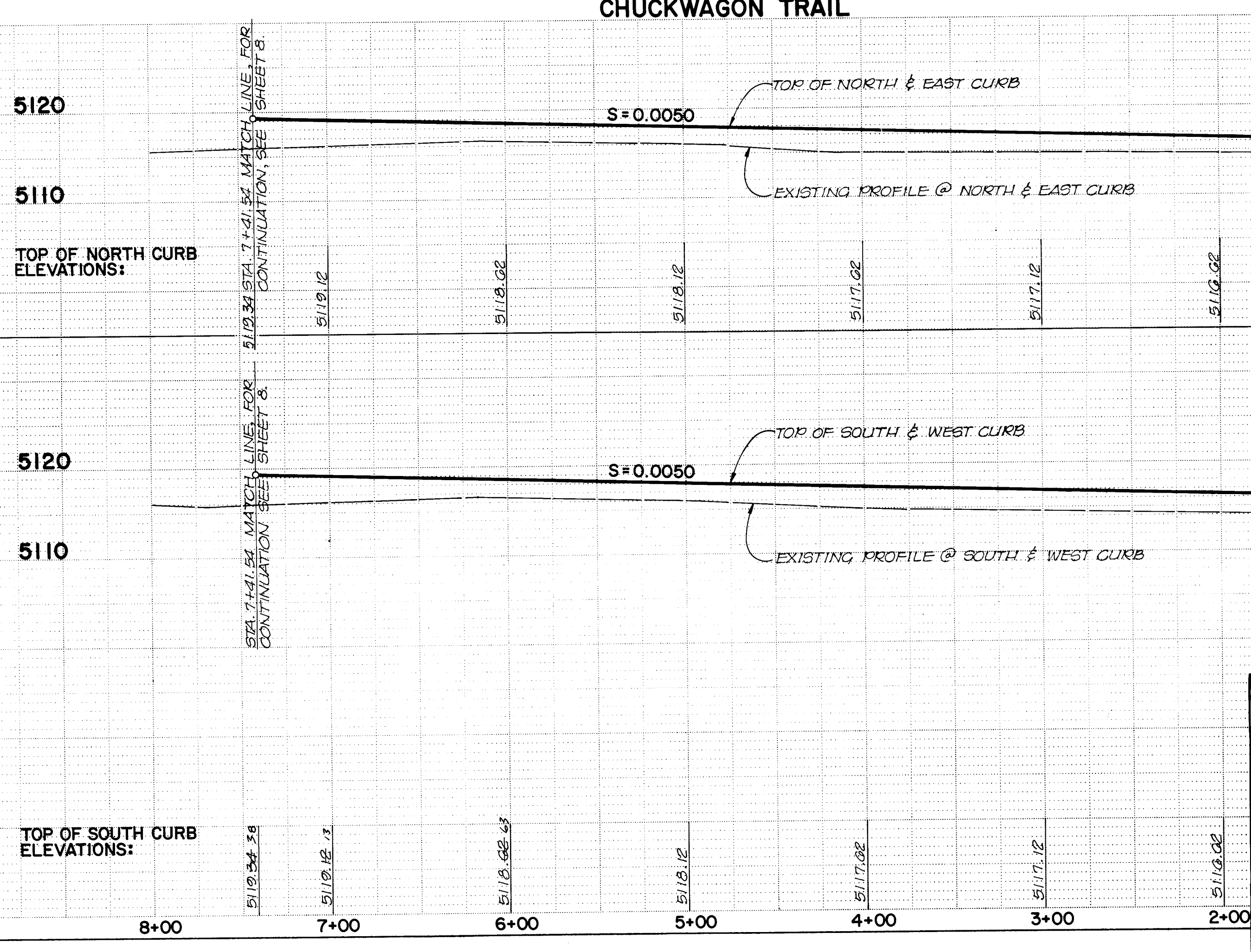
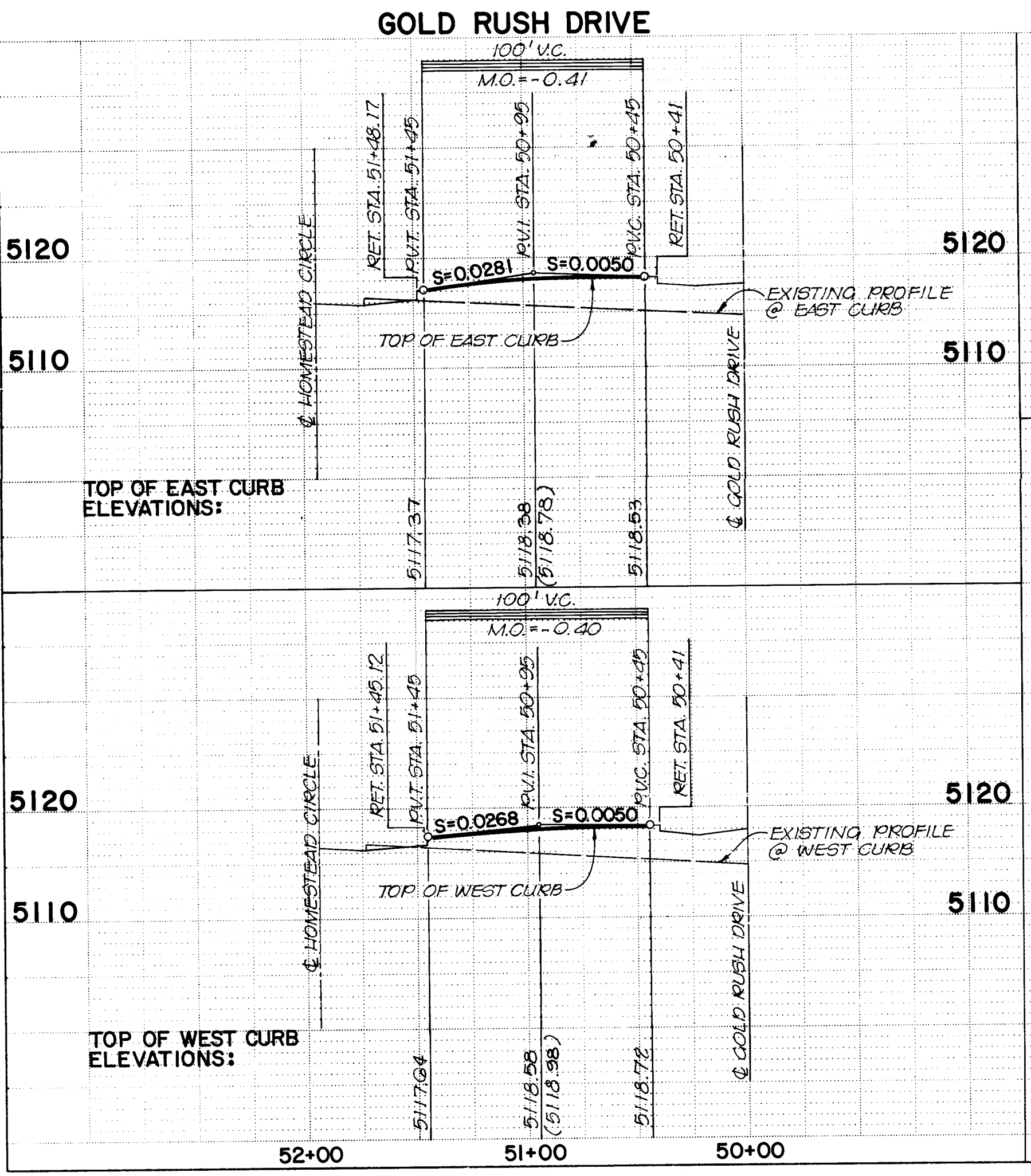
The improvements shown on this drawing have been as-built in accordance with field surveys performed by Espey, Huston and Associates, Inc. and information provided by Construction Contracting and Management, Inc. (contractors) to reflect construction actually accomplished as of this date, to the best of my knowledge and belief.

Dennis A. Lorenz
Dennis A. Lorenz, P.E. 985

3-17-87
Date

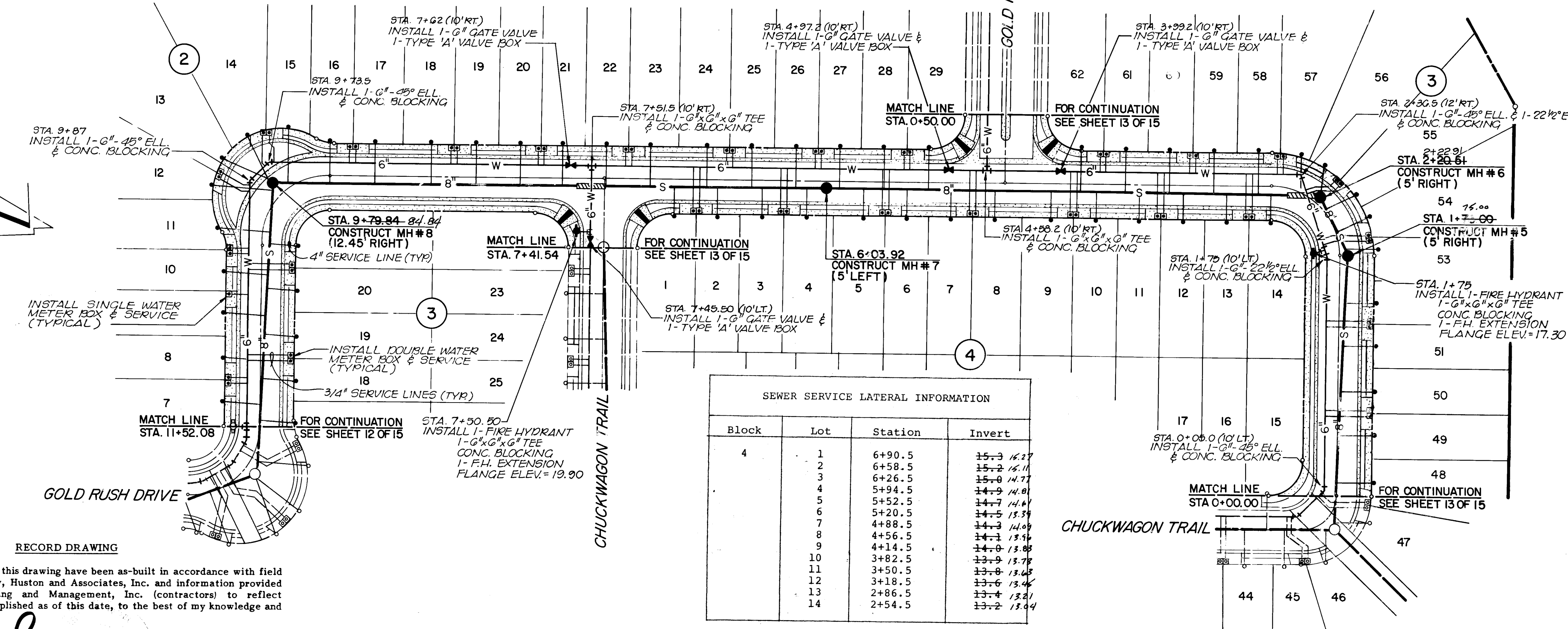
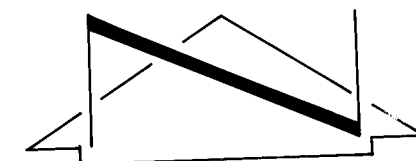


SECTION Y-Y
SCALE: 1"=4'



CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: PIONEER ESTATES PAVING IMPROVEMENT PLAN & PROFILE GOLD RUSH DRIVE STA 0+00 TO STA 51+94.12 AND CHUCKWAGON TRAIL STA 0+00 TO STA 7+91.54					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	1/16/81	Liquid Waste	<i>[Signature]</i>	N/A
A.C.E. - Design	<i>[Signature]</i>	1/16/80	Traffic	<i>[Signature]</i>	1/16/80
A.C.E. - Hydrology	<i>[Signature]</i>	1/16/81	Water	<i>[Signature]</i>	N/A
DRAWING NO. 2031			SHEET 10 OF 16		

AS BUILT INFORMATION			BENCH MARKS			SURVEY INFORMATION			REFERENCES		
CONTRACTOR	C. M. J. S. Co.	DATE	1/16/81	1/16/80	1/16/80	FIELD NOTES	NO.	BY	DATE	MAP NO.	D-11
WORK	PAVING	DATE	1/16/81	1/16/80	1/16/80	NO.	NO.	NO.	NO.	EST. NO.	NO.
INSPECTOR	DATE	1/16/81	1/16/80	1/16/80	1/16/80	NO.	NO.	NO.	NO.	NO.	NO.
ACCEPTANCE	DATE	1/16/81	1/16/80	1/16/80	1/16/80	NO.	NO.	NO.	NO.	NO.	NO.
VERIFICATION	DATE	1/16/81	1/16/80	1/16/80	1/16/80	NO.	NO.	NO.	NO.	NO.	NO.
DRAWING	DATE	1/16/81	1/16/80	1/16/80	1/16/80	NO.	NO.	NO.	NO.	NO.	NO.
REVISIONS	DATE	1/16/81	1/16/80	1/16/80	1/16/80	NO.	NO.	NO.	NO.	NO.	NO.
MICRO-FILM INFORMATION			ELEVATION: 5119.74 FEET			DESIGNED BY			DATE		
RECORDED BY			DATE			DRAWN BY			DATE		
NO.			DATE			CHECKED BY			DATE		

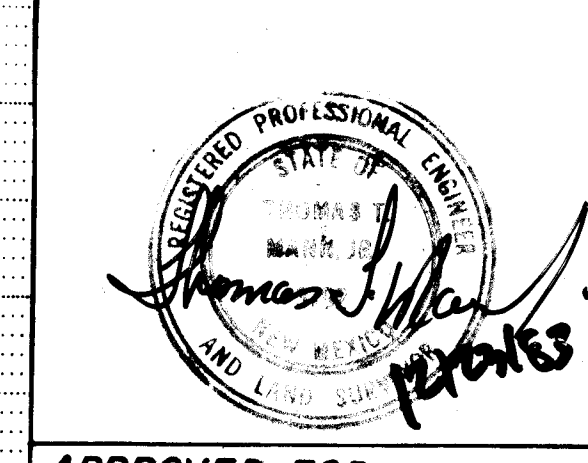
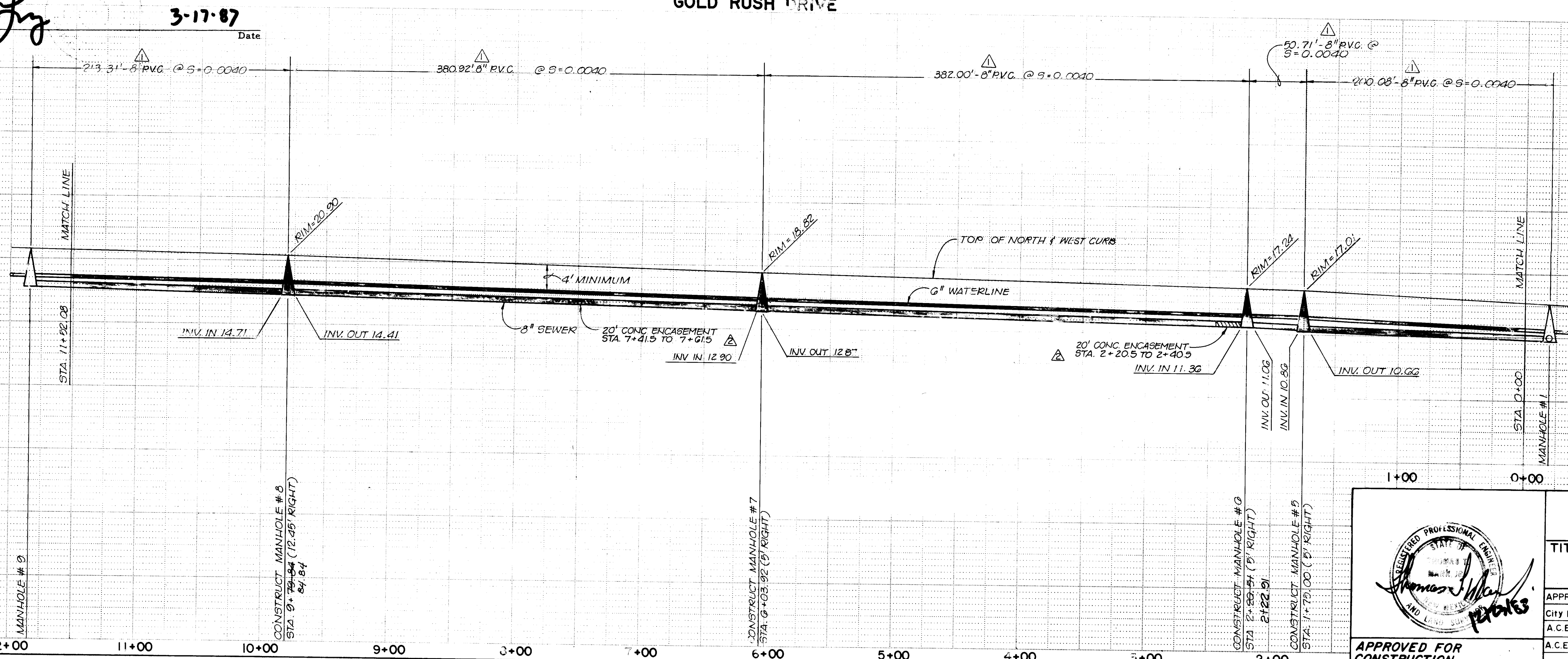


SEWER SERVICE LATERAL INFORMATION			
Block	Lot	Station	Invert
2	7	11+34.8	17.8 18.10
	8	11+02.8	18.0 18.10
	9	10+70.8	17.8 18.50
	10	10+38.8	17.6 18.50
	11	17.3	
	12	17.3	17.7
	13	16.9 16.7	
	14	16.9 16.4	
	15	16.9 16.1	
	16	16.9 16.1	
	17	9+40.2	16.9 16.1
	18	9+08.2	16.7 16.48
	19	8+66.2	16.4
	20	8+34.2	16.1
	21	8+02.2	15.9 16.1
	22	7+70.2	15.8 16.1
	23	7+38.2	15.6 16.47
	24	7+06.2	15.4 16.47
	25	6+64.2	15.2 16.17
	26	6+32.2	15.1 16.40

SEWER SERVICE LATERAL INFORMATION			
Block	Lot	Station	Invert
4	1	6+90.5	15.3 16.27
	2	6+58.5	15.2 16.11
	3	6+26.5	15.0 14.77
	4	5+94.5	14.9 14.81
	5	5+52.5	14.7 14.47
	6	5+20.5	14.5 15.39
	7	4+88.5	14.3 14.09
	8	4+56.5	14.1 13.56
	9	4+24.5	14.0 13.88
	10	3+82.5	13.9 13.78
	11	3+50.5	13.7 13.68
	12	3+18.5	13.6 13.46
	13	2+86.5	13.4 13.61
	14	2+54.5	13.2 13.44

SEWER SERVICE LATERAL INFORMATION			
Block	Lot	Station	Invert
3	17	11+49.1	17.7 18.00
	18	11+17.1	17.9 18.11
	19	10+85.1	17.9 18.0
	20	10+53.1	17.7 18.5
	21	10+21.1	17.4 18.0
	48	0+15.7	11.9 11.02
	49	0+47.7	12.1 12.01
	50	0+79.7	12.3 12.32
	51	1+11.7	12.5 12.51
	52	1+43.7	12.6 12.4
	53	1+75.7	12.8 12.65
	54	1+97.0	12.9 12.43
	55	2+07.4	13.0 13.13
	56	2+23.8	13.1 13.01

RECORD DRAWING
The improvements shown on this drawing have been as-built in accordance with field surveys performed by Espey, Huston and Associates, Inc. and information provided by Construction Contracting and Management, Inc. (contractors) to reflect construction actually accomplished as of this date, to the best of my knowledge and belief.
Dennis A. Lorenz, P.E. 964
3-17-87
Date

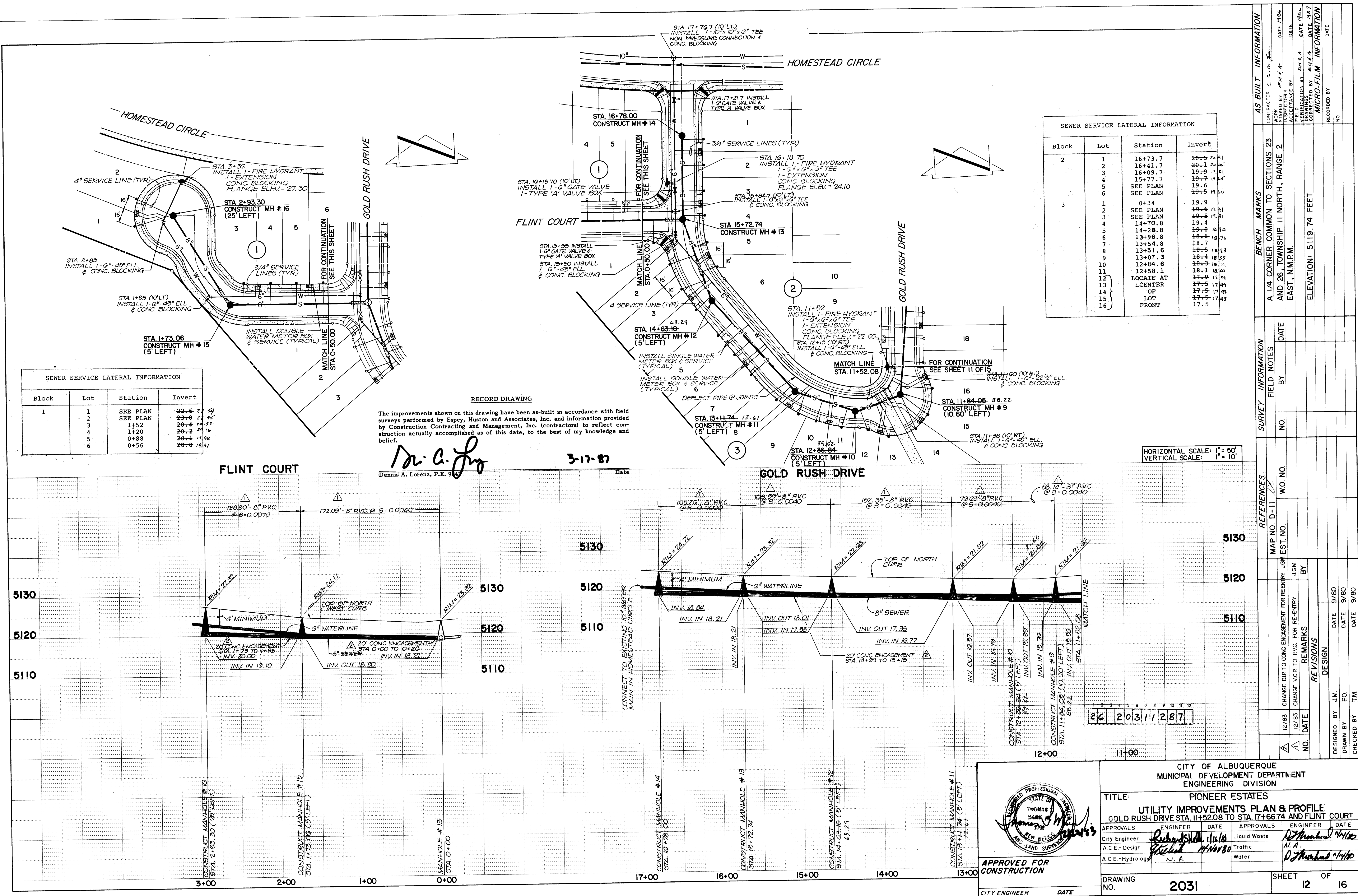


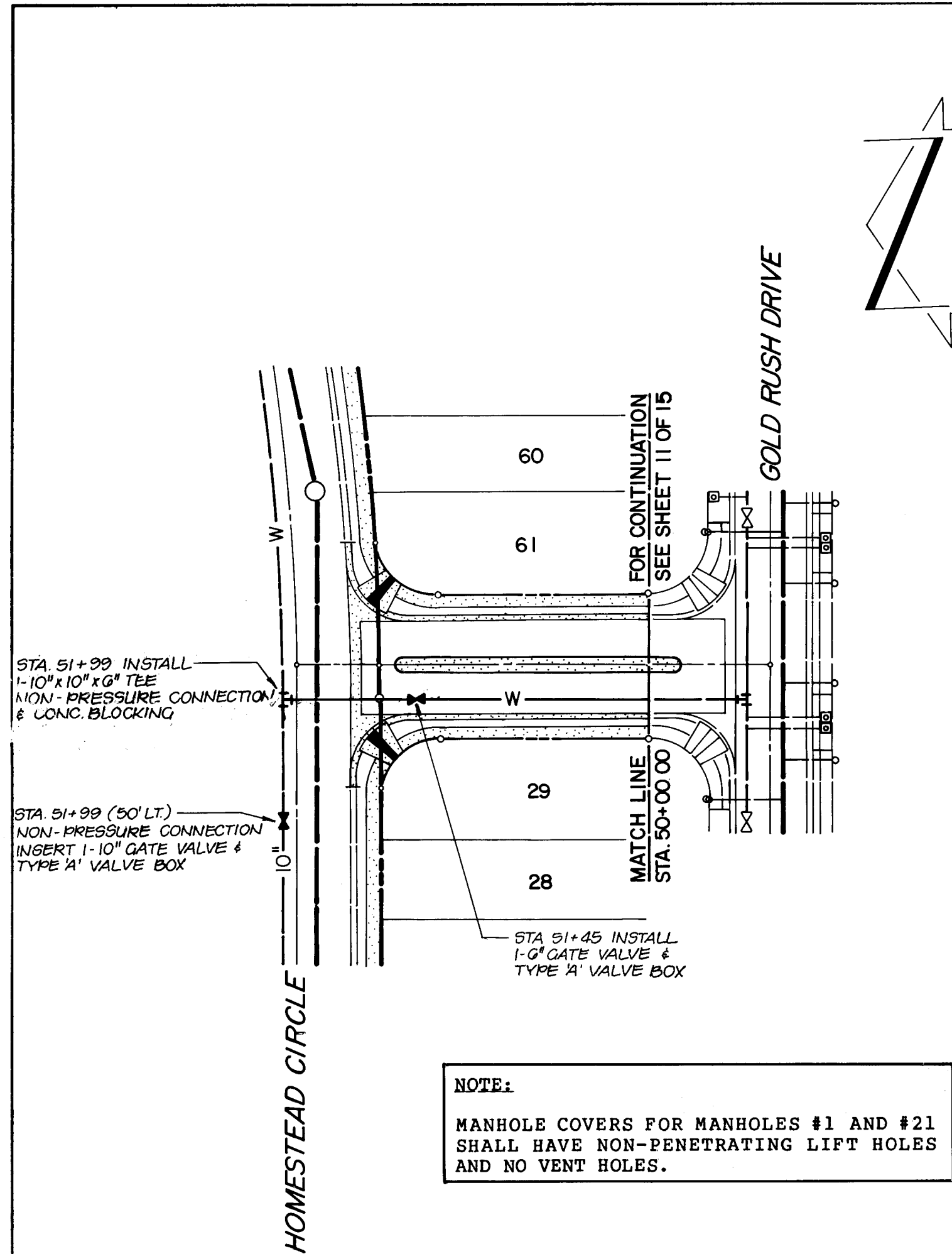
CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION			
TITLE: PIONEER ESTATES UTILITY IMPROVEMENTS PLAN & PROFILE GOLD RUSH DRIVE STA 0+00 TO STA 11+52.08			
APPROVALS	ENGINEER	DATE	APPROVALS
City Engineer	<i>[Signature]</i>	11/16/87	Liquid Waste
A.C.E. - Design	<i>[Signature]</i>	11/16/87	Traffic
A.C.E. - Hydrology	<i>[Signature]</i>	11/16/87	Water
DRAWING NO. 2031		SHEET 11 OF 16	

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		REFERENCES		REVISIONS	
CONTRACTOR	C.C.M., INC.	DATE	12/87	FIELD NOTES	NO.	MAP NO.	D-11	NO.	DATE
WORK BY	EH & H	DATE	12/87	DATE	NO.	EST. NO.		NO.	DATE
INSPECTED BY		DATE		NO.				NO.	DATE
ACCEPTANCE BY		DATE		NO.				NO.	DATE
VERIFICATION BY	EH & H	DATE	12/87	NO.				NO.	DATE
DRAWINGS BY	EH & H	DATE	12/87	NO.				NO.	DATE
RECORD BY		DATE		NO.				NO.	DATE

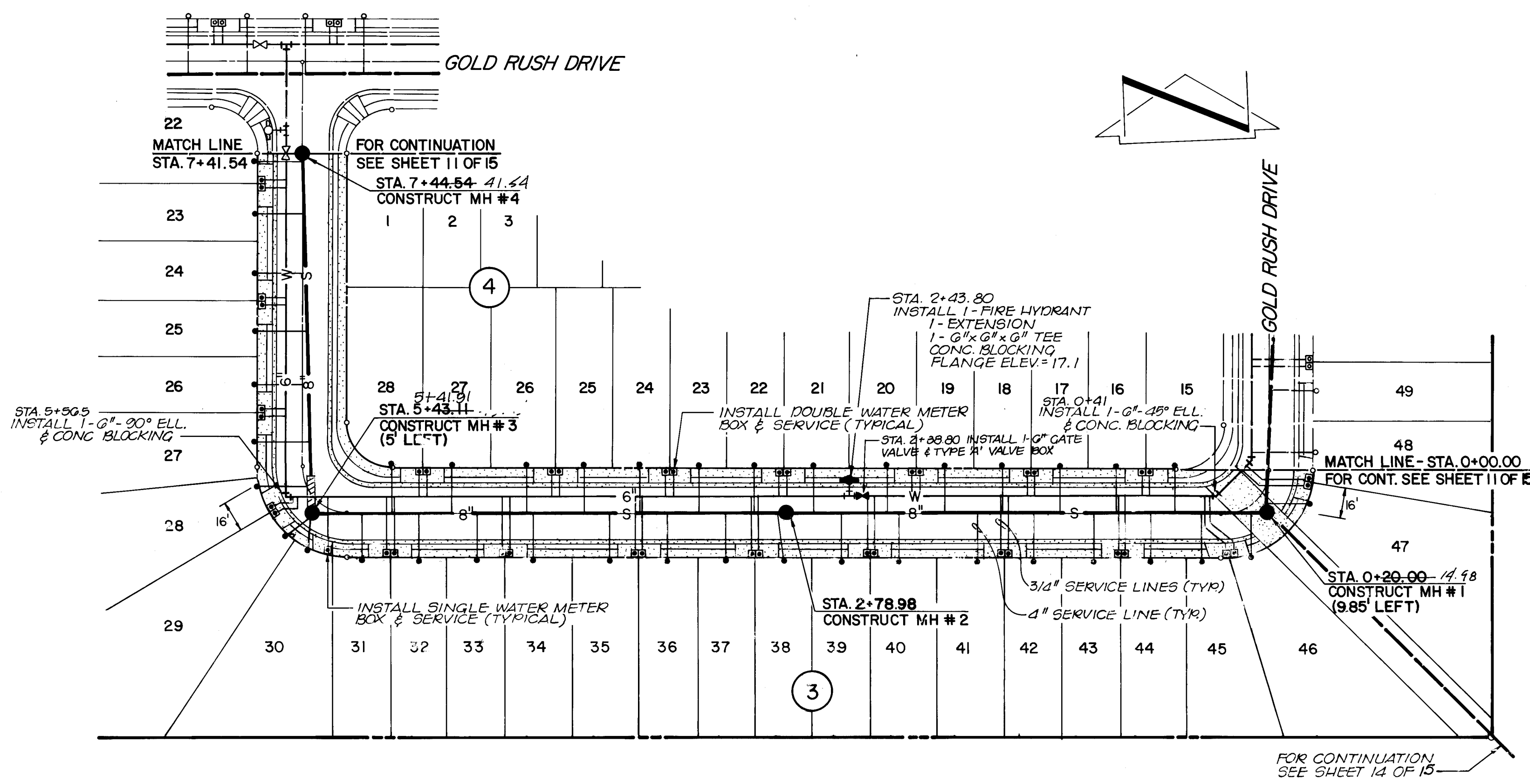
ELEVATION: 5119.74 FEET

2031





NOTE:
MANHOLE COVERS FOR MANHOLES #1 AND #21 SHALL HAVE NON-PENETRATING LIFT HOLES AND NO VENT HOLES.



SEWER SERVICE LATERAL INFORMATION			
Block	Lot	Station	Invert
3	22	7+40.5	15-3 15.26
	23	7+08.5	15-2 15.29
	24	6+76.5	15-0 14.16
	25	6+44.5	14-9 14.80
	26	6+12.5	14-7 14.67
	27	5+80.5	14-5 14.59
	28	SEE PLAN	14-4 14.52
	29	5+44.1	14-3 13.83
	30	5+39.1	14-3 14.16
	31	5+19	14-2 14.04
	32	4+87	14-0 13.19
	33	4+55	13-8 13.61
	34	4+23	13-7 13.61
	35	3+81	13-5 13.49
	36	3+49	13-4 13.26
	37	3+17	13-2 13.04
	38	2+85	13-0 12.89
	39	2+53	12-8 12.62
	40	2+21	12-7 12.60
	41	1+79	12-5 12.36
	42	1+47	12-3 12.18
	43	1+15	12-2 12.18
	44	0+83	12-2 11.98
	45	0+57	12-0 11.98
	46	LOCATE AT CENTER OF LOT FRONT SEE PLAN	11.9
	47		11-9 11.83

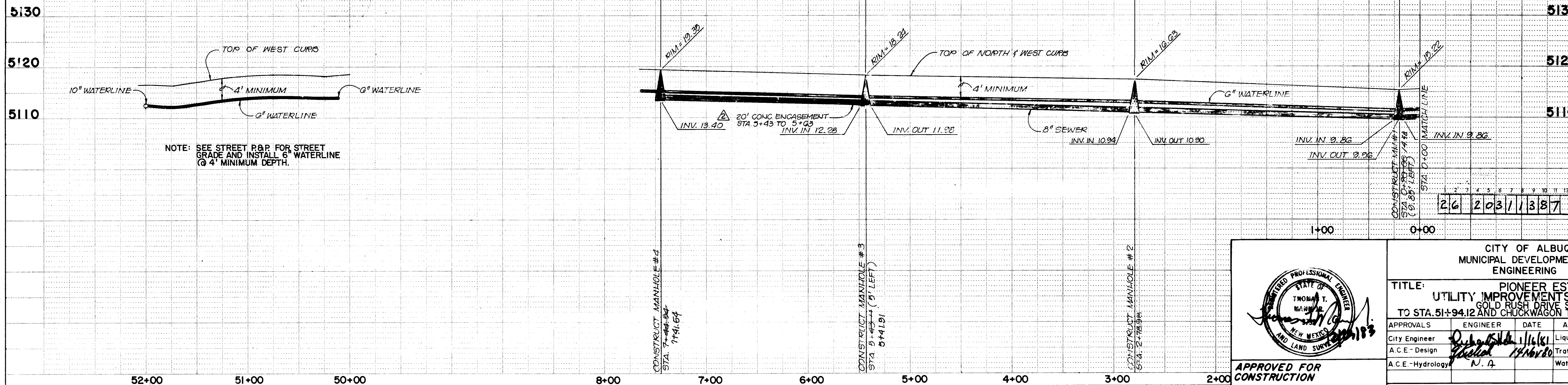
SEWER SERVICE LATERAL INFORMATION			
Block	Lot	Station	Invert
4	15	0+65.3	12-0 11.87
	16	0+97.3	12-3 11.56
	17	1+29.3	12-3 12.20
	18	1+61.3	12-4 12.29
	19	1+93.3	12-6 12.44
	20	2+25.3	12-6 12.67
	21	2+62.3	12-9 12.71
	22	2+99.3	13-3 12.84
	23	3+31.3	13-3 13.18
	24	3+63.3	13-4 13.25
	25	3+95.3	13-6 13.61
	26	4+27.3	13-7 13.61
	27	4+69.3	13-9 13.78
	28	5+01.3	14-3 13.46

GOLD RUSH DRIVE

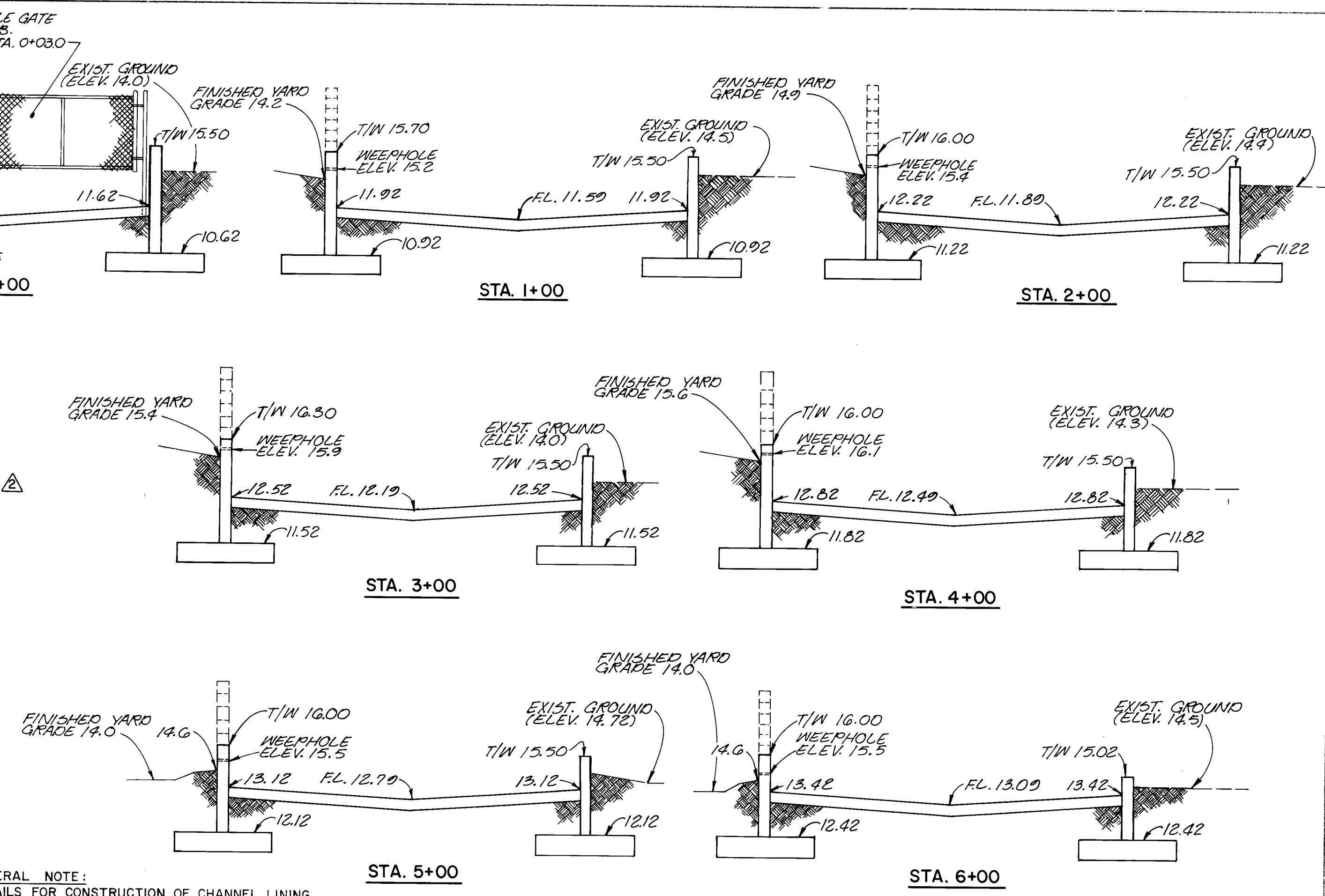
CHUCKWAGON TRAIL

RECORD DRAWING
The improvements shown on this drawing have been as-built in accordance with field surveys performed by Espey, Huston and Associates, Inc. and information provided by Construction Contracting and Management, Inc. (contractors) to reflect construction actually accomplished as of this date, to the best of my knowledge and belief.
Dennis A. Lorenz
Dennis A. Lorenz, P.E. 966
3-17-87
Date

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'



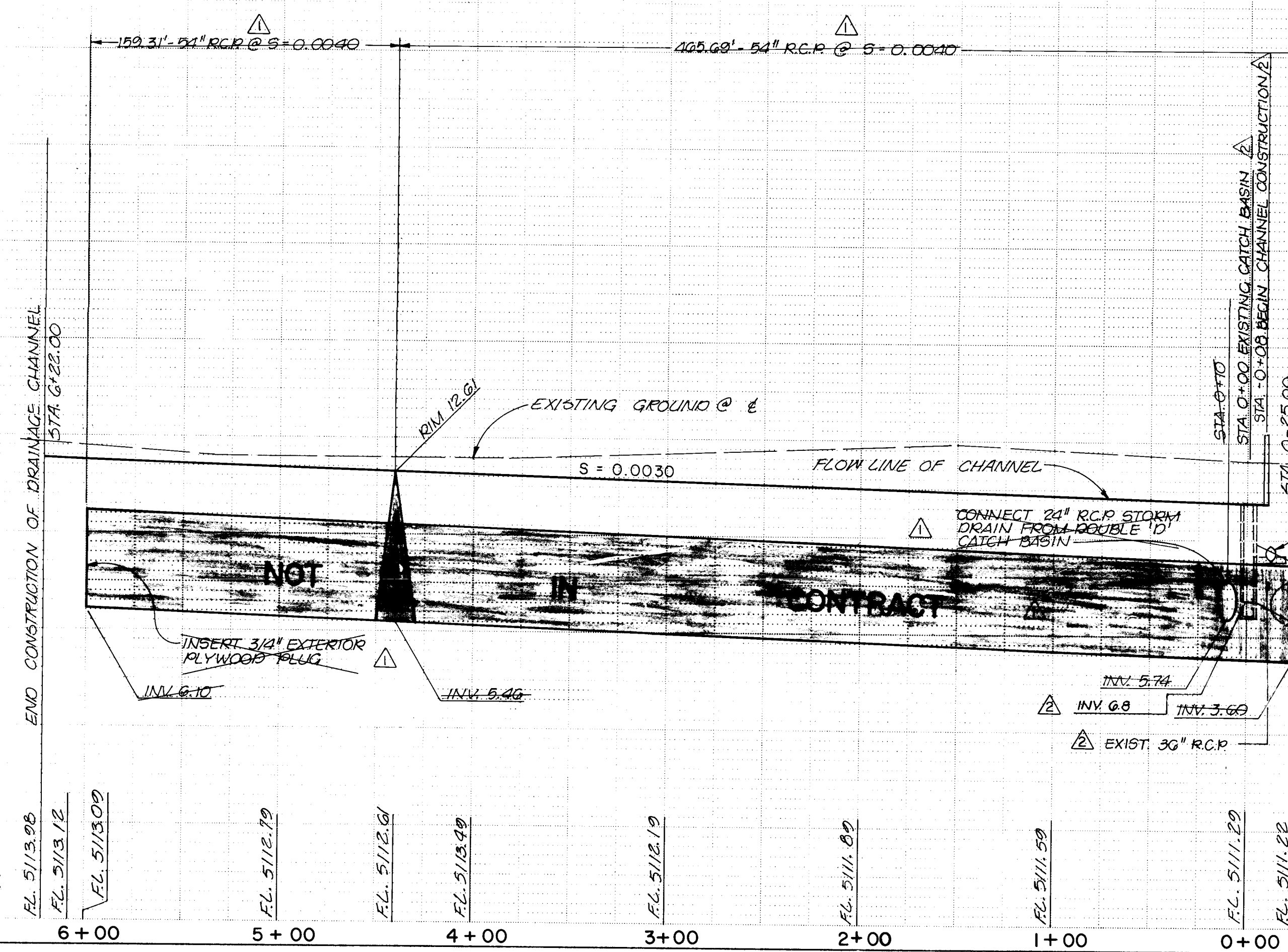
CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION			
TITLE: PIONEER ESTATES UTILITY IMPROVEMENTS PLAN & PROFILE GOLD RUSH DRIVE STA 50+00 TO STA 51+94.12 AND CHUCKWAGON TRAIL STA 0+00 TO STA 7+91.54			
APPROVALS	ENGINEER	DATE	APPROVALS
City Engineer	<i>[Signature]</i>	11/16/80	Liquid Waste
A.C.E. - Design	<i>[Signature]</i>	11/16/80	Traffic
A.C.E. - Hydrology	N.A.		Water
DRAWING NO. 2031		SHEET 13 OF 16	



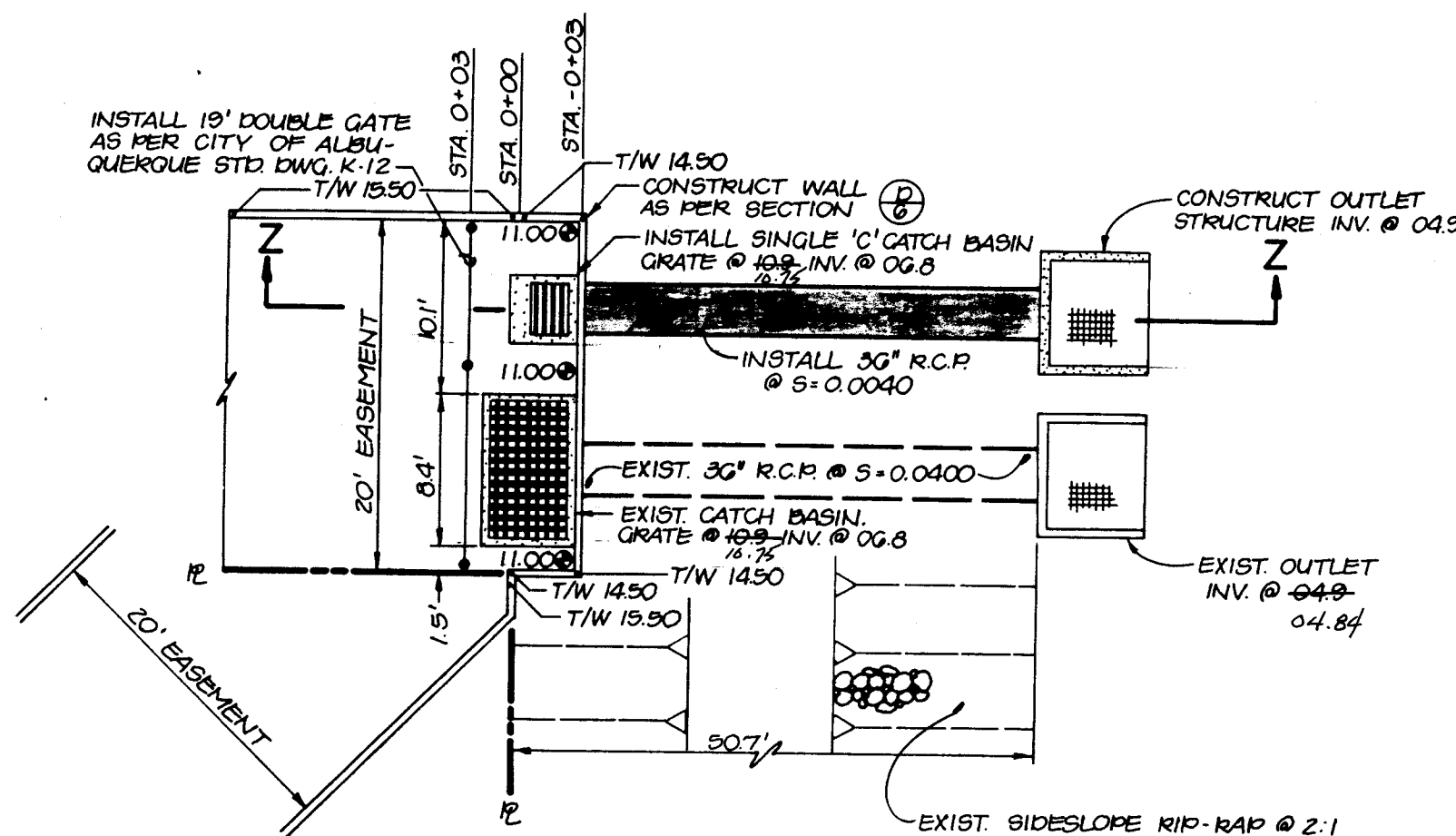
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

GENERAL NOTE:
DETAILS FOR CONSTRUCTION OF CHANNEL LINING
& CHANNEL WALLS ARE SHOWN ON SHEET 6.

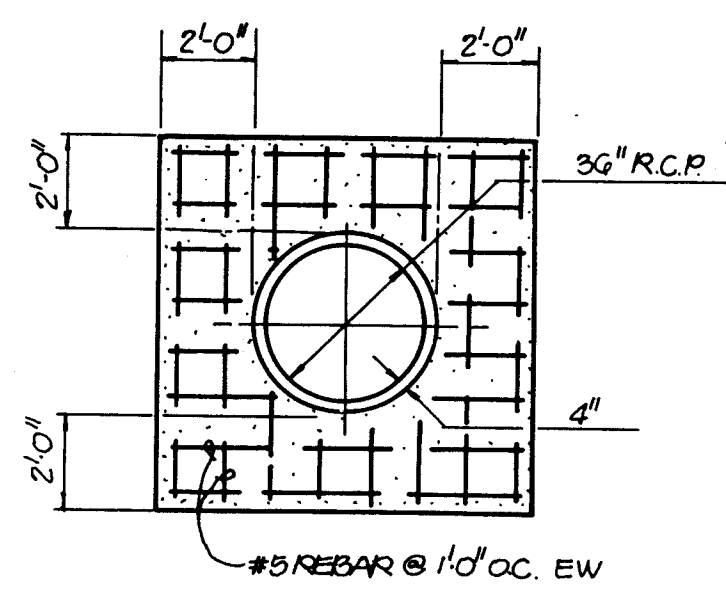
NOTE: SEE CHANNEL REVISIONS
SHEET 5 AND 6A 



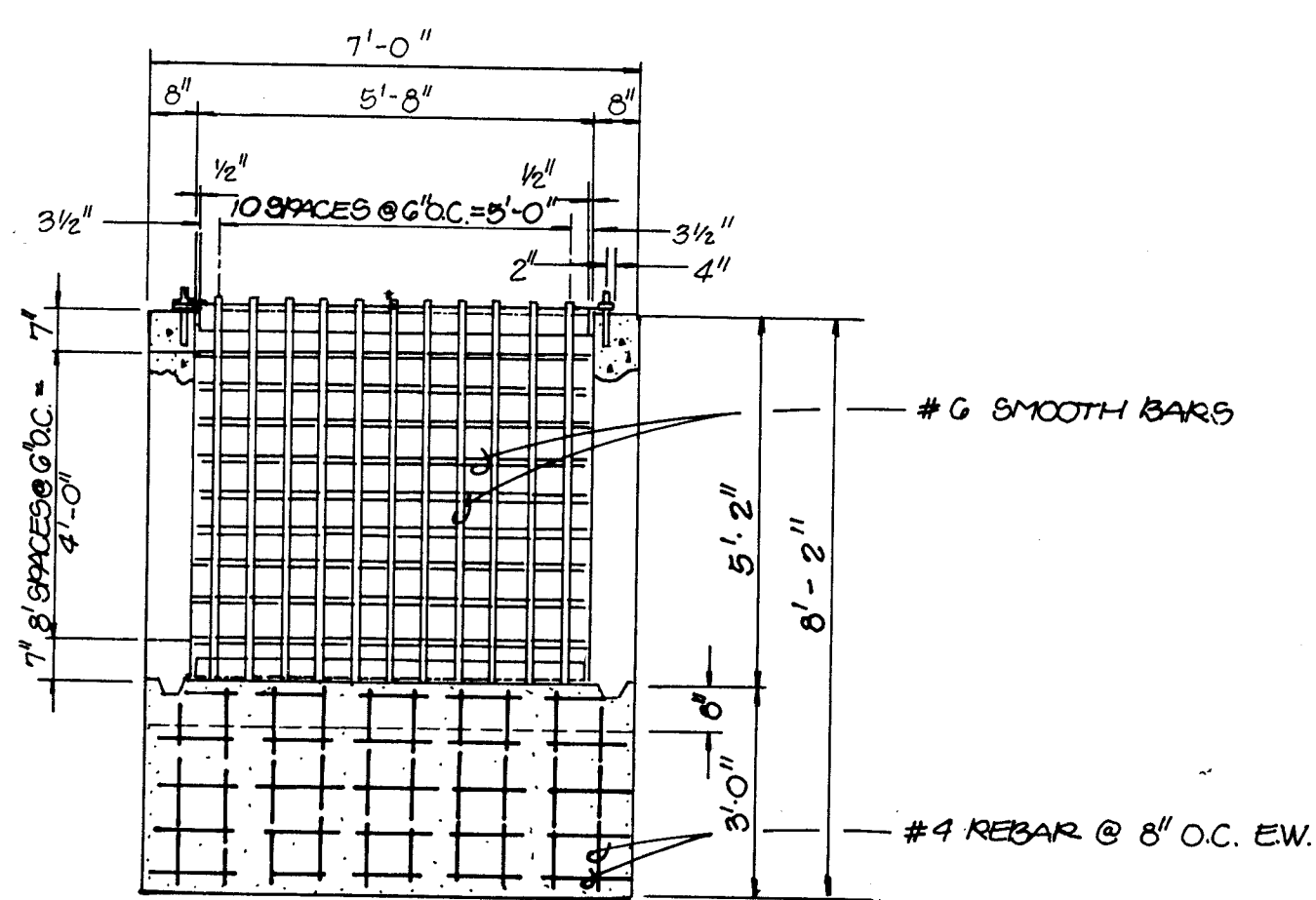
CITY OF ALBUQUERQUE					
MUNICIPAL DEVELOPMENT DEPARTMENT					
ENGINEERING DIVISION					
TITLE:		PIONEER ESTATES			
		STORM DRAINAGE IMPROVEMENTS			
		CHANNEL "C" PLAN & PROFILE			
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	1/16/81	Liquid Waste	<i>[Signature]</i>	1/16/81
A.C.E. - Design	<i>[Signature]</i>	1/14/81	Traffic	N.A.	
A.C.E. - Hydrology	B.C.J.	1/13/81	Water	<i>[Signature]</i>	1/16/81
DRAWING NO. 2031			SHEET OF 15 16		



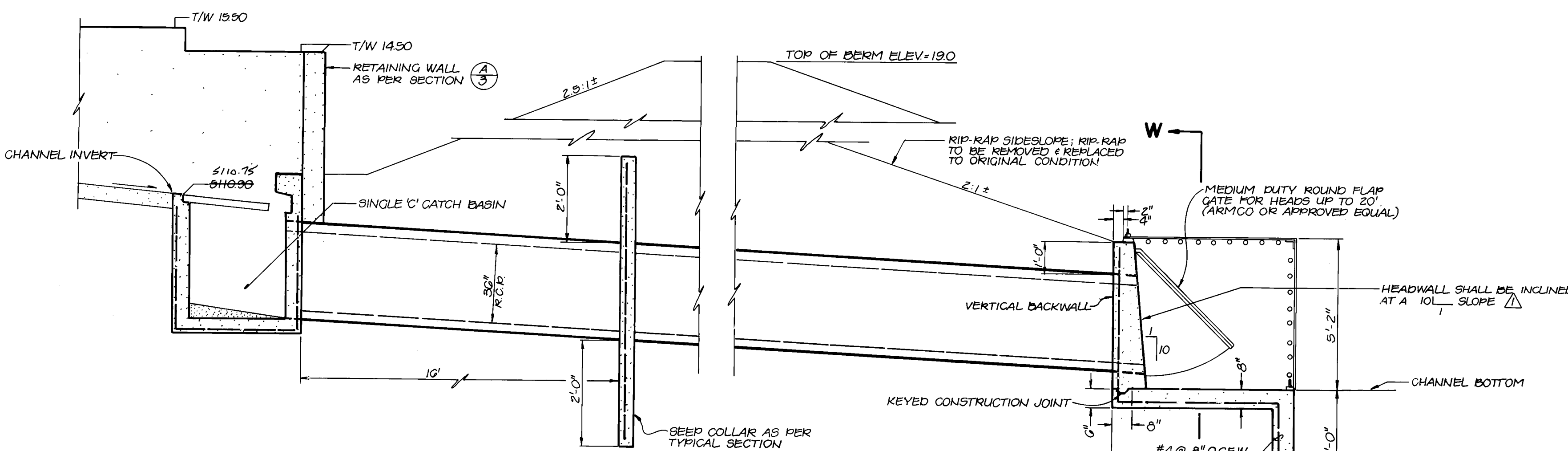
DETAIL E
SCALE: 1" = 10'



TYPICAL SEEP COLLAR SECTION
SCALE: 1/4" = 1'-0"



SECTION W-W
SCALE: 3/8" = 1'-0"



SECTION Z-Z
NO SCALE

- ### HYDRAULIC CALCULATIONS
- Design Discharge
 - From "Drainage Report for the Pioneer Estates", by Goldberg-Mann and Associates, August 18, 1980, $Q_{100} = 26$ cfs from Channel C.
 - From "Drainage Report for Homestead Hills", by Genge/Murray-McCormick, January 26, 1977, $Q_{100} = 112$ cfs from Homestead Circle.
 - Total discharge = $a + b = Q_{100}$
 $Q_{100} = 26 + 112 = 138$ cfs.
 - Inlet Control
From Bureau of Public Roads "Headwater Depth for Concrete Pipe Culverts with Inlet Control" for $D = 36"$, $HW = 14.5 - 6.8 = 7.7'$, and $HW/D = 2.6$, $Q_{capacity} = 86$ cfs.
 - Pipe Capacity
Based upon "Field's Hydraulics Calculator for Gravity Flow in Pipes" for $\Delta \text{elev} = 6.8 - 4.9 = 1.9'$, $L = 47.4'$, $s = 0.04$, $n = 0.013$ and $D = 36"$, $Q_{capacity} = 135$ cfs.
 - Outlet Control
 $\Delta H = (1 + K_e + 29n^2L/R^{1.33}) v^2/2g$
 $\Delta H = 5114.5 - 5110.0 = 4.5'$
 $K_e = 0.6$ (includes grate losses)
 $n = 0.013$ (DPM)
 $L = 47.4'$
 $R = A/P = 0.75'$; $R^{1.33} = 0.68$
 $A = 1/4 \pi D^2 = 7.0686 \text{ sf}$
 $D = 36" = 3'$
 $P = \pi D = 9.4248'$
 $g = 32.2 \text{ ft/sec}^2$
 Solving for v^2 , $v^2 = 149$, therefore, $v = 12.2 \text{ fps}$, and $Q = v A = 12.2 (7.0686) = 86 \text{ cfs}$
 - Limiting Condition
Based upon the calculations presented above, the existing outlet system capacity is 86 cfs. If the existing system were duplicated, i.e. two 36" RCP discharge lines, the capacity of the outlet would increase twofold to 170 cfs. The expected flow is 140 cfs, therefore this represents an acceptable solution.

RECORD DRAWING

The improvements shown on this drawing have been as-built in accordance with field surveys performed by Espey, Huston and Associates, Inc. and information provided by Construction Contracting and Management, Inc. (contractors) to reflect construction actually accomplished as of this date, to the best of my knowledge and belief.

Dennis A. Lorenz
Dennis A. Lorenz, P.E. 943

3-17-87
Date



APPROVED FOR CONSTRUCTION

CITY ENGINEER DATE

26 2031 1687

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: PIONEER ESTATES MISCELLANEOUS STORM DRAINAGE DETAILS & CALCULATIONS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. - Design	<i>[Signature]</i>	1/6/84	Traffic	<i>[Signature]</i>	2/16/84
A.C.E. - Hydrology	<i>[Signature]</i>	2/15/84	Water Res.	<i>[Signature]</i>	2-15-84
DRAWING NO. 2031			SHEET 16 OF 16		

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		REFERENCES	
CONTRACTOR	C. C. M. S.W.	A 1/4 CORNER COMMON TO SECTIONS 23 AND 26, TOWNSHIP 11 NORTH, RANGE 2 EAST, N.M.P.M.	ELEVATION 5119.74 FEET	MAP NO.	D-11	W.O. NO.	
WORKED BY	Encl. A	DATE	1986	EST. NO.		BY	
INSPECTED BY		DATE		NO.		DATE	
ACCEPTANCE BY		DATE					
VERIFICATION BY	Encl. A	DATE	1986				
DRAWINGS	Encl. A	DATE	1987				
SUBMITTED BY	Encl. A	DATE	1987				
RECORDED BY		DATE					
NO							