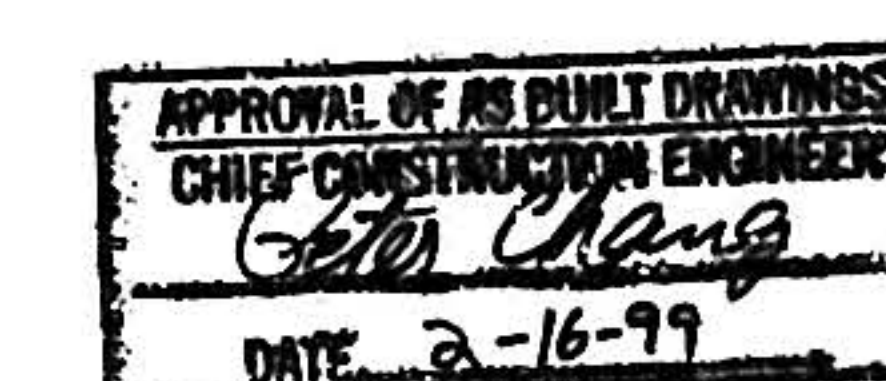
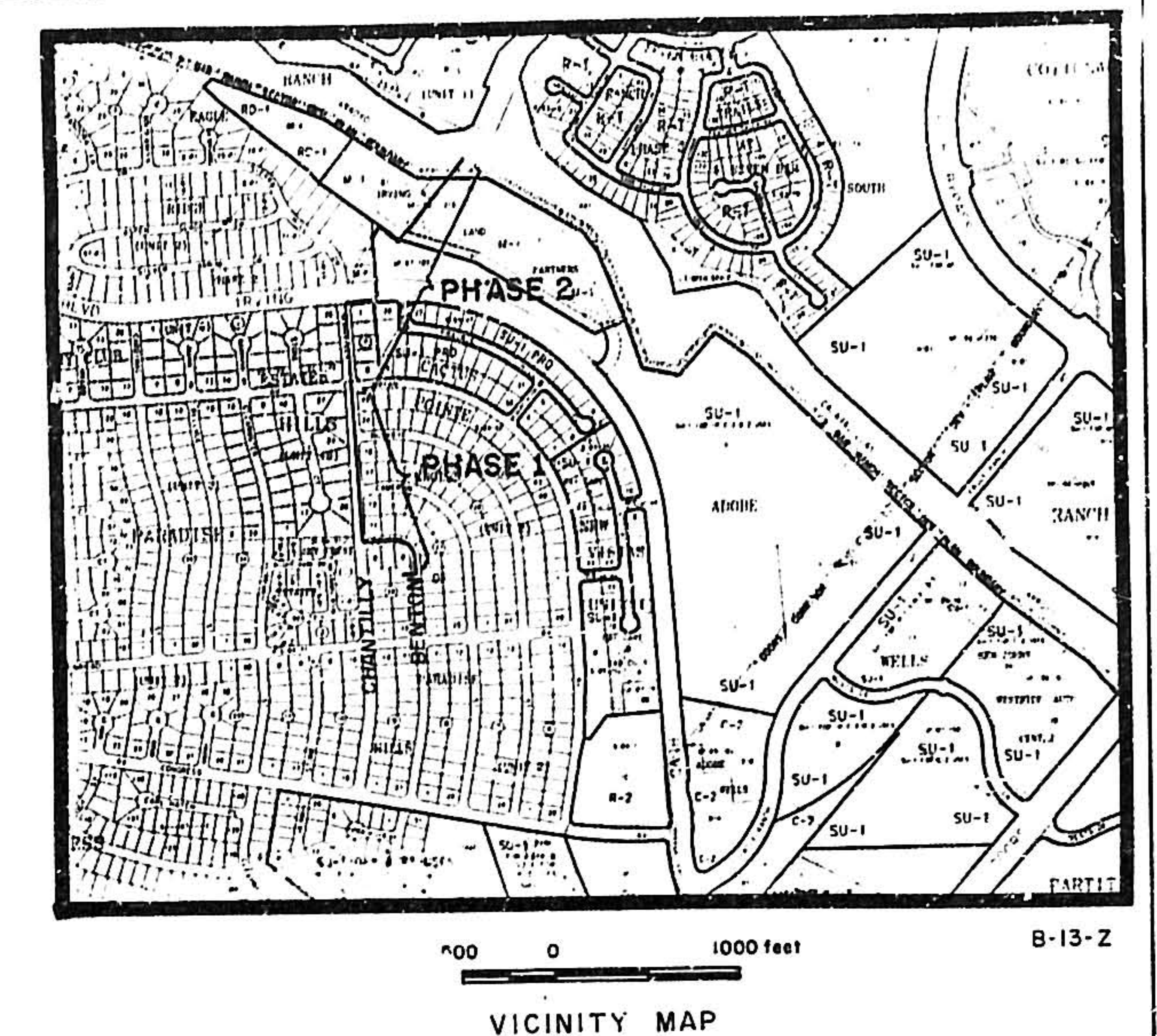


CONSTRUCTION PLANS
for
GROUNDWATER POLLUTION RECOVERY
PHASE 1 PIPELINE

ALBUQUERQUE, NEW MEXICO

October, 1998



SHEET
NUMBER

INDEX

- | | |
|---|--|
| 1 | Title Sheet |
| 2 | General Notes, Standard Notes, and Specific Notes |
| 3 | Plan and Profile |
| 4 | Detail Sheet |
| 5 | Typical Traffic Control and Signing Examples |
| 6 | Signing and Construction Traffic Control Standards |

METRIC
Corporation
8429 WASHINGTON PLACE NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87113
Phone: (505) 828-2801
Fax: (505) 828-2803

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER	DATE	APPROVED FOR CONSTRUCTION	
		DRC Chairman		Billy J. Hopkins	10-30-98		
		Transportation		R.W. Kone	10-30-98		
		Water/Wastewater		R.W. Kone	10-30-98		
		Hydrology		R.W. Kone	10-30-98		
		NMUI		R.W. Kone	10-30-98		
Constr. Mngmt.		R.W. Kone	10-30-98	City Engineer		Date	
Constr. Coord.		R.W. Kone	10-30-98	Sheet		Of	
City Project No.		599981		1		6	

GENERAL NOTES

- 1. CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS AMENDED THROUGH UPDATE 6, WILL BE REFERRED TO HEREIN AS THE "STANDARD SPECIFICATIONS".
- 2. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) AND DETERMINE LOCATION OF EXISTING UTILITIES.
- 3. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR THE SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITHOUT DELAY.
- 4. ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC., WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED AND RE-SET BY THE CONTRACTOR.
- 5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
- 6. FIVE (5) 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.

- 7. ANY WORK OCCURRING WITHIN AN ARTERIAL ROADWAY REQUIRES 24 HOURS CONSTRUCTION.

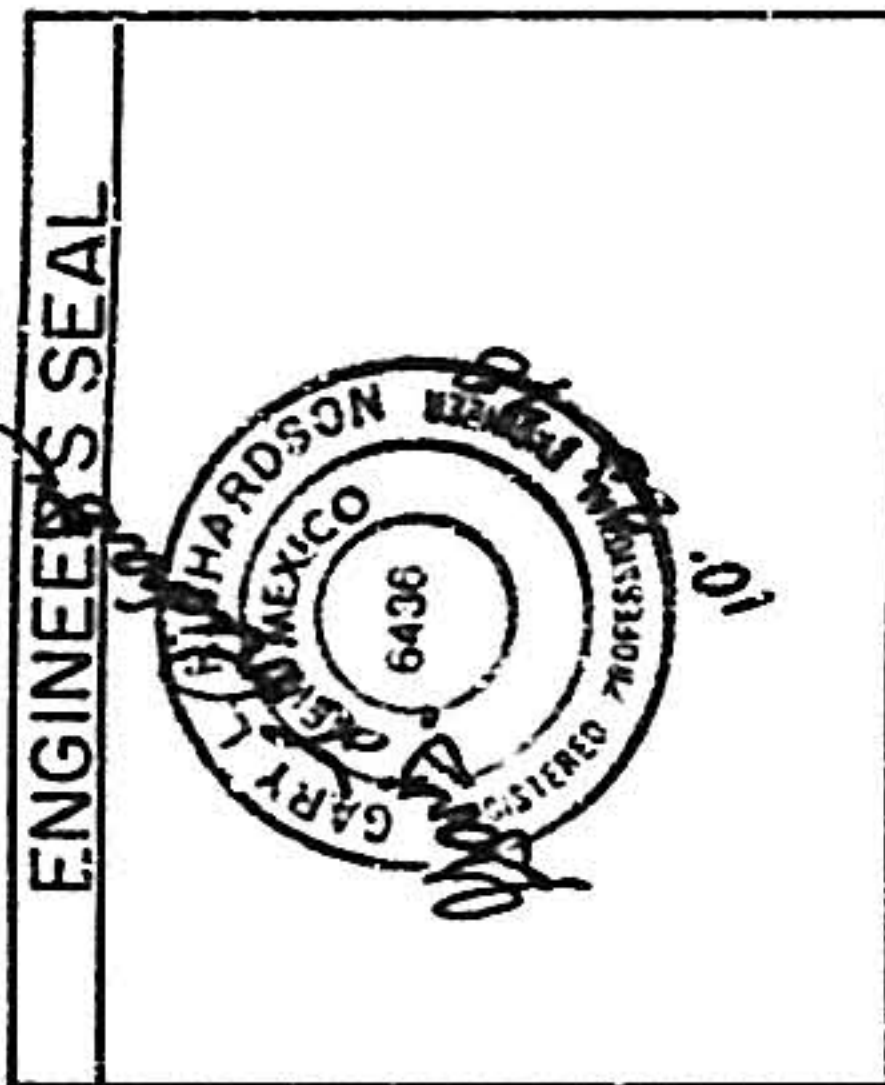
- 3. CONSTRUCTION SHALL BE PURSUANT TO AND COMPLY WITH THAT CERTAIN LICENCE AGREEMENT DATED AUGUST 20, 1998 BETWEEN SPARTON TECHNOLOGY INC. AND CITY OF ALBUQUERQUE RECORDED AUGUST 20, 1998 IN BK-9814 AT PAGE 3110 AS DOCUMENT #1999104872 RECORDS OF BERNALILLO COUNTY CLERK, BERNALILLO COUNTY, NM.

STANDARD NOTE

- 1. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, HANDICAP RAMPS AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE, PER CITY OF ALBUQUERQUE STANDARDS, AT HIS OWN EXPENSE.

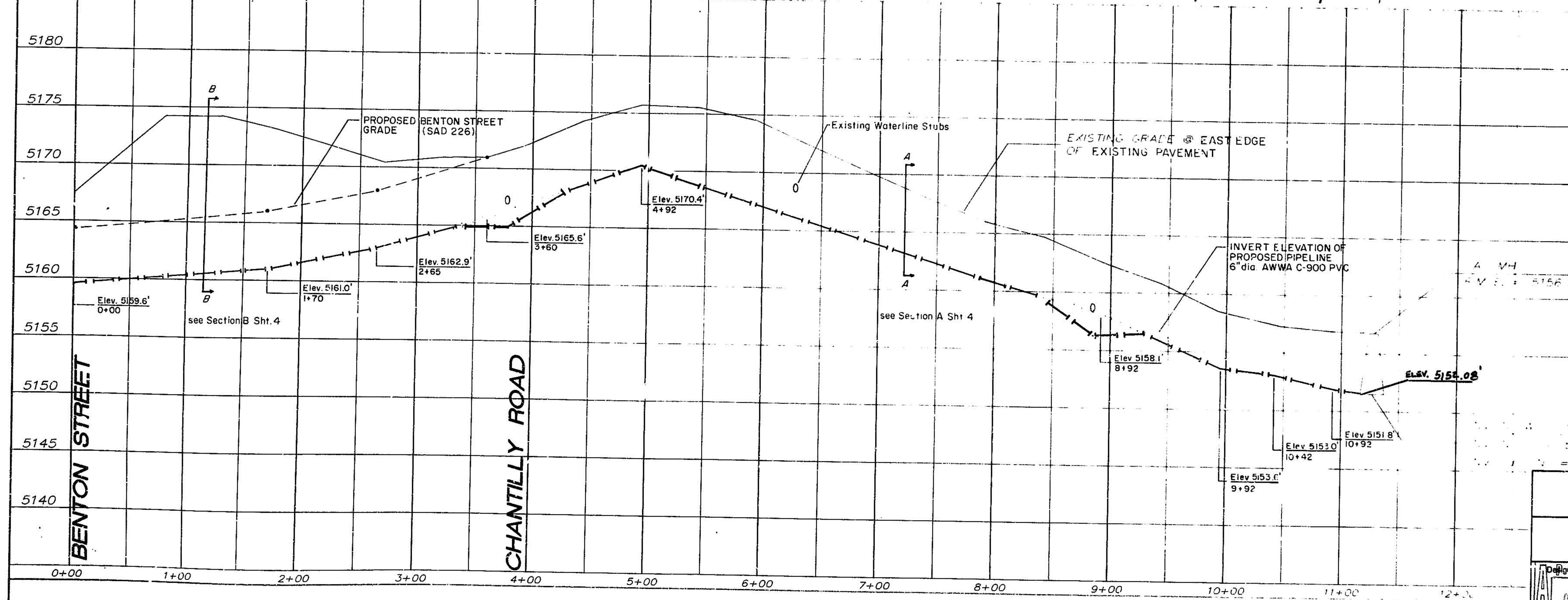
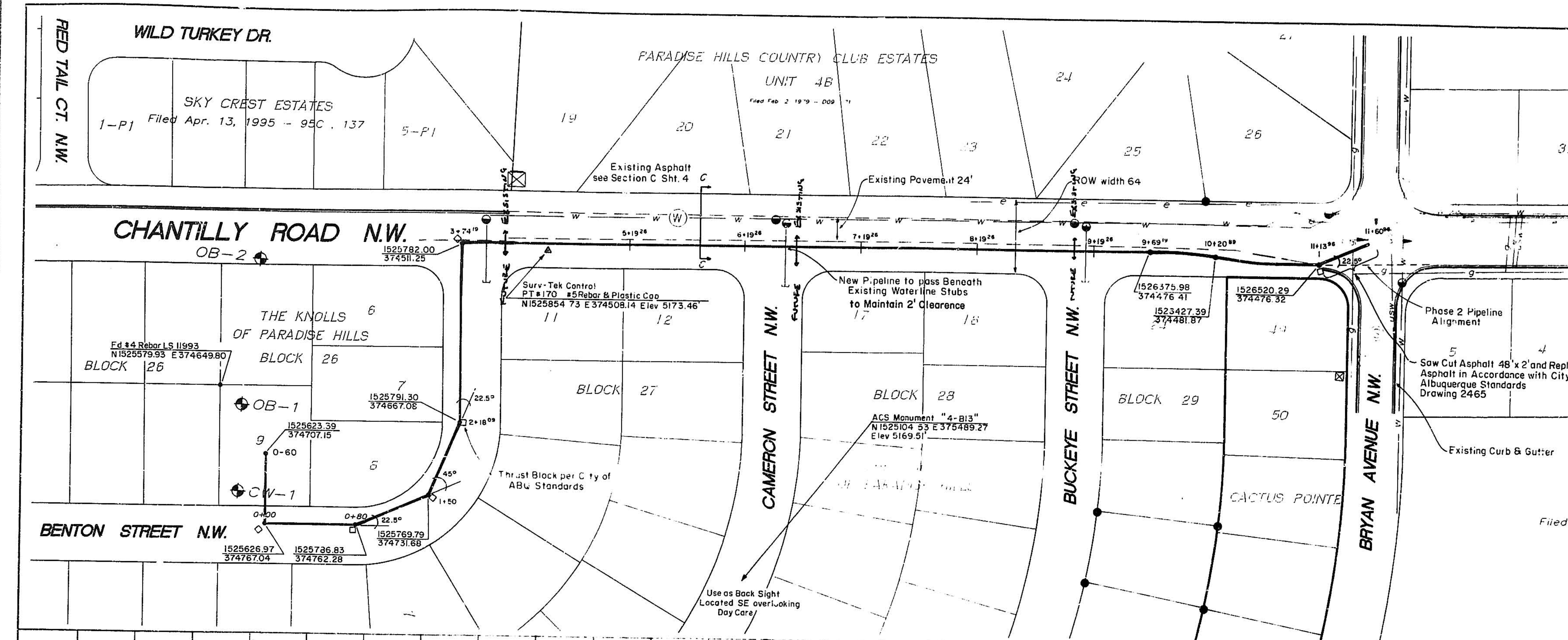
SPECIFIC NOTES

- 1. ALL EXCAVATION TO CONFORM WITH OSHA STANDARDS.
- 2. THE INITIAL PURPOSE OF THIS PIPELINE IS TO TRANSPORT CONTAMINATED GROUNDWATER FROM THE CONTAINMENT WELL LOCATED ON LOT 9, BLOCK 26, THE KNOLLS OF PARADISE HILLS. THE PIPELINE SHALL BE CONSTRUCTED TO ALLOW FOR NO LEAKAGE INTO ADJACENT CITY RIGHT OF WAY. THE CONTRACTOR SHALL TEST THE PIPELINE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS SECTION 801.16. IF ANY LEAKAGE OCCURS DURING THE 2 HOUR TEST PERIOD, AND IS WITHIN THE ALLOWABLE LEAKAGE SPECIFIED IN CITY STANDARD SPECIFICATIONS SECTION 801.16, THE CONTRACTOR WILL RETEST THE LINE. IF THE SECOND TEST SHOWS LESS LEAKAGE THAN THE FIRST TEST, THE LINE WILL BE CONSIDERED TO HAVE NO LEAKAGE.



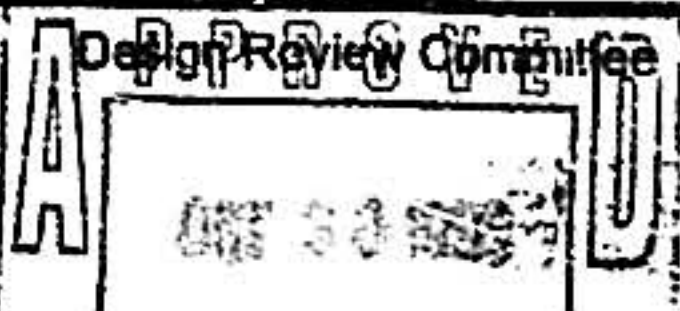
METRIC Corporation
8429 WASHINGTON PLACE NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87113
Phone: (505) 828-2801
Fax: (505) 828-2803

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: GROUNDWATER POLLUTION RECOVERY PHASE 1 PIPELINE GENERAL NOTES, STANDARD NOTES, AND SPECIFIC NOTES Sparton Technology, Inc.			
Design Review Committee APPROVED DESIGN REVIEW COMMITTEE	City Engineer Approval	Mo. Appr. 10/22/98	Mo. Appr.
City Project No. 599981	Zone Map No. 6-13-Z	Sheet 2	Of 6

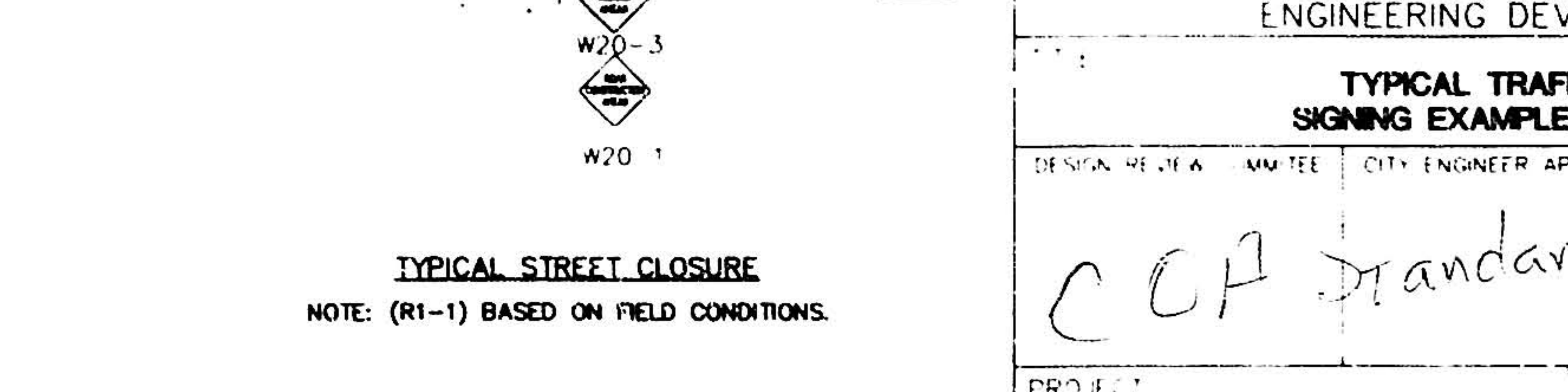
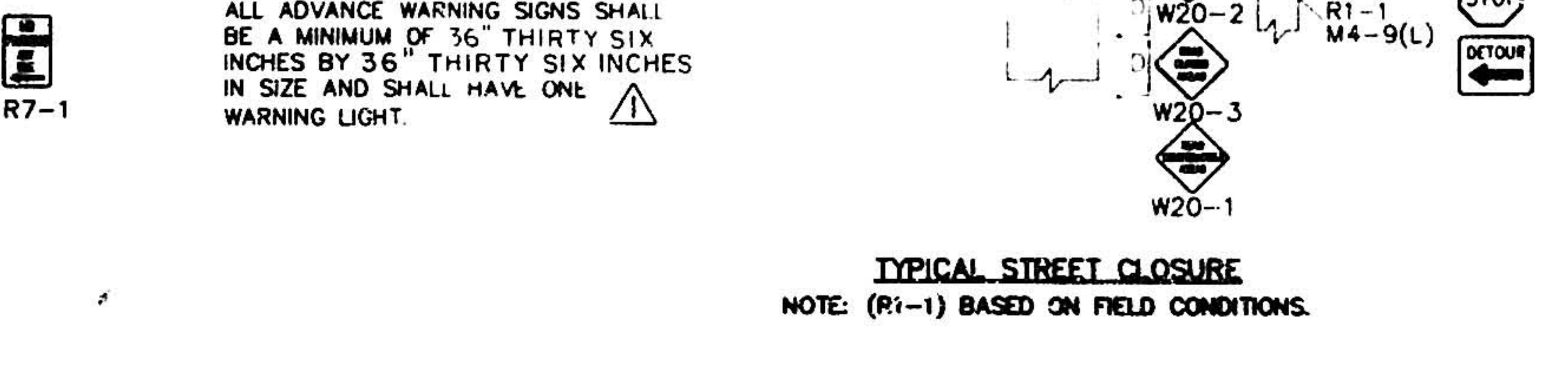
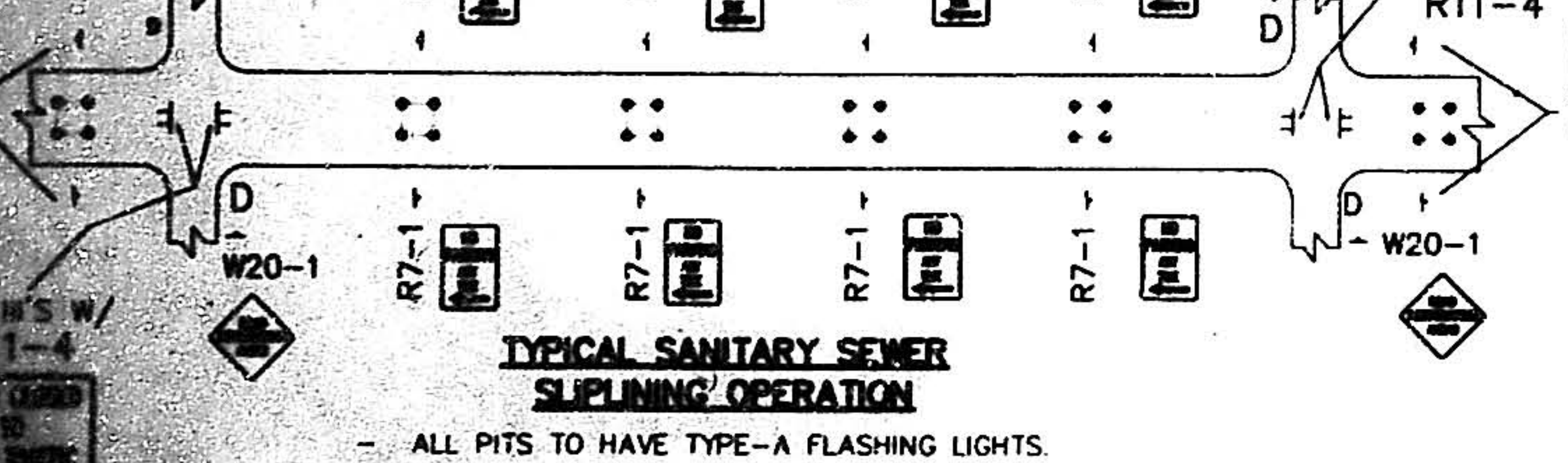


HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

METRIC Corporation
8429 WASHINGTON PLACE NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87113
Phone: (505) 828-2801
Fax: (505) 828-2803

GROUNDWATER POLLUTION RECOVERY PHASE 1 PIPELINE PLAN & PROFILE Sparten Technology, Inc.	
City Project No. 599981	Zone Map No. B-13-Z
City Engineer Approval 	Last Design Update 10/22/98 10/30/98
Design Review Committee 	Sheet 3 of 6

COA INSPECTOR: RUBEN ORTIGA AS BUILT INFORMATION	
CONTRACTOR: RASPEKAS PUEBLOS DESIGNED BY: COA SUBMIT DATE: 2-98 PREPARED BY: COA DATE: 2-98 FIELD CHECKED BY: COA DATE: 2-98 CHECKED BY: COA DATE: 2-98 MICRO-FILM INFORMATION RECORDED BY: DATE:	NO.
SURVEY INFORMATION FIELD NOTES NO. BY DATE	
ENGINEER'S SEAL 	
REMARKS REVISIONS DESIGN	NO. DATE BY



TYPICAL SANITARY SEWER SUSPENDING OPERATION

STREET CLOSURE

BASED ON FIELD CONDITIONS

TYPICAL STREET CLOSURE
E: (R1-1) BASED ON FIELD CONDITIONS.

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

ALL ADVANCE WARNING SIGNS SHALL BE A MINIMUM OF 36" THIRTY SIX INCHES BY 36" THIRTY SIX INCHES IN SIZE AND SHALL HAVE ONE WARNING LIGHT.



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

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

[illegible]

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 FROM 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 DURATION 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 IS ONE LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.
10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED AT 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 TRAVELING TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE BUFFER ZONE CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.
15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFUSING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.
16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND HOME 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 A 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 OCCUPANCY 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.

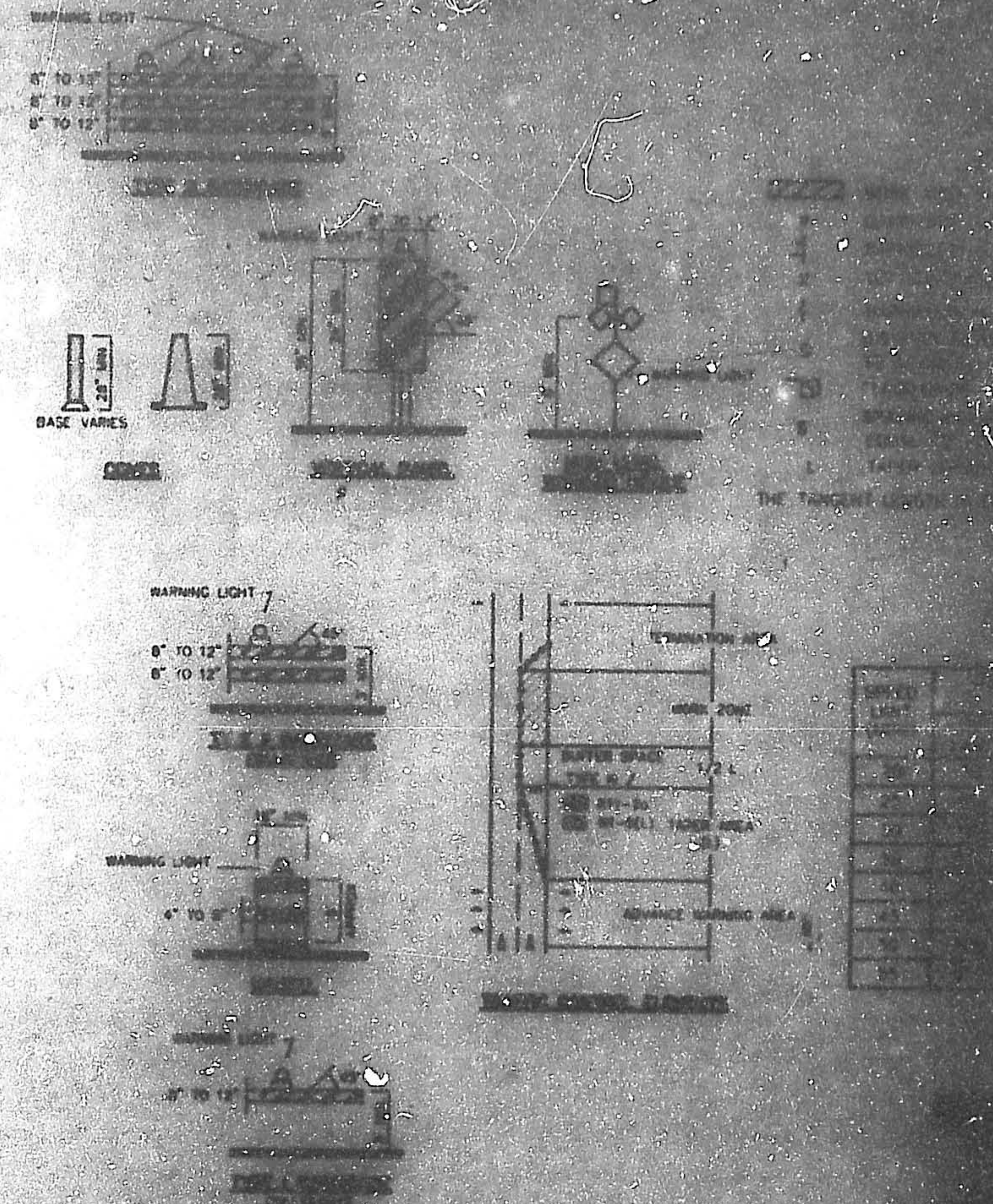
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.

24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW, CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO ITS PLACEMENT AND MAINTENANCE.

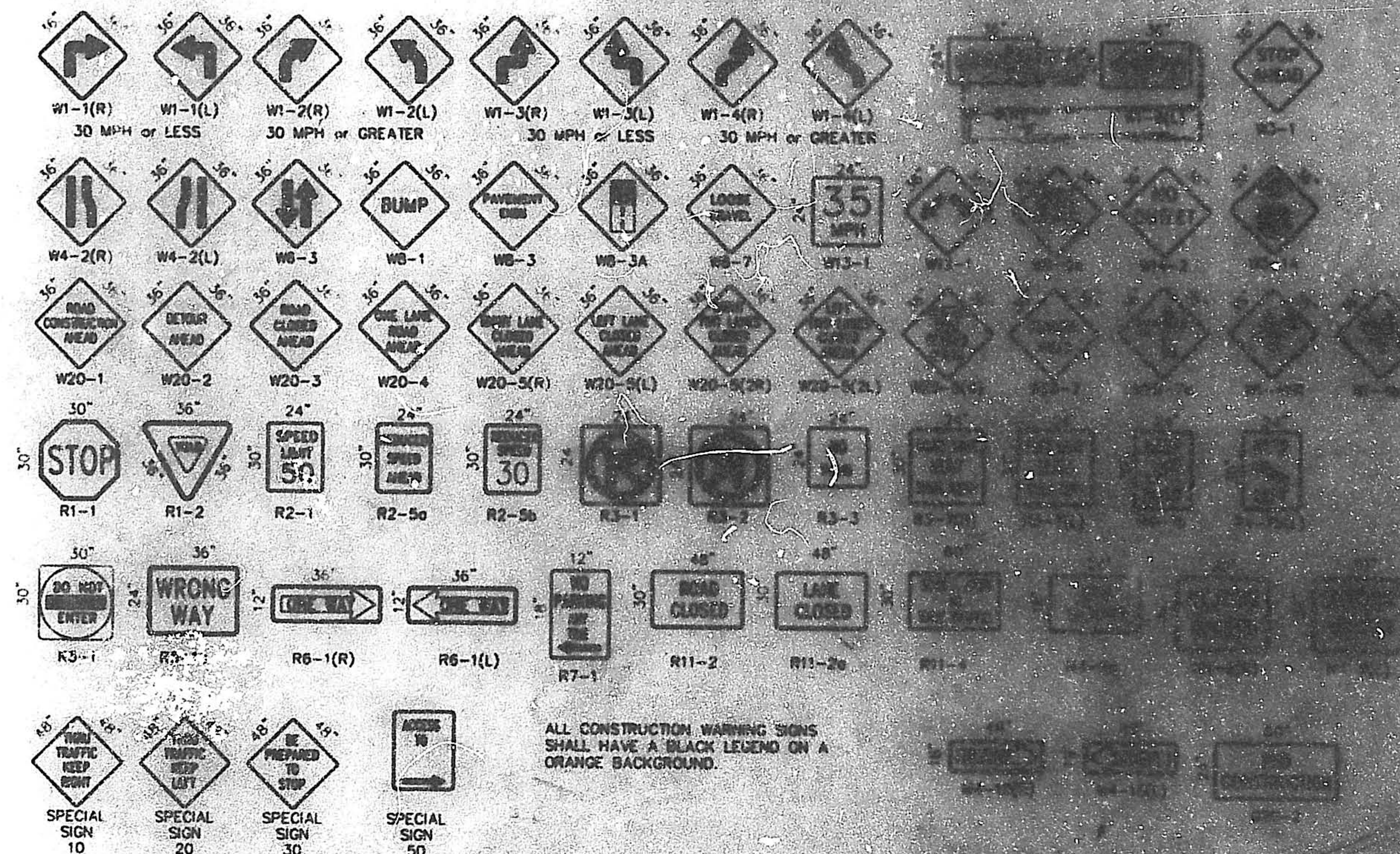
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.

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 MUTCD. 

27. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORKSITE. ALL GRAFFITI SHALL BE PROMPTLY REMOVED FROM ALL EQUIPMENT, BOTH PERMANENT AND TEMPORARY. 



SIGN FACE DETAILS



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

1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION DEPARTMENT AN EXCAVATION/BARRICADING PERMIT BEFORE ENTERING ANY HIGHWAY FOR MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ARLINGTON'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESENT A TRAFFIC HAZARD IS EXCLUDED WITH THE UNDERSTANDING THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.

2. CONTRACTOR SHALL, AT THE TIME OF PERMIT APPLICATION, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION A TRAFFIC CONTROL PLAN, DETAILING ALL EXISTING TOPOGRAPHY, EXISTING AND PROPOSED DRIVEWAYS AND BUSINESS/RESIDENTIAL ACCESSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND PROPOSED TRAFFIC CONTROL DURING CONSTRUCTION PROJECT. ANY SEPARATE TRAFFIC CONTROL PLAN FOR THE PROJECT SHALL BE GIVEN AN ADDITIONAL PERMIT NUMBER. ALL TRAFFIC PERMITS WILL NOT BE ISSUED.

3. THESE TYPICAL TRAFFIC PATTERNS AND TOPOGRAPHY, SUCH AS DRIVEWAYS AND WALLS, SHALL BE RECORDED ON THE ACCESSSES. EVERY LOCATION THAT WILL BE AFFECTED BY THE PROPOSED CONTROL SHALL HAVE A PLAT OF RECORD DRAWN TO SHOW THE EXISTING TOPOGRAPHY.

4. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE
BIDDING APPROVAL AND SHALL BE IN ACCORDANCE WITH THE

5. CONSTRUCTION COORDINATION: THE PROJECT TEAM SHALL COORDINATE ALL CONSTRUCTION AND TRAFFIC CONTROL CHANGES WITH THE LOCAL AGENCY. ANY CHANGES TO THE PROJECT SHALL BE PREVIOUSLY APPROVED BY THE LOCAL AGENCY. THE PROJECT TEAM SHALL SUBMIT ANY REQUESTED CHANGES IN WRITING ACCORDANCE WITH A STANDARD CHANGE ORDER PROCESS REFLECTING SUCH CHANGES.

6. ALL CONSTRUCTION TRAFFIC SHALL BE KEPT OFF THE ROADWAY AND
MANUAL OR INFORM TRAFFIC CONTROL SHALL BE USED TO MAINTAIN
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN
MAINTAIN ALL TRAFFIC CONTROL DEVICES, TRAFFIC SIGNALS, AND
SHALL NOT BE REMOVED OR A TERNALY, AND SHALL BE KEPT
CONSTRUCTION COORDINATION, PERMITTED BY THE AGENCY.
EDITION

97. THE CONSTRUCTION TRAFFIC SUPERVISOR IN A STATE MUST BE AN AMERICAN TRAFFIC SAFETY SERVICE (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND REPAIR WORKS MUST ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE SUPERVISOR OR AN EQUIVALENT.

B. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING
CONTROL DEVICES 24 HOURS A DAY. CONTRACTOR
PROJECT. CONTRACTOR IS RESPONSIBLE FOR
DEVICES COMPATIBLE WITH THE MOUNTAIN VIEW

9. ALL ADVANCE WARNINGS IN THE AREA OF THE BRIDGE ARE
THERE ARE MULTIPLE LANE TRAFFIC SIGNALS IN THE AREA
IS SUFFICIENT MEDIAN SPACE

10. ALL BARRIAGES IN A TAPERED AREA SHALL BE
APART A DISTANCE MEASURED IN THE TAPERED AREA
SPEED LIMIT, NO EXCEPTIONS, UNLESS A SPECIAL
COORDINATION PERMIT IS OBTAINED.

10. ALL WORK IN ARTERIAL ROADWAYS SHALL BE ON A 24 HOUR PER DAY BASIS UNTIL COMPLETED

12. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION, A WEEKLY MEETING WITH THE MAINTENANCE SCHEDULED ON THURSDAY.

13. EQUIPMENT OR MATERIALS: HAS THE CONTRACTOR A
A TRAVELLED TRAFFIC LANE BETWEEN THE
APPROVAL OF CONSTRUCTION, OR CAN IT

14. CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS OF CHANNELIZING WATER FROM THE CONSTRUCTION AREA.

15. CONTRACTOR IS RESPONSIBLE FOR THE STRIPING AND RESPONSIBLE FOR A

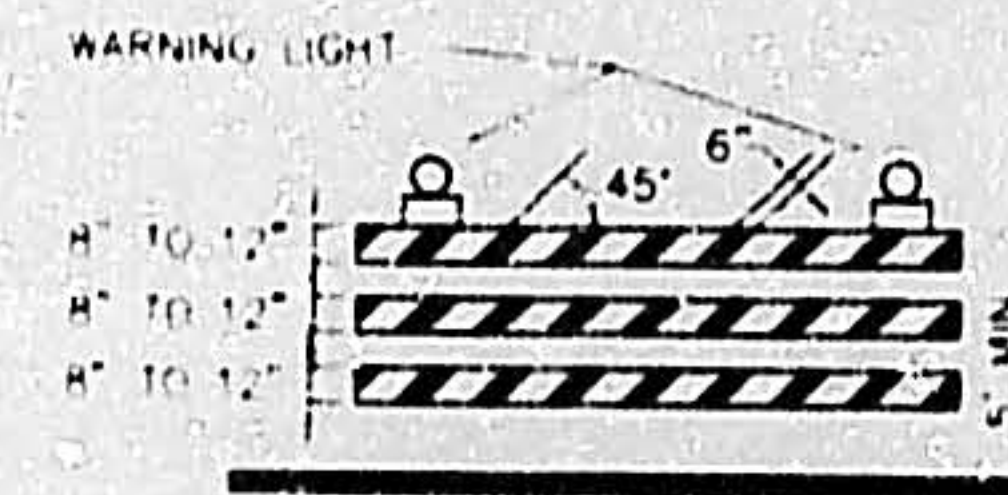
16. CONTRACTOR SHALL MAINTAIN AND/OR RESIDENTS AT ALL TIMES

[illegible]

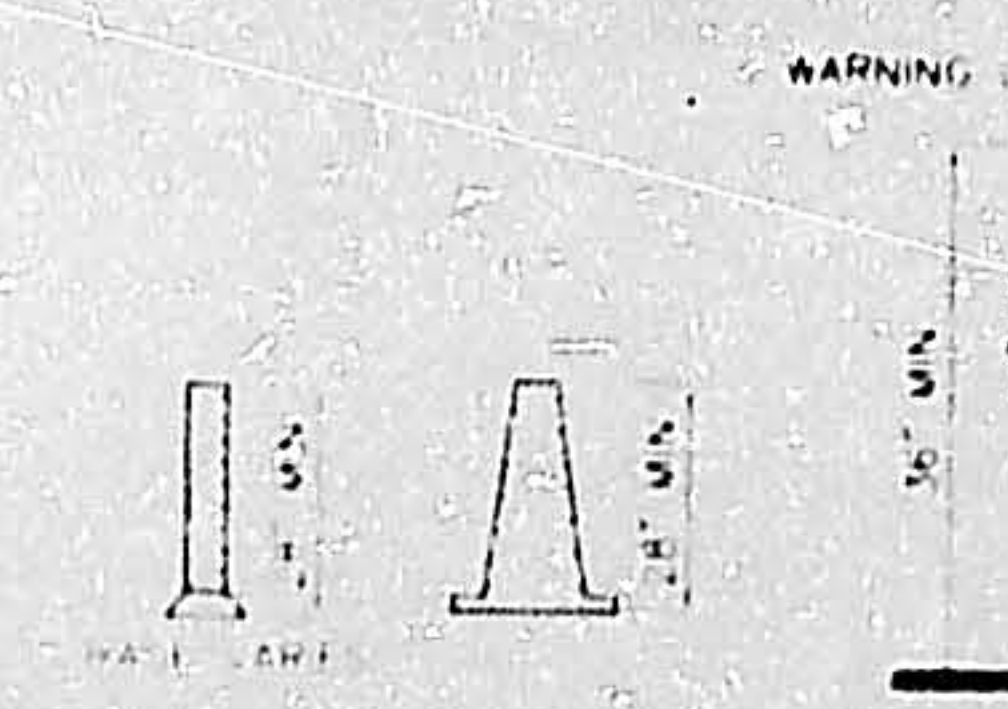
FOR ALL ADVANCE WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE
INTENSITY OF REMEDIATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE
CONSTRUCTION, MAINTENANCE, AND REPAIR OF THE REMEDIATION SYSTEM.
APPROVE OR REAPPROVE THE CONTRACTOR'S PROPOSAL FOR THE REMEDIATION
OF THE MUDIC LAKES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE

9-48 HOUR PRIOR TO THE DATE OF THE EVENT, THE CONTRACTOR SHALL NOTIFY ALL AFFECTED HOSPITALS, TRANSIT AND AIRPORTS THAT MAY BE AFFECTED BY THE EVENT.

ANFIELD, ARTHUR W. (1900-1970) - BORN IN NEW YORK CITY, NEW YORK. GRADUATED FROM THE UNIVERSITY OF THE SOUTH ALABAMA IN 1922. SERVED IN THE U.S. ARMY DURING WORLD WAR II. WORKED FOR THE U.S. DEPARTMENT OF AGRICULTURE. DIED IN NEW YORK CITY, NEW YORK.



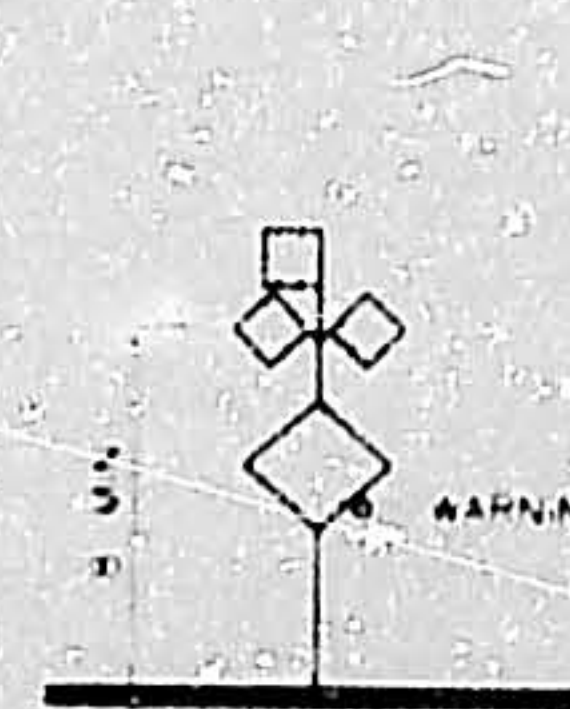
TYPE III BARRICADE



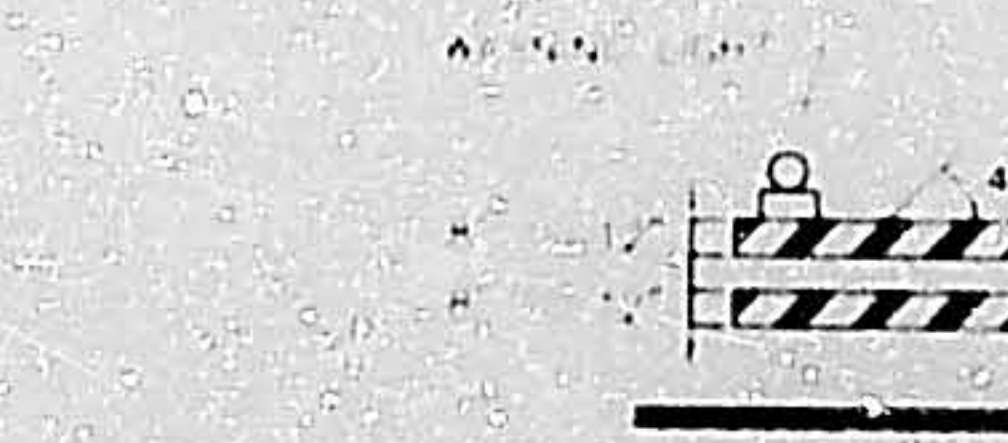
CC



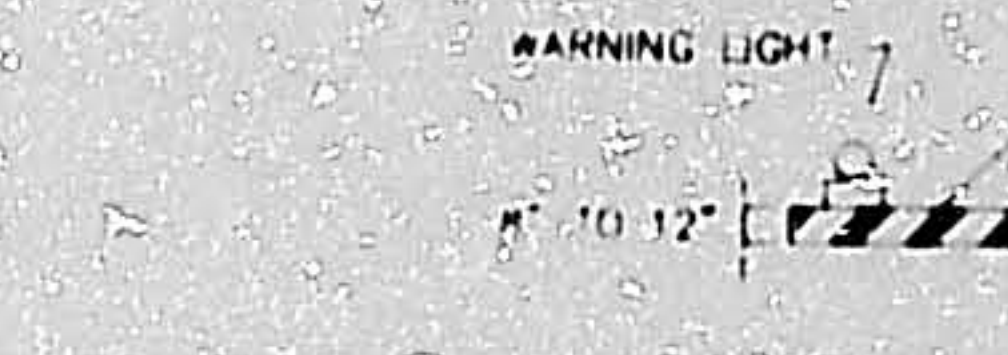
VERTICAL PANEL



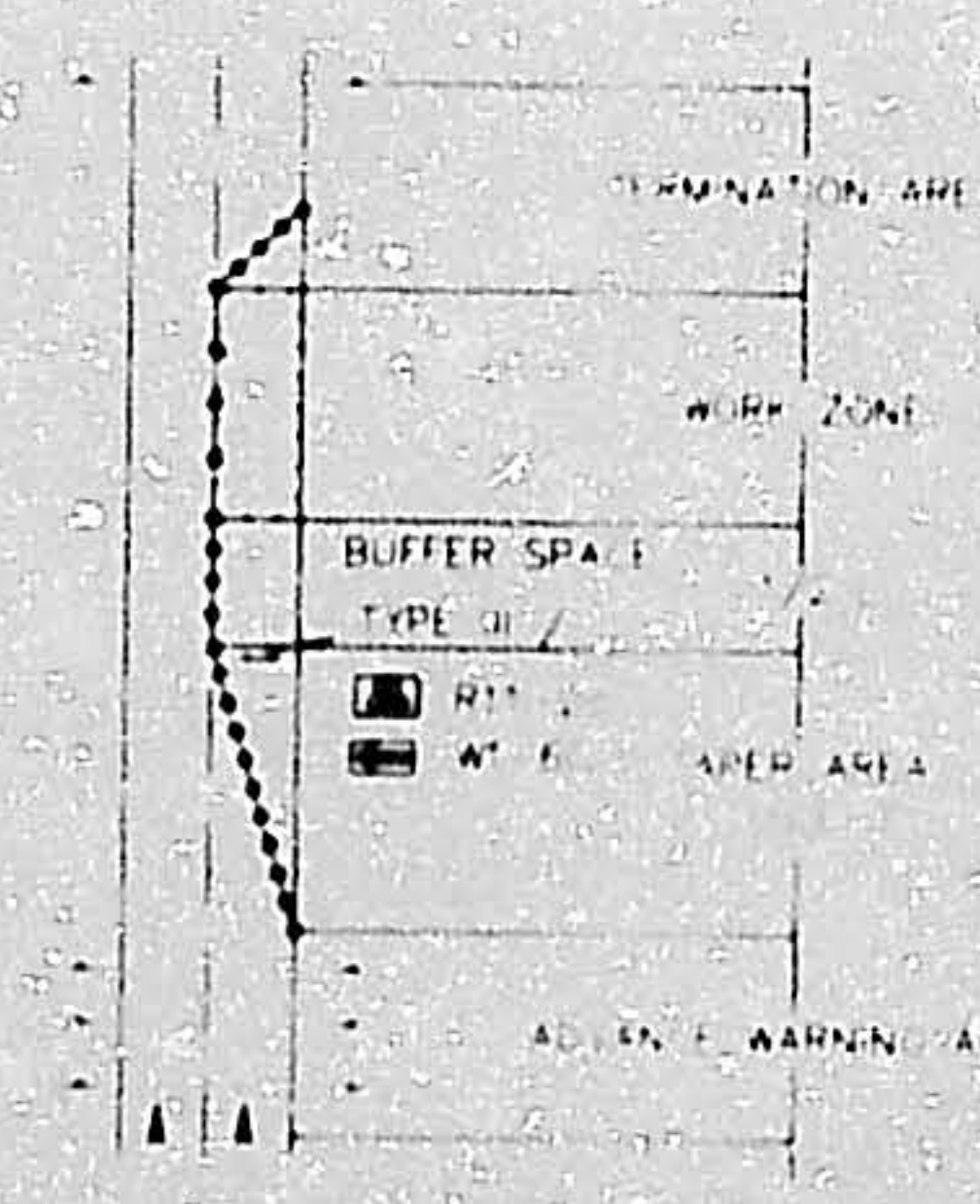
HIGH LEVEL
WARNING DEMOS



TYPE II BARRICADE
COLLAPSIBLE

**BARNET**

TYPE I BARRICADE



TRAFFIC CONTROL ELEMENTS

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

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

SPEED MILES PER HOUR	MINIMUM 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

<u>TYPE OF TAPER</u>	<u>TAPER LENGTH</u>
UPSTREAM TAPER	
MERGING TAPER	1' MINIMUM
SHIFTING TAPER	1/2 L' MINIMUM
SHOULDER TAPER	1/2 L' MINIMUM
TWO WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

SPEED LIMIT

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

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

TAPER LENGTH

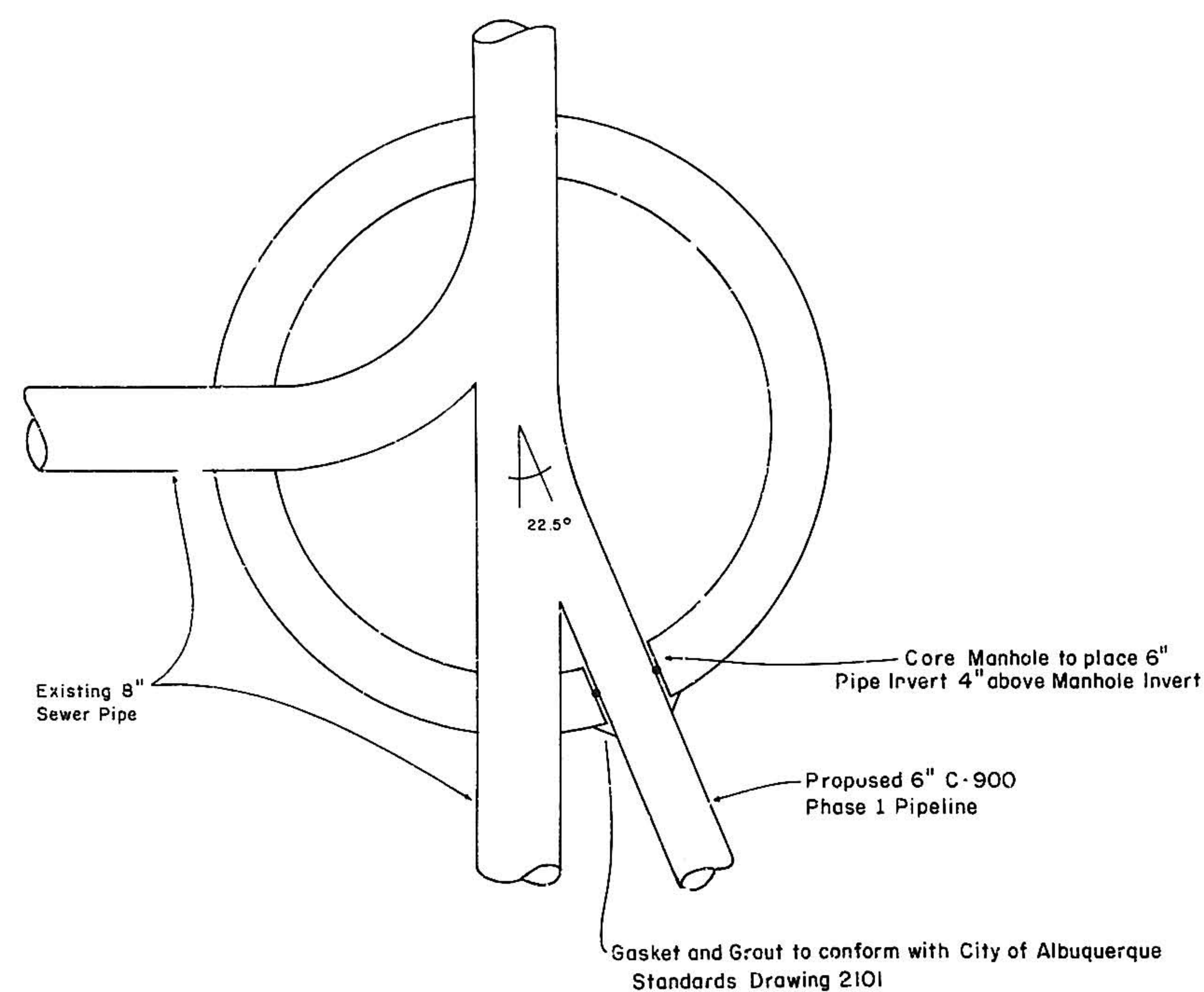
W = WIDTH OF OFFSET IN FEET

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

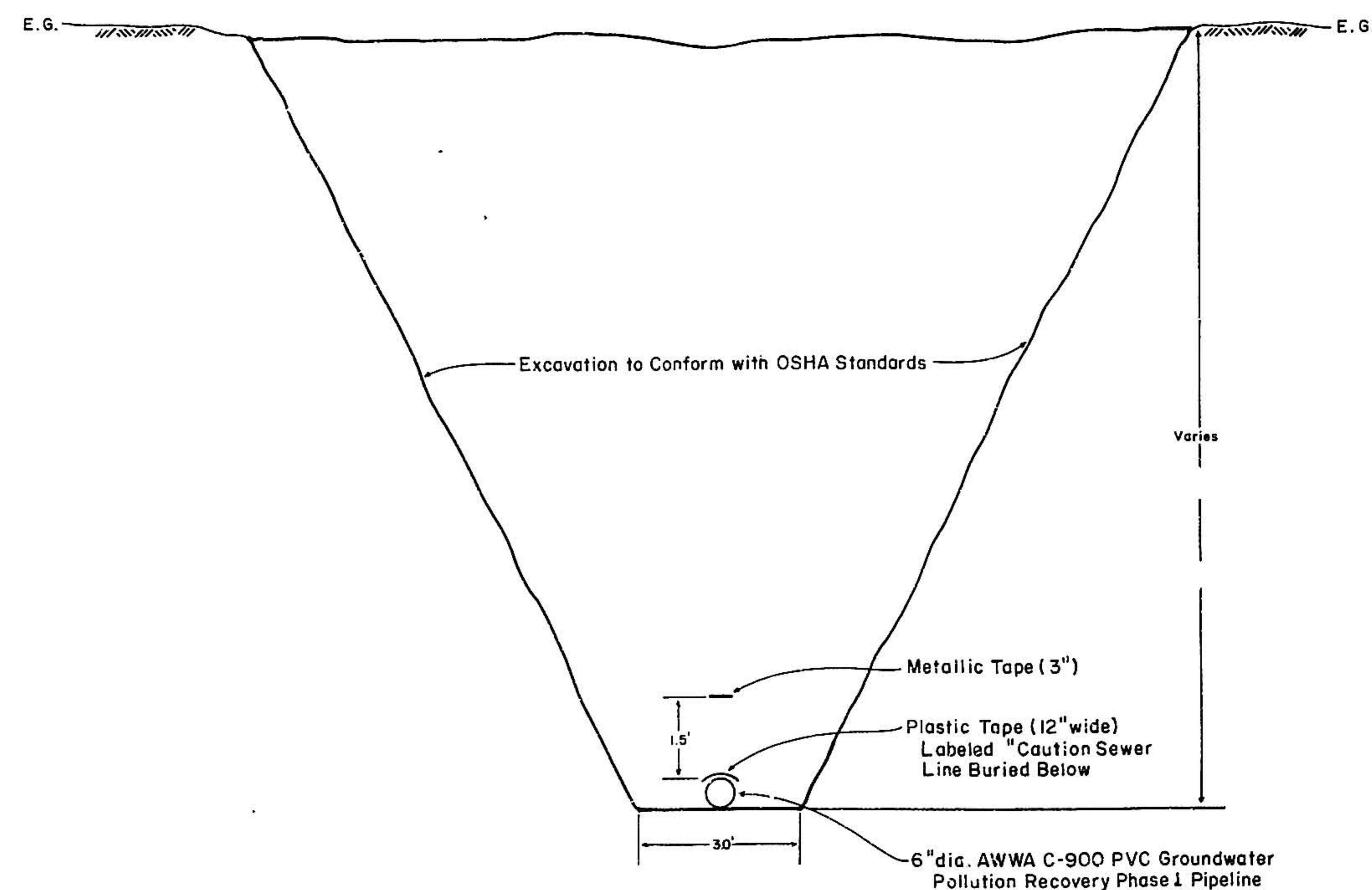
 W1-1H 50 MPH or LESS	 W1-1L 50 MPH or LESS	 W1-2H 50 MPH or LESS	 W1-2L 50 MPH or LESS	 W1-3H 50 MPH or LESS	 W1-3L 50 MPH or LESS	 W1-4H 50 MPH or LESS	 W1-4L 50 MPH or LESS	 W1-6(R)	 W1-6(L)	 W3-1
 W4-1H	 W4-2	 W5-1	 W6-1	 W8-1	 W8-3A	 W8-7	 W13-1	 W12-1	 W8-9a	 W14-1
 W20-1	 W20-2	 W20-3	 W20-4	 W20-5(H)	 W20-5(L)	 W20-5(2L)	 W20-5(2L)	 W20-7	 W20-7a	 W1-4bR
 W1-4bL	 R1-1	 R1-2	 R2-1	 R2-5a	 R2-5b	 R3-1	 R3-2	 R3-3	 R3-7(R)	 R3-7(L)
 R4-7c	 R4-7d	 R5-1a	 R5-1b	 R6-1a	 R6-1b	 R7-1	 R11-1	 R11-2a	 R11-4	 R4-8a
 R4-9(R)	 R4-9(L)	 R11-10(R)	 R11-10(L)	 R11-20	 R11-20	 R11-20	 R11-20	 R11-20	 R11-20	 R11-20

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

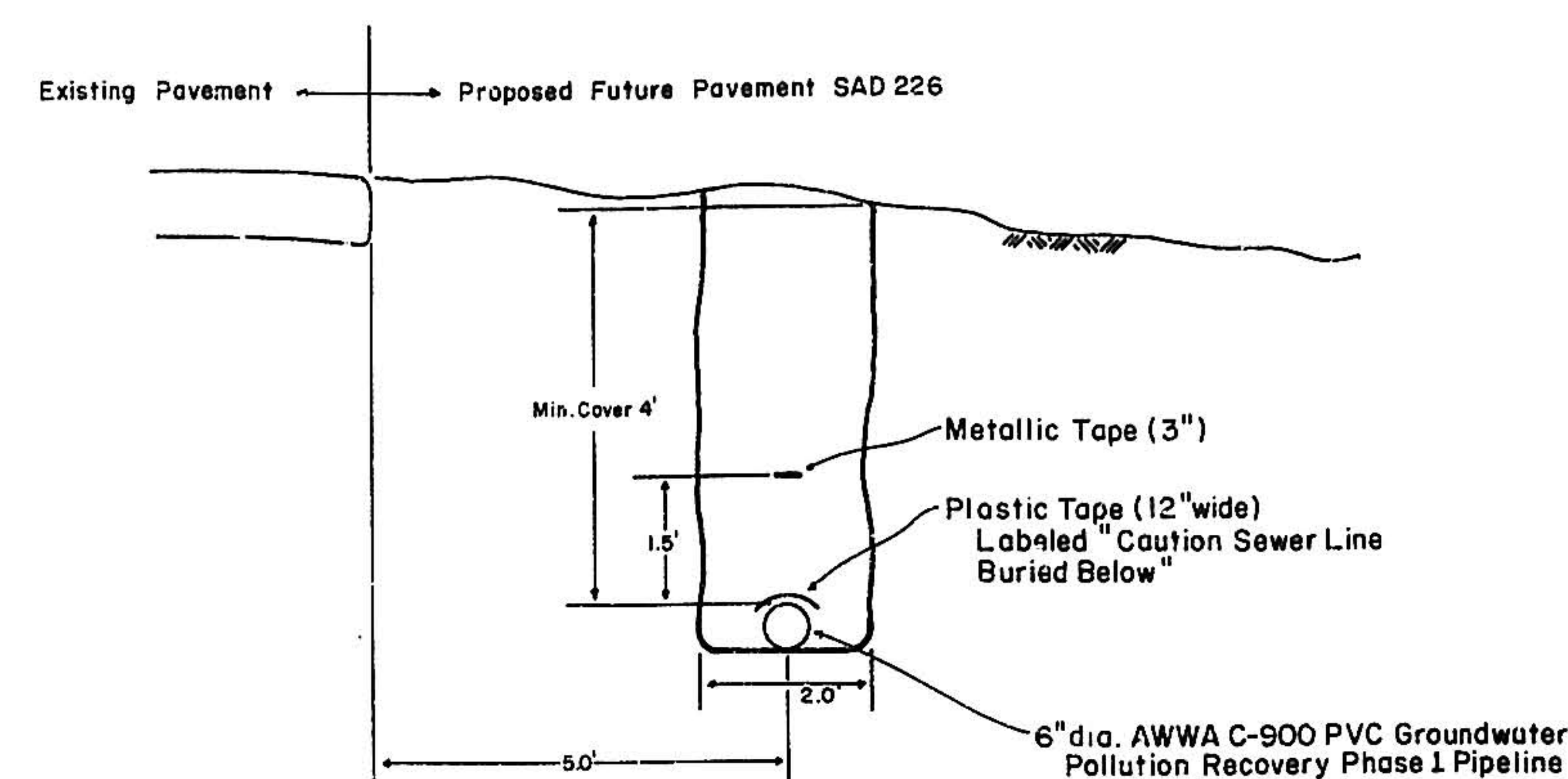
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE SIGNING AND CONSTRUCTION TRAFFIC CONTROL STANDARDS			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST UPDATE	REVISION
COA Standard			
PROJECT NO. 599981		MAP NO. B-13-Z	SHEET 6 OF 6



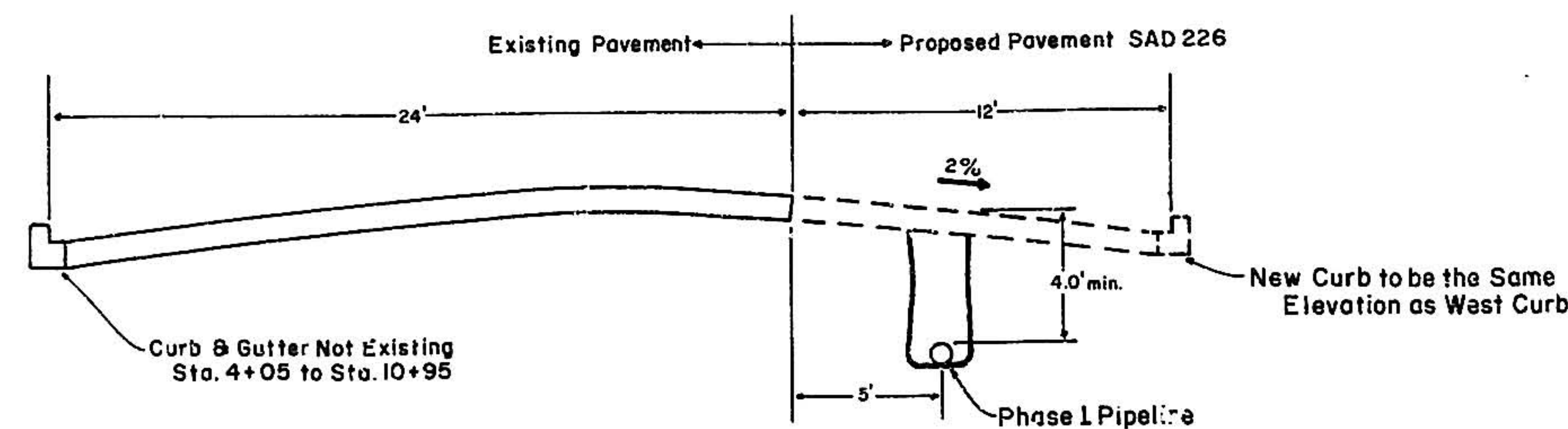
Detail A
1" = 1 ft.



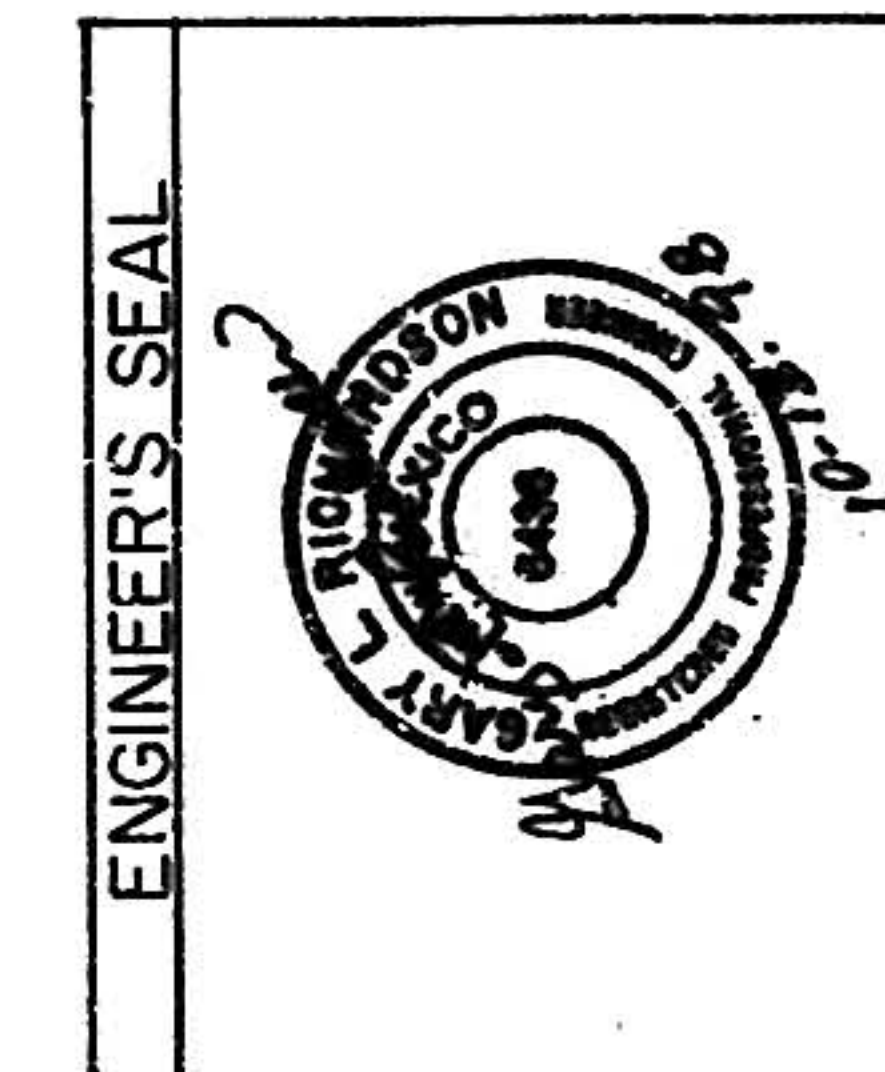
Section B
1" = 2 ft.



Section A
1" = 2 ft.



Section C
1" = 5 ft.



METRIC
Corporation
2425 WASHINGTON PLACE NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87113
Phone: (505) 628-2801
Fax: (505) 628-2803

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: GROUNDWATER POLLUTION RECOVERY PHASE 1 PIPELINE DETAIL SHEET Spartan Technology, Inc.			
		10/14/98	10/22/98
City Project No. 599981	Zone Map No. B-13-Z	Sheet 4	6