

PUBLIC IMPROVEMENT PLANS
FOR
EL RANCHO GRANDE - UNIT 7
ALBUQUERQUE, NEW MEXICO

DECEMBER 2002

PREPARED FOR:
CURB, INC.
SUITE 208
6301 INDIAN SCHOOL NE
ALBUQUERQUE, NM 87110

PREPARED BY:
ISAACSON & ARFMAN, P.A.
128 MONROE ST. NE
ALBUQUERQUE, NM 87108

INDEX TO DRAWINGS

SHEET NO.	TITLE	SHEET NO.	TITLE
1	COVER SHEET		UTILITY PLAN & PROFILE SHEETS
2-5	PLAT (SHEET 5 NOT USED)	16	MASTER UTILITY PLAN
6-6A	GRADING & DRAINAGE PLAN	17	UTILITY DETAILS
7-8	GRADING DETAILS	18	RANCHO WEST PL. & CALLE DE AMOLE
	PAVING PLAN & PROFILE SHEETS	19	CAMINO SAN MARTIN
9	MASTER PAVING & STORM DRAIN PLAN	20	AMOLE DR.
10	PAVING DETAILS & SECTIONS	21	DEL REY RD
11	RANCHO WEST PL. & CALLE DE AMOLE	22	LADRONES PLACE
12	CAMINO SAN MARTIN	23	TRAFFIC CONTROL STANDARDS
13	AMOLE DR.	24	TRAFFIC CONTROL SIGNING EXAMPLES
14	DEL REY RD		
15	LADRONES PLACE		

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

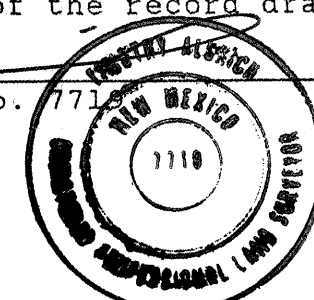
I, Fred C. Arfman of the firm of Isaacson & Arfman, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction and survey information provided by Aldrich Land Survey, NMPS number 2719.



SURVEYOR'S CERTIFICATION

"I, Timothy Aldrich, a duly qualified Registered Professional Land Surveyor under the laws of the State of New Mexico, do hereby certify that the 'as-built' information shown on these drawings was obtained from field construction and 'as-built' surveys performed by me or under my supervision, that the 'as-built' information shown on these drawings was added by me or under my supervision, and that this 'as-built' information is true and correct to the best of my knowledge and belief." Aldrich Land Surveying is not responsible for any of the design concepts, calculations, engineering, or intent of the record drawings.

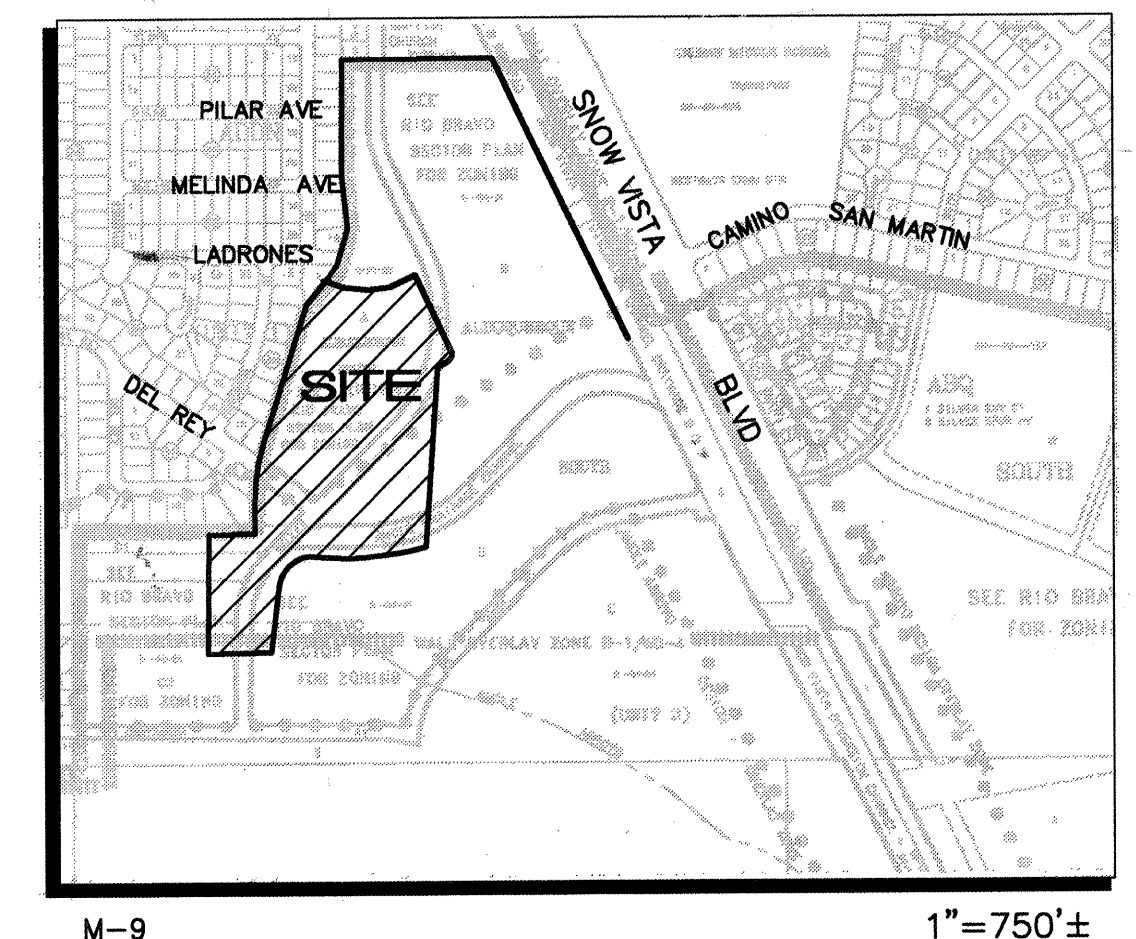
Timothy Aldrich 10-15-03
Timothy Aldrich, P.S. No. 1711 Date



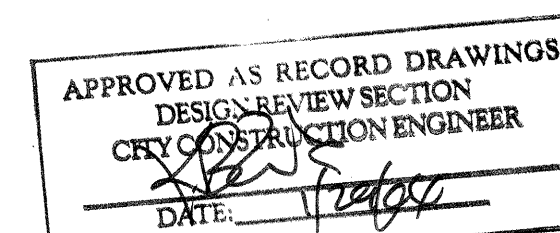
GENERAL NOTES

- 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 FOR PUBLIC WORKS CONSTRUCTION 1986 EDITION AS AMENDED WITH UPDATE NO. 6.
- 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.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE & VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM DELAY.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE @ 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY, AND TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS. CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADHERE TO SECTION 19 OF THE GENERAL CONDITIONS OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, AS AMENDED WITH UPDATE NO. 6.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER & ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- TRAFFIC CONTROL: FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO LOCATION AS EXISTING OR AS SHOWN IN THIS PLAN SET.
- WHEN ABUTTING EXISTING PAVEMENT TO NEW, SAWCUT EXISTING PAVEMENT TO A STRAIGHT EDGE AND AT A RIGHT ANGLE, OR AS APPROVED BY THE FIELD ENGINEER. REMOVAL OF BROKEN OR CRACKED PAVEMENT WILL ALSO BE REQUIRED.
- EXISTING CURB AND GUTTER NOT TO BE REMOVED UNDER THE CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
- ALL FINAL BACKFILL FOR TRENCHES SHALL BE COMPACTED TO A MINIMUM 90% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY SECTION 701.14.2 AND STANDARD DRAWING NUMBER 2315.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
- PROPOSED WATERLINE MATERIALS SHALL BE EITHER PVC PIPE MEETING AWWA C900 REQUIREMENTS (6"-12") OR DUCTILE IRON PIPE, THICKNESS CLASS 50 (6"-16").
- ALL SANITARY SEWER LINE STATIONING REFERS TO SANITARY SEWER CENTERLINE STATIONING.
- ALL FITTINGS ON WATERLINES SHALL HAVE RESTRAINED JOINTS AS NOTED ON THE PLANS.
- CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATER-LINE AND/OR SEWERLINE COSTS.
- CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF RECORD DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- THE 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 CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS 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. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- PNM WILL PROVIDE AT NO COST TO THE CITY OR THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.
- WARNING--EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION OF ANY SUCH EXISTING LINES IS BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS, AND THE INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.

THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE 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. THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES, IN PLANNING AND CONDUCTING EXCAVATION, WHETHER BY CALLING OR NOTIFYING THE UTILITIES, COMPLYING WITH "BLUE STAKES" PROCEDURES, OR OTHERWISE.
- ANY WORK OCCURRING WITHIN AN ARTERIAL ROADWAY REQUIRES 24 HR. CONSTRUCTION.
- ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
- CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
- FOR STORM DRAIN CONSTRUCTION, RCP PIPE JOINTS SHALL NOT BE GROUTED PRIOR TO FINAL INSPECTION. FINAL INSPECTION WILL DETERMINE JOINTS TO BE GROUTED FOR FINAL ACCEPTANCE OF THE CONSTRUCTION.



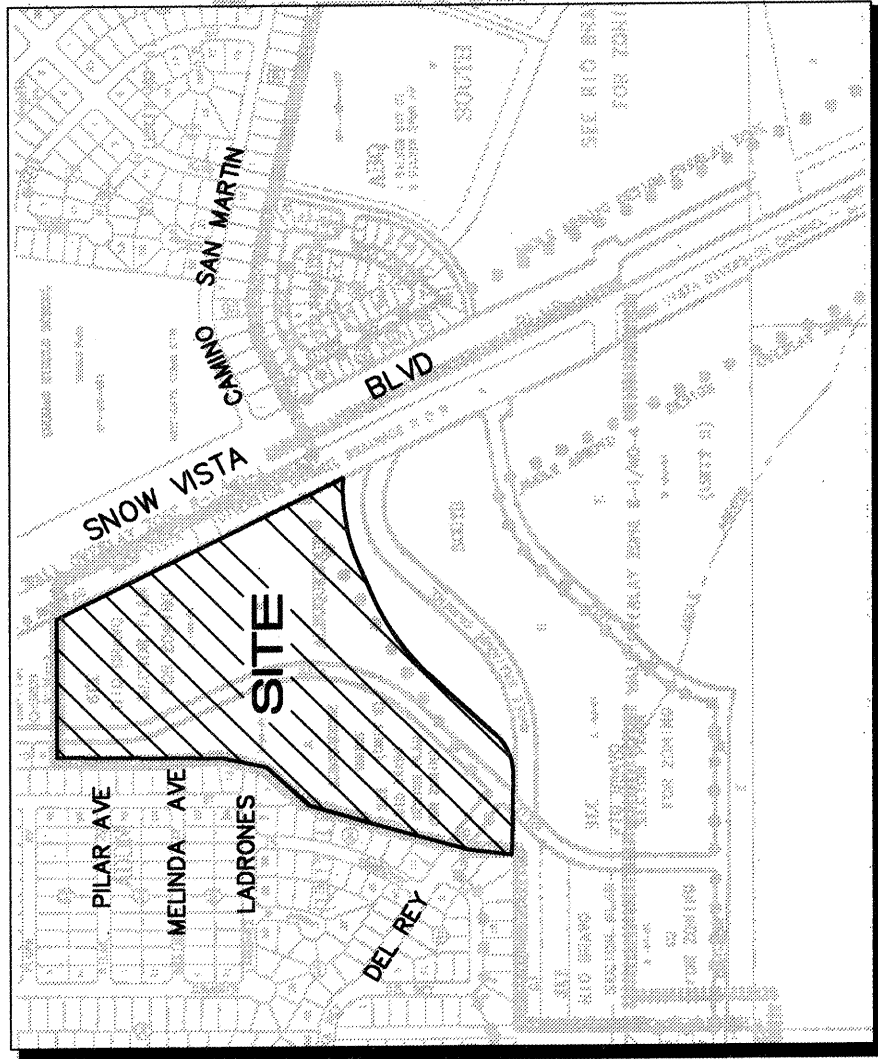
VICINITY MAP



DRB NO.
1001347

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico 87103
167CVR7.DWG

REV.	14	DATE	9/11/03	USER	BRADLEY B. BISH	DATE	9/11/03	USER	BRADLEY B. BISH	DATE	9/11/03
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER		DATE		*****			
		DRC Chairman		4-2-03		APPROVED FOR CONSTRUCTION					
		Transportation		3/24/03							
		Water/Wastewater		3/26/03							
		Hydrology		3/26/03							
		AMAFCA		see sheets 14 & 21							
Constr. Mngmt.		4-2-03		City Engineer		Date		Sheet 1 Of 24			
Constr. Coord.		4-2-03		City Project No.		699383					



M-9

VICINITY MAP

1"=750'

LEGAL DESCRIPTION

A tract of land situated within the Town of Atresco, Grant, projected Section 33, T.10N. R.2E. MPM, Albuquerque, Bernalillo County, New Mexico, being all of TRACTS A1 & B1, ALBUQUERQUE SOUTH, UNIT THREE, as the same is shown and designated on the plat entitled "Bulk Land Plat for Albuquerque South, Unit Three; Tracts A1, B1 and D1" filed for record in the office of the County Clerk of Bernalillo County, New Mexico on March ##, ### in Volume 2002C, Folio ### and containing 31.2413 acres more or less.

SUBDIVISION DATA / NOTES

- Total Number of Existing Tracts: 2
- Total Number of Lots created: 191
- Total Number of Tracts created: 1
- Gross Subdivision Acreage: 31.2413 Ac.
- Total Mileage of Full Width Streets Created: 1.2600 mi.
- Bearings are New Mexico State Plane Grid Bearings Central Zone).
- Distances are ground distances.
- Bearings and distances in parenthesis are record.
- Basic of boundary are the following plats (and documents) of record entitled: BULK LAND PLAT for ALBUQUERQUE SOUTH, UNIT THREE; TRACTS A1, B1 & D1 filed
- PLAT of ALBUQUERQUE SOUTH, UNIT THREE; TRACTS A through E filed on 11/28/94, in Vol. 94C, folio 393
- Field Survey performed in February, 2001
- Title Report provided by Albuquerque Title Company, Inc. File no. 187380TD (Effective date: 10-30-00) TRACT A File no. 187381TD (Effective date: 10-02-00) TRACT B File no. 187382TD (Effective date: 10-02-00) TRACT D
- This property is apparently affected by reservations, restrictions and agreements contained within easements, documents and memorandums as listed within the above mentioned Title Report.
- City Standard Utility Note II: "City of Albuquerque Water and Sanitary Sewer Service to El Rancho Grande Units 6 & 7 must be verified and coordinated with the Public Works Department, City of Albuquerque."
- Centerline (in lieu of R/W) monumentation to be installed at all centerline PC's, PT's, angle points and street intersections prior to acceptance of subdivision street improvements and will consist of a standard four-inch (4") aluminum alloy cap stamped "City of Albuquerque", "Centerline Monumentation", "Survey Marker", "Do Not Disturb", "PLS #7719".



P.O. BOX 30701, ALBU., N.M. 87190
505-884-1990
02/28/03

PLAT

FOR
EL RANCHO GRANDE,
UNITS 6 & 7 & TRACT A-1-A

BEING A REPLAT OF
ALBUQUERQUE SOUTH, UNIT THREE
TRACTS A-1 & B-1
PROJECTED SECTION 33, T. 10 N. R. 2 E, MPM
TOWN OF ATRISCO GRANT
ALBUQUERQUE
NEW MEXICO
MARCH 2003

APPROVALS
DRB PROJECT NO.
APPLICATION NO.

PUBLIC SERVICE CO. OF NM--GAS SERVICES DIVISION AND ELECTRIC SERVICES DIVISION	DATE
QWEST CORPORATION	DATE
COMCAST CABLE	DATE
CITY SURVEYOR, ENGR. DIV., P.W.D.	DATE
TRAFFIC ENGINEERING, TRANS. DEV. DIV., P.W.D.	DATE
PARKS AND RECREATION	DATE
UTILITY DEVELOPMENT DIV., P.W.D.	DATE
REAL PROPERTY DIVISION, D.F.M.	DATE
A.M.A.F.C.A.	DATE
CITY ENGINEER, PUBLIC WORKS DEPT.	DATE

APPROVAL AND CONDITIONAL ACCEPTANCE AS SPECIFIED BY THE ALBUQUERQUE SUBDIVISION ORDINANCE CHAPTER 14, ARTICLE 14 OF THE REVISED ORDINANCES OF ALBUQUERQUE, N.M., 1994.

CITY PLANNER, ALBUQUERQUE PLANNING DIVISION

DATE

SURVEYOR'S CERTIFICATION

"I, Timothy Aldrich, a duly qualified Registered Professional Land Surveyor under the laws of the State of New Mexico, do hereby certify that this plat and description were prepared by me or under my supervision, shows all easements as shown on the plat of record or made known to me by the owners and/or proprietors of the subdivision shown hereon, utility companies and other parties expressing an interest and are correct and true to the minimum standards for subdivision shown on the Albuquerque Subdivision Ordinance Chapter 14, Article 14, and further meets the Minimum Standards for Land Surveying in the State of New Mexico (Effective November 1, 1989 and revisions effective December 25, 1991 and February 2, 1994 and October 2000), and is true and correct to the best of my knowledge and belief."

Timothy Aldrich, P.S. No. 7719

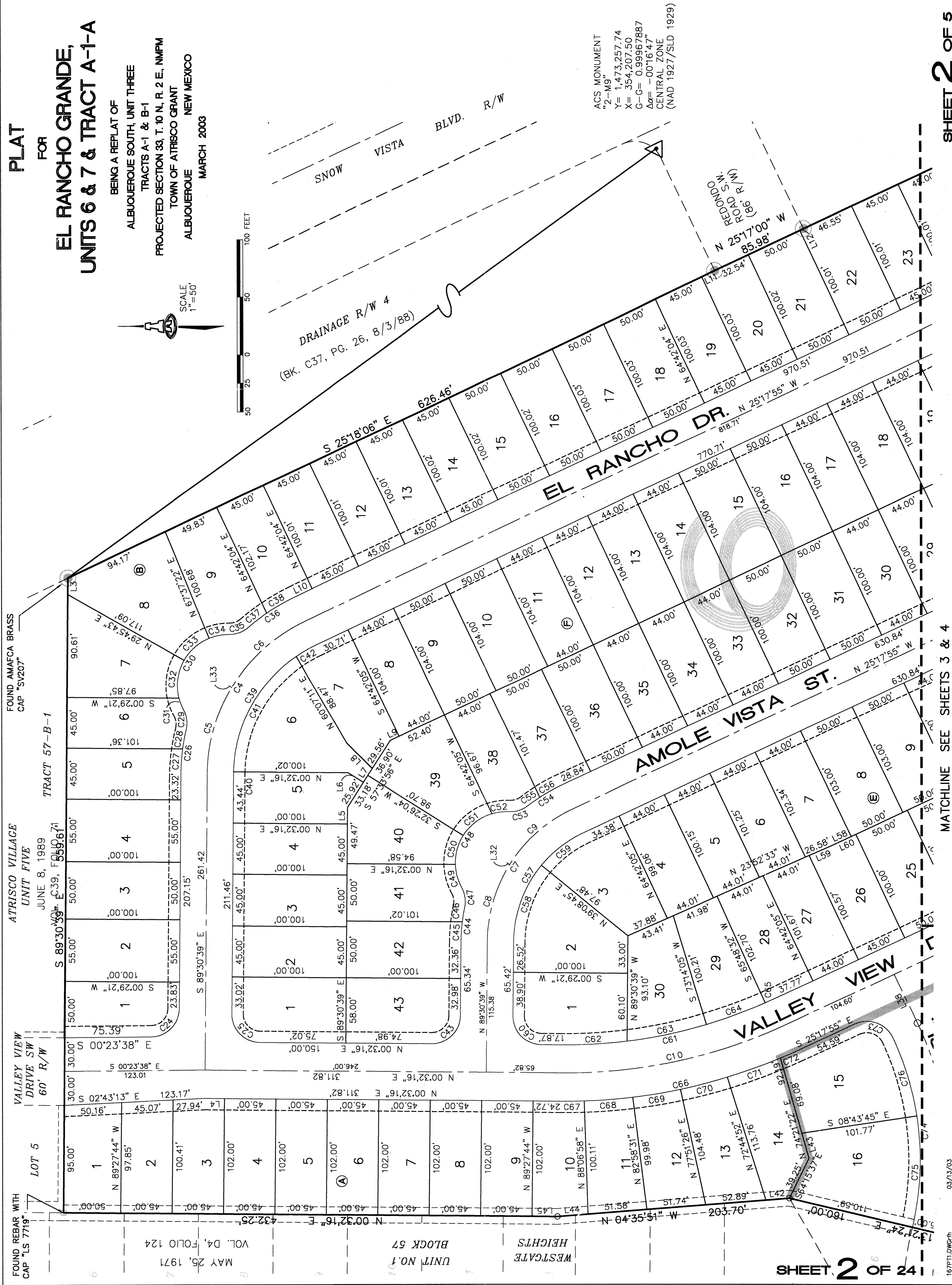
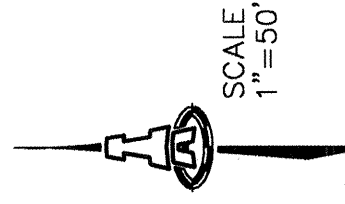
DATE

SHEET 1 OF 5

PLAT

FOR
EL RANCHO GRANDE,
UNITS 6 & 7 & TRACT A-1-A

BEING A REPLAT OF
ALBUQUERQUE SOUTH, UNIT THREE
TRACTS A-1 & B-1
PROJECTED SECTION 33, T. 10 N. R. 2 E, MPM
TOWN OF ATRISCO GRANT
ALBUQUERQUE
NEW MEXICO
MARCH 2003



SHEET 2 OF 24

18PPLDWG

02/13/03

MATCHLINE SEE SHEETS 3 & 4

SHEET 2 OF 5

PLAT
FOR

EL RANCHO GRANDE,
UNITS 6 & 7 & TRACT A-1-A

BEING A REPLAT OF

ALBUQUERQUE SOUTH, UNIT THREE

TRACTS A-1 & B-1

PROJECTED SECTION 33, T. 10 N. R. 2 E. NMPM

TOWN OF ATRISCO GRANT

ALBUQUERQUE NEW MEXICO

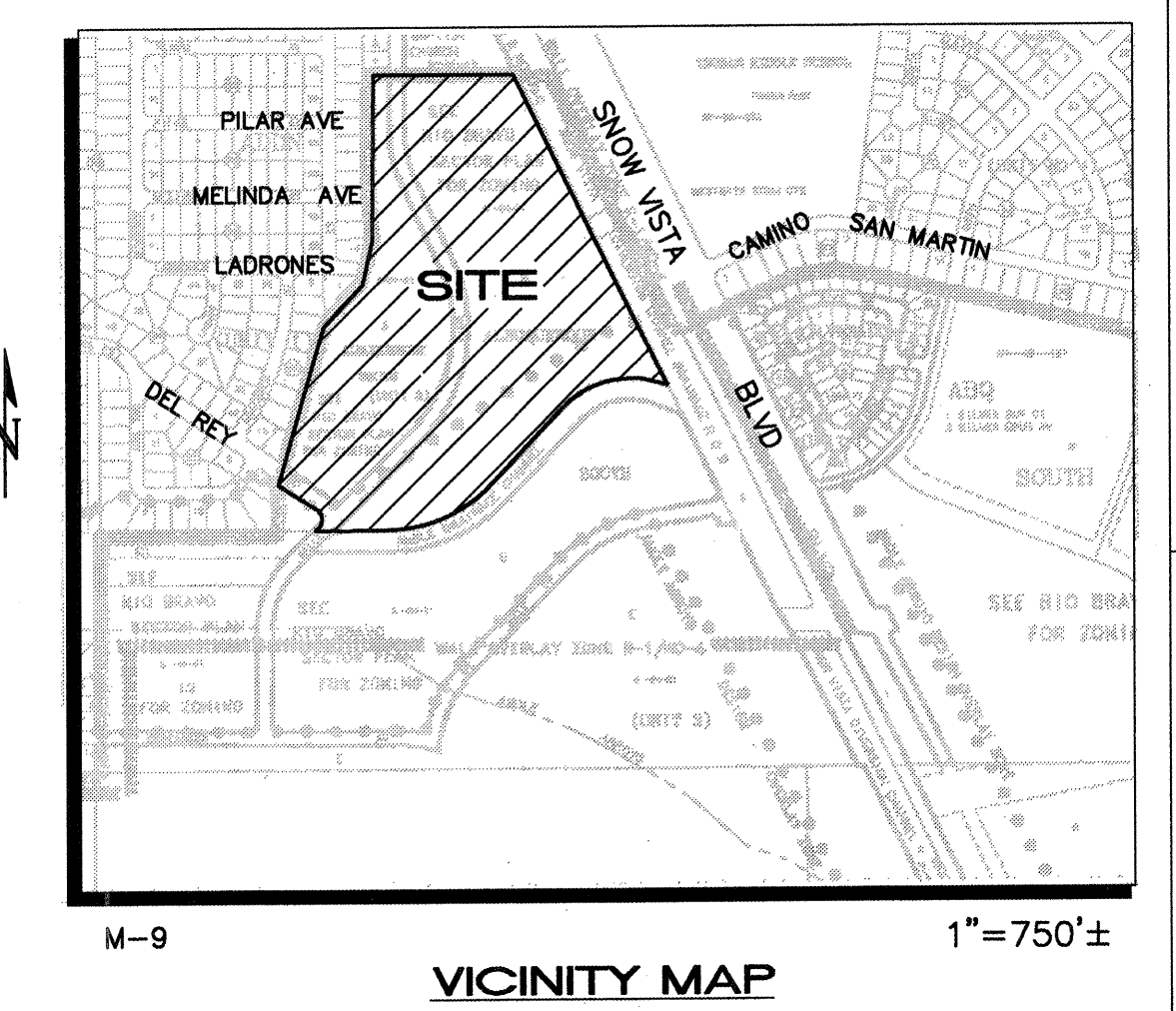
MARCH 2003

LINE TABLE					CURVE TABLE					CHORD					DELTA								
LINE	BEARING	DISTANCE	CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA	CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA	CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	N 89°29'39" W	43.96	C1	750.00	343.67	174.90	340.67	S 79°57'13" W	26°15'15"	C71	475.00	49.55	24.80	49.53	S 20°14'27" E	05°58'38"	C141	977.00	45.19	22.60	45.18	N 52°26'23" W	02°39'00"
C2	N 88°34'40" W	76.72	C2	875.00	368.00	186.76	365.30	S 54°46'41" W	24°05'50"	C72	475.00	17.15	8.58	17.15	S 24°15'50" E	02°04'06"	C142	977.00	34.76	17.38	34.75	N 50°05'44" W	02°02'18"
C3	N 88°30'38" E	14.00	C3	200.00	166.77	88.58	161.98	N 66°37'03" E	47°46'35"	C73	25.00	39.52	25.25	35.53	N 19°59'10" E	90°34'06"	C143	25.00	40.06	25.80	35.91	N 03°10'25" W	91°48'21"
C4	N 88°30'38" E	17.10	C4	150.00	168.11	94.12	159.45	N 57°34'17" W	64°31'44"	C74	260.00	171.88	89.22	168.77	N 84°13'34" E	37°52'46"	C144	830.00	125.80	63.02	125.68	N 52°10'28" W	08°41'04"
C5	N 89°29'39" E	14.47	C5	150.00	80.28	41.13	79.33	N 74°01'40" W	30°39'56"	C75	260.00	99.28	50.25	98.68	S 87°13'25" E	21°52'38"	C145	830.00	4.95	2.47	4.95	N 56°20'45" W	00°20'30"
C6	N 89°29'39" E	16.12	C6	150.00	87.82	45.21	86.58	N 72°04'18" W	33°32'48"	C76	260.00	72.61	36.54	72.37	N 73°16'11" E	16°00'03"	C146	830.00	39.94	19.97	39.94	N 54°47'48" W	02°45'25"
C7	N 89°29'39" E	14.59	C7	130.00	145.69	81.57	138.19	N 57°47'02" W	31°27'14"	C77	310.00	206.35	107.16	202.56	N 84°10'12" E	38°06'18"	C147	830.00	45.15	22.58	45.14	N 51°51'35" W	03°07'00"
C8	N 89°29'39" E	14.59	C8	130.00	71.37	36.61	70.47	N 73°47'02" W	31°27'14"	C78	310.00	49.89	25.00	49.84	S 88°28'37" E	09°13'17"	C148	830.00	35.77	17.89	35.76	N 49°04'00" W	02°28'08"
C9	N 89°29'39" E	14.59	C9	130.00	74.33	36.21	73.32	N 41°40'40" W	32°45'30"	C79	310.00	42.46	21.26	42.42	N 83°01'20" E	07°50'50"	C149	25.00	39.02	24.76	35.18	N 87°26'55" E	89°28'18"
C10	N 89°29'39" E	14.59	C10	450.00	202.92	103.21	201.20	S 12°22'49" E	25°50'10"	C80	310.00	47.19	23.64	47.14	N 74°44'16" E	08°43'17"	C150	770.00	124.26	62.26	124.12	N 51°53'37" W	09°14'46"
C11	N 89°29'39" E	14.59	C11	285.00	191.33	99.43	187.76	N 83°56'03" E	38°27'55"	C81	310.00	28.55	14.28	28.54	N 77°44'20" E	05°16'36"	C151	25.00	39.27	25.00	35.36	S 02°16'14" E	90°00'00"
C12	N 89°29'39" E	14.59	C12	500.00	365.29	191.23	357.22	S 85°37'53" E	41°51'35"	C82	25.00	39.10	24.83	35.23	N 70°05'56" W	89°36'03"	C152	200.00	19.45	9.73	19.44	N 87°43'13" E	05°34'15"
C13	N 89°29'39" E	14.59	C13	500.00	131.25	66.00	130.87	S 80°57'32" E	15°02'24"	C83	25.00	39.07	24.80	35.21	N 19°28'04" E	89°31'56"	C153	200.00	102.31	52.30	101.20	N 43°08'16" W	12°48'01"
C14	N 89°29'39" E	14.59	C14	500.00	234.05	119.21	231.92	N 78°06'41" E	26°49'11"	C84	25.00	39.07	24.80	35.21	N 19°28'04" E	89°31'56"	C154	200.00	9.83	4.92	9.83	N 43°08'16" W	12°48'01"
C15	N 89°29'39" E	14.59	C15	340.00	247.07	129.28	247.07	N 11°18'28" W	41°38'10"	C85	477.00	355.91	186.70	347.71	N 85°36'34" E	42°45'04"	C155	200.00	9.83	4.92	9.83	N 43°08'16" W	12°48'01"
C16	N 89°29'39" E	14.59	C16	200.00	91.34	46.48	90.55	S 29°38'43" W	26°10'05"	C86	477.00	35.69	17.85	35.68	S 75°09'31" E	04°17'13"	C156	875.00	34.71	17.36	34.71	N 43°51'37" W	02°18'27"
C17	N 89°29'39" E	14.59	C17	200.00	92.4	46.62	92.4	S 17°53'04" W	02°38'47"	C87	477.00	53.99	27.02	53.96	S 80°32'40" E	06°29'06"	C157	875.00	50.00	25.00	48.99	S 46°38'47" W	03°16'26"
C18	N 89°29'39" E	14.59	C18	200.00	82.11	41.64	81.53	S 30°58'06" W	23°31'19"	C88	477.00	54.92	27.49	54.89	S 87°03'08" E	06°35'49"	C158	875.00	50.00	25.00	48.99	S 49°54'77" W	03°16'26"
C19	N 89°29'39" E	14.59	C19	1000.00	213.42	107.12	213.02	N 53°23'05" W	12°13'42"	C89	477.00	60.41	30.24	60.37	N 79°28'22" E	06°30'56"	C159	875.00	56.50	28.26	56.49	S 53°23'59" W	02°57'33"
C20	N 89°29'39" E	14.59	C20	800.00	129.10	64.69	128.96	N 51°53'37" W	08°14'46"	C90	477.00	60.41	30.24	60.37	N 79°28'22" E	06°30'56"	C160	875.00	45.19	22.60	45.19	S 63°56'19" W	07°58'48"
C21	N 89°29'39" E	14.59	C21	1000.00	383.49	194.13	381.14	S 53°42'56" W	21°58'20"	C91	477.00	60.41	30.24	60.37	N 79°28'22" E	06°30'56"	C161	875.00	65.00	32.52	64.99	S 60°20'13" W	04°15'33"
C22	N 89°29'39" E	14.59	C22	1000.00	259.29	130.38	258.56	S 53°02'56" W	21°58'20"	C92	477.00	60.41	30.24	60.37	N 79°28'22" E	06°30'56"	C162	875.00	45.00	22.51	45.00	S 63°56'19" W	07°58'48"
C23	N 89°29'39" E	14.59	C23	1000.00	124.20	62.18	124.12	S 61°08'37" W	07°06'58"	C93	25.00	39.43	25.16	35.47	N 77°13'58" E	07°13'26"	C163	875.00	21.61	10.80	21.60	S 66°07'09" W	12°24'53"
C24	N 89°29'39" E	14.59	C24	25.00	38.88	24.62	35.08	S 44°57'06" W	89°07'01"	C94	25.00	39.43	25.16	35.47	N 77°13'58" E	07°13'26"	C164	1025.00	222.55	111.72	222.12	S 48°58'58" W	12°26'25"
C25	N 89°29'39" E	14.59	C25	25.00	38.25	24.98	35.34	S 45°30'49" W	89°07'06"	C95	523.00	93.80	47.03	93.68	N 78°41'56" E	05°02'34"	C165	1025.00	51.03	25.52	51.02	S 46°41'33" W	02°51'08"
C26	N 89°29'39" E	14.59	C26	173.00	39.08	19.63	39.00	N 83°02'19" W	17°56'40"	C96	523.00	93.80	47.03	93.68	N 78°41'56" E	05°02'34"	C166	1025.00	50.00	25.00	50.00	S 49°30'58" W	02°47'42"
C27	N 89°29'39" E	14.59	C27	173.00	21.74	10.88	21.72	N 85°54'41" W	07°11'56"	C97	523.00	41.15	20.59	41.14	N 69°53'30" E	04°55'53"	C167	1025.00	50.00	25.00	50.00	S 52°18'39" W	02°47'42"
C28	N 89°29'39" E	14.59	C28	173.00	17.35	8.68	17.34	N 79°26'21" W	05°44'44"	C98	523.00	41.15	20.59	41.14	N 69°53'30" E	04°55'53"	C168	1025.00	50.00	25.00	50.00	S 52°18'39" W	02°47'42"
C29	N 89°29'39" E	14.59	C29	25.00	18.20	9.52	17.80	N 82°34'51" E	41°42'20"	C99	25.00	36.99	24.72	35.16	N 39°41'20" W	89°21'13"	C169	875.00	65.00	32.52	64.99	S 60°20'13" W	04°15'33"
C30	N 89°29'39" E	14.59	C30	45.00	93.35	76.17	77.49	N 68°48'02" W	11°51'14"	C100	25.00	35.63	21.60	32.69	N 45°43'52" W	81°39'42"	C170	25.00	35.11	21.15	32.30	N 14°56'08" E	80°28'05"
C31	N 89°29'39" E	14.59	C31	45.00	11.11	5.58	11.08	S 68°48'02" W	11°51'14"	C101	523.00	203.07	102.83	201.79	N 75°26'28" E	22°14'47"	C171	975.00	218.11	109.51	217.65	N 49°08'16" W	12°48'01"
C32	N 89°29'39" E	14.59	C32	45.00	34.47	18.13	33.63	N 82°10'57" W	43°53'20"	C102	523.00	39.63	19.83	39.62	N 84°23'28" E	04°20'30"	C172	975.00	42.23	21.32	42.21	S 43°58'12" W	02°28'53"
C33	N 89°29'39" E	14.59	C33	45.00	29.74	15.43	29.20	N 41°18'28" W	37°51'39"	C103	523.00	46.03	23.03	46.02	N 78°41'56" E	05°02'34"	C173	975.00	55.72	27.87	55.71	S 46°50'53" W	03°16'27"
C34	N 89°29'39" E	14.59	C34	45.00	18.03	9.14	17.91	N 10°53'52" W	22°57'33"	C104	523.00	44.00	22.01	43.99	N 74°46'03" E	04°49'14"	C174	975.00	55.72	27.87	55.70	S 46°50'53" W	03°16'27"
C35	N 89°29'39" E	14.59	C35	25.00	18.20	9.52	17.80	S 20°16'15" E	41°42'20"	C105	523.00	45.02	22.52	45.00	N 69°53'30" E	04°55'53"	C175	977.00	67.50	33.76	67.46	S 62°43'20" W	03°57'30"
C36	N 89°29'39" E	14.59	C36	173.00	47.78	24.04	47.63	N 33°12'40" W	15°49'31"	C106	523.00	28.39	14.20	28.39	N 65°52'15" E	03°06'36"	C176	977.00	32.83	16.41	32.82	S 67°42'20" W	01°55'30"
C37	N 89°29'39" E	14.59	C37	173.00	20.38	10.20	20.36	N 37°44'56" W	06°44'54"	C107	25.00	38.44	25.17	35.47	N 70°29'29" W	90°23'09"	C177	977.00	34.67	17.34	34.67	S 63°41'05" W	02°02'00"
C38	N 89°29'39" E	14.59	C38	173.00	27.41	13.73	27.38	N 29°50'13" W	09°04'37"	C108	317.00	93.88	44.45	93.46	N 14°38'32" E	17°13'10"	C178	977.00	34.67	17.34	34.67	S 63°41'05" W	02°02'00"
C39	N 89°29'39" E	14.59	C39	127.00	142.33	79.69	135.00	N 57°24'17" W	64°12'44"	C109	46.00	21.58	10.99	21.38	N 69°49'59" W	26°52'54"	C179	25.00	41.03	26.83	36.58	S 72°19'11" E	04°02'33"
C40	N 89°29'39" E	14.59	C40	127.00	156	0.78	156	N 89°09'29" W	00°42'20"	C110	46.00	26.35	13.55	25.99	S 80°18'49" W	32°43'31"	C180	1023.00	72.18	36.10	72.16	N 67°40'49" W	04°02'33"
C41	N 89°29'39" E	14.59	C41	127.00	120.37	65.13	115.91	N 61°39'14" W	54°18'10"	C111	363.00	241.56	125.44	237.13	N 23°57'52" E	15°51'43"	C181	25.00	39.27	25.00	35.36	S 70°17'55" E	90°00'00"
C42	N 89°29'39" E	14.59	C42	127.00	20.40	10.22	20.38	N 49°34'07" W	09°12'14"	C112	363.00	81.69	41.02	81.51	N 11°20'49" E	12°53'36"	C182	25.00	39.27	25.00	35.36	S 70°17'55" E	90°00'00"
C43	N 89°29'39" E	14.59	C43	25.00	39.29	25.02	35.37	S 23°29'11" E	90°02'54"	C113	363.00	56.38	28.25	56.32	N 22°14'34" E	06°53'55"	C183	25.00	39.27	25.00	35.36	S 70°17'55" E	90°00'00"
C44	N 89°29'39" E	14.59	C44	153.00	30.40	15.25	30.35	N 83°48'06" E	17°23'06"	C114	153.00	17.68	8.85	17.67	N 86°12'02" W	06°37'13"	C184	153.00	17.68	8.85	17.67	N 86°12'02" W	06°37'13"
C45	N 89°29'39" E	14.59	C45	153.00	12.72	6.37	12.																

SCANNED BY MESA REPRO
WESTGATE HEIGHTS
UNIT NO.1
MAY 25, 1971
VOL. D4, FOLIO 124
BLOCK 57

ATRISCO VILLAGE
UNIT FIVE
JUNE 8, 1989
VOL. C39, FOLIO 71

TRACT 57-B-1

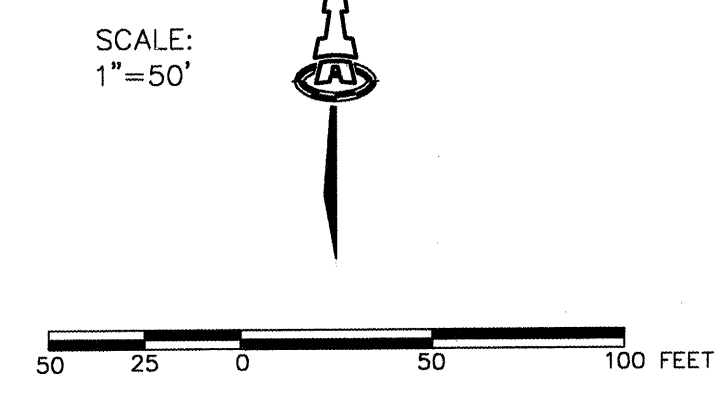


VICINITY MAP

LEGEND

- 5100 EXISTING CONTOUR
- 78.3 PROPOSED SPOT ELEVATION
- PG=5152.0 PAD GRADE ELEVATION
- TC=81.95
FL=81.45 TOP OF CURB
FLOWLINE ELEVATION
- PROPOSED RETAINING WALL
- TW=52.0
BW=50.0 TOP OF WALL
BOTTOM OF WALL ELEVATION
- PHASE BOUNDARY
- FLOW ARROW
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- BLOCK NO.

* PAD TO BACKYARD SWALE DIMENSION = 5'
** PAD TO BACKYARD SWALE DIMENSION = 3'

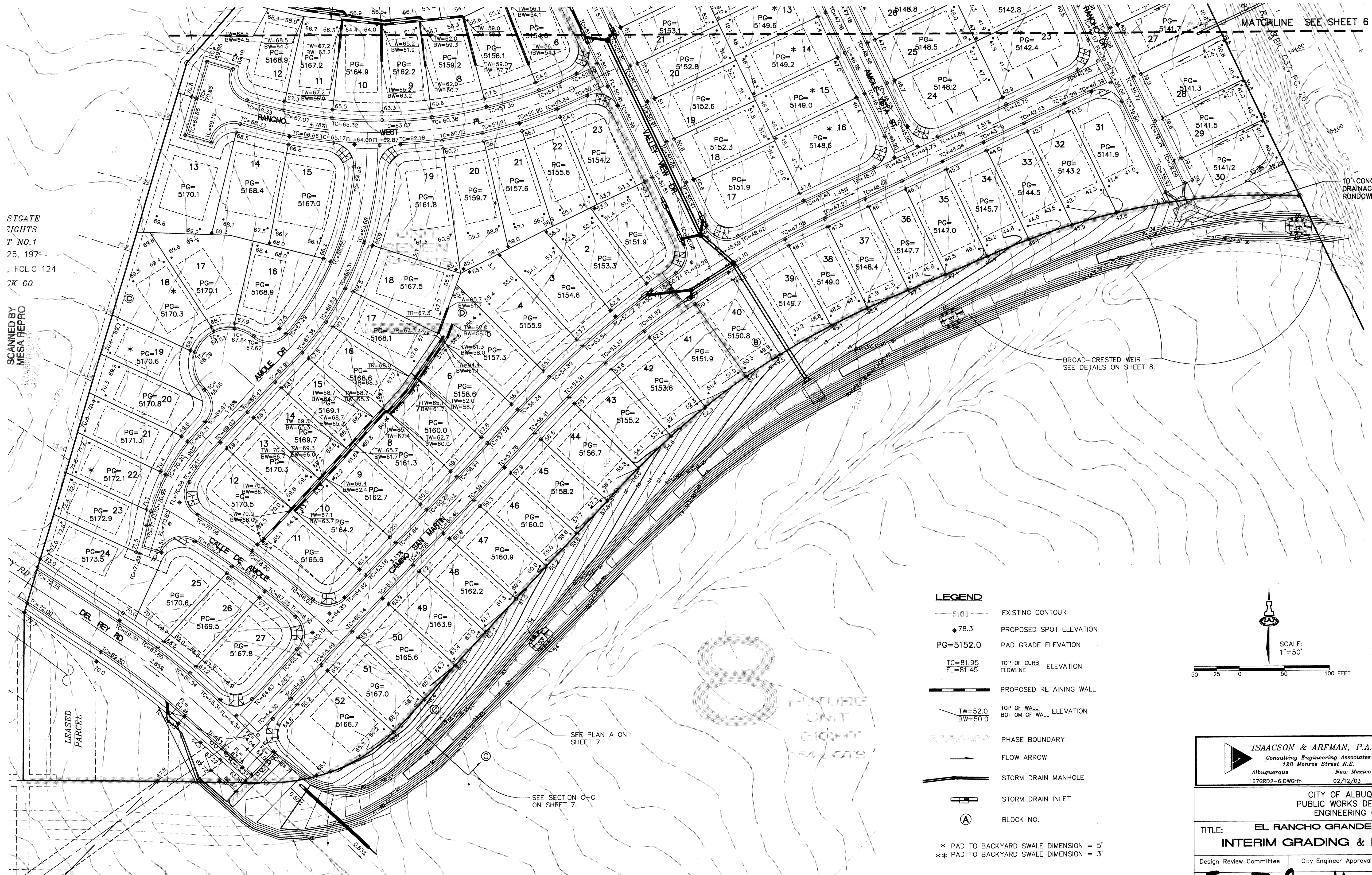


ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87102
167GRD2-6.DWG.rth 02/12/03

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: EL RANCHO GRANDE - UNITS 6 and 7 INTERIM GRADING & DRAINAGE PLAN	
Design Review Committee	City Engineer Approval
For Information Only	
City Project No. 699383	Zone Map No. M-9
Sheet 1	Of 5

STGATE
RIGHTS
T NO.1
25, 1971
FOLIO 124
2K 60

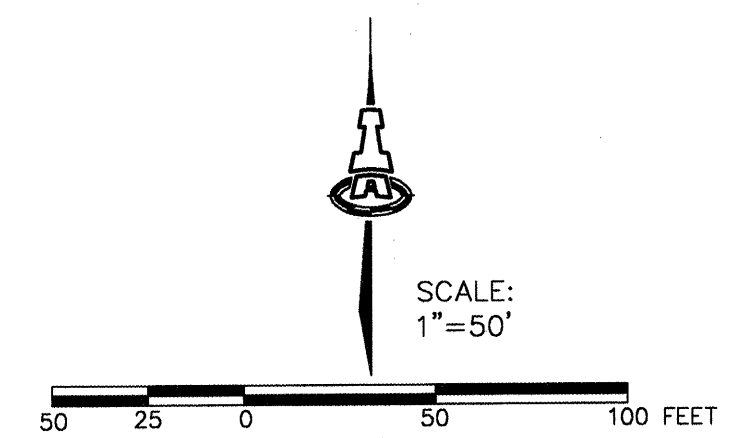
SCANNED BY
MESA REPRO



LEGEND

- 5100 — EXISTING CONTOUR
- ◆ 78.3 PROPOSED SPOT ELEVATION
- PG=5152.0 PAD GRADE ELEVATION
- TC=81.95
FL=81.45 TOP OF CURB
FLOWLINE ELEVATION
- PROPOSED RETAINING WALL
- TOP OF WALL
BOTTOM OF WALL ELEVATION
- PHASE BOUNDARY
- FLOW ARROW
- STORM DRAIN MANHOLE
- STORM DRAIN INLET
- Ⓐ BLOCK NO.

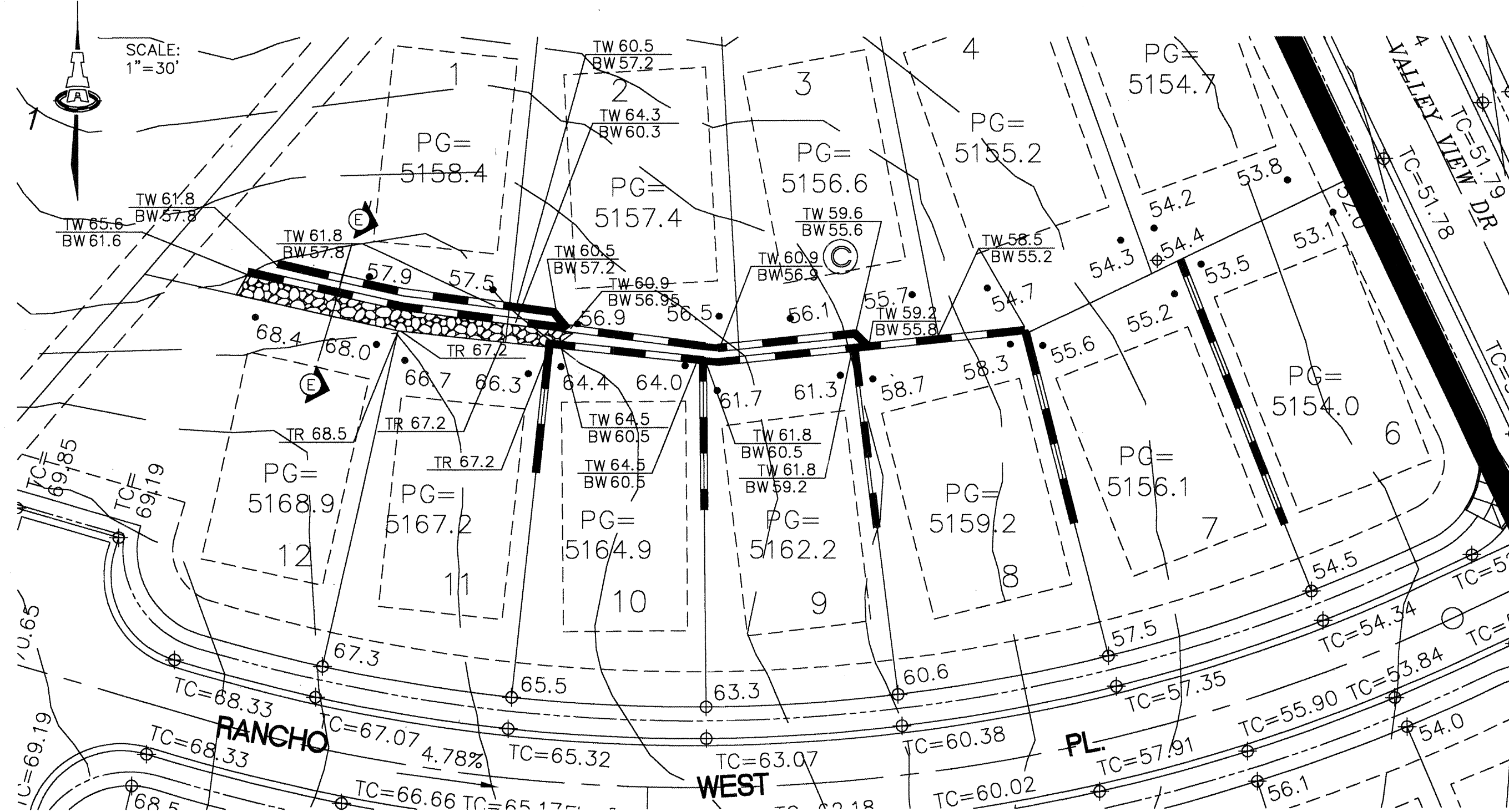
* PAD TO BACKYARD SWALE DIMENSION = 5'
** PAD TO BACKYARD SWALE DIMENSION = 3'



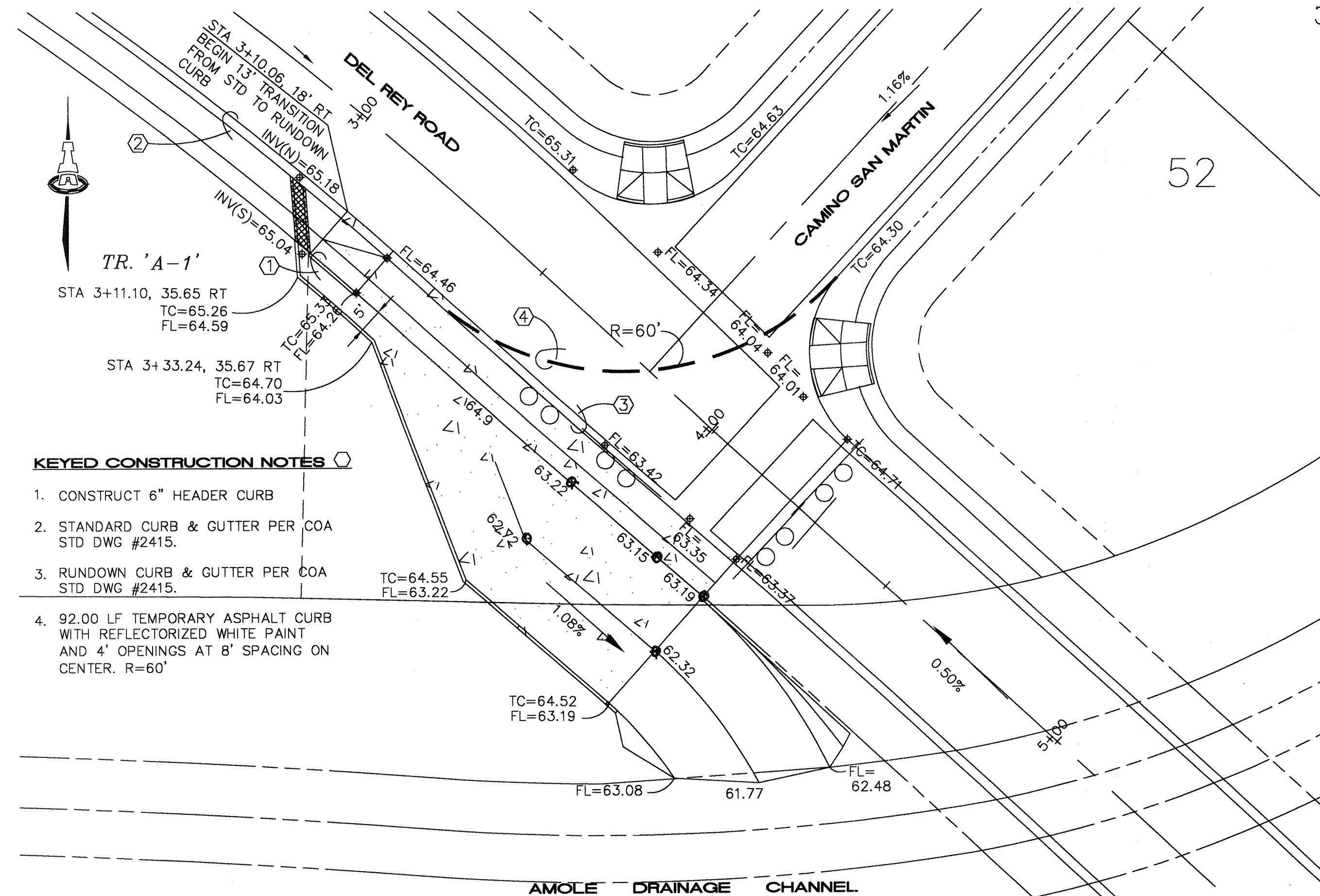
ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico
167GRD2-6.DWG 02/12/03

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: EL RANCHO GRANDE - UNITS 6 and 7 INTERIM GRADING & DRAINAGE PLAN	
Design Review Committee	City Engineer Approval
For Information Only	
City Project No. 699383	Zone Map No. M-9
Sheet 2	Of 5

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR NEW Concepts	WORK BY ALS	DATE 03/15/03	DATE 03/15/03	ACCS MONUMENT "7-19" A C.O.A. BRASS CAP SET IN CONCRETE, LOCATED 39.2' WEST FROM THE CENTERLINE OF 98th STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TOWNER ROAD. ELEV. = 5175.74	FIELD NOTES 11/99	REVISIONS NO. DATE	REMARKS DESIGN
MICRO-FILM INFORMATION		RECORDED BY C. Lopez		DATE 7/31		DATE 7/31	

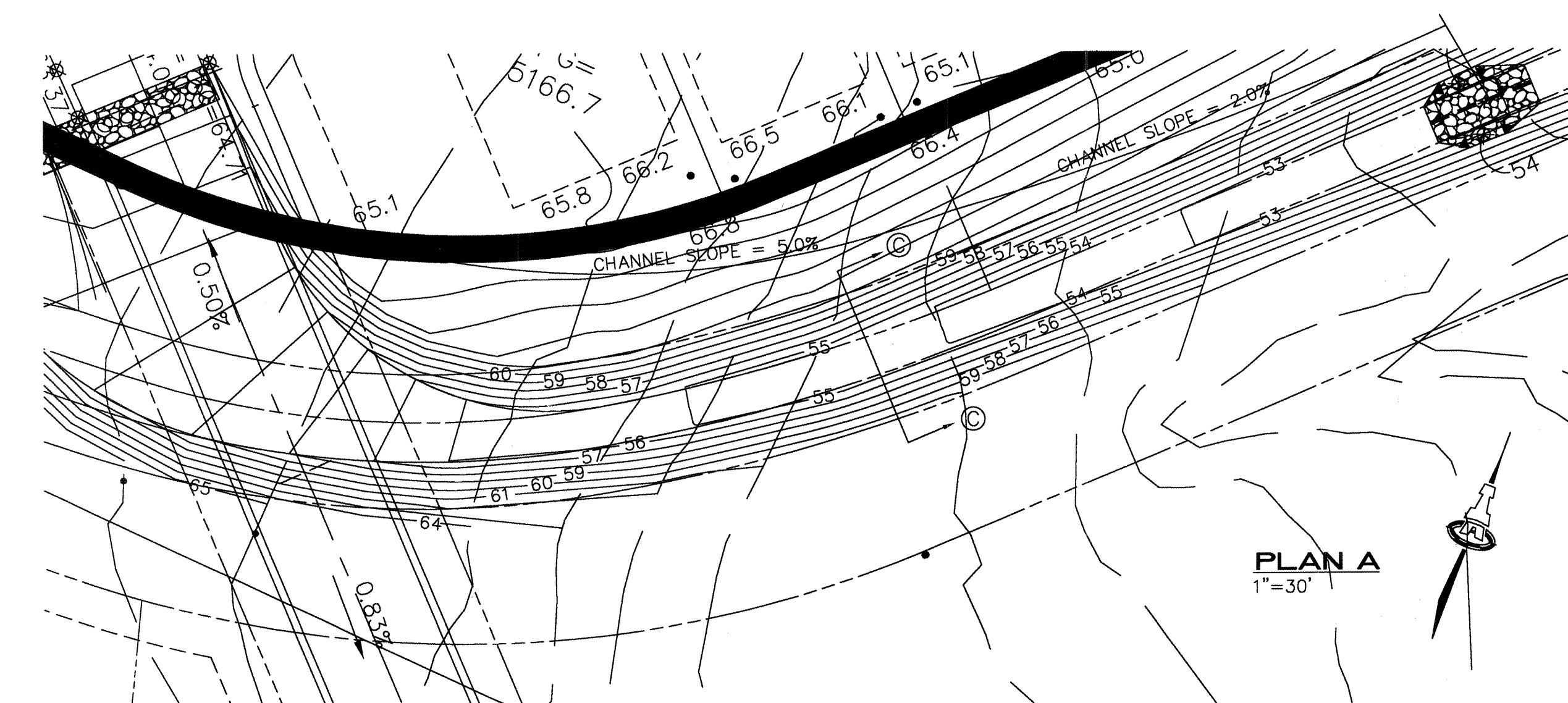


RETAINING WALL PLAN
LOTS 1-12, BLOCK C

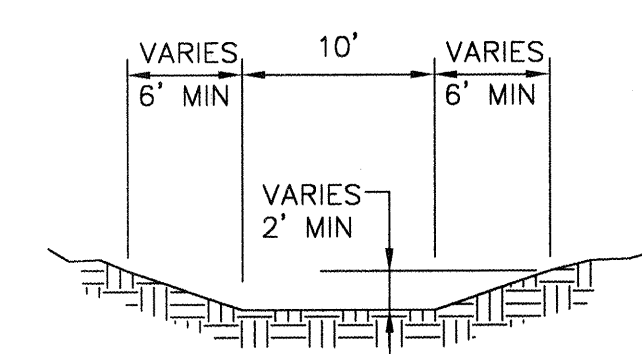


DEL REY CONCRETE RUNDOWN DETAIL

SCALE 1"=20'

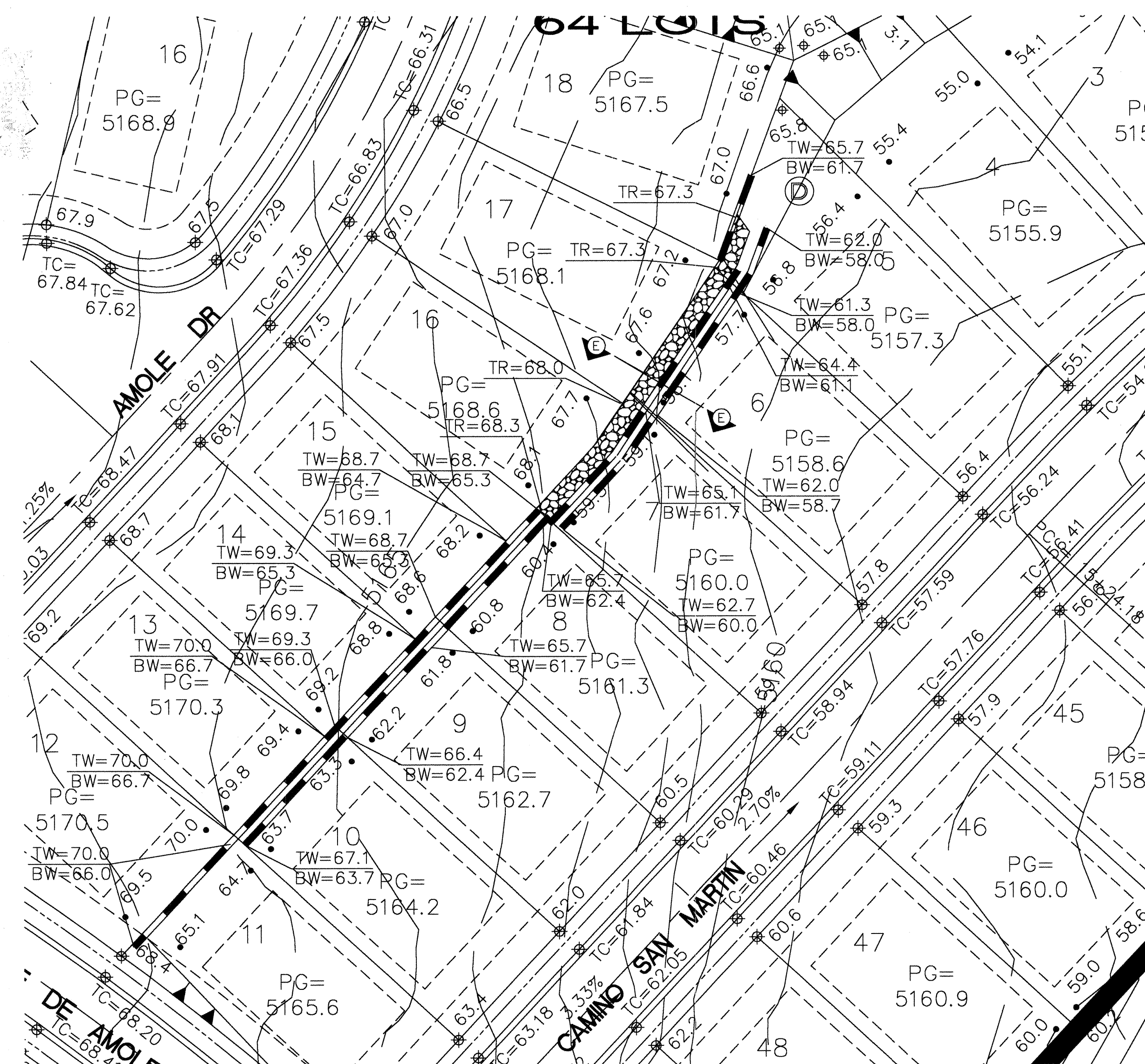


EARTHEN DRAINAGE CHANNEL



SECTION C-C

1"=10'



RETAINING WALL PLAN
LOTS 1-12, BLOCK C

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	NEW Concepts	ACS MONUMENT	7-19" A C.O.A. BRASS CAP SET	FIELD NOTES	11/99		NO. _____ DATE _____ DESIGNED BY FCA DRAWN BY KSH CHECKED BY FCA
WORK BY	ALS	IN CONCRETE	LOCATED 39.2' WEST FROM THE CENTERLINE OF 98th STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TOWER ROAD.	ALS	1		
DATE	03/03	FIELD	DATE	03/03	REVISIONS		
DATE	03/03	DATE	03/03	DATE	DATE		
MICRO-FILM INFORMATION		RECORDED BY		DATE		DATE	
M. Sticker COA Inc.							

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87102
167GRD2-7.DWG/ls 03/10/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: EL RANCHO GRANDE - UNIT 7
INTERIM GRADING & DRAINAGE DETAILS

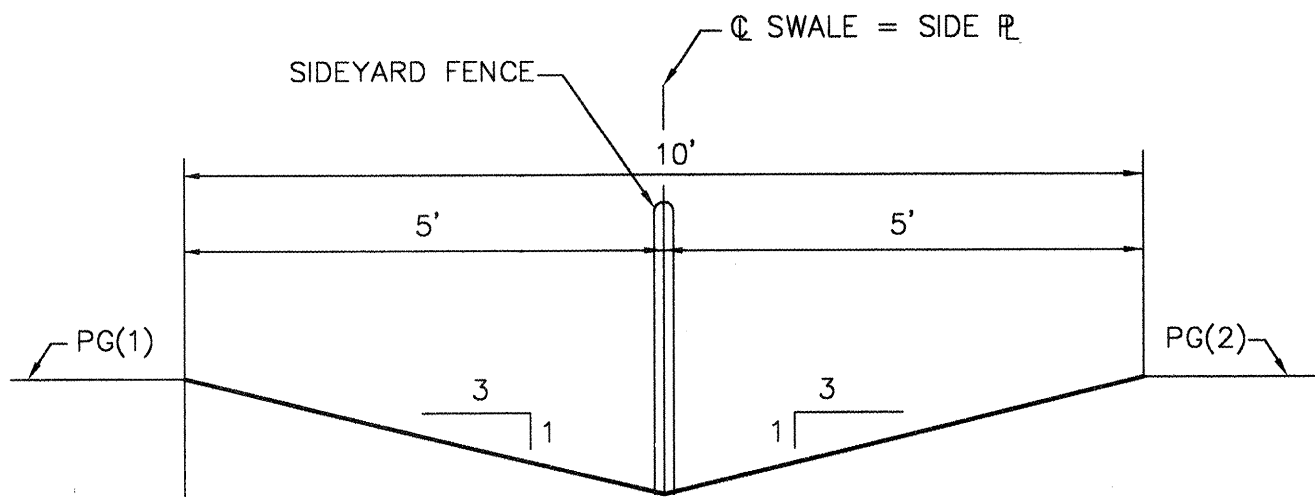
Design Review Committee City Engineer Approval

For Information Only

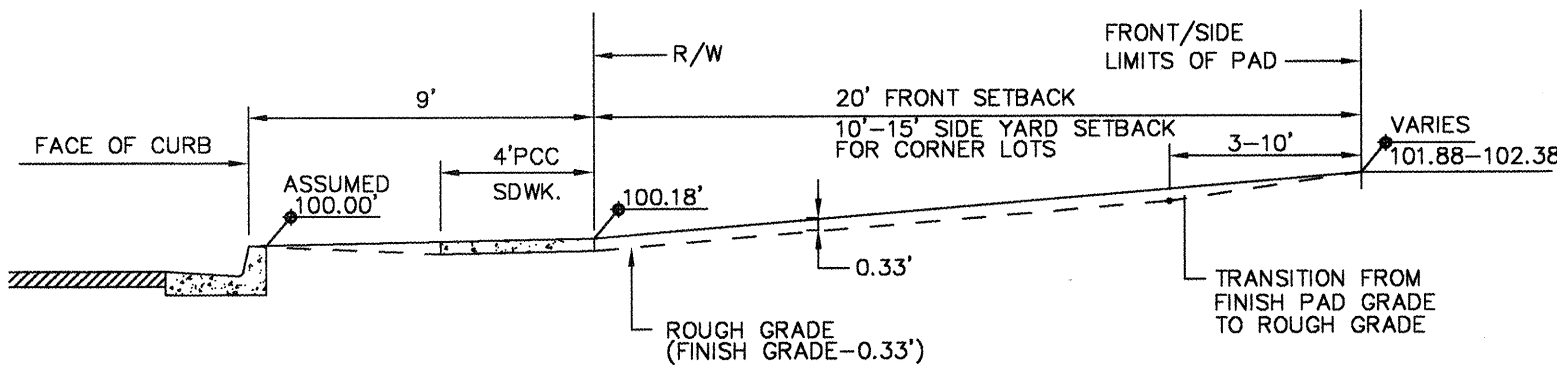
City Project No. 699383 Zone Map No. M-9 Sheet 5 Of 5

GRADING NOTES:

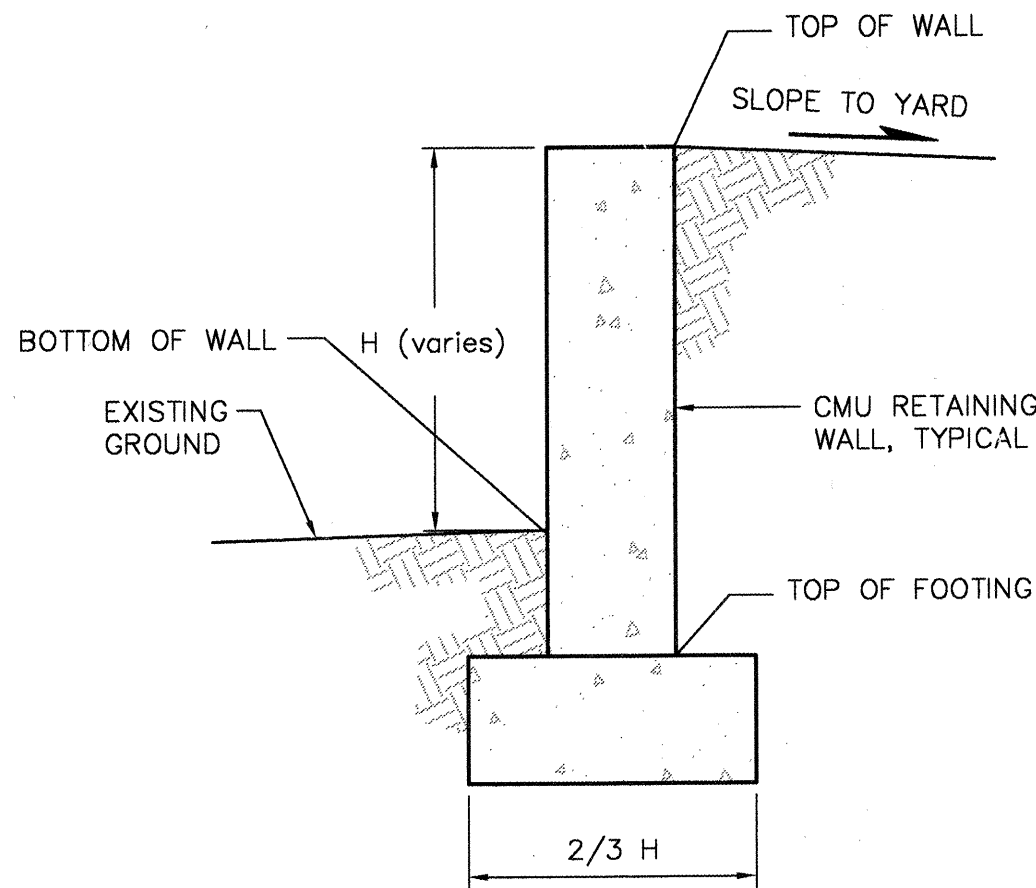
- ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OFFSITE.
- ALL SUBGRADE AND FILL SHALL BE COMPACTED TO A MINIMUM OF 90% ASTM D-1557.
- EXCAVATION IS UNCLASSIFIED AND INCLUDES EXCAVATION TO SUBGRADE ELEVATIONS INDICATED, REGARDLESS OF CHARACTER OF MATERIALS ENCOUNTERED.
- CONFORM TO ELEVATIONS AND DIMENSIONS SHOWN ON PLANS WITHIN A TOLERANCE OF 0.3± FEET.
- SCARIFY AND COMPACT SUBGRADE FOR FILLS. PLACE FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH. MOISTEN AS NECESSARY TO PROVIDE OPTIMUM MOISTURE (±2%) CONTENT.
- UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AS SHOWN ON PLAN. SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCE, COMPACT WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE INDICATED.
- MAXIMUM SLOPES SHALL BE 3:1; MINIMUM SLOPES SHALL BE 1%.
- 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 ON 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.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT ERODED AND WASHED DOWN THE STREET.
- OWNER WILL PROVIDE SOIL TESTING AND INSPECTION SERVICES DURING EARTHWORK OPERATIONS. ALLOW TESTING SERVICE TO INSPECT AND APPROVE COMPACTED SUBGRADES AND FILL LAYERS BEFORE FURTHER CONSTRUCTION WORK IS DONE. SHALL COMPACTION TESTS INDICATE INADEQUATE DENSITY, CONTRACTOR SHALL PROVIDE ADDITIONAL COMPACTION AND TESTING AT NO ADDITIONAL EXPENSE.
- OWNER HAS ESTABLISHED SUBDIVISION BOUNDARY CORNERS. CONTRACTOR SHALL PROVIDE ALL OTHER CONSTRUCTION STAKING INCLUDING TRACT CORNERS. CONTRACTOR SHALL LOCATE AND PRESERVE ALL BOUNDARY CORNERS AND REPLACE ANY LOST OR DISTURBED CORNERS.
- ISAACSON & ARFMAN, P.A. (THE ENGINEER) HAS PREPARED THIS GRADING PLAN TO ESTABLISH FINAL SURFACE GRADES FOR BOTH THE PROPOSED INDIVIDUAL RESIDENTIAL LOTS AND THE PUBLIC RIGHTS-OF-WAY.



SECTION A-A
COMMON SIDEYARD
DRAINAGE SWALE AT
FRONTYARD SETBACK
NOT TO SCALE

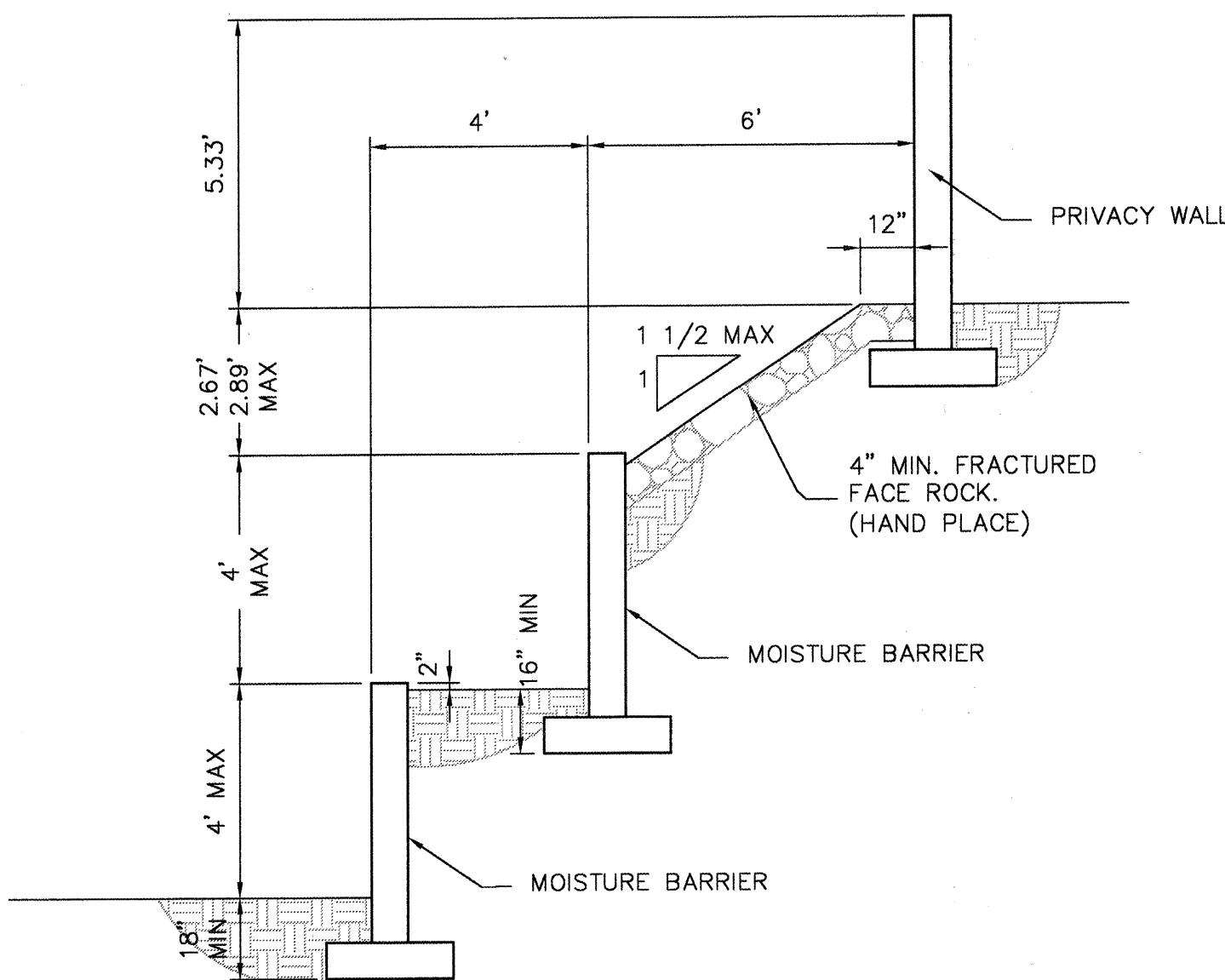


SECTION B-B
FRONT/SIDE YARD GRADING
SCALE: 1"=5'-0"



RETAINING WALL
TYPICAL SECTION
SCALE: 1"=1'-0"

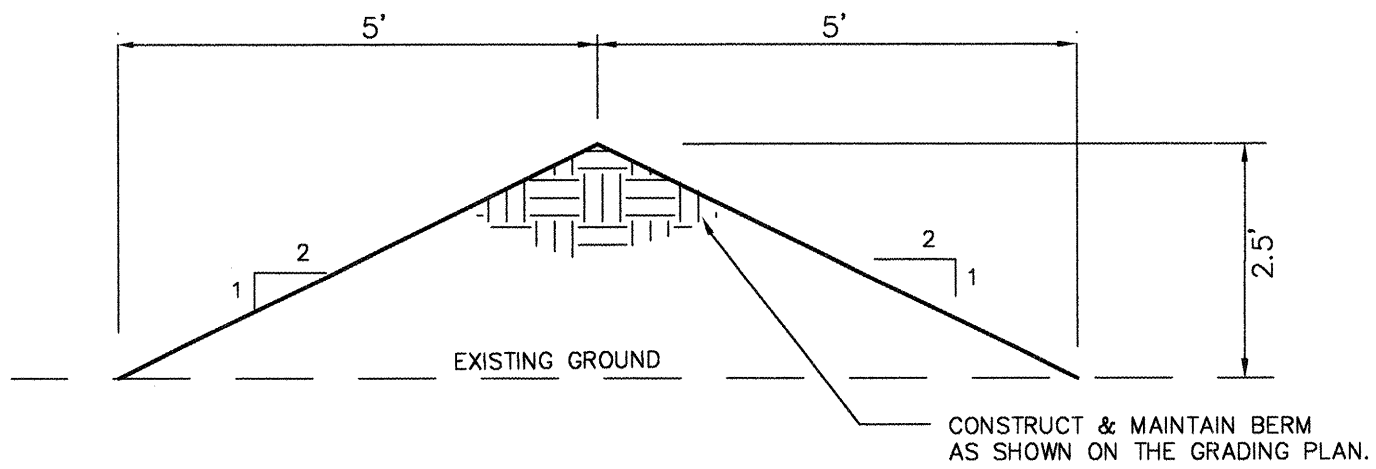
NOTE: RETAINING WALL TO BE
DESIGNED BY STRUCTURAL ENGINEER



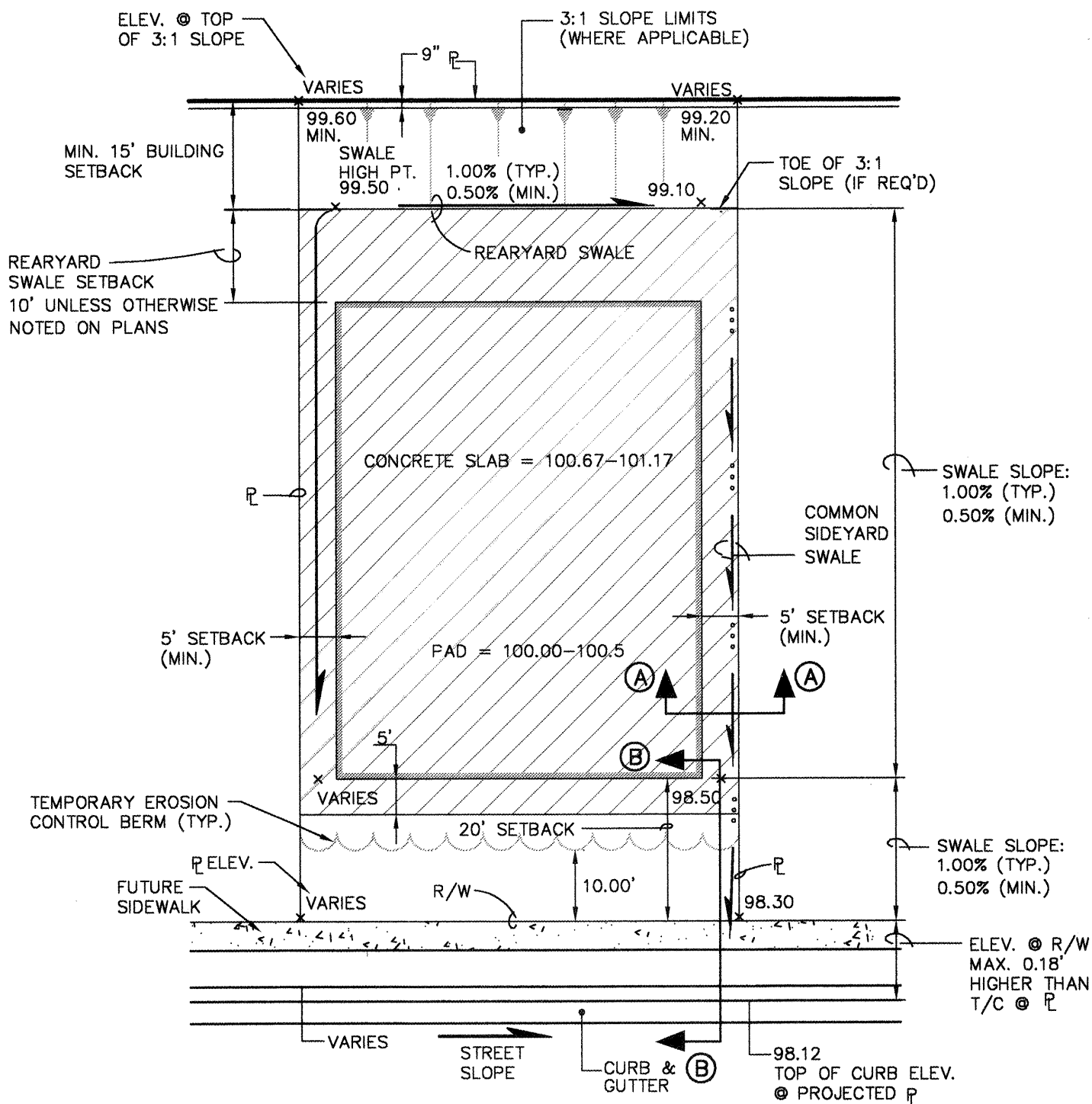
SECTION E-E
SWPPP PROTECTION PLAN
1"=3'

EROSION CONTROL

- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO THE PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING EROSION CONTROL BERM (AS DETAILED BELOW) AS SHOWN ON THE PLAN, WETTING THE SOIL TO KEEP IT FROM BLOWING, AND PROVIDING MEASURES TO PREVENT SOIL FROM HEAVY EQUIPMENT FROM LEAVING THE SITE.
- THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" FROM THE CITY ENVIRONMENTAL HEALTH DEPARTMENT PRIOR TO BEGINNING CONSTRUCTION. AN EXCAVATION PERMIT IS REQUIRED FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL COMPLY WITH N.P.D.E.S. REGULATIONS.
- THE CONTRACTOR SHALL PREVENT SOIL FROM ENTERING EXISTING STORM DRAIN INLETS BY INSTALLING SILT FENCES, HAY BALES, OR OTHER PREVENTIVE MEASURES.
- SEE GRADING NOTES.



EROSION CONTROL BERM
SCALE: 1"=2'



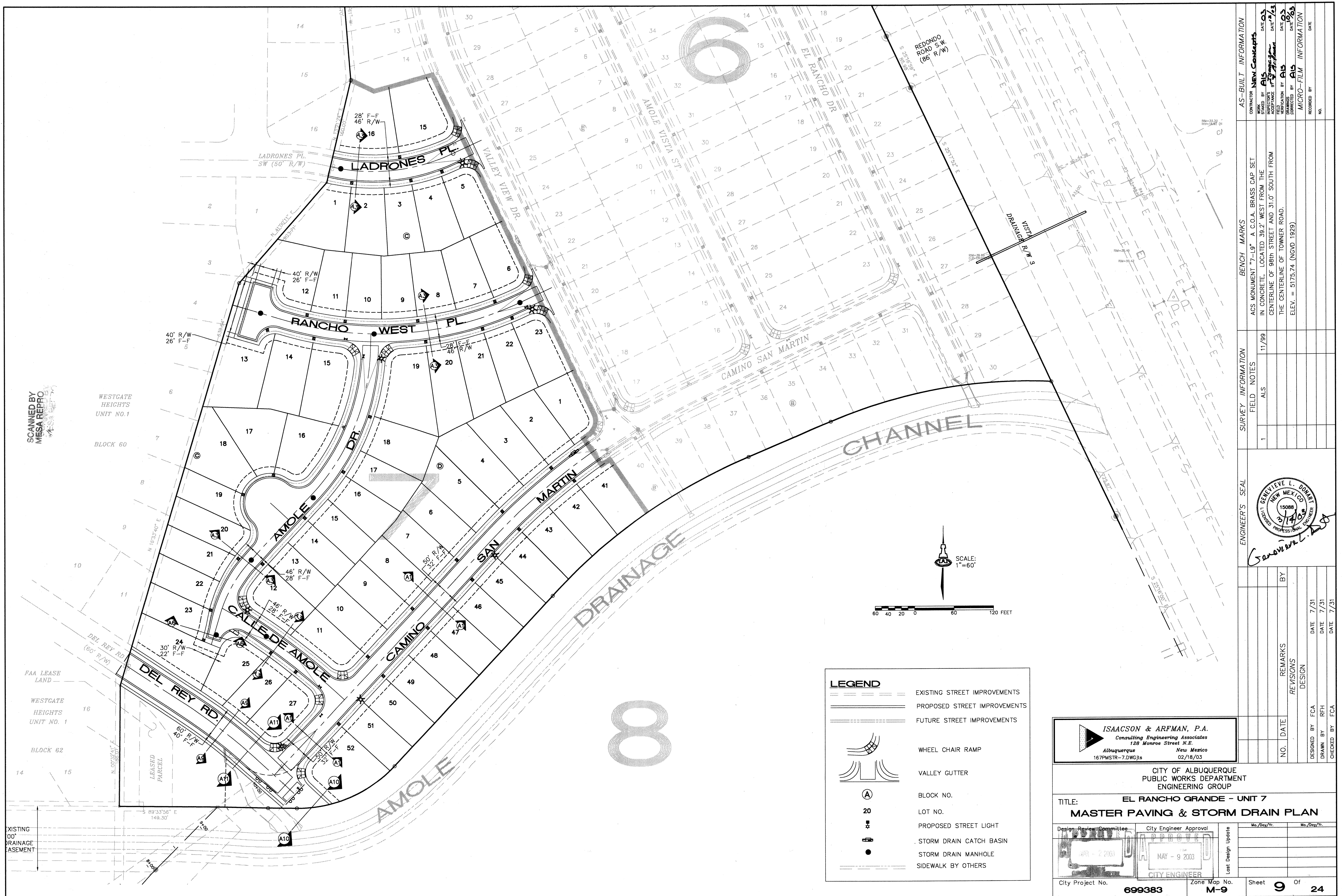
TYPICAL LOT GRADING SHOWING
COMPACTION ZONE
SCALE: 1"=20'

COMPACTION ZONE - CONTRACTOR SHALL COMPACT
SOILS IN THIS AREA TO A MINIMUM OF 95% COMPACTION
PER ASTM D698, FOR A DEPTH OF 12 INCHES.

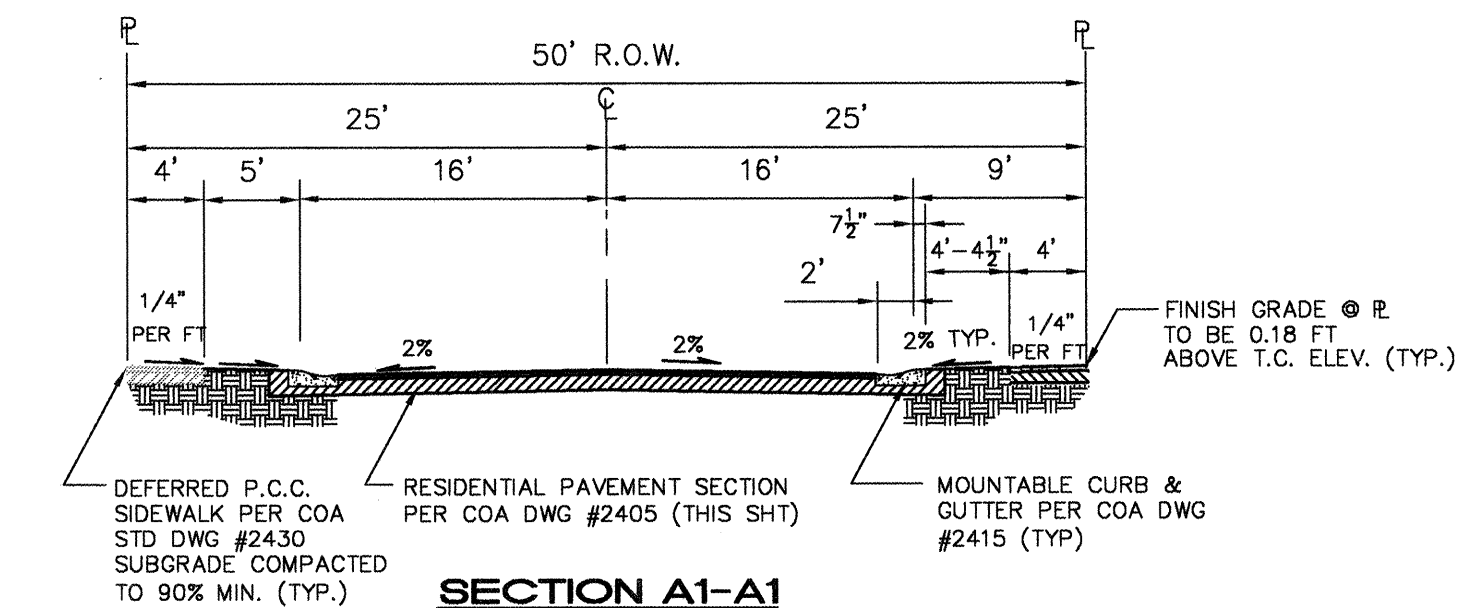


ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
1670DTL-7.DWG/its 02/25/03

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: EL RANCHO GRANDE - UNIT 7 GRADING DETAILS	
Design Review Committee	City Engineer Approval
For Information Only	
City Project No. 699383	Zone Map No. M-9
Sheet 8	Of 24



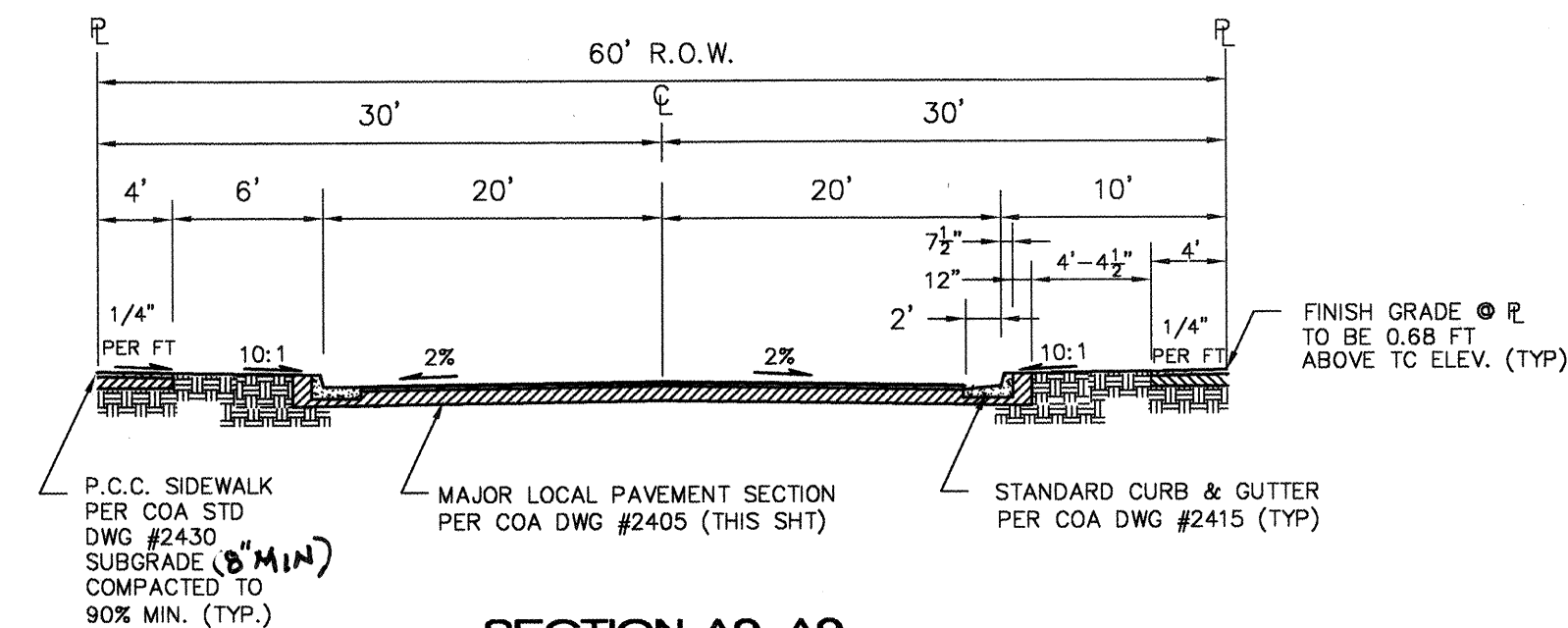
SCANNED BY
MESA REPRO



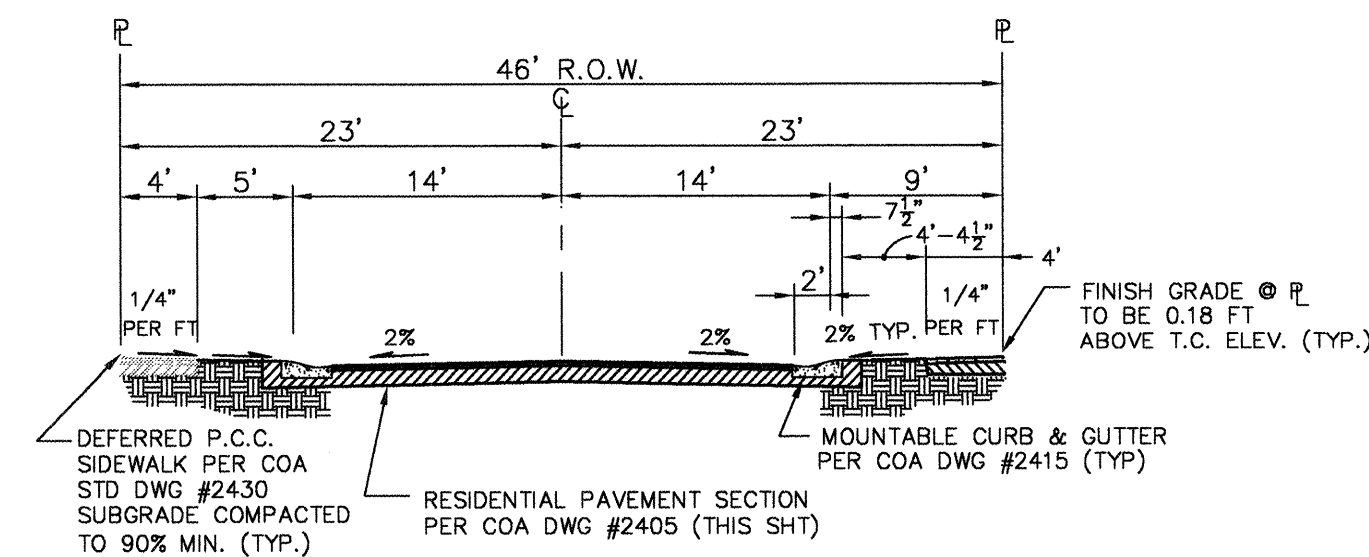
SECTION A1-A1
TYPICAL 50' R.O.W. RESIDENTIAL STREET SECTION
1"=10'

SECTION A2-A2 NOT USED

SECTION A7-A7 AND A8-A8 NOT USED

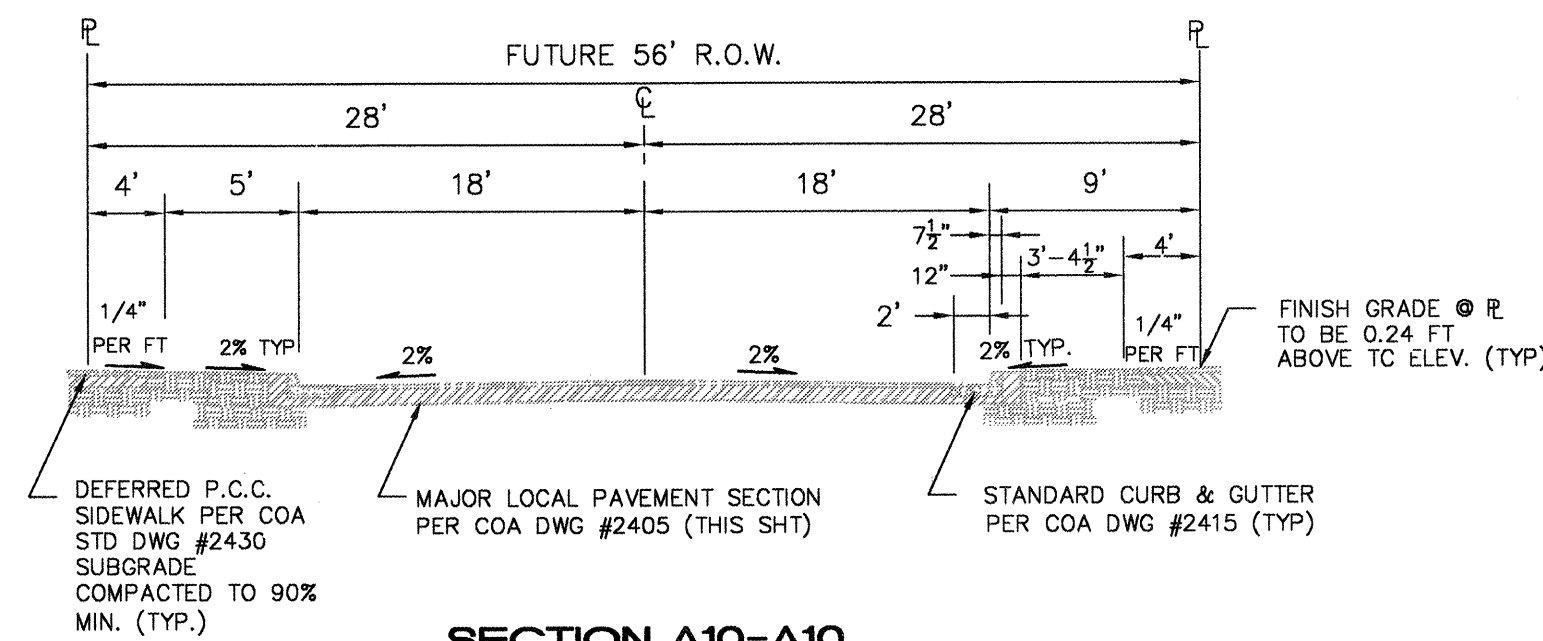


SECTION A9-A9
60' R.O.W. MAJOR LOCAL STREET SECTION
1"=10'
DEL REY ROAD STA 1+00 TO STA 3+79.81

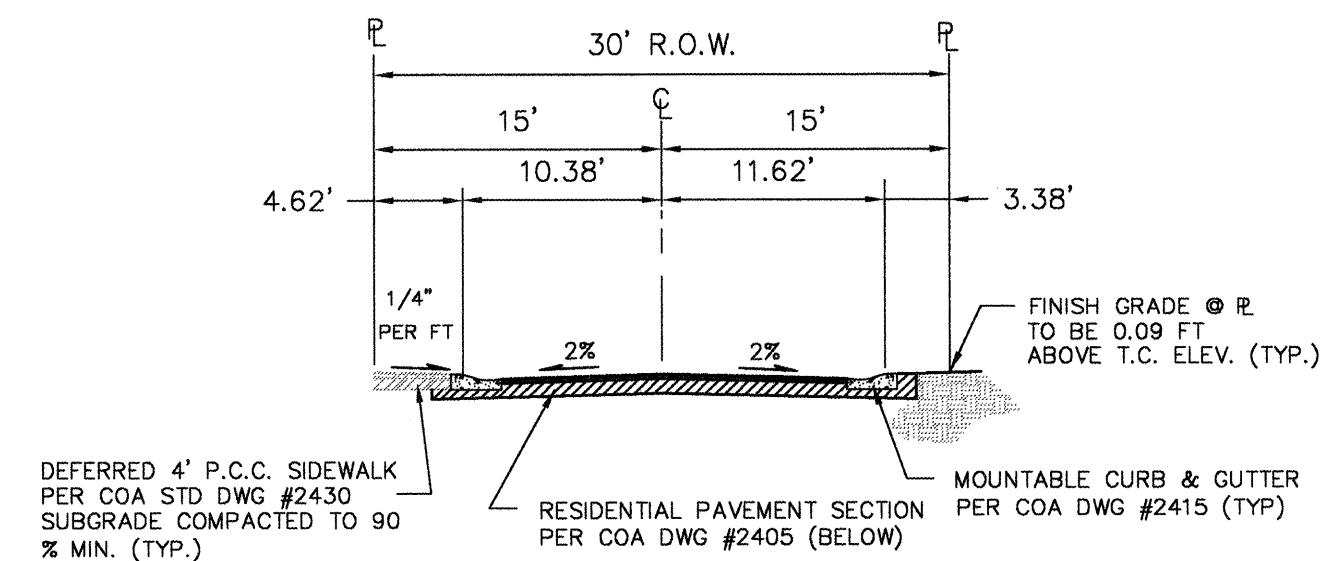


SECTION A3-A3
TYPICAL 46' R.O.W. RESIDENTIAL STREET SECTION
1"=10'

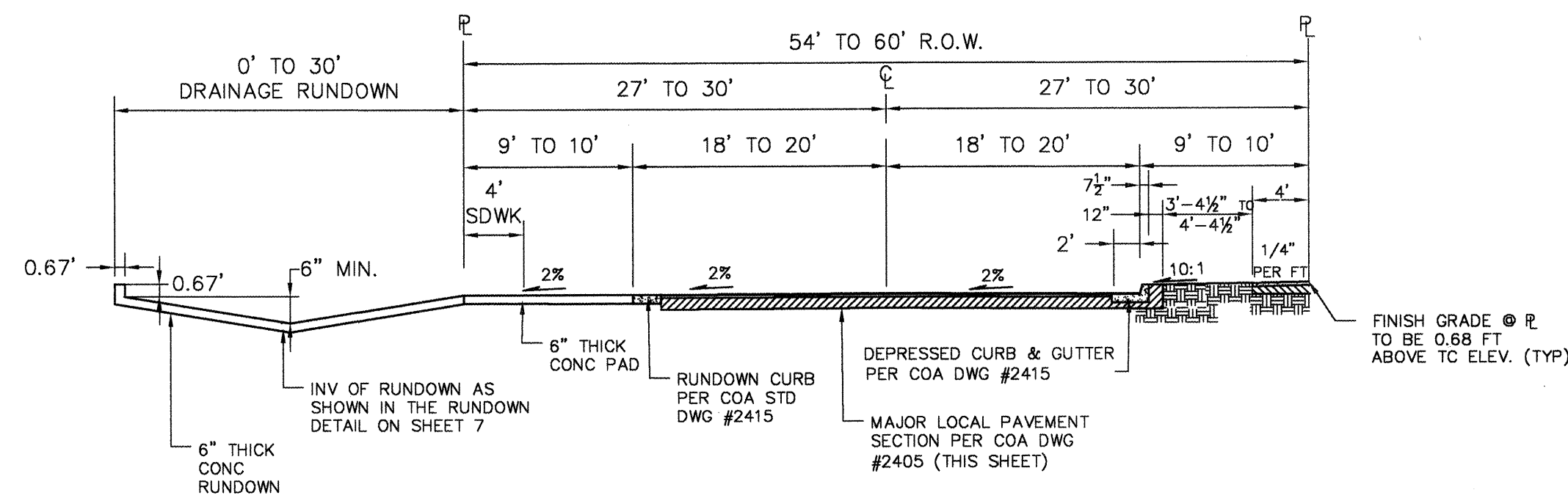
SECTION A4-A4 AND A5-A5 NOT USED



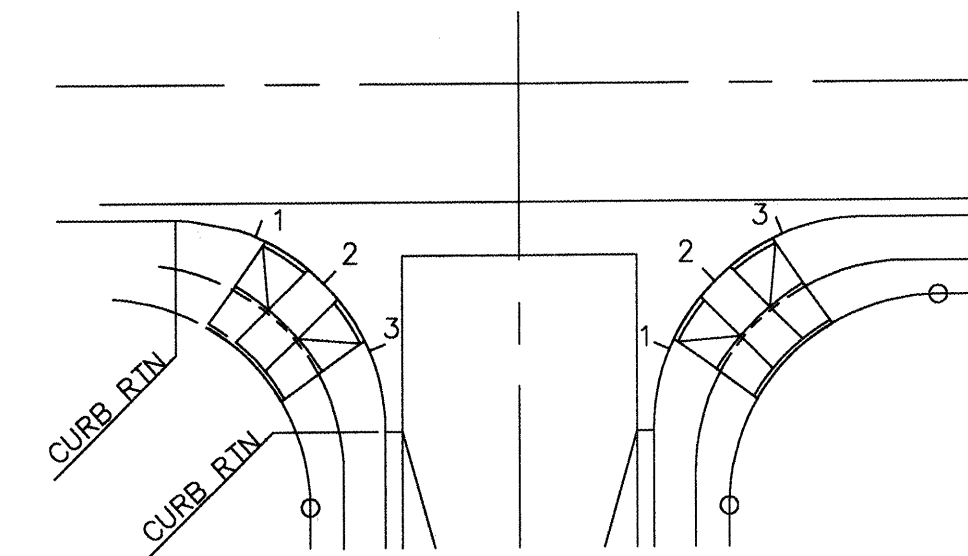
SECTION A10-A10
FUTURE 56' R.O.W. MAJOR LOCAL STREET SECTION
1"=10'
DEL REY ROAD



SECTION A6-A6
30' R.O.W. RESIDENTIAL STREET SECTION
1"=10'
AMOLE DRIVE STUB

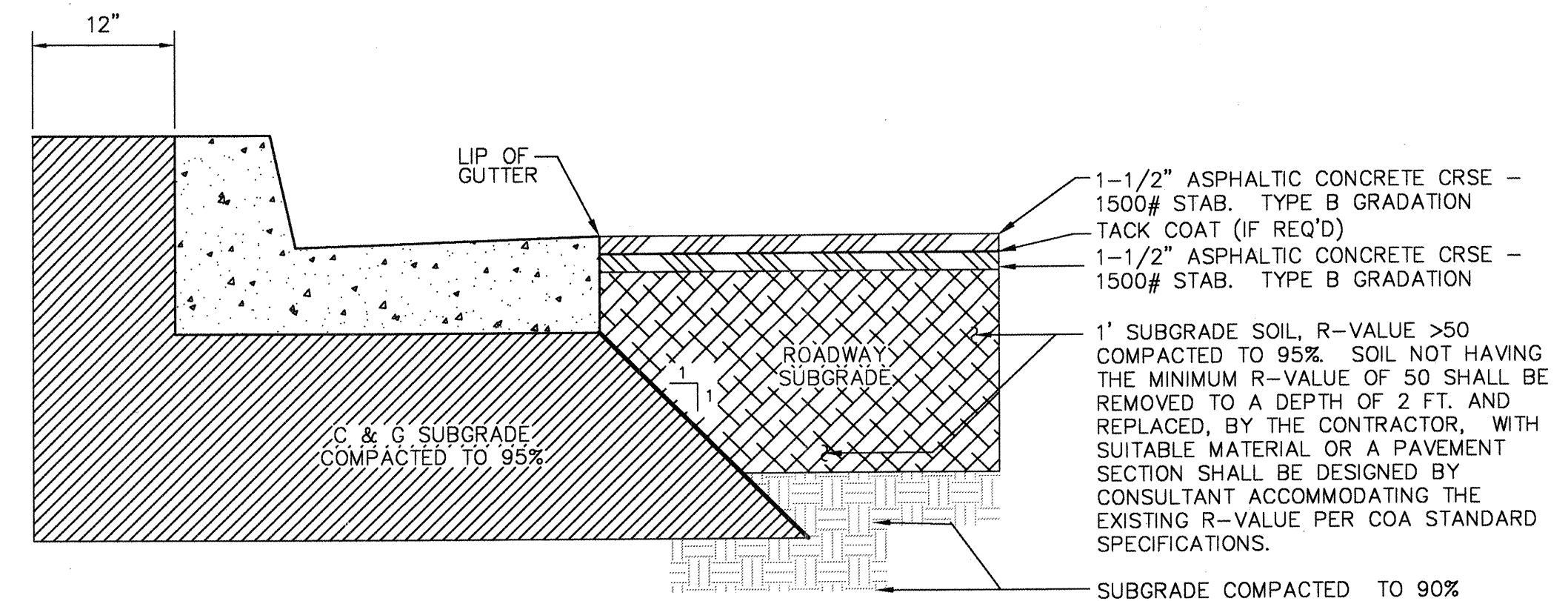


SECTION A11-A11
STREET SECTION WITH CONCRETE RUNDOWN
1"=10'
DEL REY ROAD STA 3+23.36 TO STA 4+22.81

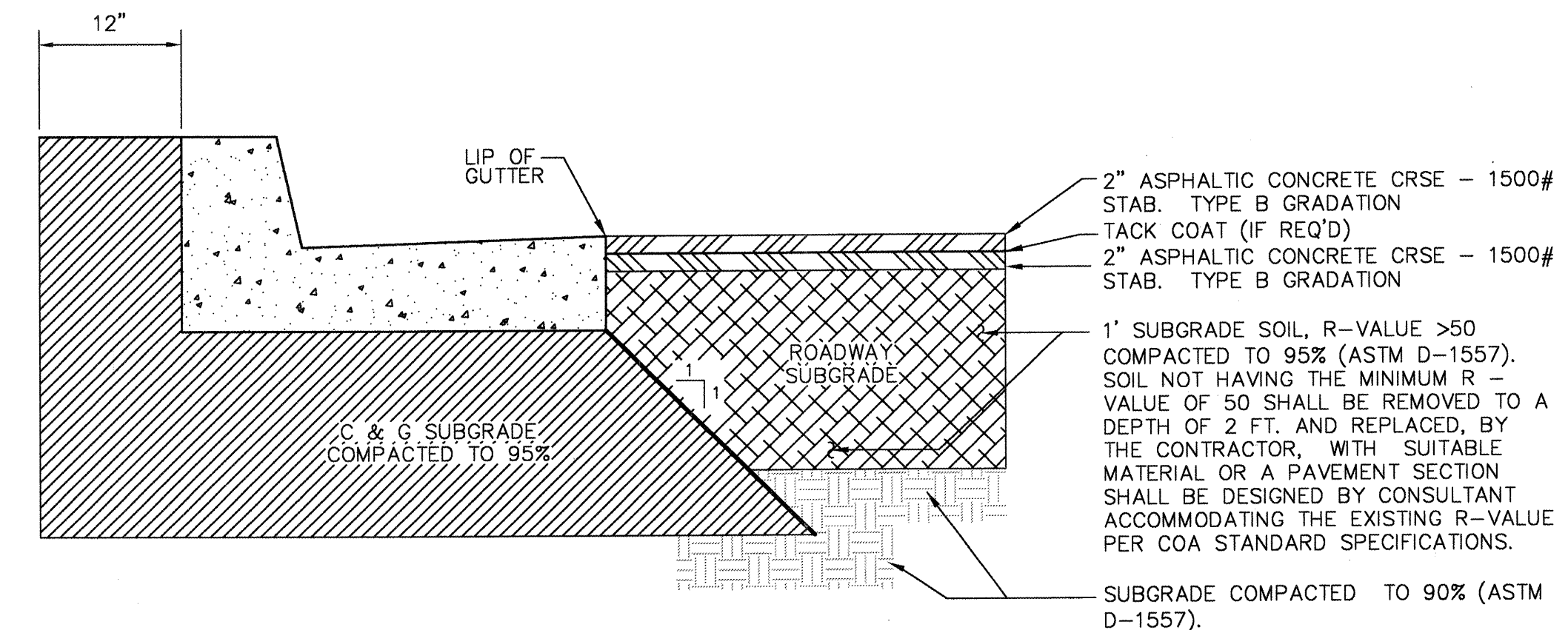


NOTE:
QUARTER POINT GRADES ARE REFERENCED AS 1, 2 & 3
ALONG THE FACE OF CURB IN A CLOCKWISE DIRECTION.

QUARTER POINT DETAIL
NTS



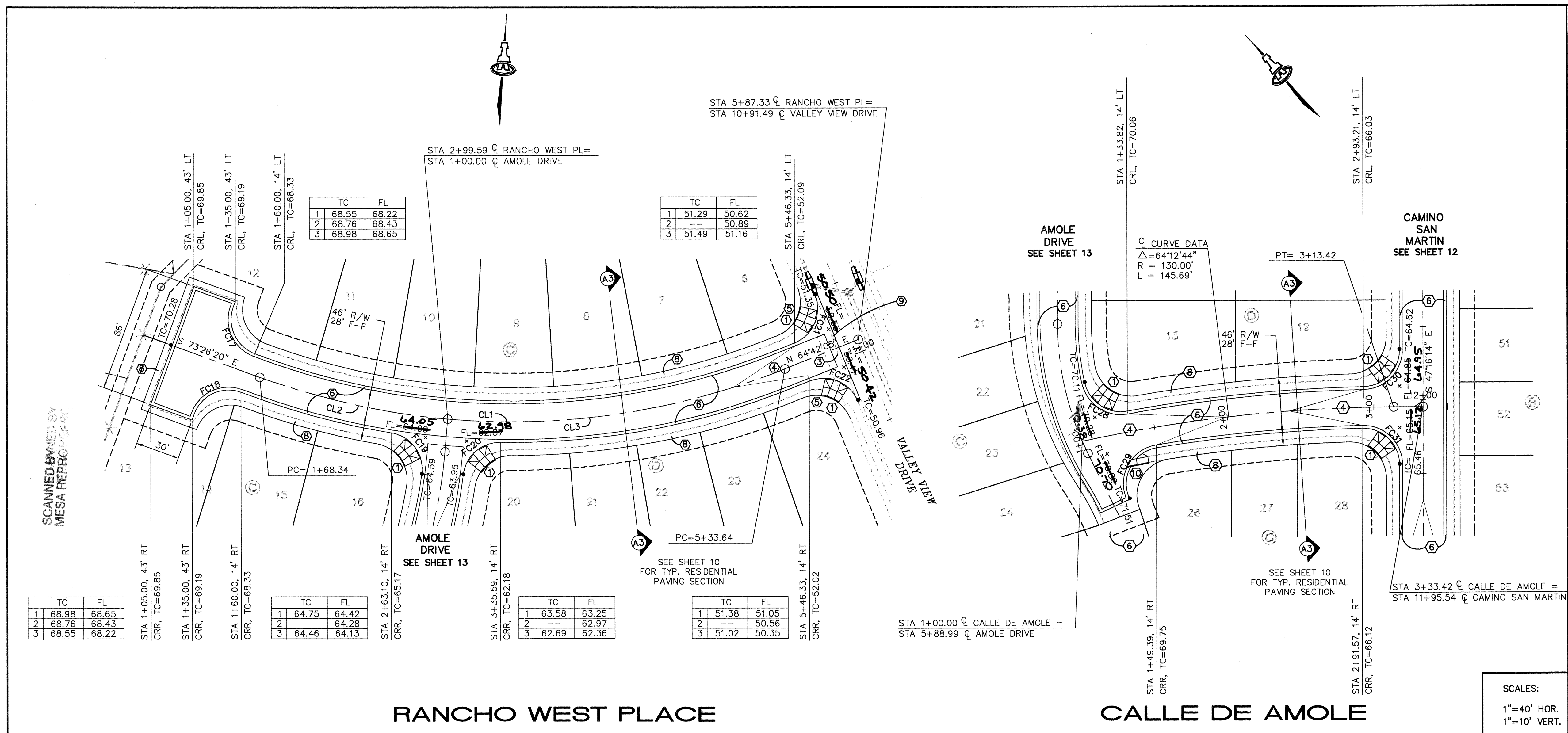
RESIDENTIAL PAVING SECTION
SCALE: 1"=1'-0" (PER COA STD. DWG. No. 2405)



MAJOR LOCAL PAVING SECTION
SCALE: 1"=1'-0" (PER COA STD. DWG. No. 2405)

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico
167PVDTL-7.DWG/its 03/11/03

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: EL RANCHO GRANDE - UNIT 7 PAVING DETAILS & SECTIONS	
Design Review Committee	City Engineer Approval
Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 699383	Zone Map No. M-9
Sheet 10	Of 24



- KEYED CONSTRUCTION NOTES**
- CONSTRUCT HANDICAP RAMP PER COA STD DWG #2441, CASE II.
 - STANDARD CURB & GUTTER PER COA STD DWG #2415.
 - CONSTRUCT PCC VALLEY GUTTER 6' WIDE, 1 1/2" INVERT PER COA STD DWG #2420.
 - CROWN TO NO CROWN TRANSITION 50' MIN. LENGTH. **PER C.O.A. STD DWG #2401**
 - TRANSITION FROM MOUNTABLE TO STANDARD CURB PER COA STD DWG #2418.
 - MOUNTABLE CURB & GUTTER PER COA STD DWG #2415.
 - TRANSITION FROM MOUNTABLE TO STANDARD CURB OVER 5'.
 - DEFERRED 4' PCC SIDEWALK PER COA STD DWG #2430.
 - REMOVE & DISPOSE OF EXST ASPHALT CURB.
 - CONSTRUCT HANDICAP RAMP PER COA STD DWG #2426.

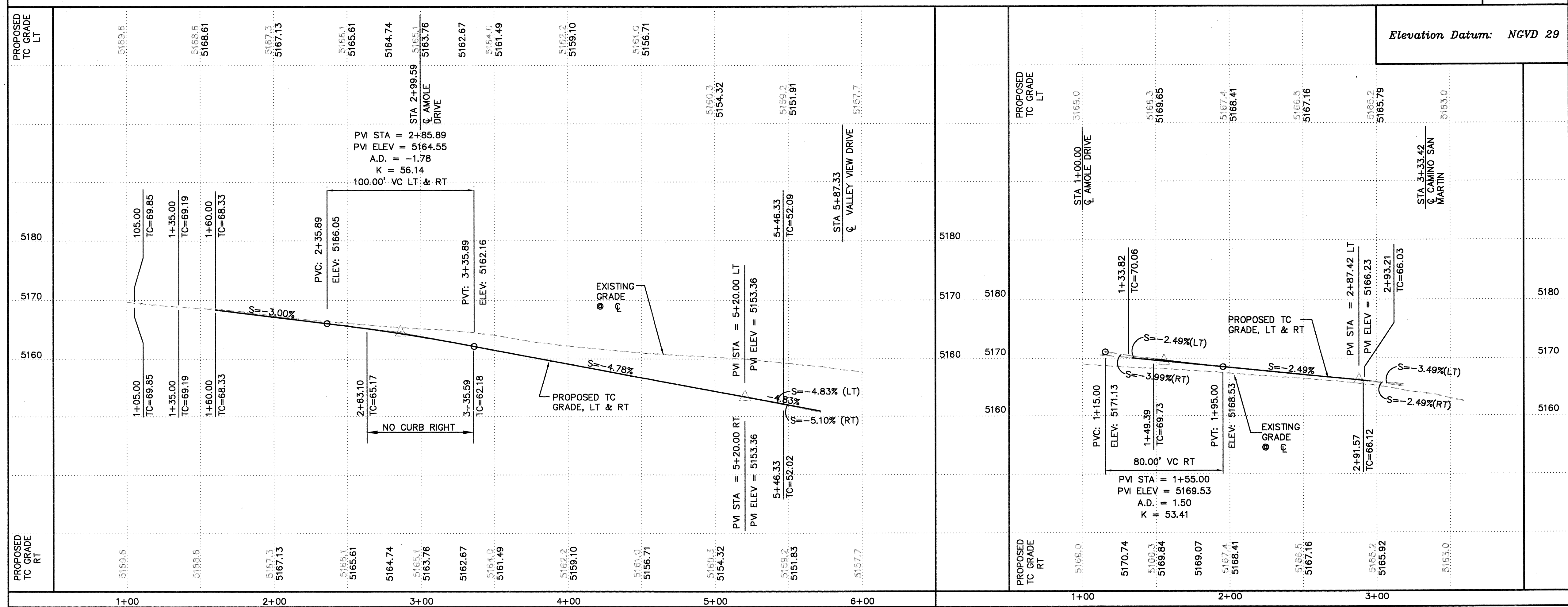
FACE OF CURB CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
FC17	25.00	39.27	90°00'00"
FC18	25.00	39.27	90°00'00"
FC19	25.00	38.65	88°34'38"
FC20	25.00	36.51	83°40'44"
FC21	25.00	39.27	90°00'00"
FC22	25.00	39.27	90°00'00"
FC28	25.00	38.31	87°47'30"
FC29	25.00	46.15	105°45'57"
FC30	25.00	38.76	88°50'31"
FC31	25.00	39.82	91°15'08"

CENTERLINE CURVE TABLE

CURVE	RADIUS	LENGTH	CHORD BEARING	DELTA
CL1	500.00	365.29	N 85°37'53" E	41°51'35"
CL2	500.00	131.25	S 80°57'32" E	15°02'24"
CL3	500.00	234.05	N 78°06'41" E	26°49'11"

SCALES:
1"=40' HOR.
1"=10' VERT.



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Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87102
167PV3-7.DWG/jts

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **EL RANCHO GRANDE - UNIT 7
RANCHO WEST PL. & CALLE DE AMOLE
STA. 1+00 TO END
PAVING & STORM DRAIN PLAN & PROFILE**

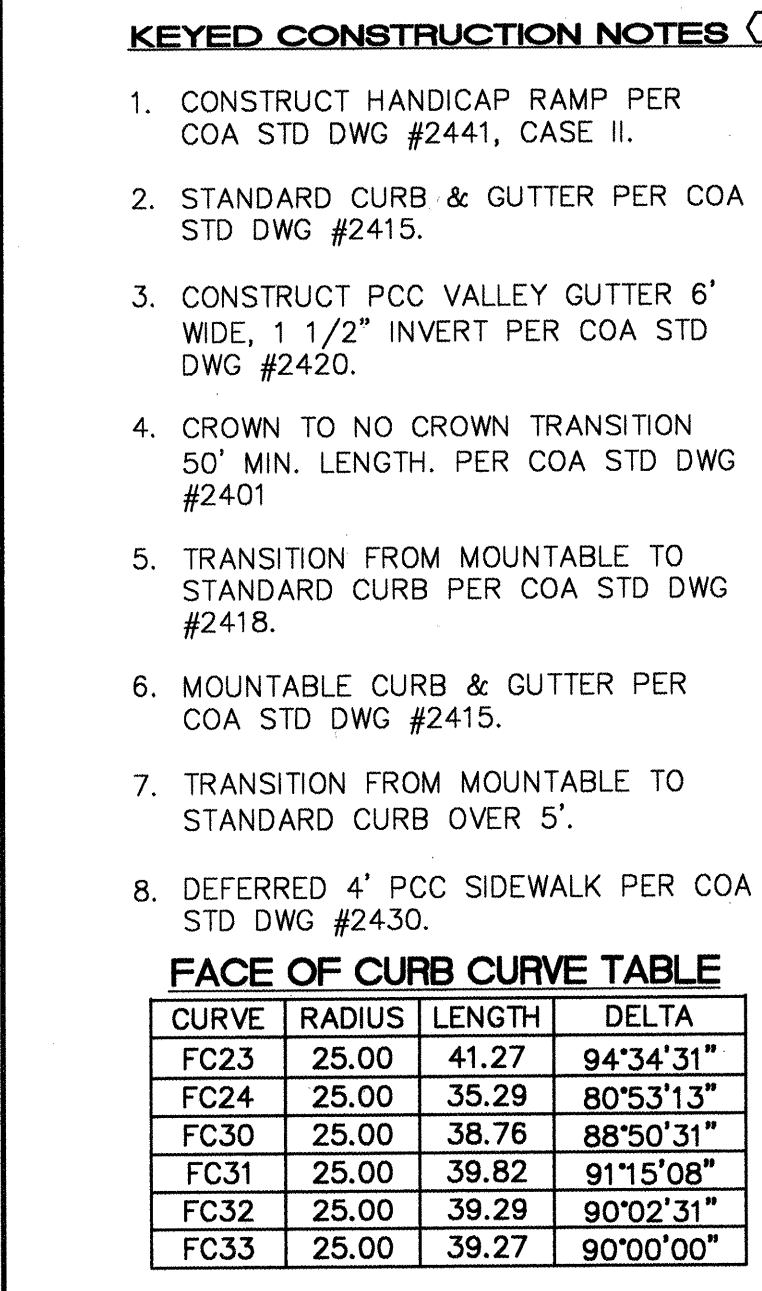
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City Engineer Approval: [Signature]
City Project No. **699383**
Zone Map No. **M-9**
Sheet **11** Of **24**

AS-BUILT INFORMATION

CONTRACTOR: **New Concepts**
STANDARD BY: **ALS**
INVESTIGATOR'S: **ALS**
FIELD VERIFICATION BY: **ALS**
DATE: **03/12/03**
CORRECTED BY: **ALS**
DATE: **03/12/03**
MICRO-FILM INFORMATION: **ALS**
RECORDED BY: **ALS**
DATE: **03/12/03**

ENGINEER'S SEAL

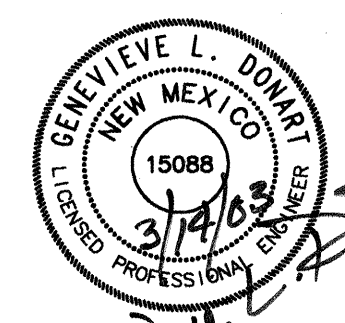
BY: [Signature]
NO. [] DATE []
REMARKS: []
DESIGN: []
DESIGNED BY: FCA DATE: 7/31
DRAWN BY: RFH DATE: 7/31
CHECKED BY: FCA DATE: 7/31



STORM DRAIN INLET INFORMATION				
INLET NO. 	INLET TYPE	STATION* & OFFSET	TOP GR. EL.	INV. OUT
11	A	17+09.16 16' LT	50.18	45.96

CONNECTOR PIPE INFORMATION			
FROM INLET NO. 	DIA. (IN)	LENGTH (FT)	SLOPE (FT/FT)
11 **	18	48.07	0.0306

** CONNECTOR PIPE BUILT WITH UNIT 6.

[illegible]

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
 128 Monroe Street N.E.
 Albuquerque New Mexico
 167PV6-7.DWCjts 03/10/03

	CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP
TITLE:	EL RANCHO GRANDE - UNIT 7 CAMINO SAN MARTIN STA. 10+37.43 TO STA. 18+50 PAVING & STORM DRAIN PLAN & PROFILE

Design Review Committee

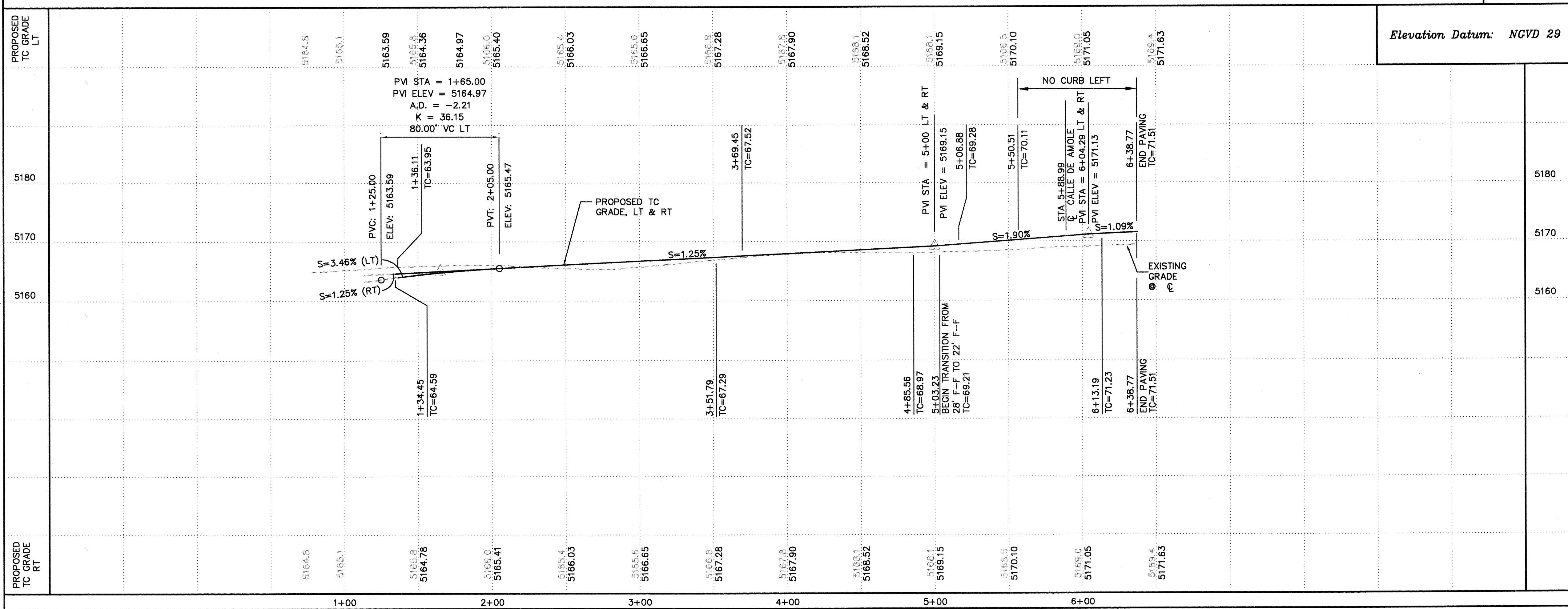
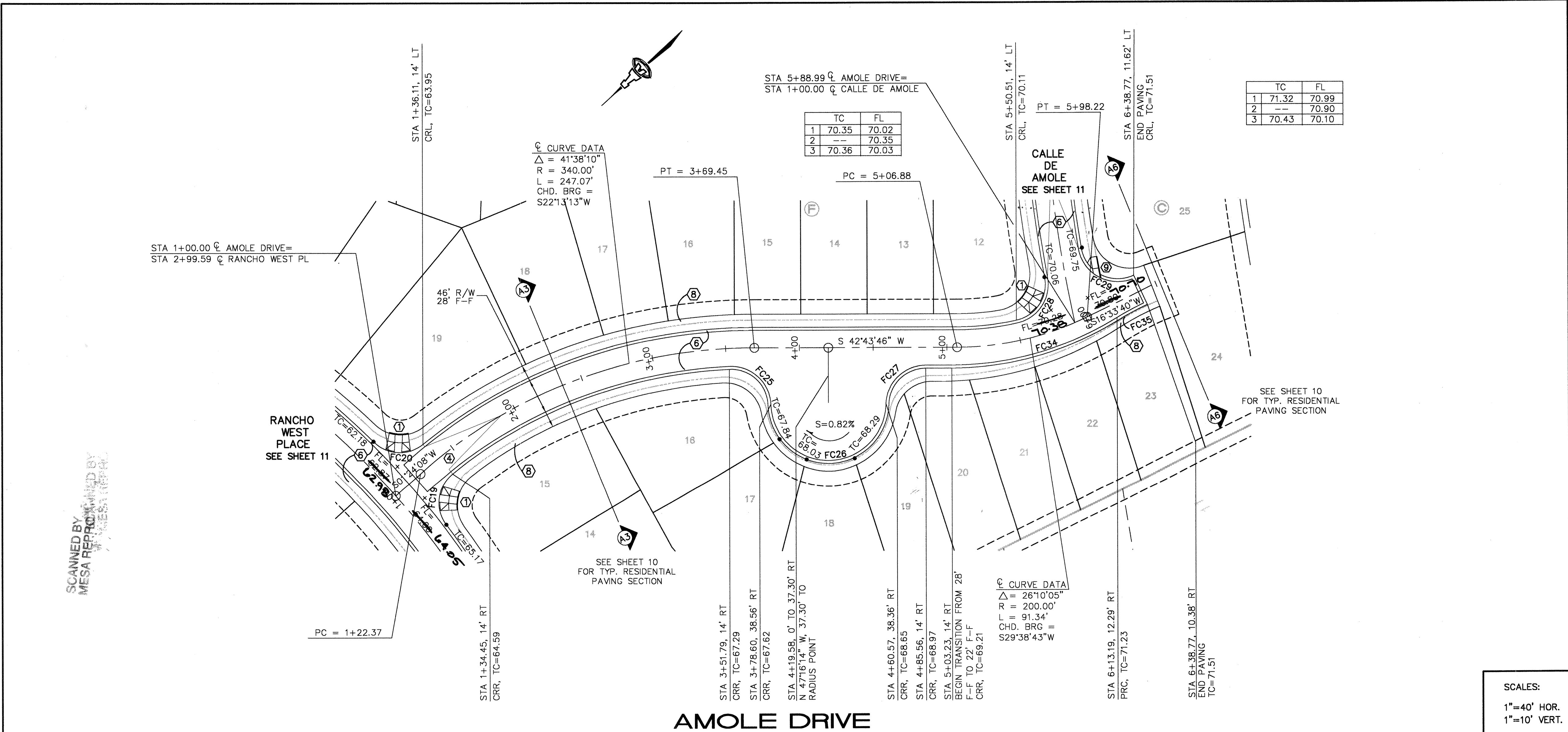
City Engineer Approval

MAY - 9 2003

CITY ENGINEER

Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

City Project No.	Zone Map No.	Sheet	Of
699383	M-9	12	24



KEYED CONSTRUCTION NOTES

- 1. CONSTRUCT HANDICAP RAMP PER COA STD DWG #2441, CASE II.
- 2. STANDARD CURB & GUTTER PER COA STD DWG #2415.
- 3. CONSTRUCT PCC VALLEY GUTTER 6' WIDE, 1 1/2" INVERT PER COA STD DWG #2420.
- 4. CROWN TO NO CROWN TRANSITION 50' MIN. LENGTH. PER COA STD DWG #2401
- 5. TRANSITION FROM MOUNTABLE TO STANDARD CURB PER COA STD DWG #2418.
- 6. MOUNTABLE CURB & GUTTER PER COA STD DWG #2415.
- 7. TRANSITION FROM MOUNTABLE TO STANDARD CURB OVER 5'.
- 8. DEFERRED 4' PCC SIDEWALK PER COA STD DWG #2430.
- 9. CONSTRUCT HANDICAP RAMP PER COA STD DWG #2426.

FACE OF CURB CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
FC19	25.00	38.65	88°34'38"
FC20	25.00	36.51	83°40'44"
FC25	25.00	39.67	90°54'49"
FC26	41.00	126.50	176°46'29"
FC27	25.00	38.63	88°31'36"
FC28	25.00	38.31	87°47'30"
FC29	25.00	46.15	105°45'57"
FC34	214.00	119.15	31°53'59"
FC35	189.63	22.29	06°44'08"

SCALES:
1"=40' HOR.
1"=10' VERT.

Elevation Datum: NGVD 29

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
167PV4-7.DWG Date 03/10/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: EL RANCHO GRANDE - UNIT 7
AMOLE DRIVE
PAVING & STORM DRAIN PLAN & PROFILE

Design Review Committee City Engineer Approval
MAY - 9 2003
CITY ENGINEER

City Project No. 699383 Zone Map No. M-9 Sheet 13 Of 24

DESIGNED BY FCA DATE 7/31
DRAWN BY RPH DATE 7/31
CHECKED BY FCA DATE 7/31

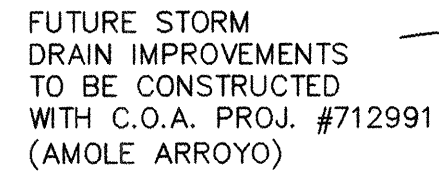
ENGINEER'S SEAL
GENEVIENE L. DOWDY
NEW MEXICO
15088
PROFESSIONAL ENGINEER

REVISIONS
NO. DATE REMARKS
BY
DESIGN

AS-BUILT INFORMATION
CONTRACTOR NEW Concepts
STARTED BY ALS
INSPECTOR'S DATE 03/14/03
FIELD DATE 03/14/03
VERIFICATION BY ALS
CORRECTED BY ALS
MICRO-FILM INFORMATION
RECORDED BY NO. DATE

BENCH MARKS
ACS MONUMENT "7-19" A C.O.A. BRASS CAP SET
IN CONCRETE, LOCATED 39.2' WEST FROM THE
CENTERLINE OF 96th STREET AND 31.0' SOUTH FROM
THE CENTERLINE OF TOWNER ROAD.
ELEV. = 5175.74 (NGVD 1929)

SURVEY INFORMATION
FIELD NOTES
1 ALS 11/99

[illegible]

SIDEWALK WILL BE CONSTRUCTED FROM STA.
0+95.66 TO STA 1+40.00 WITH C.O.A. PROJ.
#712991 (AMOLE ARROYO)

DEL REY ROAD

REMOVE & DISPOSE OF ALL EXISTING
ASPHALT FROM THE OLD DEL RAY
ALIGNMENT, STARTING AT STA 0+95.66

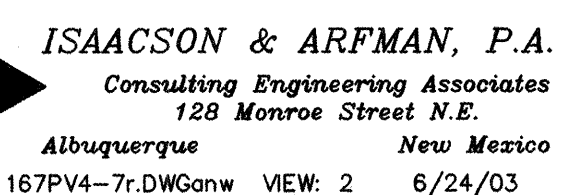
SCALES:
1"=40' HOR.
1"=10' VERT.

1. CONSTRUCT HANDICAP RAMP PER
DETAIL ON SHEET 10.
2. STANDARD CURB & GUTTER PER COA
STD DWG #2415.
3. CONSTRUCT PCC VALLEY GUTTER 6'
WIDE, 1 1/2" INVERT PER COA STD
DWG #2420.
4. CROWN TO NO CROWN TRANSITION
50' MIN. LENGTH. PER COA STD DWG
#2401
5. TRANSITION FROM MOUNTABLE TO
STANDARD CURB PER COA STD DWG
#2418.
6. MOUNTABLE CURB & GUTTER PER
COA STD DWG #2415.
7. TRANSITION FROM MOUNTABLE TO
STANDARD CURB OVER 5'.
8. 4' PCC SIDEWALK PER COA STD DWG
#2430.
9. NOT USED.
10. REMOVE EXIST BARRICADE.
11. 92.00 LF. TEMPORARY ASPHALT CURB
W/ REFLECTORIZED WHITE PAINT AND
4' OPENINGS AT 8' SPACING ON
CENTER. R=60"

CURVE	RADIUS	LENGTH	DELTA
FC32	25.00	39.29	90°02'31"
FC33	25.00	39.27	90°00'00"

1. AMAFCA Field Engineer shall be notified 48-hours prior to any work within the AMAFCA R/W. Tel 884-2215 Jerry Lovato.
2. No work will be performed in the AMAFCA R/W between June 1 and October 15 without written permission from AMAFCA.
3. All subgrade, backfill and embankment shall be compacted to 95% (modified proctor) within the AMAFCA R/W. Testing reports shall be provided to AMAFCA Field Engineer.
4. AMAFCA Field Engineer Will be notified 48-hours prior to final inspection of any facilities within the AMAFCA R/W.

Lynn M. Mazon 9-10-03
(for A.M.A.F.C.A.) DATE

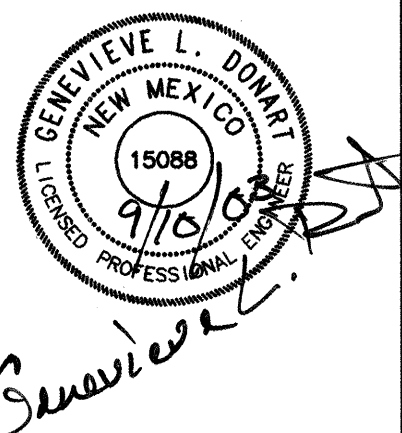


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

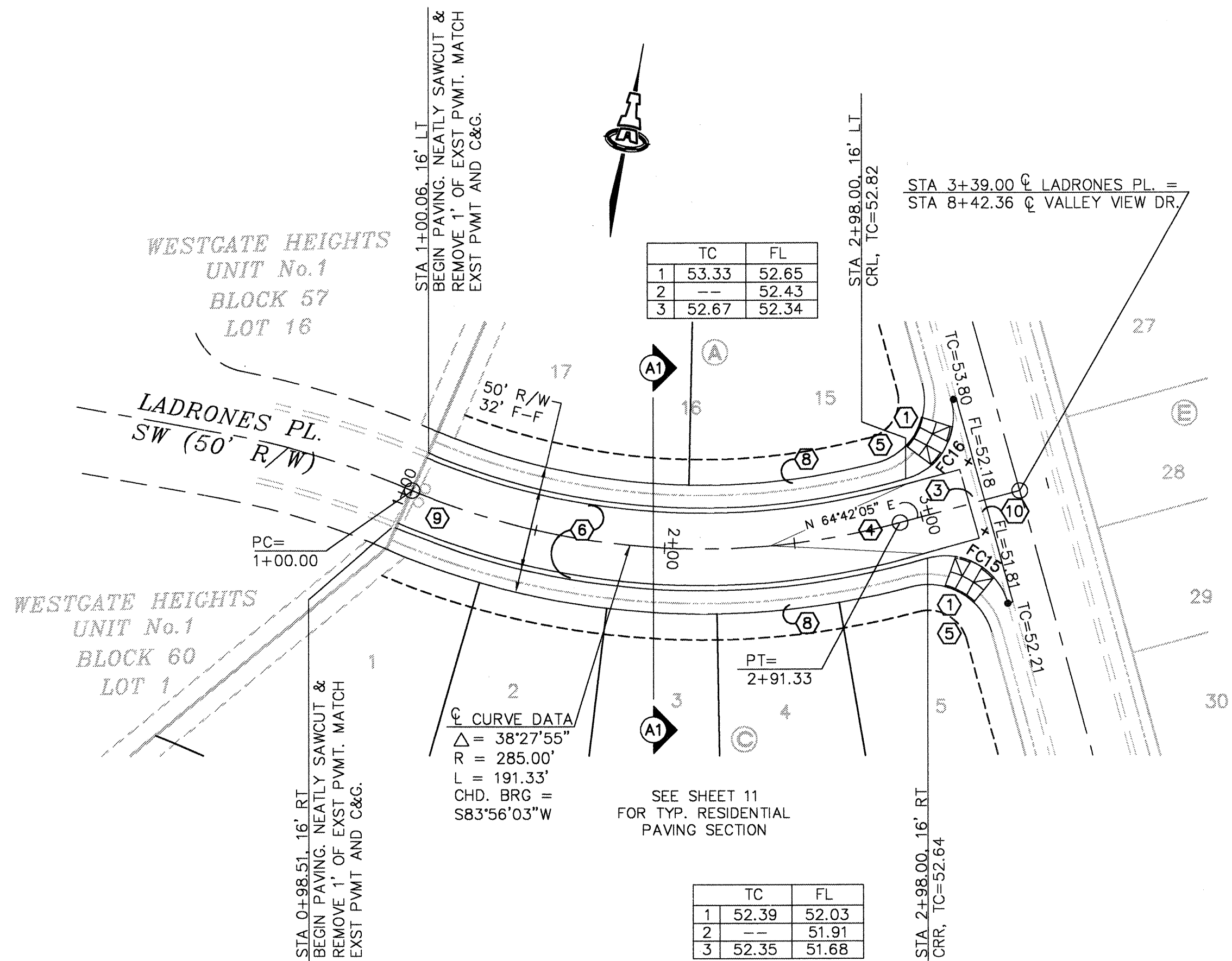
TITLE: EL RANCHO GRANDE - UNIT 7
DEL REY ROAD
STA. 1+00 TO END
PAVING & STORM DRAIN PLAN & PROFILE

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 6993383		Zone Map No. M-9	Sheet 14 Of 24	

SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
	FIELD	NOTES		CONTRACTOR	NEW CONCEPTS
1	ALS	11/99	ACS MONUMENT "7"-Lg" A C.O.A. BRASS CAP SET IN CONCRETE. LOCATED 39.2' WEST FROM THE CENTERLINE OF 98TH STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TOWNER ROAD. ELEV. = 5175.74 (NGVD 1929)	STORIED BY INSPECTOR'S ACCEPTANCE BY VERIFICATION BY DRAWINGS CONFORMS TO	DATE 12/03 DATE 12/03 DATE 12/03 DATE 12/03
				RECORDED BY	MICRO-FILM INFORMATION
				NO.	DATE

[illegible]

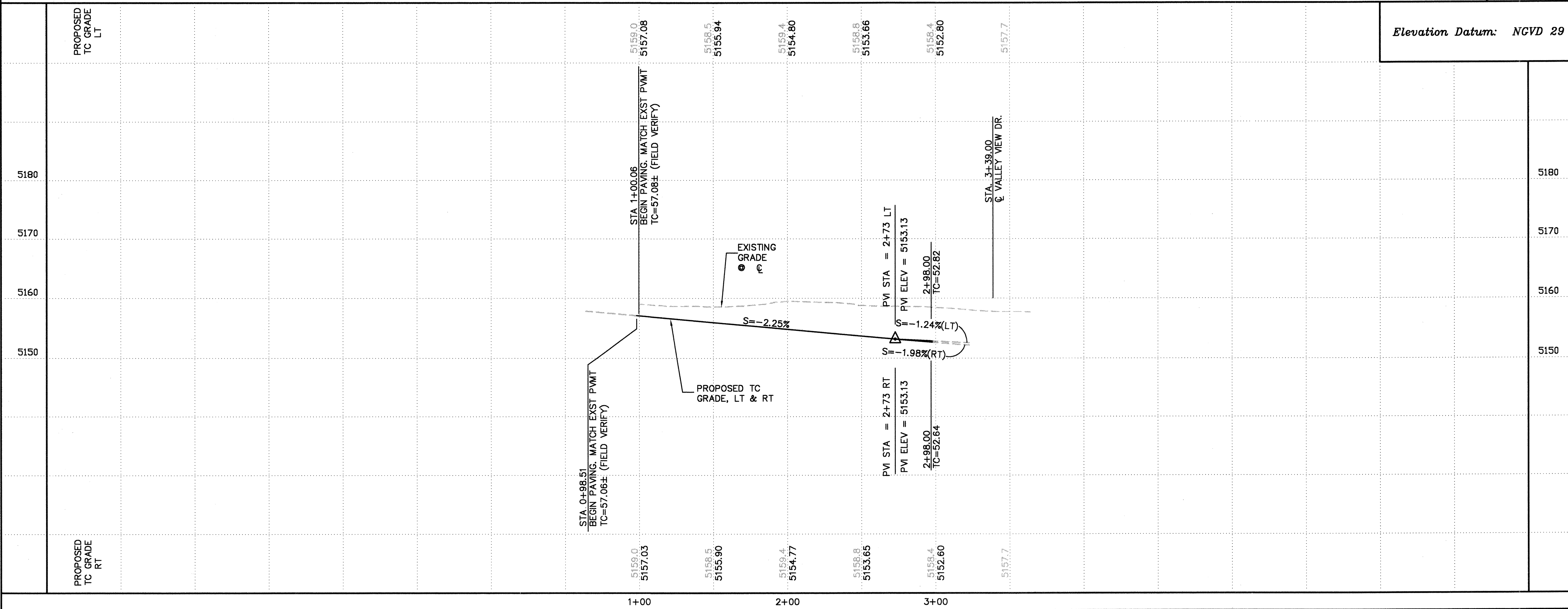
SCANNED BY
SONIA MESA REPRO



LADRONES PLACE

SCALES:
1"=40' HOR.
1"=10' VERT.

Elevation Datum: NCVD 29



KEYED CONSTRUCTION NOTES

- CONSTRUCT HANDICAP RAMP PER COA STD DWG #2441, CASE II.
- STANDARD CURB & GUTTER PER COA STD DWG #2415.
- CONSTRUCT PCC VALLEY GUTTER 6' WIDE, 1 1/2" INVERT PER COA STD DWG #2420.
- CROWN TO NO CROWN TRANSITION 50' MIN. LENGTH. PER COA STD DWG #2401.
- TRANSITION FROM MOUNTABLE TO STANDARD CURB PER COA STD DWG #2418.
- MOUNTABLE CURB & GUTTER PER COA STD DWG #2415.
- TRANSITION FROM MOUNTABLE TO STANDARD CURB OVER 5'.
- DEFERRED 4' PCC SIDEWALK PER COA STD DWG #2430.
- REMOVE EXST BARRICADE.
- REMOVE & DISPOSE EXST ASPHALT CURB.

FACE OF CURB CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
FC1	25.00	39.84	91°18'52"
FC2	25.00	39.25	89°57'06"
FC3	25.00	21.81	49°58'55"
FC4	32.50	75.03	132°16'19"
FC5	25.00	21.81	49°58'55"
FC15	25.00	39.27	90°00'00"
FC16	25.00	39.27	90°00'00"

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	NEW CONCEPTS	ACS MONUMENT "7-L9" A C.O.A. BRASS CAP SET IN CONCRETE, LOCATED 39.2' WEST FROM THE CENTERLINE OF 98th STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TOWNER ROAD.	11/99	FIELD NOTES	ALS	15088	GENEVIEVE L. DOMPTER
DATE	03/13/13	DATE	03/13/13				
INSPECTOR'S FIELD VERIFICATION	BY ALS	DATE	03/13/13				
CORRECTED BY	ALS	DATE	03/13/13				
MICRO-FILM INFORMATION							
RECORDED BY							
DATE							

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Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
167PV1.DWG/ls VIEW: 1 03/10/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

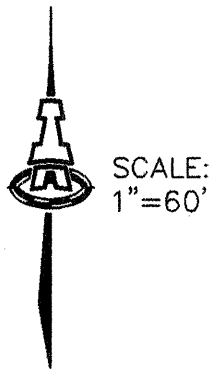
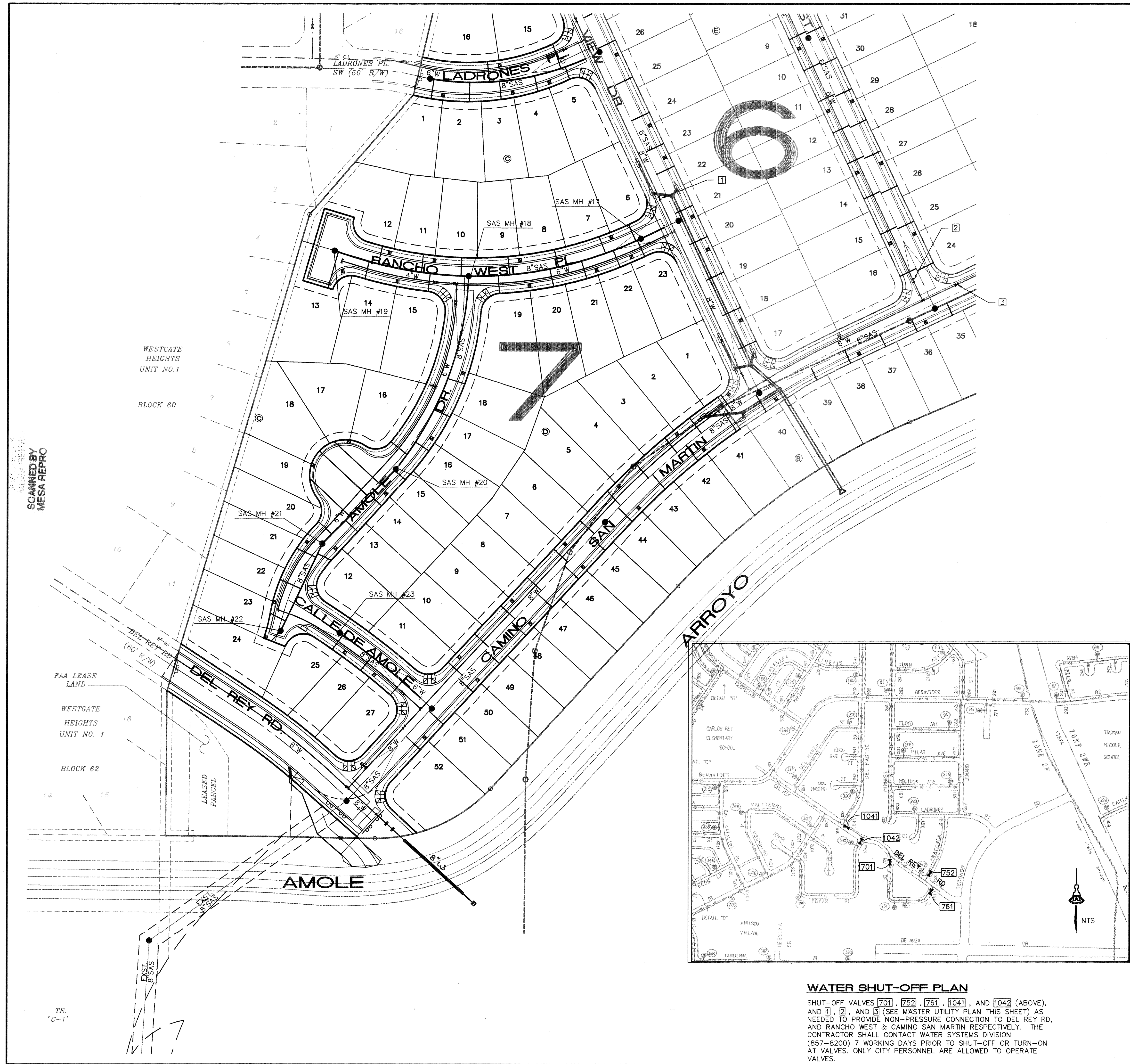
TITLE: **EL RANCHO GRANDE - UNIT 7
LADRONES PLACE
STA. 1+00 TO END
PAVING PLAN & PROFILE**

Design Review Committee City Engineer Approval

City Project No. **699383** Zone Map No. **M-9** Sheet **15** Of **24**

Mo./Day/Yr. Mo./Day/Yr.

DESIGNED BY FCA DATE 7/31
DRAWN BY RFH DATE 7/31
CHECKED BY FCA DATE 7/31



LEGEND

- SINGLE WATER METER & BOX
- DOUBLE WATER METER & BOX
- GATE VALVE W/ TYPE 'A' VALVE BOX
- FIRE HYDRANT
- WATER LINE W/ FITTING
- STORM DRAIN CATCH BASIN
- STORM DRAIN MANHOLE
- EXISTING SAS MANHOLE
- PROPOSED SAS MANHOLE

RESTRAINED JOINT LENGTHS, L _r , FOR HORIZONTAL BENDS, VALVES, AND DEAD ENDS, (FT.)						
SIZE	HORZ. BENDS				VALVES & DEAD ENDS	
	90°	45°	22 1/2°	11 1/4°		
12	30	12	6	3	85	
10	26	11	5	3	72	
8	22	9	4	2	60	
6	17	7	3	2	46	
4	12	5	2	1	32	

RESTRAINED JOINT LENGTHS, L _r , FOR REDUCERS, (FT.) MINIMUM UNOBSTRUCTED, STRAIGHT-RUN LENGTH: RESTRAIN EITHER LARGE PIPE, OR SMALL PIPE.					
SIZE	LARGE SIDE		SIZE	SMALL SIDE	
	25	30		44	73
12x10	25	30	10x6	44	73
12x8	45	68	10x4	58	141
12x6	62	121	8x6	25	33
12x4	74	213	8x4	43	83
10x8	24	30	6x4	24	35

RESTRAINED JOINT LENGTHS, L _r , FOR TEES, (FT.) ALL JOINTS AT THE TEE MUST BE RESTRAINED.		
SIZE	RUN	
	BRANCH	
12x12x12	15	17
12x12x10	10	18
12x12x8	6	19
12x12x6	3	19
12x12x4	1	19
10x10x10	12	18
10x10x8	8	15
10x10x6	4	16
10x10x4	2	4
8x8x8	9	20
8x8x6	5	17
8x8x4	2	15
6x6x6	6	20
6x6x4	2	20

THIS TABLE IS BASED UPON THE FOLLOWING CRITERIA:

- DEPTH OF BURY: 3.0 FT. MINIMUM
 - FACTOR OF SAFETY: 1.25
 - MATERIAL: PVC PIPE
 - SOIL TYPE: GM/SM - SILTY GRAVELS AND SILTY SANDS, GRAVEL-SAND-SILT MIXTURES, 150 PSI
 - TEST PRESSURE: 150 PSI
 - TRENCH TYPE 4: PIPE BEDDED IN SAND, GRAVEL, OR CRUSHED STONE TO DEPTH OF 1/8 PIPE DIAMETER, 4 INCH MINIMUM; BACKFILL COMPACTED TO TOP OF PIPE.
- DIFFERENT CRITERIA, E.G., DUCTILE IRON PIPE, GREATER DEPTH OF BURY, ETC., WILL REQUIRE DIFFERENT RESTRAINED LENGTHS. THESE MUST BE CALCULATED BY A QUALIFIED PROFESSIONAL ENGINEER AND APPROVED BY THE PUBLIC WORKS DEPARTMENT.

RESTRAINED JOINT LENGTHS
FOR WATERLINE FITTINGS

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Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico
167UMSTR-7.DWG/rth 03/14/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

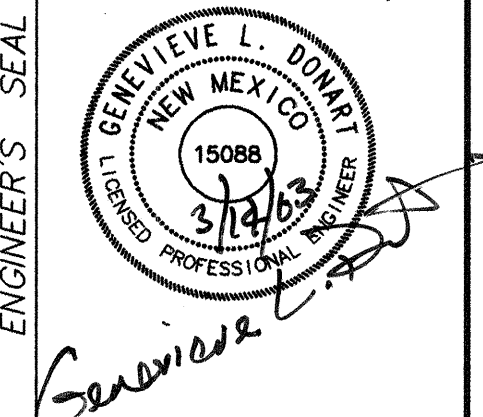
TITLE: EL RANCHO GRANDE - UNIT 7
MASTER UTILITY PLAN

Design Review Committee
City Engineer Approval
Last Design Update

City Project No. 699383

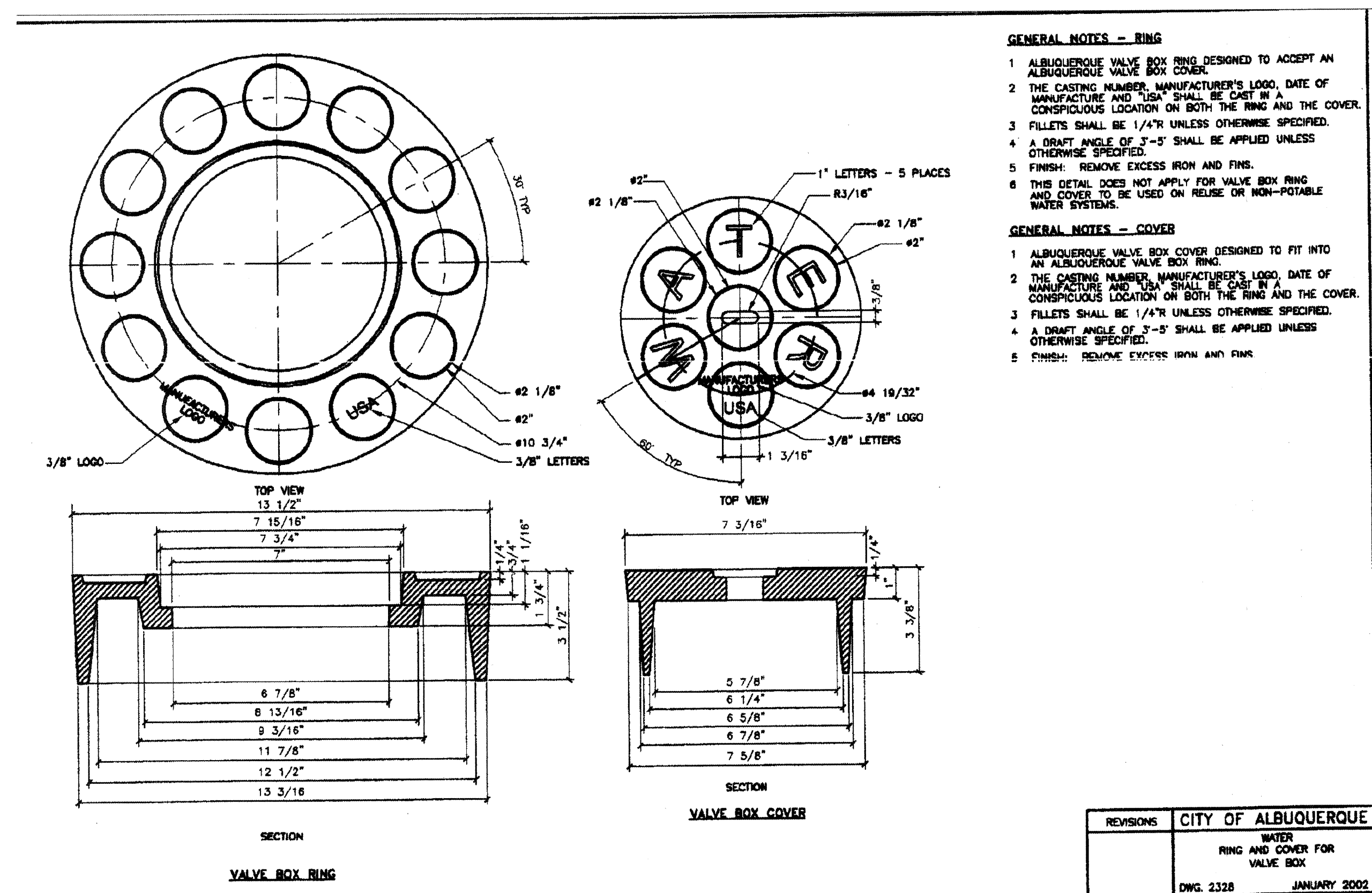
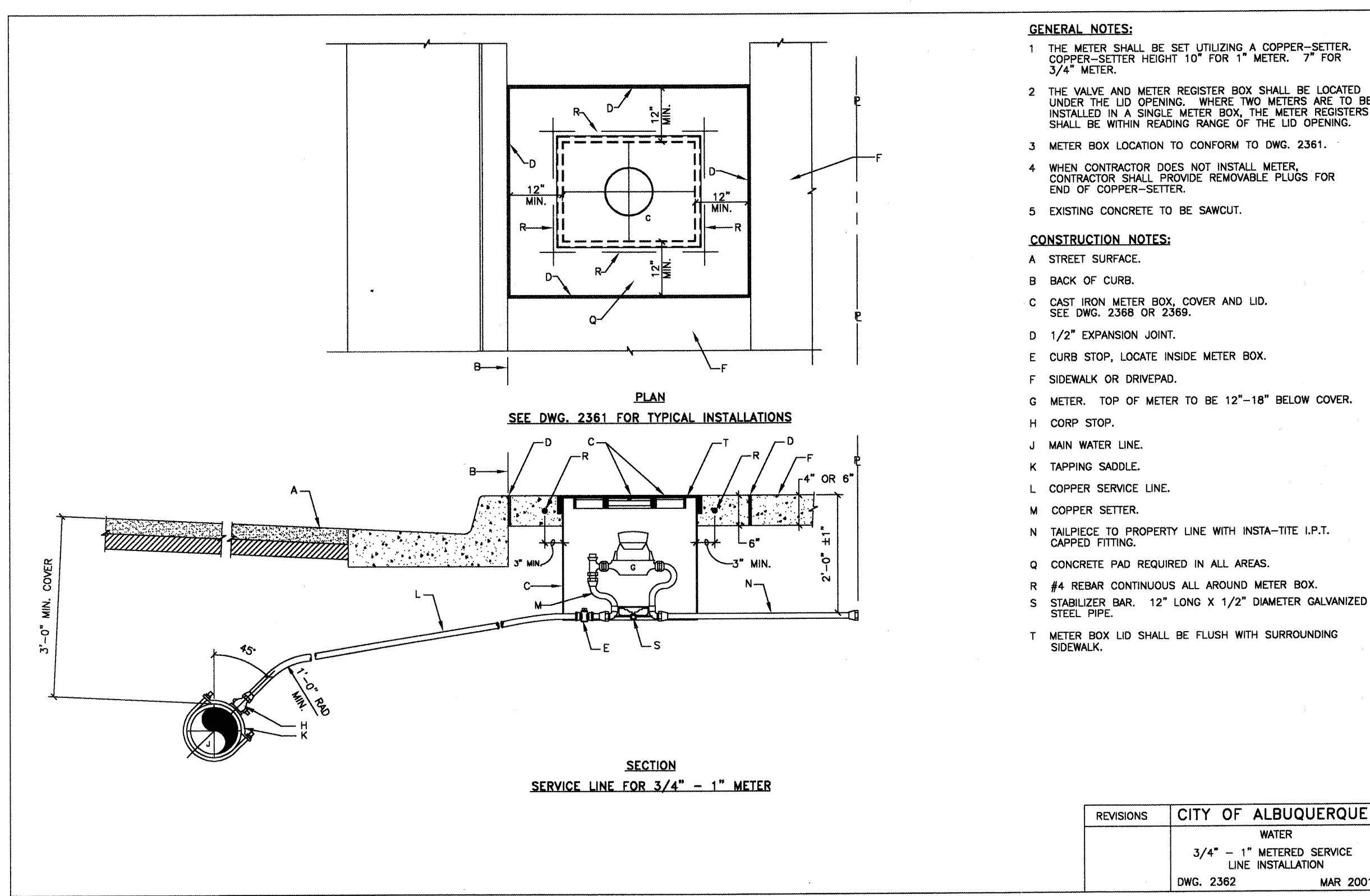
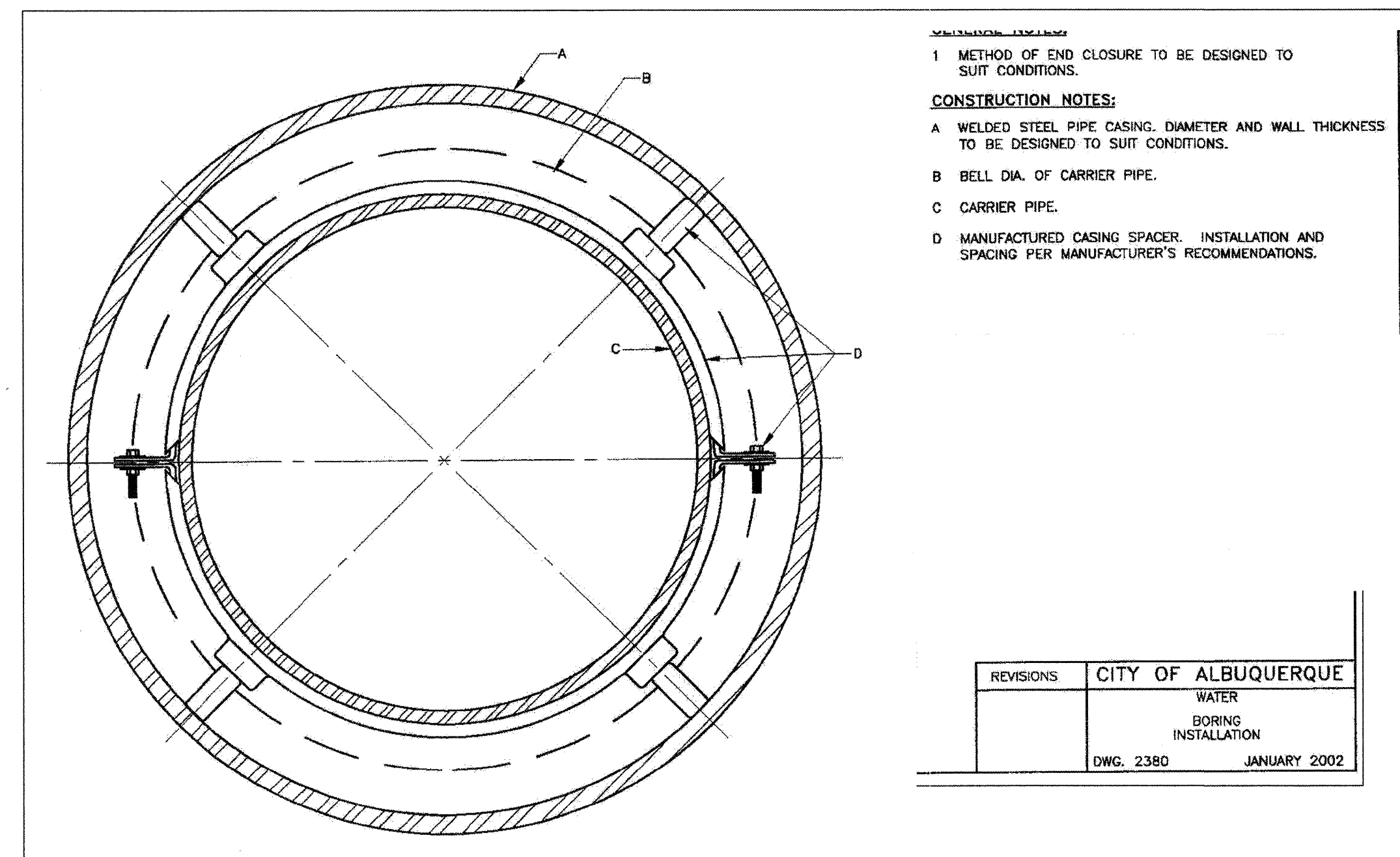
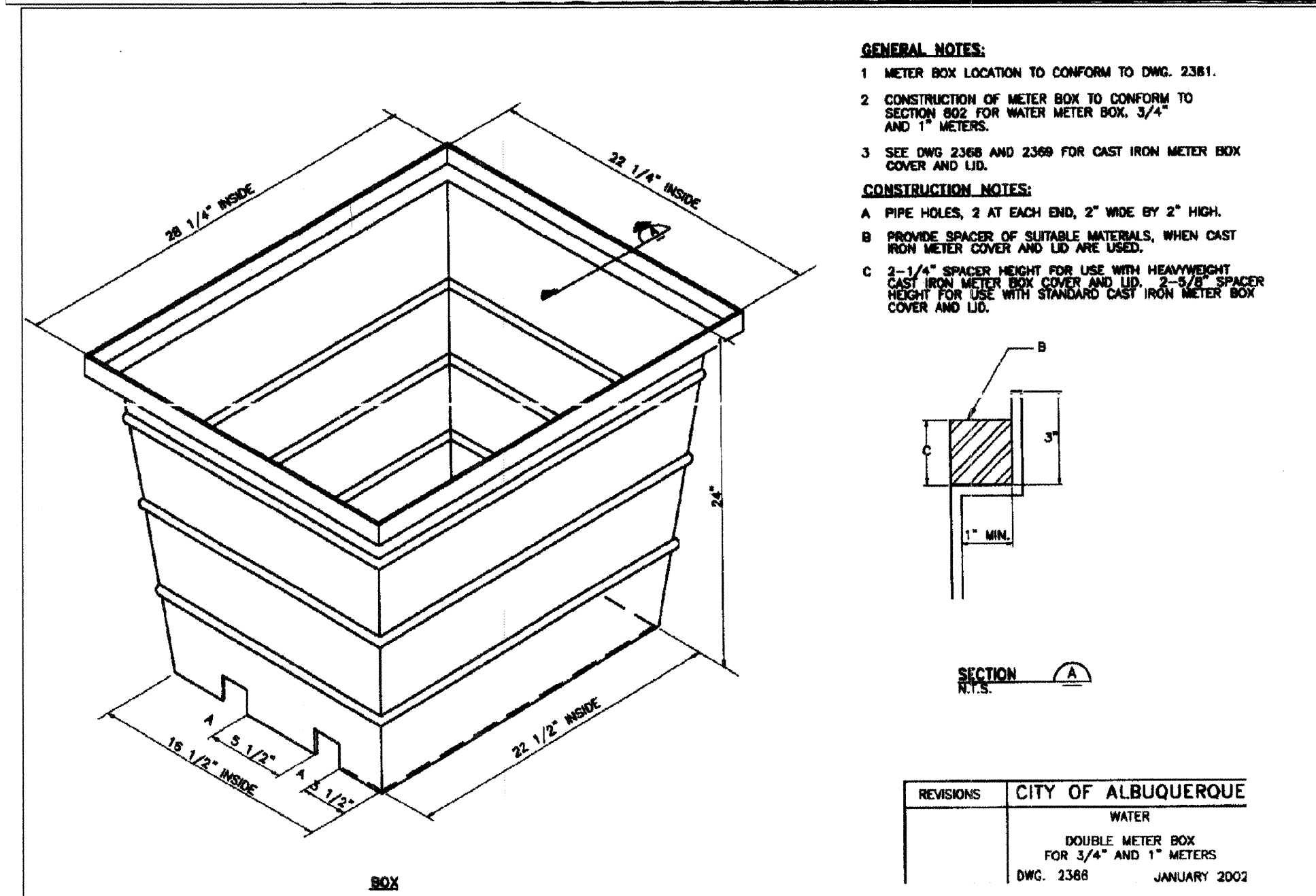
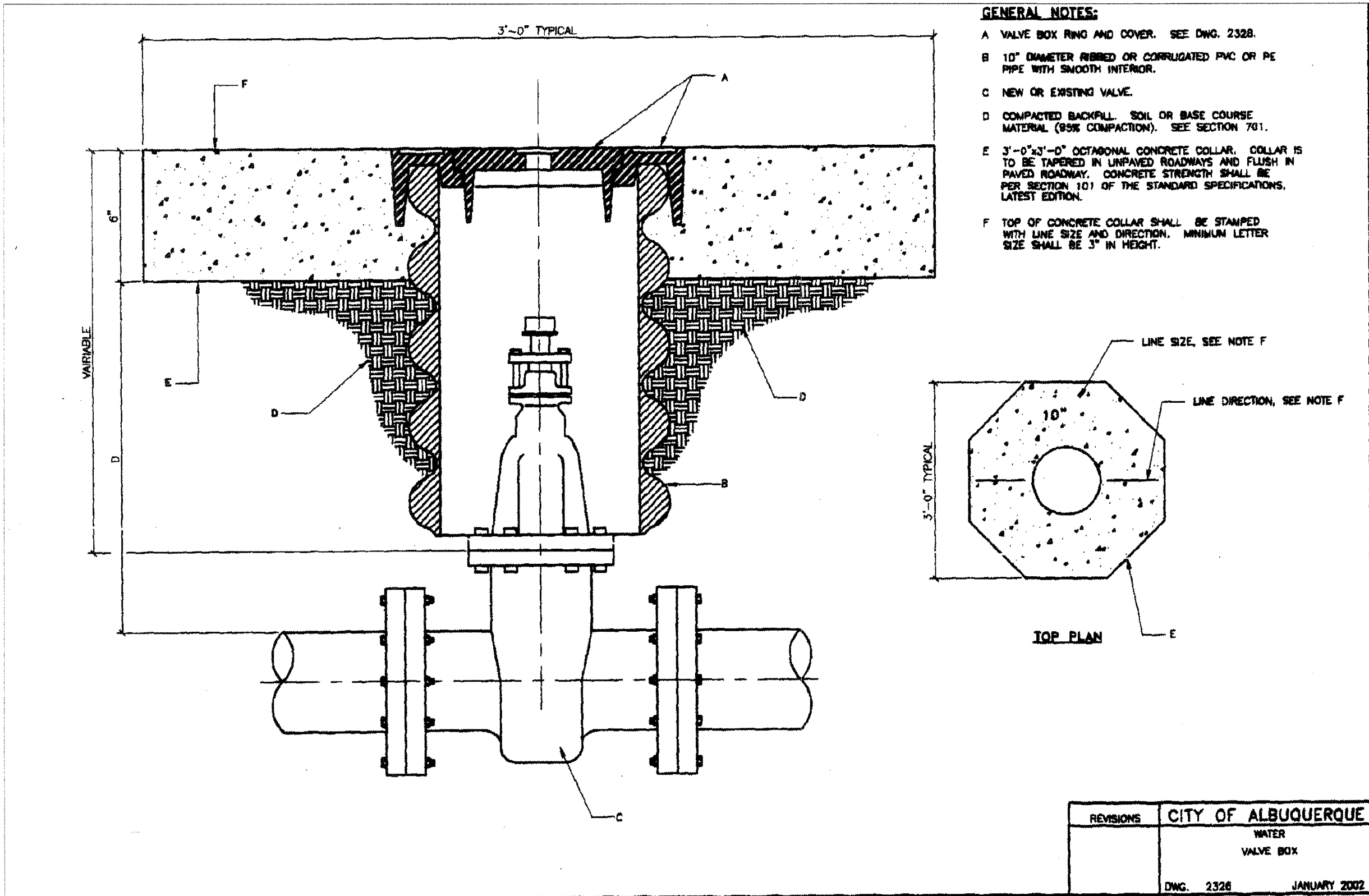
Zone Map No. M-9

Sheet 16 Of 24



REVISIONS
NO. DATE
DESIGNED BY FCA
DRAWN BY RFH
CHECKED BY FCA

REMARKS
DESIGN
DATE 7/31
DATE 7/31
DATE 7/31

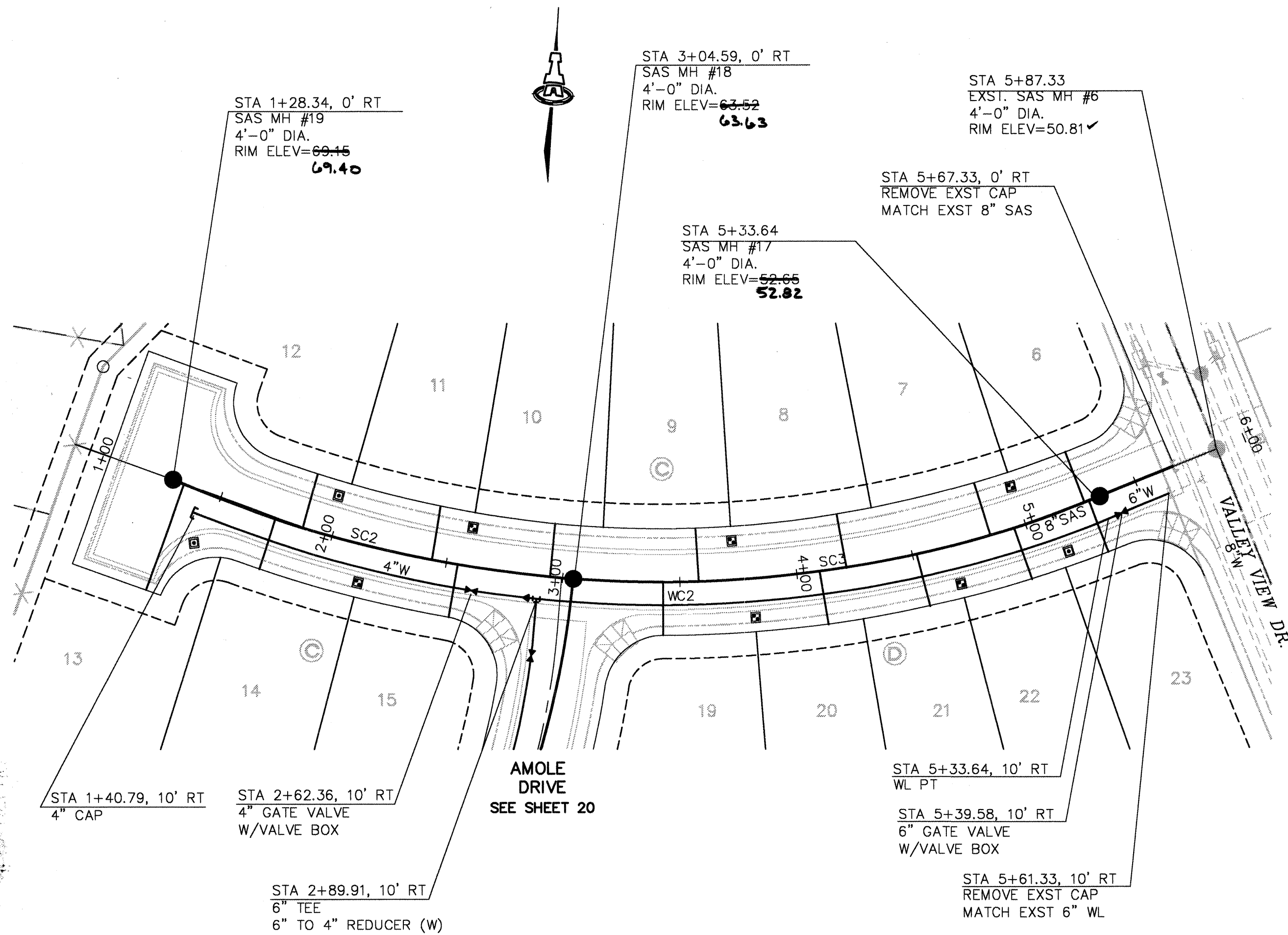


NOTE: DETAILS 2326, 2328, 2362, 2380 AND 2366 ARE UNDER REVIEW AND IN DRAFT FORM UNTIL PUBLISHED IN THE NEXT EDITION OF C.O.A. STD. SPECS.

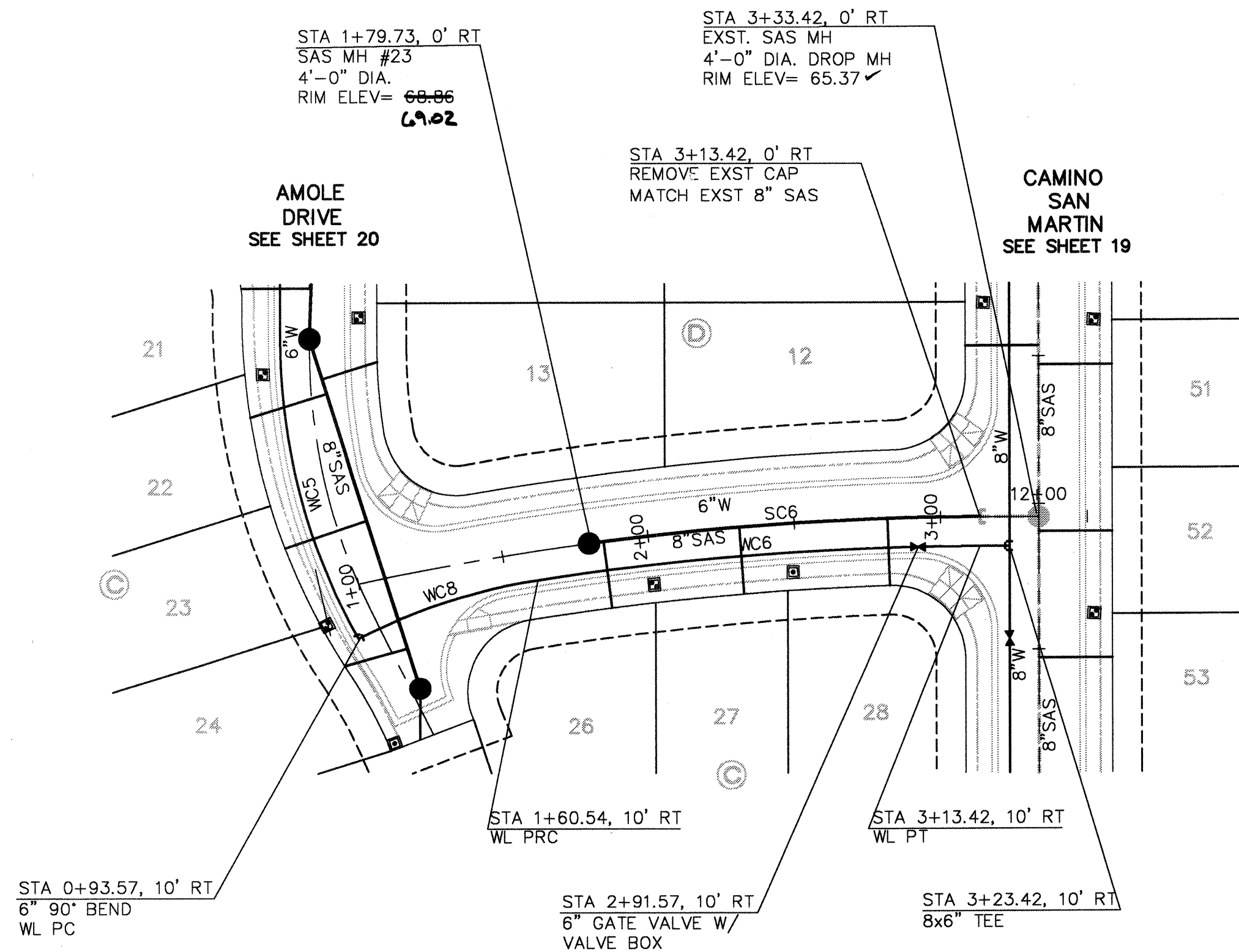
ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 03110/03
167UTDL7.DWG/its

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
TITLE: EL RANCHO GRANDE - UNIT 7 UTILITY DETAILS			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 699383	Zone Map No. M-9	Sheet 17	Of 24

SCANNED BY:
MESA REPRO



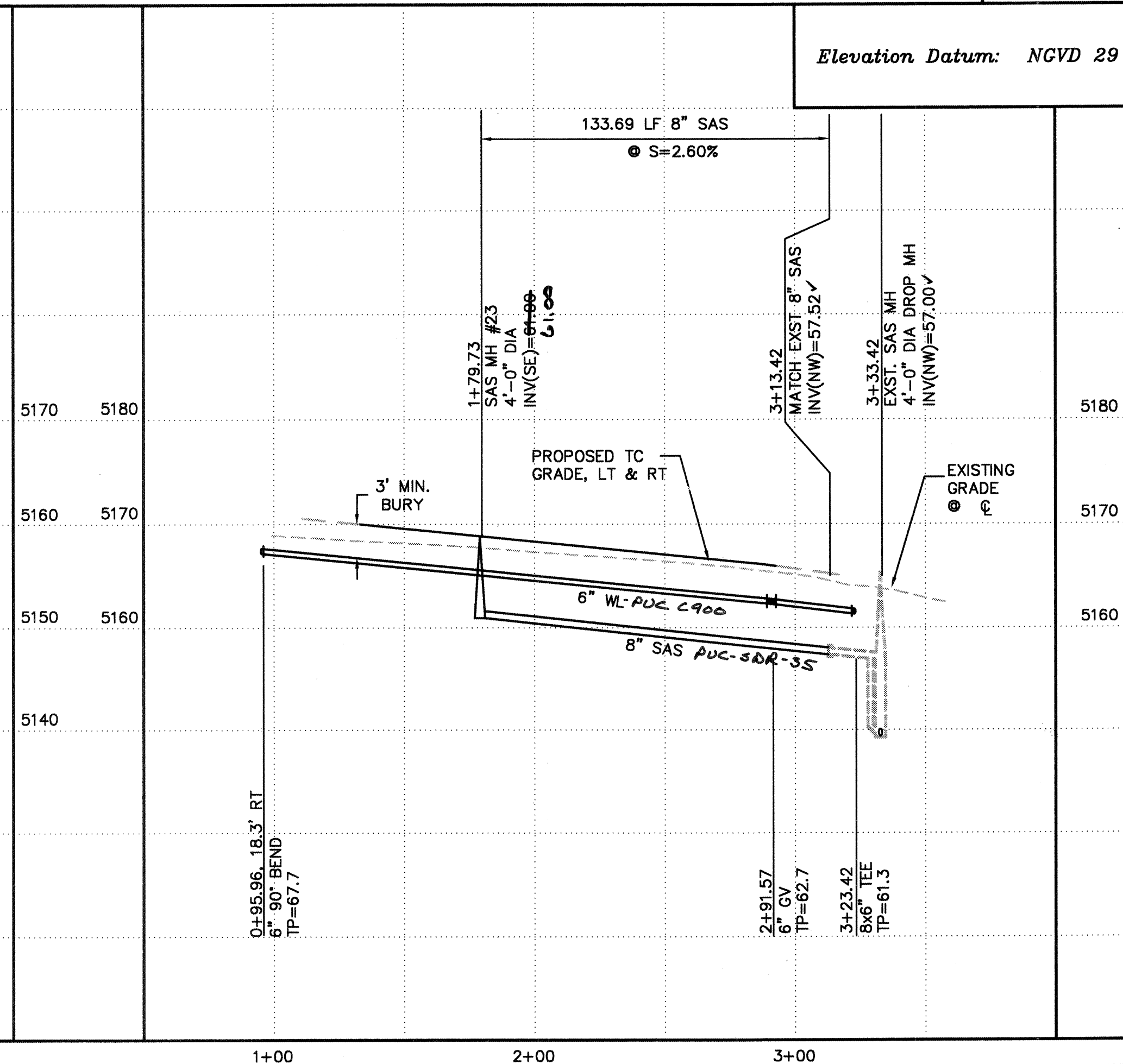
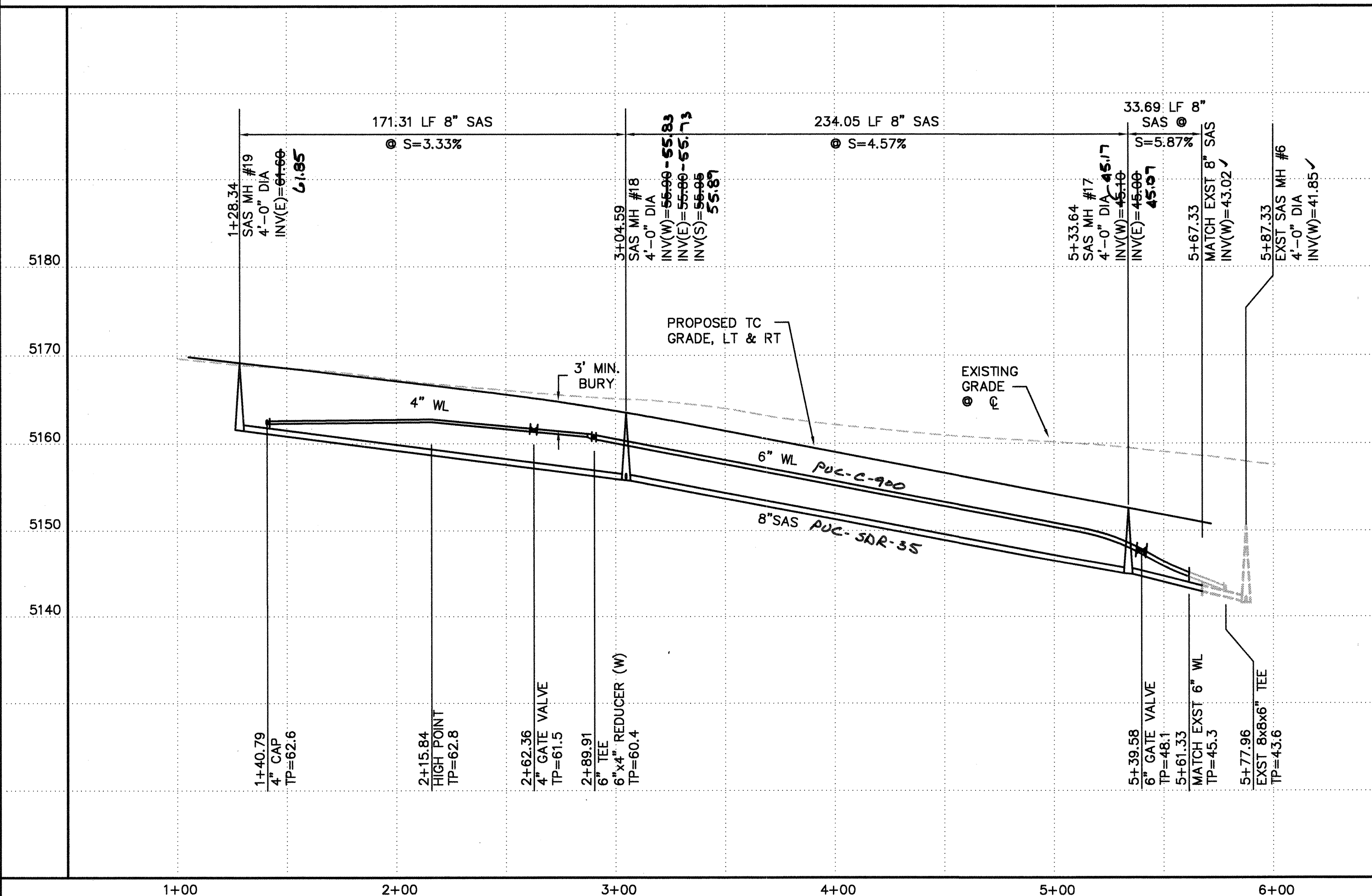
RANCHO WEST PLACE



CALLE DE AMOLE

SCALES:
1"=40' HOR.
1"=10' VERT.

Elevation Datum: NGVD 29



GENERAL NOTES

1. CONSTRUCT SAS SERVICES PER COA STD DWG #2125.
2. CONSTRUCT ALL SINGLE & DOUBLE WATER SERVICES PER COA STD DWG #2361, #2362, & #2363. SEE SHEET 10 FOR NEW COA STD DWG #2362.
3. SEE SHEET 16 FOR WATER SHUT-OFF PLAN.
4. SEE SHEET 16 FOR RESTRAINED JOINT LENGTHS FOR WATER LINE FITTINGS.
5. CONSTRUCT FIRE HYDRANTS PER DESIGNATED DEPTHS & LENGTHS PER COA STD DWG #2340.
6. SEE SHEET 17 FOR VALVE RING & COVER DETAIL.

UTILITY SERVICE TABLE

LOT NO.	STATION		SAS INV @ END
	WATER, LENGTH	SAS, LENGTH	
RANCHO WEST PL.			
12/C	1+97.97, 25'(S)	1+86.33, 23'	62.54
11/C	2+58.73, 25'	2+42.92, 23'	60.84
10/C		2+94.59, 23'	58.99
9/C	3+73.17, 25'	3+57.35, 23'	56.13
8/C		4+20.67, 23'	53.11
7/C	4+99.44, 25'	4+83.71, 23'	50.09
6/C		5+26.73, 23'	48.03
13/C	1+47.20, 10'(S)	1+33.34, 48'	64.19
14/C	2+15.84, 5'	1+75.37, 23'	62.87
15/C		2+54.97, 23'	60.45
19/D	3+80.76, 5'	3+42.87, 23'	56.8
20/D		4+10.42, 23'	53.60
21/D	4+66.83, 5'	4+52.49, 23'	51.58
22/D		4+95.52, 23'	49.53
23/D	5+13.34, 5'(S)	5+28.64, 23'	47.94
CALLE DE AMOLE			
26/C	2+00.08, 5'	1+84.73, 23'	63.79
27/C		2+30.98, 23'	62.64
28/C	2+48.69, 5'(S)	2+81.91, 23'	61.37

ALL WATER SERVICES ARE DOUBLE EXCEPT WHERE NOTED AS (S) SINGLE.

SAS CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
SC2	548.68	171.31	17°53'21"
SC3	500.00	234.05	26°49'11"
SC6	1035.35	133.70	07°23'56"

WATER CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
WC2	510.00	372.60	41°51'35"
WC6	990.00	151.36	08°45'35"
WC8	200.00	64.55	18°29'29"

LEGEND

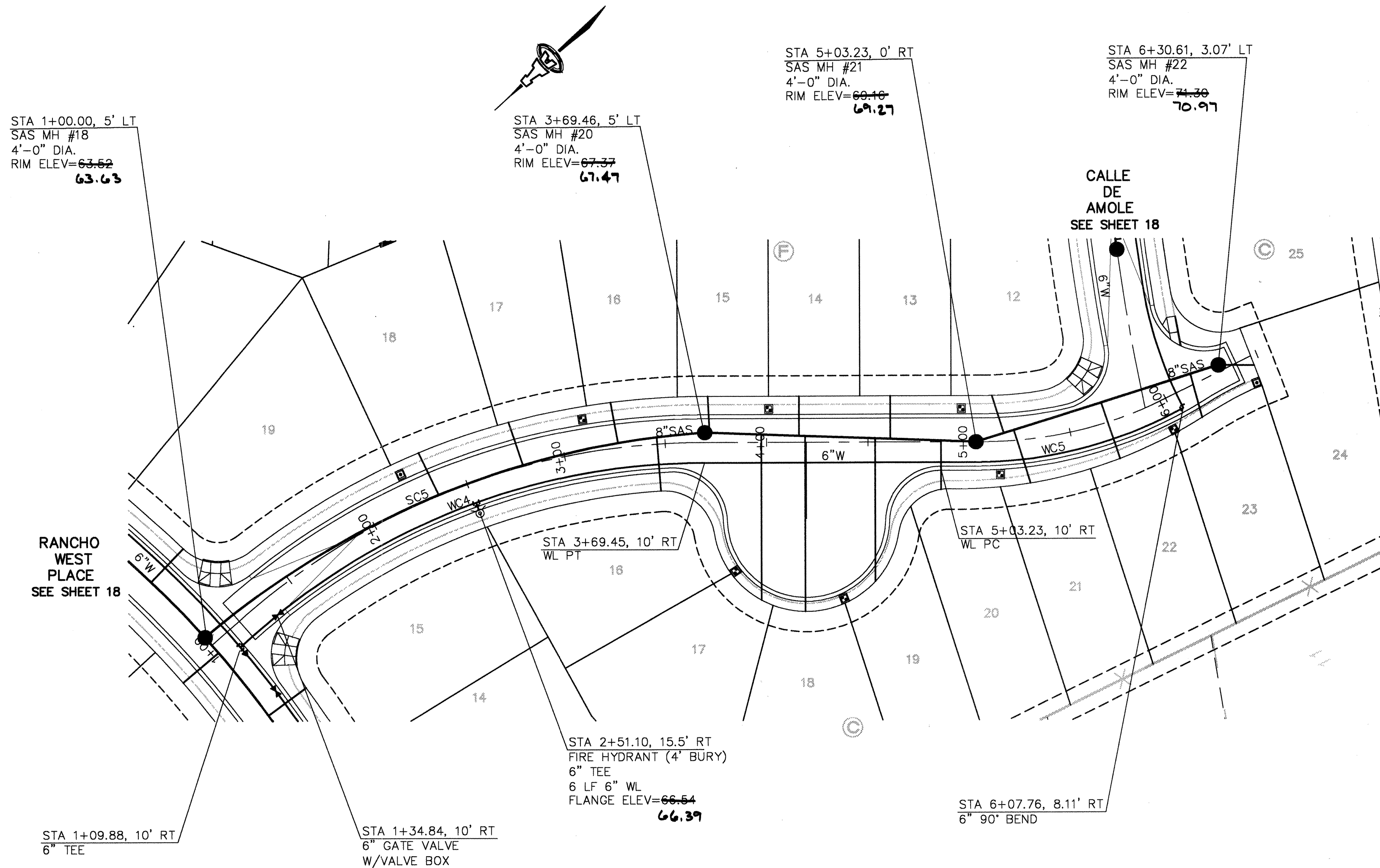
- SINGLE WATER METER & BOX
- DOUBLE WATER METER & BOX
- GATE VALVE W/ VALVE BOX
- FIRE HYDRANT
- SAS MANHOLE
- WATER LINE W/ FITTING

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
167UT3-7.DWG/its 03/12/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: EL RANCHO GRANDE - UNIT 7 RANCHO WEST PL. & CALLE DE AMOLE STA. 1+00 TO END STA. 1+00 TO END UTILITY PLAN & PROFILE	
Design Review Committee	City Engineer Approval
City Project No. 699383	Zone Map No. M-9
Sheet 18	Of 24

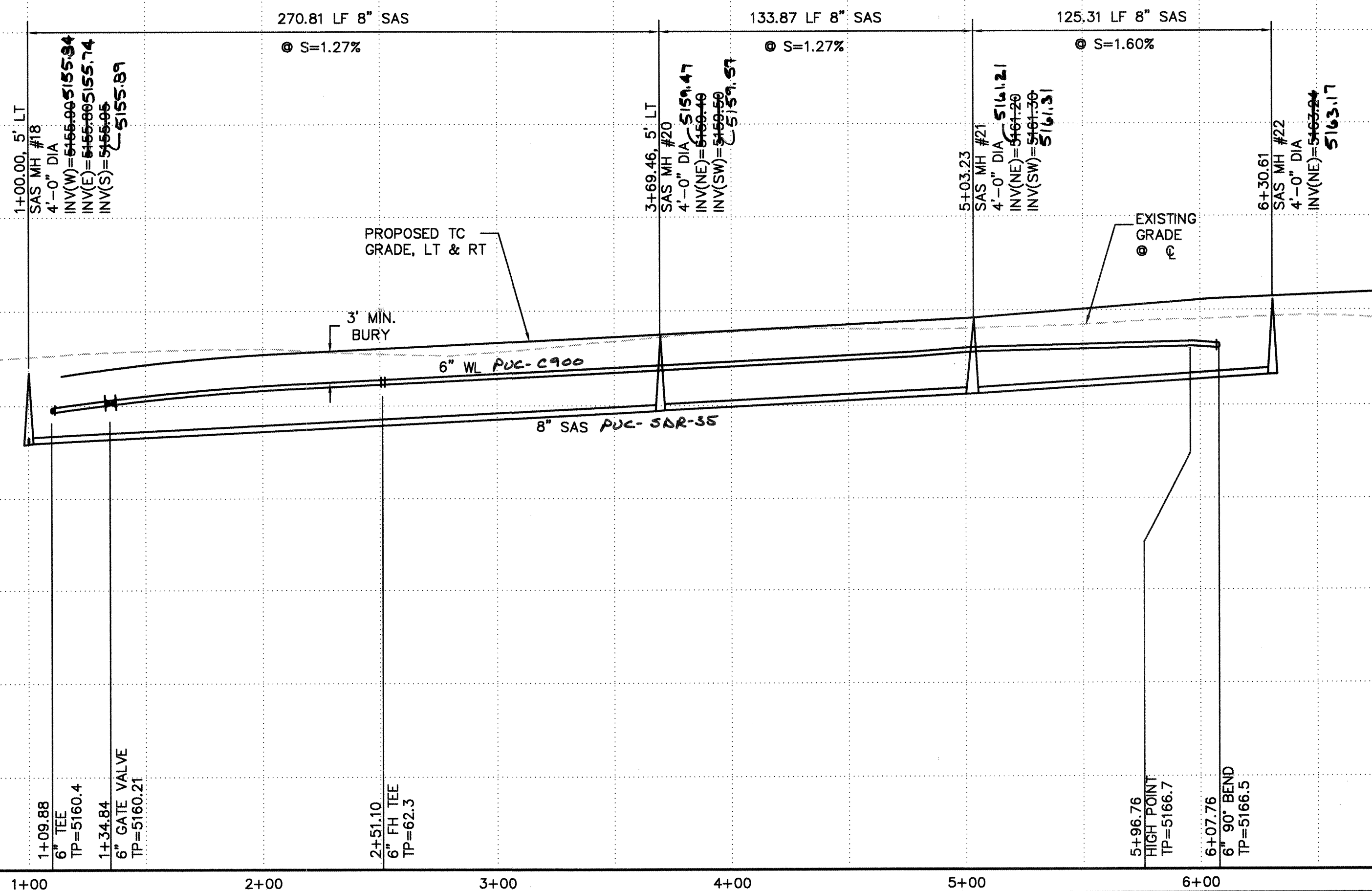
SCANNED BY
MESA REPRO



AMOLE DRIVE

SCALES:
1"=40' HOR.
1"=10' VERT.

Elevation Datum: NGVD 29



GENERAL NOTES

1. CONSTRUCT SAS SERVICES PER COA STD DWG #2125.
2. CONSTRUCT ALL SINGLE & DOUBLE WATER SERVICES PER COA STD DWG #2361, #2362, & #2366. SEE SHEET 17 FOR NEW COA STD DWGS 2362 & 2366.
3. SEE SHEET 16 FOR WATER SHUT-OFF PLAN.
4. SEE SHEET 16 FOR RESTRAINED JOINT LENGTHS FOR WATER LINE FITTINGS.
5. CONSTRUCT FIRE HYDRANTS PER DESIGNATED DEPTHS & LENGTHS PER COA STD DWG #2340.
6. SEE COA STD DWGS 2326 & 2328 FOR VALVE BOX, RING & COVER DETAILS.

UTILITY SERVICE TABLE

LOT NO.	STATION		SAS INV @ END
	WATER, LENGTH	SAS, LENGTH	
18/F	2+19.64, 25'	2+33.70, 23'	60.83
17/F	3+14.59, 25'	2+77.63, 23'	61.37
16/F	3+25.74, 23'	3+25.74, 23'	61.97
15/F	4+01.01, 25'	3+71.02, 23'	62.54
14/F	4+16.01, 23'	4+16.01, 23'	63.10
13/F	4+91.01, 25'	4+61.01, 23'	63.66
12/F	5+11.59, 23'	5+11.59, 23'	64.37
16/C	3+82.37, 52'	3+46.49, 23'	62.23
17/C	3+97.37, 78'	3+97.37, 78'	62.87
18/C	4+38.48, 65'	4+19.01, 83'	63.14
19/C	4+53.48, 68'	4+53.48, 68'	63.57
20/C	5+14.34, 4'	4+85.95, 23'	63.97
21/C	5+27.85, 21'	5+27.85, 21'	64.68
22/C	5+96.76, 5'	5+69.43, 19'	65.47
23/C	6+12.12, 16'	6+12.12, 16'	66.22
24/C	6+44.22, 40'	6+46.68, 18'	66.59

ALL WATER SERVICES ARE DOUBLE EXCEPT WHERE NOTED AS (S) SINGLE.

* INSTALL SAS SERVICE INTO MH PER COA DWG #2118

SAS CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
SC5	425.00	270.81	36°30'30"

WATER CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
WC4	330.00	239.81	41°38'10"
WC5	210.00	106.72	29°07'05"

LEGEND

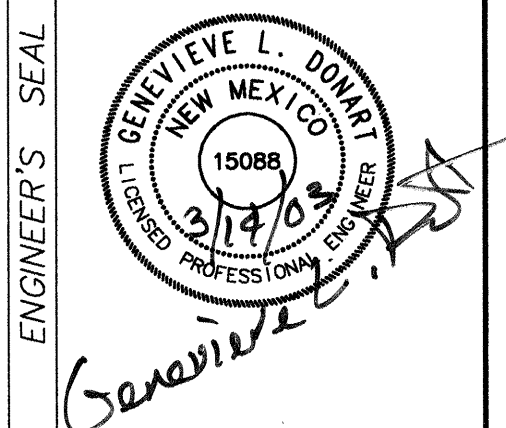
- SINGLE WATER METER & BOX
- DOUBLE WATER METER & BOX
- GATE VALVE W/ VALVE BOX
- FIRE HYDRANT
- SAS MANHOLE
- WATER LINE W/ FITTING

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
167UT4-7.DWG/rs VIEW: 1 03/10/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

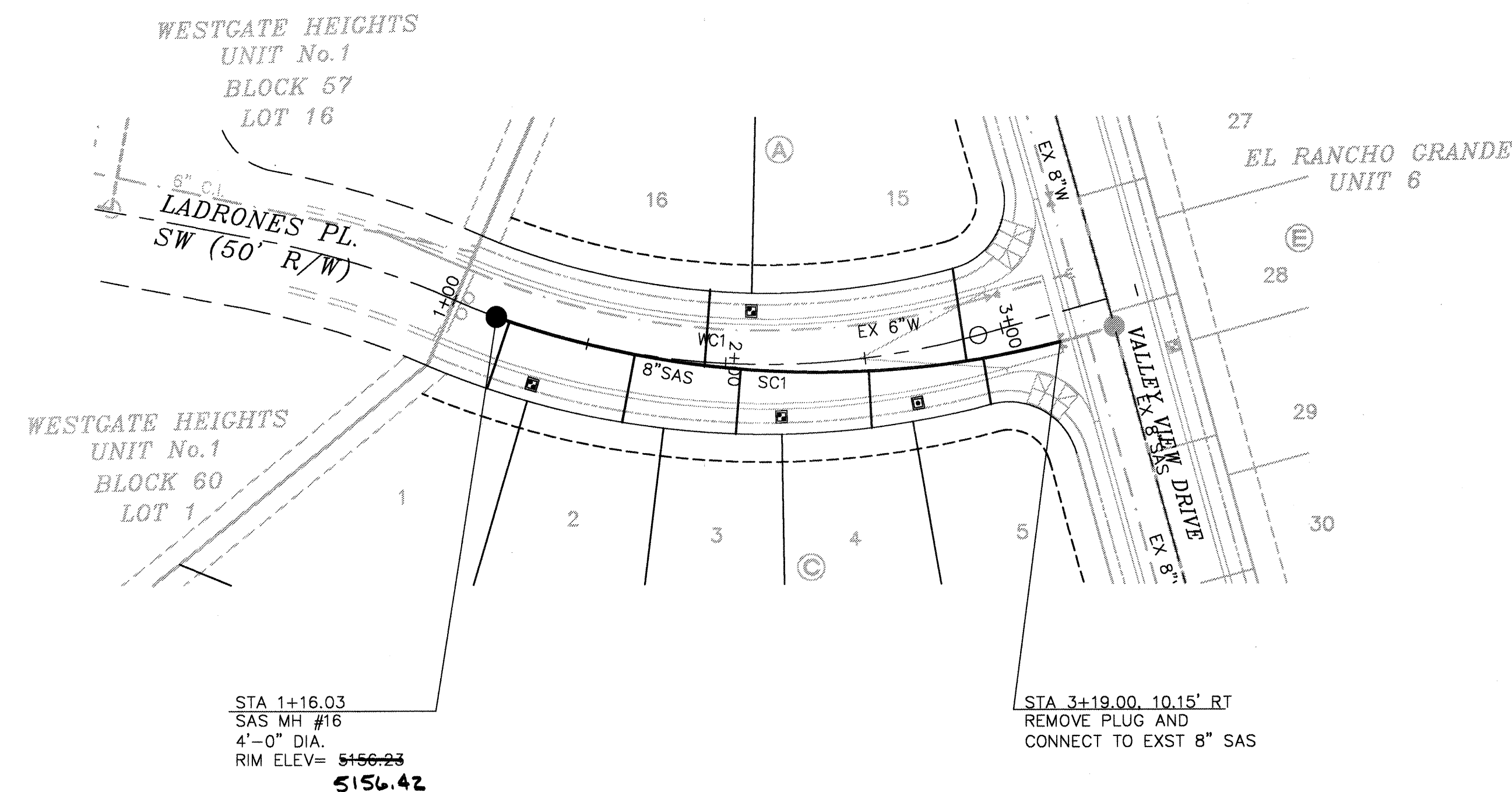
TITLE: **EL RANCHO GRANDE - UNIT 7
AMOLE DRIVE
STA 1+00 TO END
UTILITY PLAN & PROFILE**

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet	Of
699383	M-9	20	24



NO.	DATE	REVISIONS	DESIGNED BY	DRAWN BY	CHECKED BY	DATE	DATE	DATE

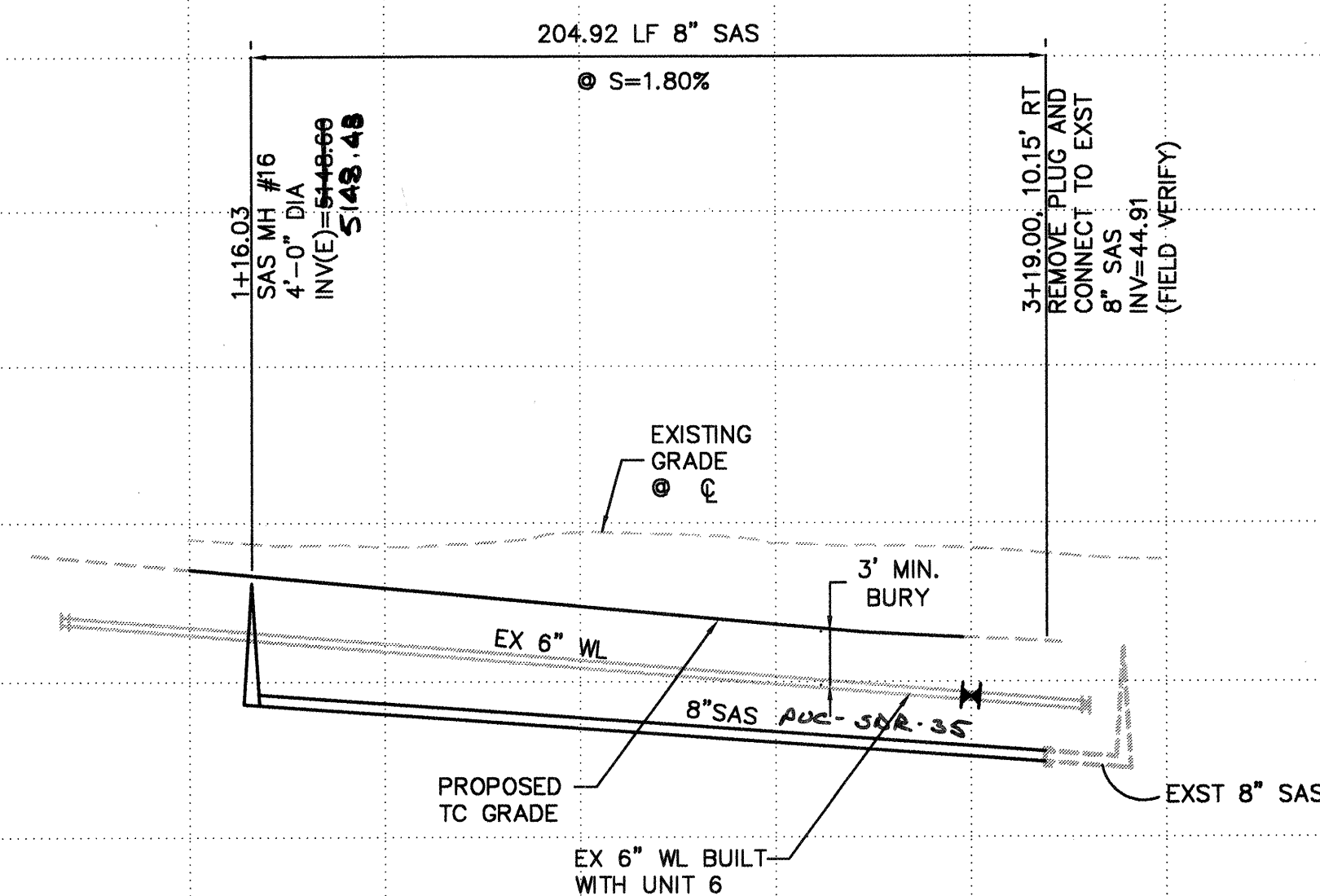
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MESA REPRO



LADRONES PLACE

SCALES:
1"=40' HOR.
1"=10' VERT.

Elevation Datum: NGVD 29



- ### GENERAL NOTES
- CONSTRUCT SAS SERVICES PER COA STD DWG #2125.
 - CONSTRUCT ALL SINGLE & DOUBLE WATER SERVICES PER COA STD DWG #2361, #2362, & #2363. SEE SHEET 10 FOR NEW COA STD DWG #2362.
 - SEE SHEET # FOR WATER SHUT-OFF PLAN.
 - SEE SHEET # FOR RESTRAINED JOINT LENGTHS FOR WATER LINE FITTINGS.
 - CONSTRUCT FIRE HYDRANTS PER DESIGNATED DEPTHS & LENGTHS PER COA STD DWG #2340.
 - SEE COA STD DWG #2328 FOR VALVE RING & COVER DETAIL.

UTILITY SERVICE TABLE

LOT NO.	STATION		SAS INV ⊗ END
	WATER, LENGTH	SAS, LENGTH	
LADRONES PLACE			
1/C	1+34.82, 29'	1+21.02, 25'	50.6
2/C		1+66.93, 25'	50.5
3/C	2+19.72, 29'	2+04.53, 23'	49.7
4/C		2+49.30, 20'	48.6
5/C	2+65.78, 29'(S)	2+89.35, 17'	47.9
15/A	2+08.91, 5'	2+88.50, 33'	47.9
16/A		1+92.51, 27'	50.0

ALL WATER SERVICES ARE DOUBLE EXCEPT WHERE NOTED AS (S) SINGLE.

*INSTALL SAS SERVICE INTO MH PER COA STD DWG #2118.

SAS CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA
SC1	350.00	204.92	33°32'44"

LEGEND

- SINGLE WATER METER & BOX
- DOUBLE WATER METER & BOX
- GATE VALVE W/ VALVE BOX
- FIRE HYDRANT
- SAS MANHOLE
- WATER LINE W/ FITTING

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Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
167UT1-7.DWG1s VIEW: 1 03/10/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **EL RANCHO GRANDE - UNIT 7
LADRONES PLACE**
STA 1+00 TO END
UTILITY PLAN & PROFILE

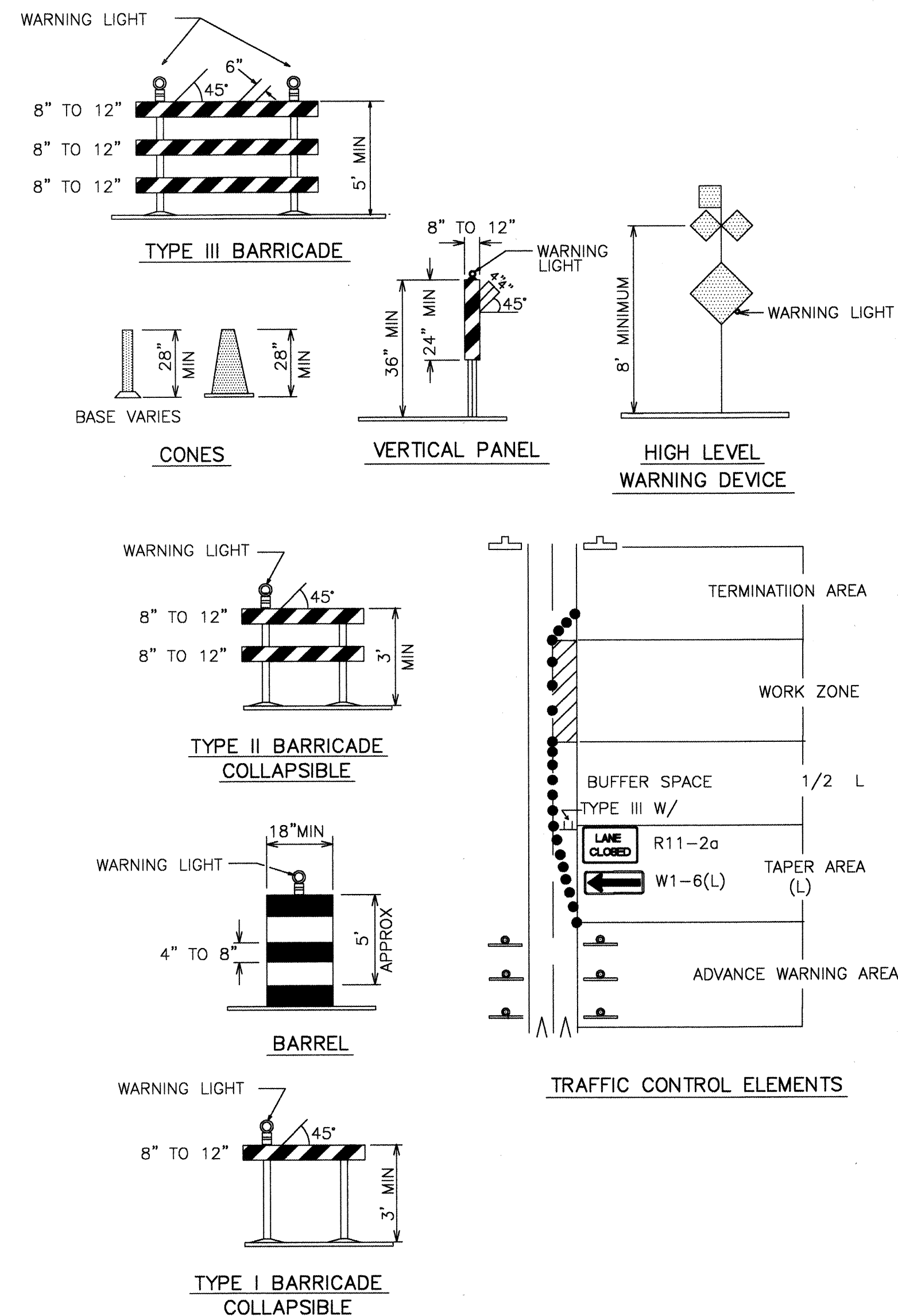
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
	MAY - 9 2003 CITY ENGINEER		
City Project No. 699383	Zone Map No. M-9	Sheet 22	Of 24

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	NEW Concepts	ACS MONUMENT	"7-19" A C.O.A. BRASS CAP SET IN CONCRETE, LOCATED 39.2' WEST FROM THE CENTERLINE OF 98th STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TOWNER ROAD.	FIELD NOTES	11/99		
INSPECTOR'S NAME	ALIS	DATE	03/2/03	ALS			
INSPECTOR'S NAME	J+A	DATE	03/2/03				
FIELD VERIFICATION BY	ALIS	DATE	03/03				
FIELD VERIFICATION BY	ALIS	DATE	03/03				
CONTRACTOR'S NAME	NEW Concepts	DATE	03/03				
CONTRACTOR'S NAME	NEW Concepts	DATE	03/03				
RECORDED BY		DATE					
NO.							

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MESA REPRO

- SCANNED BY
MESA REPRO

22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING:
 1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
 3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER SECTIONS.
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.
24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW--CLEAN CONDITION, WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.
26. ADVANCE WARNING SIGNS SHALL BE 36"x36" MIN. WITH SUPER ENGINEERING GRADE SHEETING OR BETTER. MOUNTING HEIGHT AT TOP OF SIGN SHALL BE THE SAME AS FOR A 48" SIGN AS INDICATED IN THE M.U.T.C.D.
27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPMENT, BOTH PERMANENT AND TEMPORARY.



	WORK AREA
•	BARRICADE – TYPE I, TYPE II, OR BARREL
⊥	BARRICADE – TYPE III
×	VERTICAL PANEL
⚠	WARNING SIGN
D	DISTANCE BETWEEN SIGNS – A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET
	FLAGMAN POSITION
S	SPACING BETWEEN BARRICADES – A DISTANCE MEASURED IN FEET EQUAL TO THE SPEED LIMIT OF THE STREET
L	TAPER LENGTH – SEE CHART BELOW

THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

SPEED LIMIT (MPH)	TAPER LENGTH(L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	295	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

SPEED MILES PER HOUR	MINIMUM BETWEEN SIGNS	DISTANCE IN FEET FROM LAST SIGN TO TAPER
0-20	10 X SPEED LIMIT	10 X SPEED LIMIT
25-30	10 X SPEED LIMIT	10 X SPEED LIMIT
30-35	10 X SPEED LIMIT	10 X SPEED LIMIT
40-45	10 X SPEED LIMIT	10 X SPEED LIMIT
50-60	10 X SPEED LIMIT	10 X SPEED LIMIT

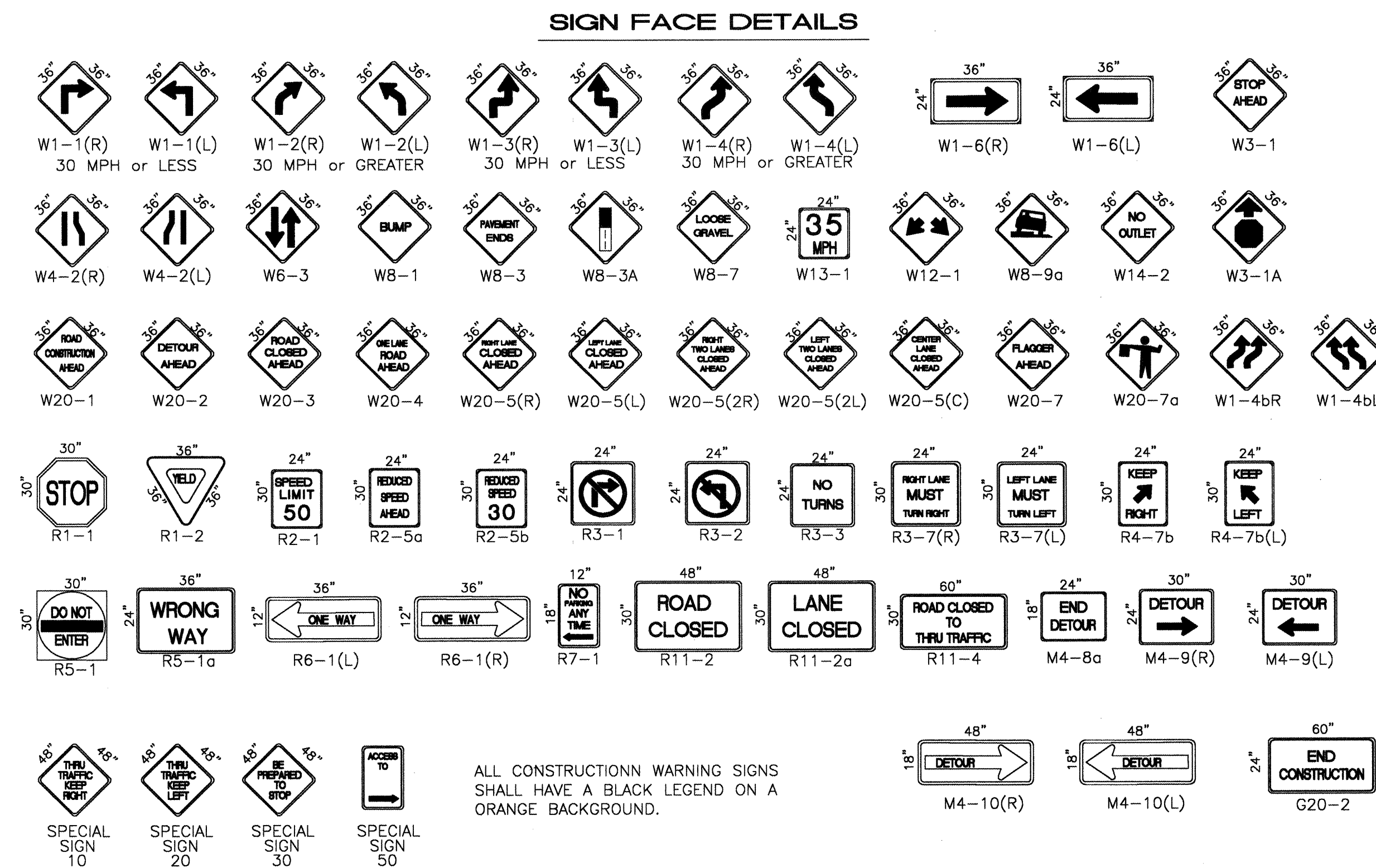
TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

SPEED LIMIT

40 MPH OR LESS $L = \frac{WS^2}{60}$

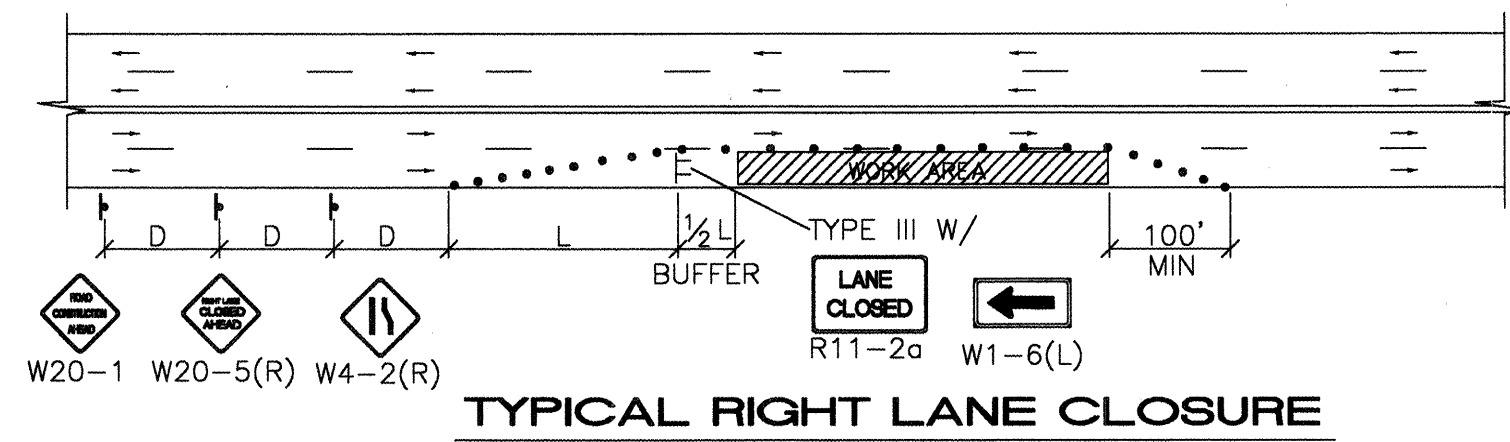
40 MPH OR GREATER $L = W \times S$

L = TAPER LENGTH
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED OR OFF-PEAK
85-PERCENTILE SPEED IN MPH

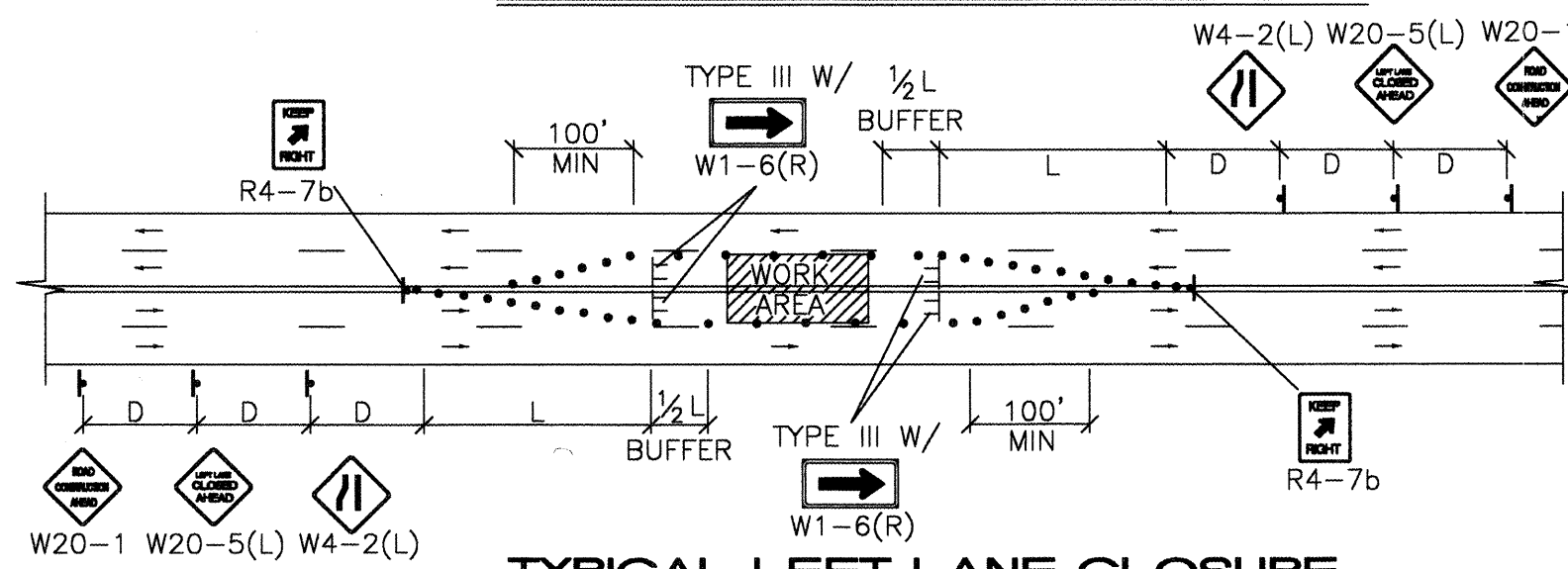


ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.

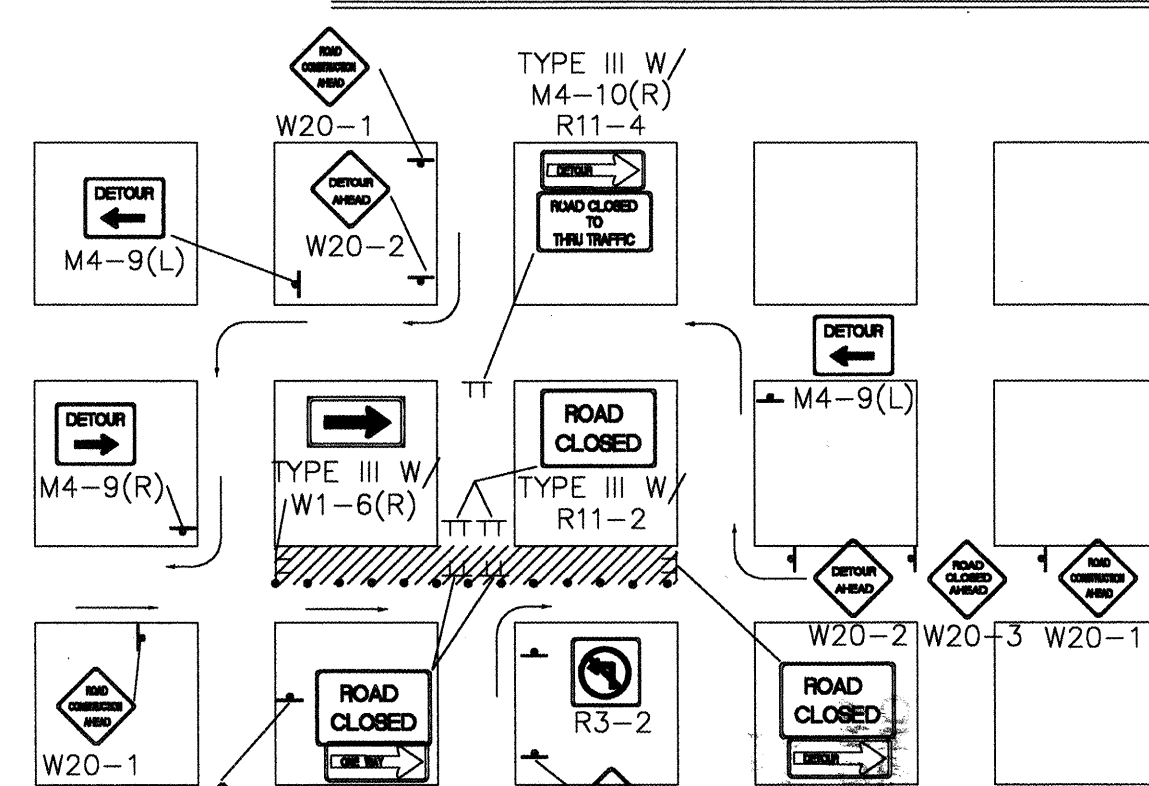
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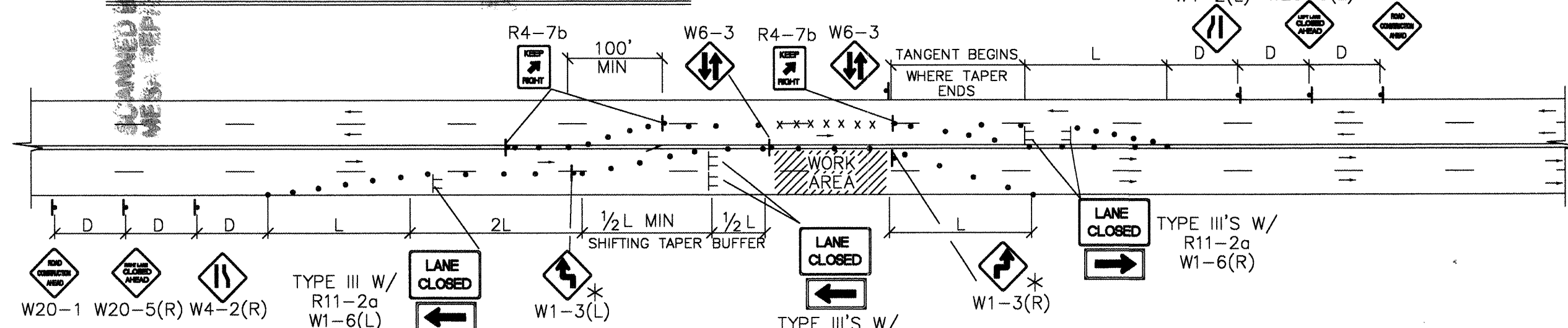
TYPICAL RIGHT LANE CLOSURE



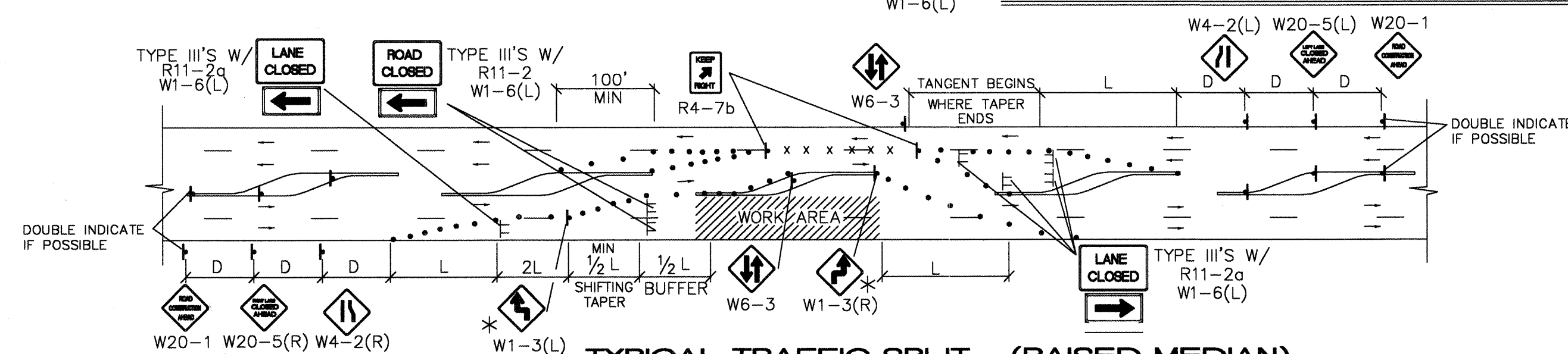
TYPICAL LEFT LANE CLOSURE



TYPICAL ONE DIRECTION DETOUR

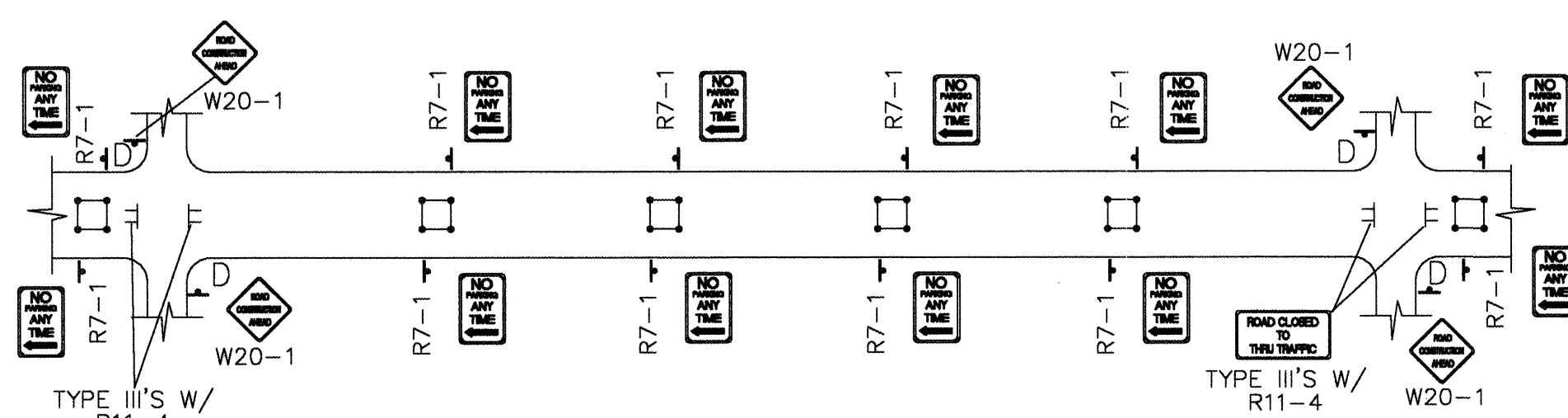


TYPICAL TRAFFIC SPLIT - (PAINTED MEDIAN)



TYPICAL TRAFFIC SPLIT - (RAISED MEDIAN)

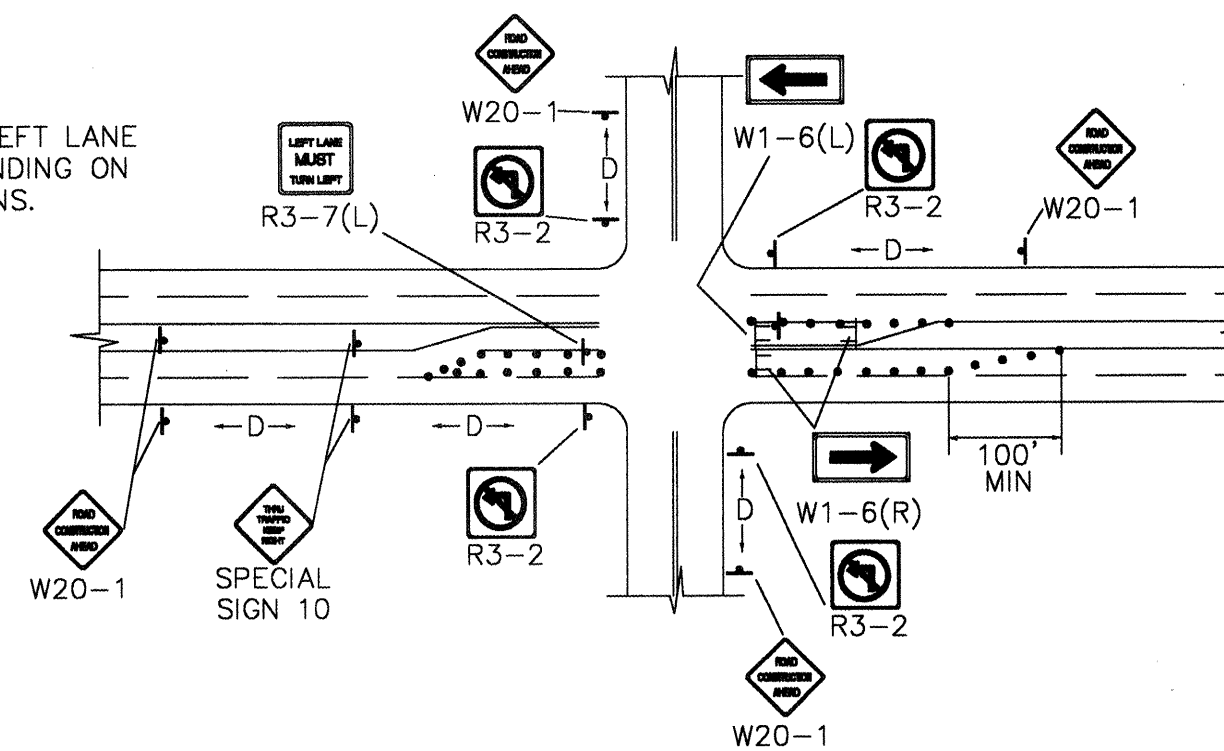
- TRAFFIC SPLIT NOTES:
1. THE OFFSET DISTANCE MUST BE CALCULATED IN ALL SHIFTING TAPERS. THE OFFSET DISTANCES SHALL INCLUDE LANE WIDTHS PLUS MEDIAN WIDTHS.
 2. 1/2 L IS THE MINIMUM DISTANCE FOR SHIFTING TAPERS.
 3. REVERSE CURVES MAY BE IMPLEMENTED. ALL CURVE DATA SHALL BE CALCULATED.
 4. MEDIAN REMOVAL SHALL BE REQUIRED IF 1/2 L OR REVERSE CURVE IS NOT SUFFICIENT. MEDIAN REMOVAL SHALL TAKE PLACE BEFORE SPLITS.
 5. REDUCED SPEED MAY BE CONSIDERED.
 6. * USE W1-3 FOR 30 MPH OR LESS, W1-4 FOR SPEED 35 MPH OR GREATER.



TYPICAL SANITARY SEWER SLIPLINING OPERATION

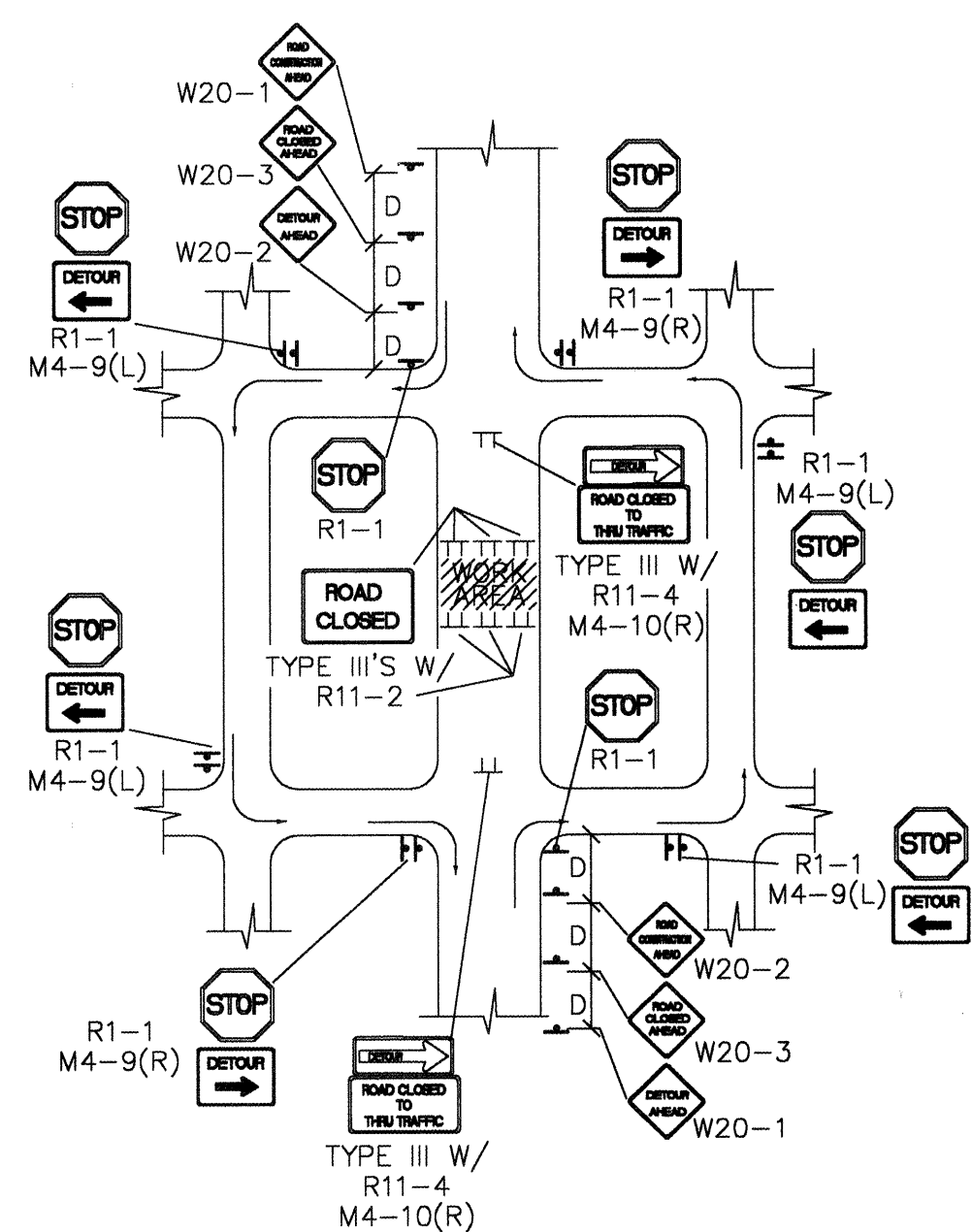
- ALL PITS TO HAVE TYPE-A FLASHING LIGHTS
- ALL PITS TO HAVE FLAGLINE

NOTE:
MAY REQUIRE LEFT LANE
CLOSURE DEPENDING ON
FIELD CONDITIONS.



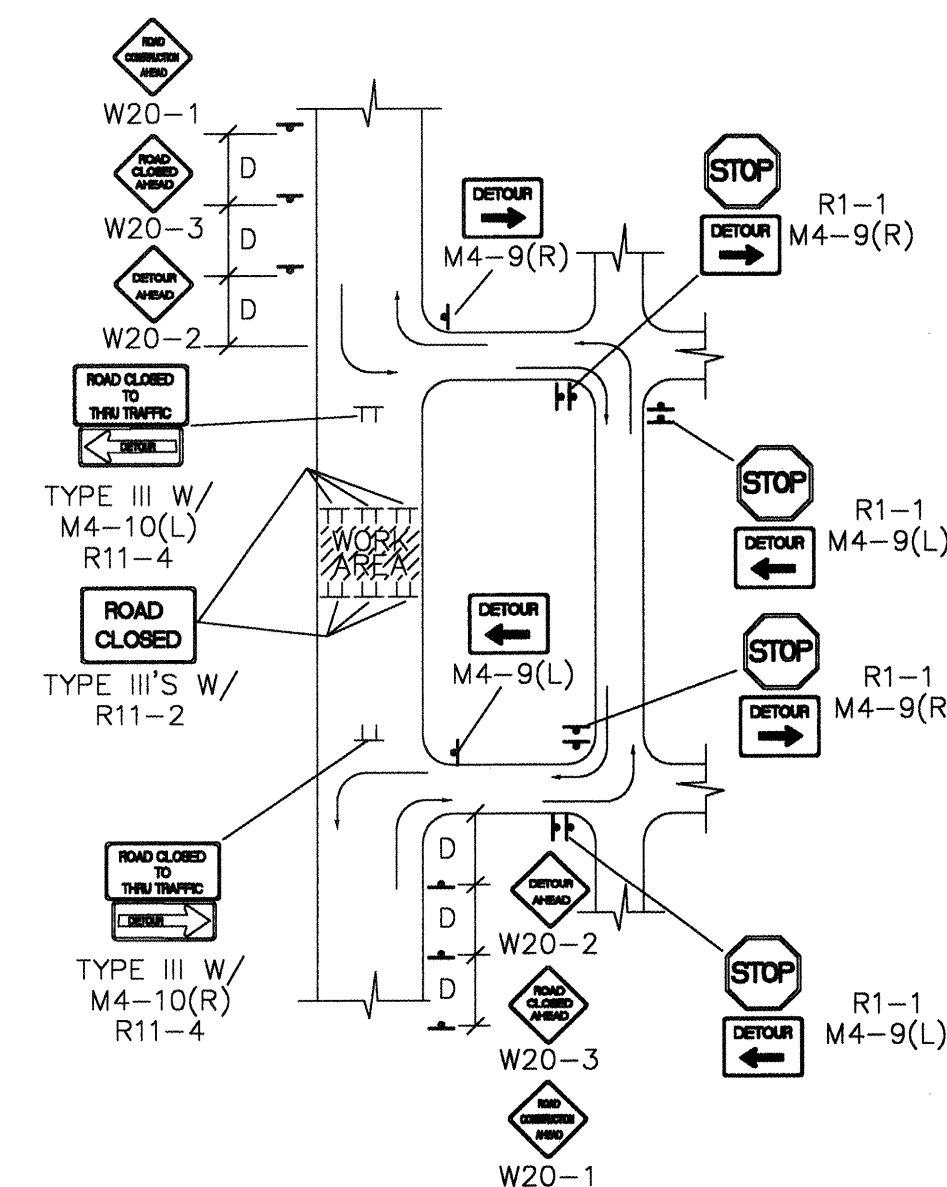
TYPICAL LANE CLOSURE AT INTERSECTION

NOTE: DEPENDING ON WORK ZONE LOCATION.



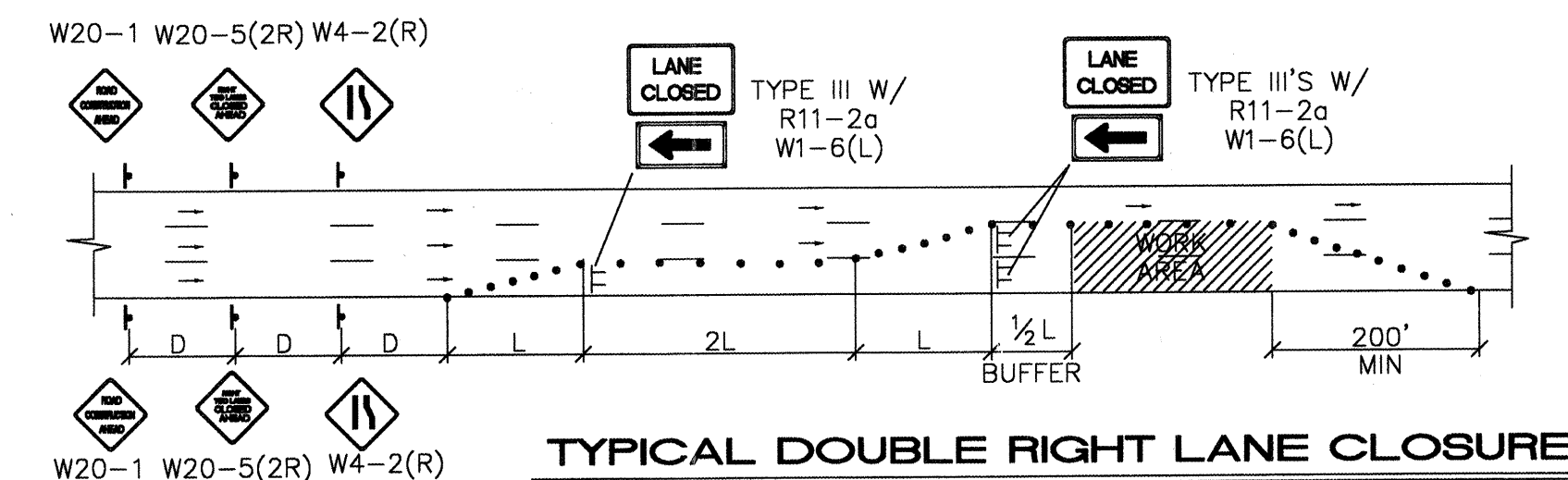
TYPICAL MID-BLOCK CLOSURE

NOTE: (R1-1) BASED ON FIELD CONDITIONS.

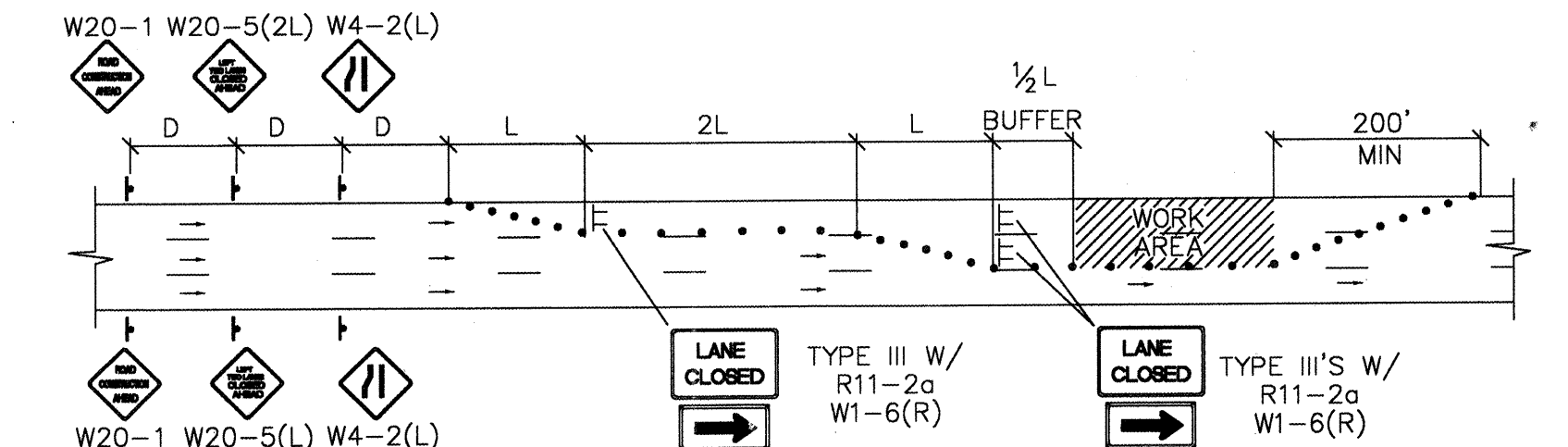


TYPICAL STREET CLOSURE

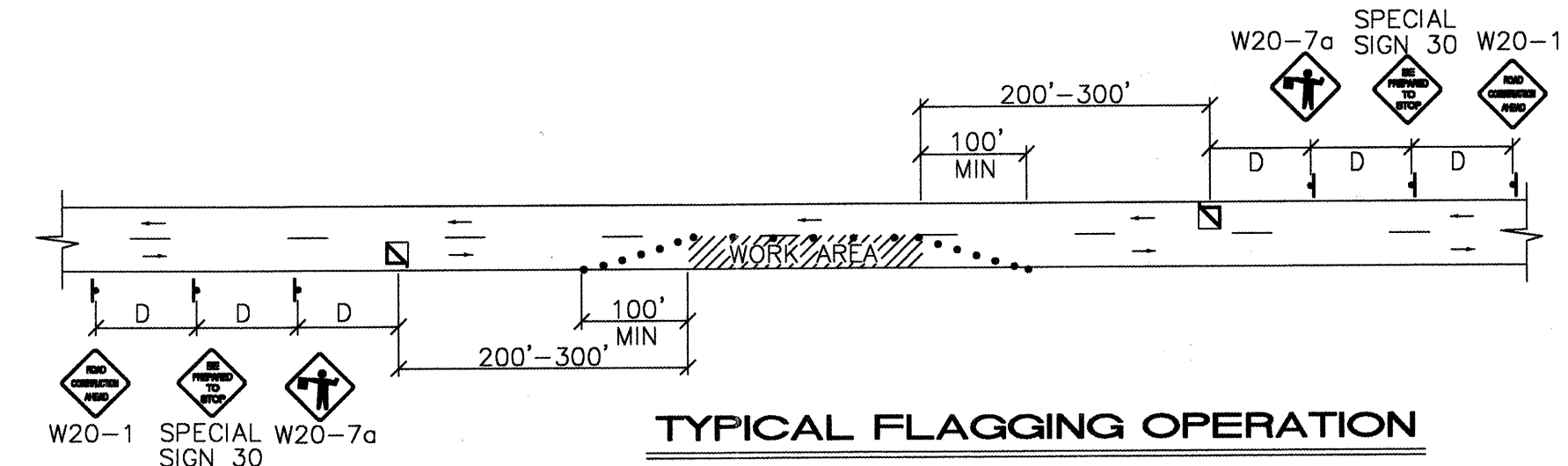
NOTE: (R1-1) BASED ON FIELD CONDITIONS.



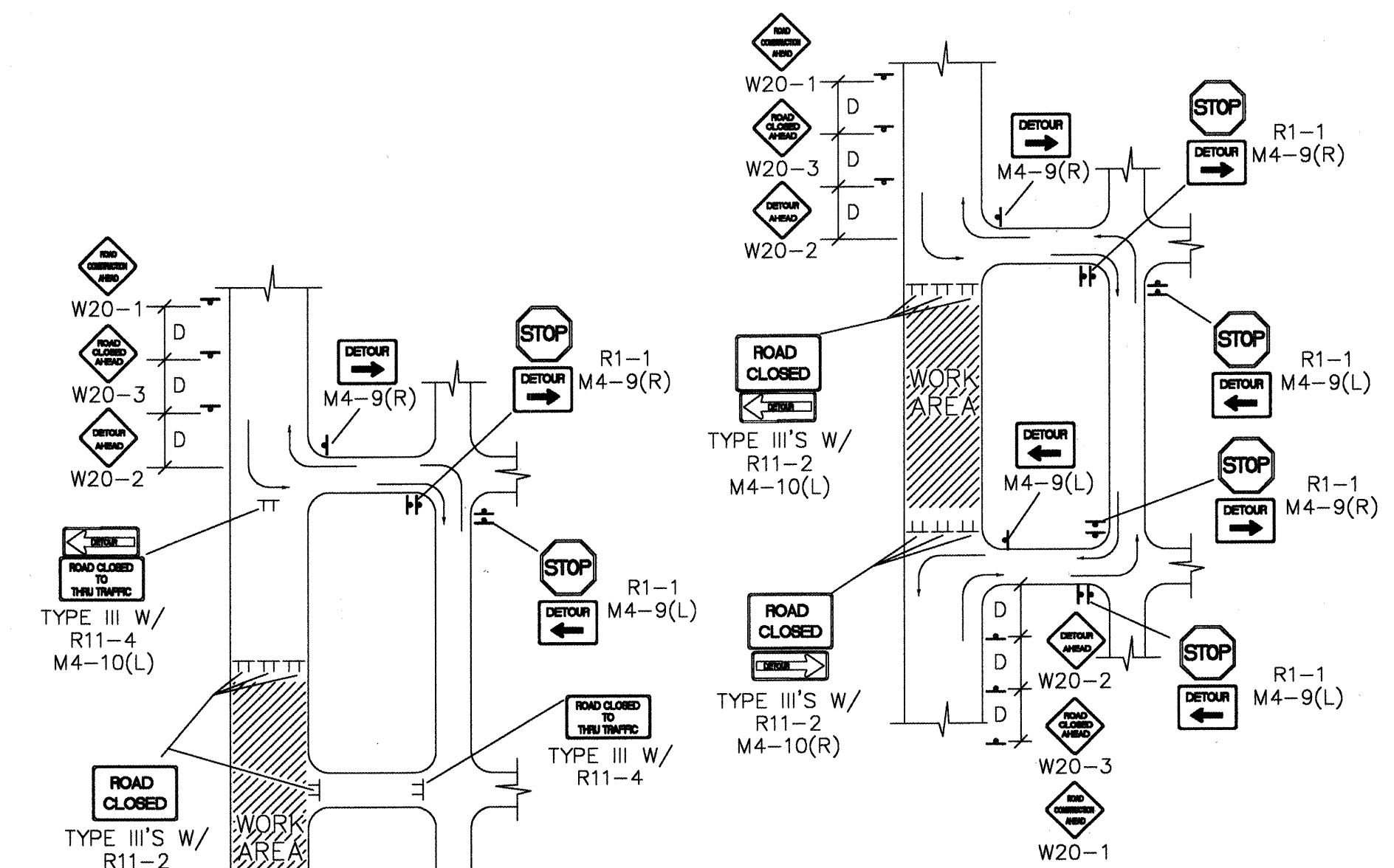
TYPICAL DOUBLE RIGHT LANE CLOSURE



TYPICAL DOUBLE LEFT LANE CLOSURE



TYPICAL FLAGGING OPERATION



TYPICAL STREET CLOSURE

NOTE: (R1-1) BASED ON FIELD CONDITIONS.

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128 Monroe Street N.E.
Albuquerque, New Mexico
167TRF2-7.DWG 02/01/03

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: EL RANCHO GRANDE - UNIT 7
TRAFFIC CONTROL
TRAFFIC CONTROL & SIGNING EXAMPLES

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.

City Project No. 699383 Zone Map No. M-9 Sheet 24 Of 24

CITY
STANDARD
DRAWING

AS-BUILT INFORMATION	BENCH MARKS	SURVEY INFORMATION	ENGINEER'S SEAL
CONTRACTOR: A.C.A. BRASS CAP SET DATE: 03/03 INSPECTOR: A.C.A. BRASS CAP SET DATE: 03/03 FIELD: A.C.A. BRASS CAP SET DATE: 03/03 VERIFICATION: A.C.A. BRASS CAP SET DATE: 03/03 CORRECTION: A.C.A. BRASS CAP SET DATE: 03/03 MICRO-FILM INFORMATION RECORDED BY: A.C.A. BRASS CAP SET DATE: 03/03	ACS MONUMENT "7-LB" A.C.A. BRASS CAP SET IN CONCRETE, LOCATED 39.2' WEST FROM THE CENTERLINE OF 98th STREET AND 31.0' SOUTH FROM THE CENTERLINE OF TOWER ROAD. ELEV. = 5175.74 (NGVD 1929)	FIELD NOTES: 11/99 ALS	REVISIONS DESIGN DATE: 7/31 DRAWN BY: FCA CHECKED BY: FCA