

• L E G E N D •

MATERIALS

CONCRETE

RIP-RAP

LINES

SUBDIVISION BOUNDARY

PROPERTY LINE (PLAN)

PROPERTY LINE (SECTION)

CENTERLINE

EASEMENT LINE

MATCH LINE

SECTION CUT LINE

EARTHWORK

CONTOUR LINE

SPOT ELEVATION

PROJECT / PHASE BOUNDARY

FLOWLINE

DIRECTION OF FLOW

MISCELLANEOUS UTILITIES

GAS LINE

UNDERGROUND TELEPHONE

UNDERGROUND ELECTRICAL

STORM DRAIN

STORM DRAIN MANHOLE

STORM DRAIN INLET

SANITARY SEWER

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

SAS SERVICE CONNECTIONS

SAS CAP OR PLUG

ENCASEMENT

WATER

WATER LINE

WATER SERVICE CONNECTIONS

GATE VALVE

FIRE HYDRANT

BUTTERFLY VALVE

REDUCER

WATER PRESSURE ZONE BOUNDARY

WATER FITTINGS

CAPS AND PLUGS

ELBOW

CROSS

TEE

MISCELLANEOUS

CHAINLINK FENCE

FIELD FENCE

COMMON YARD WALL

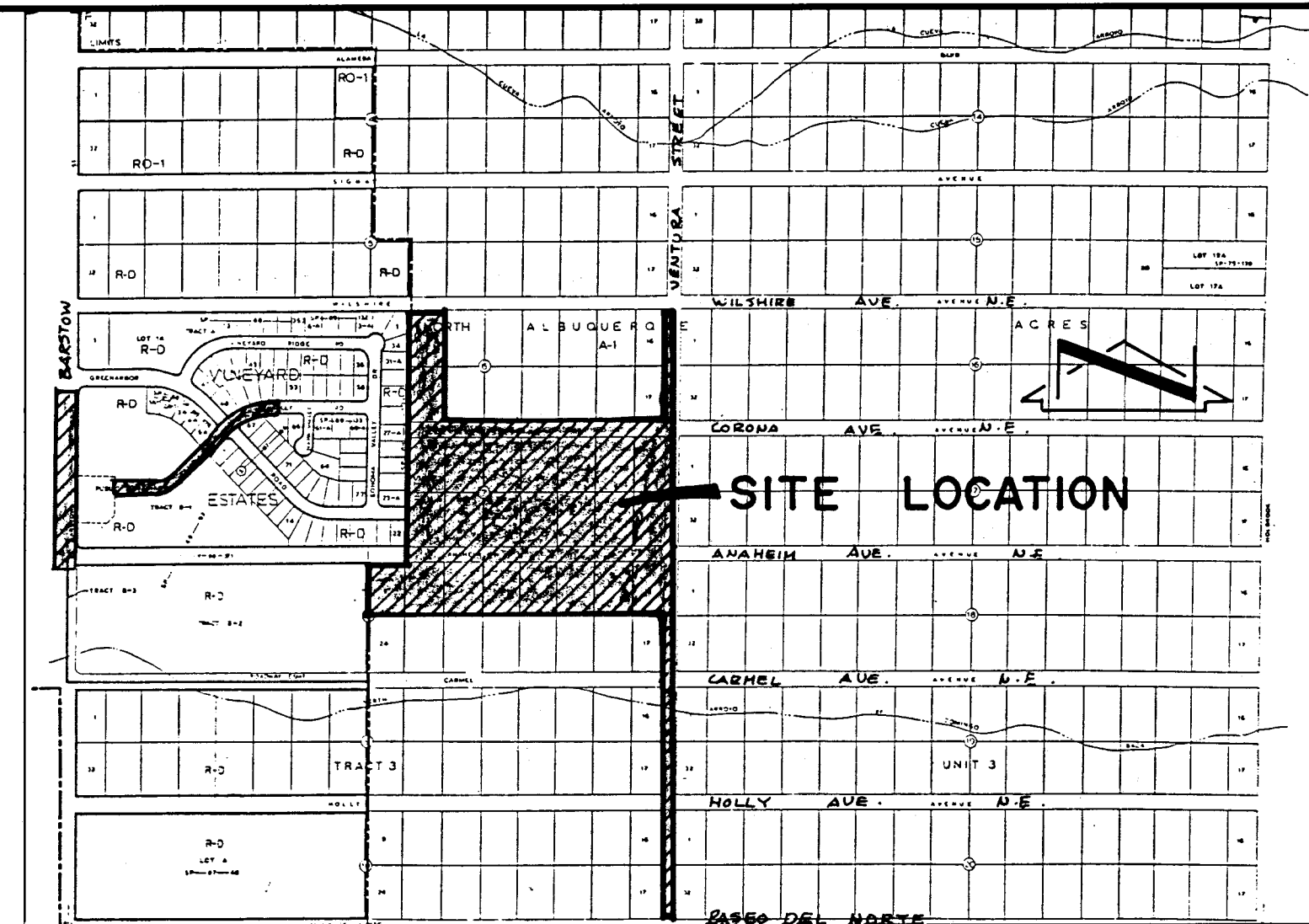
RETAINING WALL

POWER OR TELEPHONE POLE

CONSTRUCTION PLANS

FOR

VINEYARD ESTATES III SUBDIVISION



VICINITY MAP
SCALE: 1" = 800' (APPROX.)

C - 20

GENERAL NOTES:

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS - PUBLIC WORKS CONSTRUCTION - 1986. (UPDATE NO.4)
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE. THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING SAFETY AND HEALTH.
- ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- TACK COAT REQUIREMENTS SHALL BE DETERMINED DURING CONSTRUCTION BY THE PROJECT ENGINEER.
- SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
- IF CURB IS DEPRESSED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF THE CURB AND GUTTER.
- ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
- CONTRACTOR SHALL COORDINATE WITH THE WATER SYSTEM DIVISION FOR THE EXECUTION OF THE VALVE SHUT OFF PLAN, NOT LESS THAN THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT THE EXISTING PUBLIC WATER UTILITIES. ONLY WATER SYSTEM DIVISION PERSONNEL SHALL OPERATE EXISTING VALVES. REFER TO SECTION 18 OF THE SPECIFICATION.
- CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE ENGINEER. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF 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 SPECIFICATIONS.
- THREE (3) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION CO-ORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION CO-ORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. CONTRACTOR MUST REFER TO SECTION 19 OF THE STANDARD SPECIFICATION FOR TRAFFIC CONTROL.
- ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED IN KIND BY CONTRACTOR TO LOCATION AND IN KIND AS EXISTING OR AS INDICATED BY THIS PLAN SET.
- CAUTION: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

INDEX OF DRAWINGS

SHEET	DESCRIPTION
1	COVER SHEET, VICINITY MAP, GENERAL NOTES, LEGEND, INDEX OF DRAWINGS
2,3	SUBDIVISION PLAT
4,5	GRADING AND DRAINAGE PLAN
6	GRADING NOTES, DRAINAGE DETAILS AND SECTIONS
7A & 7B	TRAFFIC CONTROL DETAILS
8	PAVING AND STORM DRAINAGE IMPROVEMENTS
9	PAVING AND STORM DRAINAGE SITE PLAN
10	GREENARBOR ROAD N. E. STA. 27+03.14 TO STA. 38+20.57
11	VINTAGE DRIVE N. E. STA. 36+00 TO STA. 39+91.97
12	CORONA AVENUE N. E. PROFILES 'A' AND 'B'
13	MENDOCINO DRIVE N. E. STA. 6+69 TO STA. 18+80.66
14	MENDOCINO DRIVE N. E. STA. 5+60.88 TO STA. 6+69
15	MENDOCINO COURT N. E. STA. 5+00 TO STA. 7+91.90
16	CORONA AVENUE N. E. STA. 10+00 TO STA. 20+15
17	VENTURA STREET N. E. STA. 10+00 TO STA. 22+00
18	VENTURA STREET N. E. STA. 22+00 TO STA. 31+11.61
19	VENTURA STREET N. E. STA. 31+11.61 TO STA. 36+10
19A	PAVING DETAILS AND SECTIONS
20	10' PUBLIC DRAINAGE EASEMENT STA. 10+00 TO STA. 11+24
21	NAPA VALLEY STORM DRAIN EXTENSION STA. 5+34.60 TO STA. 13+38.00
22	GREEN ARBOR STORM DRAIN EXTENSION STA. 17+81.85 TO STA. 22+63.40
23	WATER AND SANITARY SEWER IMPROVEMENTS
24	WATER AND SANITARY SEWER SITE PLAN / WATER VALVE SHUTOFF PLAN
25	GREENARBOR ROAD N. E. STA. 26+93.14 TO STA. 36+52.04
26	VINTAGE DRIVE N. E. STA. 36+52.04 TO STA. 40+01.97
27	MENDOCINO DRIVE N. E. STA. 6+69 TO STA. 18+80.66
28	MENDOCINO DRIVE N. E. STA. 5+60.88 TO STA. 6+69
29	MENDOCINO COURT N. E. STA. 5+00 TO STA. 8+64.75
30	CORONA AVENUE N. E. STA. 10+00 TO STA. 20+15
31	BARSTOW STREET N. E. STA. 2+50 TO STA. 10+00
32	RETAINING WALLS
33	WALL 'A' STA. 1+00 TO STA. 3+09
34	WALL 'B' STA. 4+00 TO STA. 11+22.84
35	WALL 'C' STA. 11+22.84 TO STA. 21+80
36	WALL 'D' STA. 1+00 TO STA. 7+60
37	WALL 'E' STA. 1+00 TO STA. 2+83
38	WALL 'F' STA. 1+00 TO STA. 2+83
39	WALL 'G' STA. 1+00 TO STA. 4+00
40	RETAINING WALL SECTIONS

4 RECORD DRAWING

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

Jeffrey G. Mortensen, 01-11-94 Date

APPROVAL OF AS BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
Russell B. Smith
DATE 2-15-94

1, 19, 19A	Billy Bartel	10-12-93	Kurtis L. Hydrology	9-28-93		
REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT

APPROVAL OF REVISIONS

4 RECORD DRAWING

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
26 33 91.94 0194

APPROVED FOR CONSTRUCTION

Russell B. Smith
6/4/93
C.E.

PROJECT NO.
3391.94

SHEET 1 OF 31

4

* RESTRICTION *

State of New Mexico 155
County of Bernalillo
This instrument was filed for
0:00 PM 30/03/2020

438 A 142

NTED

SHEET 3 OF 3

△ DRAINAGE PLAN

The following items concerning the Vineyard Estates III Drainage Plan are contained hereon:
1. Vicinity Map 2. Grading Plan 3. Sections & Details 4. Calculations

As shown by the Vicinity Map, the site is located immediately east of Vineyard Estates Unit I. This locates the site at the approximate southeast corner of the intersection of Wilshire Avenue N.E. (to be realigned as Alameda Boulevard N.E.) and Ventura Street N.E. At present, the site is undeveloped. The area is zoned RD as set forth in the Vineyard Sector Plan. The proposed development is single family residential.

As shown by Panel 10 of 50 of the National Flood Insurance Program Flood Insurance Rate Maps (F.I.R.M.) for the City of Albuquerque, New Mexico, dated October 14, 1983, this site does not lie within a designated flood hazard zone. The North Arroyo de Domingo Baca Flood Zone does lie to the south of the proposed subdivision. The arroyo crosses through the Equestrian Center. A floodplain easement associated with that floodplain is being granted in conjunction with the proposed residential subdivision. No arroyo improvements or alterations are proposed. A culvert may be required where the tributary arroyo is crossed by Ventura Street N.E. If determined necessary, the culvert design will be included in the Ventura Street plan and profile design.

The Grading Plan shows existing and proposed grades indicated by spot elevations and contours at 1'0" intervals. The grading has been accomplished in a manner which is consistent with the Vineyard Estates Master Drainage Plan (C20/D3). The Master Drainage Plan identifies the developed drainage patterns by which the subdivision is to be graded. The detailed grading plan which follows conforms with the requirements of the Master Drainage Plan. Certain offsite improvements are identified in the Master Drainage Plan. The magnitude of offsite flows, as included in the construction plans for the construction of public infrastructure. The magnitude of offsite flows, as calculated by the Master Drainage Plan, have been superimposed onto this plan for reference. The offsite flows generated upstream from Ventura Street will be intercepted by that roadway and diverted south to the North Arroyo de Domingo Baca. In order to ensure the positive drainage of Ventura Street N.E., the street grading for Ventura Street N.E. will extend to intercept the runoff generated by Basin MS-4. Detailed grading and design information will be presented in conjunction with the plan and profile design of Ventura Street N.E. as part of the Work Order plans. The grading of the road has been extended to the north beyond the project limits so as to avoid potentially blocking flows and adversely impacting future development to the north. The runoff intercepted by Ventura Street N.E. will be conveyed in a southerly direction to the North Arroyo de Domingo Baca. As an interim condition, the intercepted runoff will be discharged to a minor tributary of the arroyo. The tributary flows in a southerly direction across the Equestrian Center property. Under the full development scenario, that runoff will be diverted to the main arroyo which lies approximately 300' farther to the south. That diversion will occur in conjunction with the permanent paving of Ventura Street N.E. across the main arroyo and/or in conjunction with the development of the upstream drainage basins. In the meantime, the calculated 25.2 cfs will be diverted to the tributary and discharged into a platted/granted easement. Conveyance within the street can be accomplished with the paving section proposed, therefore, no additional drainage improvements are anticipated, except as noted above.

Minor offsite flows are anticipated from Lots 11 - 22, Block 6, North Albuquerque Acres, Tract 3, Unit 3. Those offsite flows will be accepted and conveyed in accordance with the Master Drainage Plan. Those lots will not be disturbed as part of this project, hence the control of erosion from that property is not a concern. A future church site, which encompasses Lots 13, 14, 19, and 20 has been identified. Plans are in progress for the development of that property. The development of that site will further serve to reduce overland (sheetflow) offsite flows from this undeveloped area.

Specific notes related to the grading of the residential lots are included on Sheet 3 of this submittal. In particular, all runoff generated by these lots shall be directed to the public right-of-way. With the exception of Lots 26A, 26B, and 26C, no onsite ponding is permitted by these lots. Lots 26B and 26C will sheet drain onto adjacent Tract 8-2, Vineyard Estates. Lot 26A will sheet drain on Lots 23 and 24, Block 8, Tract 3, Unit 3, North Albuquerque Acres. Sheet drainage will be minor in magnitude and will require approval of the adjacent land owner, the Albuquerque Public Schools. Furthermore, the sheet drainage from these three residential lots will be significantly less than the existing discharge which currently enters those properties and now will be directed to the downstream detention pond. The runoff from this small basin is not intended for discharge into the Vineyard Detention Pond without modification to the design and analysis of that existing facility. As stated above, all other lots shall discharge directly to the street or to private drainage facilities to be constructed along the rear property lines of certain lots. Those lots are clearly depicted on the Grading Plan which follows. Retaining walls are also required throughout the subdivision. The limits of those walls are graphically shown on the Grading Plan. Plan and profile designs and specific wall sections have been designed and will be presented in conjunction with the Work Order plans.

The Calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. These calculations have been performed in accordance with the procedure for "40-acre and Smaller Basins" as set forth in Section 22.2 Hydrology of the Development Process Manual, Volume 2, Design Criteria for the City of Albuquerque, New Mexico, August, 1991, the land treatment characteristics identified in the Master Drainage Plan have been used in these computations to maintain consistency with the already approved plan. As shown by these calculations, the runoff to be generated onsite is equal to or less than the peak discharges identified in the Master Drainage Plan.

CALCULATIONS

Site Characteristics

- Precipitation Zone: 3
- $P_{360} = 6.100$
- Total Area (A_T)
11.0 Ac. (Basin C-1 Undeveloped)
6.26 Ac. (Basin C-1 Developed)
11.84 Ac. (Basin C-2)

	Treatment	Area (sf/ac)	%
Basin C-1 (Undev.)	A	480,000/11.0	100
Basin C-1 (Dev.)	A	272,900/6.26	100
Basin C-2	A	515,700/11.84	100
Basin MS-1A	A	65,340/1.50	100
Basin MS-1B	A	5,190/0.12	100

5. Developed Land Treatment

	Treatment	Area (sf/ac)	%
Basin C-1 (Undev.)	Same as Existing		
Basin C-1 (Dev.)	B	73,680/1.69	27
	C	73,680/1.69	27
	D	125,530/2.88	46
Basin C-2	B	139,240/3.20	27
	C	139,240/3.20	27
	D	237,220/5.44	46
Basin MS-1A	B	24,500/0.56	37.5
	C	24,500/0.56	37.5
	D	16,340/0.38	25
Basin MS-1B	B	1,300/0.03	25
	C	1,300/0.03	25
	D	2,590/0.06	50

Existing Condition

- Basin C-1 (Undev.)
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = (0.66)(11.0) / 11.0 = 0.66$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (0.66 / 12) 11.0 = 0.61$ Ac Ft = 26,570 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (1.87)(11.0) = 20.6$ cfs
- Basin C-1 (Dev.)
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = (0.66)(6.26) / 6.26 = 0.66$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (0.66 / 12) 6.26 = 0.34$ Ac Ft = 15,000 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (1.87)(6.26) = 11.7$ cfs

- Basin C-2
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = (0.66)(11.84) / 11.84 = 0.66$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (0.66 / 12) 11.84 = 0.65$ Ac Ft = 28,370 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (1.87)(11.84) = 22.1$ cfs

- Basin MS-1A
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = (0.66)(1.5) / 1.5 = 0.66$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (0.66 / 12) 1.5 = 0.08$ Ac Ft = 3,600 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (1.87)(1.50) = 2.8$ cfs

- Basin MS-1B
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = (0.66)(0.12) / 0.12 = 0.66$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (0.66 / 12) 0.12 = 0.007$ Ac Ft = 300 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (1.87)(0.12) = 0.2$ cfs

Developed Condition

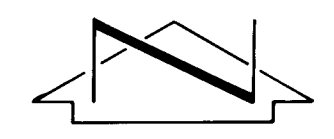
- Basin C-1 (Undev.) - No Change
- Basin C-1 (Dev.)
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = [(0.92)(1.69) + (1.29)(1.69) + (2.36)(2.88)] / 6.26 = 1.68$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (1.68 / 12) 6.26 = 0.88$ Ac Ft = 38,180 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (2.60)(1.69) + (3.45)(1.69) + (5.02)(2.88) = 24.7$ cfs
- Basin C-2
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = [(0.92)(3.20) + (1.29)(3.20) + (2.36)(5.44)] / 11.84 = 1.68$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (1.68 / 12) 11.84 = 1.66$ Ac Ft = 72,200 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (2.60)(3.20) + (3.45)(3.20) + (5.02)(5.44) = 46.7$ cfs

- Basin MS-1A
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = [(0.92)(0.56) + (1.29)(0.56) + (2.36)(0.38)] / 1.5 = 1.42$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (1.42 / 12) 1.5 = 0.18$ Ac Ft = 7,840 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (2.60)(0.56) + (3.45)(0.56) + (5.02)(0.38) = 5.3$ cfs
- Basin MS-1B
 - Volume
 $E_W = (E_A A_A + E_B A_B + E_C A_C + E_D A_D) / A_T$
 $E_W = [(0.92)(0.03) + (1.29)(0.03) + (2.36)(0.06)] / 0.12 = 1.73$ in
 $V_{100} = (E_W / 12) A_T$
 $V_{100} = (1.73 / 12) 0.12 = 0.017$ Ac Ft = 740 cf
 - Peak Discharge
 $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$
 $Q_P = Q_{100} = (2.60)(0.03) + (3.45)(0.03) + (5.02)(0.06) = 0.5$ cfs

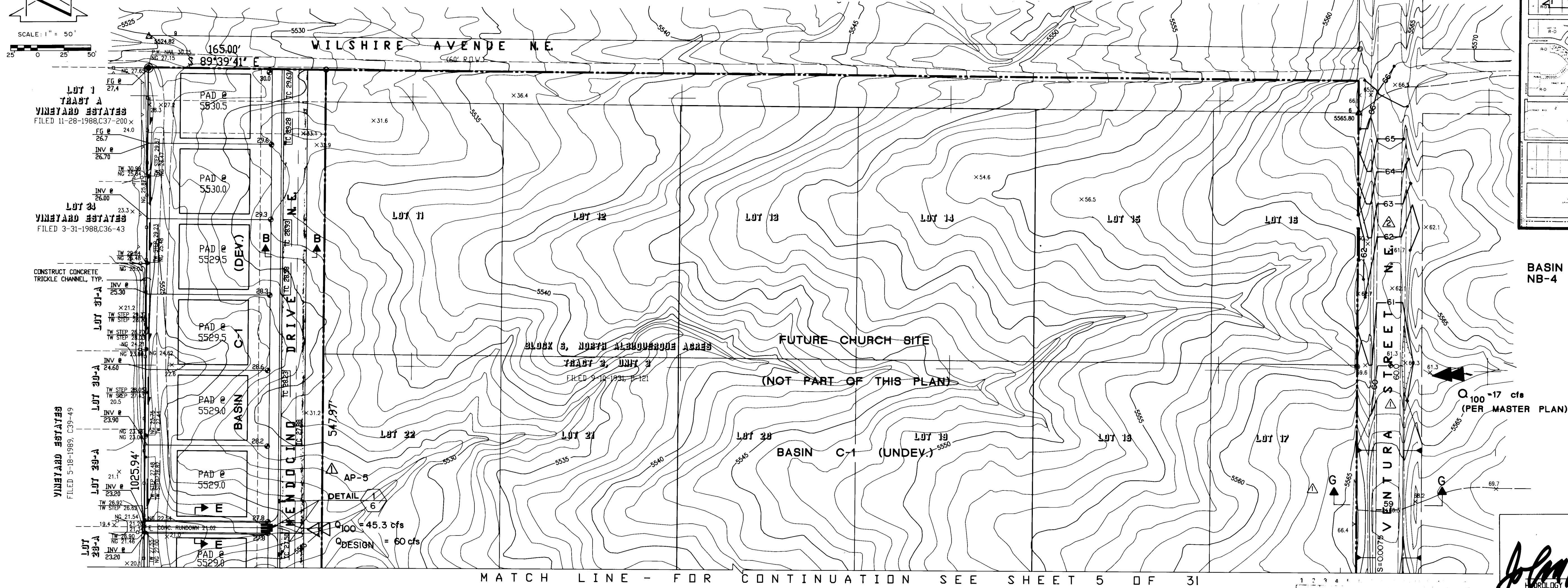
Comparison

- Basin C-1 (Undev.) - No Change
- Basin C-1 (Dev.)
 - $\Delta V_{100} = 38,180 - 15,000 = 23,180$ cf (increase)
 - $\Delta Q_{100} = 24.7 - 11.7 = 13.0$ cfs (increase)
- Basin C-2
 - $\Delta V_{100} = 72,200 - 28,370 = 43,830$ cf (increase)
 - $\Delta Q_{100} = 46.7 - 22.1 = 24.6$ cfs (increase)
- Basin MS-1A
 - $\Delta V_{100} = 7,840 - 3,600 = 4,240$ cf (increase)
 - $\Delta Q_{100} = 5.3 - 2.8 = 2.5$ cfs (increase)
- Basin MS-1B
 - $\Delta V_{100} = 740 - 300 = 440$ cf (increase)
 - $\Delta Q_{100} = 0.5 - 0.2 = 0.3$ cfs (increase)
- Net Comparison
 - $\Delta V_{100} = 71,690$ cf (increase)
 - $\Delta Q_{100} = 40.4$ cfs (increase)

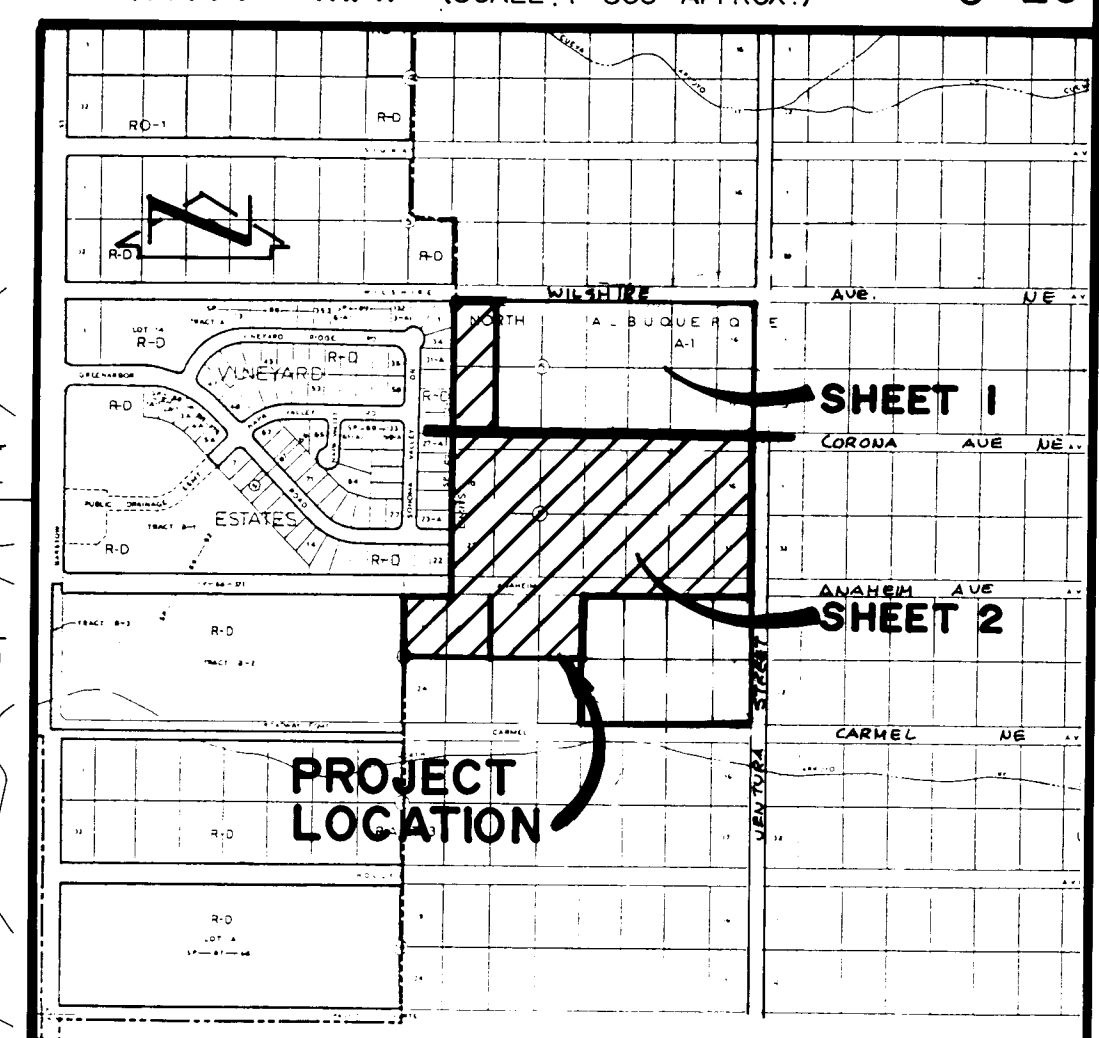
RECORD DRAWING



SCALE: 1" = 50'



VICINITY MAP (SCALE: 1"=800'-APPROX.) C-20



- LEGEND
- X 31.6 EXISTING SPOT ELEVATION
 - 5530 EXISTING CONTOUR
 - 30 PROPOSED SPOT ELEVATION
 - 30 PROPOSED CONTOUR
 - PROPOSED RETAINING WALL
 - DIRECTION OF FLOW
 - TV TOP OF WALL
 - NG NATURAL GROUND (EXISTING)
 - FL FLOW LINE
 - TSW TOP OF SIDEWALK
 - TC TOP OF CURB
 - FG FINISHED GRADE (PROPOSED)
 - INV INVERT (PROPOSED)
 - BASIN BOUNDARY LINE
 - PROPOSED ASPHALT

JEFFERY G. MORTENSEN
REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
01-12-93
01-28-93
02-11-93

APPROVED FOR ROUGH GRADING
John P. Carter 2-26-93
DATE

Jma JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

GRADING AND DRAINAGE PLAN
VINEYARD ESTATES III

PROJECT NO.: 3391.94

DESIGNED BY	J. G. M.	NO	DATE	BY	REVISIONS	JOB NO.
DRAWN BY	ACAD	△	01/93	JGM	CLARIFY HYDROLOGY; SECTION G-G	920298
APPROVED BY	J. G. M.	△	02/93	JGM	GRADE VENTURA TO WILSHIRE; REVISE TEXT	DATE
		△	01/94	G.M.	RECORD DRAWING	01-1993
						SHEET 4 OF 31

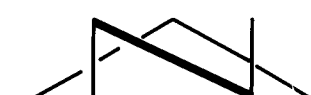
APPROVED FOR ROUGH GRADING

HYDROLOGIC

DATE

Jeff Mortensen 2-26-93

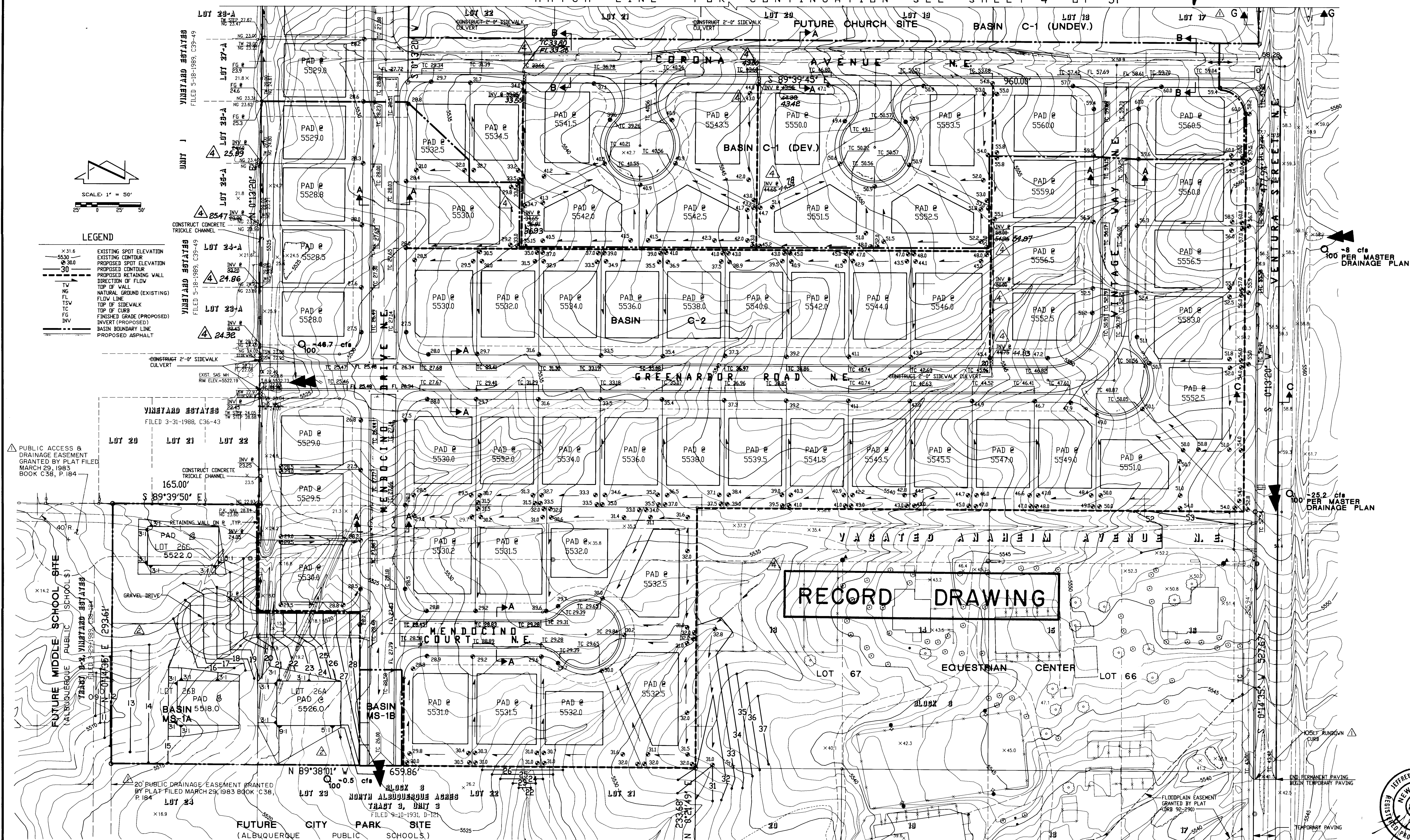
MATCH LINE - FOR CONTINUATION SEE SHEET 4 OF 31



SCALE: 1" = 50'

LEGEND

—X31.6	EXISTING SPOT ELEVATION
—55.30	EXISTING CONTOUR
—55.30	PROPOSED SPOT ELEVATION
—55.30	PROPOSED CONTOUR
—55.30	PROPOSED RETAINING WALL
—55.30	DIRECTION OF FLOW
—55.30	TOP OF WALL
—55.30	NATURAL GROUND (EXISTING)
—55.30	TOP OF SIDEWALK
—55.30	TOP OF CURB
—55.30	FINISHED GRADE (PROPOSED)
—55.30	INVERT (PROPOSED)
—55.30	BASIN BOUNDARY LINE
—55.30	PROPOSED ASPHALT

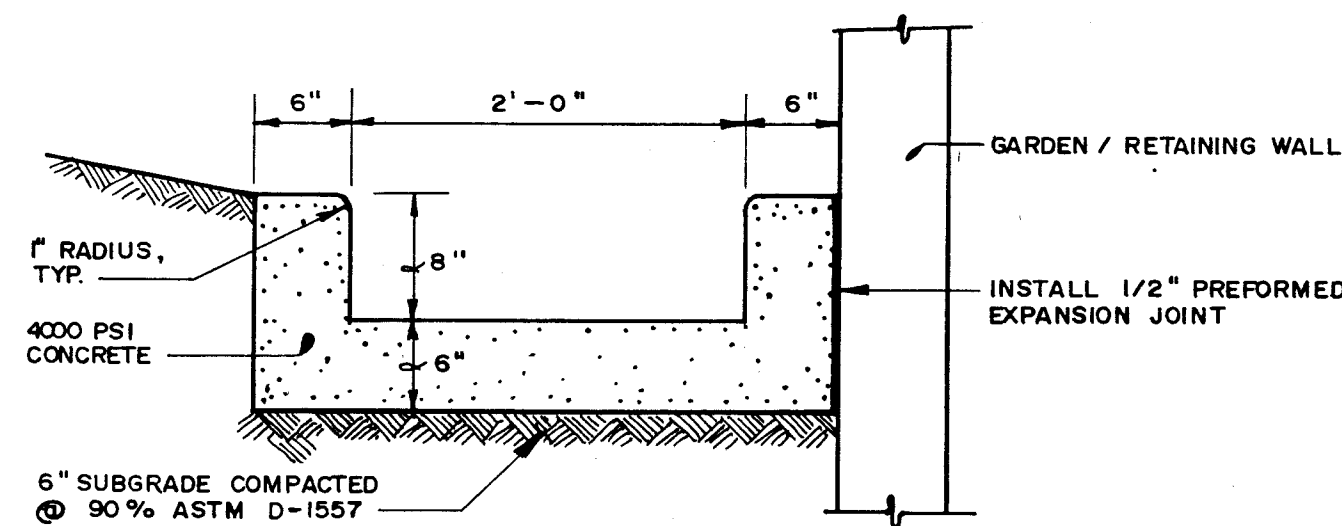


RECORD DRAWING

GRADING NOTES:

- ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90% ASTM D-1557; HOUSE PADS SHALL BE COMPACTED AT 95% ASTM D-1557.
- THE PAD ELEVATIONS SHOWN HEREON ARE FOR ROUGH GRADING PURPOSES.
- FINISHED FLOOR ELEVATIONS MAY VARY FROM THE PAD ELEVATIONS AND WILL BE DETERMINED AS A FUNCTION OF INDIVIDUAL HOUSE DESIGN.
- FINISHED FLOOR ELEVATIONS SHOULD BE ESTABLISHED AT A MINIMUM OF 6 INCHES ABOVE PAD ELEVATIONS; DEVIATIONS FROM THESE GUIDELINES MUST BE BASED ON THE RECOMMENDATIONS AND/OR DESIGN OF A COMPETENT DESIGN PROFESSIONAL.
- NO CROSS-LOT DRAINAGE WILL BE ALLOWED UNLESS PROVIDED FOR BY PRIVATE DRAINAGE EASEMENT.
- RETAINING WALLS SHALL BE CONSTRUCTED BY THE DEVELOPER.
- YARD (GARDEN) WALLS SHALL BE CONSTRUCTED BY THE LOT OWNER OR ITS BUILDER.
- THE FINISHED GRADING OF EACH LOT SHALL BE ACCOMPLISHED BY THE LOT OWNER OR ITS BUILDER. RUNOFF SHOULD BE DIRECTED TO THE STREETS OR DRAINAGE EASEMENT (IF AVAILABLE).
- 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 UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION. AN EXCAVATION PERMIT IS REQUIRED FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAY.
- REFER TO SHEETS 27-31 FOR RETAINING WALL PROFILES AND SECTIONS.

16. SUBSTITUTION OF CMP FOR RCP APPROVED BY CITY OF ALBUQUERQUE CONSTRUCTION SECTION (PWD) PROJECT ENGINEER DURING CONSTRUCTION.



TYPICAL TRICKLE CHANNEL SECTION

SCALE: 1" = 1'-0"

HYDRAULIC CAPACITY

$$Q = (1.49/n)AR^{2/3}S^{1/2}$$

Where $n = 0.013$
 $A = 2(0.67) = 1.34 \text{ sf}$
 $P = 0.67 + 2.0 + 0.67 = 3.34 \text{ ft.}$
 $R = A/P = 0.40; R^{2/3} = 0.54$
 $S = 0.01 \text{ (minimum)}$

$$Q_{\text{capacity}} = 8.3 \text{ cfs}$$

Pressure Flow Calculations using the Orifice Equation

$$Q = CA(2gh)^{1/2}$$

Where: $h = 3.28'$ (Maximum water level at top of sidewalk culverts)
 $A = 6.28 \text{ sf}$ (Two 24" culverts)
 $C = 0.6$
 $g = 32.2 \text{ ft/s}^2$

$Q_{24\text{\" culverts}} = 54.8 \text{ cfs}$
 $Q_{\text{sidewalk culverts}} = 13.3 \text{ cfs}$
 $Q_{\text{total}} = 68.1 \text{ cfs}$
 $Q_{100} = 45.3 \text{ cfs}$ (From Grading and Drainage Plan, Vineyard Estates Unit III)
 $Q_{\text{total}} > Q_{100}$

Sump Condition @ AP-5

Required Capacity, $Q_{\text{req}} \approx 60 \text{ cfs}$

- Sidewalk Culverts (3):

$$Q_{\text{culv.}} = \frac{4}{13.3} \text{ cfs}$$

Where $C = 3.03$
 $L = 2 \text{ ft.}$
 $H = 0.67 \text{ ft.}$ (Water at top of 8" curb)

- Double "D" Inlet:

$$Q_D = C A_{\text{eff}} (2g\Delta h)^{0.5}$$

$$= 37.4 \text{ cfs}$$

Where $C = 0.7$
 $A_{\text{eff}} = 0.5(6.5 \times 2.5) = 8.125 \text{ sf}$ (Effective grate area)
 $g = 32.2 \text{ ft/s}^2$
 $\Delta h = 0.67 \text{ ft.}$

- "A" Inlets (2):

$$Q_A = 2[C A_{\text{eff}} (2g\Delta h)^{0.5}]$$

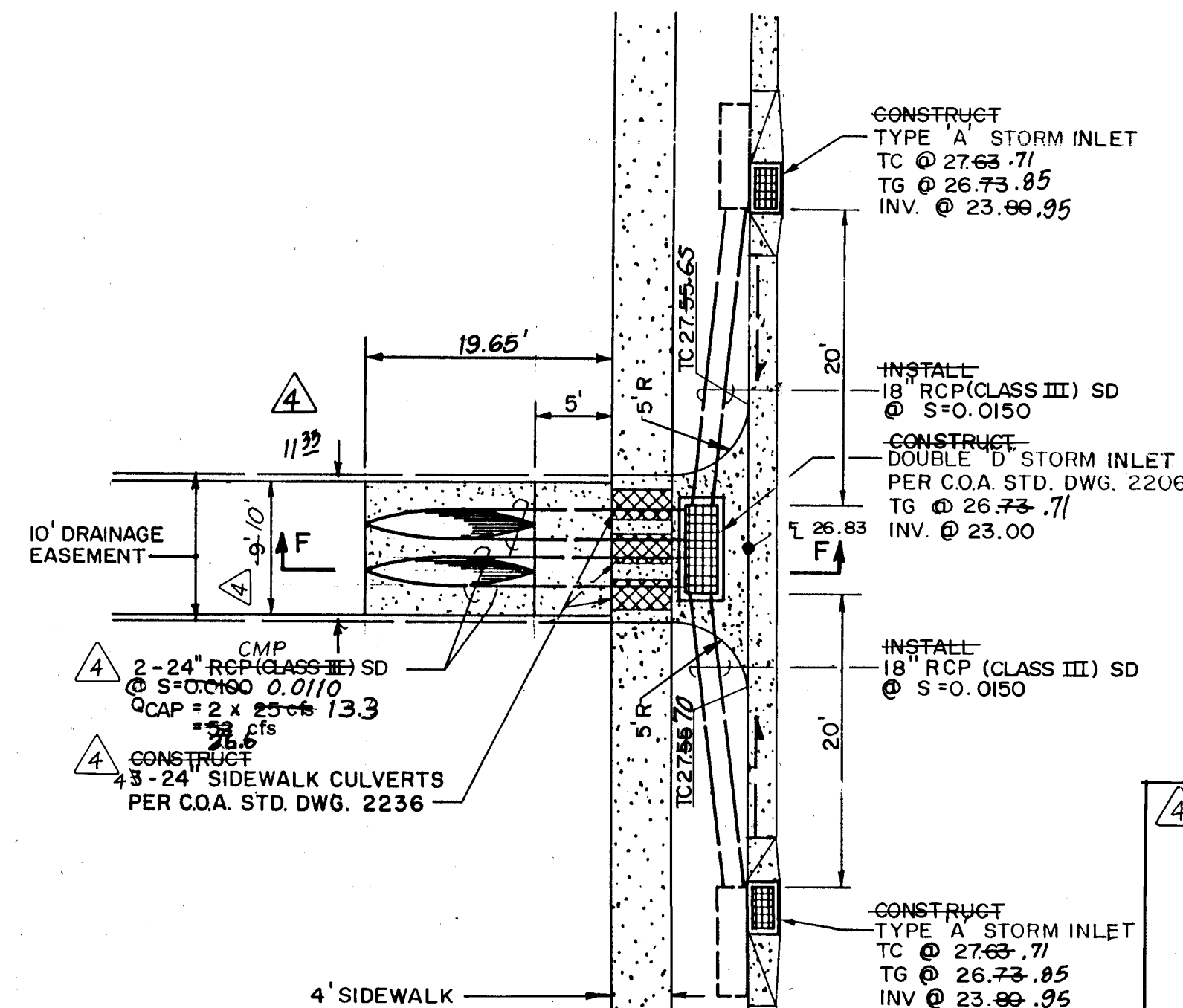
Where $C = 0.7$
 $A_{\text{eff}} = 0.5(3.0 \times 2.0) = 3.0 \text{ sf}$ (Effective grate area)
 $g = 32.2 \text{ ft/s}^2$
 $h = 0.27 \text{ ft.}$ (For "A" inlet, 20' from "D" inlet, water level 0.67' above "D" inlet grate, street slope = 2%, typ.)

- Total Inlet Capacity:

$$Q_{\text{cap}} = Q_{\text{culv.}} + Q_D + Q_A$$

$$13.3 = 64.9 + 37.4 + 17.5$$

$$13.3 = 64.9 \text{ cfs} > Q_{\text{req}}$$

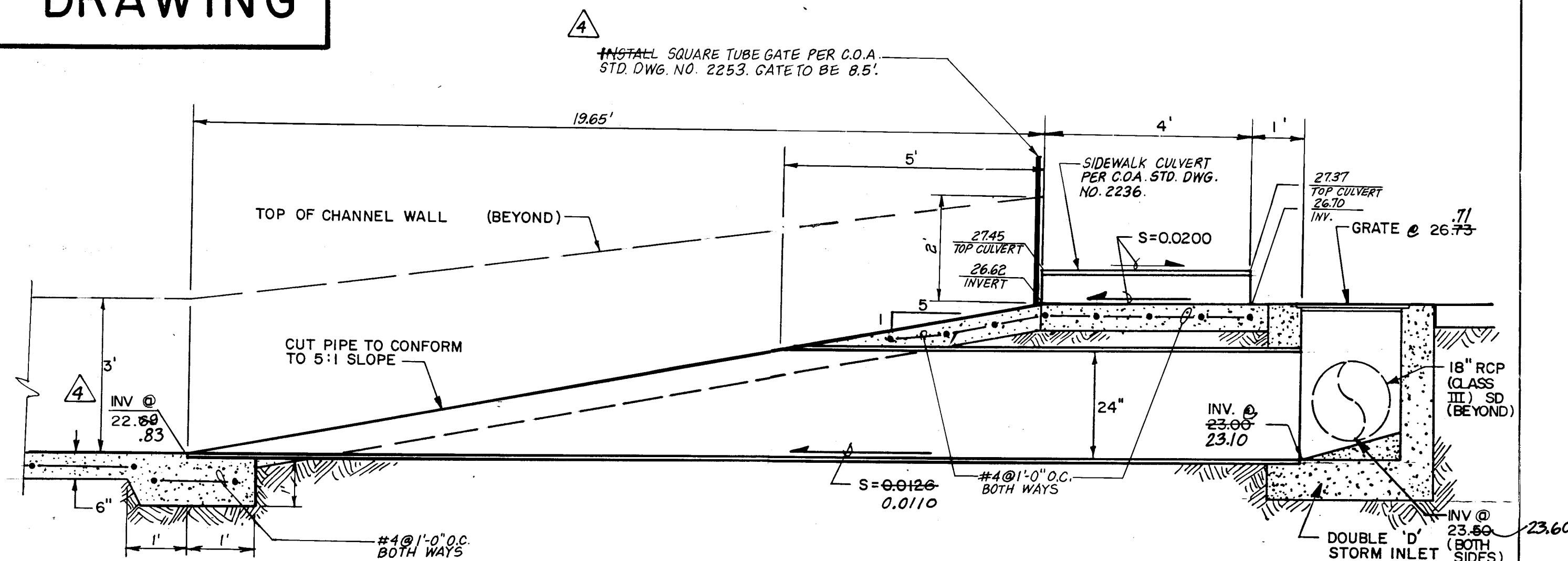


DETAIL

SCALE: 1" = 10'-0"

RECORD DRAWING

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



SECTION F - F

SCALE: 1" = 2'-0"

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 26 3391.94 0694

CITY OF ALBUQUERQUE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING GROUP

TITLE: VINEYARD ESTATES III
 GRADING NOTES;
 DRAINAGE DETAILS AND SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN	<i>[Signature]</i>	6-1-93	WATER	N/A	RWK 4-3-93
TRANSPORTATION	<i>[Signature]</i>	4-13-93	WASTE WATER	N/A	RWK 4-3-93
HYDROLOGY	<i>[Signature]</i>	5-5-93			

PROJECT NO.	MAP NO.	SHEET	OF
3391.94	C-20	6	31

920298

AS BUILT INFORMATION	BENCH MARKS	SURVEY INFORMATION	ENGINEER'S SEAL
CONTRACTOR FOR NEW CONCRETS	A STANDARD BRASS TABLET STAMPED "10194A LOT 32 BLK 10" SET AT TOP OF A CONC. POST FLUSH W/ THE GROUND & LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD. N.E. & LOS ANGELES DR. N.E. 50' NORTH OF THE NORTHWEST CORNER OF A CHANICAL FENCE AROUND THE AIR TRAFFIC CONTROL CENTER	FIELD NOTES	ENGINEER'S SEAL
WORK STARTED BY	JMA	DATE	DATE
WORK STOPPED BY	JMA	DATE	DATE
FIELD INSPECTION BY	GM	DATE	DATE
REVISION BY	GM	DATE	DATE
CORRECTED BY	GM	DATE	DATE
MICRO-FILM INFORMATION			
RECORDED BY			
NO			

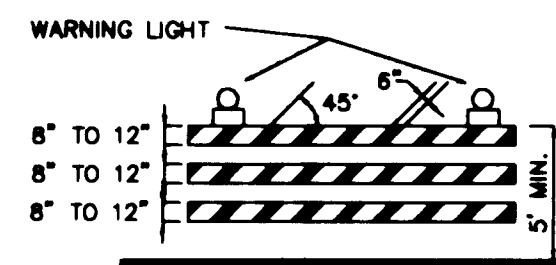
JEFFREY G. MORTENSEN
 NEW MEXICO
 PROFESSIONAL ENGINEER
 LICENSE NO. 8547
 01-28-93
 01-12-93 02-11-93

CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

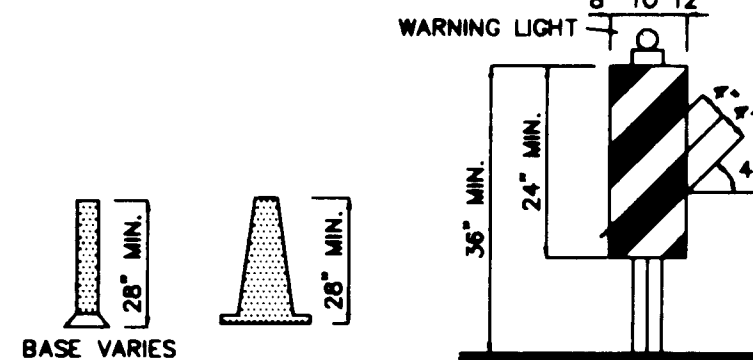
1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITH THE UNDERSTANDING, THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.
2. CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS, AND BUSINESS/RESIDENTIAL ACCESSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPARATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.
3. THESE TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL HAVE A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.
4. CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.
5. CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.
6. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
7. THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET-UP SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.
8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.
9. ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE ARE MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.
10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART, A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.
11. CONTRACTOR SHALL NOT BEGIN WORK BEFORE 8:30 A.M. OR END WORK AFTER 4:00 P.M. WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.
13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELLED TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.
15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.
16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.
17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, WHITE OPAQUE LETTERING ON BLUE REFLECTORIZED BACKGROUND. ACCESS SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE BID AND NOT PART OF THE CONTRACT UNLESS OTHERWISE STATED. NO MORE THAN 3 BUSINESSES SHALL BE LISTED ON A ACCESS SIGN. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.
18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
19. 24 HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY, CONTRACTOR SHALL NOTIFY: POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.
20. ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.
21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.
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 ITS PLACEMENT AND MAINTENANCE.
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

PROJECT CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

RECORD DRAWING



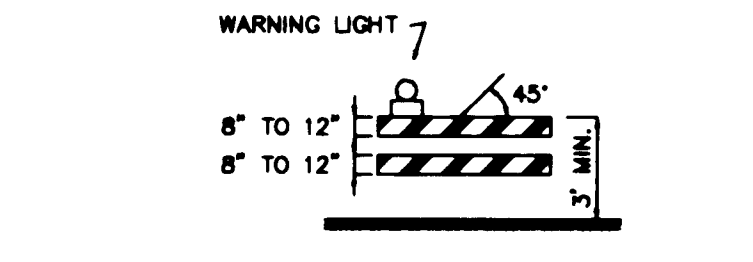
TYPE III BARRICADE



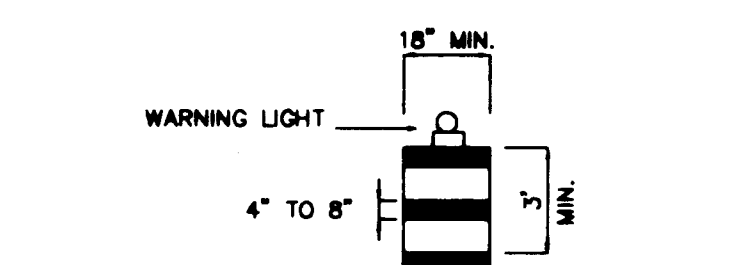
TYPE II BARRICADE



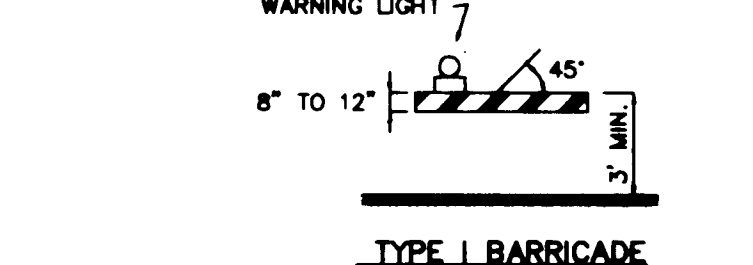
TYPE I BARRICADE



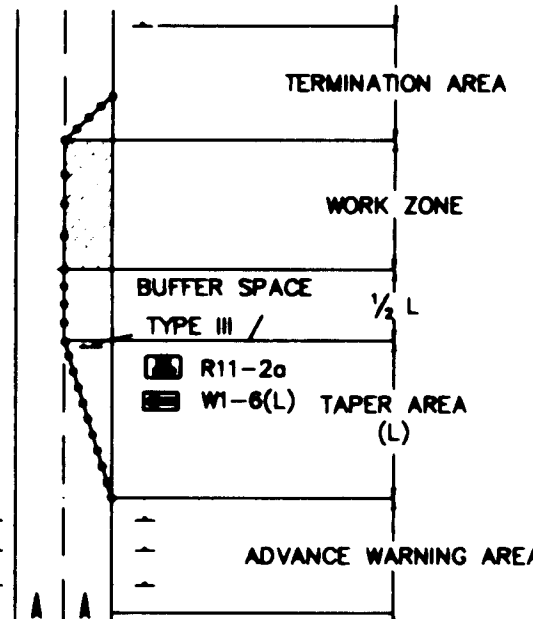
TYPE II BARRICADE



TYPE I BARRICADE



TYPE I BARRICADE



TRAFFIC CONTROL ELEMENTS

LEGEND

- WORK AREA
- BARRICADE - TYPE I, TYPE II, OR BARREL
 - BARRICADE - TYPE III
 - VERTICAL PANEL
 - WARNING SIGN
 - DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET
 - FLAGMAN POSITION
 - SPACING BETWEEN BARRICADES - A DISTANCE MEASURED IN FEET EQUAL TO THE SPEED LIMIT OF THE STREET
 - TAPER LENGTH - SEE CHART BELOW
- THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

TAPER REQUIREMENTS

SPEED LIMIT (MPH)	TAPER LENGTH (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

RECOMMENDED SIGN SPACING FOR ADVANCE WARNING SIGN SERIES

SPEED MILES PER HOUR	MINIMUM DISTANCE IN FEET BETWEEN SIGNS	
	FROM LAST SIGN TO TAPER	FROM TAPER TO LAST SIGN
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

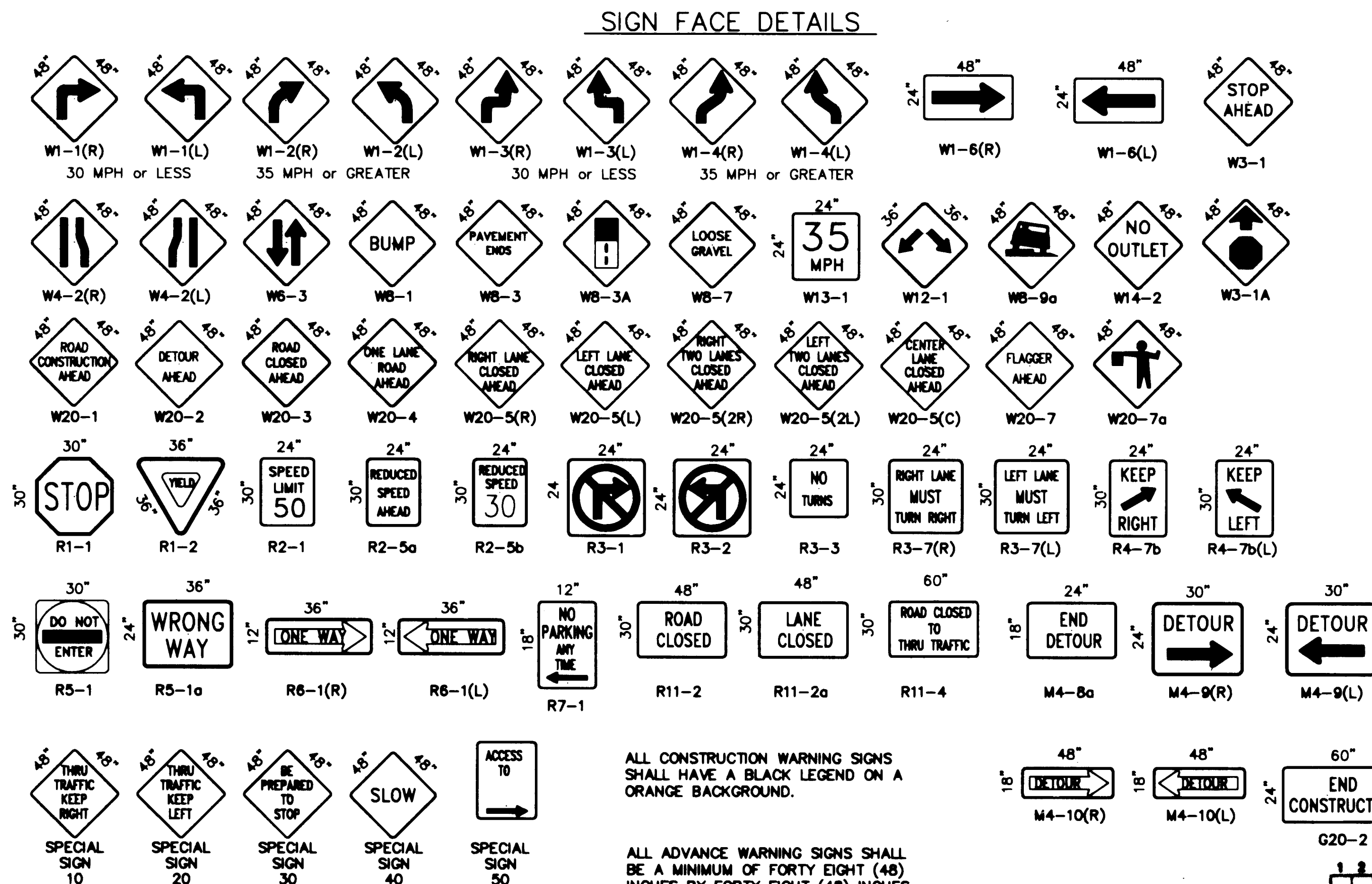
TAPER CRITERIA

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

TAPER LENGTH COMPUTATION

SPEED LIMIT	L =
40 MPH OR LESS	$L = \frac{W \cdot S^2}{60}$
45 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.

ALL ADVANCE WARNING SIGNS SHALL BE A MINIMUM OF FORTY EIGHT (48) INCHES BY FORTY EIGHT (48) INCHES IN SIZE AND SHALL HAVE ONE WARNING LIGHT.

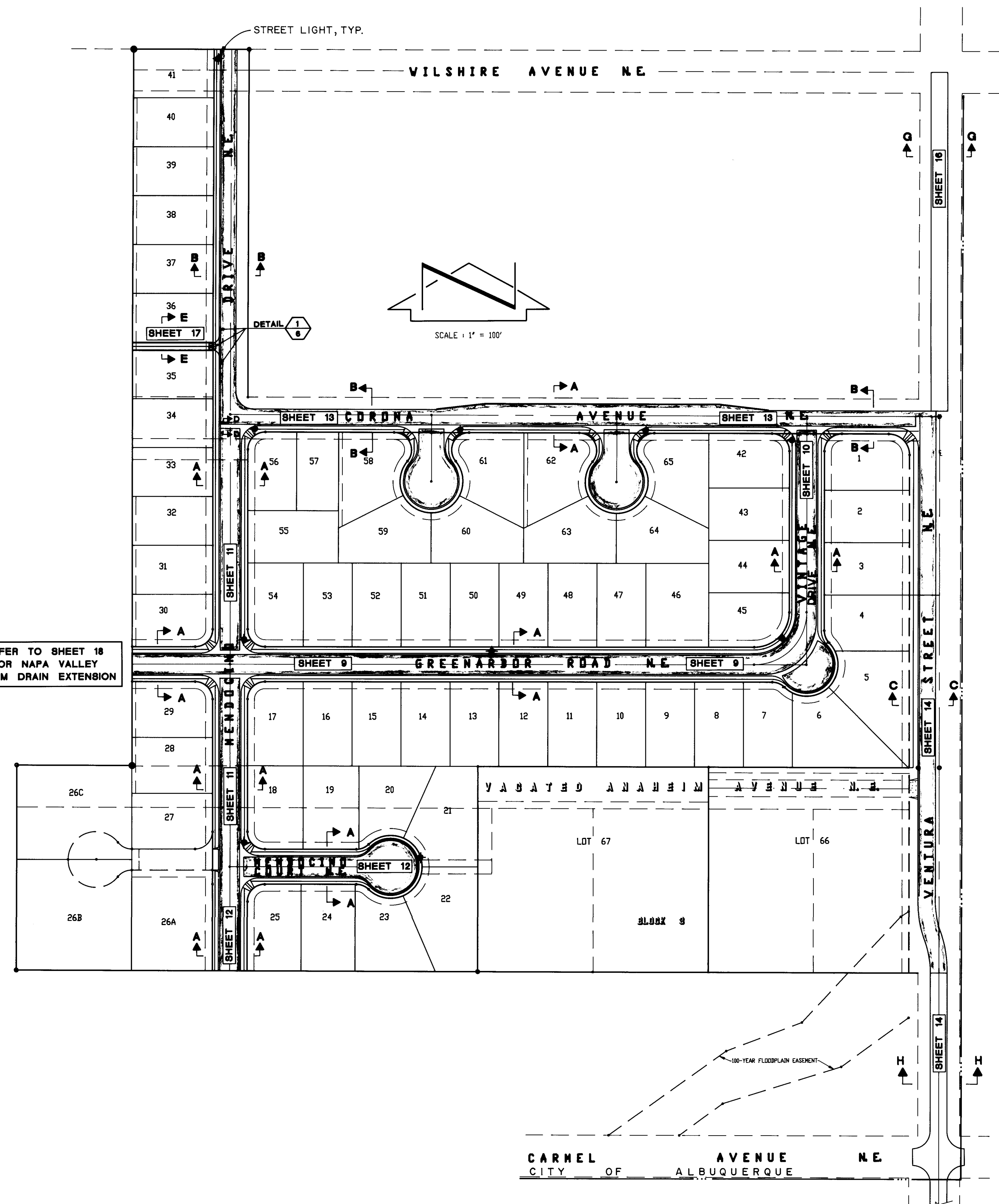
26 3391.940794A

920297

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	BY	NO.	BY	NO.	BY
INSURANCE	DATE						
PERMIT	DATE						
REVISION	DATE						
CHECKED BY	DATE						
RECORDED BY	DATE						
NO.							



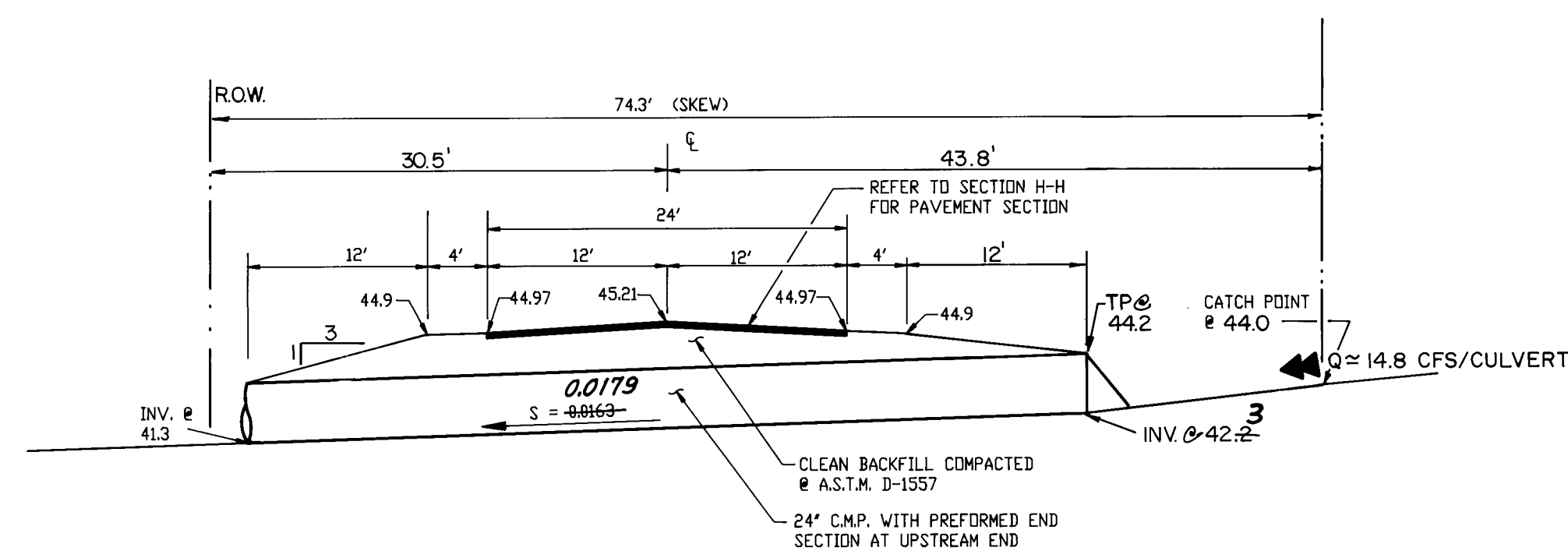
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE: VINEYARD ESTATES III					
SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRG CHAIRMAN			WATER		
TRANSPORTATION			WASTE WATER		
HYDROLOGY			CE		
PROJECT NO. 3391.94			MAP NO. C-20		
SHEET 7A			OF 31		



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

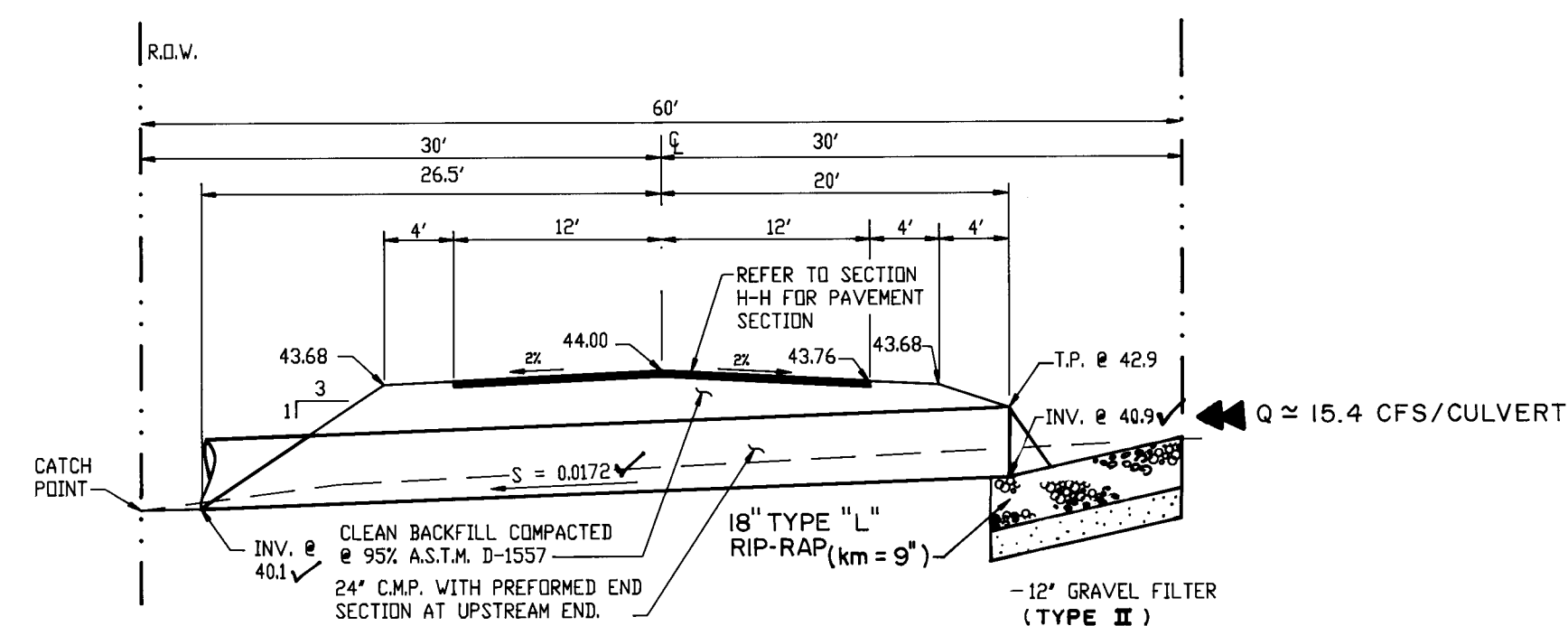


11-23-93
Date



SCALE: 1" = 10' HORIZONTAL
1" = 5' VERTICAL
(REFER TO SHEET 15)

RECORD DRAWING



SCALE: 1' = 10' HORIZONTAL
1' = 5' VERTICAL
(REFER TO SHEET 14)

STREET LIGHT BY PNM

GRADATION FOR GRANULAR BEDDING		
U. S. Standard Sieve Size	Percent Weight By Passing	Square Mesh Sieves
	Type I	Type II
3"	-	90 - 100
1-1/2"	-	-
3/4"	-	20 - 90
3/8"	100	-
#4	95 - 100	0 - 20
#16	45 - 80	-
#50	10 - 30	-
#100	2 - 10	-
#200	0 - 2	0 - 3

AS BUILT INFORMATION					
CONTRACTOR NEW CONCEPTS					
WORK ORDER NO.	JMA	DATE	7/93		
INSPECTOR'S NAME	GM	DATE	10/93		
DRAWING FIELD NO.	GM	DATE	10/93		
DRAWINGS D. BY	GM	DATE	10/98		
MICRO-FILM INFORMATION					
RECORDED BY		DATE			
NO.					

BENCH	MARKS
1	A STANDARD BRASS TABLET STAMPED "1/4-19N-NAA 10' 32 BLK 10' SET IN TOP OF A CON. POST FLUSH WITH THE GROUND AND LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD AND LOS ANGELES DR NE, 50' NORTH OF THE NORTH- WEST CORNER OF A CHAIN LINK FENCE AROUND THE NAA AIR FORCE CONTROL CENTER ELEVATION = 5308.795 FEET (MSL)

[illegible]

GM					BY				
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[illegible]

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ERQUE

ENQUE
PARTMENT
GROUP

TES III

IMAGE SITE PLAN

APPROVALS	ENGINEER	DATE
	N/A RWR	4-13-93
	N/A RWR	4-13-93

WATER	N/A, RWR	4-13-93
	CR Bowman	5/27/93

SHEET OF

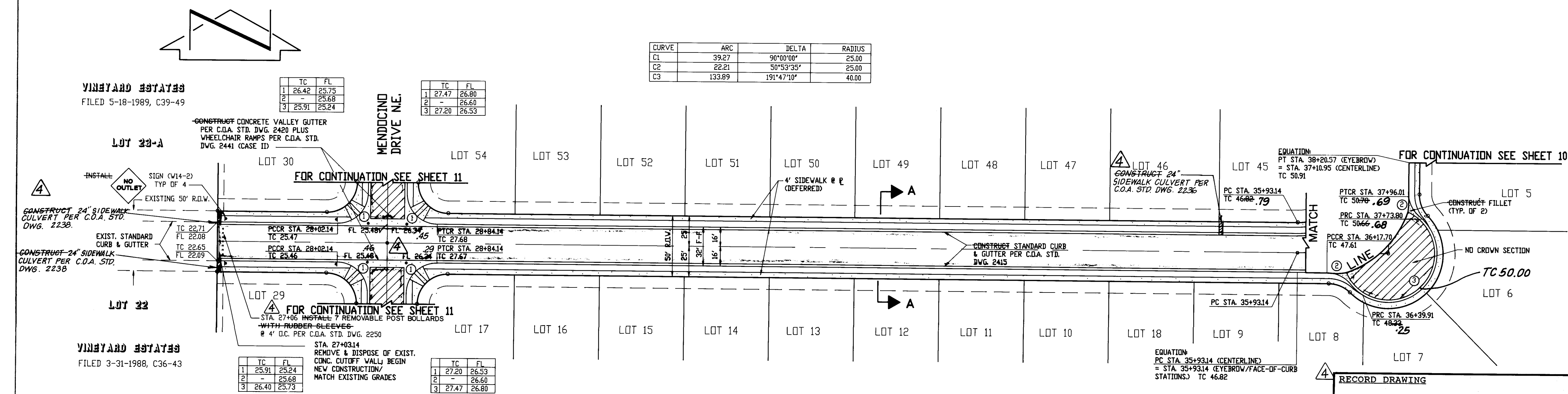
20	8	31
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920297

3391.94

MAP NO. C-20	
------------------------	--

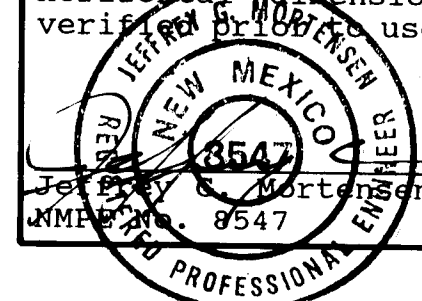
8 OF 31



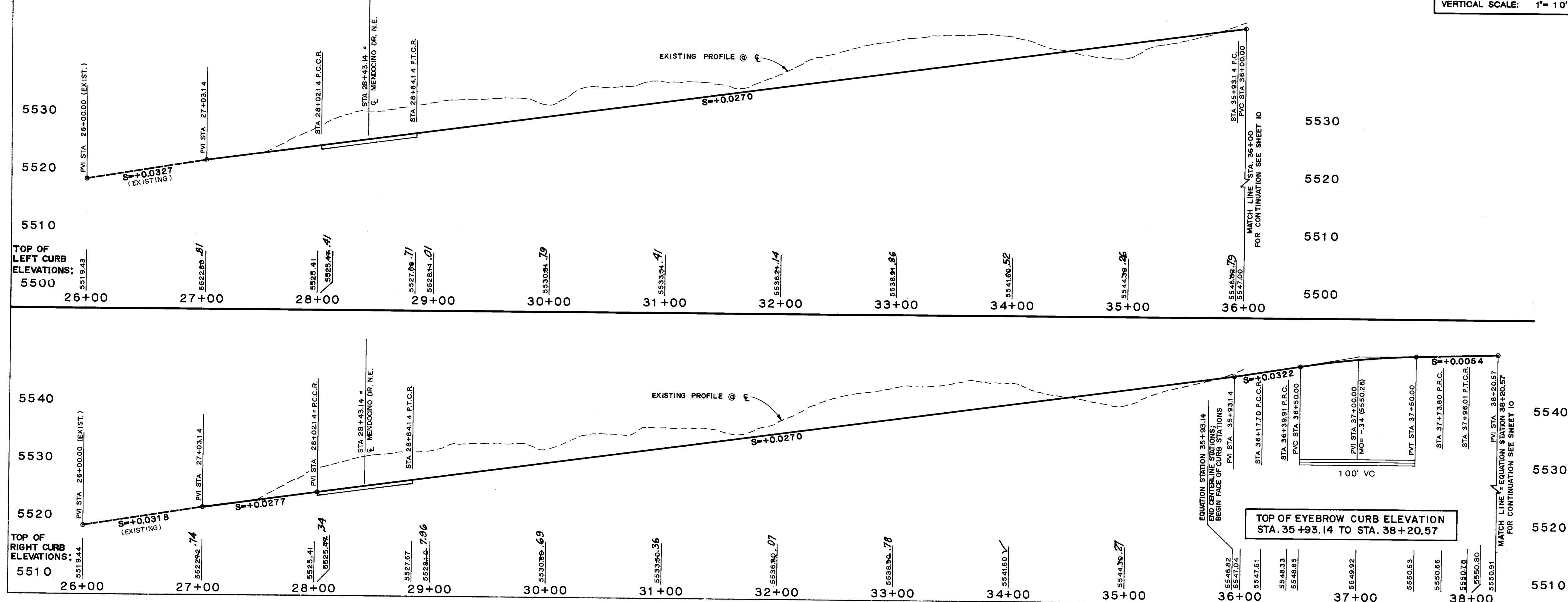
GREENARBOR ROAD N.E.

RECORD DRAWING

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



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



STREET PAVING IMPROVEMENTS

- ALL SLOPES AS SHOWN ON PROFILES ARE BASED ON STREET CENTERLINE STATIONING EXCEPT CUL-DE-SACS AND EYEBROWS WHERE STATIONING IS ALONG FACE-OF-CURB.
- WHERE REMOVAL OF EXISTING CURB AND GUTTER, SIDEWALK OR PAVEMENT IS REQUIRED, THE CONTRACTOR SHALL SAWCUT AND/OR REMOVE TO THE NEAREST JOINT. CURB AND GUTTER SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THIS CONTRACT WHICH IS DANGERED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- ALL DIMENSIONS OF CURB AND CURB RETURNS ARE SHOWN TO FACE-OF-CURB.
- ALL SIDEWALK SHOWN HEREON SHALL BE CONSIDERED UNDER SEPARATE PERMIT (SIDEWALK DEFERRAL).
- ALL WHEELCHAIR RAMP MUST BE CONSTRUCTED UNDER THIS WORK ORDER.
- ALL CURB AND GUTTER SHOWN HEREON SHALL BE STANDARD CURB AND GUTTER PER CITY OF ALBUQUERQUE STANDARD DRAWING 2415.

AS BUILT INFORMATION		NEW CONCEPTS	
CONTRACT NO.	3391.94	CONTRACT NO.	3391.94
DATE	10/93	DATE	10/93
BY	JMA	BY	JMA
DATE	10/93	DATE	10/93
BY	JMA	BY	JMA
DATE	10/93	DATE	10/93
BY	JMA	BY	JMA
DATE	10/93	DATE	10/93
BY	JMA	BY	JMA
DATE	10/93	DATE	10/93

SURVEY INFORMATION		FIELD NOTES	
NO.	DATE	NO.	DATE

ENGINEER'S SEAL		REVISIONS	
NO.	DATE	NO.	DATE

DESIGNED BY		DRAWN BY	

CITY OF ALBUQUERQUE		PUBLIC WORKS DEPARTMENT	

TITLE		VINEYARD ESTATES III	

CURVE	ARC	DELTA	RADIUS
C4	39.22	89°53'05"	25.00
C5	39.32	90°06'55"	25.00

TC	FL
1 57.99	57.32
2 58.81	57.89
3 58.81	58.14

TC	FL
1 59.67	59.00
2 59.67	58.98
3 59.67	59.00

RECORD DRAWING

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

JEFFREY G. MORTENSEN, ENGINEER
NEW MEXICO
0547
01-11-94 Date

- STREET PAVING IMPROVEMENTS**
- ALL SLOPES AS SHOWN ON PROFILES ARE BASED ON STREET CENTERLINE STATIONING EXCEPT CUL-DE-SACS AND EYEBROWS WHERE STATIONING IS ALONG FACE-OF-CURB.
 - WHERE REMOVAL OF EXISTING CURB AND GUTTER, SIDEWALK OR PAVEMENT IS REQUIRED, THE CONTRACTOR SHALL SAWCUT AND/OR REMOVE TO THE NEAREST JOINT. CURB AND GUTTER SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THIS CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
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AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	NEW CONCEPTS	STANDARD	BRASS	FIELD NOTES	NO	10/93	AS-BUILT & CERTIFY
WORK BY	JUMA	DATE	7/93	BY	DATE	GM	REMARKS
INSPECTED BY	GM	DATE	10/93	NO	DATE	BY	DESIGN
APPROVED BY	GM	DATE	10/93	NO	DATE	DESIGNED BY	JGM
DRAWINGS BY	GM	DATE	10/93	NO	DATE	DRAWN BY	ACAD
CHECKED BY	GM	DATE	10/93	NO	DATE	CHECKED BY	JGM
MICRO-FILM INFORMATION		REVISIONS		NO.		DATE	
RECORDED BY		DATE		NO.		DATE	
NO		DATE		NO.		DATE	

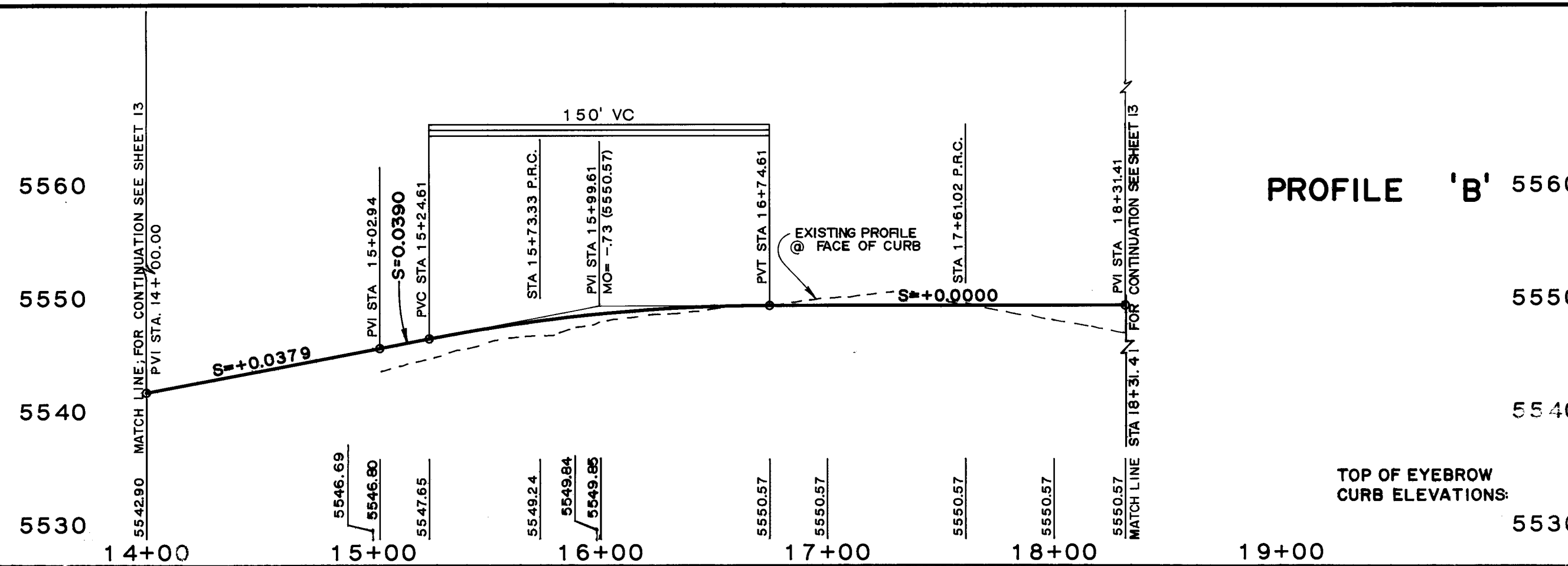
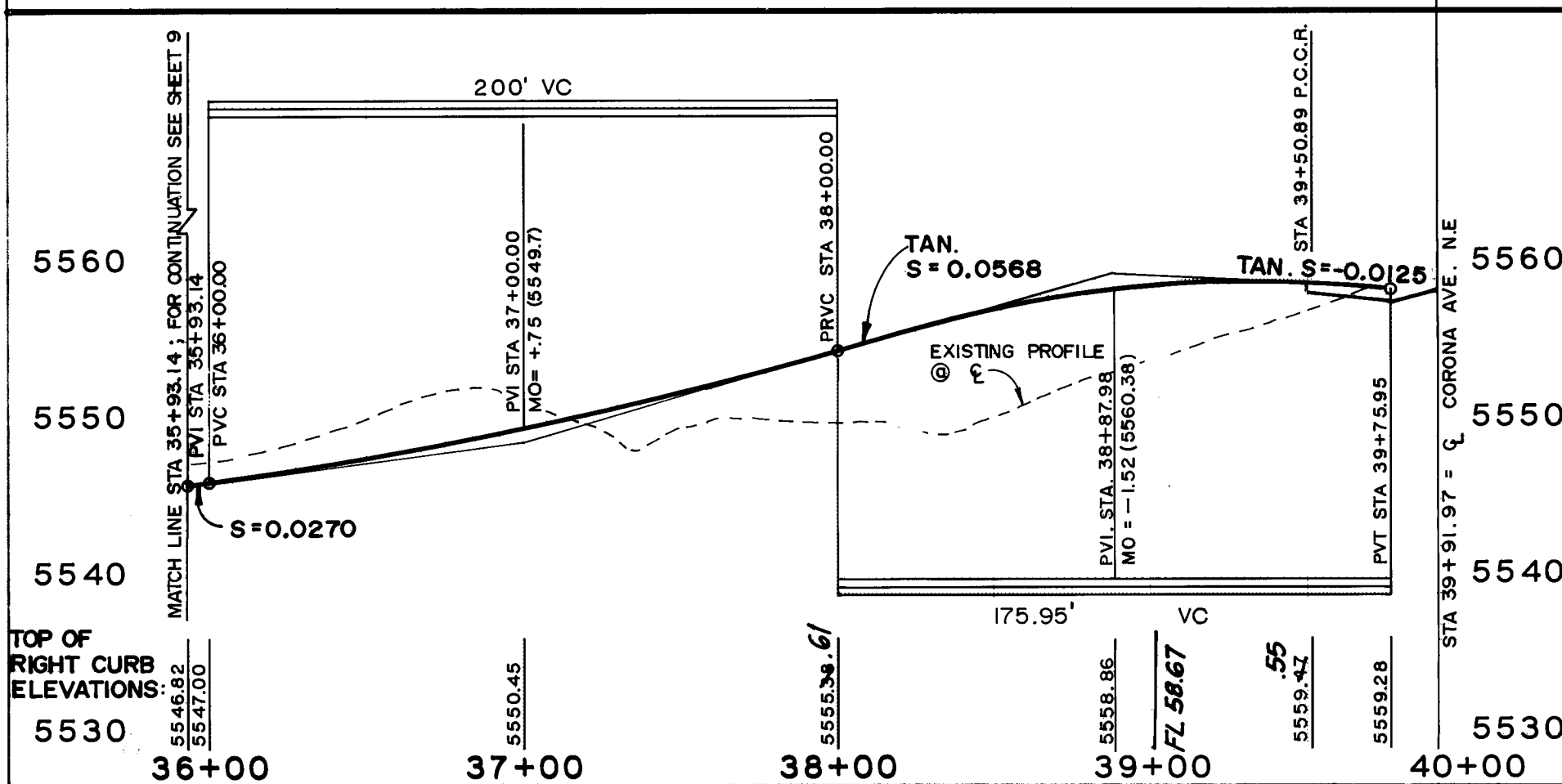
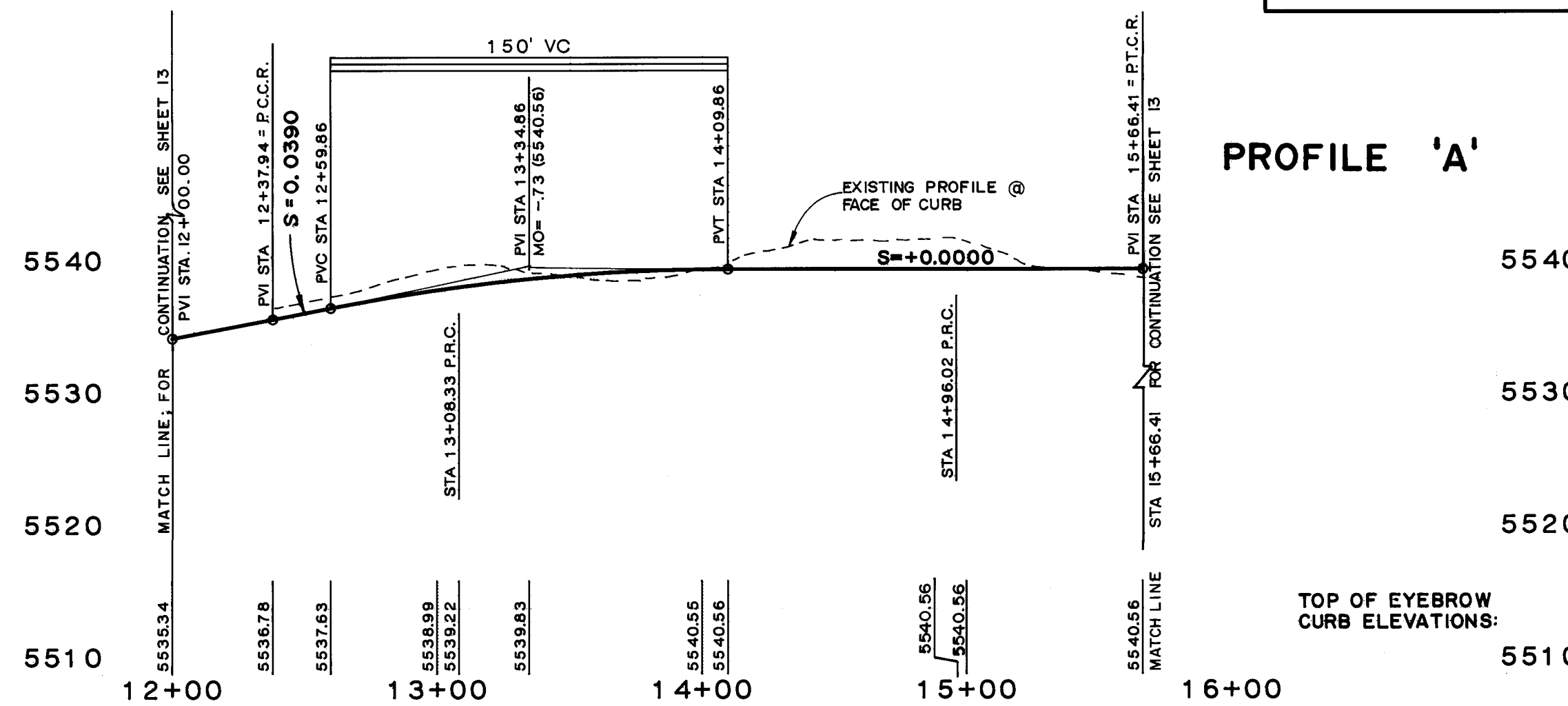
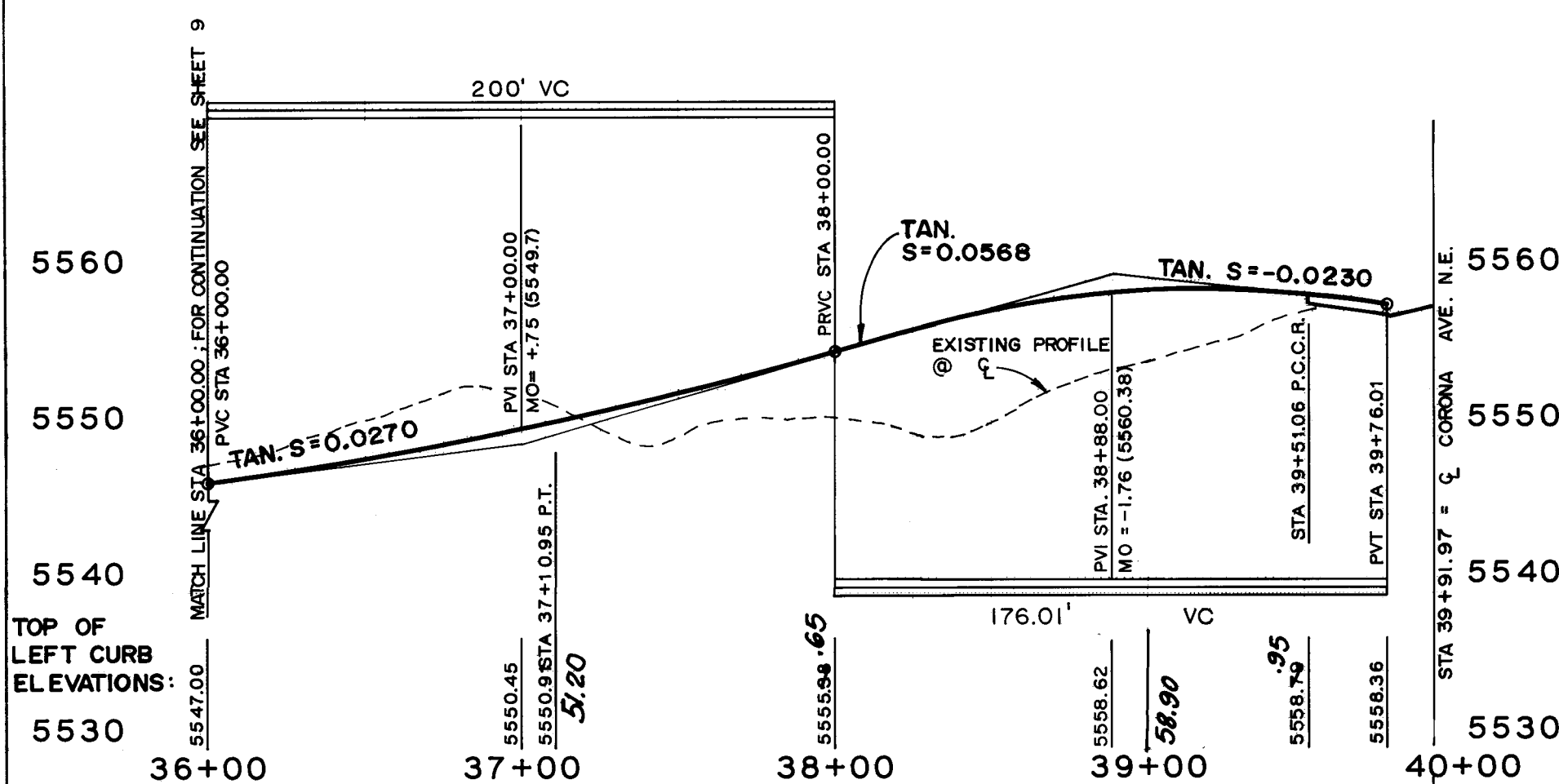


VINTAGE DRIVE N.E.

CORONA AVENUE N.E.

(REFER TO SHEET 13 FOR PLAN)

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



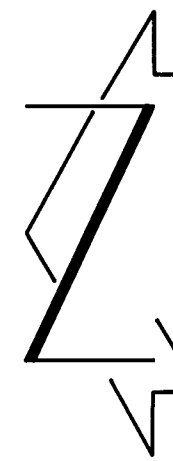
26 3391.941994

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: VINEYARD ESTATES III
PAVING IMPROVEMENTS PLAN AND PROFILE
VINTAGE DRIVE N.E. STA. 36+00 TO STA. 39+91.97
CORONA AVE. N.E. PROFILES "A" AND "B"

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRG CHAIRMAN	B. G. Goodley	6-1-93	WATER	N/A RWK	4-13-93
TRANSPORTATION	R. L. Lusk	4-13-93	WASTE WATER	N/A RWK	4-13-93
HYDROLOGY	J. Lusk	5-5-93			

PROJECT NO. 3391.94 MAP NO. C-20 SHEET 10 OF 31



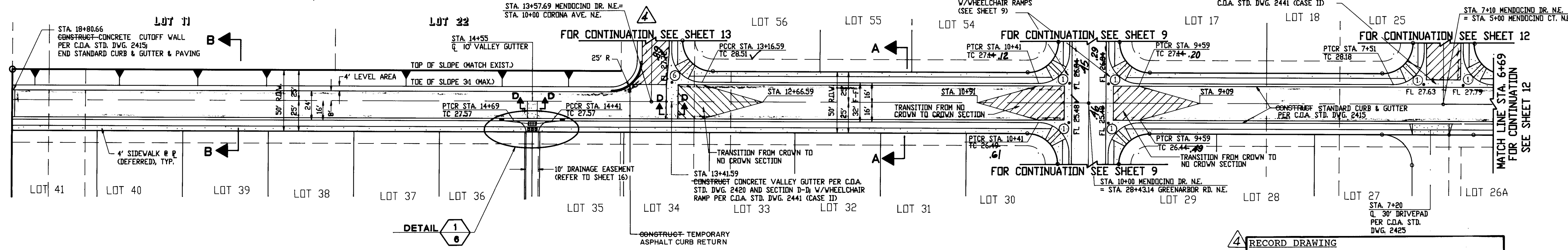
BLOCK 3, NORTH ALBUQUERQUE AREAS
TRACT 3, UNIT 3
FILED 9-10-1931, D-121

CURVE	ARC	DELTA	RADIUS
C1	39.27	90°00'00"	25.00
C6	39.32	90°06'55"	25.00

TC	FL
1 28.67	28.00
2 28.15	27.78
3 29.08	28.41

TC	FL
1 28.45	27.78
2 27.78	27.91
3 28.32	27.65

TC	FL
1 28.58	27.91
2 27.91	27.91
3 28.58	27.91



MENDOCINO DRIVE N.E.

RECORD DRAWING

4 RECORD DRAWING

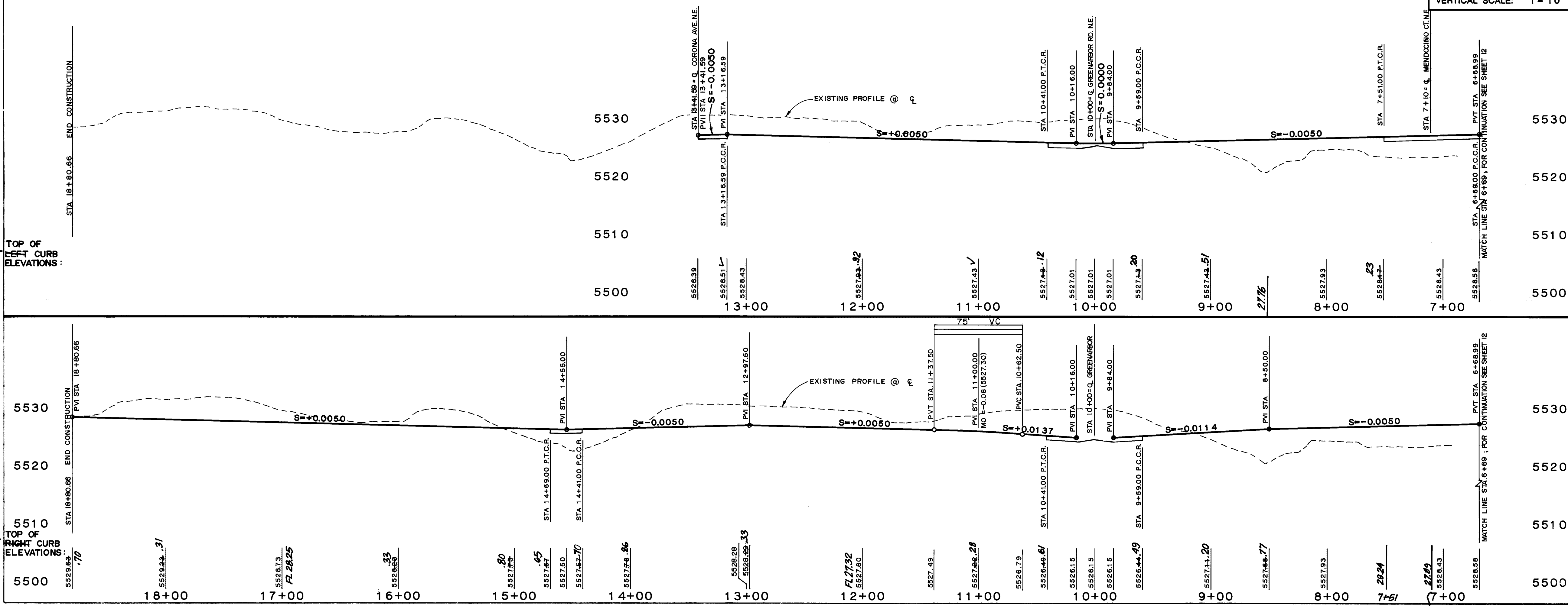
I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief.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

Jeffrey G. Mortensen, R.P.E., No. 6547
Date 01-11-94

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

TOP OF
RIGHT CURB
ELEVATIONS:

LEFT
TOP OF
RIGHT CURB
ELEVATIONS:



STREET PAVING IMPROVEMENTS

- ALL SLOPES AS SHOWN ON PROFILES ARE BASED ON STREET CENTERLINE STATIONING EXCEPT CUL-DE-SACS AND EYEBROWS WHERE STATIONING IS ALONG FACE-OF-CURB.
- WHERE REMOVAL OF EXISTING CURB AND GUTTER, SIDEWALK OR PAVEMENT IS REQUIRED, THE CONTRACTOR SHALL SAWCUT AND/OR REMOVE TO THE NEAREST JOINT. CURB AND GUTTER SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THIS CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
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- ALL SIDEWALK SHOWN HEREON SHALL BE CONSIDERED UNDER SEPARATE PERMIT (SIDEWALK DEFERRAL).
- ALL WHEELCHAIR RAMPS MUST BE CONSTRUCTED UNDER THIS WORK ORDER.
- ALL CURB AND GUTTER SHOWN HEREON SHALL BE STANDARD CURB AND GUTTER PER CITY OF ALBUQUERQUE STANDARD DRAWING 2415.

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	NO.	BY	NO.	BY	NO.	BY
WORK BY	DATE	NO.	BY	NO.	BY	NO.	BY
INSPECTOR	DATE	NO.	BY	NO.	BY	NO.	BY
APPROVAL	DATE	NO.	BY	NO.	BY	NO.	BY
REVISIONS	DATE	NO.	BY	NO.	BY	NO.	BY
DESIGNED BY	DATE	NO.	BY	NO.	BY	NO.	BY
DRAWN BY	DATE	NO.	BY	NO.	BY	NO.	BY
CHECKED BY	DATE	NO.	BY	NO.	BY	NO.	BY

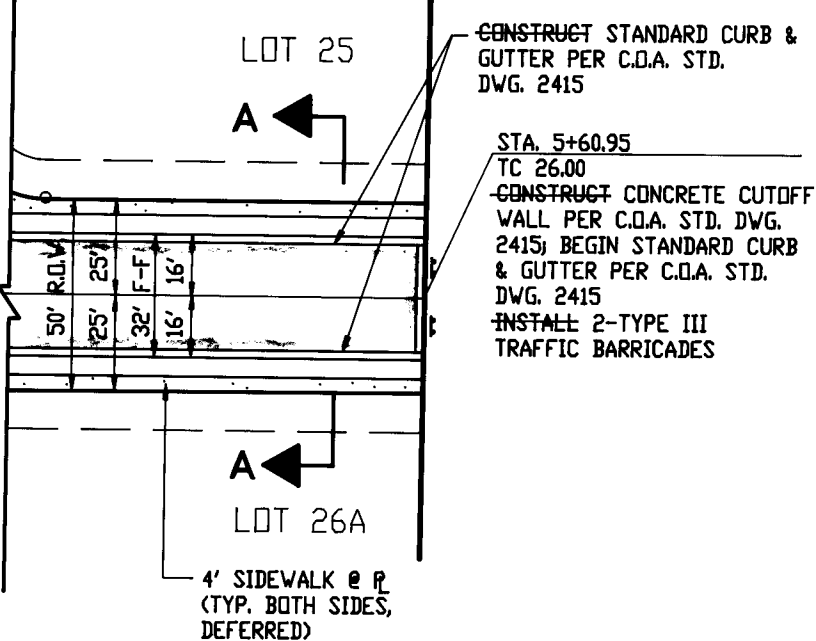
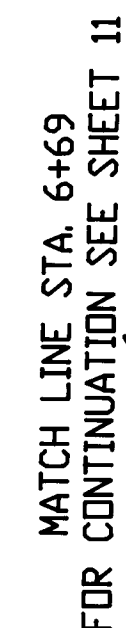
26 3391.94 1194

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE VINEYARD ESTATES III
PAVING IMPROVEMENTS PLAN AND PROFILE
MENDOCINO DR. N.E. STA. 6+69 TO STA. 18+80.66

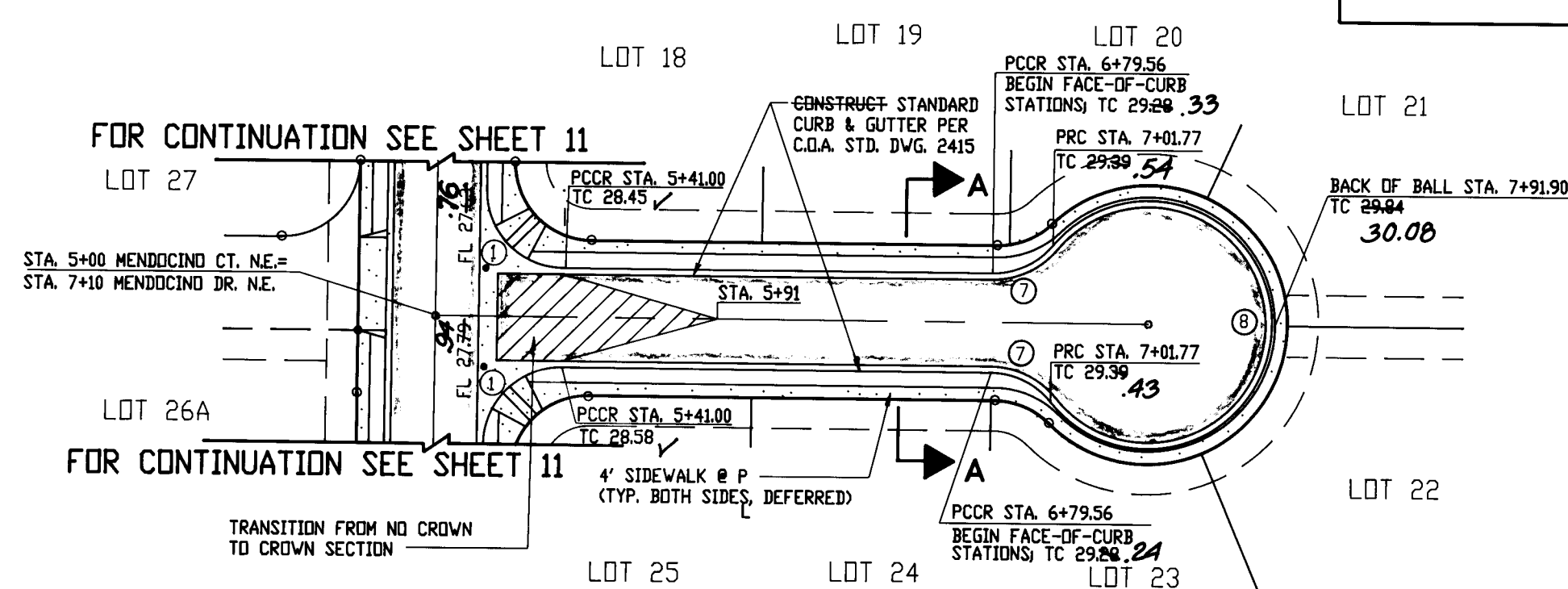
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN	B.A. Smith	6-1-93	WATER	N/A RWK	4-13-93
TRANSPORTATION	John Smith	4-13-93	WASTE WATER	N/A RWK	4-13-93
HYDROLOGY	John Smith	5-5-93			

PROJECT NO. 3391.94 MAP NO. C-20 SHEET 11 OF 31



M E N D O C I N O D R I V E N. E.

CURVE	ARC	DELTA	RADIUS
C1	39.27	90°00'00"	25.00
C7	22.21	50°53'35"	25.00
C8	196.72	281°47'10"	40.00



M E N D O C I N O C O U R T N. E.

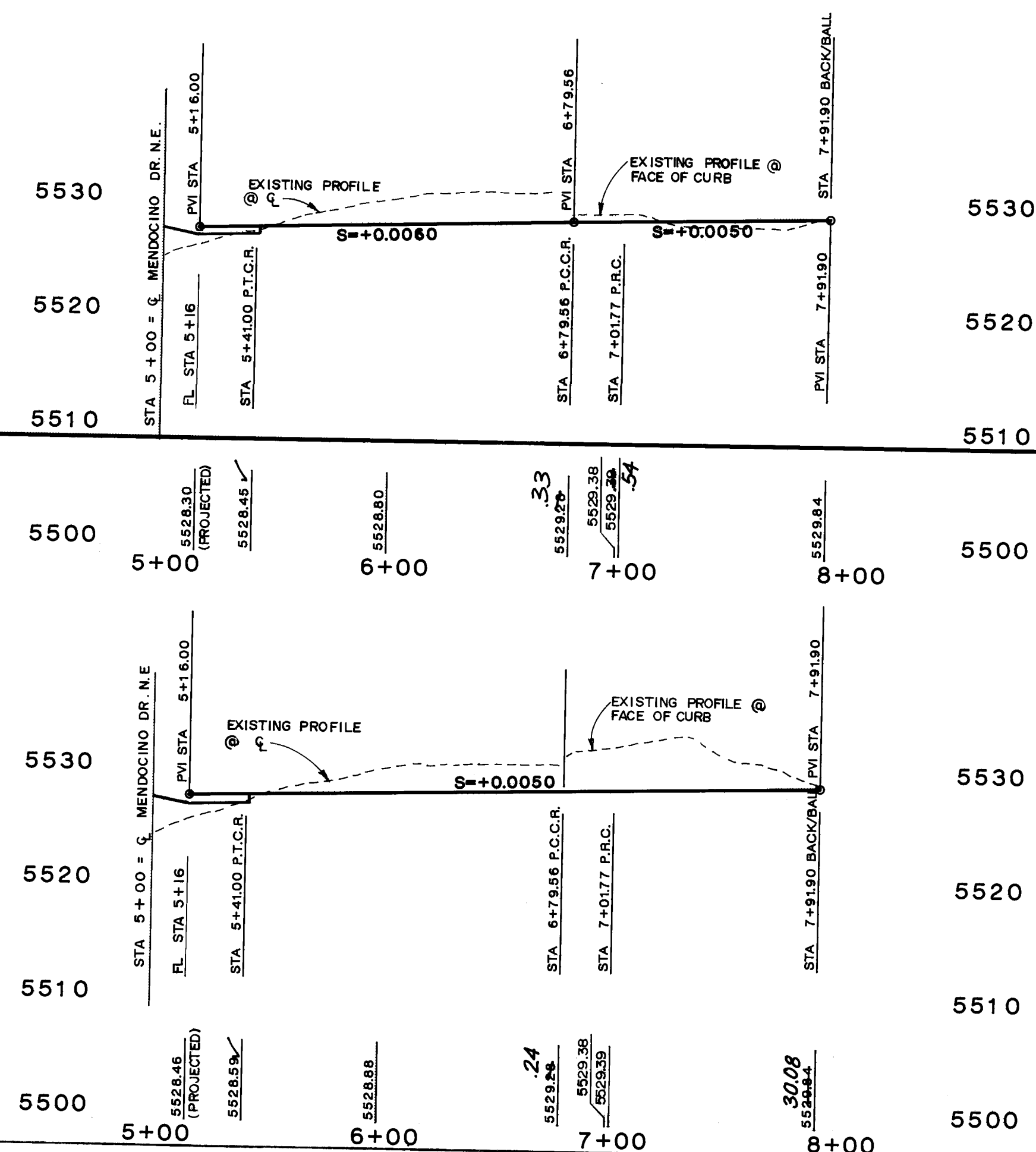
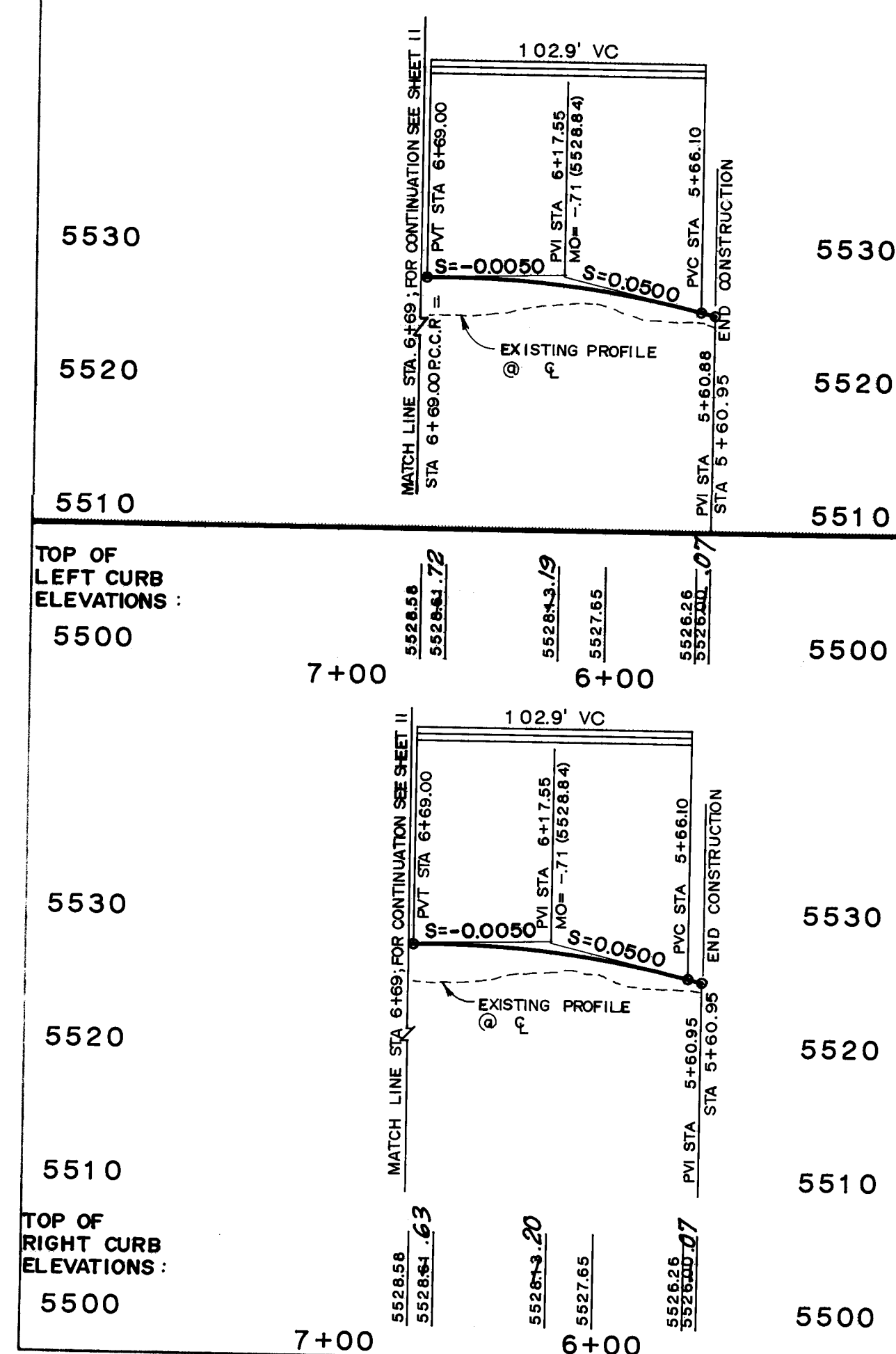
RECORD DRAWING

4 RECORD DRAWING

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 8547
 - 01-11-94
 Jerrold G. Mortensen, Date
 NPMB No. 8547
 PROFESSIONAL

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



STREET PAVING IMPROVEMENTS

1. ALL SLOPES AS SHOWN ON PROFILES ARE BASED ON STREET CENTERLINE STATIONING EXCEPT CUL-DE-SACS AND TIE-INS WHERE STATIONING IS ALONG FACE-OF-CURB.
2. WHERE REMOVAL OF EXISTING CURB AND GUTTER, SIDEWALK OR PAVEMENT IS REQUIRED, THE CONTRACTOR SHALL SLOOT AND OR REMOVE THE EXISTING JOINT CURB AND GUTTER SHOWN AS EXISTING AND NOT TO BE REMOVED UNDER THE CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
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4. ALL SIDEWALK SHOWN HEREON SHALL BE CONSIDERED UNDER SEPARATE PERMIT (SIDEWALK DEFERRAL).
5. ALL WHEELCHAIR RAMPS MUST BE CONSTRUCTED UNDER THIS WORK ORDER.
6. ALL CURB AND GUTTER SHOWN HEREON SHALL BE STANDARD CURB AND GUTTER PER CITY OF ALBUQUERQUE STANDARD SPECIFICATION 2419.

AS-BUILT & CERTIFY		ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	DATE	REMARKS	BY	NO.	DATE	FIELD NOTES		WORK ORDER	INSTRUMENT
1	10/93								
				A STANDARD BRASS TABLET STAMPED 1/4" DIA. X 1/4" SET IN TOP OF A CONC. POST FLUSH W/ THE GROUND AND LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD AND LOS ANGELES DRIVE, 50' NORTH OF THE NORTH- WEST CORNER OF A CHAIN LINK FENCE AROUND THE FAA AIR TRAFFIC CONTROL CENTER ELEVATION = 5318.195 FEET (MNSL D)					
DESIGNED BY				DATE				DATE	
DRAWN BY				DATE				DATE	
CHECKED BY				DATE				DATE	
REVISIONS				DATE				DATE	
DESIGN				DATE				DATE	
JGM				DATE				DATE	
ACAD				DATE				DATE	
JGM				DATE				DATE	

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE	VINEYARD ESTATES III
PAVING IMPROVEMENTS	PLAN AND PROFILE
MENDOCINO DR. N.E. STA. 5+60.88 TO STA. 6+69	
MENDOCINO CT. N.E. STA. 5+00 TO STA. 7+91.90	

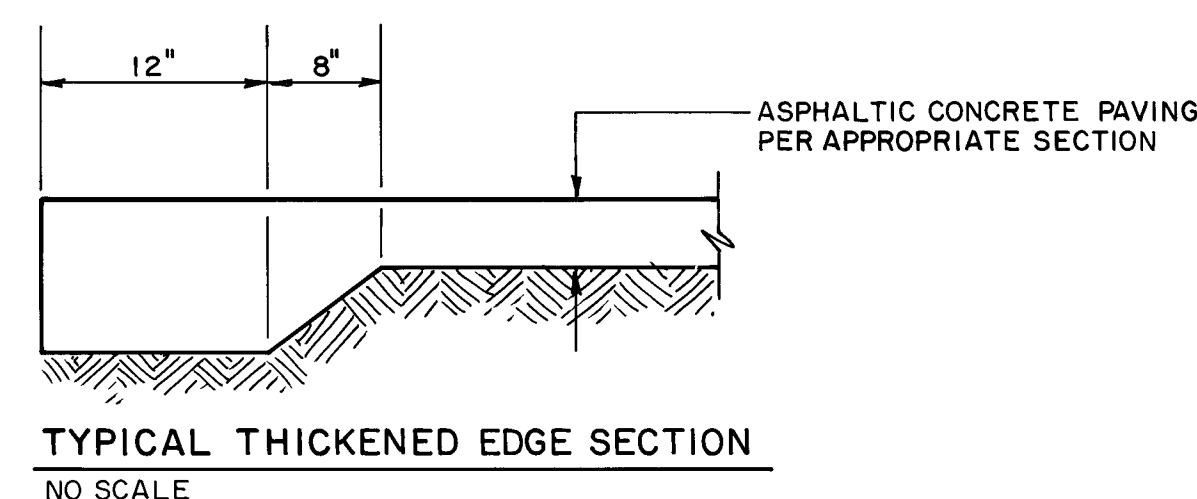
MEMBERSHIP C.I. N.E. STA. 5+00 TO STA. 7+91.90					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DIST. CHAIRMAN	B.G. Gendley	6-1-93	WATER	N/A RWK	4-13-93
TRANSPORTATION	R. Hunt	4-13-93	WASTE WATER	N/A RWK	4-13-93
HYDROLOGY	J. Hunter	5-5-93			

920297

PROJECT NO.	3391.94
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MAP NO. C-20	
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SHEET 12 OF 31



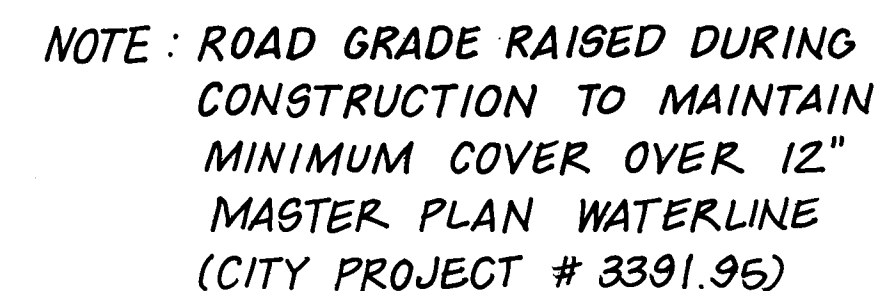
RECORD DRAWING

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knowledge and belief
horizontal dimensions
verified prior to
New Mexico
8547
Jonny G. Mortensen
NMPL 8547

01-11-94
Date

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



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5. ALL WHEELCHAIR RAMPS MUST BE CONSTRUCTED UNDER THIS WORK ORDER.
6. ALL CURB AND GUTTER SHOWN HEREON SHALL BE STANDARD CURB AND GUTTER PER CITY OF ALBUQUERQUE STANDARD DRAWING 2415.
7. REFER TO SHEET 9 FOR SECTION 3-J-1, REFER TO SHEET 17 FOR SECTION H-H.

A		10/93	AS-BUILT & CERTIFY		G.M.	ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
								FIELD NOTES		A STANDARD BRASS TABLE STAMPED		CONTRACTOR NEW CONCEPTS	
								NO BY DATE		'A-C19-NAA LOT 32 BLK. 10" SET IN TOP OF		INSPECTOR	
NO		DATE	REMARKS		BY					A CONC. POST FLAG WITH THE GROUND AND		BY JMA DATE 7/93	
										LOCATED IN THE NORTHEAST QUADRANT OF THE		FIELD VERIFICATION BY GM DATE 10/93	
										INTERSECTION OF LOUISIANA BLVD. AND LOS		CORRECTED BY GM DATE 10/93	
										ANGELES DR. N.E. SO NORTH OF THE NORTH-		MICRO-FILM INFORMATION	
										WEST CORNER OF A CHAIN LINK FENCE		RECORDED BY NO DATE	
										AROUND THE FAA AIR TRAFFIC CONTROL CENTER			
										ELEVATION = 5318.195 FEET (MSLD)			



RECORD DRAWING

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NEW MEXICO
JEFFREY G. MORTENSEN
REGISTERED PROFESSIONAL ENGINEER
2547

Jeffrey G. Mortensen
NMPE No. 2547

01-11-94
Date

Profile view of a road section showing existing and proposed profiles, vertical curve data, and stationing.

Vertical Curve Data:

- 150' VC
- PVI STA 36+17.1
- PVI STA 34+42.1
- MO = +.49 (5560.89)
- PAC STA 33+67.1

Grading and Slope:

- STA 36+10 END GRADING
- S = -0.0334
- S = +0.0075

Profile Labels:

- EXISTING PROFILE @ EAST R.O.W.
- EXISTING PROFILE @ WEST R.O.W.
- EXISTING PROFILE @ C

Match Line:

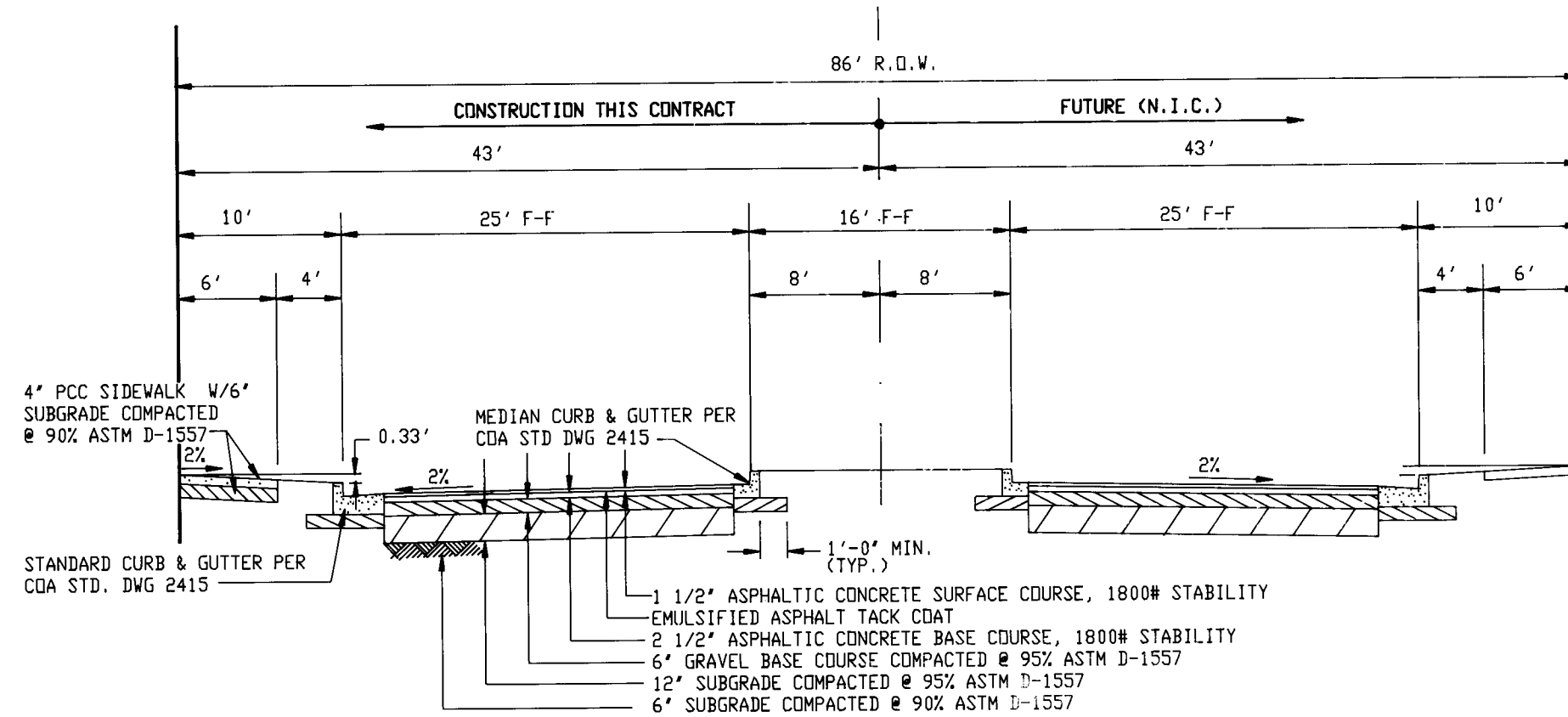
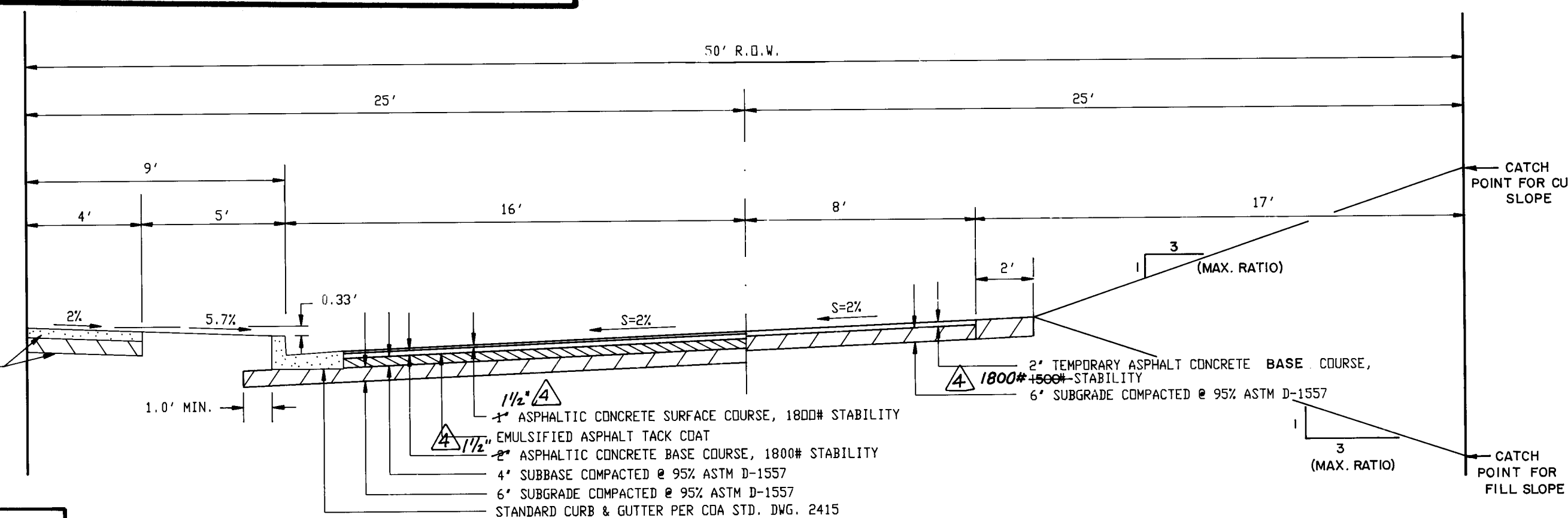
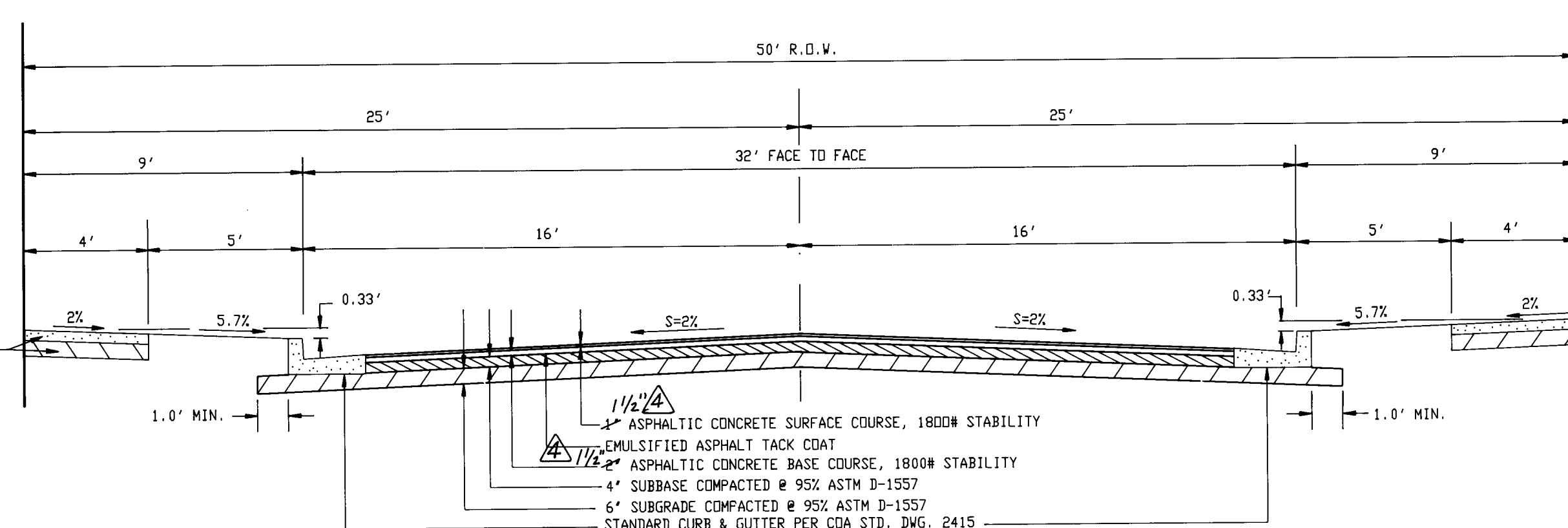
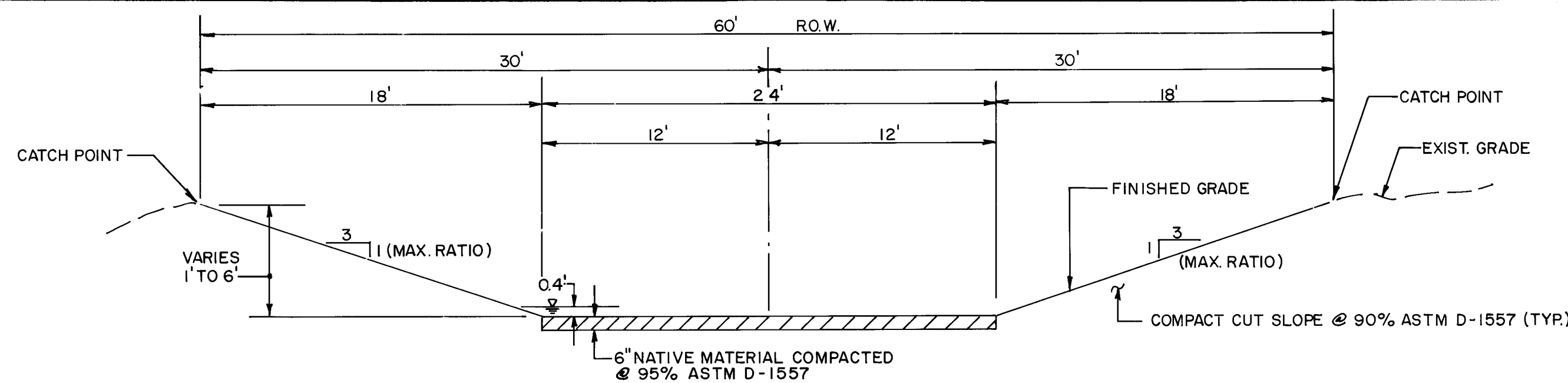
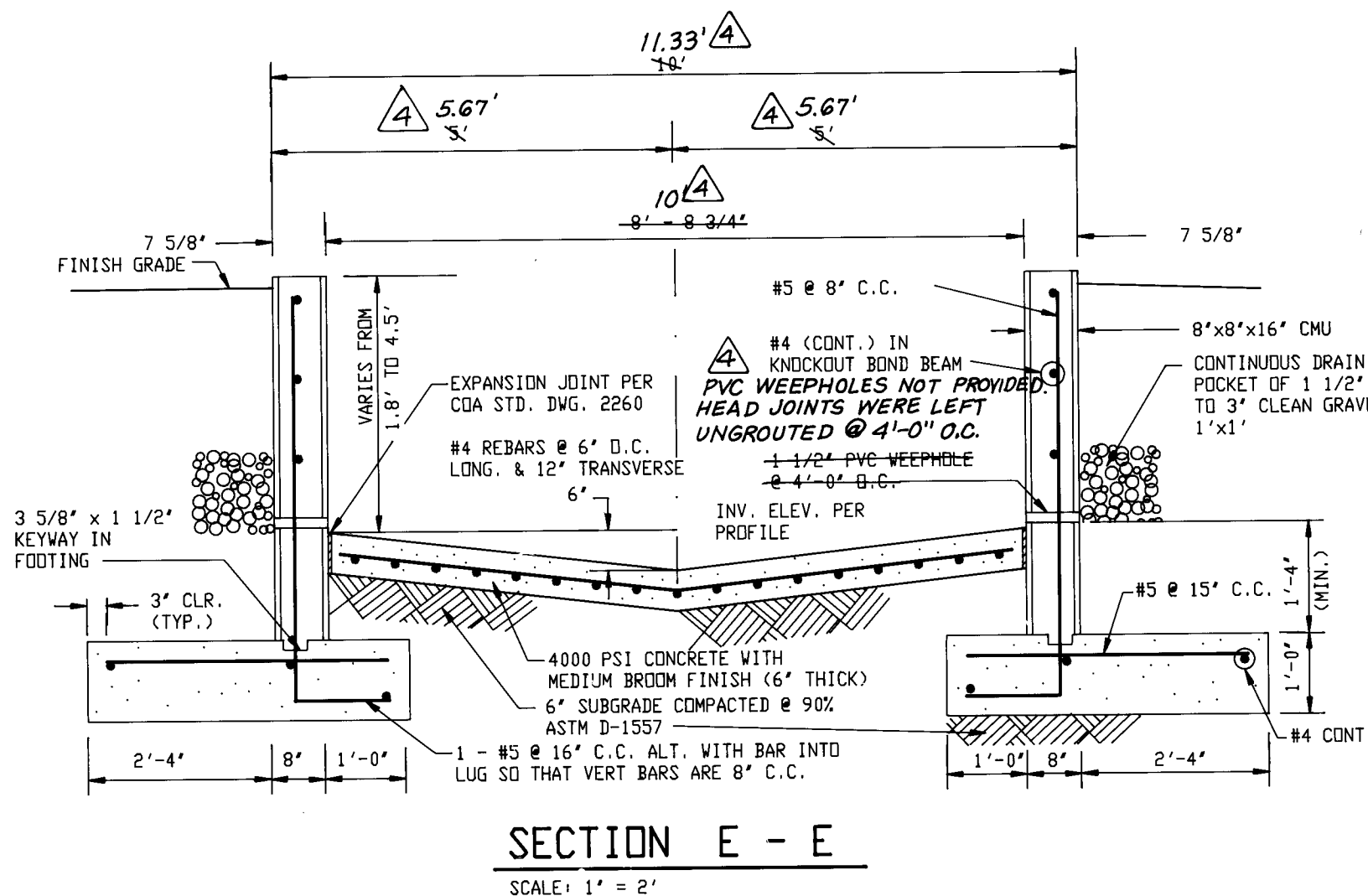
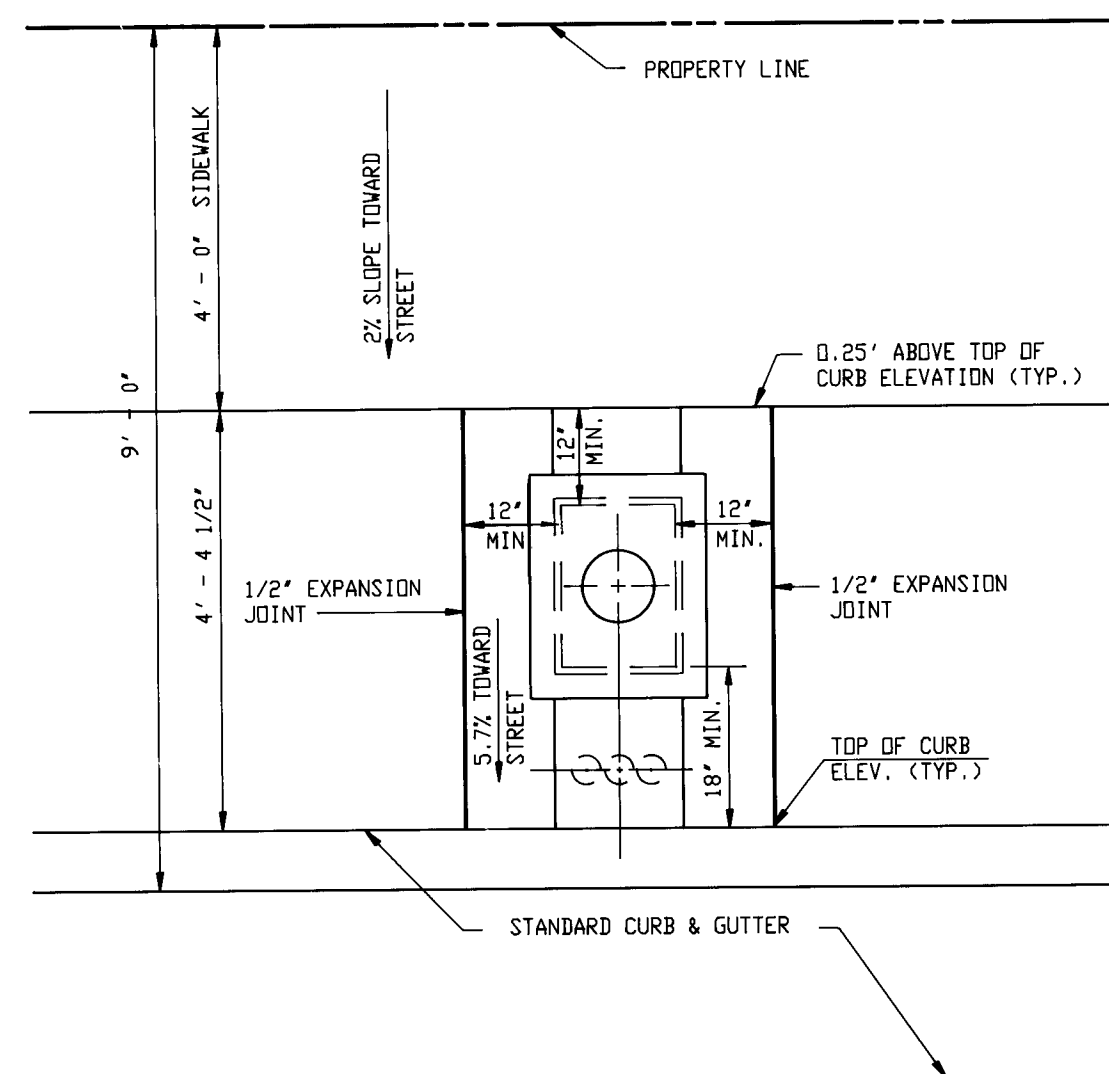
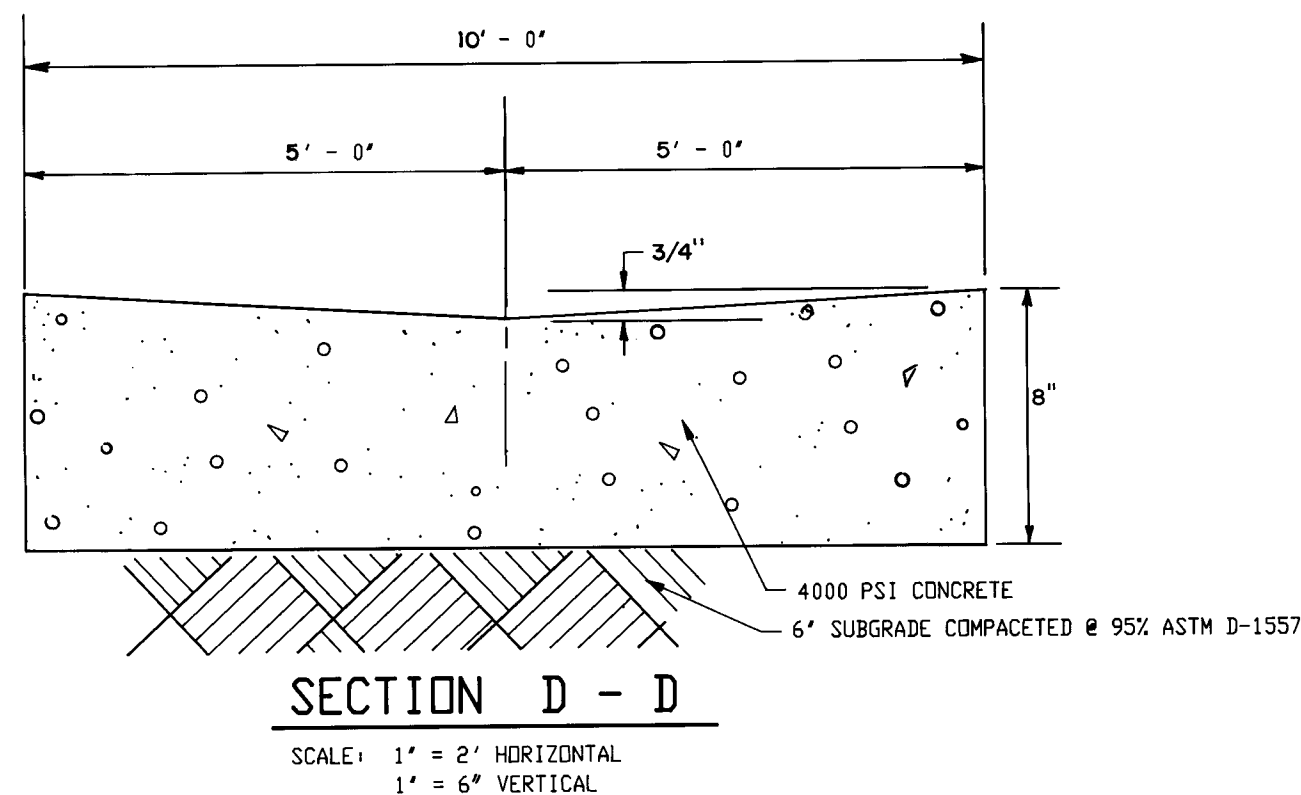
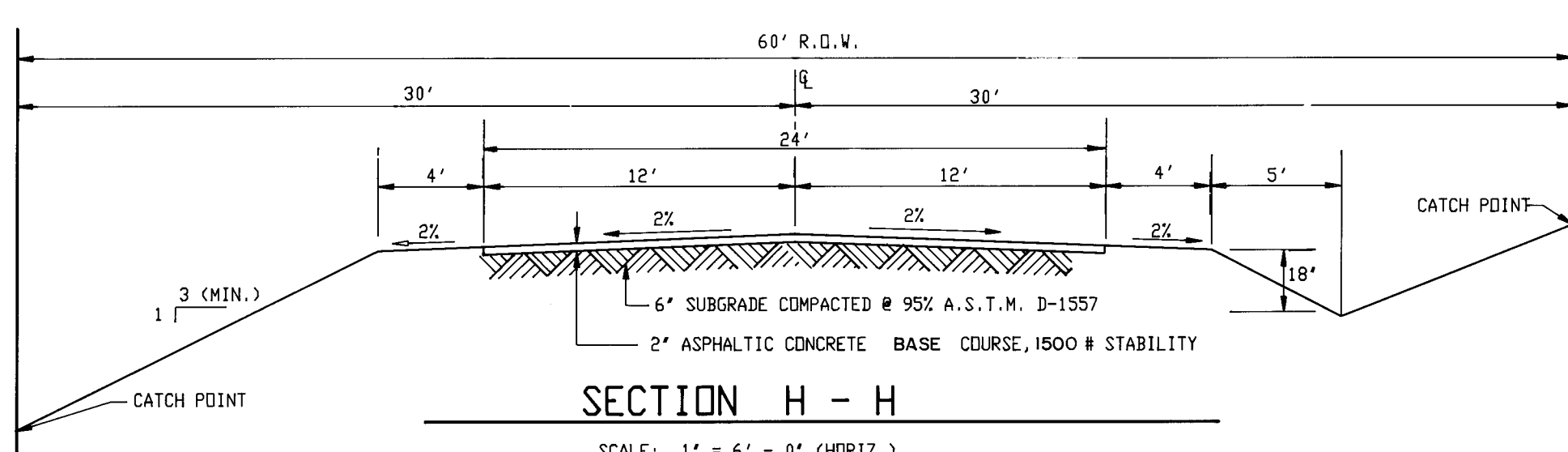
- STA 30+84.61 FOR CONTINUATION SEE SHEET 15
- PVI STA 30+94.61

Stationing and Elevation Data:

Station	Elevation
36+00	5566.50
36+00	5566.17
35+00	5563.40
35+00	5562.85
34+00	5561.38
34+00	5560.67
33+00	5560.33
33+00	5559.82
32+00	5559.07
31+00	5558.32
31+00	5558.28

26 3391.94 11694

CITY OF ALBUQUERQUE					
PUBLIC WORKS DEPARTMENT					
ENGINEERING GROUP					
TITLE		VINEYARD ESTATES III			
ROADWAY GRADING PLAN AND PROFILE					
VENTURA ST. N.E. STA. 31+11.61 TO STA 36 +10					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
	<i>B.G. Soreley</i>	6-1-93	WATER	N/A RWK	4-13-93
	<i>R. Daulton</i>	4-13-93	WASTE WATER	N/A RWK	4-13-93
	<i>J. Cursten</i>	5-5-93			
TRANSPORTATION					
HYDROLOGY					
PROJECT NO.	3391.94	MAP NO.	C-20	SHEET	OF
				16	31



RECORD DRAWING

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

JEFFREY G. MORTENSEN
REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
1-23-93
Date

- NOTES:**
1. 8" x 8" x 16" CMU OF UBC STD. 24-4 OR 24-5.
 2. USE KNOCK-OUT BOND BEAM BLOCK AT 4'-0" C.C. WITH 1 #4 CONTINUOUS.
 3. FILL ALL BLOCK VOIDS WITH 3000 PSI CONCRETE. REINFORCING TO BE INTERMEDIATE GRADE STEEL, $f_s = 20,000$ psi.
 5. INSTALL DUN-D-WALL REINFORCING EVERY SECOND COURSE. SPLICE SHALL BE 40 BAR DIAM. MINIMUM FOR VERTICAL BARS. ALL OTHERS SHALL BE 20 BAR DIAM. MINIMUM.
 6. CONCRETE FILL SHALL BE 21 DAYS OLD PRIOR TO BACKFILLING.

SECTION G-G HYDRAULICS

$Q = (1.49/n)AR^{2/3}S^{1/2}$

$n = 0.030$ (DPM)

$A = 0.5(24) = 12$ sf

$R = A/P = 12/(0.5+24+0.5) = 0.48$; $R^{2/3} = 0.61$

$S = 0.0075$

$Q = 31.5$ cfs $> Q_{100} = 17$ cfs

Therefore, $d < 0.5' = 6"$

$Q = 31.5$ cfs, $v = 2.6$ fps

$v = Q/A$

$Q = 17$ cfs, $d = 0.4$ ft

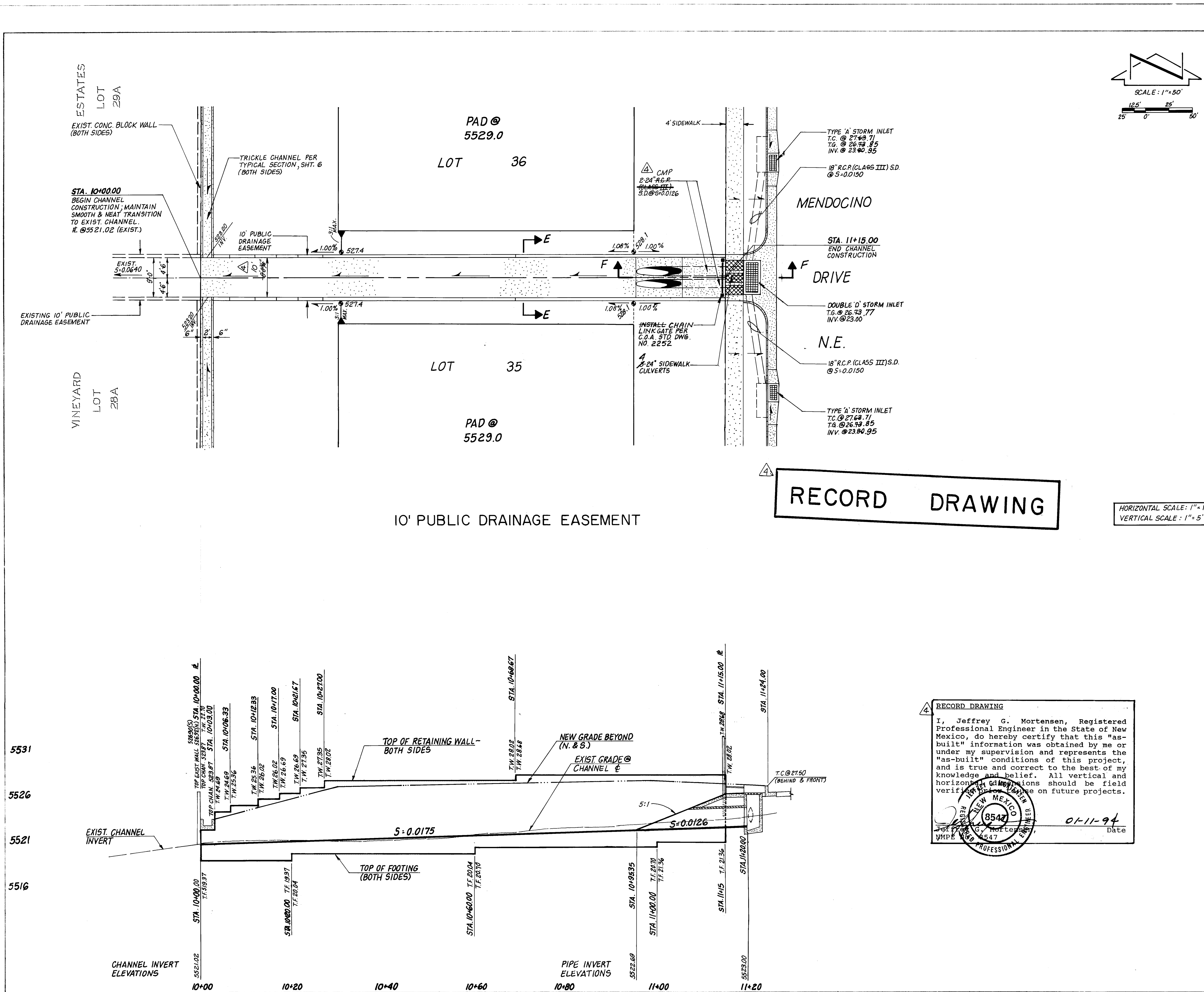
$v = 17/(24)(0.4)$

$v = 1.8$ fps < 2 fps

Therefore nonerosive

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGN		PROJECT NO.		MAP NO.		SHEET OF	
CONTRACTOR	NEW CONCEPTS	STANDARD BRASS TABLET STAMPED	1.019 MA LOT 32 BLK 10 SET IN TOP OF A CONC. POST FLUSH W/ THE GROUND # LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD & LOS ANGELES DRANE, SO NORTH OF THE NORTHWEST CORNER OF A CHAINLINK FENCE AROUND THE FAA AIR TRAFFIC CONTROL CENTER	NO.	DATE	BY	DATE	NO.	DATE	DESIGNED BY	DATE	3391.94	C-20	17	31	3391.94	C-20
WORK BY	JMA	DATE	7/93	DATE	10/93	DATE	10/93	DATE	10/93	DATE	01/93	3391.94	C-20	17	31	3391.94	C-20
INSPECTOR	DATE	DATE	10/93	DATE	10/93	DATE	10/93	DATE	10/93	DATE	01/93	3391.94	C-20	17	31	3391.94	C-20
FIELD ENGINEER	DATE	DATE	10/93	DATE	10/93	DATE	10/93	DATE	10/93	DATE	01/93	3391.94	C-20	17	31	3391.94	C-20
RECORD BY	DATE	DATE	10/93	DATE	10/93	DATE	10/93	DATE	10/93	DATE	01/93	3391.94	C-20	17	31	3391.94	C-20

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP				REVISIONS				DESIGN			
TITLE				NO.				DATE			
VINEYARD ESTATES III				1				01/93			
PAVING DETAILS AND SECTIONS				1				01/93			
APPROVED	DATE	APPROVALS	ENGINEER	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
DRG. CHAIRMAN	6-1-93	WATER	N/A	6-1-93	WASTE WATER	N/A	6-1-93	WATER	N/A	6-1-93	WASTE WATER
TRANSPORTATION	1-13-93	WASTE WATER	N/A	1-13-93	WASTE WATER	N/A	1-13-93	WASTE WATER	N/A	1-13-93	WASTE WATER
HYDROLOGY	5-5-93	WASTE WATER	N/A	5-5-93	WASTE WATER	N/A	5-5-93	WASTE WATER	N/A	5-5-93	WASTE WATER
PROJECT NO.	3391.94	MAP NO.	C-20	SHEET	17	OF	31	PROJECT NO.	3391.94	MAP NO.	C-20



RECORD DRAWING

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=5'

RECORD DRAWING
I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief. All vertical and horizontal dimensions should be field verified on future projects.
Date 01-11-94
Professional Engineer
New Mexico
8547

GRADING NOTES:

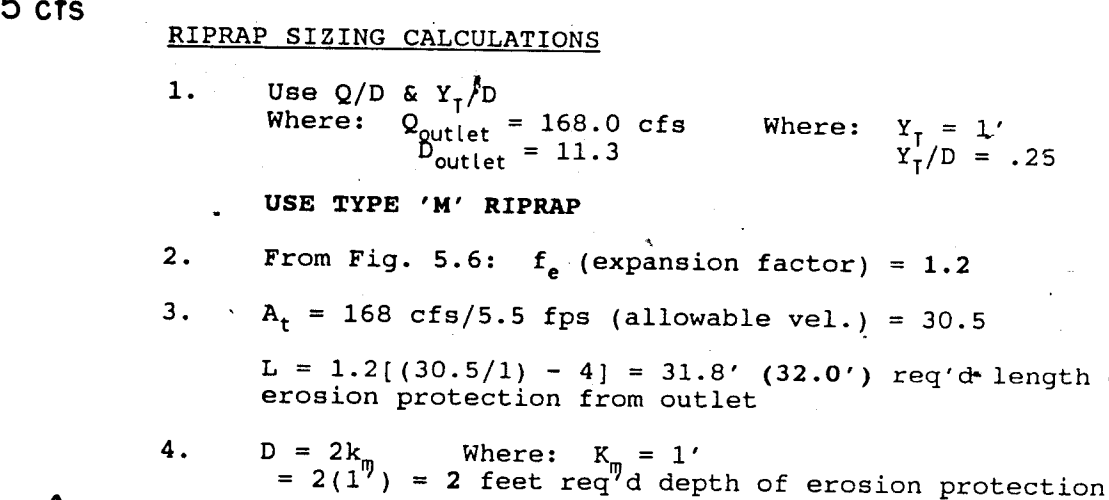
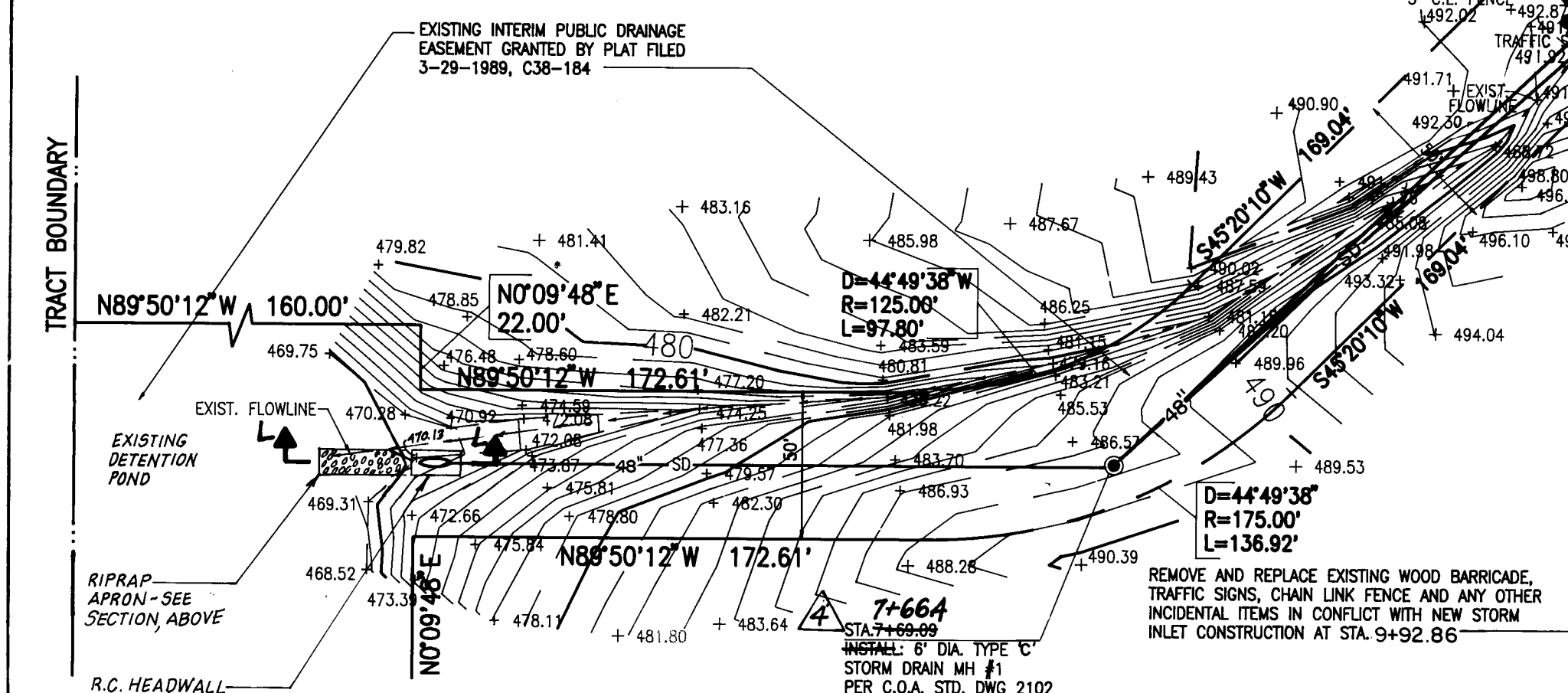
- ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90% ASTM D-1557; SUBGRADE AND HOUSE PADS SHALL BE COMPACTED AT 95% ASTM D-1557.
- RETAINING WALLS SHALL BE CONSTRUCTED BY THE DEVELOPER.
- YARD (GARDEN) WALLS SHALL BE CONSTRUCTED BY THE LOT OWNER OR ITS BUILDER.
- MAXIMUM SLOPES SHALL BE 3:1, UNLESS OTHERWISE NOTED.
- 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 ADDITIONAL UTILITY LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE SURVEYOR HAS CONDUCTED ONLY A 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 ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
DATE	BY	DATE	BY	DATE	BY	DATE	BY	NO.	DATE	DESIGN	DATE
10/93	JMA	10/93	JMA	10/93	JMA	10/93	JMA	1	10/93	DESIGN	10/93
11/93	JMA	11/93	JMA	11/93	JMA	11/93	JMA	2	11/93	DESIGN	11/93
12/93	JMA	12/93	JMA	12/93	JMA	12/93	JMA	3	12/93	DESIGN	12/93
01/94	JMA	01/94	JMA	01/94	JMA	01/94	JMA	4	01/94	DESIGN	01/94

TITLE: VINEYARD ESTATES STORM DRAIN IMPROVEMENTS 10' PUBLIC DRAINAGE EASEMENT STA. 10+00 TO STA. 11+24

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DR. CHAIRMAN	B. G. Mortensen	6-1-93	WATER	N/A	4-13-93
TRANSPORTATION	N/A	4-13-93	WASTE WATER	N/A	4-13-93
HYDROLOGY	J. Mortensen	5-5-93			

PROJECT NO. 3391.94 MAP NO. C-20 SHEET 18 OF 31

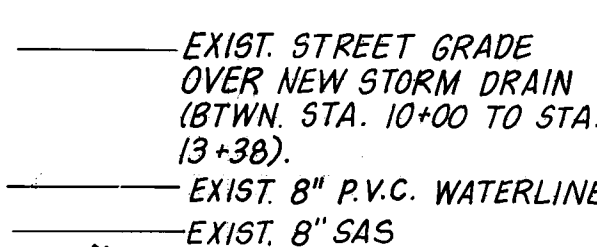


EIFFE HYDRAULICS					
Flow Depth and Flow Capacity Calculated with FlowMaster I Version 3.42 by Haestad Methods, Inc.					
diam. (in)	slope (ft/ft)	Q _{max} (cfs)	depth (ft)	QCAP (cfs)	
24	0.0241	0.0230	31.0	1.49-1.46	34.7-33.5
30	0.0365	0.0290	37.2	1.30-1.20	69.9-78.4
36	0.0178	0.0290	68.2	1.68-1.97	111.6-126.1
42	0.0197	0.0290	114.2	2.66-2.61	177.7-176.1
48	0.0210	0.0290	169.9	2.75	208.2
48	0.0367	0.0325	169.9	2.68-2.27	215.7-187.5

SUMMARY OF STREET HYDRAULICS (Developed condition)						
Analysis Point	Street Flow Q _{100(cfs)}	Slope Upstream of Analysis Point	Normal Depth at Gutter (ft)	Average Velocity (fps)	Flow Accepted by Inlets (cfs)	Residual Street Flow (cfs)
AP-7	58.7	0.0300	0.52	6.4	31.0	27.7
AP-8	35.0	0.0300	0.44	5.2	n/a	35.0
AP-9	77.5	0.0335	0.56	7.4	37.2	40.3
AP-10	101.7	0.0200	0.69	7.0	46.0	55.7
AP-11a	55.7	0.0200	0.55	5.6	14.0	41.7
AP-11b	41.7	0.0200	0.50	5.0	41.7	0.0

TAKEN FROM "MASTER DRAINAGE PLAN, VINEYARD ESTATES SUBDIVISION", JMA #92029

SCALE
HORIZ: 1" = 50'
VERT: 1" = 10'



RECORD DRAWING

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 01-11-94

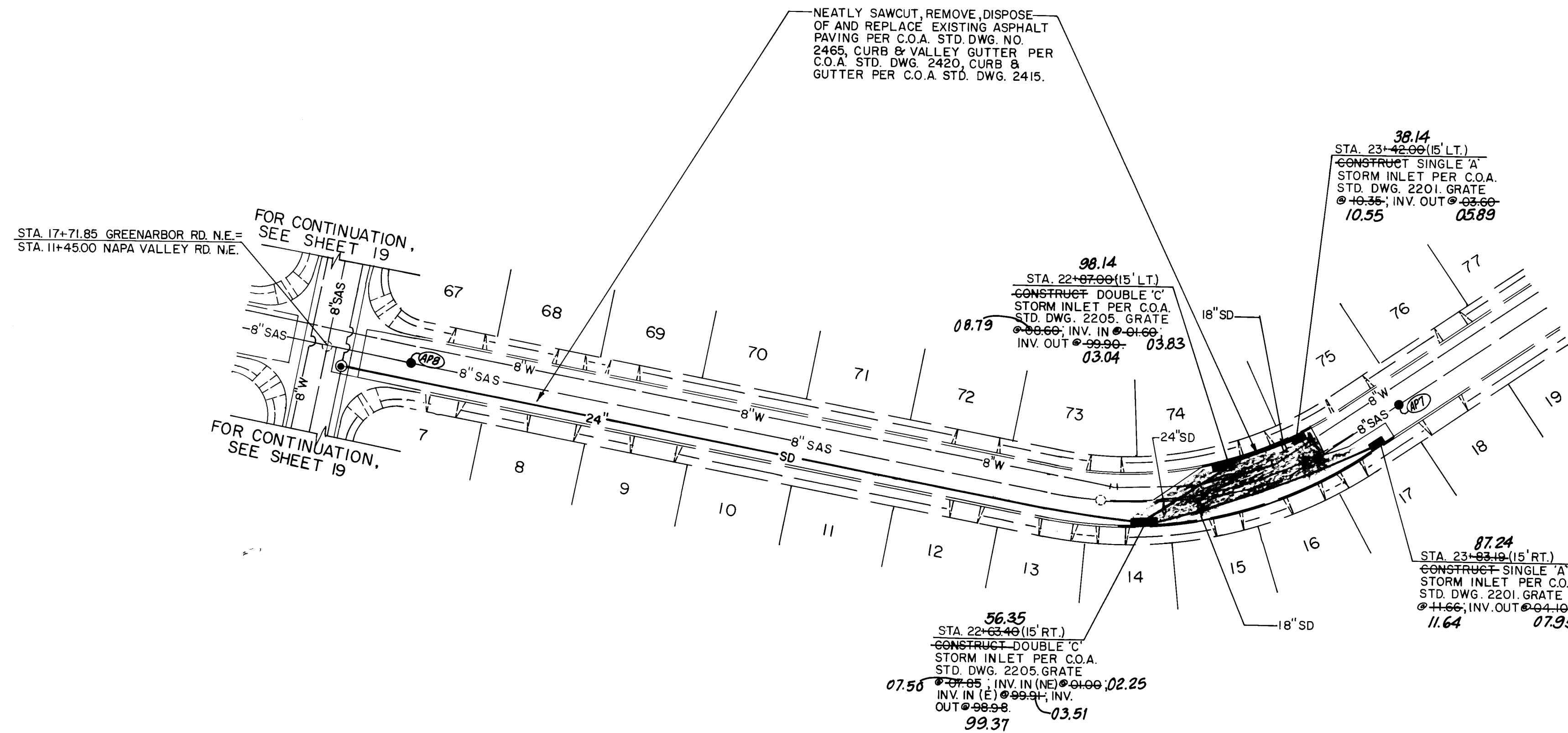
Jeffrey G. Mortensen, Date
NMPE No. 8547

STORM DRAIN NOTES:

1. STATIONING IS BASED ON CENTERLINE OF ISA VALLEY ROAD AND CENTERLINE OF INTERIM PUBLIC DRAINAGE EASEMENT. SLOPES ARE BASED ON TRUE LENGTH OF PIPE.
2. MANHOLES SHALL BE 6' DIAMETER TYPE 'C' PER CITY OF ALBUQUERQUE STANDARD DRAWING 2101.
3. ***ALL STORM DRAIN TO BE CLASS III REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED***

ENGINEER'S SEAL						SURVEY INFORMATION	BENCH MARKS	AS BUILT INFORMATION	
G.M.						FIELD NOTES	A STANDARD BRASS TABLET STAMPED "1- C19-NAA LOT 32 BLK 10 SET IN TOP OF A CONC POST FLUSH W/THE GROUND AND LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD AND LOS ANGELES DR NE, SOUTH OF THE NORTH- WEST CORNER OF A CHAIN LINK FENCE AROUND THE FAA AIR TRAFFIC CONTROL CENTER ELEVATION = 5318.795 FEET (M.S.L.D.)	CONT'G THE NEW CONCEPTS "TABLE BY JUMA DATE 11/93 INSPECTED BY GM DATE 01/94 SERIALIZED BY JUMA DATE 01/94 CORRECTED BY GM DATE 01/94 MICRO-FILM INFORMATION RECORDED BY NO DATE	
NO.	DATE	REMARKS	BY			NO	BY	DATE	
						DESIGNED BY T.P.H. DRAWN BY T.P.H./AUTOCAD CHECKED BY J.G.M.			
						REVISED DESIGN			
						DATE 01/93 DATE 01/93 DATE 01/93			

ROQUE ARTMENT GROUP		
III		
PLAN & PROFILE		
5+34.6 TO STA. 13+38.00		
NOVALS	ENGINEER	DATE
N/A R/WK		4-13-93
N/A R/WK		4-13-93
0	SHEET	OF
	19	31

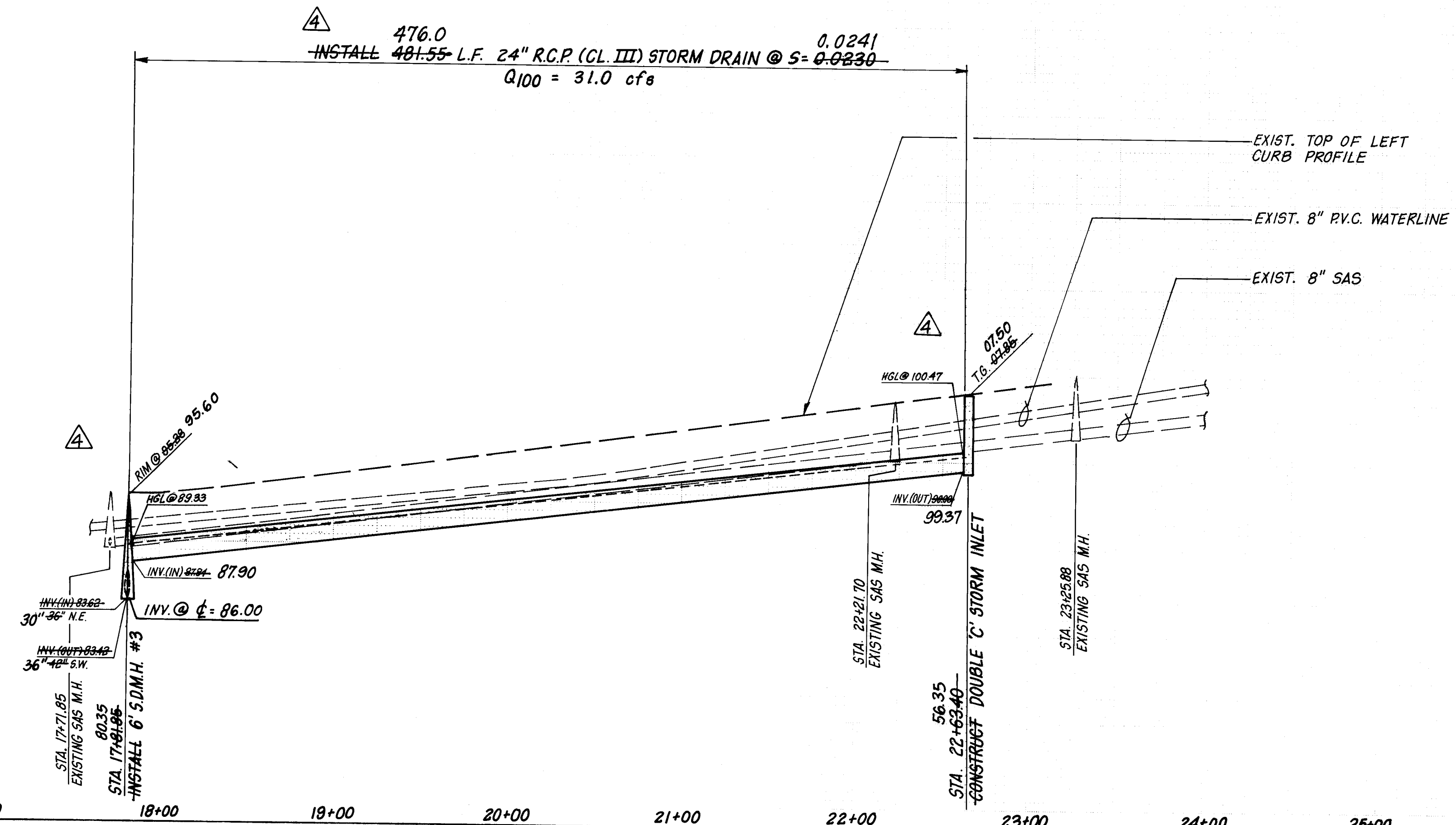


RECORD DRAWING

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Jeffrey G. Mortensen, N.M.P.E. No. 8547, Date 01-11-94

SCALE
HORIZ: 1" = 50'
VERT: 1" = 10'

GREENARBOR ROAD STORM DRAIN EXTENSION



STORM DRAIN NOTES:

- STATIONING IS BASED ON CENTERLINE OF GREENARBOR ROAD AND CENTERLINE OF INTERIM PUBLIC DRAINAGE EASEMENT. SLOPES ARE BASED ON TRUE LENGTH OF PIPE.
- MANHOLES SHALL BE 6' DIAMETER TYPE 'C' PER CITY OF ALBUQUERQUE STANDARD DRAWINGS 2101.
- ALL STORM DRAIN TO BE CLASS III REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		G.M.		REMARKS		DESIGN		DATE		DATE		DATE	
CONTRACTOR	DATE	STATION	MARK	NO.	BY	NO.	BY	NO.	BY	NO.	BY	NO.	BY	NO.	BY	NO.	BY	NO.	BY
CONTRACTOR NEW CONCEPTS	01/11/94	STATION 17+81.95 TO STA. 23+94.60	ALBUQUERQUE																
STAMPED BY JMA	01/11/94	STAMPED "6-C19" SET ON AN ALUMINUM TUBE WITH THE CAP PROJECTION 0.15" ABOVE THE GROUND. STATION IS IN THE NNW QUADRANT OF THE INTERSECTION OF BARSTOW STREET N.E. AND PASO DEL NORTE N.E.																	
FIELD CORRECTION BY JMA	01/11/94	FIELD CORRECTION BY JMA																	
REVISIONS	01/11/94	REVISIONS																	
CORRECTED BY G.M.	01/11/94	CORRECTED BY G.M.																	
MICRO-FILM INFORMATION	01/11/94	MICRO-FILM INFORMATION																	
RECORDED BY	01/11/94	RECORDED BY																	
NO.	01/11/94	NO.																	

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE VINEYARD ESTATES III
STORM DRAIN IMPROVEMENTS PLAN & PROFILE
GREENARBOR ROAD STA. 17+81.95 TO STA. 23+94.60

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN	A.G. Avelley	10-27-93	WATER		
TRANSPORTATION			WASTE WATER		
HYDROLOGY	Kurtin	9-28-93			

PROJECT NO. 3391.94 MAP NO. C-20 SHEET OF 19A 31

WATER VALVE SHUTOFF PLAN REQUIREMENTS:

- AS A MINIMUM, THE FOLLOWING VALVES SHALL BE CLOSED TO FACILITATE THE FOLLOWING CONNECTIONS:
 - GREENARBOR ROAD 721
 - VENTURA STREET "A"
- THE CONTRACTOR SHALL NOTIFY WATER SYSTEMS, THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK THAT MAY AFFECT EXISTING WATERLINE; ALL SHUTOFFS SHALL BE PERFORMED BY THE WATER SYSTEM DIVISION PERSONNEL (857-8200).
- THE CONTRACTOR SHALL PROVIDE ALL RESTRAINTS AND THRUST BLOCKS NECESSARY TO EFFECT THE NECESSARY SHUTOFFS AND CONNECTIONS.
- EXISTING WATER VALVE AND WATERLINE INFORMATION OBTAINED FROM CITY OF ALBUQUERQUE AUTOMATED WATER DISTRIBUTION SYSTEM SECTIONAL MAPS, PLATE C-20.
- AT THE TIME OF WATER SHUTOFF APPLICATION, THE CONTRACTOR SHALL REQUEST THAT THE WATER SYSTEM DIVISION NOTIFY ALL AFFECTED PROPERTY OWNERS AT LEAST 24 HOURS IN ADVANCE OF THE RESPECTIVE SHUTOFFS.

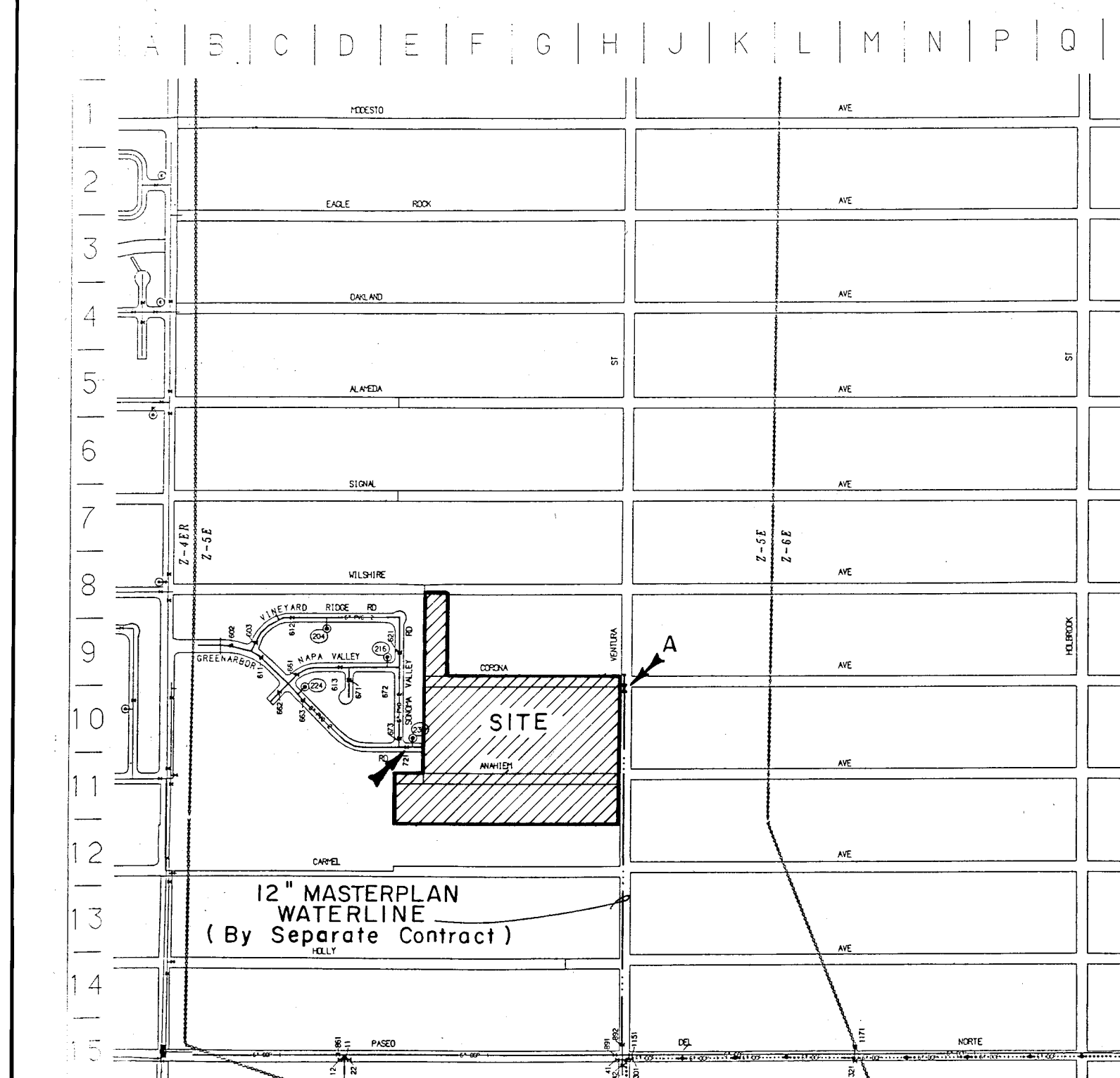
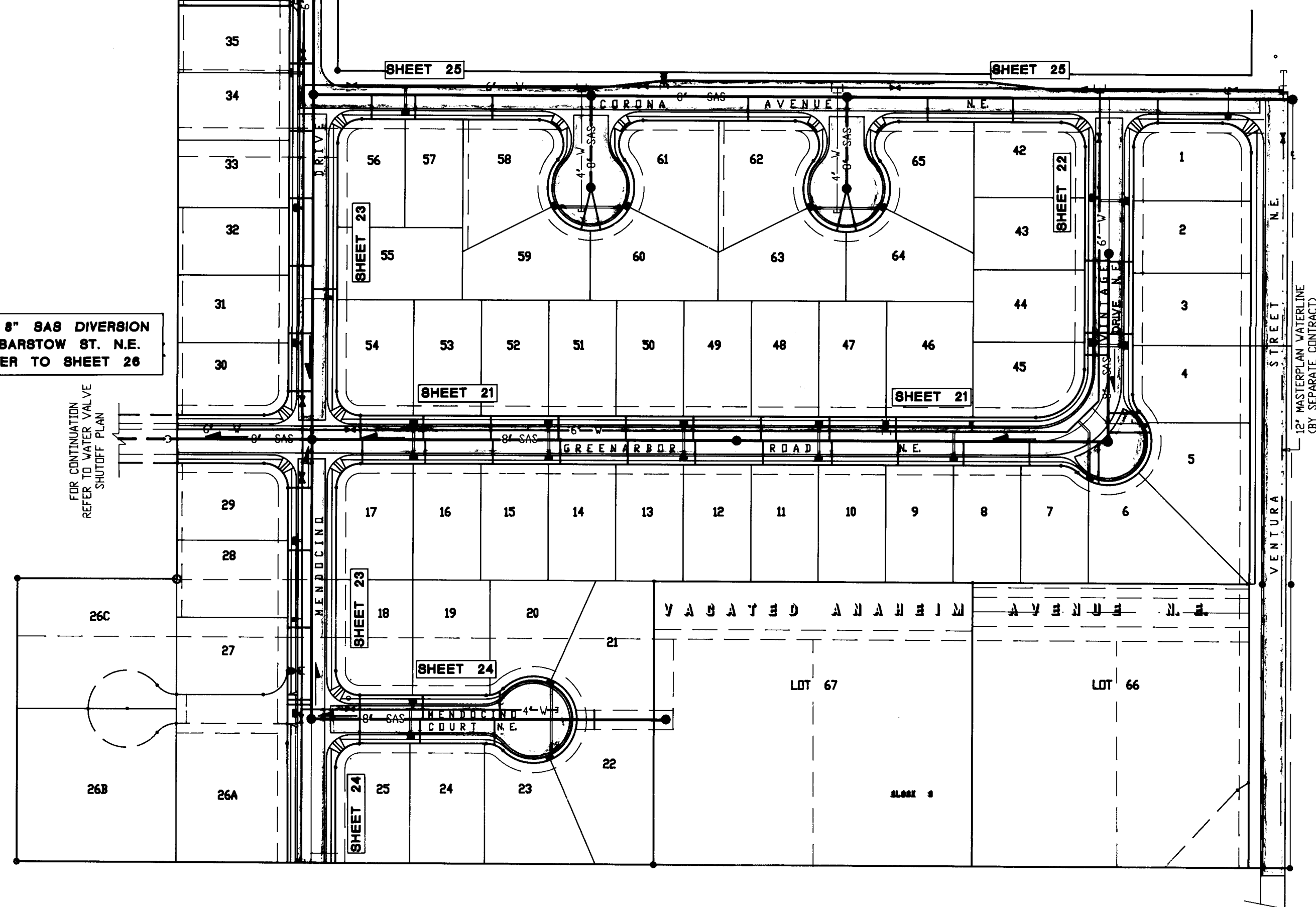
WILSHIRE AVENUE N.E.

4

RECORD DRAWING

SCALE: 1" = 100'

FOR 8" GAS DIVERSION
IN BARSTOW ST. N.E.
REFER TO SHEET 26



12" MASTERPLAN
WATERLINE
(By Separate Contract)

WATER
C-20

WATER VALVE SHUTOFF PLAN

RESTRAINED JOINT TABLES

Required Length (in feet) of Restraint (Lr)
for Bends in PVC Pipe
Test Pressure = 150 p.s.i. Factor of Safety = 1.5
Soil Type = SM Trench Type = 4

Bend Angle (Degrees)	Depth of Bury (ft)	4"	6"	8"	10"	12"
90	3	14	20	26	31	36
90	4	11	15	20	24	28
90	5	9	12	16	19	23
45	3	6	8	11	13	15
45	4	5	6	8	10	12
45	5	4	5	7	8	9
22.5	3	3	4	5	6	7
22.5	4	2	3	4	5	6
22.5	5	2	2	3	4	5
11.25	3	1	2	3	3	4
11.25	4	1	2	2	2	3
11.25	5	1	1	2	2	2

Required Length (in feet) of Restraint (La and Lb)
for Reducers in PVC Pipe
Test Pressure = 150 p.s.i. Factor of Safety = 1.5
Soil Type = SM Trench Type = 4

Dimensions of Reducer (in.)	Depth of Bury (ft)	La (feet)	Lb (feet)
6" X 4"	3	42	28
6" X 4"	4	31	21
6" X 4"	5	25	17
8" X 6"	3	39	30
8" X 6"	4	30	23
8" X 6"	5	24	18
10" X 6"	3	87	53
10" X 6"	4	66	40
10" X 6"	5	53	33
10" X 8"	3	36	29
10" X 8"	4	28	22
10" X 8"	5	22	18
12" X 6"	3	146	74
12" X 6"	4	111	57
12" X 6"	5	89	46
12" X 8"	3	81	54
12" X 8"	4	62	41
12" X 8"	5	50	33
12" X 10"	3	36	30
12" X 10"	4	27	23
12" X 10"	5	22	18

Required Length (in feet) of Restraint (Lbr)
for Crosses and Tees in PVC Pipe
Test Pressure = 150 p.s.i. Soil Type = SM
Factor of Safety = 1.5 Trench Type = 4
Lrn = 2 feet

Dimensions of Fitting (in.)	Depth of Bury (ft)	Lbr (feet)
6" X 6" X 4"	3	24
6" X 6" X 4"	4	14
6" X 6" X 4"	5	9
6" X 6" X 6"	3	44
6" X 6" X 6"	4	31
6" X 6" X 6"	5	23
8" X 8" X 6"	3	41
8" X 8" X 6"	4	28
8" X 8" X 6"	5	20
8" X 8" X 8"	3	61
8" X 8" X 8"	4	44
8" X 8" X 8"	5	34
10" X 10" X 6"	3	37
10" X 10" X 6"	4	24
10" X 10" X 6"	5	16
10" X 10" X 8"	3	58
10" X 10" X 8"	4	41
10" X 10" X 8"	5	31
10" X 10" X 10"	3	75
10" X 10" X 10"	4	55
10" X 10" X 10"	5	43

Required Length (in feet) of Restraint (Lr) for
Dead ends and Valves in PVC Pipe
Test Pressure = 150 p.s.i. Factor of Safety = 1.5
Soil Type = SM Trench Type = 4

Depth of Bury (ft)	4"	6"	8"	10"	12"
3	39	55	72	86	102
4	29	42	55	66	78
5	24	33	44	53	63

26 3391.942094

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: VINEYARD ESTATES III
WATER & SANITARY SEWER SITE PLAN
WATER VALVE SHUTOFF PLAN

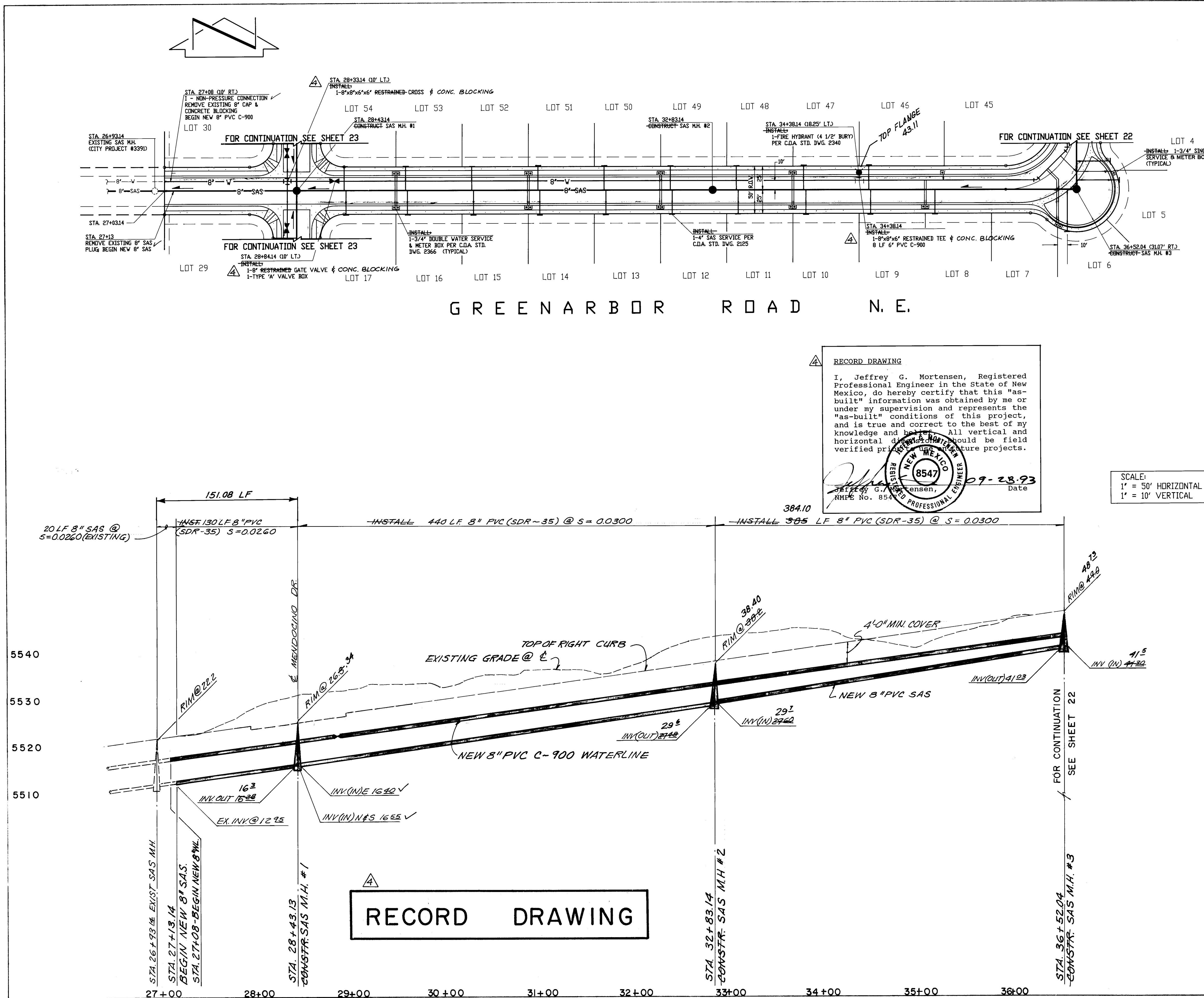
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRG CHAIRMAN	R.A. Kelly	6-1-93	WATER	R.W. Kane	4-13-93
TRANSPORTATION	N/A RHO	4-13-93	WASTE WATER	R.W. Kane	4-13-93
HYDROLOGY	N/A JOC	5-5-93			

PROJECT NO.	MAP NO.	SHEET OF
3391.94	C-20	20 31

SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	BY	DATE	FIELD NOTES	CONTRACTOR	WORK
					STANDARD BRASS TABLE STAMPED
					1"=119'-0" MAP LOT 32 BLK 10 SET IN TOP OF
					A CONCRETE POST FLUSH WITH THE GROUND AND
					LOCATED IN THE NORTHEAST QUADRANT OF THE
					INTERSECTION OF LOUISIANA BLVD AND LOS
					ANGELES DR NE 1/4 NORTH OF THE NORTH-
					WEST CORNER OF A CHAIN LINK FENCE
					AROUND THE FFA AIR TRAFFIC CONTROL CENTER
					ELEVATION=5318.195 FEET (MSL)



REMARKS	BY	DATE
DESIGN	JGM	2/93
TEW	JGM	2/93
JGM	JGM	2/93



- SANITARY SEWER CONSTRUCTION NOTES:
1. ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS INDICATED OTHERWISE.
 2. ALL SEWER PIPE SHALL BE PVC (SDR 35).
 3. SLOPES SHOWN ON THE PROFILES ARE BASED ON TRUE DISTANCES.
 4. ALL MANHOLES SHALL BE FOUR-FOOT DIAMETER TYPE 'E' AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.
 5. SEWER SERVICE LATERALS SHALL BE PROVIDED WITH ELECTRONIC MARKER DISCS AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2125. EMD SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
 6. WHERE WATER AND SANITARY SEWER LINES CROSS, THE SANITARY SEWER LINE SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET EACH SIDE OF THE CROSSING IF 18 INCHES OF VERTICAL SEPARATION DOES NOT EXIST.
- WATERLINE CONSTRUCTION NOTES:
7. ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS NOTED OTHERWISE.
 8. FOR ALL LINES 12" AND SMALLER, WATER MAIN SHALL BE PVC C-900 PIPE OR AS APPROVED BY THE CITY OF ALBUQUERQUE CITY ENGINEER. DUCTILE IRON IS AN ACCEPTABLE PIPE MATERIAL IN LIEU OF PVC.
 9. WATERLINE SHALL HAVE A MINIMUM COVER OF 4'-0" (TOP OF CURB TO TOP OF PIPE). EXTRA DEPTH TRENCHING, IF REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
 10. ELECTRONIC MARKER DISCS (EMD) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
 11. IN ACCORDANCE WITH SECTION 801 OF THE 'STANDARD SPECIFICATIONS,' METALLIZED DETECTABLE WARNING TAPE SHALL BE INSTALLED 18" ABOVE ALL PVC PIPE INSTALLED ON THIS PROJECT.
 12. VALVE STEM AND FIRE HYDRANT EXTENSIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE COST OF EACH EXTENSION SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
 13. JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATERLINE CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.

SANITARY SEWER SERVICE SCHEDULE

LOT	STATION	INV. @ P.L.	SIZE
6	(AS SHOWN)	5543.0	4"
7	35+88.14	5548.0	4"
8	35+18.14	5540.0	4"
9	34+50.14	5538.0	4"
10	33+80.14	5536.0	4"
11	33+10.14	5534.0	4"
12	32+40.14	5533.0	4"
13	31+70.14	5531.0	4"
14	31+00.14	5529.0	4"
15	30+30.14	5527.0	4"
16	29+60.14	5525.0	4"
17	28+95.14	5523.0	4"
46	34+48.14	5538.0	4"
47	33+78.14	5536.0	4"
48	33+08.14	5534.0	4"
49	32+38.14	5532.0	4"
50	31+68.14	5531.0	4"
51	30+98.14	5529.0	4"
52	30+28.14	5527.0	4"
53	29+58.14	5525.0	4"
54	28+93.14	5523.0	4"

WATER SERVICE SCHEDULE

LOT	STATION	TYPE	SIZE
6/7	(AS SHOWN)	DOUBLE	3/4"
8/9	35+88.14	DOUBLE	3/4"
10/11	33+68.14	DOUBLE	3/4"
12/13	32+88.14	DOUBLE	3/4"
14/15	30+88.14	DOUBLE	3/4"
16/17	29+48.14	DOUBLE	3/4"
46	35+26.14	SINGLE	3/4"
47/48	33+68.14	DOUBLE	3/4"
49/50	32+88.14	DOUBLE	3/4"
51/52	30+88.14	DOUBLE	3/4"
53/54	29+48.14	DOUBLE	3/4"

26 3391.94 2194

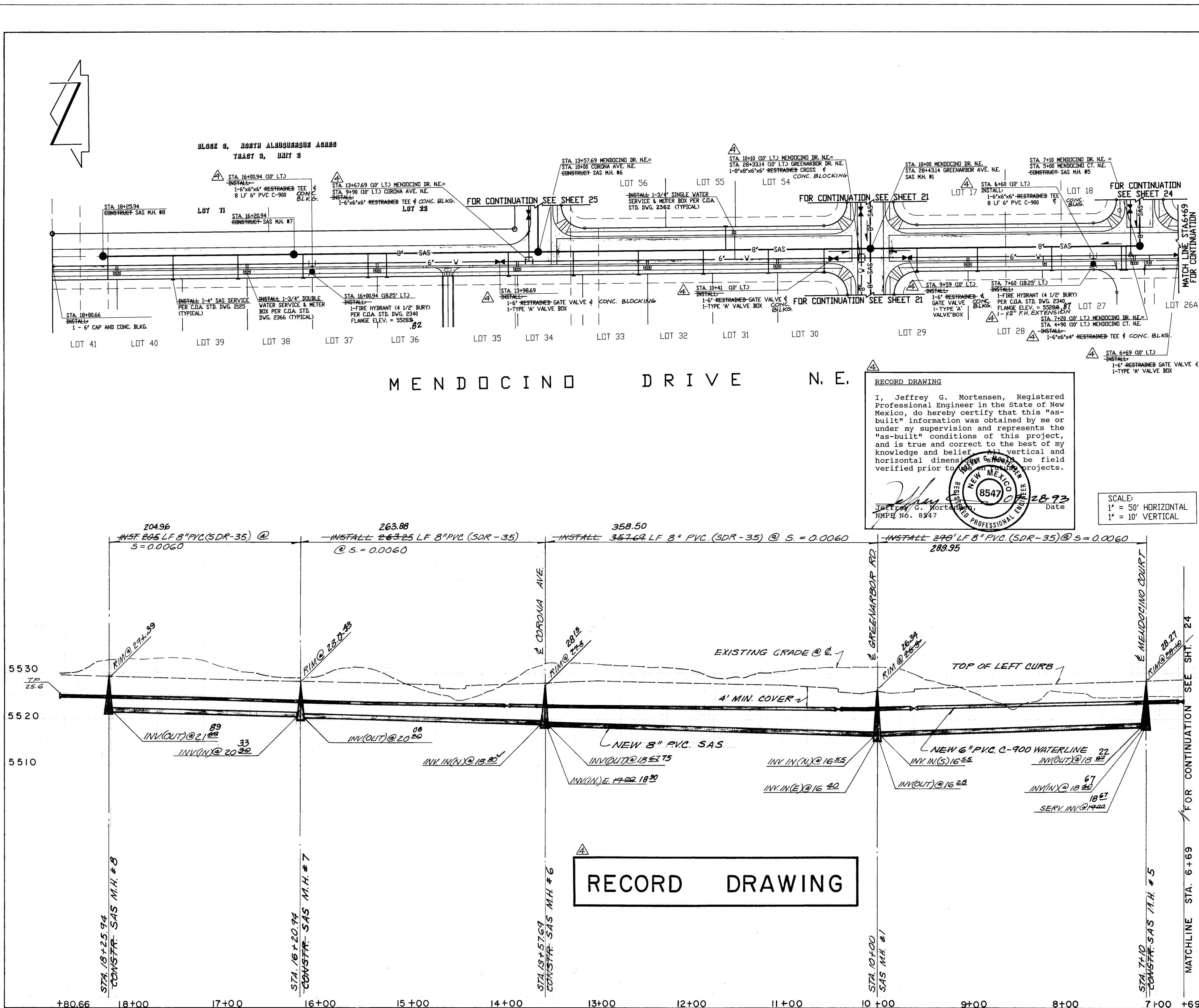
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **VINEYARD ESTATES III
WATER & SANITARY SEWER IMPROVEMENTS
GREENARBOR ROAD N.E. STA. 26+93.14 TO STA. 36+52.04**

APPROVAL	ENGINEER	DATE	APPROVAL	ENGINEER	DATE
DR. CHAIRMAN	B.G. Sweeney	6-1-93	WATER	R.W. Kane	4-13-93
TRANSPORTATION	N/A RHO	4-12-93	WASTE WATER	R.W. Kane	4-13-93
HYDROLOGY	N/A JPC	5-5-93			

DESIGNED BY: JGM DATE: 2/93
DRAWN BY: JGM DATE: 2/93
CHECKED BY: JGM DATE: 2/93

PROJECT NO. **3391.94** MAP NO. **C-20** SHEET OF **21 31**



- SANITARY SEWER CONSTRUCTION NOTES:**
- ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS INDICATED OTHERWISE.
 - ALL SEWER PIPE SHALL BE PVC (SDR 35).
 - SLOPES SHOWN ON THE PROFILES ARE BASED ON TRUE DISTANCES.
 - ALL MANHOLES SHALL BE FOUR-FOOT DIAMETER TYPE 'E' AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.
 - SEWER SERVICE LATERALS SHALL BE PROVIDED WITH ELECTRONIC MARKER DISCS AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2125. EMD SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
 - WHERE WATER AND SANITARY SEWER LINES CROSS, THE SANITARY SEWER LINE SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET EACH SIDE OF THE CROSSING IF 18 INCHES OF VERTICAL SEPARATION DOES NOT EXIST.
- WATERLINE CONSTRUCTION NOTES:**
- ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS NOTED OTHERWISE.
 - FOR ALL LINES 12" AND SMALLER, WATER MAIN SHALL BE PVC C-900 PIPE OR AS APPROVED BY THE CITY OF ALBUQUERQUE CITY ENGINEER. DUCTILE IRON IS AN ACCEPTABLE PIPE MATERIAL IN LIEU OF PVC.
 - WATERLINE SHALL HAVE A MINIMUM COVER OF 4'-0" (TOP OF CURB TO TOP OF PIPE). EXTRA DEPTH TRENCHING, IF REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION. THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
 - ELECTRONIC MARKER DISCS (EMD) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
 - IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, METALLIZED DETECTABLE WARNING TAPE SHALL BE INSTALLED 18" ABOVE ALL PVC PIPE INSTALLED ON THIS PROJECT.
 - VALVE STEM AND FIRE HYDRANT EXTENSIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE COST OF EACH EXTENSION SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION. THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
 - JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATERLINE CONSTRUCTION. THEREFORE NO SEPARATE PAYMENT WILL BE MADE.

SANITARY SEWER SERVICE SCHEDULE

LOT	STATION	INV. @ P.L.	SIZE
27	8+05	5523.8	4"
28	8+85	5523.1	4"
29	9+50	5522.5	4"
30	10+50	5522.5	4"
31	11+10	5523.3	4"
32	11+80	5523.6	4"
33	12+50	5524.0	4"
34	13+00	5524.2	4"
35	13+90	5523.8	4"
36	13+20.94	5523.8	4"
37	13+40.94	5523.8	4"
38	16+10.94	5524.2	4"
39	16+80.94	5524.3	4"
40	17+50.94	5524.9	4"
41	18+20.94	5525.2	4"
55	11+55	5523.6	4"
26A	7+10	5522.0	4"
26B	7+29	5522.0	4"
26C	7+31	5522.0	4"

WATER SERVICE SCHEDULE

LOT	STATION	TYPE	SIZE
27	8+13	SINGLE	3/4"
28/29	8+95	DOUBLE	3/4"
30/31	11+00	DOUBLE	3/4"
32/33	12+40	DOUBLE	3/4"
34/35	13+80	DOUBLE	3/4"
36/37	15+30.94	DOUBLE	3/4"
38/39	16+70.94	DOUBLE	3/4"
40/41	18+10.94	DOUBLE	3/4"
55	11+47	SINGLE	3/4"
26A	7+00	SINGLE	3/4"
26B/26C	7+20	DOUBLE	3/4"

26 3391.94 28 394

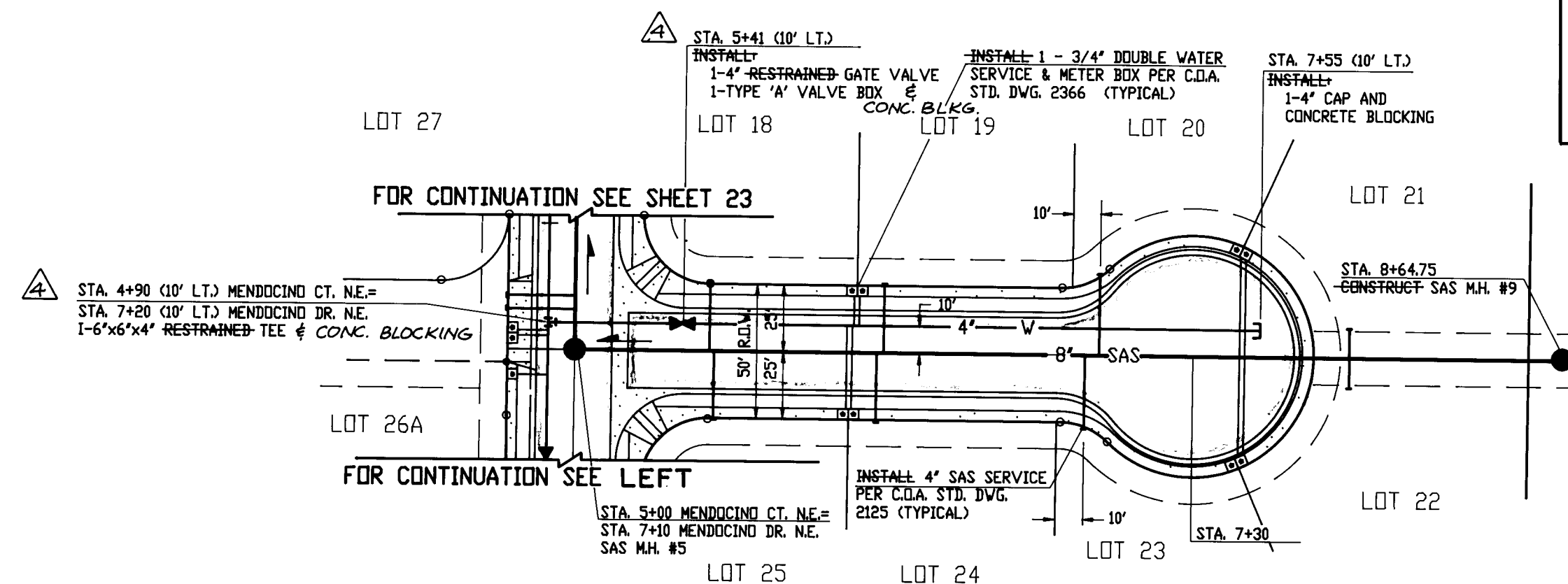
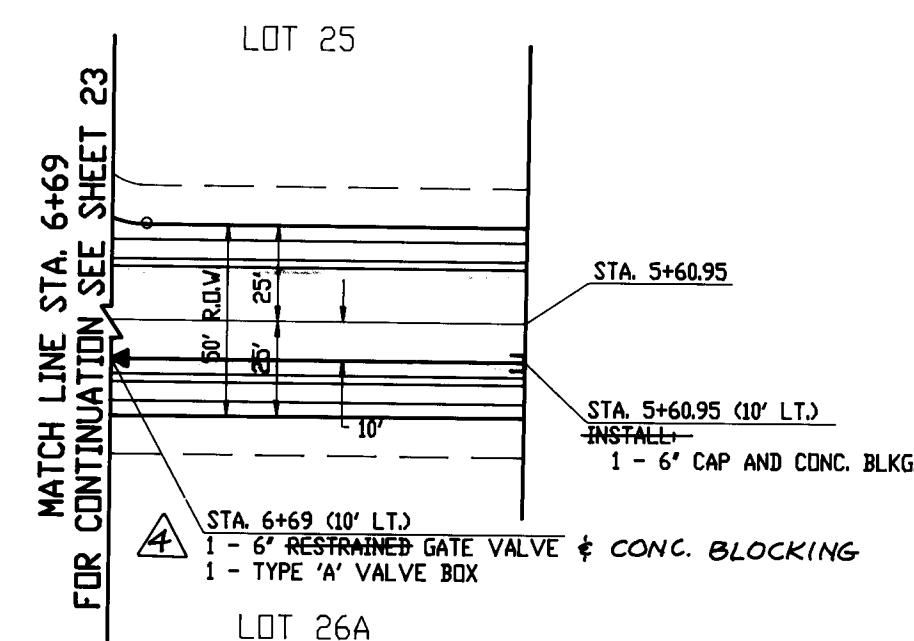
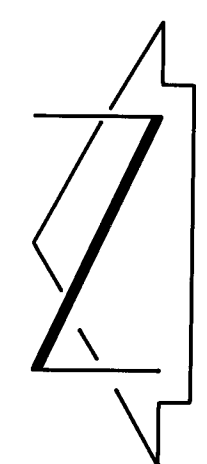
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **VINEYARD ESTATES III
WATER & SANITARY SEWER IMPROVEMENTS
MENDOCINO DR. STA. 6+69 TO STA. 18+80.66**

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN	<i>B. G. Acobly</i>	6-1-93	WATER	<i>R. W. Kane</i>	4-13-99
TRANSPORTATION	<i>N/A CHD</i>	4-13-93	WASTE WATER	<i>R. W. Kane</i>	4-13-99
HYDROLOGY	<i>N/A JPC</i>	3-5-93			

DESIGNED BY: JGM DATE: 2/93
DRAWN BY: TEW DATE: 2/93
CHECKED BY: JGM DATE: 2/93

PROJECT NO. **3391.94** MAP NO. **C-20** SHEET **23** OF **31**



RECORD DRAWING

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

Jeffrey G. Mortensen, NMPE No. 8547, PROFESSIONAL ENGINEER
Date 09-28-93

SANITARY SEWER CONSTRUCTION NOTES:

- ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS INDICATED OTHERWISE.
- ALL SEWER PIPE SHALL BE PVC (SDR 35).
- SLOPES SHOWN ON THE PROFILES ARE BASED ON TRUE DISTANCES.
- ALL MANHOLES SHALL BE FOUR-FOOT DIAMETER TYPE "E" AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.
- SEWER SERVICE LATERALS SHALL BE PROVIDED WITH ELECTRONIC MARKER DISCS AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2125. END SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.

- WHERE WATER AND SANITARY SEWER LINES CROSS THE SANITARY SEWER LINE SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET EACH SIDE OF THE CROSSING IF 18 INCHES OF VERTICAL SEPARATION DOES NOT EXIST.

WATERLINE CONSTRUCTION NOTES:

- ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS NOTED OTHERWISE.
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- WATERLINE SHALL HAVE A MINIMUM COVER OF 4'-0" (TOP OF CURB TO TOP OF PIPE). EXTRA DEPTH TRENCHING, IF REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION. THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
- ELECTRONIC MARKER DISCS (EMD) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
- IN ACCORDANCE WITH SECTION 901 OF THE "STANDARD SPECIFICATIONS," METALIZED DETECTABLE WARNING TAPE SHALL BE INSTALLED 18" ABOVE ALL PVC PIPE INSTALLED ON THIS PROJECT.
- VALVE STEM AND FIRE HYDRANT EXTENSIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE COST OF EACH EXTENSION SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
- JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATERLINE CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.

SANITARY SEWER SERVICE SCHEDULE

LOT	STATION	INV. @ P.L.	SIZE
18	5+50	5524.5	4"
19	6+15	5524.8	4"
20	6+95	5525.3	4"
21	7+90	5525.8	4"
22	7+92	5525.8	4"
23	8+09.75	5525.3	4"
24	8+12.38	5524.8	4"
25	5+52	5524.5	4"

WATER SERVICE SCHEDULE

LOT	STATION	TYPE	SIZE
18/19	6+05	DOUBLE	3/4"
20/21	(AS SHOWN)	DOUBLE	3/4"
22/23	(AS SHOWN)	DOUBLE	3/4"
24/25	6+02.38	DOUBLE	3/4"

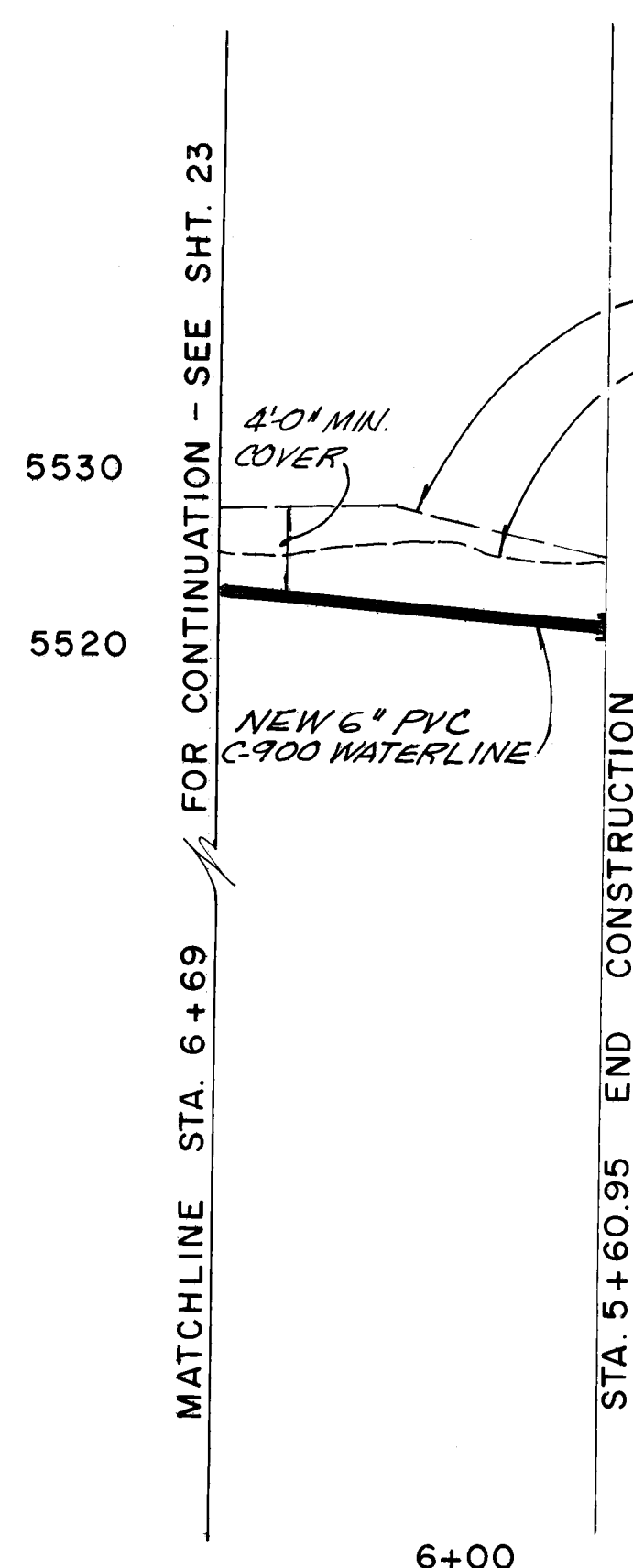
AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACT NO.	NEW CONCEPTS	STANDARD BRASS TABLET STAMPED	DATE	NO	BY	NO	BY
STARED BY	JMA	1"-C19-NAA LOT-32 BLK 10' SET IN TOP OF	DATE				
ACCEPTANCE BY	G.M.	A CONC. POST FLUSH WITH THE GROUND AND					
DATE	9/28	LOCATED IN THE NORTHEAST QUADRANT OF THE					
DATE	9/93	INTERSECTION OF LOUISIANA BLVD AND LOS					
DATE	9/93	ANGELES DR. NE, 50' NORTH OF THE NORTH-					
DATE	9/93	WEST CORNER OF A CHAIN LINK FENCE					
DATE		AROUND THE FAA AIR TRAFFIC CONTROL CENTER					
DATE		ELEVATION = 5318.175 FEET (MSLD)					



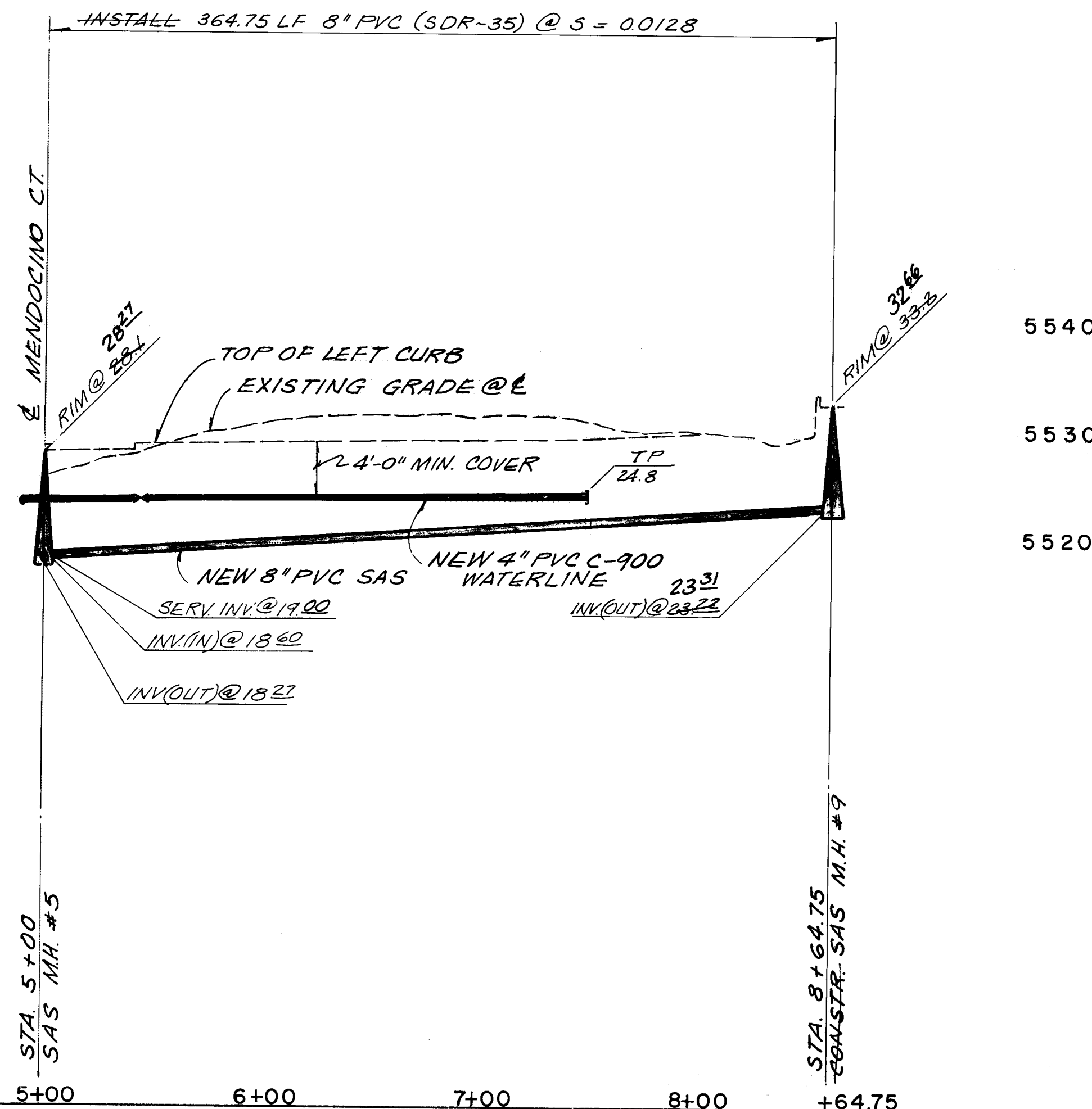
MENDOCINO DRIVE N.E.

MENDOCINO COURT N.E.

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



RECORD DRAWING



26 3391.94 2494

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

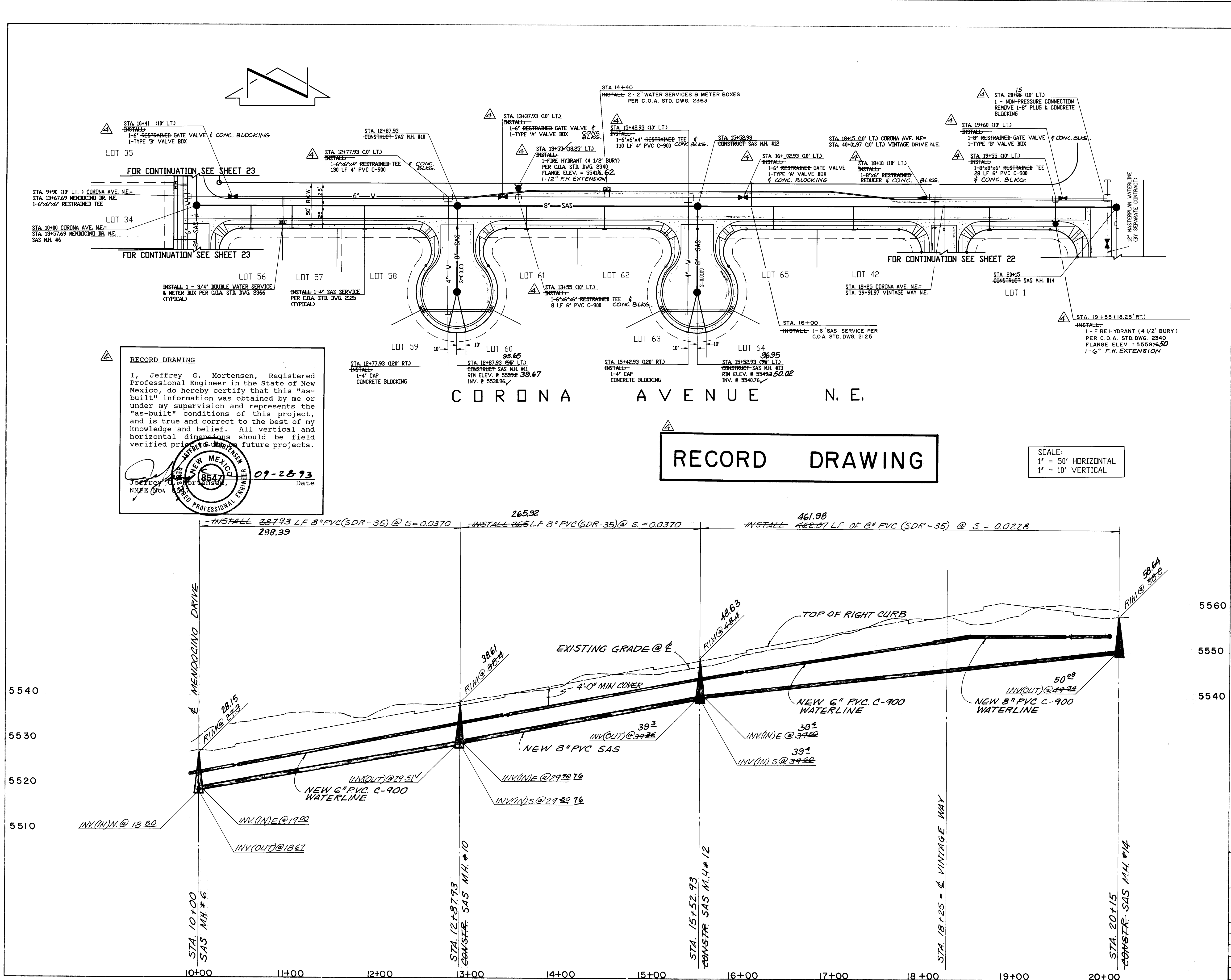
TITLE			
VINEYARD ESTATES III WATER & SANITARY SEWER IMPROVEMENTS MENDOCINO DR. STA 5+60.95 TO STA 8+64.75 MENDOCINO COURT STA 5+00 TO STA 8+64.75			
APPROVALS	ENGINEER	DATE	APPROVALS
DR. CHAIRMAN	R. W. Kane	6-1-93	WATER
TRANSPORTATION	N/A RWD	4-13-93	WASTE WATER
HYDROLOGY	N/A JPC	5-5-93	

920297

PROJECT NO. 3391.94

MAP NO. C-20

SHEET OF 24 31



SANITARY SEWER CONSTRUCTION NOTES:

- ALL STATIONING IS BASED ON STREET CENTERLINE UNLESS INDICATED OTHERWISE.
- ALL SEWER PIPE SHALL BE PVC (SDR 35).
- SLOPES SHOWN ON THE PROFILES ARE BASED ON TRUE DISTANCES.
- ALL MANHOLES SHALL BE FOUR-FOOT DIAMETER TYPE "E" AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.
- SEWER SERVICE LATERALS SHALL BE PROVIDED WITH ELECTRONIC MARKER DISCS AS PER CITY OF ALBUQUERQUE STANDARD DRAWING 2125. EMD SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATION.
- WHERE WATER AND SANITARY SEWER LINES CROSS, THE SANITARY SEWER LINE SHALL BE CONCRETE ENCASED FOR A DISTANCE OF 10 FEET EACH SIDE OF THE CROSSING IF 18 INCHES OF VERTICAL SEPARATION DOES NOT EXIST.

WATERLINE CONSTRUCTION NOTES:

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- IN ACCORDANCE WITH SECTION 801 OF THE STANDARD SPECIFICATIONS, METALIZED DETECTABLE WARNING TAPE SHALL BE INSTALLED 18" ABOVE ALL PVC PIPE INSTALLED ON THIS PROJECT.
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- JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATERLINE CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.

RECORD DRAWING

DATE: 09-28-93

LOT	STATION	INV.	R.P.L.	SIZE
1	10+72.61	5555.7	4"	
42	17+25.06	5551.0	4"	
36	10+60	5525.3	4"	
57	11+05.43	5527.3	4"	
38	11+65.43	5530.3	4"	
59	(AS SHOWN)	5534.5	4"	
60	(AS SHOWN)	5534.5	4"	
61	13+80.43	5536.5	4"	
62	14+50.43	5539.5	4"	
63	(AS SHOWN)	5544.5	4"	
64	(AS SHOWN)	5544.5	4"	
65	16+36.55	5547.0	4"	

LOT	STATION	TYPE	SIZE
56/57	10+95.43	DOUBLE	3/4"
58/59	(AS SHOWN)	DOUBLE	3/4"
60/61	(AS SHOWN)	DOUBLE	3/4"
62/63	(AS SHOWN)	DOUBLE	3/4"
64/65	(AS SHOWN)	DOUBLE	3/4"

26 3391.942594

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: VINEYARD ESTATES III
WATER & SANITARY SEWER IMPROVEMENTS
CORONA AVE. N.E. STA. 10+00 TO STA. 20+15

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRG CHAIRMAN	B.A. Socolsky	6-1-93	WATER	R.W. Kane	4-13-93
TRANSPORTATION	N/A R.W.	2-12-93	WASTE WATER	R.W. Kane	4-13-93
HYDROLOGY	N/A PPC	5-5-93			

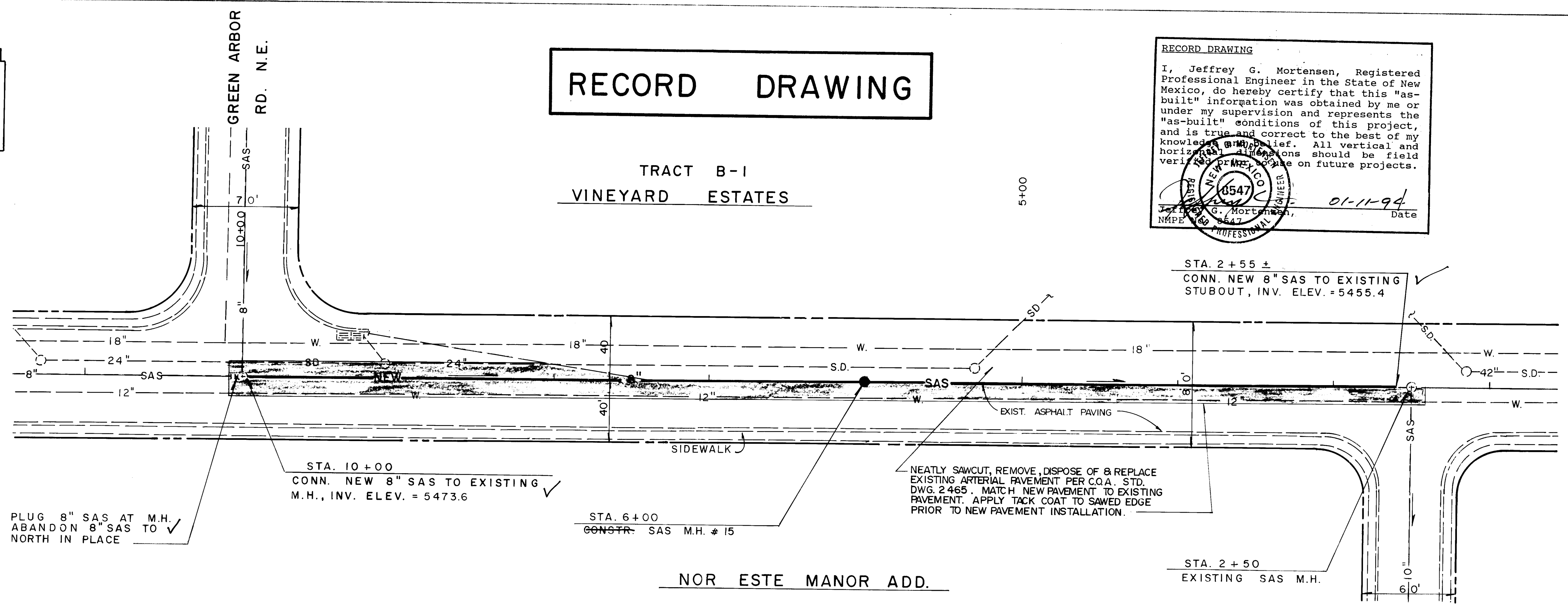
PROJECT NO. 3391.94 MAP NO. C-20 SHEET 25 OF 31

RECORD DRAWING

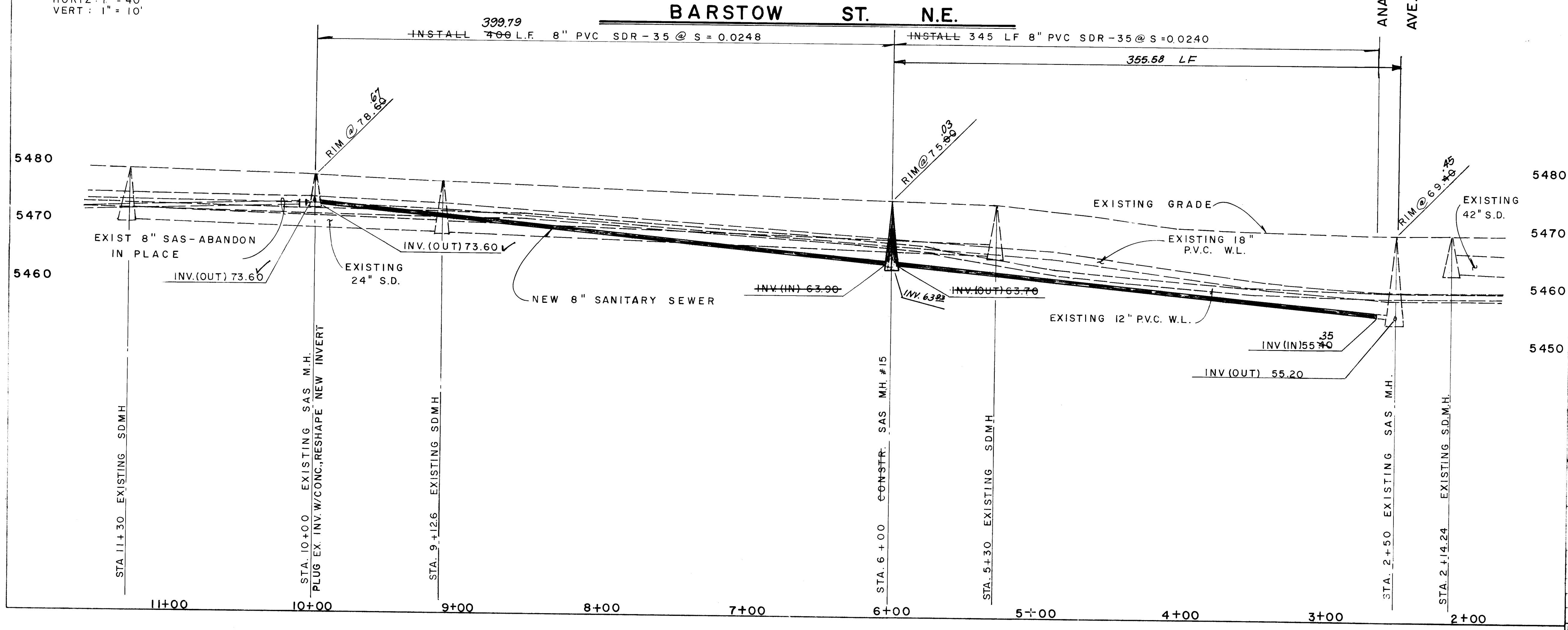
I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" condition of this project, and is true and correct to the best of my knowledge and belief.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

NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
0547
JEFFREY G. MORTENSEN
01-11-94
Date
NMPF 0547
REGISTERED PROFESSIONAL ENGINEER

TRACT B-1
VINEYARD ESTATES



SCALE
HORIZ: 1" = 40'
VERT: 1" = 10'



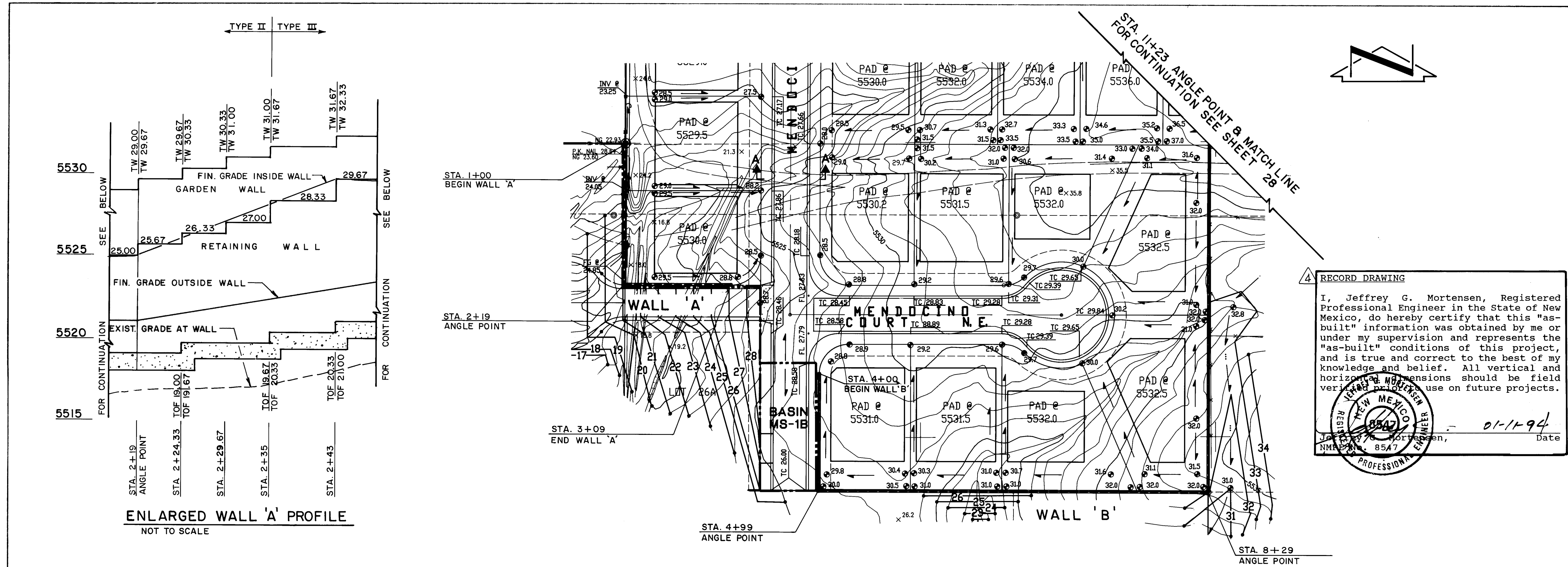
BENCH MARKS	AS BUILT INFORMATION
A STANDARD BRASS TABLET STAMPED "C-19-NAA LOT 32 BLK 10" SET IN TOP OF A CONC. POST FLUSH W/ THE GROUND & LOCATED IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD AND LOS ANGELES DR. N.E. 50 NORTH OF THE NORTHWEST CORNER OF A CHAMBLIN FENCE AROUND THE F&A AIR TRAFFIC CONTROL TOWER. ELEVATION = 531.8195 FEET (M.S.L.)	NEW CONCEPTS JMA DATE 10/93 DRAWN BY GM DATE 10/93 CORRECTED BY GM MICRO FILM INFORMATION DATE 10/93

[illegible]

10/93	AS-BUILT & CERTIFY	GM
BY		
REVISIONS		
DE SIGN		
TEW	DATE	11/92
TEW	DATE	11/92
JGM	DATE	11/92
NO	DATE	

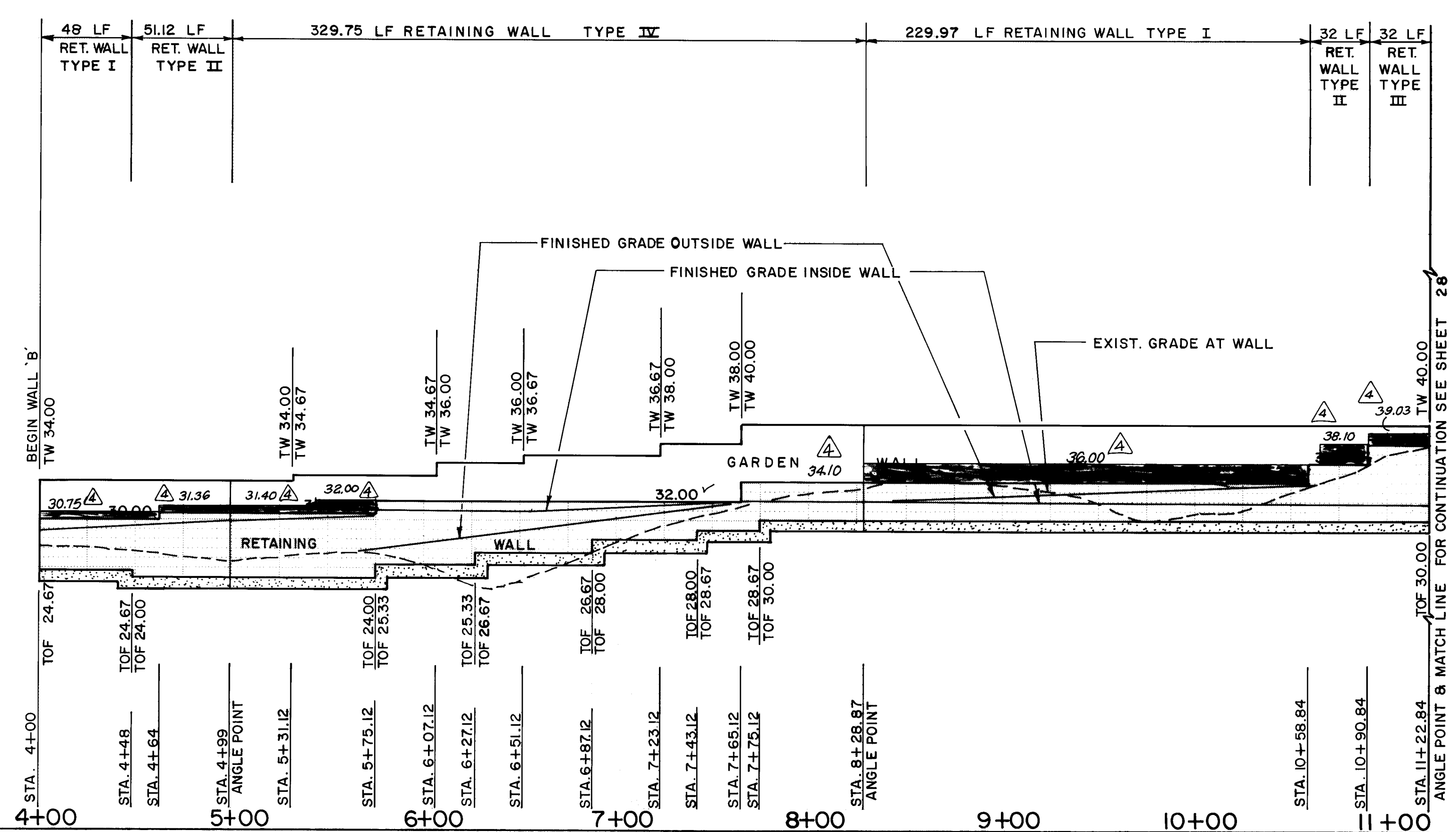
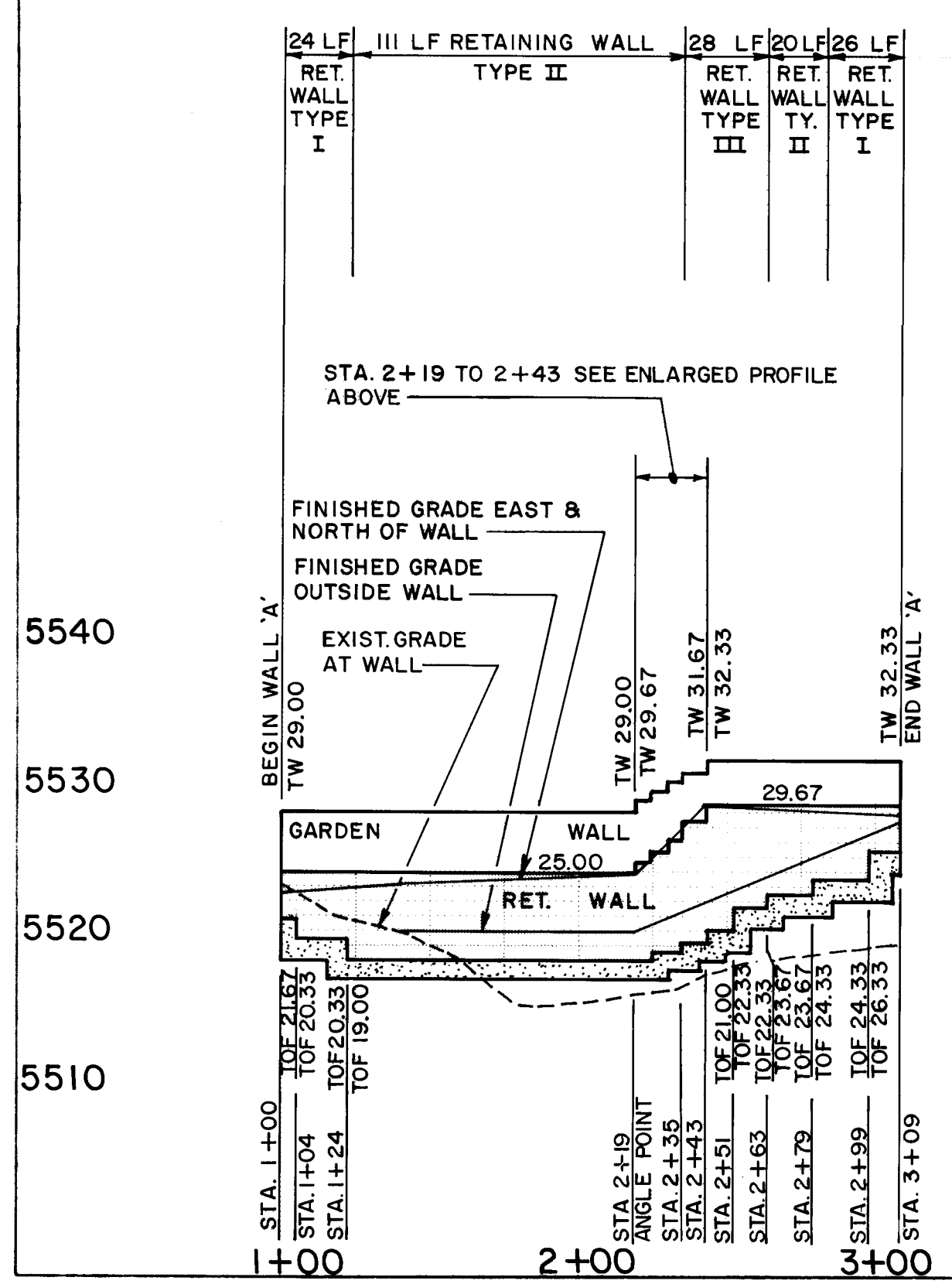
26 3391.942694

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP					
TITLE VINEYARD ESTATES III SANITARY SEWER DIVERSION BARSTOW ST. - STA. 2+50 TO STA. 10+00					
APPROVAL	ENGINEER	DATE	APPROVAL	ENGINEER	DATE
TYP. & DRAWING TRANSMITTAL TO	<i>D.A. Goolsby</i> <i>N/A RWD</i> <i>N/A JAC</i>	6-1-93 4-13-93 5-5-93	WATER WASTE WATER	<i>R.W. Kame</i> <i>R.W. Kame</i>	4-13-93 4-13-93
HYDROLOGY					
PROJECT NO.		MAP NO.		SHEET OF	
3391.94		C-20		26 31	



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

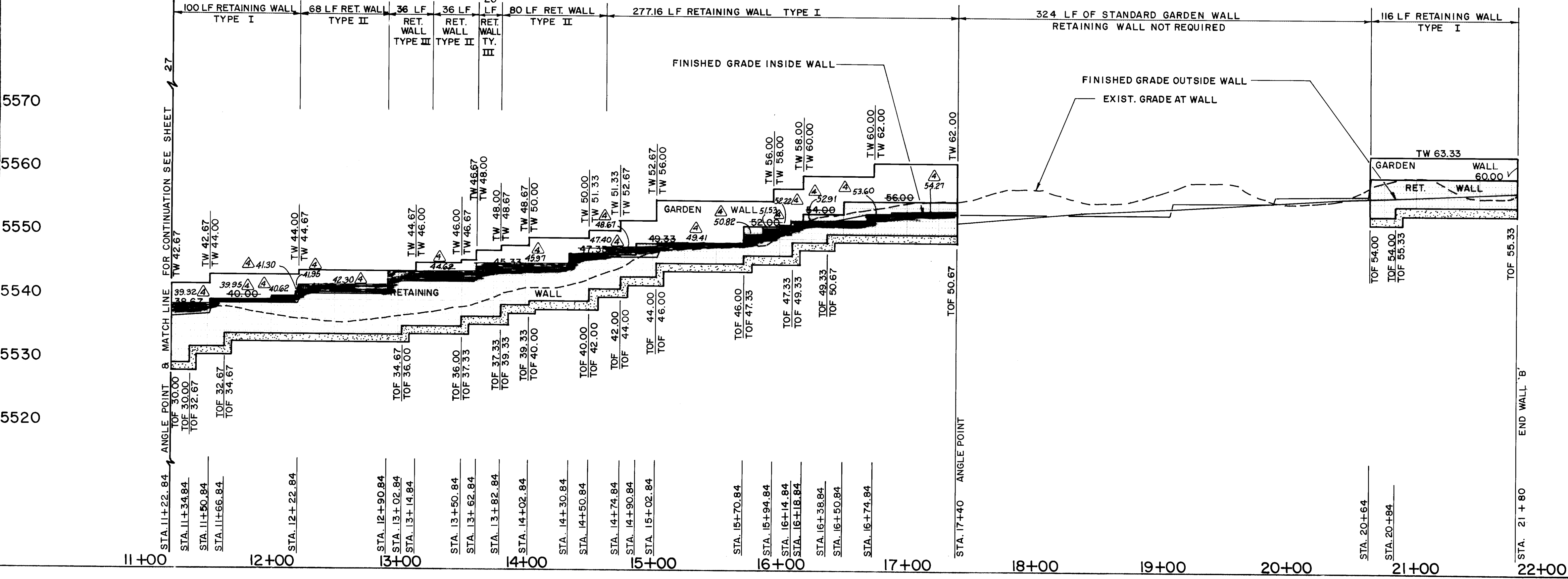
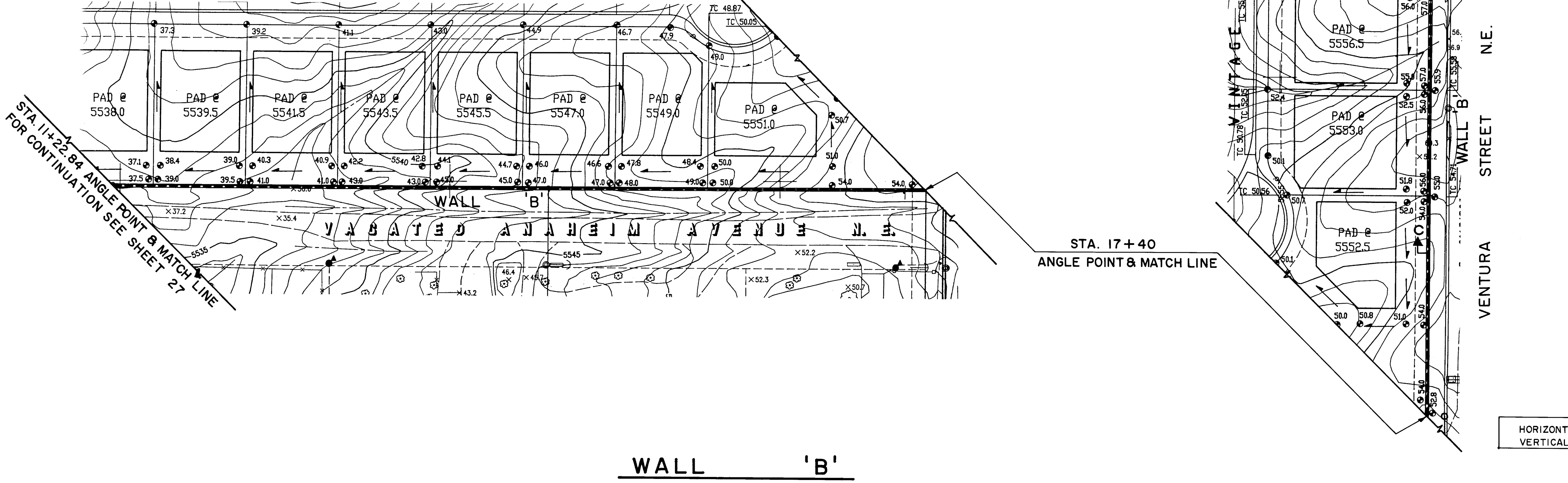
RECORD DRAWING



NOTES:
REFER TO SHEET 29 FOR TYPICAL
RETAINING WALL SECTIONS & RETAINING
WALL CONSTRUCTION NOTES.

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		PROJECT INFORMATION	
CONTRACT NO.	NEW MEXICO	STANDARD BENCH MARK	LOT 32 BLK 10 SET IN TOP OF A CONC. POST	DATE	NO.	BY	NO.	DATE	REMARKS	PROJECT NO.	3391.94
DATE	7/83	FLUSH W/ THE GROUND & LOCATED IN THE N.E. QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD & LOS ANGELES DR. N.E.	DATE	10/93	NO.	DATE	NO.	DATE	REMARKS	MAP NO.	C-20
DATE	10/93	50' NORTH OF THE N.W. COR. OF A CHAINLINK FENCE AROUND THE F.A.A. AIR TRAFFIC CONTROL CENTER	DATE	10/93	NO.	DATE	NO.	DATE	REMARKS	SHEET OF	27 31
DATE	10/93	ELEVATION= 5318.195 FEET (M.S.L.D.)	DATE	10/93	NO.	DATE	NO.	DATE	REMARKS		

RECORD DRAWING



NOTES:
REFER TO SHEET 29 FOR TYPICAL
RETAINING WALL SECTIONS & RETAINING
WALL CONSTRUCTION NOTES.

4 RECORD DRAWING

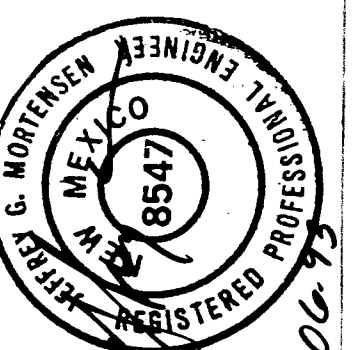
I, Jeffrey G. Mortensen, Registered Professional Engineer in the State of New Mexico, do hereby certify that this "as-built" information was obtained by me or under my supervision and represents the "as-built" conditions of this project, and is true and correct to the best of my knowledge and belief.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

Jeffrey G. Mortensen, 01-11-94
MMPB No. 8547 Date

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

IDENTIFYING MATRNO	AS BUILT	INFORMATION
A STANDARD BRASS TABLET STAMPED "1- CIB-AAA TULOSH 32 BLK. 10" SET IN TOP OF A CONC. POST ABOUT 1/2 MILE FROM THE GROUND & LOCATED IN THE QUADRANT OF THE INTERSECTION OF LOUISIANA BLVD & LOS ANGELES DR NE. IN SOUTHWEST CORNER OF A CHAIN LINK FENCE AROUND THE F.A.A. AIR TRAFFIC CONTROL CENTER. ELEVATION - 5318.195 FEET (M.S.L.D)	*P.A.# 1 INSPECTED BY JMA DATE 7/1/83 *P.A.# 2 INSPECTED BY GM DATE 10/9/83 *P.A.# 3 INSPECTED BY GM DATE 10/9/83 *P.A.# 4 INSPECTED BY GM DATE 10/9/83 *P.A.# 5 INSPECTED BY GM DATE 10/9/83 *P.A.# 6 INSPECTED BY GM DATE 10/9/83 *P.A.# 7 INSPECTED BY GM DATE 10/9/83 *P.A.# 8 INSPECTED BY GM DATE 10/9/83 *P.A.# 9 INSPECTED BY GM DATE 10/9/83 *P.A.# 10 INSPECTED BY GM DATE 10/9/83 *P.A.# 11 INSPECTED BY GM DATE 10/9/83 *P.A.# 12 INSPECTED BY GM DATE 10/9/83 *P.A.# 13 INSPECTED BY GM DATE 10/9/83 *P.A.# 14 INSPECTED BY GM DATE 10/9/83 *P.A.# 15 INSPECTED BY GM DATE 10/9/83 *P.A.# 16 INSPECTED BY GM DATE 10/9/83 *P.A.# 17 INSPECTED BY GM DATE 10/9/83 *P.A.# 18 INSPECTED BY GM DATE 10/9/83 *P.A.# 19 INSPECTED BY GM DATE 10/9/83 *P.A.# 20 INSPECTED BY GM DATE 10/9/83 *P.A.# 21 INSPECTED BY GM DATE 10/9/83 *P.A.# 22 INSPECTED BY GM DATE 10/9/83 *P.A.# 23 INSPECTED BY GM DATE 10/9/83 *P.A.# 24 INSPECTED BY GM DATE 10/9/83 *P.A.# 25 INSPECTED BY GM DATE 10/9/83 *P.A.# 26 INSPECTED BY GM DATE 10/9/83 *P.A.# 27 INSPECTED BY GM DATE 10/9/83 *P.A.# 28 INSPECTED BY GM DATE 10/9/83 *P.A.# 29 INSPECTED BY GM DATE 10/9/83 *P.A.# 30 INSPECTED BY GM DATE 10/9/83 *P.A.# 31 INSPECTED BY GM DATE 10/9/83 *P.A.# 32 INSPECTED BY GM DATE 10/9/83 *P.A.# 33 INSPECTED BY GM DATE 10/9/83 *P.A.# 34 INSPECTED BY GM DATE 10/9/83 *P.A.# 35 INSPECTED BY GM DATE 10/9/83 *P.A.# 36 INSPECTED BY GM DATE 10/9/83 *P.A.# 37 INSPECTED BY GM DATE 10/9/83 *P.A.# 38 INSPECTED BY GM DATE 10/9/83 *P.A.# 39 INSPECTED BY GM DATE 10/9/83 *P.A.# 40 INSPECTED BY GM DATE 10/9/83 *P.A.# 41 INSPECTED BY GM DATE 10/9/83 *P.A.# 42 INSPECTED BY GM DATE 10/9/83 *P.A.# 43 INSPECTED BY GM DATE 10/9/83 *P.A.# 44 INSPECTED BY GM DATE 10/9/83 *P.A.# 45 INSPECTED BY GM DATE 10/9/83 *P.A.# 46 INSPECTED BY GM DATE 10/9/83 *P.A.# 47 INSPECTED BY GM DATE 10/9/83 *P.A.# 48 INSPECTED BY GM DATE 10/9/83 *P.A.# 49 INSPECTED BY GM DATE 10/9/83 *P.A.# 50 INSPECTED BY GM DATE 10/9/83 *P.A.# 51 INSPECTED BY GM DATE 10/9/83 *P.A.# 52 INSPECTED BY GM DATE 10/9/83 *P.A.# 53 INSPECTED BY GM DATE 10/9/83 *P.A.# 54 INSPECTED BY GM DATE 10/9/83 *P.A.# 55 INSPECTED BY GM DATE 10/9/83 *P.A.# 56 INSPECTED BY GM DATE 10/9/83 *P.A.# 57 INSPECTED BY GM DATE 10/9/83 *P.A.# 58 INSPECTED BY GM DATE 10/9/83 *P.A.# 59 INSPECTED BY GM DATE 10/9/83 *P.A.# 60 INSPECTED BY GM DATE 10/9/83 *P.A.# 61 INSPECTED BY GM DATE 10/9/83 *P.A.# 62 INSPECTED BY GM DATE 10/9/83 *P.A.# 63 INSPECTED BY GM DATE 10/9/83 *P.A.# 64 INSPECTED BY GM DATE 10/9/83 *P.A.# 65 INSPECTED BY GM DATE 10/9/83 *P.A.# 66 INSPECTED BY GM DATE 10/9/83 *P.A.# 67 INSPECTED BY GM DATE 10/9/83 *P.A.# 68 INSPECTED BY GM DATE 10/9/83 *P.A.# 69 INSPECTED BY GM DATE 10/9/83 *P.A.# 70 INSPECTED BY GM DATE 10/9/83 *P.A.# 71 INSPECTED BY GM DATE 10/9/83 *P.A.# 72 INSPECTED BY GM DATE 10/9/83 *P.A.# 73 INSPECTED BY GM DATE 10/9/83 *P.A.# 74 INSPECTED BY GM DATE 10/9/83 *P.A.# 75 INSPECTED BY GM DATE 10/9/83 *P.A.# 76 INSPECTED BY GM DATE 10/9/83 *P.A.# 77 INSPECTED BY GM DATE 10/9/83 *P.A.# 78 INSPECTED BY GM DATE 10/9/83 *P.A.# 79 INSPECTED BY GM DATE 10/9/83 *P.A.# 80 INSPECTED BY GM DATE 10/9/83 *P.A.# 81 INSPECTED BY GM DATE 10/9/83 *P.A.# 82 INSPECTED BY GM DATE 10/9/83 *P.A.# 83 INSPECTED BY GM DATE 10/9/83 *P.A.# 84 INSPECTED BY GM DATE 10/9/83 *P.A.# 85 INSPECTED BY GM DATE 10/9/83 *P.A.# 86 INSPECTED BY GM DATE 10/9/83 *P.A.# 87 INSPECTED BY GM DATE 10/9/83 *P.A.# 88 INSPECTED BY GM DATE 10/9/83 *P.A.# 89 INSPECTED BY GM DATE 10/9/83 *P.A.# 90 INSPECTED BY GM DATE 10/9/83 *P.A.# 91 INSPECTED BY GM DATE 10/9/83 *P.A.# 92 INSPECTED BY GM DATE 10/9/83 *P.A.# 93 INSPECTED BY GM DATE 10/9/83 *P.A.# 94 INSPECTED BY GM DATE 10/9/83 *P.A.# 95 INSPECTED BY GM DATE 10/9/83 *P.A.# 96 INSPECTED BY GM DATE 10/9/83 *P.A.# 97 INSPECTED BY GM DATE 10/9/83 *P.A.# 98 INSPECTED BY GM DATE 10/9/83 *P.A.# 99 INSPECTED BY GM DATE 10/9/83 *P.A.# 100 INSPECTED BY GM DATE 10/9/83 *P.A.# 101 INSPECTED BY GM DATE 10/9/83 *P.A.# 102 INSPECTED BY GM DATE 10/9/83 *P.A.# 103 INSPECTED BY GM DATE 10/9/83 *P.A.# 104 INSPECTED BY GM DATE 10/9/83 *P.A.# 105 INSPECTED BY GM DATE 10/9/83 *P.A.# 106 INSPECTED BY GM DATE 10/9/83 *P.A.# 107 INSPECTED BY GM DATE 10/9/83 *P.A.# 108 INSPECTED BY GM DATE 10/9/83 *P.A.# 109 INSPECTED BY GM DATE 10/9/83 *P.A.# 110 INSPECTED BY GM DATE 10/9/83 *P.A.# 111 INSPECTED BY GM DATE 10/9/83 *P.A.# 112 INSPECTED BY GM DATE 10/9/83 *P.A.# 113 INSPECTED BY GM DATE 10/9/83 *P.A.# 114 INSPECTED BY GM DATE 10/9/83 *P.A.# 115 INSPECTED BY GM DATE 10/9/83 *P.A.# 116 INSPECTED BY GM DATE 10/9/83 *P.A.# 117 INSPECTED BY GM DATE 10/9/83 *P.A.# 118 INSPECTED BY GM 	

NO BY FIELD NOTES



Wares only

NO	DATE	REMARKS	BY
REVISIONS			
DESIGN			
	DESIGNED BY	DATE	01/93
	DRAWN BY	DATE	01/93
	CHECKED BY	DATE	01/93
	GM		

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE VINEYARD ESTATES III
RETAINING WALL 'B' PLAN & PRO
STA. 11+22.84 TO STA. 21+80

APPROVALS	ENGINEER	DATE	APPROVALS
CARL HAMMAN	<i>34, Koolby</i>	<i>6-1-93</i>	WATER
TRANSPORTATION	<i>N/A RHO</i>	<i>4-13-93</i>	WASTE WATER
HYDROLOGY	<i>N/A JPC</i>	<i>5-5-93</i>	

PROJECT NO.	3391.94	MAP NO.	C-20	SHEET
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NOTES:
REFER TO SHEET 29 FOR TYPICAL
RETAINING WALL SECTIONS & RETAINING
WALL CONSTRUCTION NOTES.

RECORD DRAWING

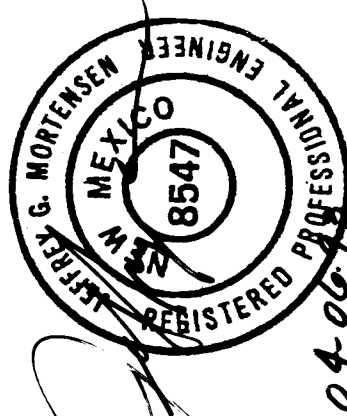
4 RECORD DRAWING

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

JEFFREY G. MORTENSEN, 01-11-94
Professional Engineer, No. 8547

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

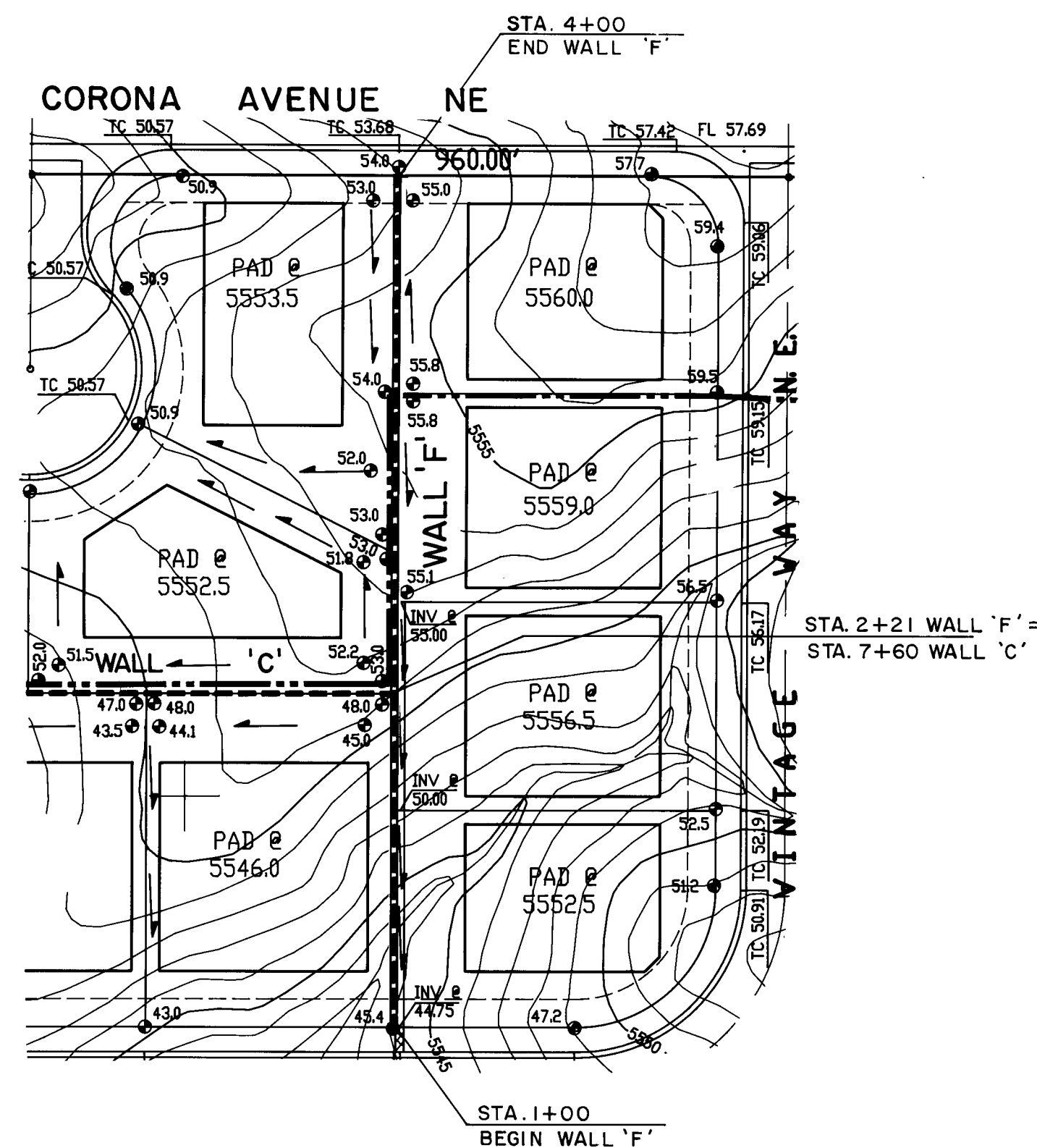
AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		GM		REVISIONS		DESIGNED BY		DRAWN BY		CHECKED BY		DATE	
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93
DATE	7/93	BY	UMA	NO	BY	NO	DATE	01/93	BY	DATE	01/93	DESIGNED BY	GM	DATE	01/93	DRAWN BY	CEN	DATE	01/93



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: VINEYARD ESTATES III
RETAINING WALLS 'C', 'D' & 'E' PLAN & PROFILES
WALL 'C' STA. 1+00 TO STA. 2+83; WALL 'D' STA. 1+00 TO STA. 2+83
WALL 'E' STA. 1+00 TO STA. 2+83

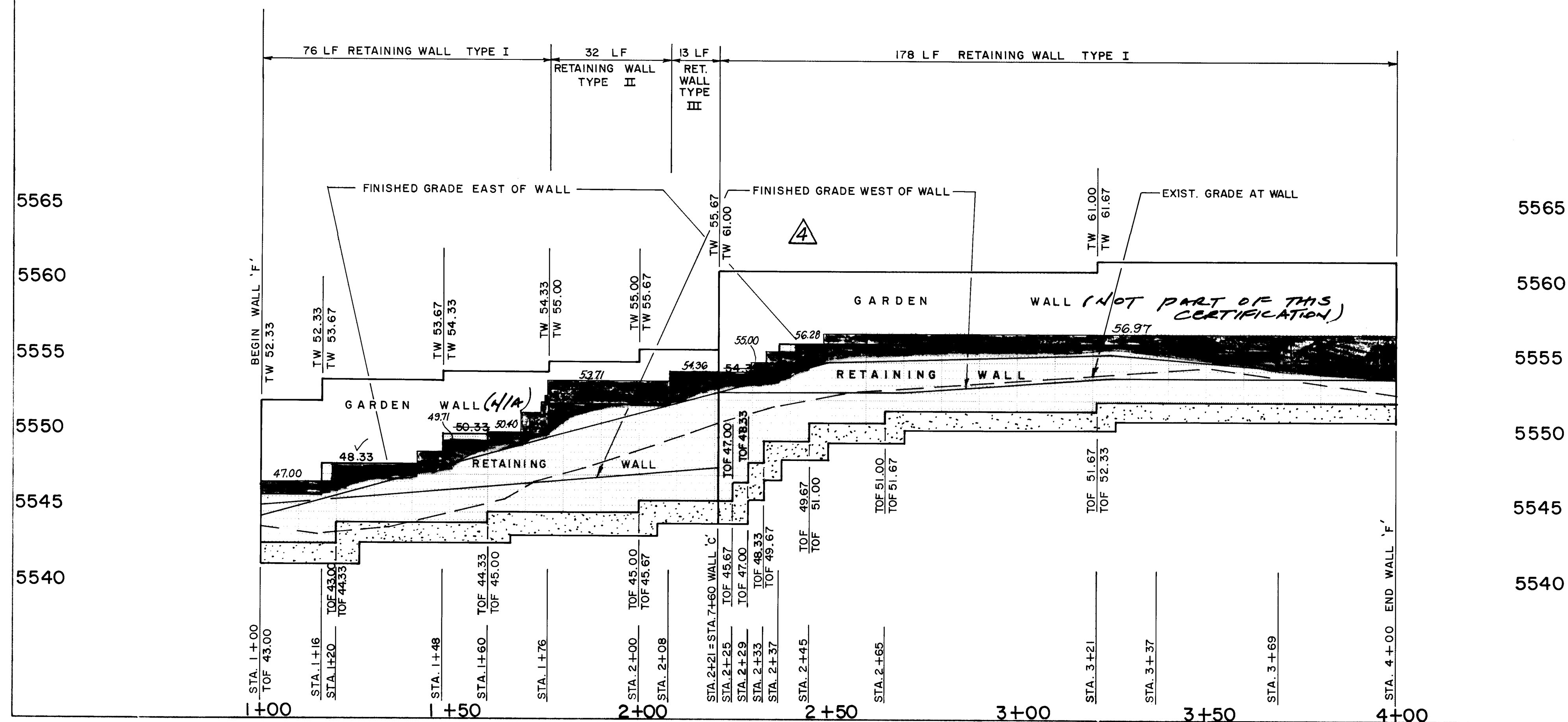
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRE CHAIRMAN	R. P. S. S. S.	6-1-93	WATER	N/A	RW 4-13-93
TRANSPORTATION	N/A	7-13-93	WASTE WATER	N/A	RW 4-13-93
HYDROLOGY	N/A	5-5-93			



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

RECORD DRAWING

WALL 'F'



HORIZ. PROFILE SCALE: 1" = 20'
VERT. PROFILE SCALE: 1" = 5'

NOTES:
REFER TO SHEET 29 FOR TYPICAL
RETAINING WALL SECTIONS & RETAINING
WALL CONSTRUCTION NOTES.

26 3391.943094

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE VINEYARD ESTATES III
RETAINING WALL 'F' PLAN & PROFILE
STA. 1+00 TO STA. 4+00

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DIR. CHAIRMAN	<i>S. J. Gendley</i>	6-1-93	WATER	N/A RWR	4-13-93
TRANSPORTATION	N/A RHO	4-13-93	WASTE WATER	N/A RWR	4-13-93
HYDROLOGY	N/A JRC	5-5-93			

PROJECT NO.	3391.94	MAP NO.	C-20	SHEET OF	30 31
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AS-BUILT & CERTIFY RETAINING WALLS ONLY		ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
10/93		GM		FIELD NOTES	DATE	INSPECTION BY	DATE	INSPECTION BY	DATE
NO DATE	REMARKS	BY		NO	BY				
DESIGNED BY		GM				A STANDARD BRASS TABLET STAMPED "C19-MAR			
CHECKED BY		CEN				FLUSH W/THE GROUND & LOCATED IN THE N.E.			
DATE		01/93				GUARDRANT OF THE INTERSECTION OF			
						LOUISIANA BLVD & LOS ANGELES DR. N.E.,			
						50' NORTH OF THE N.W. COR. OF A CHAINLINK			
						FENCE AROUND THE F.A.A. AIR TRAFFIC			
						CONTROL CENTER			
						ELEVATION = 5318.195 FEET (MSL.D.)			

