BERNALILLO COUNTY PUBLIC WORKS 2400 BROADWAY SE COMPLEX

MEDIAN TURNBAY & WATER INF FS-98-02

- ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION AS AMENDED LATEST EDITION AS AMENDED. IN THE EVENT OF A CONFLICT IN THE CITED SPECIFICATIONS THE COA STANDARD SPECIFICATIONS SHALL
- 2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE & VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS AND CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM DELAY. SEE NOTE 17.
- 4. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE @ 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 5. CONTRACTOR SHALL SUPPORT ALL EXISTING UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR ALL SUPPORTING WORK SHALL BE INCIDENTAL COSTS, AND NO SEPARATE PAYMENT WILL BE ALLOWED.
- 6. CONSTRUCTION OCCURRING WITHIN AN ARTERIAL ROADWAY REQUIRES TWENTY-FOUR HOUR A DAY CONSTRUCTION.
- 7. CONTRACTOR SHALL CONDUCT OPERATIONS IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY, AND TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS. CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS. THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADHERE TO SECTION 19 (CONSTRUCTION TRAFFIC CONTROL) OF THE GENERAL CONDITIONS OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION AS AMENDED.
- 8. PROPOSED WATERLINE MATERIALS SHALL BE EITHER P.V.C. PIPE MEETING AWWA C900 REQUIREMENTS (6" AND 8" DIAM.) OR DUCTILE IRON PIPE, THICKNESS CLASS 50 (12" DIAM.).
- 9. THE CONTRACTOR AGREES THAT IT SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER & ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

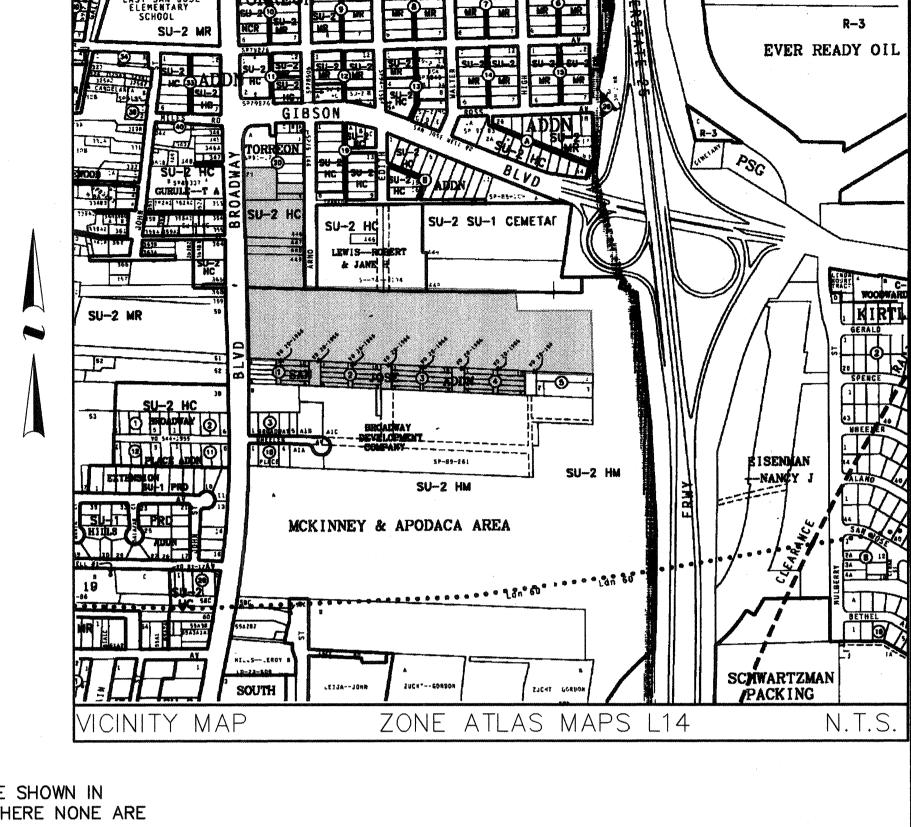
10. FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY CITY OF ALBUQUERQUE BARRICADE ENGINEER (768-2551) PRIOR TO WORK ON ANY STREETS. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED AS EXISTING OR AS INDICATED BY THIS PLAN SET. THE CONTRACTOR SMALL ASSUME CURB AND GUTTER, DRIVEPADS, WHEELCHAIR RAMPS AND SIDEWALK DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE ANY DAMAGE PER CITY OF ALBUQUERQUE STANDARDS AT HIS OWN EXPENSE.

GENERAL NOTES

- 11. CONTRACTOR SHALL PROMPTLY CLEAN UP ANY EXCAVATED MATERIAL DEPOSITED OUTSIDE THE LIMITS OF CONSTRUCTION SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED OUT OF THE CONSTRUCTION ZONE.
- 12. CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF RECORD DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN OBTAINED AND RECORDED.
- 13. EXISTING PAVEMENT, CURB AND GUTTER NOT CALLED OUT TO BE REMOVED UNDER THE CONTRACT AND WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 14. ALL FITTINGS ON WATERLINES SHALL HAVE JOINT RESTRAINTS IN ACCORDANCE WITH THE JOINT RESTRAINT LENGTHS SHOWN ON THE PLANS, AND WILL HAVE LOCKED MECHANICAL JOINTS.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND MAINTAINING ALL EXISTING MONUMENTATION CONTROLS. IN THE EVENT OF INADVERTENT DESTRUCTION OR ALTERATION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE CITY CHIEF SURVEYOR.
- 16. PNM (PUBLIC SERVICE CO. OF NEW MEXICO) WILL PROVIDE AT NO COST TO THE CITY OR TO THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.

17. ** WARNING ** - EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS. AND THE INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.

THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM HIMSELF OF THE RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES. THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES, IN PLANNING AND CONDUCTING EXCAVATION, WHETHER BY CALLING THE LINE LOCATING SERVICE (SEE NOTE 4), OR NOTIFYING THE UTILITIES, COMPLYING WITH "BLUE STAKES" PROCEDURES, OR OTHERWISE.



- 1. COVER SHEET & GENERAL NOTES
- 2. TURNING LANE PLAN
- 3. ARNO ST. WATERLINE
- 4. BROADWAY BLVD. FIRE HYDRANT

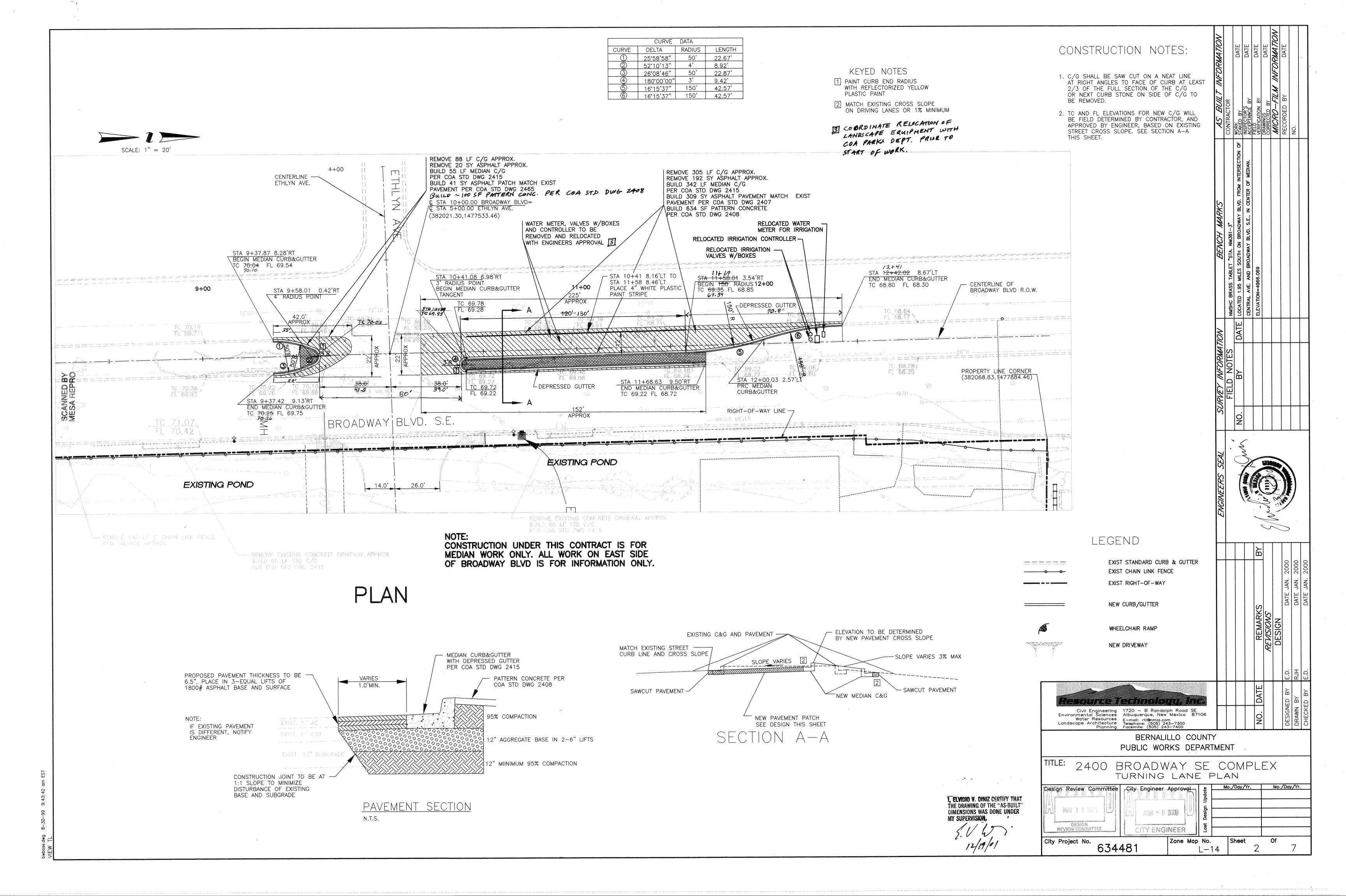
e-nure retributed. Int

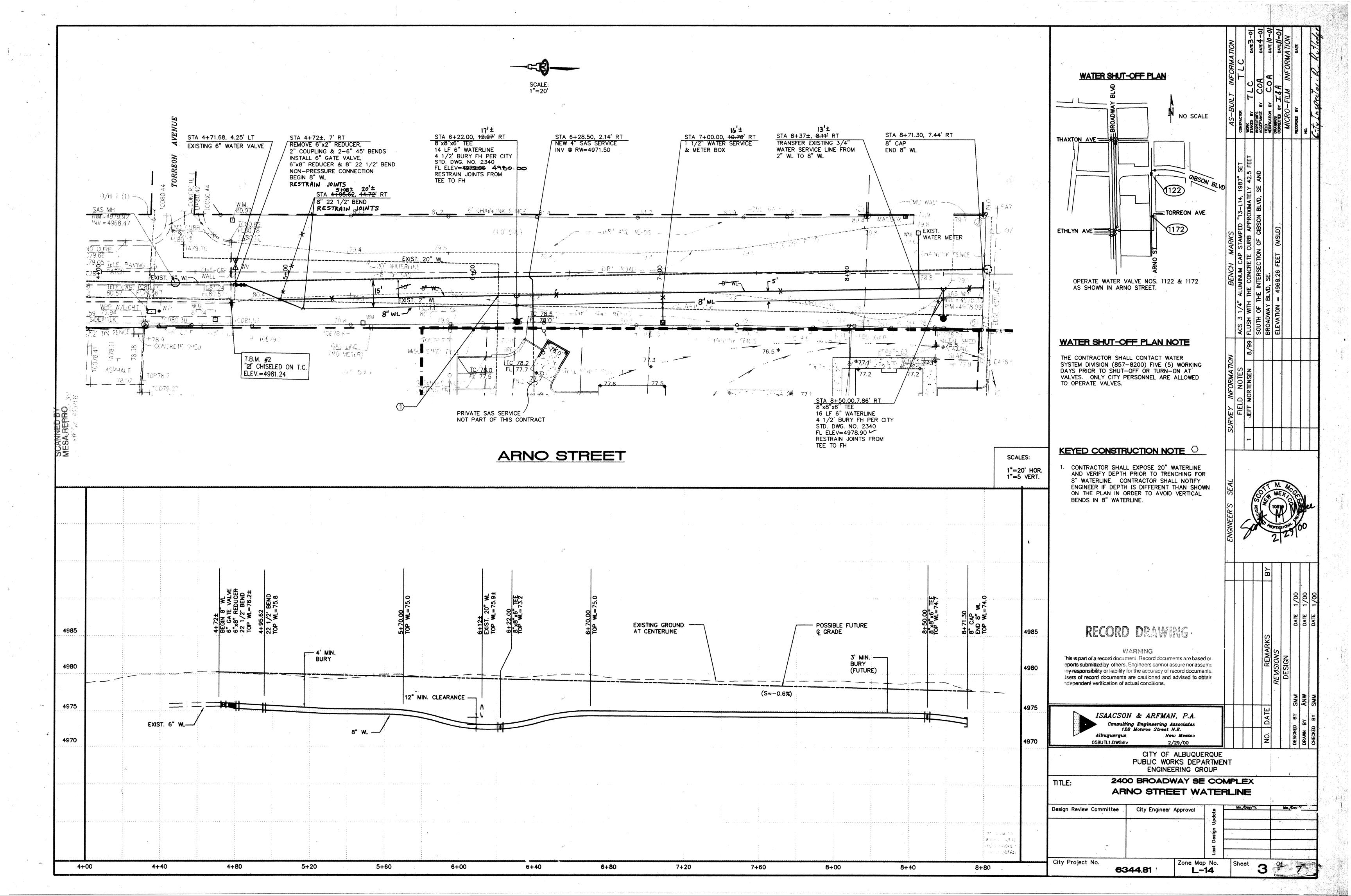
- 5. TRAFFIC CONTROL PLAN
- 6. TRAFFIC CONTROL DETAILS
- 7. TRAFFIC CONTROL DETAILS

PPROVAL OF RECORD DRAWINGS CHIEF CONSTRUCTION ENGINEER

ENGINEERS AND ENVIRONMENTAL SCIENTIST CIVIL . ENVIRONMENTAL . WATER RESOURCES . RECREATION . PLANNING USER DEPARTMENT REV. SHEET CITY ENGINEER DATE USER DEPARTMENT DATE DATE ENGINEERS STAMP & SIGNATURE APPROVALS ****** APPROVED FOR CONSTRUCTION **Fransportation** Water/Wastewater XI/A Illuray Hydrology Toge A Thee City Engineer Const. Mngmt. 8/8/00 3/29/00 Bub. Constr. Coord. City Project No. Of Sheet 634481

, ELVIDIO V. DINIZ CERTIFY THAT HE DRAWING OF THE "AS-BUILT" DIMENSIONS WAS DONE UNDER MY SUPERVISION. 1 1





TYPICAL RIGHT LANE CLOSURE

TAPER REQUIREMENT

SPEED	TAP	ER LENGT (FEET)	H(L)	MINIMUM NUMBER OF	MAXIMUM DEVICE SPACING IN FEET		
(MPH)	10' LANE	11' LANE	12' LANE	DEVICES FOR TAPER	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	4 50	495	540	13	45	45	
50	500	550	600	13	50	50	
55	550	605	660	13	55	55	

TERMINATION AREA WORK ZONE BUFFER SPACE 1/2 L ADVANCE WARNING AREA

LEGEND

WORK AREA

BARRICADE - TYPE I, TYPE II, OR BARREL

TRAFFIC CONTROL ELEMENTS

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 STREET LIMIT OF THE STREET TAPER LENGTH - SEE CHART BELOW

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

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

SPEED MILES			MINIMU		TANC		IN FEET	
PER HOUR			SIGN				GN TO	
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
DOWNSTREAM TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

SPEED LIMIT

40 MPH OR LESS

40 MPH OR GREATER L = W x S

L = TAPER LENGTH

W = WIDTH OF OFFSET IN FEET

S = POSTED SPEED OR OFF-PEAK 85-PERCENTILE SPEED IN MPH

TRAFFIC CONTROL FOR FIRE HYDRANT CONSTRUCTION

FL EL=70.43 71.00

NON-PRESSURE CONNECTION

RESTRAINED JOINT LENGTHS FOR WATERLINE FITTINGS

THIS TABLE IS BASED UPON THE FOLLOWING CRITERIA:

3.0 FT. MINIMUM FACTOR OF SAFETY 1.25

MATERIAL

BY THE PUBLIC WORKS DEPARTMENT.

GM/SM - SILTY GRAVELS AND SILTY SANDS, GRAVEL-SAND-SILT MIXTURES. SOIL TYPE:

TEST PRESSURE 150 PSI

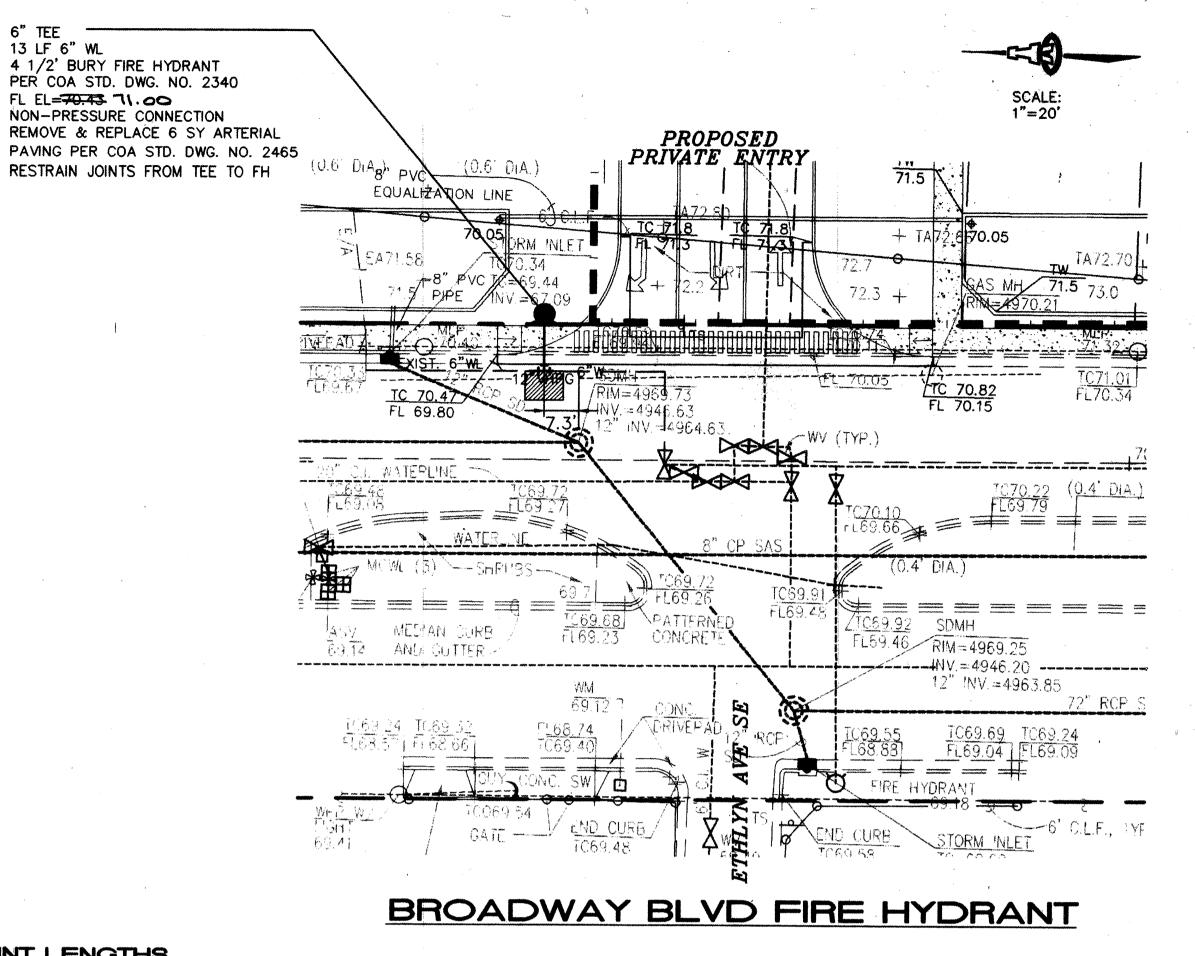
TRENCH TYPE 4: PIPE BEDDED IN SAND, GRAVEL, OR CRUSHED STONE TO DEPTH OF 1/8 PIPE DIAMETER, 4 INCH

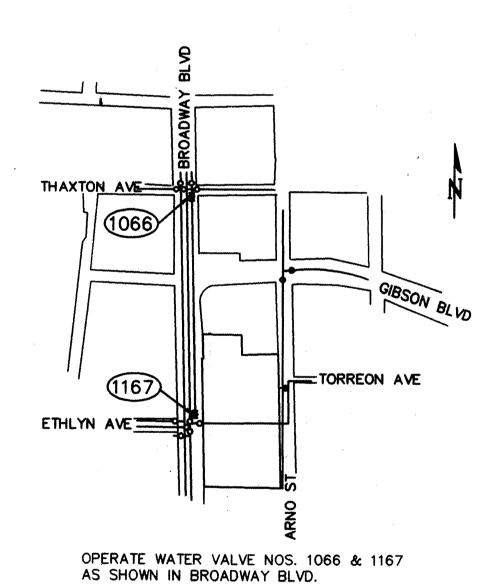
MINIMUM; BACKFILL COMPACTED TO TOP OF PIPE. DIFFERENT CRITERIA, E.G., DUCTILE IRON PIPE, GREATER DEPTH OF BURY, ETC., WILL REQUIRE DIFFERENT RESTRAINED LENGTHS. THESE MUST BE CALCULATED BY A QUALIFIED PROFESSIONAL ENGINEER AND APPROVED

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

	FOR HO	XIZONTA	DINT LENGT AL BENDS, ENDS, (F	VALVES.	
		HORZ.	BENDS		VALVES &
SIZE	90.	45°	22 1/2	11 1/4°	DEAD ENDS
12	30	12	6	3	85
10	26	11	5	3	72
8	22	9	4	2	60
6	17	7	3	2	46
4	12.	5	2	1	32

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





WATER SHUT-OFF PLAN

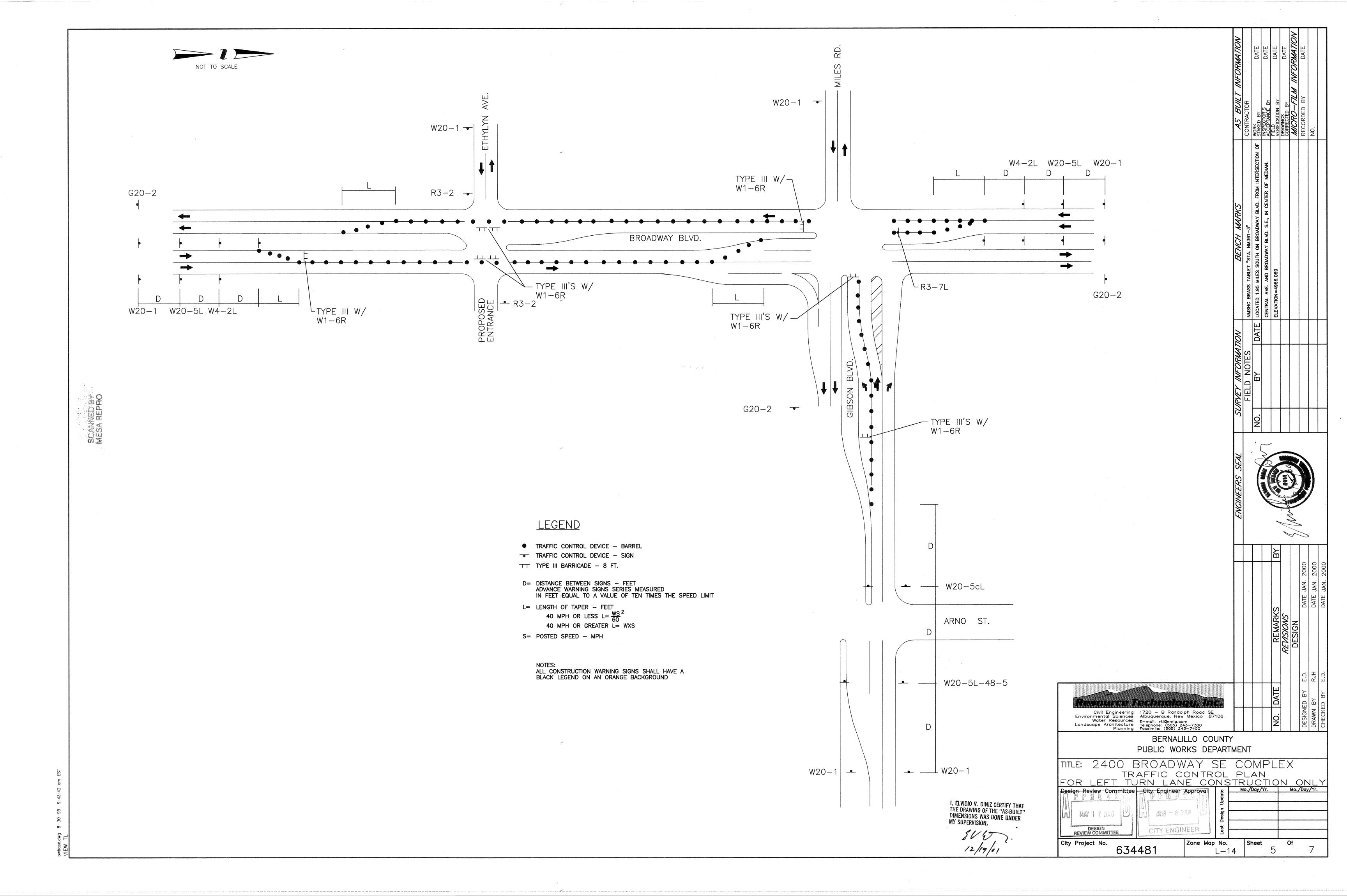
NO SCALE

WATER SHUT-OFF PLAN NOTE

THE CONTRACTOR SHALL CONTACT WATER SYSTEM DIVISION (857-8200) FIVE (5) WORKING DAYS PRIOR TO SHUT-OFF OR TURN-ON AT VALVES. ONLY CITY PERSONNEL ARE ALLOWED TO OPERATE VALVES.

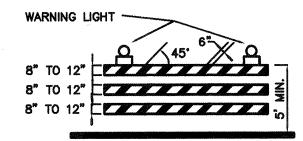
his is part of a record document. Record documents are based on reports submitted by others. Extended annot assure nor assume any responsibility or liability for this angulacy of record documents. Isers of record documents are calledned and advised to obtain dependent verification of actual conditions.

ISAACSON & ARFMAN, P.A. Consulting Engineering Associates 128 Monroe Street N.E. New Mexico 058UTL1.DWGdlv CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP 2400 BROADWAY SE COMPLEX TITLE: BROADWAY BLVD FIRE HYDRANT Design Review Committee City Engineer Approval City Project No. Zone Map No. 6344.81 L-14



- 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 7:00 A.M. OR END WORK AFTER 7:00 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. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER
- 23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.
- 24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.
- 25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.
- 26. ADVANCE WARNING SIGNS SHALL BE 36"x36" WITH SUPER ENGINEERING GRADE SHEETING OR BETTER.
- 27. CONTRACTOR MUST MAINTAIN AT LEAST ONE LANE IN EACH DIRECTION ON BROADWAY BLUD. AT ALL TIMES
- 28. CONTRACTOR MUST PERFORM AS MUCH AS POSSIBLE BEHIND EXIST C \$6 PRIOR TO AFFECTING TRAFFIC
- 29. THIS PROJECT IS SUBJECT TO ARTERIAL/COLLECTOR ROAD USAGE FEEL OF \$ 0.01 PER SF PER DAY OF BARRICADED AREA
- WHEN POSSIBLE, AND ROADWAY LANES ON BROADWAY BLYD. SAFE TO OPEN TO TRAFFIC CONTRACTOR SHALL REMOVE ML BARRICADES FROM CLOSED LANES, AND OPEN LANES TO PUBLIC TRAFFIC
- 31. WHEN LANES ON BROADWAY BLUD. MUST REMAIN CLOSED TO TRAFFIC, CONTRACTOR MUST WORK MINIMUM HOURS FROM 7:00 AM TO 7:00 PM, MONDAY THRU SATURDAY, UNTIL ALL LANES ARE OPENED TO TRAFFIC.



TYPE III BARRICADE

WARNING LIGHT

WARNING LIGHT

8" TO 12"

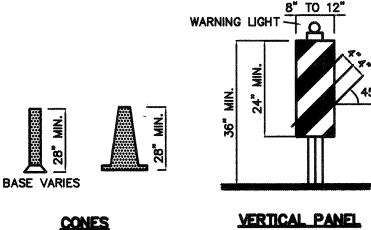
8" TO 12"

TYPE II BARRICADE

COLLAPSIBLE

8" TO 12"

COLLAPSIBLE



HIGH LEVEL

BUFFER SPACE

TYPE III /

R11-2a

TRAFFIC CONTROL ELEMENTS

W1-6(L) TAPER AREA

TERMINATION AREA

WORK ZONE

ADVANCE WARNING AREA

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	TAP	ER LENGT (FEET)	ዝ (L)	MINIMUM NUMBER	MAXIMUN SPACING	DEVICE IN FEET
(MPH)	10' LANE	11' LANE	12' LANE	OF DEVICES FOR TAPER	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		TANCE IN FEET
MILES PER HOUR	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 1/2 L MINIMUM SHIFTING TAPER 1/2 L MINIMUM SHOULDER TAPER TWO-WAY TRAFFIC TAPER 100 FEET MAXIMUM

DOWNSTREAM TAPERS 100 FEET PER LANE

TAPER LENGTH COMPUTATION

SPEED LIMIT 40 MPH OR LESS

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

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP TITLE: TYPICAL TRAFFIC CONTROL & SIGNING EXAMPLES (REF. M.U.T.C.D.) MO./DAY/YR. MO./DAY/YR. DESIGN REVIEW COMMITEE | CITY ENGINEER APPROVAL

OF

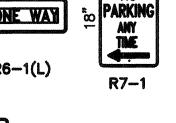
SHEET PROJECT NO.

AHĖAD 30 MPH or LESS TWO LANES CLOSED AHEAD ROAD CLOSED AHEAD ROAD ONE LANE ROAD AHEAD CLOSED AHEAD DETOUR W20-7a WI-4bR REDUCED SPEED AHEAD KEEP RIGHT R4-7b SPEED LIMIT 50 KEEP LEFT LANE AMETD MUST Turn left MUST LEFT R3-7(L) R4-7b(L) R2-5b R3-7(R) R3-3 ROAD CLOSED TO THRU TRAFFIC LANE CLOSED ROAD EŅD DETOUR DETOUR DO NOT PARKING ANY TIME CONE WAY **CONE WAY** CLOSED DETOUR WAY ENTER

SIGN FACE DETAILS

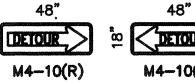
R6-1(L) R6-1(R)R5-1 R5-1a

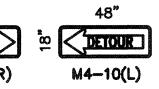
SPECIAL



R11-2

R11-2a





60" END CONSTRUCTION G20-2

M4-9(R)

M4-9(L)

ACCESS TO BE PREPARED TO ALL CONSTRUCTION WARNING SIGNS THRU TRAFFIC KEEP SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND. SPECIAL SIGN SPECIAL

