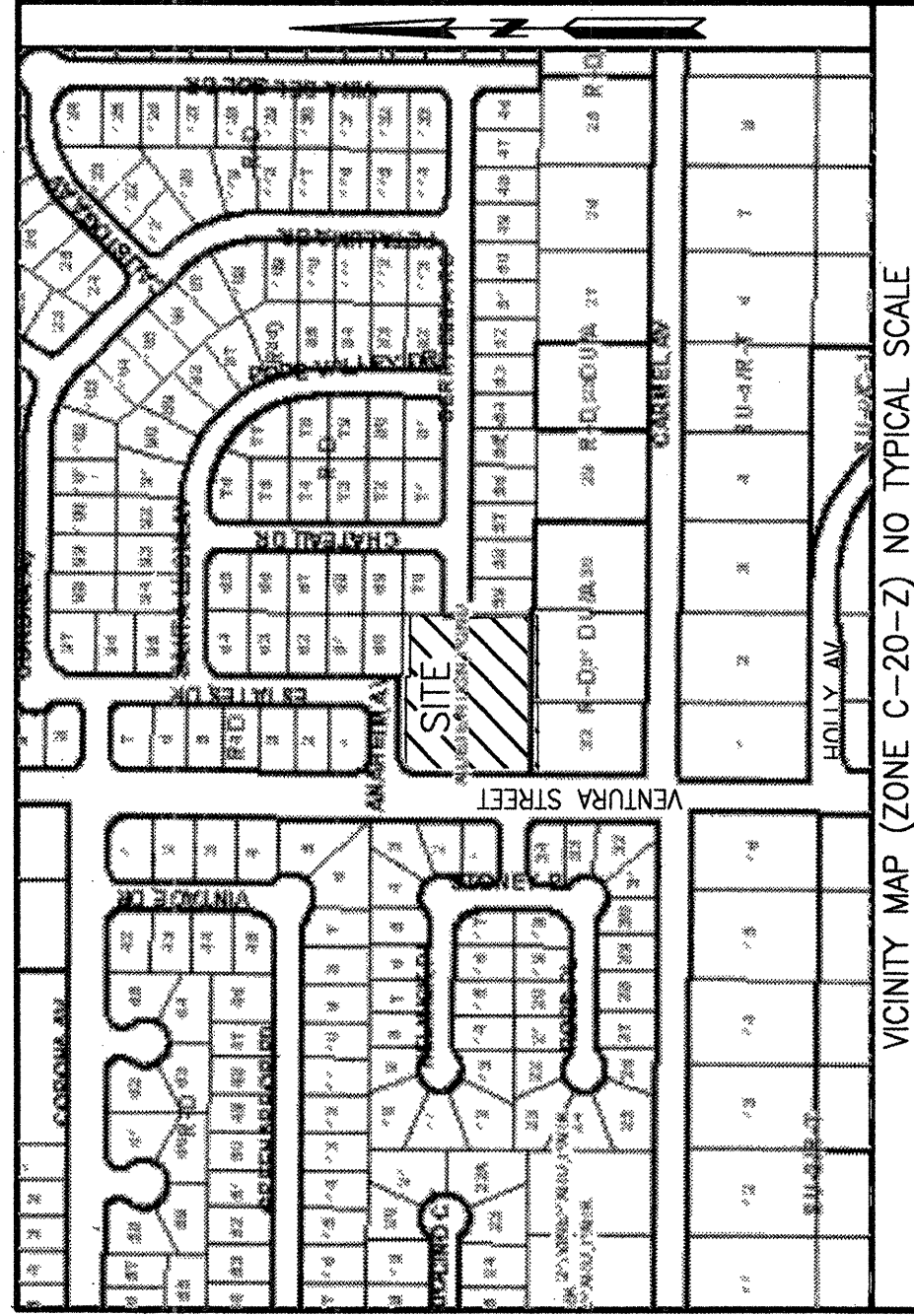


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THE PURPOSE OF THIS PLAT IS TO RESUBDIVIDE DETENTION POND TRACT A OF VINEYARD ESTATES, UNIT IV, INTO LOTS 134 THROUGH 139 OF VINEYARD ESTATES, UNIT V AND TO GRANT EASEMENTS AND DEDICATE ROADS PURSUANT THERETO.

PROPERTY DESCRIPTION
A CERTAIN TRACT OF LAND SITUATE IN PROJECTED SECTION 17, TOWNSHIP 11 NORTH, RANGE 4 EAST, N.M.P.M. WITHIN THE ELENA GALLEGOS LAND GRANT, BERNALILLO COUNTY, NEW MEXICO, BEING TRACT A, DETENTION POND, OF VINEYARD ESTATES, UNIT IV, AS THE SAME IS SHOWN AND DESCRIBED IN THE RECORDS OF BERNALILLO COUNTY, NEW MEXICO, AND CONTAINING 15906 ACRES, MORE OR LESS.

CONSENT AND DEDICATION STATEMENT
THE UNDERSIGNED DOES HEREBY STATE AND CONFIRM THAT I AM THE OWNER AND PROPRIETOR OF THE LANDS SHOWN HEREON, AND I DO FURTHER STATE THAT THE SUBDIVISION SHOWN HEREON IS OF MY FREE WILL AND CONSENT IN ACCORDANCE WITH MY EXPRESSED WISHES AND DESIRES AND DO HEREBY DEDICATE TO THE CITY OF ALBUQUERQUE ALL ROADS SHOWN HEREON IN FEE SIMPLE WITH WARRANTY COVENANTS AS INDICATED HEREON, AND LICENSE GRANT ALL EASEMENTS AND RIGHTS OF WAY SHOWN HEREON TO THE CITY OF ALBUQUERQUE FOR THE CONVEYANCE OF WATER, GAS, ELECTRICITY, AND MAINTAIN FACILITIES THEREIN; AND ALL PUBLIC UTILITY EASEMENTS SHOWN HEREON FOR THE COMMON AND JOINT USE OF GAS, ELECTRICAL POWER AND COMMUNICATION SERVICES FOR BURIED DISTRIBUTION LINES, CONDUITS AND PIPES FOR UNDERGROUND UTILITIES WHERE SHOWN OR INDICATED, AND INCLUDING THE RIGHT OF INGRESS AND EGRESS FOR CONSTRUCTION AND MAINTENANCE THEREOF, AND THE RIGHT TO TRIM INTERFERING TREES AND SHRUBS, IN WITNESS WHEREOF I HEREBY SIGN THIS INSTRUMENT.

ROBERT KEERAN, PRESIDENT OF LLAVE CONSTRUCTION, INCORPORATED

ACKNOWLEDGMENT

COUNTY OF BERNALILLO
STATE OF NEW MEXICO

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS 18 DAY OF February, 2002, BY ROBERT KEERAN, PRESIDENT OF LLAVE CONSTRUCTION, INCORPORATED, A NEW MEXICO CORPORATION.

MY COMMISSION EXPIRES 8/31/2004

NOTARY PUBLIC

PUBLIC UTILITY EASEMENTS SHOWN ARE TEN FEET (10') WIDE ALONG VENTURA STREET AND 10' WIDE ALONG ANAHEIM AVENUE. EASEMENTS DRIVE AND ARE GRANTED FOR THE JOINT AND COMMON USE OF:

- PWM ELECTRIC SERVICES FOR THE INSTALLATION, MAINTENANCE AND SERVICE OF UNDERGROUND ELECTRICAL LINES, TRANSFORMERS, POLES AND ANY OTHER EQUIPMENT, FIXTURES, STRUCTURES AND RELATED FACILITIES REASONABLY NECESSARY TO PROVIDE NATURAL GAS SERVICE.
- PWM GAS SERVICES FOR THE INSTALLATION, MAINTENANCE AND SERVICE OF NATURAL GAS LINES, VALVES AND OTHER EQUIPMENT AND RELATED FACILITIES REASONABLY NECESSARY TO PROVIDE NATURAL GAS SERVICE.
- QWEST COMMUNICATIONS FOR THE INSTALLATION, MAINTENANCE AND SERVICE OF ALL BUNDLED COMMUNICATION LINES AND OTHER RELATED EQUIPMENT AND FACILITIES REASONABLY NECESSARY TO PROVIDE COMMUNICATION SERVICES, INCLUDING, BUT NOT LIMITED TO, ABOVE GROUND PEDESTALS AND CLOSURES.
- COMCAST CABLE FOR THE INSTALLATION, MAINTENANCE AND SERVICE OF SUCH UNDERGROUND LINES, CABLE AND OTHER RELATED EQUIPMENT AND FACILITIES REASONABLY NECESSARY TO PROVIDE CABLE TV SERVICE.

SUBDIVISION DATA

- CASE No. _____
- ZONE ATLAS INDEX No. C-20
- GROSS SUBDIVISION AREA: 15906 ACRES
- TOTAL NUMBER OF LOTS CREATED: 6 LOTS
- DRB PROJECT No. DRB 1001534
- TOTAL MILEAGE OF FULL WIDTH STREETS CREATED: .046
- TALOS LOG No. 2002442513

ACS CONTROL STATION 35-C20
X=412816.69
Y=1521569.86
ELEVATION=896.66 (NGVD83)
CONVERSION FACTOR=0.0000000000000000
CONVERSION FACTOR=0.0000000000000000
(NEW MEXICO COORDINATE SYSTEM ZONE-NAD83)

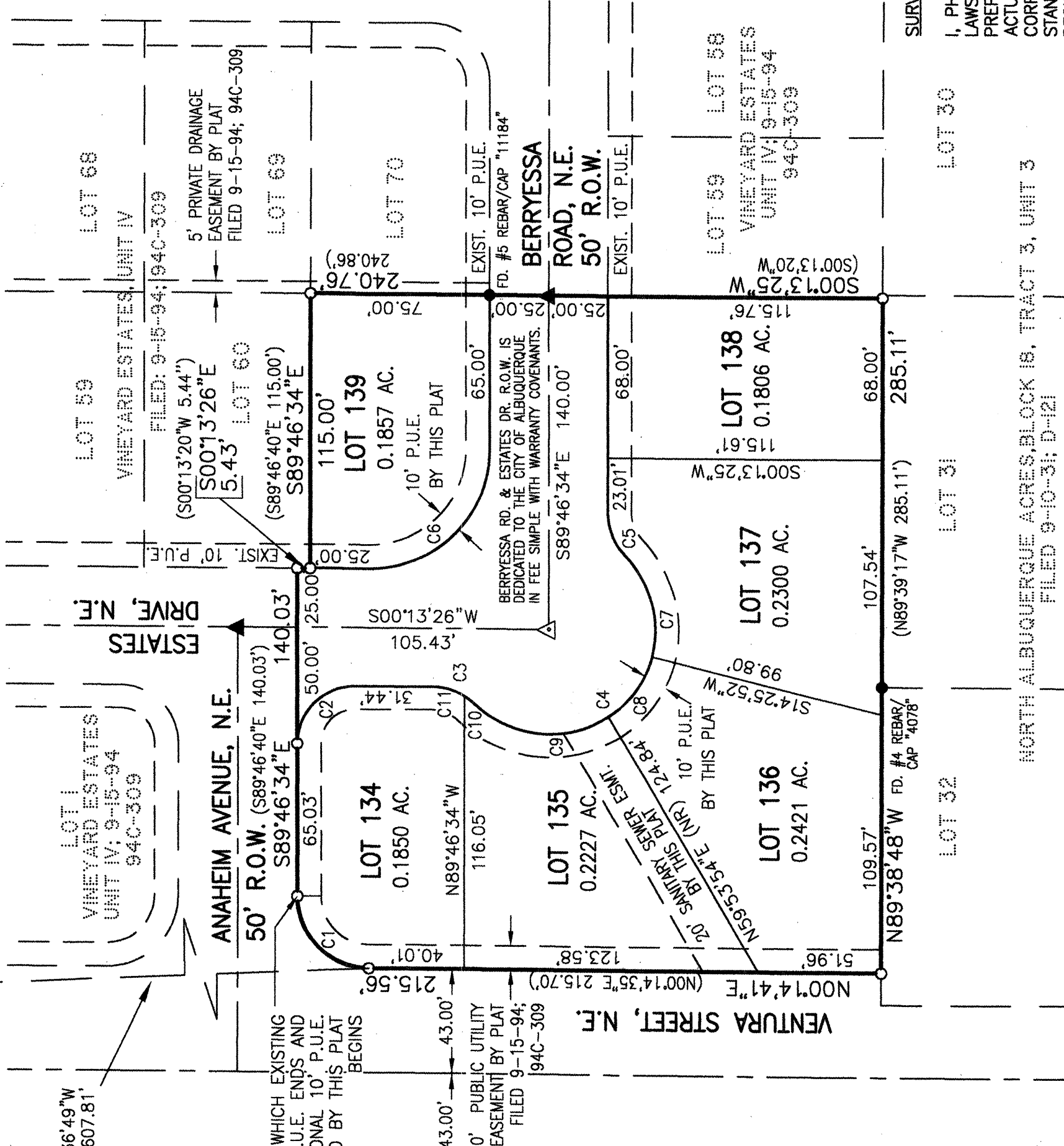
THIS IS TO CERTIFY THAT TAXES ARE CURRENT AND PAID ON UPC # 102-006-428-314-640358
PROPERTY OWNER OF RECORD _____
BERNALILLO COUNTY TREASURER'S OFFICE _____

LEGEND

- SET #5 REDAR WITH CAP "TWT 10204"
- FOUND SURVEY MONUMENT AS DESCRIBED
- △ NEW CITY OF ALBUQUERQUE CENTERLINE MONUMENT
- ▲ EXISTING CITY OF ALBUQUERQUE CENTERLINE MONUMENT

P.U.E. PUBLIC UTILITY EASEMENT

SCALE: 1" = 50'



SURVEYOR'S CERTIFICATION

I, PHILIP W. TURNER, A PROFESSIONAL SURVEYOR REGISTERED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME, OR UNDER MY DIRECT SUPERVISION, FROM THE RETURNS OF AN ACCURATE SURVEY MADE BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT IT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT IT SATISFIES THE UNKNOWN STANDARDS FOR LAND SURVEYING AS DETERMINED BY THE NEW MEXICO BOARD OF SURVEYING FOR PROFESSIONAL ENGINEERS AND SURVEYORS AND THAT IT MEETS THE REQUIREMENTS FOR PLATTING AND MONUMENTATION OF THE CITY OF ALBUQUERQUE SUBDIVISION ORDINANCE.

Philip W. Turner
Philip W. Turner
N.M.P.S. 10204
DATE 12-17-2002

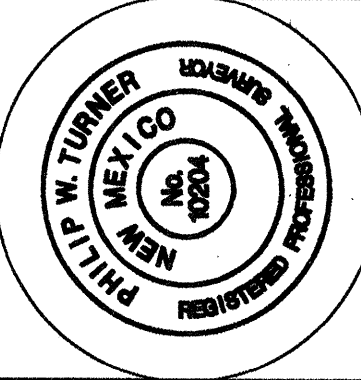
APPROVALS as specified by the City of Albuquerque Subdivision Ordinance:
PROJECT NO. 1001534 / APPLICATION NO. 02228-01931

PLANNING DIRECTOR, CITY OF ALBUQUERQUE	DATE
CITY ENGINEER, CITY OF ALBUQUERQUE	DATE
PROPERTY MANAGER, CITY OF ALBUQUERQUE	DATE
TRAFFIC ENGINEER, CITY OF ALBUQUERQUE	DATE
WATER UTILITIES DEPARTMENT, CITY OF ALBUQUERQUE	DATE 12/18/02
CITY SURVEYOR, CITY OF ALBUQUERQUE	DATE
PARKS AND RECREATION, CITY OF ALBUQUERQUE	DATE
A.M.A.F.C.A.	DATE
PWM ELECTRIC SERVICES COMPANY	DATE 1-30-03
PWM GAS SERVICES COMPANY	DATE 1-30-03
QWEST COMMUNICATIONS	DATE
COMCAST CABLE	DATE 1-31-03

CURVE DATA

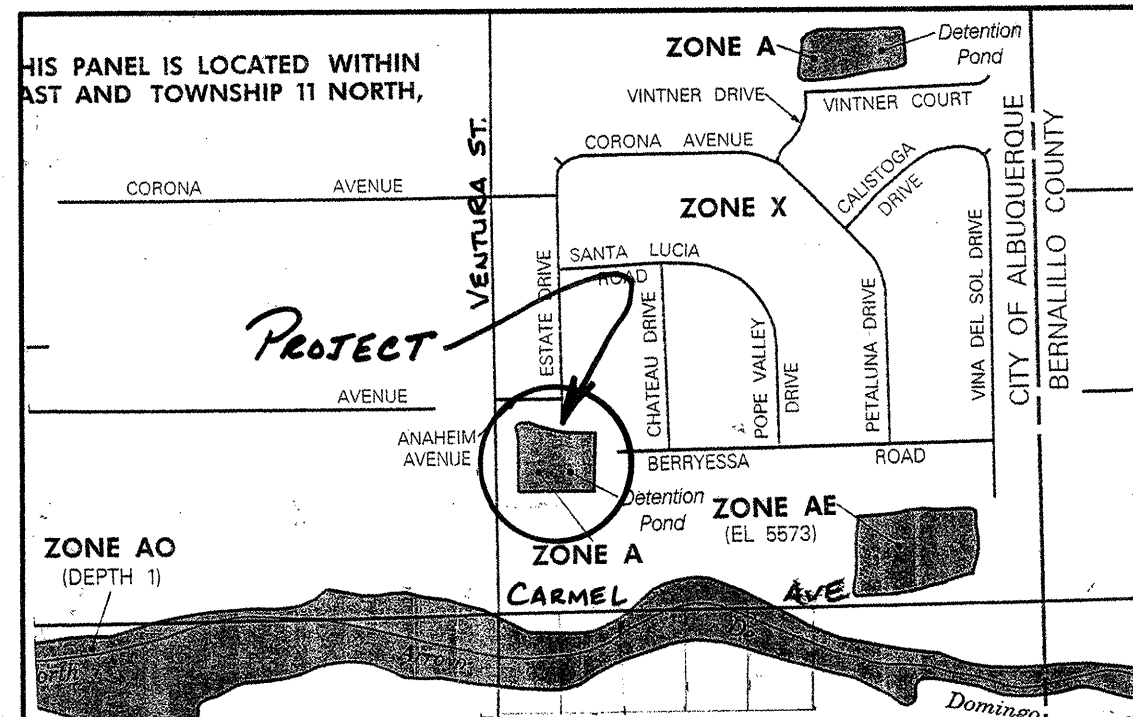
CURVE	LENGTH	RADIUS	DELTA	CHORD	BEARING
C1	47.11	30.00	89°58'45"	42.42	N45°14'03"E
C2	39.27	25.00	44°24'55"	35.36	S44°46'34"E
C3	19.38	25.00	44°24'55"	18.90	S22°25'53"W
C4	140.45	45.00	178°49'50"	90.00	S44°46'34"E
C5	19.38	25.00	44°24'55"	18.90	N68°00'58"E
C6	78.54	50.00	90°00'00"	70.71	N44°46'34"W
C7	46.04	45.00	58°37'22"	44.06	N75°07'11"E
C8	32.87	45.00	41°51'14"	32.15	S54°38'30"E
C9	61.54	45.00	78°21'14"	56.85	S05°27'44"W
C10	5.05	25.00	11°34'02"	5.04	S38°51'20"W
C11	14.33	25.00	32°50'53"	14.14	S16°39'52"W

- NOTES:**
- BEARINGS SHOWN ARE NEW MEXICO COORDINATE SYSTEM, CENTRAL ZONE (NAD83). DISTANCES AND ANGLES ARE RELATED TO STATION 35-C20 TO STATION 7-C18. DISTANCES SHOWN ARE GROUND.
 - EXCEPT AS SHOWN, NO OTHER EASEMENTS OR RIGHTS OF WAY ARE CREATED BY THIS PLAT. ALL EASEMENTS OF RECORD ARE SHOWN.
 - RECORD DATA ARE SHOWN IN PARENTHESES.
 - CITY OF ALBUQUERQUE WATER AND SEWER SERVICE IS CURRENTLY AVAILABLE TO THE SUBJECT PROPERTY.
 - THIS PROPERTY IS CURRENTLY ZONED R-D (CITY).



**TERRAMETRICS
OF NEW MEXICO**

P.O. BOX 30192
ALBUQUERQUE, NEW MEXICO 87190-0192
PHONE: (505) 884-9087



FIRM MAP PANEL # 141 E

GRADING & DRAINAGE PLAN

(SEE CALCULATIONS ON FILE W/ CITY HYDROLOGY DIVISION, Ref. C-20/D)

THE RESIDENTIAL HOME PROJECT IS LOCATED IN VINEYARD ESTATES, UNIT IV APPROXIMATELY 11 MILES FROM THE DOWNTOWN CORE OF ALBUQUERQUE, NM. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO. 88-46, AND CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, SPOT ELEVATIONS, AND EXISTING DRAINAGE, EXISTING STORM DRAIN, AND EXISTING DRAINAGE PATTERNS.
2. PROPOSED IMPROVEMENTS: RESIDENTIAL SUBGRADE HOUSE PADS, PUBLIC STREET EXTENSIONS, SIDEWALKS, NEW PERIMETER SOLID WALL, AND NEW GRADE ELEVATIONS.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFFSITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.
5. UPSTREAM ANALYSIS AS TO PROPOSED STORM SEWER DESIGN.

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING DEVELOPED FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE NORTH AND EAST BY DEVELOPED PROPERTY. ANAHEIM AVE. ON THE NORTH AND BERRYESSA ROAD TO THE EAST ARE CITY RESIDENTIAL ROADWAYS WITH 50' RIGHT-OF-WAYS. VENTURA ST. TO THE WEST IS A 66' WIDE MINOR ARTERIAL SITUATE WITHIN AN 86 FEET R.O.W. THE SITE IS CURRENTLY BEING USED AS A DETENTION FACILITY. THE PLAN IS CONTINGENT UPON THE CONSTRUCTION OF THE 54" DIA. STORM DRAIN COLLECTOR SHOWN IN VENTURA, AND WILL OUTFALL TO THE AMFCA STORM DRAIN CURRENTLY UNDER CONSTRUCTION WITHIN CARMEL AVE. ALL OFFSITE FLOWS ARE QUANTIFIED ON THE PLAN, AND ADDRESSED IN THE CALCULATIONS.

THE SITE IS CURRENTLY ENCUMBERED BY A DESIGNATED FEMA FLOODPLAIN, AND WILL BE REMOVED UPON CONSTRUCTION OF CARMEL AVE. STORM DRAIN PROJECT, THE CONSTRUCTION OF THE 54" DIA. STORM DRAIN IN VENTURA, AND COLLECTION OF UPSTREAM RUN-OFF.

HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED IN DEVELOPMENT. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY WILL EXIST.

CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: $Q = Q_{PEAK} \times AREA$, "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $VOLUME = E_{Weighted} \times AREA$
 $P_{100} = 2.60$ inches, Zone 3 Time of Concentration, $TC = 10$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

HISTORIC CONDITIONS

PROJECT AREA = 1.6 ACRES, WHERE EXCESS PRECIP. 'A' = 0.66 in. [0.19]
PEAK DISCHARGE, $Q_{100} = 3.0$ CFS [0.9], WHERE UNIT PEAK DISCHARGE 'A' = 1.9 CFS/AC. [0.60]
THEREFORE: $VOLUME_{100} = 3833$ CF [1106]

DEVELOPED CONDITIONS DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

	AREA	LAND TREATMT	Q_{Peak}	E
UNDEVELOPED	--- Ac.	A	1.87[0.58]	0.66[0.19]
LANDSCAPING - 10% SL	0.35 Ac.	B	2.60[1.19]	0.92[0.36]
COMPACTED SOIL & Slopes >	0.40 Ac.	C	3.45[2.00]	1.29[0.62]
ROOF - PAVEMENT	0.85 Ac.	D	5.02[3.39]	2.36[1.50]
	1.60 Ac.			

THEREFORE: $E_{Weighted} = 1.78$ in. [1.03] &
 $Q_{100} = 6.6$ CFS
 $Q_{10} = 4.1$ CFS

UNIT DISCHARGE = 6.6 CFS/1.6 AC. = 4.13 CFS/AC.
AND... 6.6 CFS/6 LOTS = 1.1 CFS Per LOT

UPSTREAM / DOWNSTREAM ANALYSIS

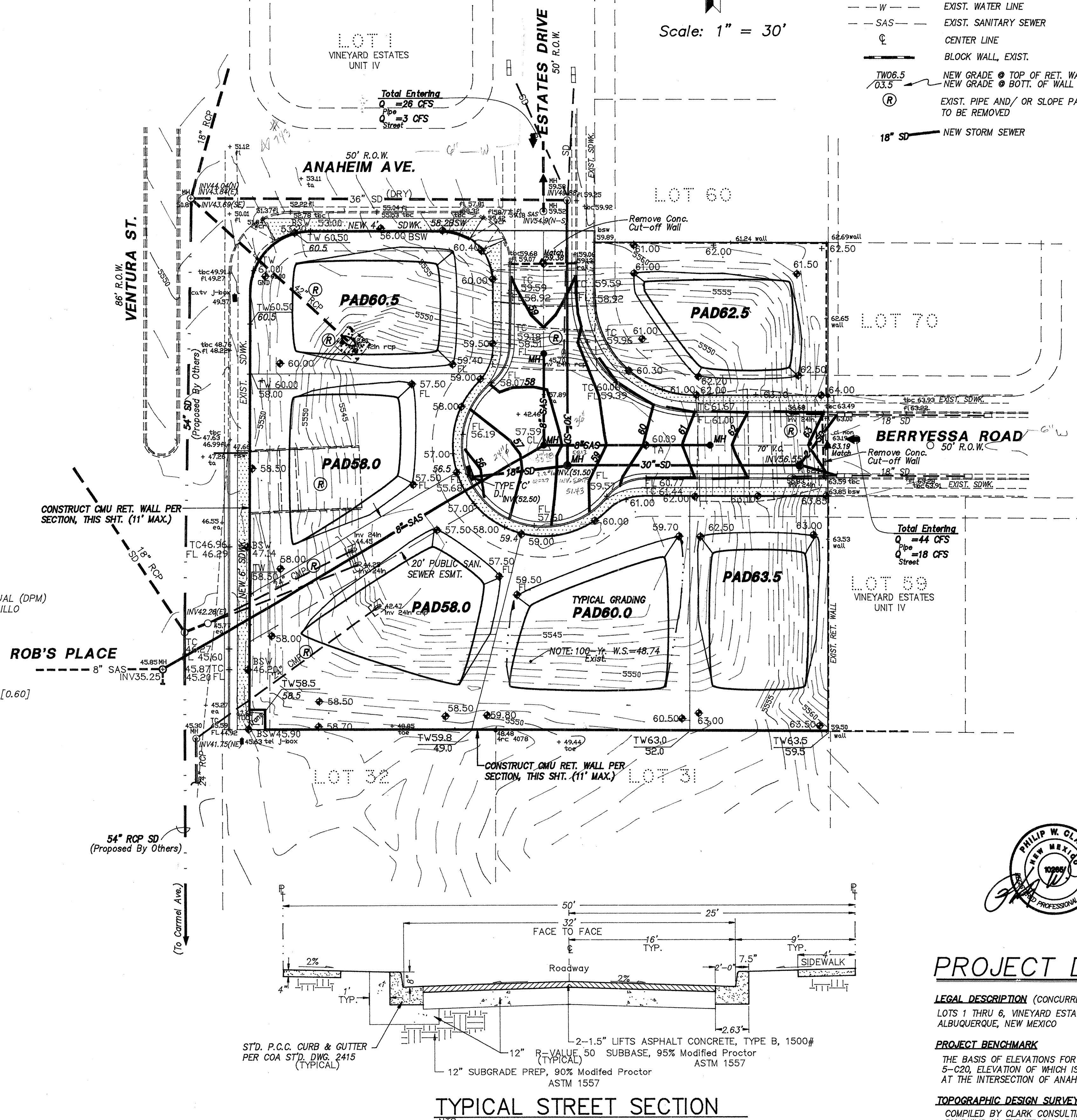
- TWO (2) PAIR OF EXISTING DROP INLETS ARE LOCATED AT THE END OF BERRYESSA AND ESTATES DR. STORM RUN-OFF IS THEN CONVEYED VIA 24" DIA. CMP INTO THE SITE. REFERENCE VINEYARD ESTATES, UNIT IV, GRADING AND DRAINAGE PLAN DATED 3/9/95, PREPARED BY JEFF MORTENSEN & ASSOC. SHEET 1 OF 6.

TOTAL Q_{100} ENTERING = 91 CFS

TOTAL ON-SITE RUNOFF IN STREET • PROPOSED KNUCKLE CUL-DE-SAC
 $Q_{STREET} = 3 + 18 + 6.6$ (On-site) = 27.6 CFS

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO NOT REPRESENT ANY EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

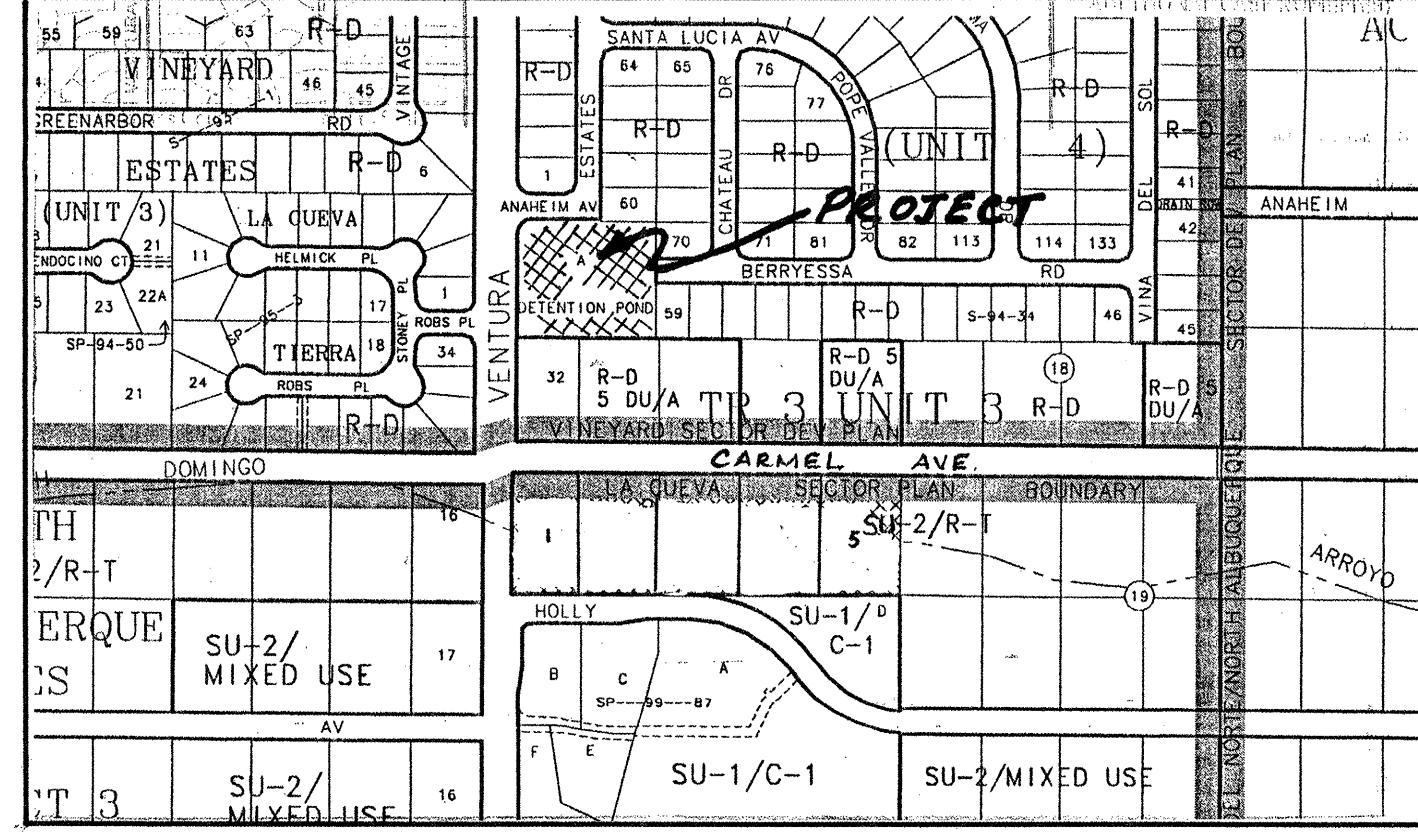
PHILIP W. CLARK 12-20-02
NMPE #10265



LEGEND

- EXIST. SPOT ELEVATION
- EXIST. CONTOUR
- NEW SPOT ELEVATION
- NEW CONTOUR
- EXIST. CURB & GUTTER
- NEW SWALE
- DRAINAGE DIRECTION, EXISTING
- NEW P.C.C. STD. CURB/GUTTER
- NEW P.C.C. CONCRETE
- TOP OF ASPHALT, EXISTING
- TOP OF CURB
- FLOWLINE
- EXISTING POWER POLE
- EXIST. WATER LINE
- EXIST. SANITARY SEWER
- CENTER LINE
- BLOCK WALL, EXIST.
- NEW GRADE • TOP OF RET. WALL
- NEW GRADE • BOT. OF WALL
- EXIST. PIPE AND/OR SLOPE PAVING TO BE REMOVED
- NEW STORM SEWER

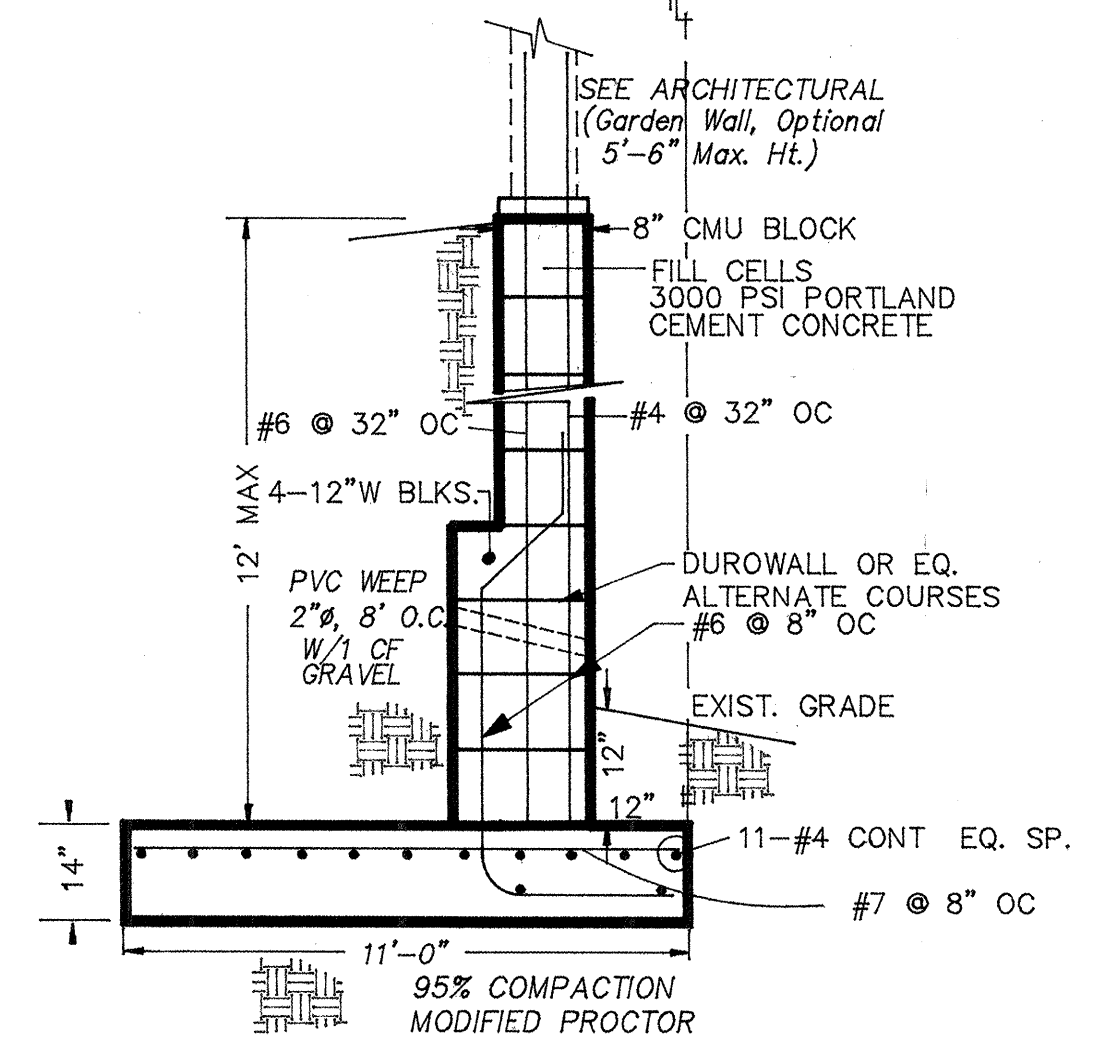
Scale: 1" = 30'



VICINITY MAP ZONE C-20 Scale: 1" = 390'

NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 6TH EDITION W/ UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
5. AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
6. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1 ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.



CMU RETAINING WALL @ PL
NTS NOTE: STUCCO TO BE TEXTURED, EARTH TONE COLORS MAINTAIN 2" CLR. ON ALL STEEL

PROJECT DATA

LEGAL DESCRIPTION (CONCURRENT PLATTING)
LOTS 1 THRU 6, VINEYARD ESTATES, UNIT V ALBUQUERQUE, NEW MEXICO

PROJECT BENCHMARK

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS ACS BENCHMARK 5-C20, ELEVATION OF WHICH IS 5552.71. BENCHMARK IS LOCATED AT THE INTERSECTION OF ANAHEIM AND VENTURA AVE.

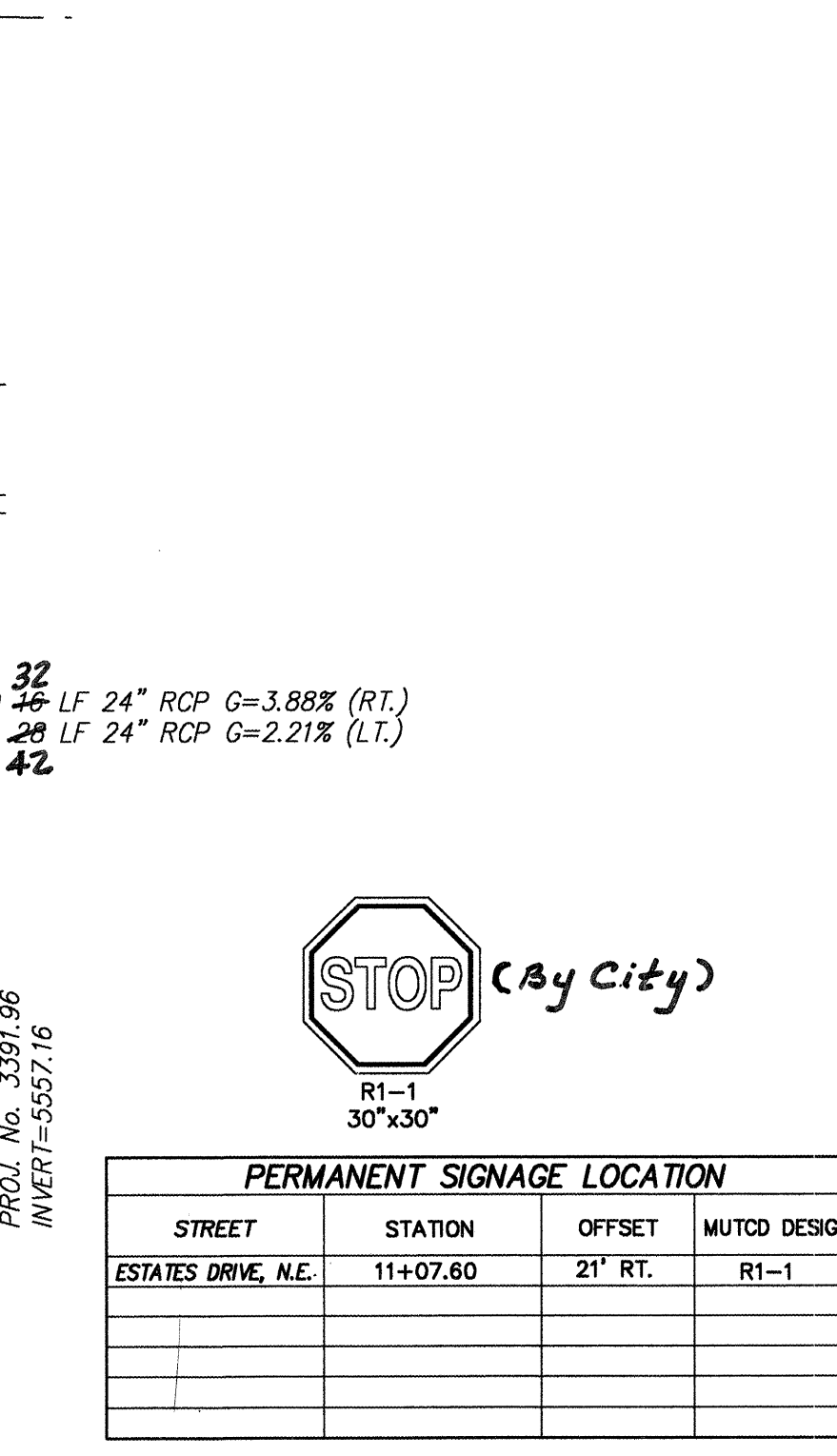
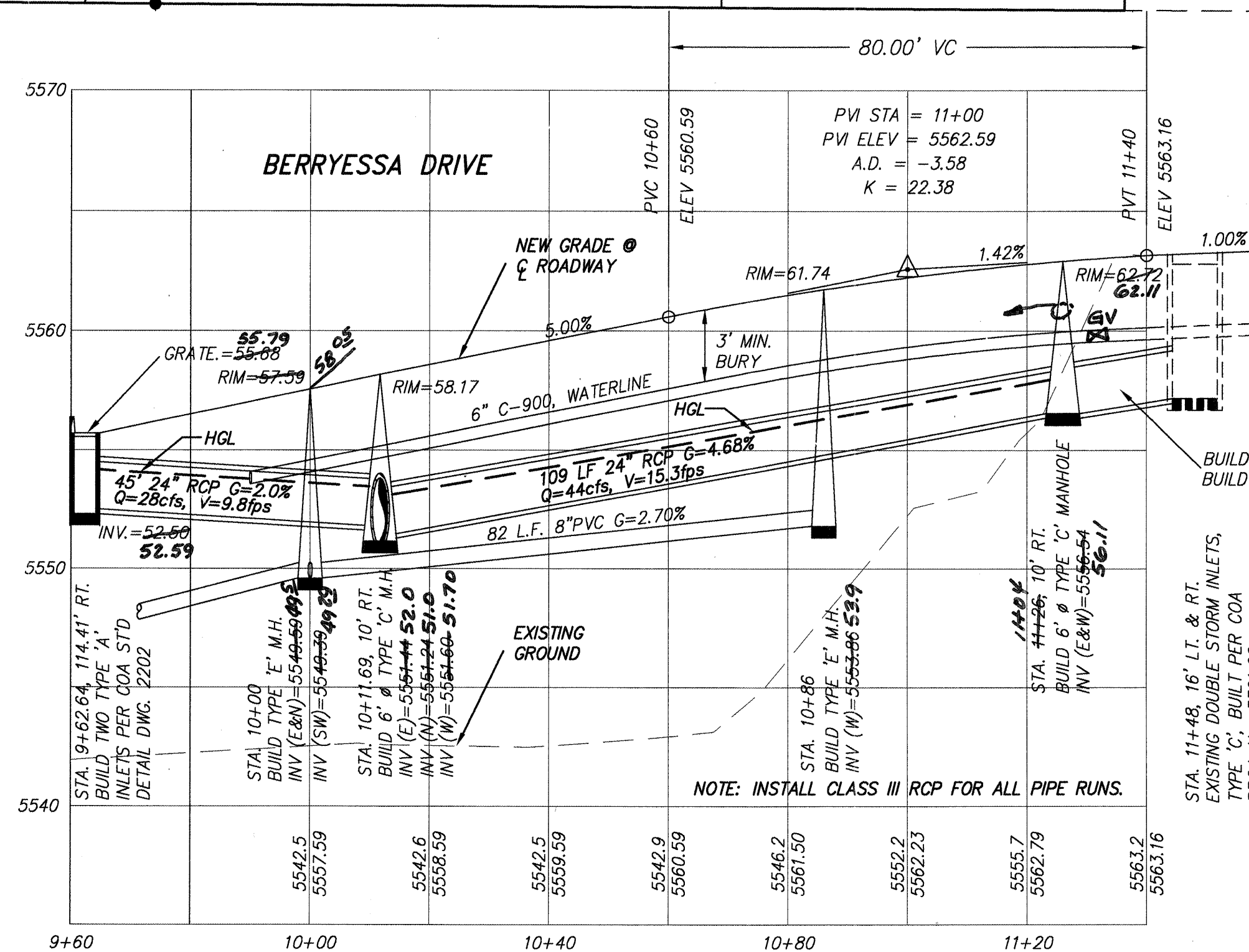
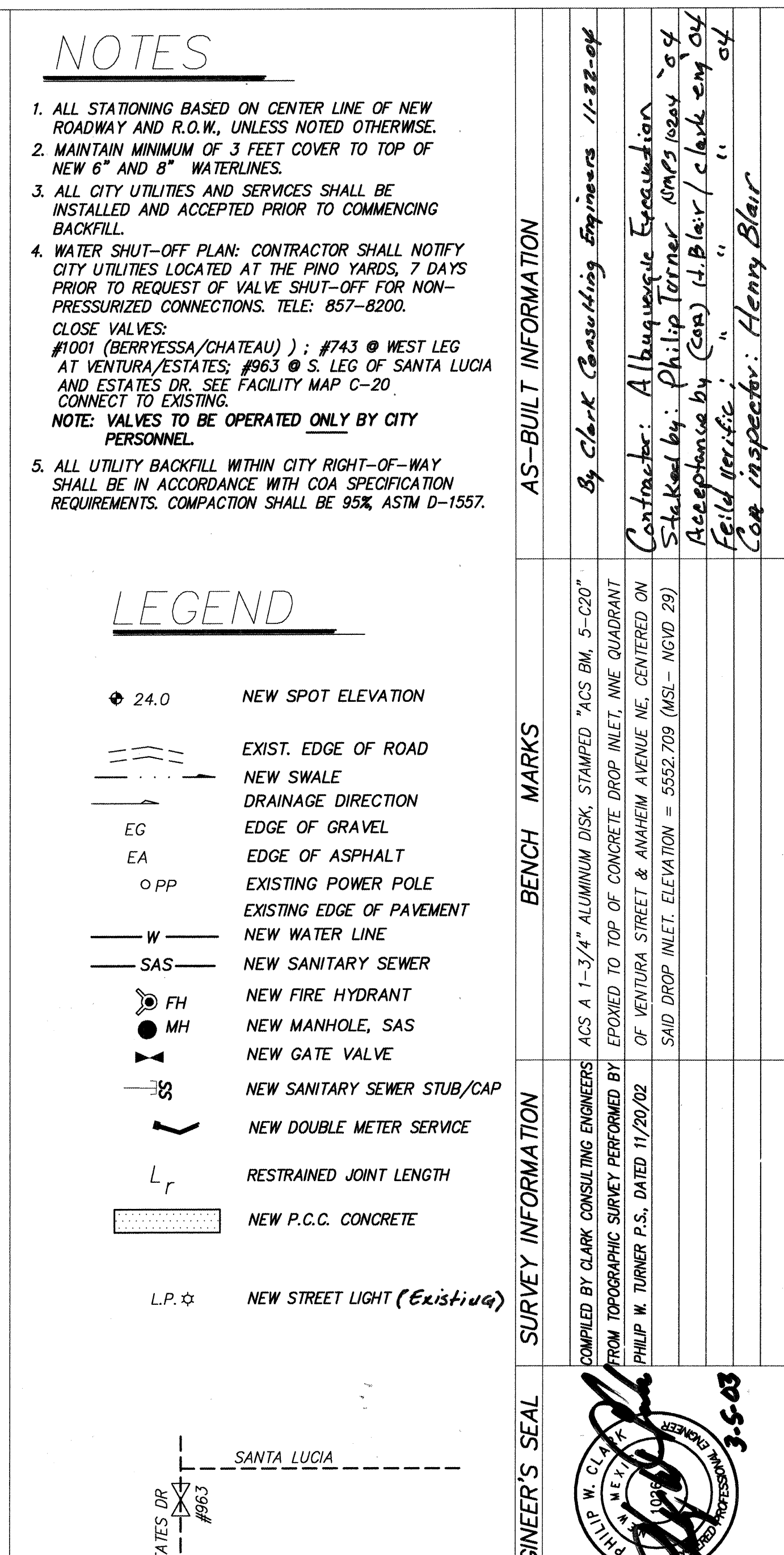
TOPOGRAPHIC DESIGN SURVEY

COMPILED BY CLARK CONSULTING ENGINEERS FROM DESIGN SURVEY BY PHILIP W. TURNER P.S., DATED 11/20/02

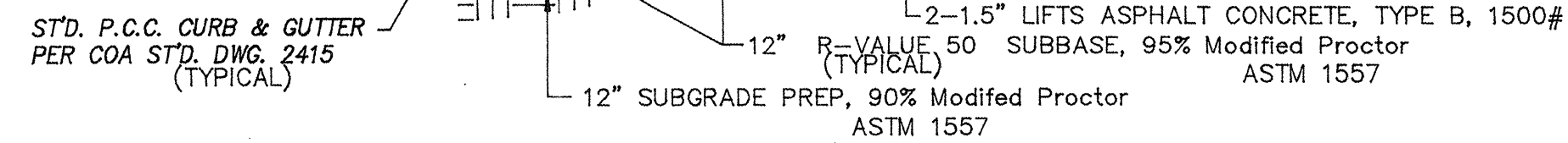
Clark Consulting Engineers 19 Ryan Road Edgewood, New Mexico 87015 Tele: (505) 281-2444 Fax: (505) 281-2444			
DATE	REVISION	REPLAT OF TR. A, VINEYARD ESTATES, UNIT IV VINEYARD ESTATES, UNIT V SUBDIVISION Grading & Drainage Plan	
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: VINEY_V	SHEET
CHECKED BY: PWC	DATE: 12/01/02	FILE #: G/D	1 OF 1

705281

3 of 7

[illegible]

100



NTS PER COA ST'D DWG 2405

NTS PER COA ST'D DWG 2405

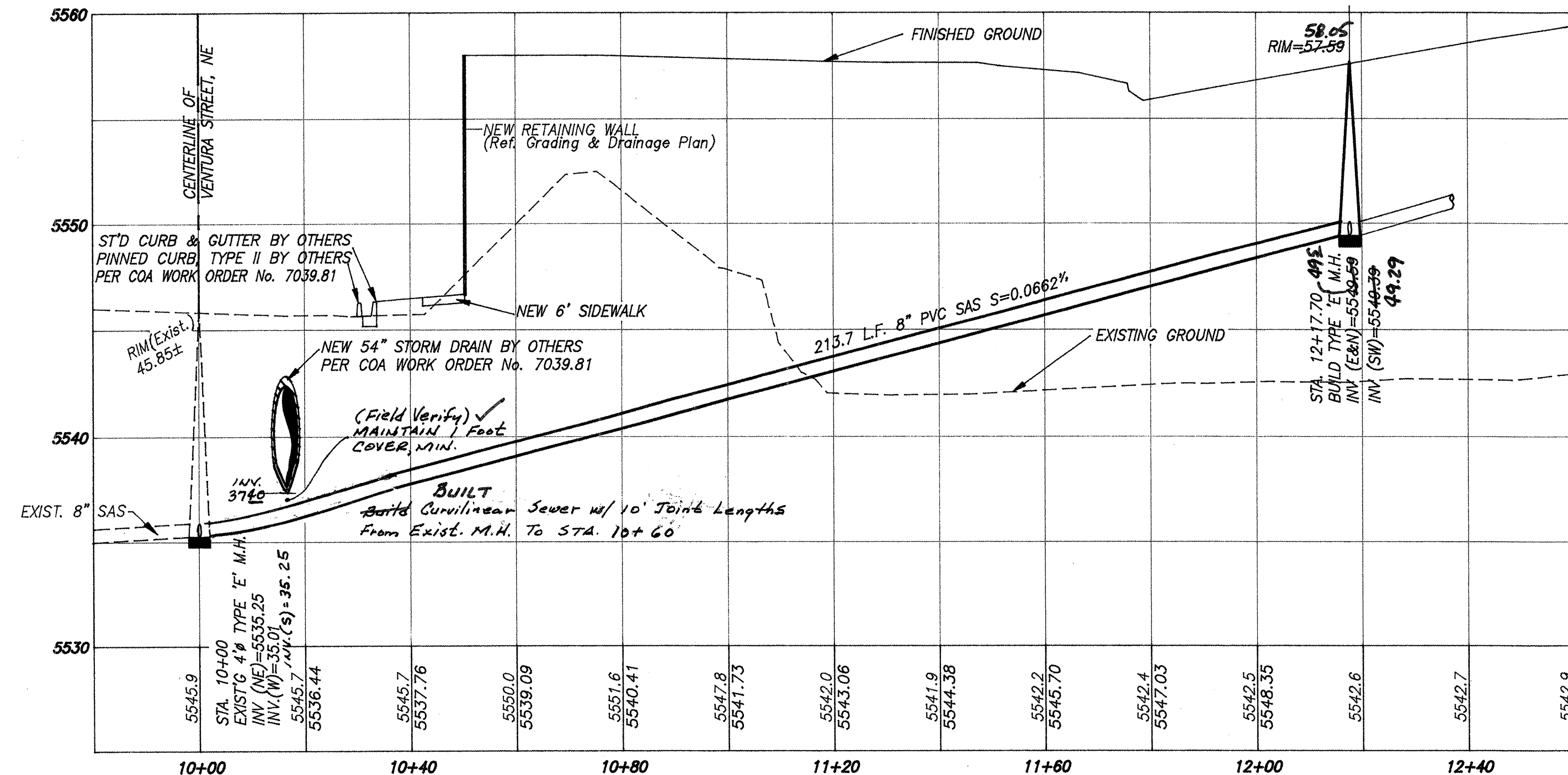
1 THE METER SHALL BE SE

- CONSTRUCTION NOTES:

BACK OF CURB
CAST IRON METER BOX, COVER AND LID.
SEE DWG. 2368 OR 2369.
1/2" EXPANSION JOINT.
FETER STOP. LUGS TO INSIDE METER BOX.
SIDEWALK OR DRIVEPAD.
METER TOP OF METER TO BE 12"-18" BELOW COVER.
G MAIN WATER LINE.
H MAIN SUMP LINE.
I COPPER SERVICE LINE.
J COPPER SETTER.
K CONCRETE TO PROPERTY LINE WITH INSTA-TITE I.P.T.
N CONCRETE FITTING.
Q CONCRETE PAD REQUIRED IN ALL AREAS.
R #4 REBAR CONTINUOUS ALL AROUND METER BOX.
S STABILIZER BAR, 12" LONG X 1/2" DIAMETER GALVANIZED PIPE.
T METER BOX LID SHALL BE FLUSH WITH SURROUNDING SIDEWALK.



¹ The authors are grateful to the referees for their helpful comments and suggestions.



PROFILE SCALE: 1"=20' HOR., 1"=5' VERT.

DRB PROJ. #1001534

1. SEE SHEETS 1, AND 4 OF 7.

[illegible]

Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Tele: (505) 281-2444 Fax: (505) 281-2444

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
VINEYARD ESTATES - UNIT V
DETAILS AND SECTIONS

Design Review Committee		City Engineer Approval		Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
APR 17 2003		MAY 14 2003				
DESIGN REVIEW COMMITTEE		CITY ENGINEER				

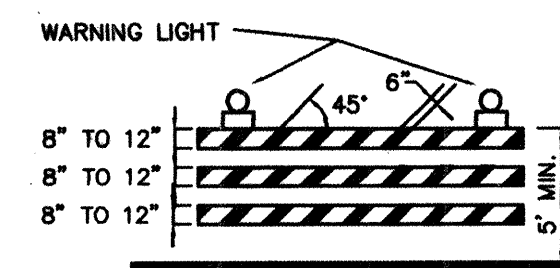
City Project No.	7052.81	Zone Map No.	C-20	SHEET	5	OF	7
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CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

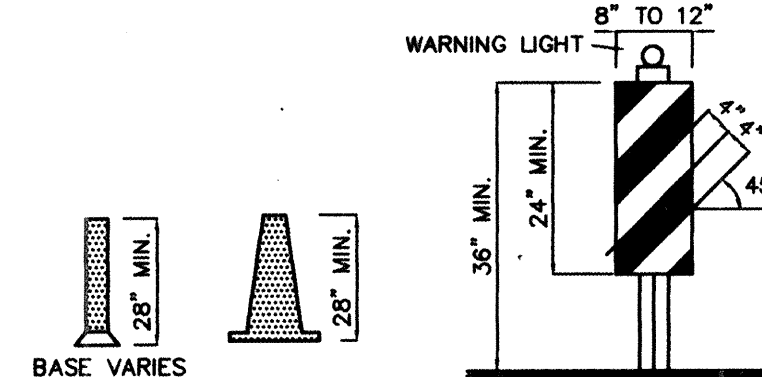
1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITHIN THE UNDERSTANDING, THAT A 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. ALL WORK IN ARTERIAL ROADWAYS SHALL BE ON A CONTINUOUS 24-HOUR PER DAY BASIS UNTIL COMPLETED.
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. 48 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:
- STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 - THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
 - 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.

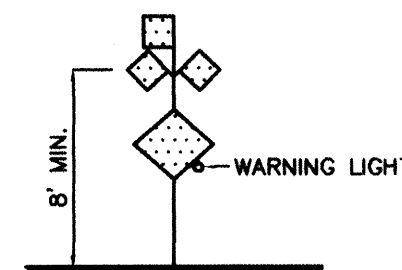
26. ADVANCE WARNING SIGNS SHALL BE 36"x36" MIN. WITH SUPER ENGINEERING GRADE SHEETING OR BETTER. MOUNTING HEIGHT AT TOP OF SIGN SHALL BE THE SAME AS FOR A 48" SIGN AS INDICATED IN THE M.U.T.C.D.
27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPMENT, BOTH PERMANENT AND TEMPORARY.



TYPE III BARRICADE

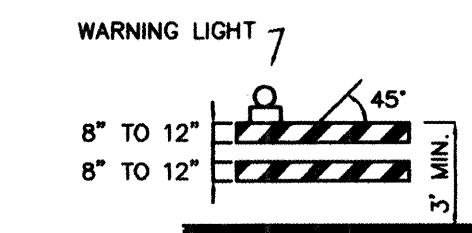


VERTICAL PANEL

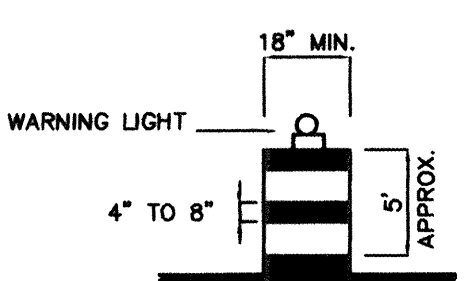


HIGH LEVEL WARNING DEVICE

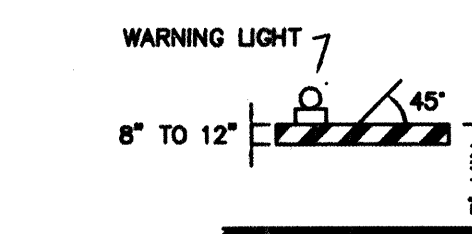
CONES



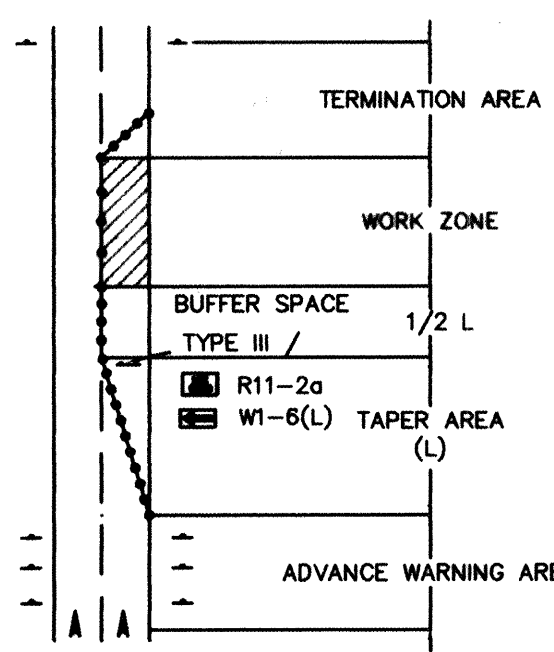
TYPE II BARRICADE



BARREL



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

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

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

TAPER CRITERIA

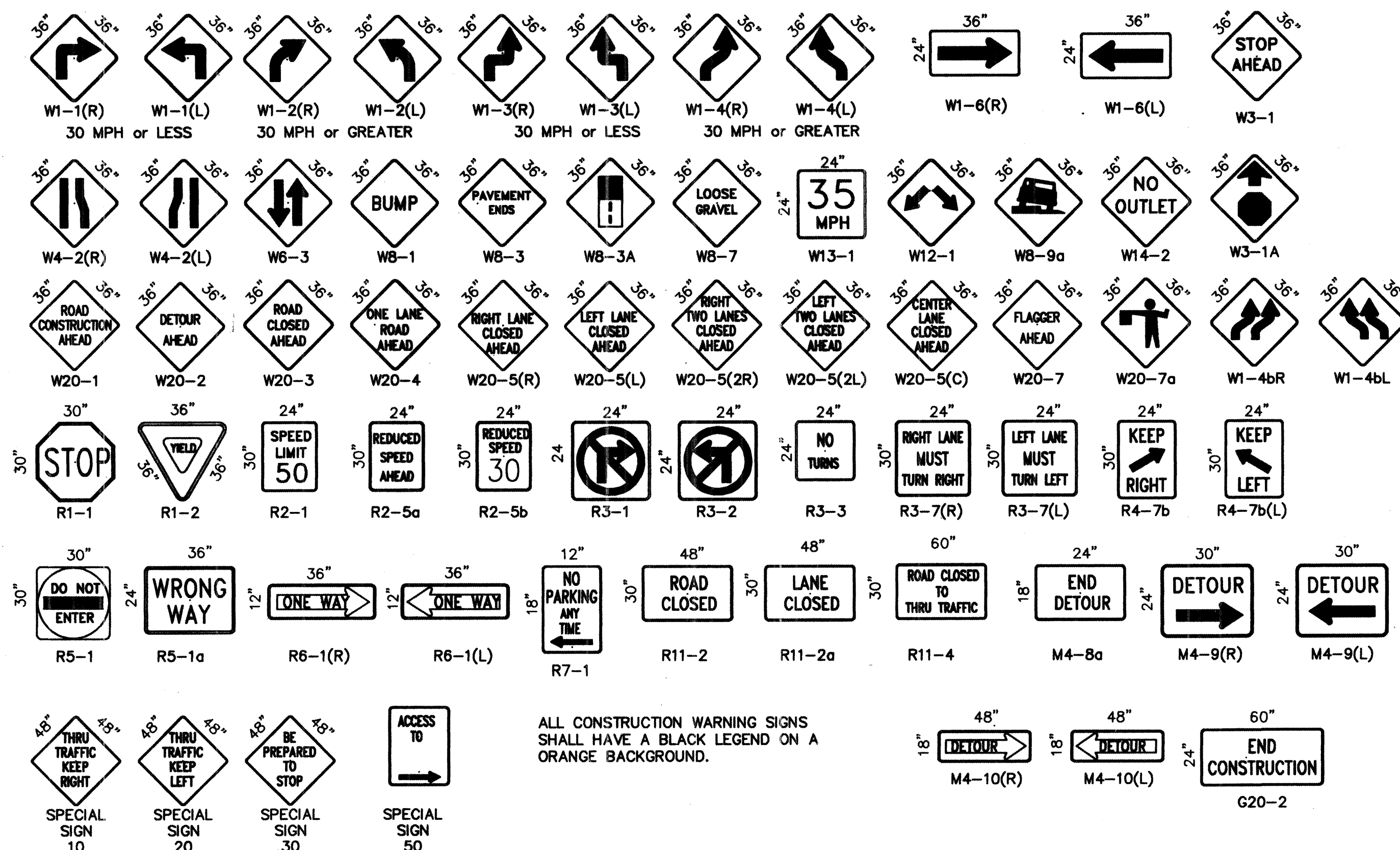
TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSIDE TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

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

SIGN FACE DETAILS



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

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: **SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS**

DESIGN REVIEW COMMITTEE: CITY ENGINEER APPROVAL

PROJECT NO. 705281

MAP NO. C-20

SHEET 6 OF 7

DESIGNED BY: [Signature]
DRAWN BY: [Signature]
CHECKED BY: [Signature]

DATE: [Date]
DATE: [Date]
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REVISIONS: [Table with columns for NO., DATE, and REVISIONS]

LAST UPDATE: [Date]

