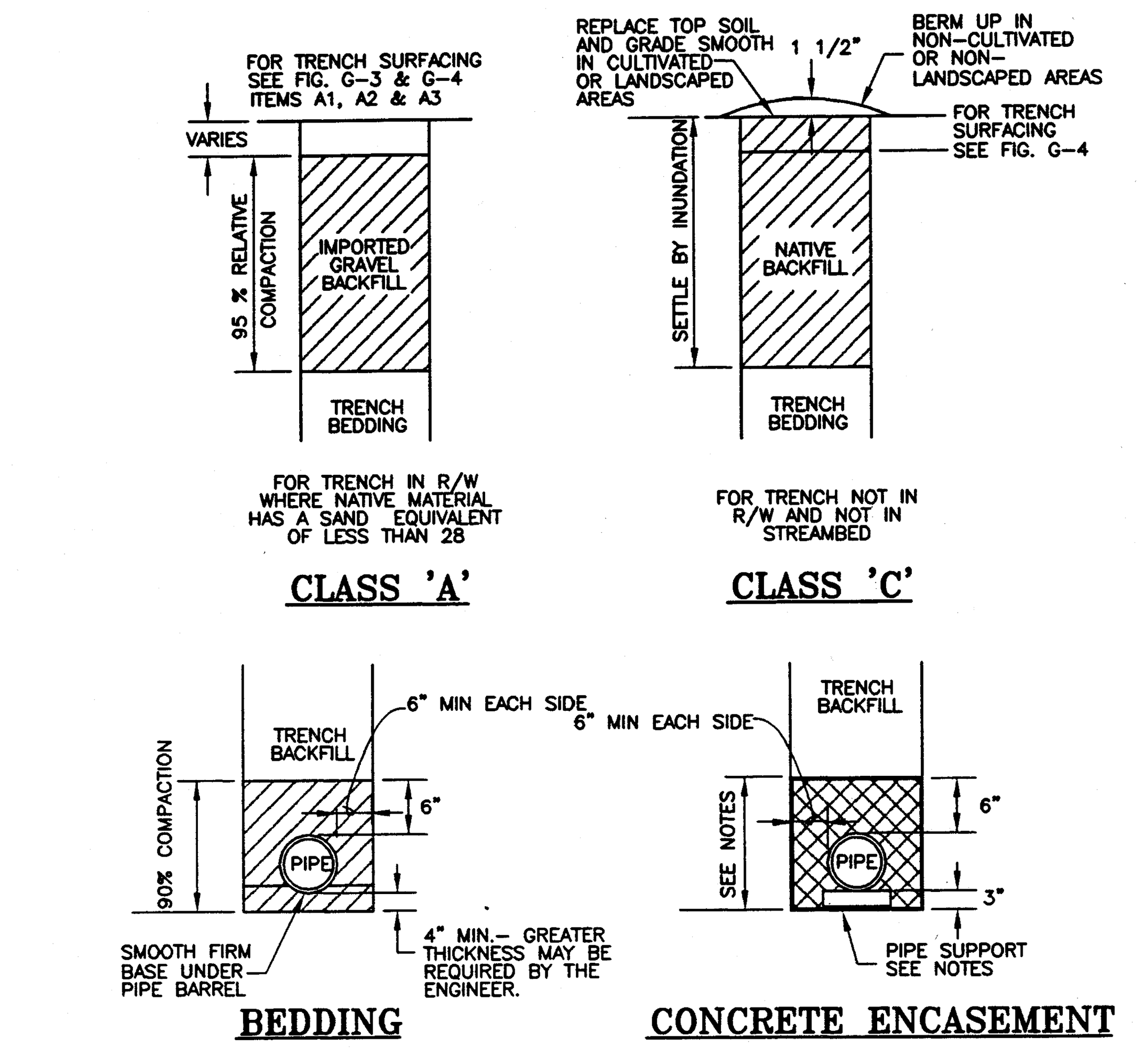
FIGURE G-2

NOTES:

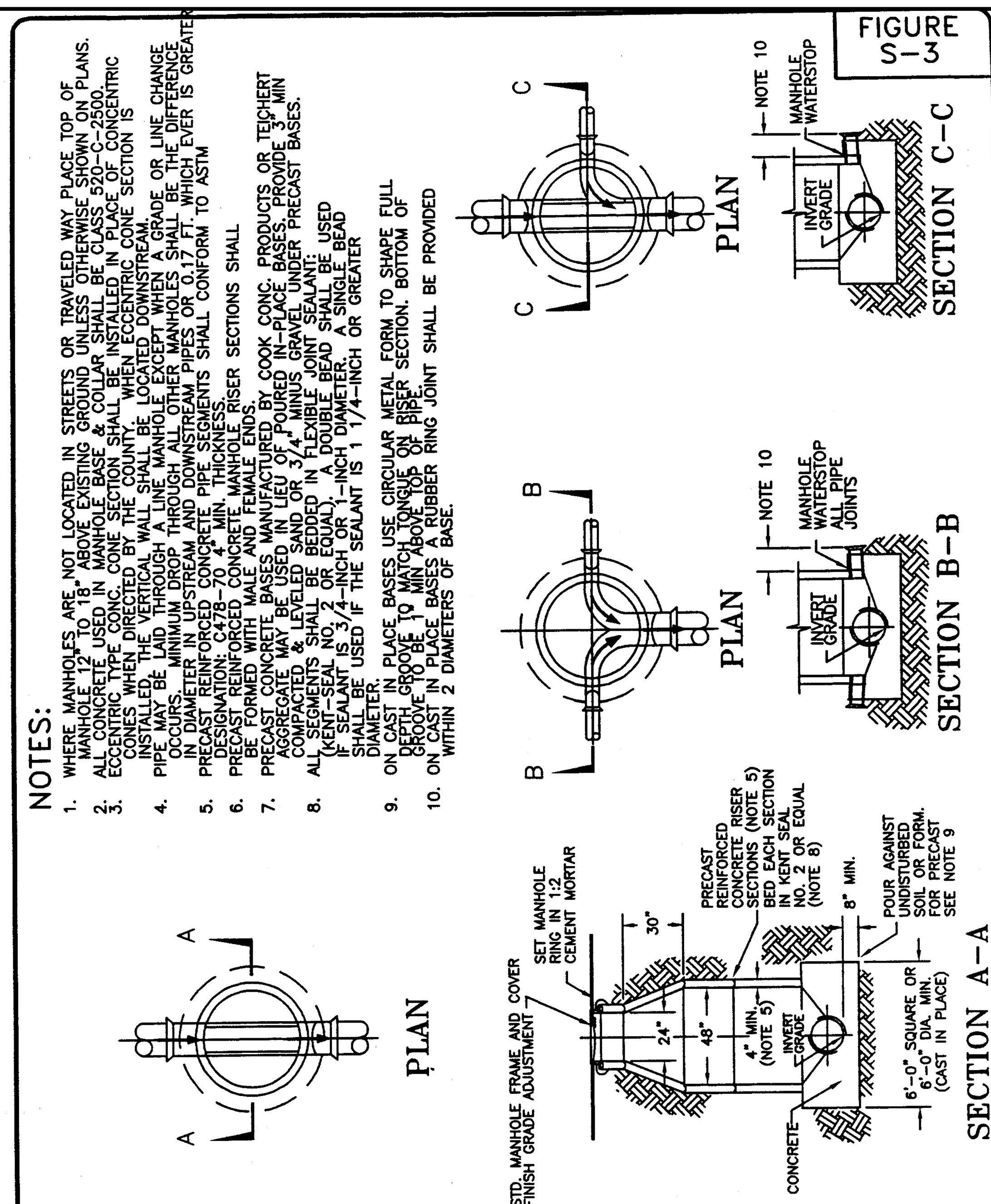
1. CONCRETE FOR ENCASING PIPE SHALL BE CLASS 420-C-2000.
2. BEDDING MATERIAL FOR ALL PIPE INCLUDING DUCTILE IRON SHALL BE GRAVEL OR CRUSHED ROCK AND SHALL HAVE A MAXIMUM SIZE OF 3/4" AND BE REASONABLY GRADED FROM COARSE TO FINE WITH A MINIMUM SAND EQUIVALENT OF 28.
3. IMPORT GRAVEL BACKFILL SHALL BE STREAM GRAVEL OR CRUSHED ROCK AND BE REASONABLY WELL GRADED FROM COARSE TO FINE WITH A MAXIMUM SIZE OF 3" AND A MINIMUM SAND EQUIVALENT GREATER THAN 28.
4. ON ALL CONCRETE ENCASED PIPES, PIPE SHALL BE SUPPORTED ON CONCRETE BLOCKS, GROUT PADS, OR BY OTHER APPROVED METHOD. TWO SUPPORTS SHALL BE REQUIRED PER JOINT OF PIPE. CARE SHALL BE TAKEN NOT TO FLOAT PIPE WHILE PLACING CONCRETE.
5. SERVICE LATERALS TO HAVE SAME BEDDING AND BACKFILL AS MAINS.
6. FOR CONC ENCASED PVC PIPE USE VERTICAL (METAL OR PLASTIC) SHEET IN TRENCH TO FORM CONTROLLED JOINT AT COUPLINGS AT MAXIMUM SPACE OF 10' ON CENTER. WRAP COUPLING WITH 2" THICK INSULATION. CENTER SHEET ON COUPLING.



FOR TRENCH SURFACING
SEE FIG. G-3 & G-4
ITEMS A1, A2 & A3
VARIES
REPLACE TOP SOIL
AND GRADE SMOOTH
IN CULTIVATED
OR LANDSCAPED
AREAS
1 1/2"
BERM UP IN
NON-CULTIVATED
OR NON-
LANDSCAPED AREAS
FOR TRENCH
SURFACING
SEE FIG. G-4
TRENCH BEDDING
FOR TRENCH IN R/W WHERE NATIVE MATERIAL HAS A SAND EQUIVALENT OF LESS THAN 28
FOR TRENCH NOT IN R/W AND NOT IN STREAMBED
CLASS 'A'
CLASS 'C'
BEDDING
CONCRETE ENCASEMENT

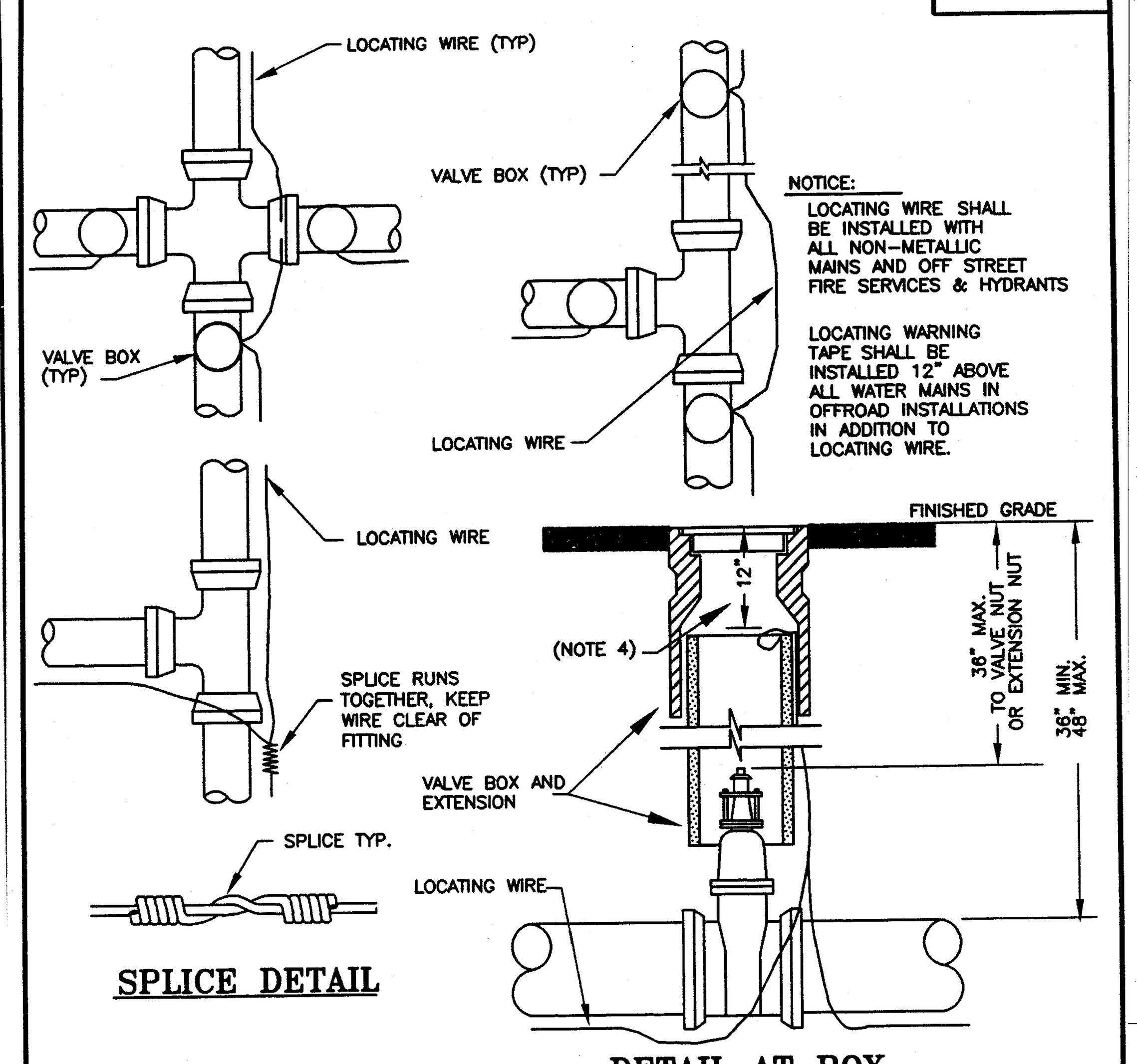
SCALE: NTS	DATE: AUG 1996	• SHASTA COUNTY SERVICE AREAS •
MARK / DATE / REVISION	APPROVED BY: WILLIAM E. LYMAN	TRENCH BACKFILL

FIGURE S-3



SCALE: NTS	DATE: JUNE 1996	• SHASTA COUNTY SERVICE AREAS •
MARK / DATE / REVISION	APPROVED BY: WILLIAM E. LYMAN	STANDARD 4 FT. SEWER MANHOLE

FIGURE W-4



LOCATING WIRE (TYP)
VALVE BOX (TYP)
NOTICE:
LOCATING WIRE SHALL BE INSTALLED WITH ALL NON-METALLIC MAINS AND OFF STREET FIRE SERVICES & HYDRANTS
LOCATING WARNING TAPE SHALL BE INSTALLED 12" ABOVE ALL WATER MAINS IN OFFROAD INSTALLATIONS IN ADDITION TO LOCATING WIRE.
VALVE BOX (TYP)
LOCATING WIRE
FINISHED GRADE
SPLICE RUNS TOGETHER, KEEP WIRE CLEAR OF FITTING
VALVE BOX AND EXTENSION
SPLICE TYP.
SPLICE DETAIL
DETAIL AT BOX

NOTES:

1. BARE WIRE SHALL NOT TOUCH VALVE OR FITTINGS (MAINTAIN 3 INCHES CLEAR DISTANCE)
2. LOCATING WIRE SHALL BE PLACED AT BOTTOM OF TRENCH, NEXT TO PIPE. (DO NOT ATTACH WIRE TO PIPE)
3. ALL VALVES, INCLUDING FIRE HYDRANT VALVES, SHALL HAVE LOCATING WIRES.
4. LOCATING WIRE SHALL BE INSULATED, #10 COPPER.

SCALE: NTS	DATE: JUNE 1996	• SHASTA COUNTY SERVICE AREAS •
MARK / DATE / REVISION	APPROVED BY: WILLIAM E. LYMAN	LOCATING WIRE WARNING TAPE

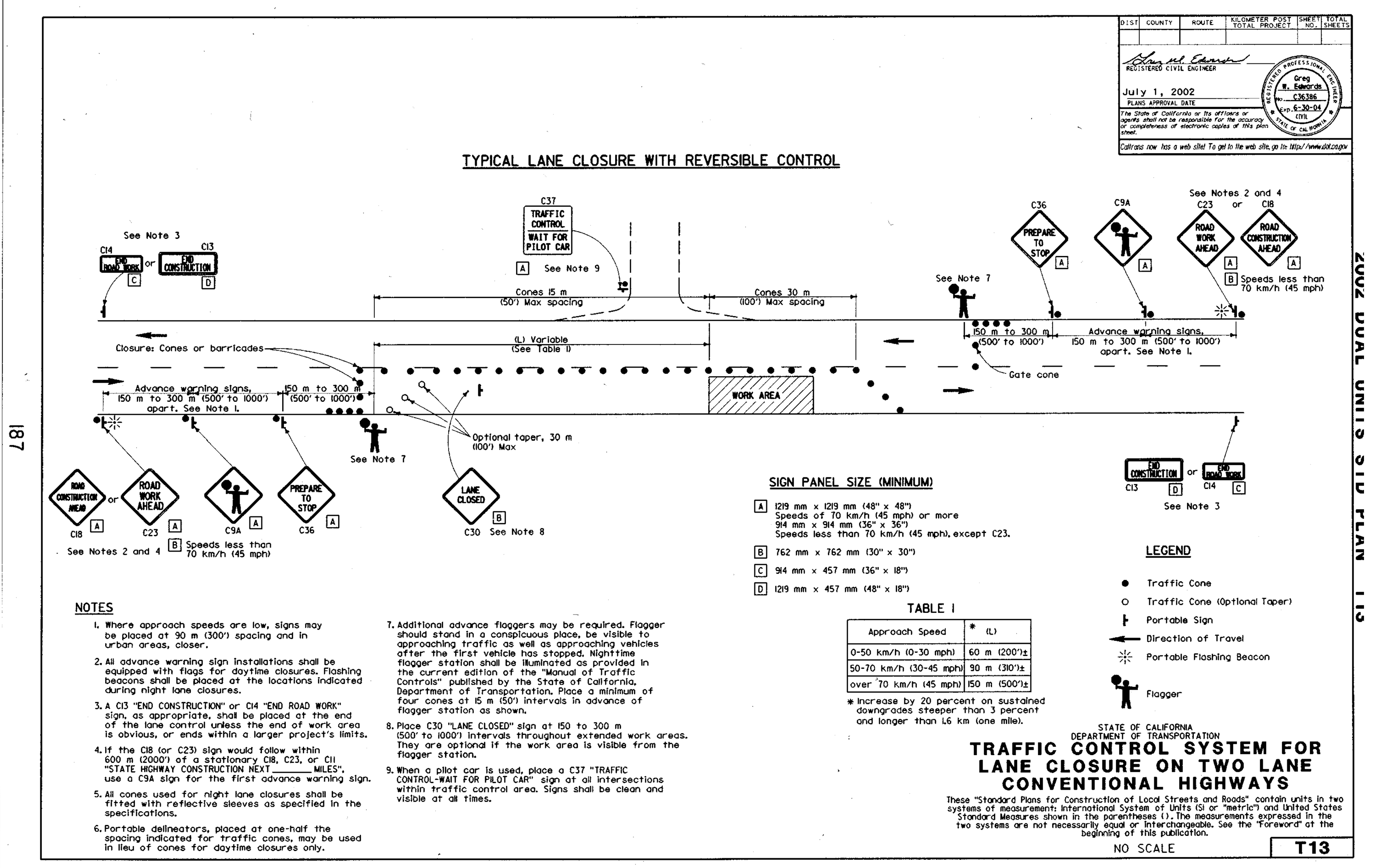
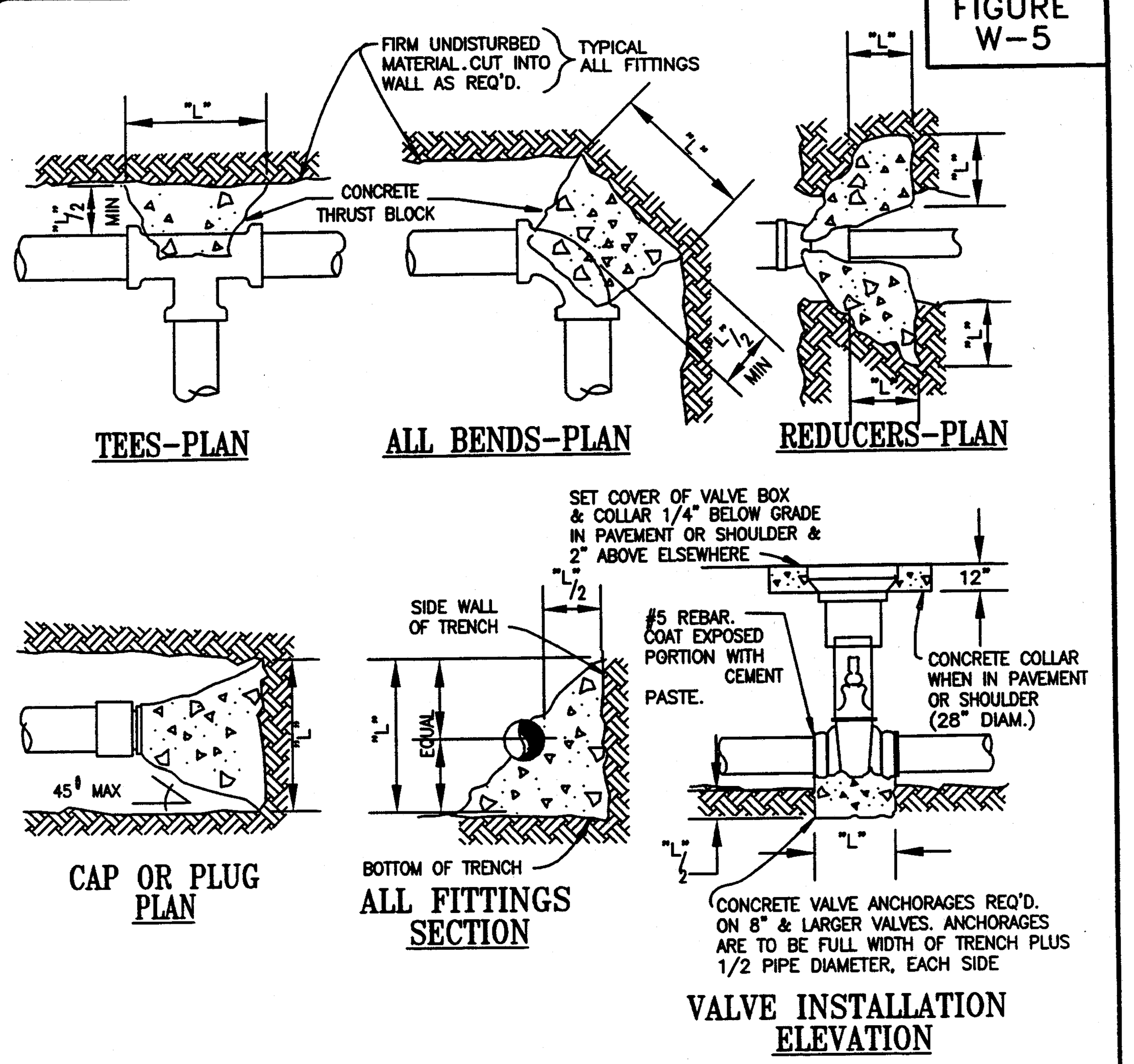


FIGURE W-5



FIRM UNDISTURBED MATERIAL. CUT INTO WALL AS REQ'D.
TYPICAL ALL FITTINGS
CONCRETE THRUST BLOCK
TEES-PLAN
ALL BENDS-PLAN
REDUCERS-PLAN
SET COVER OF VALVE BOX & COLLAR 1/4" BELOW GRADE IN PAVEMENT OR SHOULDER & 2" ABOVE ELSEWHERE
SIDE WALL OF TRENCH
#5 REBAR. COAT EXPOSED PORTION WITH CEMENT PASTE.
CONCRETE COLLAR WHEN IN PAVEMENT OR SHOULDER (28" DIAM.)
45° MAX
BOTTOM OF TRENCH
CAP OR PLUG PLAN
ALL FITTINGS SECTION
CONCRETE VALVE ANCHORAGES REQ'D. ON 8" & LARGER VALVES. ANCHORAGES ARE TO BE FULL WIDTH OF TRENCH PLUS 1/2 PIPE DIAMETER, EACH SIDE
VALVE INSTALLATION ELEVATION

NOTES:

1. THRUST BLOCKS SHALL BE PROVIDED AT ALL BURIED PIPE FITTINGS OF 4" DIA OR LARGER. THRUST BLOCK SIZE IS BASED ON PIPE SIZE, 150 PSI TEST PRESSURE, & SOIL BEARING OF 1200 LB/FT . DIMENSION "L" IS SHOWN IN TABLE 1 & IS BOTH A VERTICAL & HORIZONTAL DIMENSION UNLESS SHOWN OTHERWISE. IF PIPE COVER HAS BEEN APPROVED TO BE LESS THAN 30", INCREASE HORIZONTAL THRUST BLOCKS IN PROPORTION TO 30 INCHES DIVIDED BY THE ACTUAL COVER.
2. SEE TABLE 1 ON FIGURE W-6 FOR "L" DIMENSIONS.

SCALE: NTS	DATE: JUNE 1996	• SHASTA COUNTY SERVICE AREAS •
MARK / DATE / REVISION	APPROVED BY: WILLIAM E. LYMAN	THRUST BLOCK DETAILS

FIGURE W-6

TABLE 1

NOMINAL PIPE DIAMETER INCHES	FITTINGS						
	TEE, WYE, OR PLUG	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	REDUCER (BASED ON LARGEST DIA.)	VALVE
4"	18	22	16	15	15	--	--
6"	26	31	23	17	15	--	--
8"	34	40	30	21	15	17	12
10"	41	49	36	26	18	21	12
12"	49	59	44	31	22	25	16
14"	58	68	50	36	26	30	16
16"	66	77	57	41	28	33	18
18"	74	88	65	45	32	37	REQUIRES
20"	81	97	71	50	36	41	SPECIAL
24"	97	115	85	61	43	49	DESIGN

TABLE 2

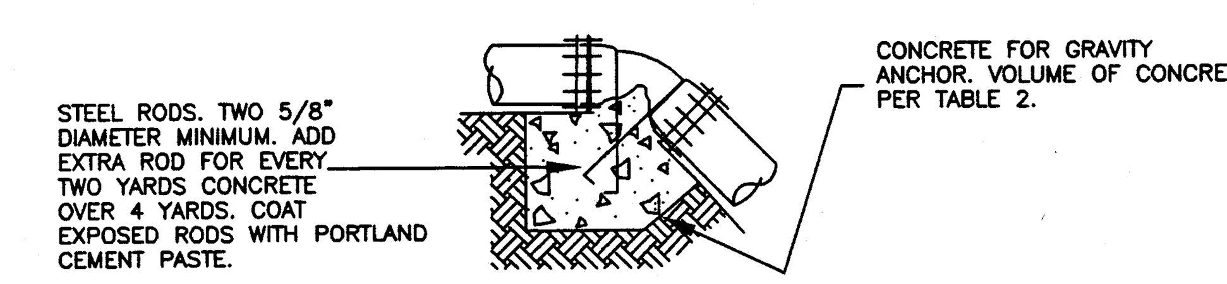
VERTICAL FITTING THRUST BLOCKS

WHERE VERTICAL BENDS ARE DIRECTED WITH THE THRUST TOWARD THE BOTTOM OF THE TRENCH, THEY SHALL HAVE THRUST BLOCKS PER HORIZONTAL BENDS EXCEPT CONCRETE SHALL BEAR AGAINST THE TRENCH BOTTOM.

WHERE VERTICAL BENDS ARE DIRECTED WITH THE THRUST TOWARD THE TOP OF TRENCH, THEY SHALL BE INSTALLED PER THE FOLLOWING DETAIL. MINIMUM ROD EMBEDMENT SHALL BE 30 INCHES FOR 12" AND SMALLER PIPE AND 36 INCHES FOR 14" AND LARGER PIPE.

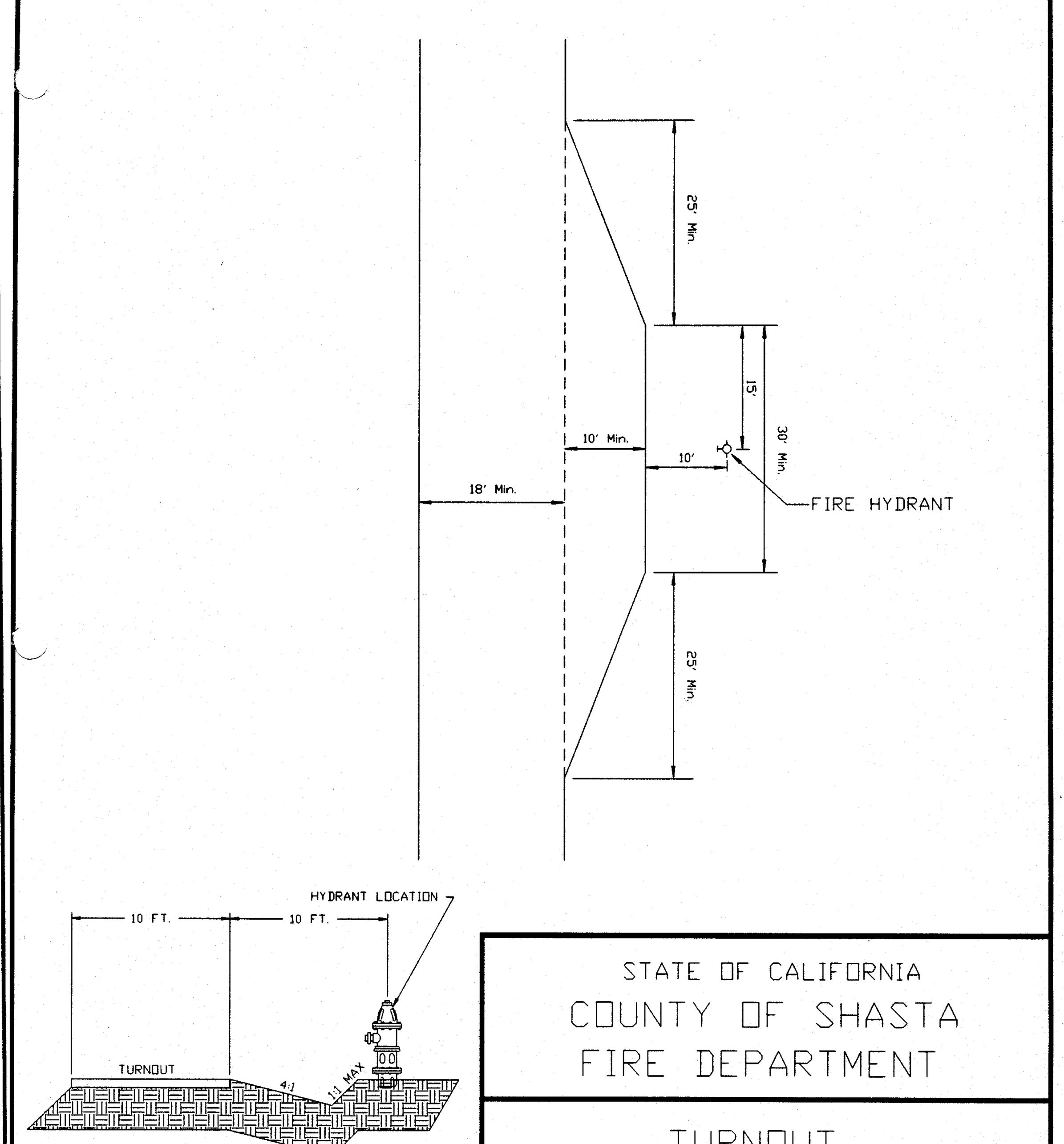
CUBIC YARDS CONCRETE FOR VERTICAL FITTINGS (SEE DETAIL BELOW)

BEND ANGLE	PIPE DIAMETER						
	4"	6"	8"	10"	12"	14"	16" AND OVER
11-1/4°	0	0.4	0.7	0.9	1.3	1.8	REQUIRES
22-1/2°	0.4	0.8	1.3	1.8	2.5	3.4	SPECIAL
45°	0.7	1.4	2.4	3.5	4.9	6.6	DESIGN
90°	1.3	2.5	4.3	4.3	9.1	12.2	



ELEVATION

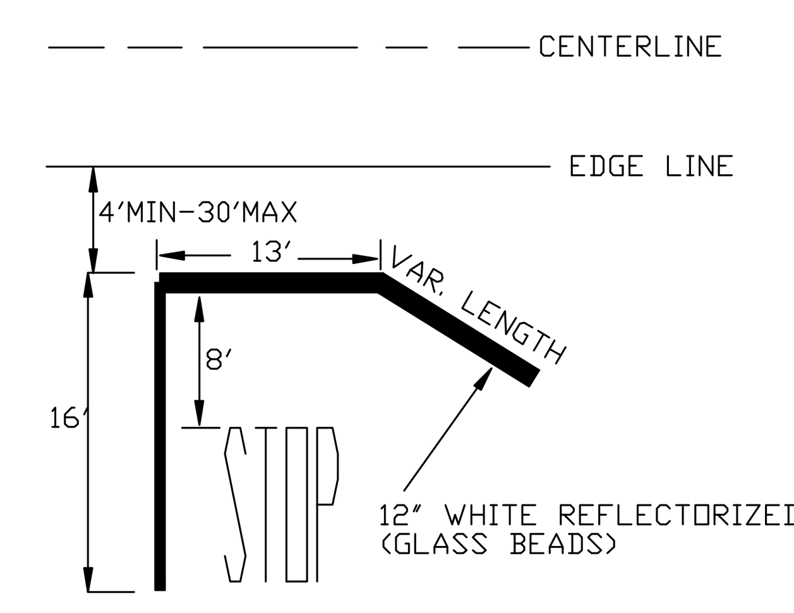
SCALE: NTS	DATE: JUNE 1996	• SHASTA COUNTY SERVICE AREAS •
MARK / DATE / REVISION	APPROVED BY: WILLIAM E. LYMAN	THRUST BLOCK TABLES



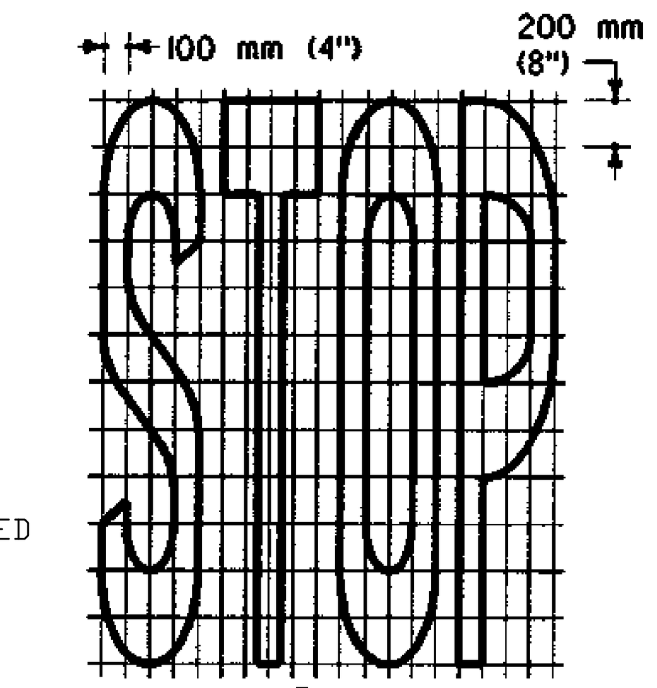
STATE OF CALIFORNIA
COUNTY OF SHASTA
FIRE DEPARTMENT

TURNOUT FOR FIRE HYDRANTS

Fig. FS-4



DETAIL STRIPING INTERSECTION
NTS



A=2.04 m^2 (22 SQFT)

SEE SHAAT 1 FOR NOTE ANS LEGEND

NOTICE NOT LESS THAN 48-HOUR NOTICE IS REQUIRED PRIOR TO STARTING ANY EXCAVATION NEAR UNDERGROUND UTILITIES BELONGING TO P.G. & E., PAC BELL, CITY OF SHASTA LAKE OR CITY OF REDDING PLEASE CALL, TOLL FREE,"ONE CALL" UNDERGROUND SERVICE ALERT (USA) 1-800-227-2600 FOR CHARTER FACILITIES, CALL (530)241-7300 FOR A.C.I.D. FACILITIES, CALL (530)365-7329. FOR BELLA VISTA WATER DIST. (530)241-1085 FOR MARKS CABLE SYSTEMS (530)547-5438

COUNTY OF SHASTA IMPROVEMENT PLANS
PALO CEDRO COMMUNITY PARK
UP-06-004

DETAIL SHEET

FOR

PALO CEDRO

BY

WHITSON ENGINEERING, INC.
1035 EUREKA WAY
REDDING, CALIFORNIA 96001
(530)-243-8181

DATE: 4-7-08 SCALES: VERT 1"= HORIZ 1"= 50' SHEET 6 6

job#05-07