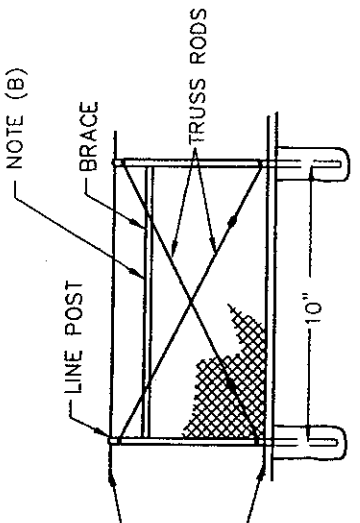
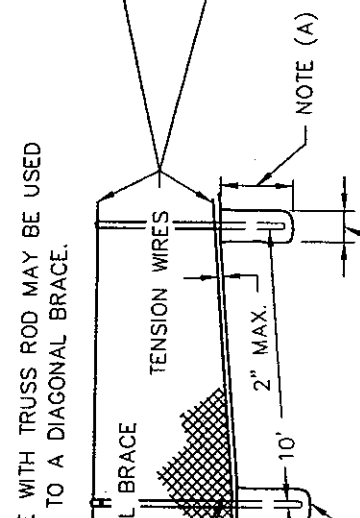


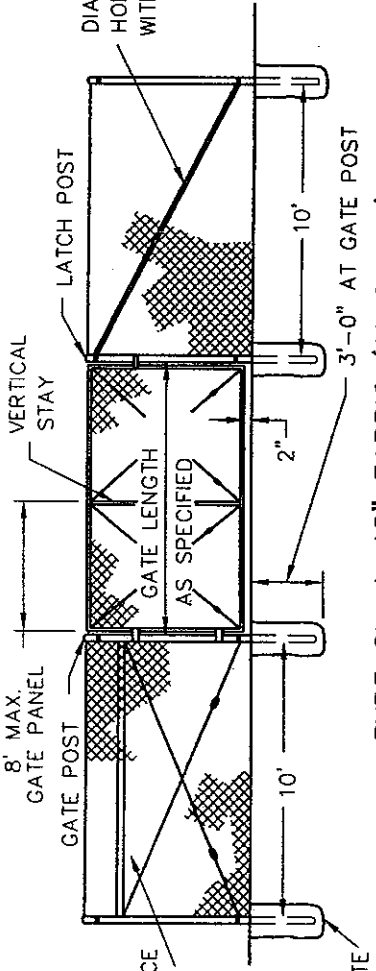
STANDARD DRAWINGS



NOTE (B)
 LINE POSTS AT 1000' MAX. INTERVALS BRACED AND TRUSSED IN BOTH DIRECTIONS EXCEPT THAT THIS BRACING AND TRUSSING MAY BE OMITTED WHEN THE FABRIC IS STRETCHED BY EQUIPMENT.



NOTE (A)
 END AND CORNER POST ASSEMBLY, 2'-6" FOR FABRIC LESS THAN 60" HIGH, 3'-0" FOR FABRIC 60" AND OVER.
 NOT LESS THAN 3 TIMES MAX. CROSS SECTION OF POST WITH MIN. OF 8"



TYPE CL-4=48" FABRIC (11 GAUGE)
TYPE CL-6=72" FABRIC (9 GAUGE)

NOTES:

- (A) 2'-6" FOR FABRIC LESS THAN 60" HIGH
 3'-0" FOR FABRIC 60" AND OVER
- (B) BRACE TO BE REMOVED AFTER ALL OTHER FENCE CONSTRUCTION IS COMPLETED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

NOTES:

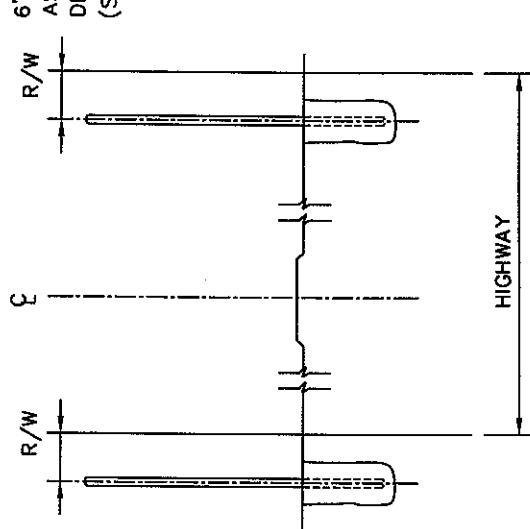
1. THE ABOVE TABLE SHOWS EXAMPLES OF POST AND BRACE SECTIONS WHICH MAY COMPLY WITH THE SPECIFICATIONS.
2. SECTIONS SHOWN IN THE TABLES MUST ALSO COMPLY WITH THE STRENGTH REQUIREMENTS AND OTHER PROVISIONS OF THE SPECIFICATIONS.
3. OTHER SECTIONS WHICH COMPLY WITH THE STRENGTH REQUIREMENTS AND OTHER PROVISIONS OF THE SPECIFICATIONS MAY BE USED ON APPROVAL OF THE DIRECTOR.
4. OPTIONS EXERCISED SHALL BE UNIFORM ON ANY ONE PROJECT.
5. DIMENSIONS SHOWN ARE NOMINAL.
6. TYPICAL MEMBER DIMENSIONS AND GATE POST TABLES DETAIL (D-1A).

COUNTY OF SUTTER	
CHAIN LINK FENCE DETAIL ONE	
APPROVED <i>[Signature]</i>	DATE 11/8/02
SCALE : NONE DRN : P50	DWC NO. D-1
	BY
	REVISIONS
	DATE

TYPICAL MEMBER DIMENSIONS

FENCE HEIGHT	LINE POSTS		END, LATCH & CORNER POSTS		BRACES	
	ROUND (I.D.)	H	ROUND (I.D.)	H	ROUND (I.D.)	H
LESS THEN 6'	1-2"	7-8" x 1-8"	2"	1-2" x 1-16"	1-4"	1-2" x 1-16"
OVER 6'	2"	2-4" x 2"	2" x 2-1/2"	1-2" x 1-16"	1-4"	1-2" x 1-16"

6" OR AS SPECIFIED AS SHOWN ON DETAIL PLANS (SEE NOTE BELOW)



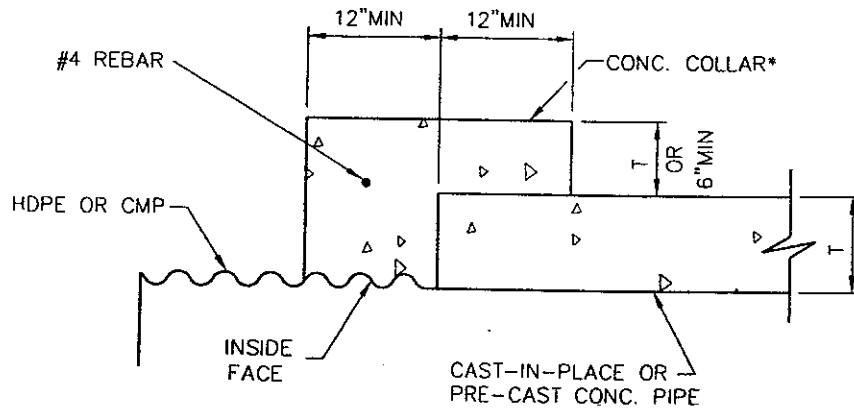
6" OR AS SPECIFIED AS SHOWN ON DETAIL PLANS (SEE NOTE BELOW)

GATE POST		
FENCE HEIGHT	GATE WIDTHS	NOMINAL I.D.
6'-0" AND LESS	UP THRU 6'	2-1/2"
	OVER 6' THRU 12'	4"
	OVER 12' THRU 18'	5"
OVER 6'	OVER 18' TO 24' MAX.	6"
	UP THRU 6'	3"
	OVER 6' THRU 12'	5"
	OVER 12' THRU 18'	6"
	OVER 18' TO 24' MAX.	8"
		WEIGHT PER FOOT
		4.95
		10.79
		14.62
		18.97
		7.58
		14.62
		18.97
		28.55

NOTE: ABOVE POST DIMENSIONS AND WEIGHTS ARE MINIMUMS LARGER SIZES MAY BE USED ON APPROVAL OF ENGINEER.

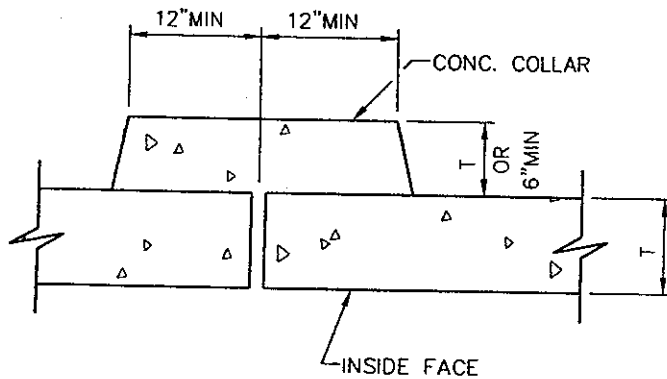
NOTE: OFFSET TO BE 2'-0" AT MONUMENT LOCATIONS, MEASURED AT RT. ANGLE TO R/W LINES. TAPER TO ACHIEVE OFFSET TO BE AT LEAST 20' LONG.

COUNTY OF SUTTER	
CHAIN LINK FENCE DETAIL TWO	
APPROVED	DATE
<i>[Signature]</i>	3/14/06
SCALE: NONE	DRN: PSO
BY	REVISIONS
K.X.	
11/10/05	
DATE	
11/10/05	
DATE	

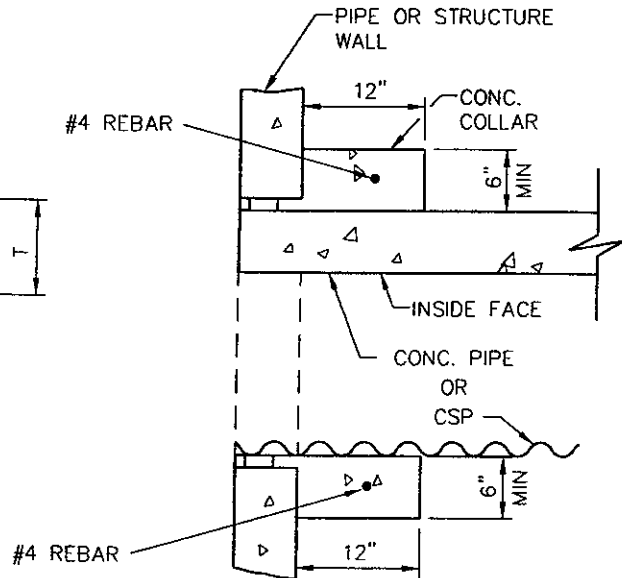


**CAST-IN-PLACE OR PRE-CAST
CONCRETE PIPE TO HDPE OR CMP**

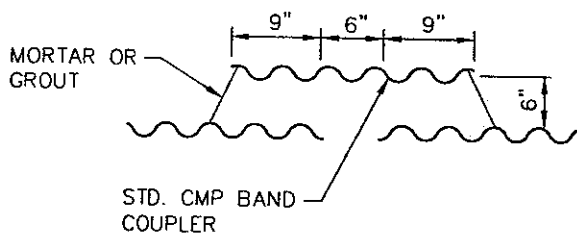
*TRANSITION OF PIPE MATERIAL
AT MANHOLES IS PREFERRED



**CONCRETE PIPE TO CONCRETE PIPE
WITHOUT STANDARD JOINT**



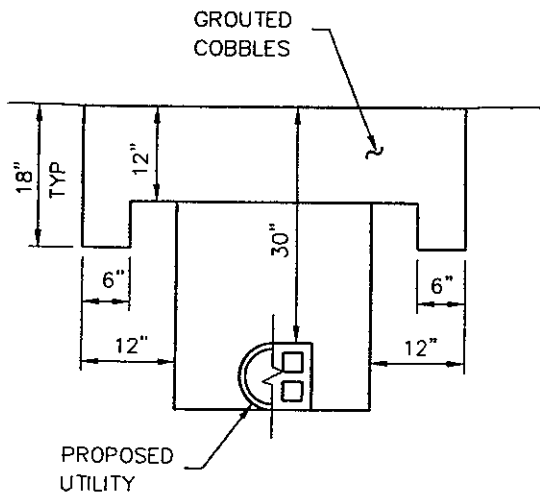
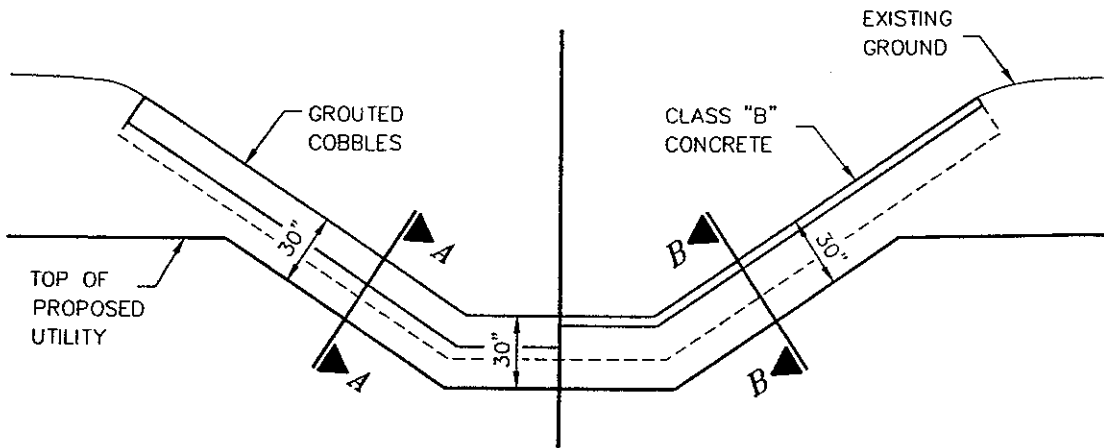
**CONCRETE PIPE, HDPE
OR CMP INTO EXISTING
PIPE OR STRUCTURE**



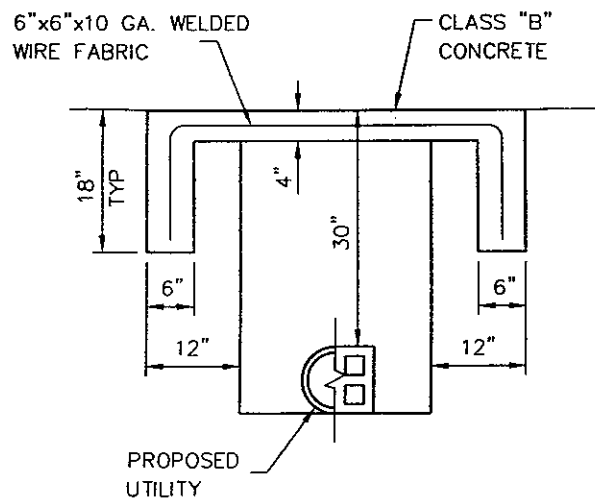
**PIPES OF
DISSIMILAR METALS**

DATE	REVISIONS	BY

COUNTY OF SUTTER	
PIPE CONNECTIONS DETAIL	
<i>[Signature]</i> APPROVED	<i>6/18/02</i> DATE
SCALE : NONE DRN : PSO	DWG NO. D-2



SECTION A-A



SECTION B-B

NOTES:

1. ALL UTILITY CROSSINGS OF EXISTING STREAMS SHALL BE AT LEAST 30" BELOW EXISTING CHANNEL SIDES AND BOTTOMS. DEEPER PLACEMENT MAY BE REQUIRED IF FUTURE CHANNEL IMPROVEMENTS ARE ANTICIPATED.
2. THE CUT SHALL BE SEALED AS SHOWN WITH GROUDED COBBLES, CLASS "B" CONCRETE OR OTHER APPROVED MATERIAL TO A WIDTH 12" EACH SIDE OF THE UTILITY TRENCH. ALL NATURAL STREAMS, AS SHOWN ON THE NATURAL STREAMS PLAN, SHALL UTILIZE GROUDED COBBLES.

COUNTY OF SUTTER

**UTILITY STREAM
CROSSING DETAIL**

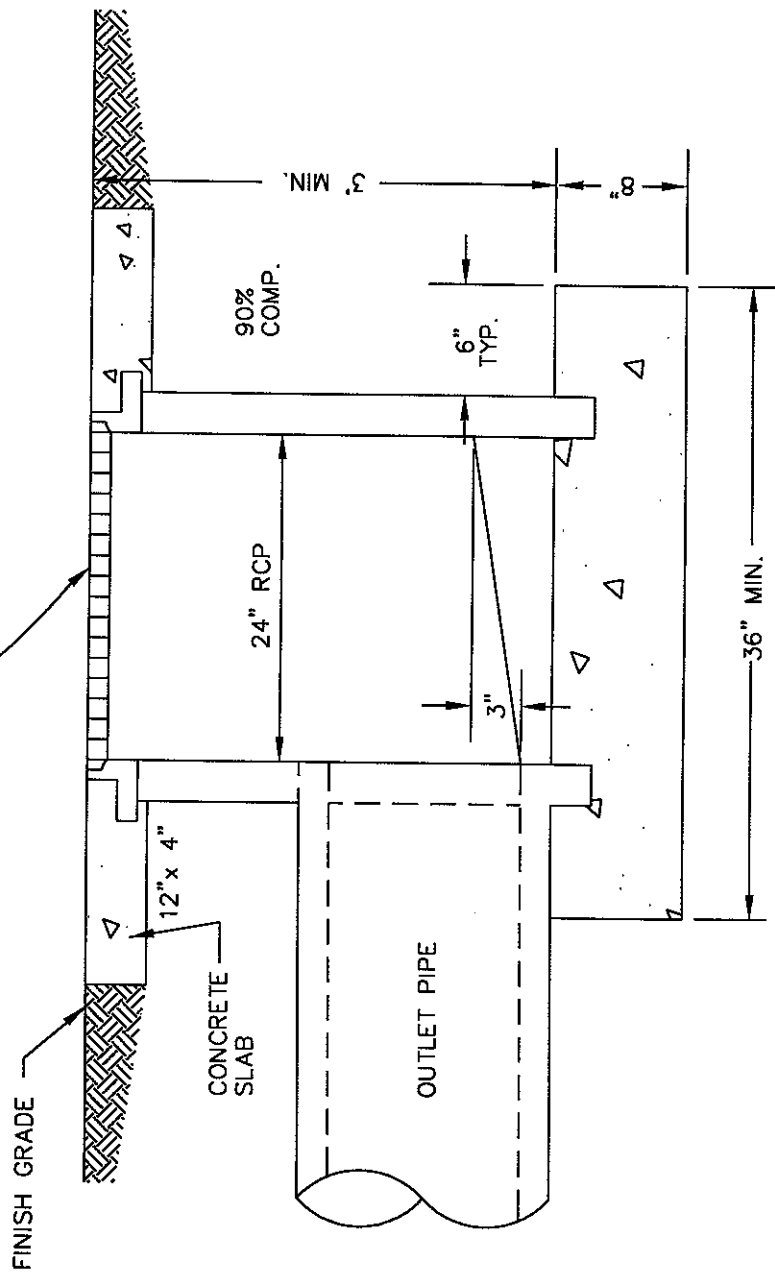
Robert E. Bassett *6/18/02*
APPROVED **DATE**

SCALE : NONE
DRN : PSO

DWG NO. D-3

DATE	REVISIONS	BY

STANDARD MANHOLE FRAME
WITH SLOTTED COVER. APPROVED
BY SUTTER COUNTY PUBLIC WORKS
SEE DETAIL D-14

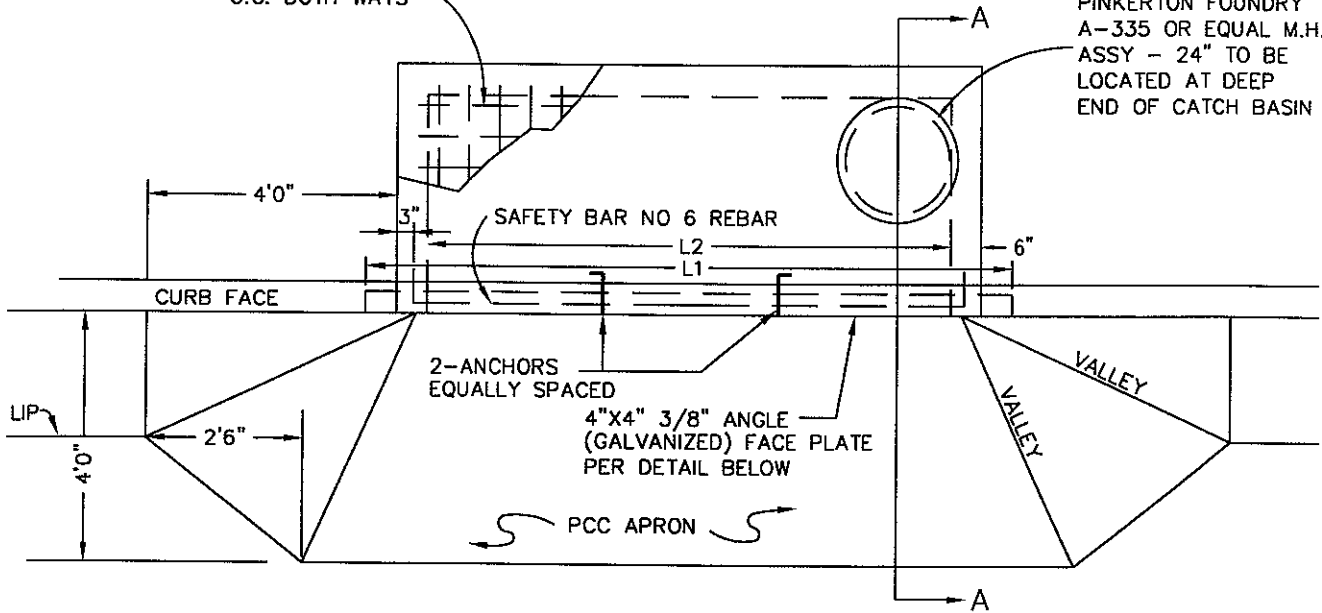


NOTE:
THIS DI FOR INSTALLATION IN ROAD SIDE DITCH.
NOT FOR USE WITH CURB & GUTTER.

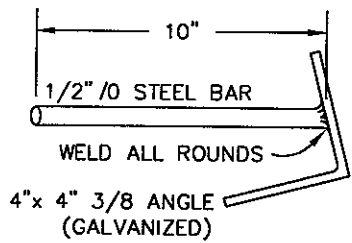
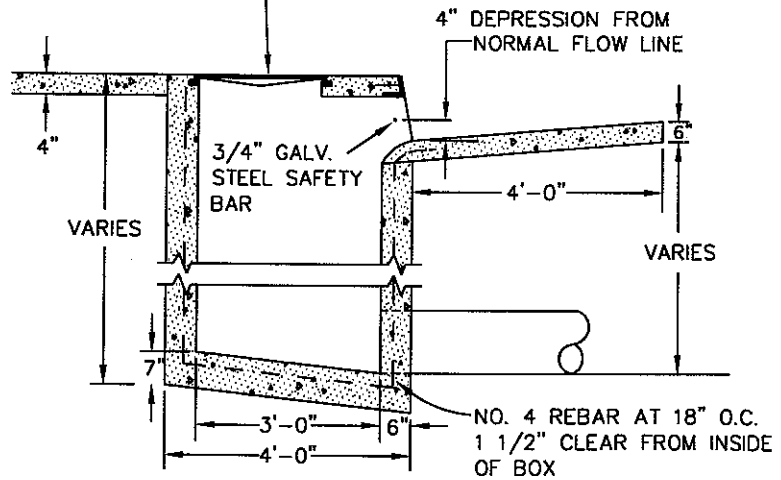
COUNTY OF SUTTER	
FIELD DROP INLET	
APPROVED	DATE 3/14/06
SCALE : NONE	DWG NO. D-4
DRN : PSO	
DATE 6/10/04	BY K.X.
REVISIONS	

NO 4 REBAR 6"
O.C. BOTH WAYS

PINKERTON FOUNDRY
A-335 OR EQUAL M.H.
ASSY - 24" TO BE
LOCATED AT DEEP
END OF CATCH BASIN



CONFORM TO SIDEWALK GRADE



FACE PLATE DETAIL

SCHEDULE		
STYLE	L ₁	L ₂
TYPE "A"	9'-6"	7'
TYPE "B"	7'-6"	5'

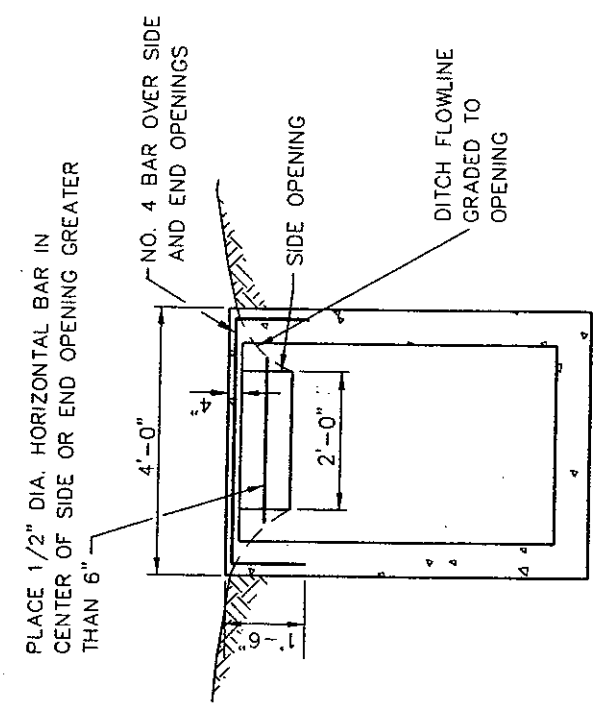
SECT. A-A

NOTE:

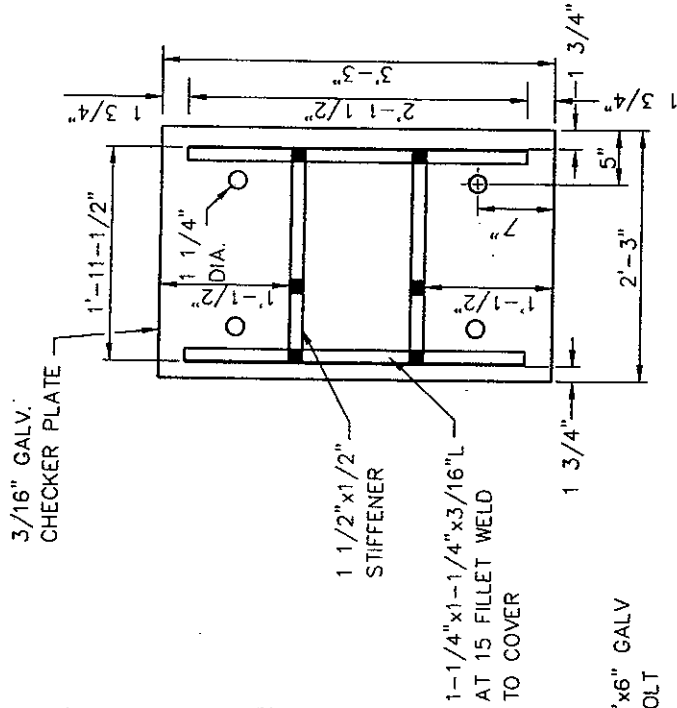
A PRECAST UNIT MEETING THESE MINIMUM STANDARDS MAY BE SUBSTITUTED UPON PRIOR APPROVAL OF THE DIRECTOR.

Apr. 19, 1999 Dwg Name: R:\development\SU70202\Sid-Det\Sutter 1D-05.dwg Updated By: GYustat

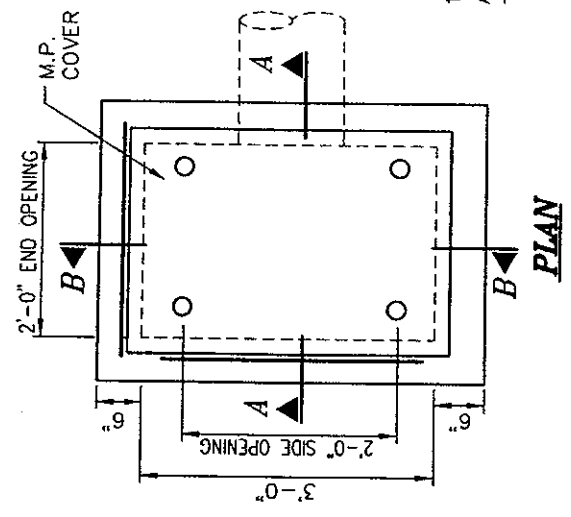
			COUNTY OF SUTTER	
			CATCH BASIN	
			<i>[Signature]</i>	3/14/06
			APPROVED	DATE
6/10/04			K.X.	
DATE	REVISIONS	BY	SCALE : NONE DRN : PSO	DWG NO. D-5



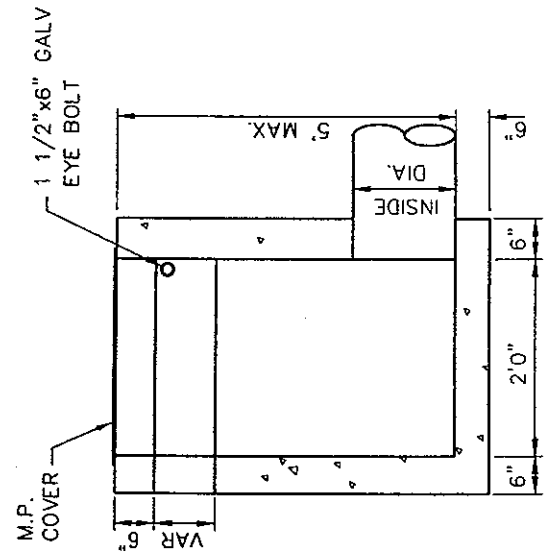
SECTION B-B



**METAL COVER
(UNDERSIDE)**



PLAN



SECTION A-A

NOTES:

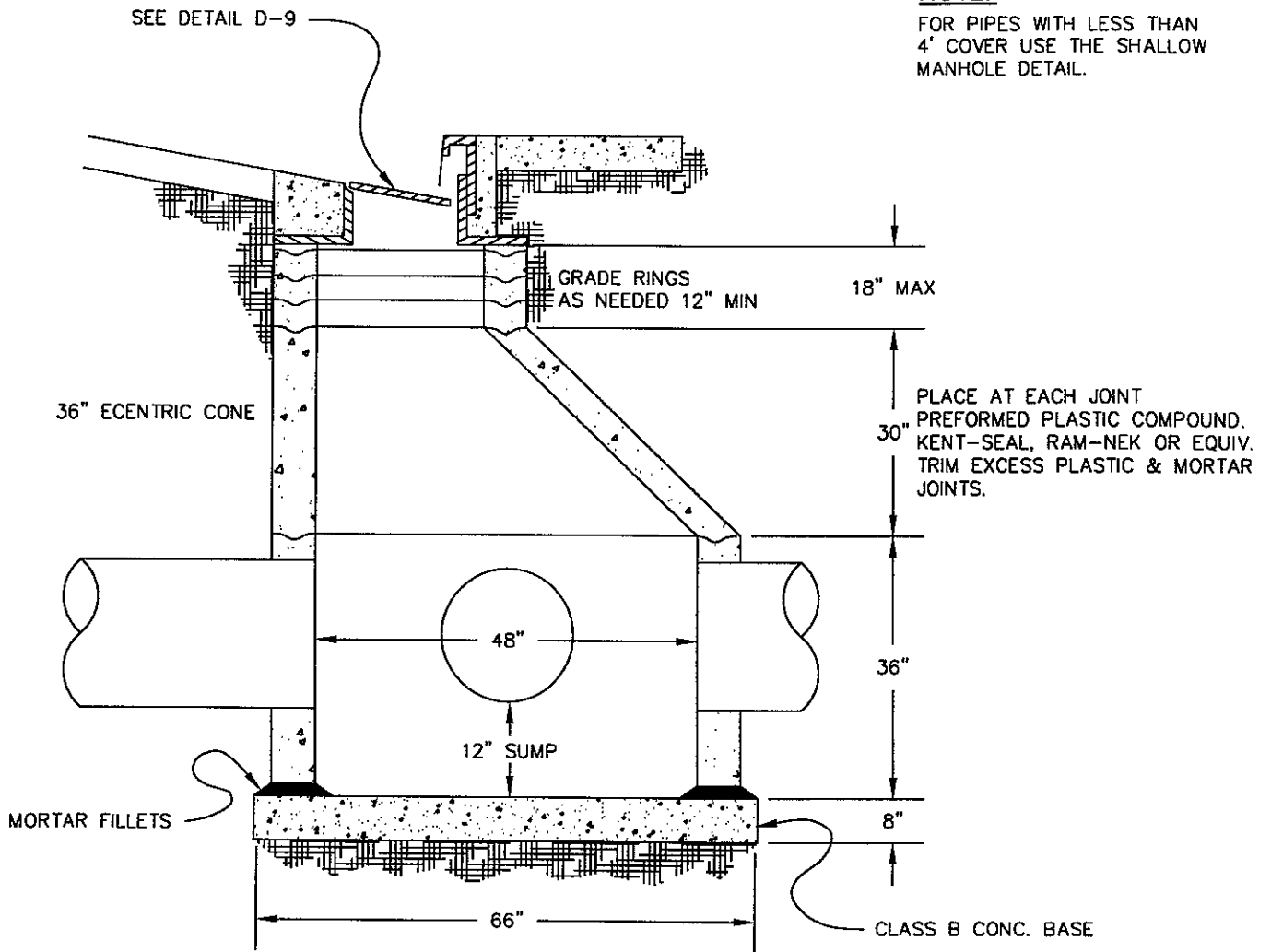
1. TOP OF WALLS TO BE FINISHED TO A FLAT PLANE TO PROVIDE EVEN BEARING FOR PLATE COVER.
2. PROVIDE 1/4" x 18" GALV. CHAIN WELD TO COVER AND EYE BOLT.
3. PROVIDE END OR SIDE OPENINGS AS SHOWN ON PLAN OR CROSS SECTION AND EYE BOLT.
4. METAL PLATE COVER TO BE GALVANIZED.

COUNTY OF SUTTER	
DROP INLET TYPE "F"	
APPROVED	DATE
SCALE : NONE	DRN : PSO
DWG NO. D-6	

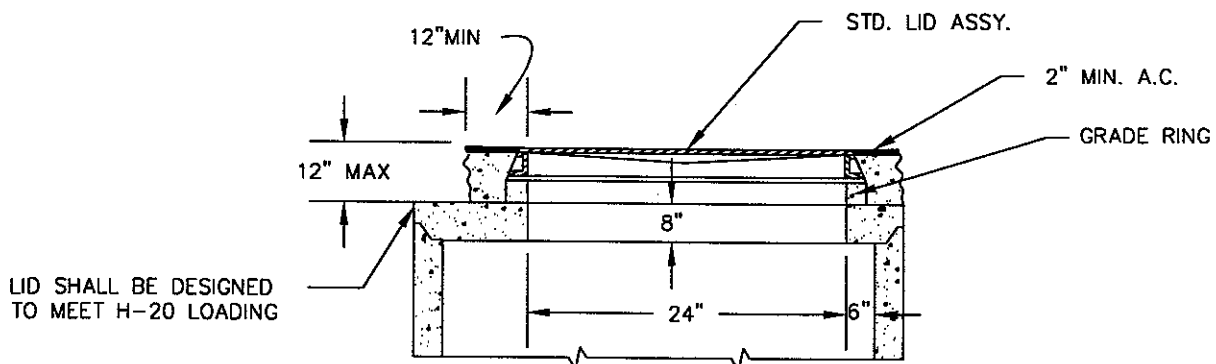
DATE	REVISIONS	BY

NOTE:


FOR PIPES WITH LESS THAN 4' COVER USE THE SHALLOW MANHOLE DETAIL.



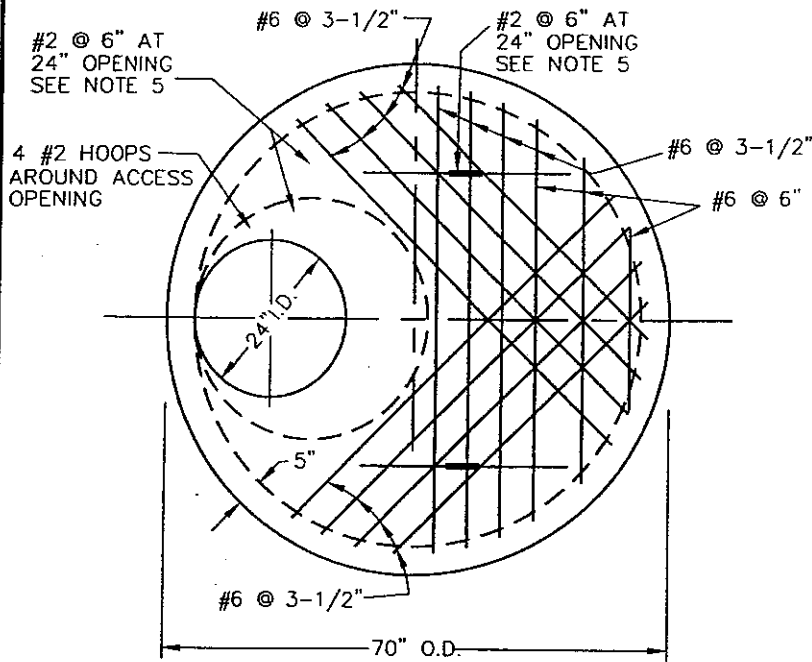
JUNCTION D.I. DETAIL



SHALLOW MANHOLE DETAIL (FOR PIPES W/LESS THAN 4' COVER)

			COUNTY OF SUTTER	
			DRAINAGE INLET	
			 3/14/06 APPROVED DATE	
6/11/04			K.X.	SCALE : NONE
DATE	REVISIONS	BY	DRN : PSO	DWG NO. D-7

H-20 LOADING

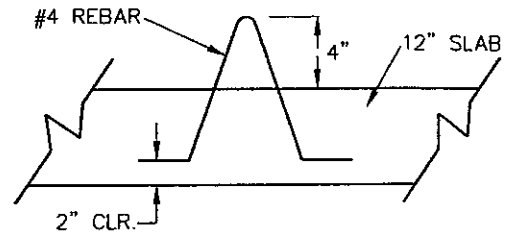


SLAB WEIGHT = 3600 lbs.

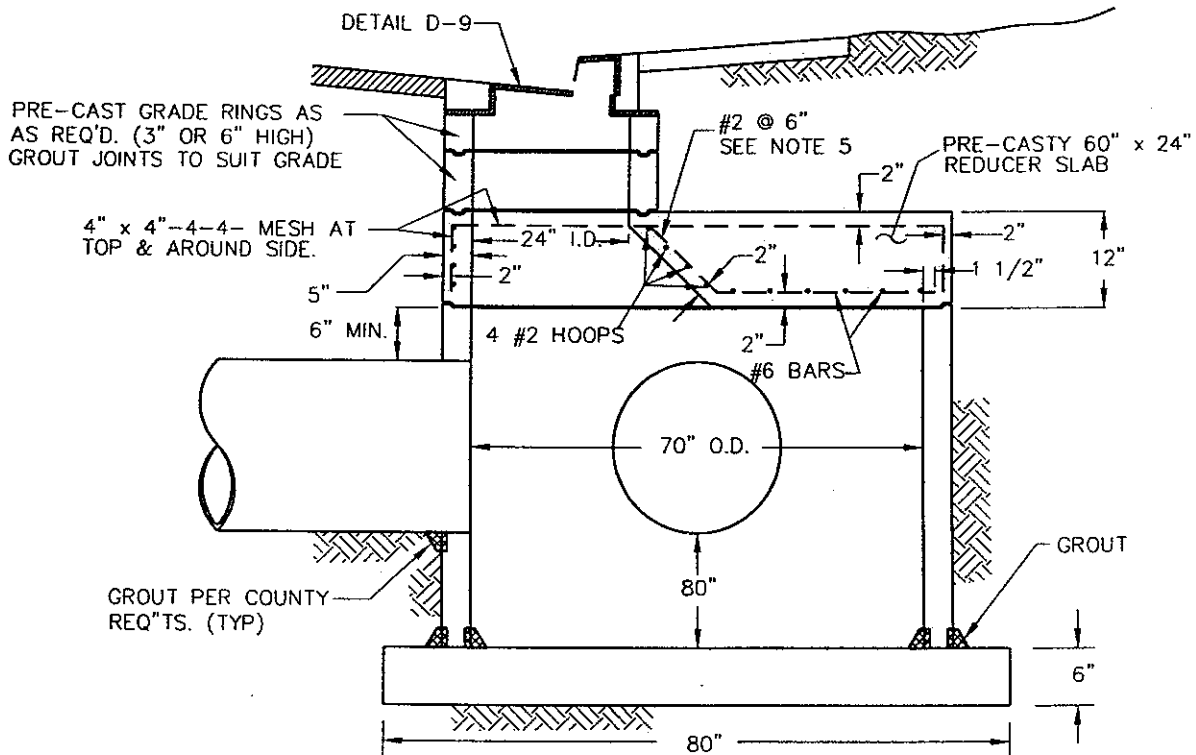
SLAB PLAN

NOTES:

1. MANHOLES & SLABS ARE MANUFACTURED TO ASTM SPECIFICATION C478.
2. CONCRETE SHALL TEST 3000 psi AT 28 DAYS.
3. GALVANIZED STEEL STEPS. 3/4" O , SPACED 12" O.C. MAY BE SPECIFIED. STEPS ARE SPACED AT 6" FROM JOINTS.
4. 1:3 GROUT MIX OR RAM-NEK JOINT COMPOUND TO BE USED IN ALL JOINTS.
5. #2 BARS BENT UP & SPACED 6" O.C. AROUND 24" OPENING. HORIZONTAL LEG TO FAN OUT AT EQUAL SPACE TO 2" CLR. AT EDGE OF SLAB.
6. WEIGHT OF REDUCER SLAB= 3600 LBS.



LIFTING EYE DETAIL



COUNTY OF SUTTER

MODIFIED JUNCTION BOX

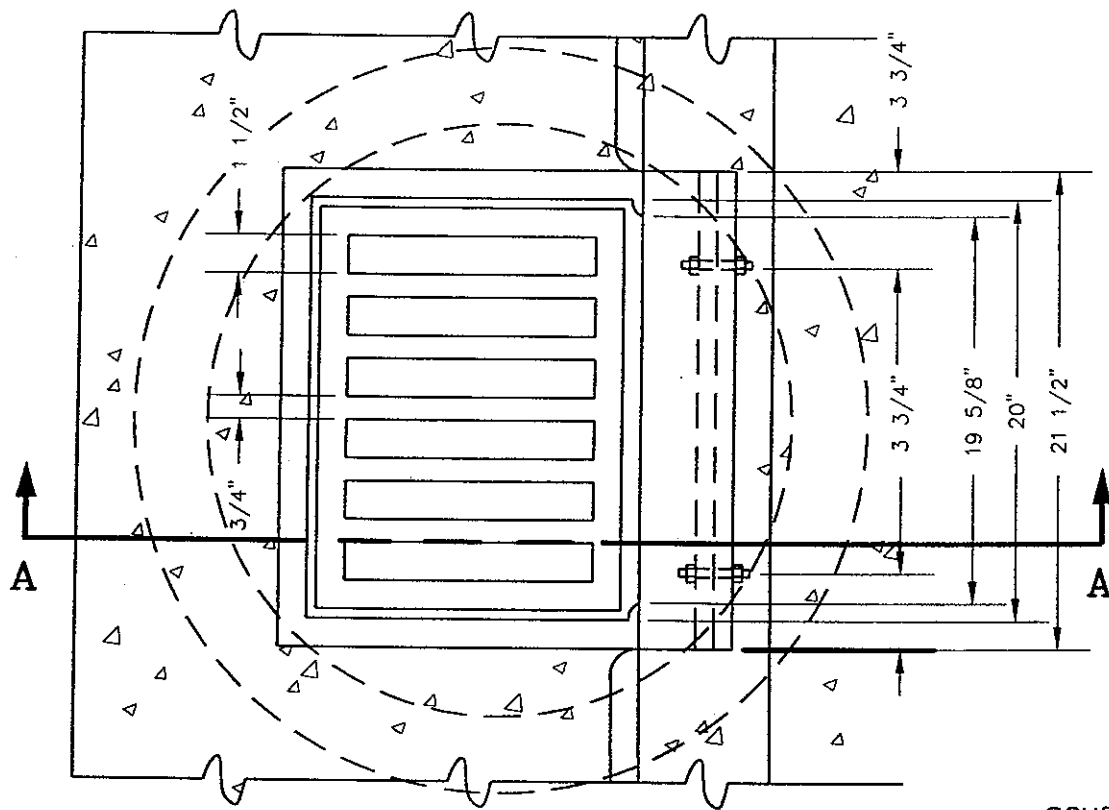
[Signature] *[Signature]*
 APPROVED DATE

SCALE : NONE
 DRN : PSO

DWG NO. D-8

DATE	REVISIONS	BY

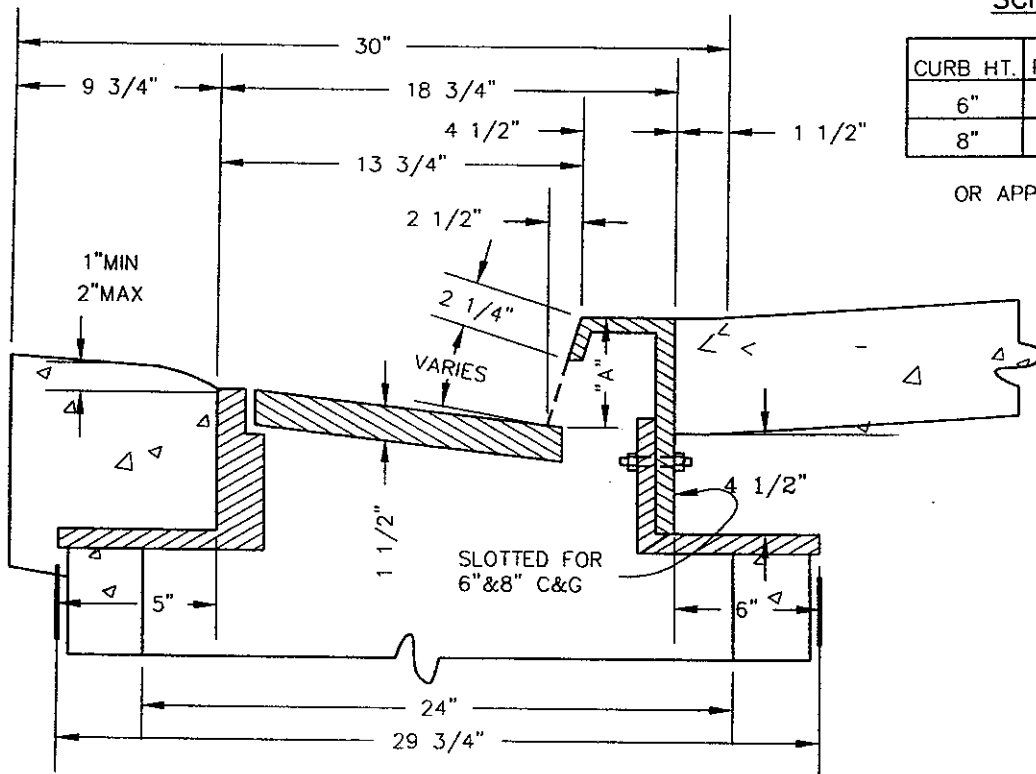
Apr. 19, 1999 - DWG Name: R:\develop\SUT0202\Sid-Del\Sutter\D-09.dwg Updated By: GYuslat



SCHEDULE A

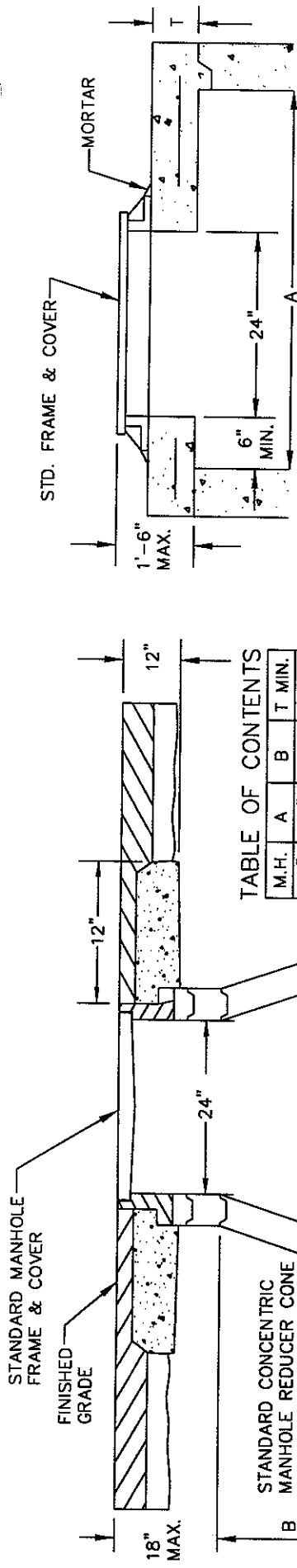
CURB HT.	PINKERTON NO.	"A"
6"	A-420B-M	6"
8"	A-420B-M	8"

OR APPROVED EQUAL



DATE	REVISIONS	BY

COUNTY OF SUTTER	
DROP INLET DRAINAGE GRATE ASSEMBLY	
<i>Robert L. Bennett</i> <i>al/mol</i>	
APPROVED	DATE
SCALE : NONE DRN : PSO	DWG NO. D-9



FLAT SLAB SHALL BE USED WHEN DEPTH DOES NOT PERMIT USE OF TAPER UNIT.

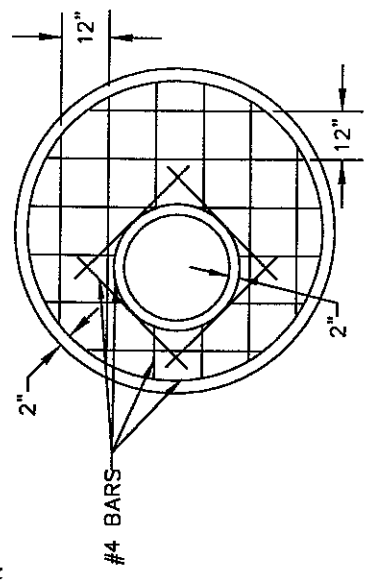
TABLE OF CONTENTS

M.H.	A	B	T MIN.
48"	48"	18"	6"
60"	60"	30"	8"
72"	72"	42"	8"

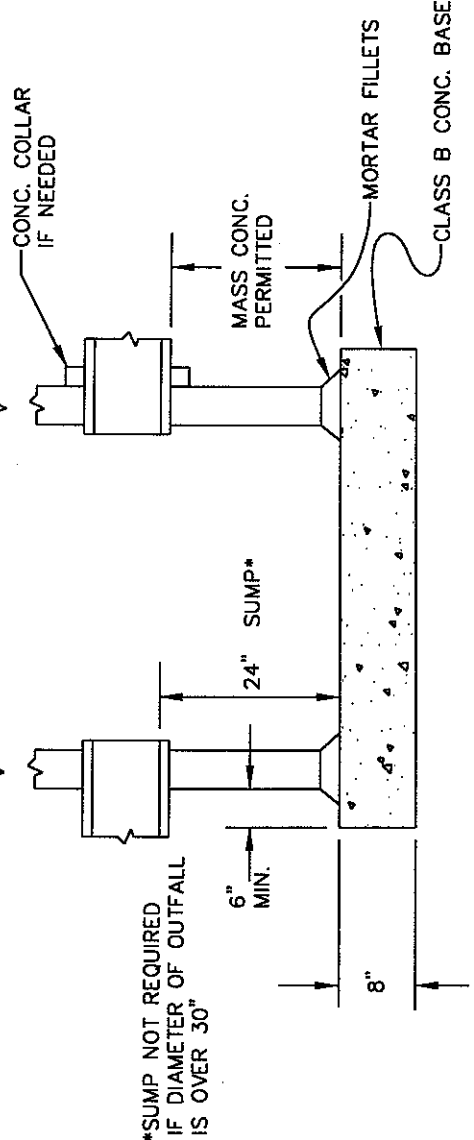
- DIMENSION "B" IS A MINIMUM DIMENSION AND MAY BE GREATER IF DEPTH PERMITS
- RISER SECTIONS, CONES AND ADJUSTING RINGS SHALL CONFORM TO ASTM DESIGNATION C-478.
- FRAME SHALL BE SECURED TO RISER OR FLAT SLAB TOP WITH CEMENT MORTAR.

PLACE AT EACH JOINT PREFORMED PLASTIC COMPOUND, KENT-SEAL OR RAM-NECK OR EQUIV. TRIM EXCESS PLASTIC & MORTAR JOINTS

ECCENTRIC CONES SHALL BE USED WHERE SPECIFIED ON THE PLANS. JOINTS MAY BE EITHER KEYED OR TONGUE AND GROOVE.



FLAT SLAB TOP



*SUMP NOT REQUIRED IF DIAMETER OF OUTFALL IS OVER 30"

COUNTY OF SUTTER

STANDARD PRECAST STORM MANHOLE

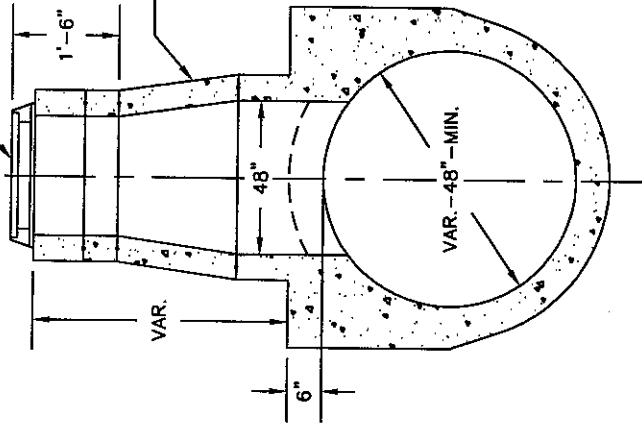
APPROVED: *[Signature]* DATE: 3/17/06

SCALE: NONE BY: K.X.

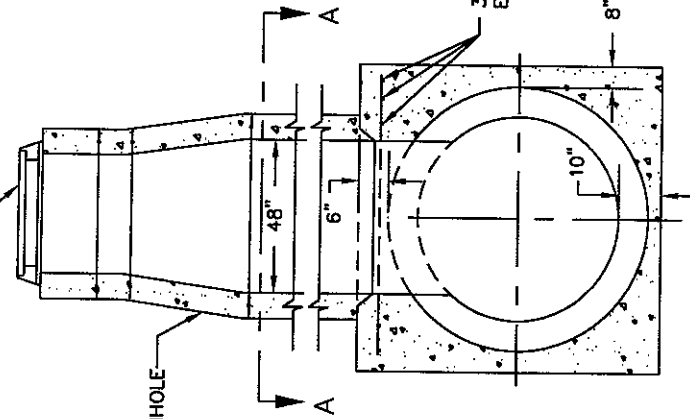
DRN: P50 DWG NO. D-10

DATE	REVISIONS	BY
6/11/04		K.X.

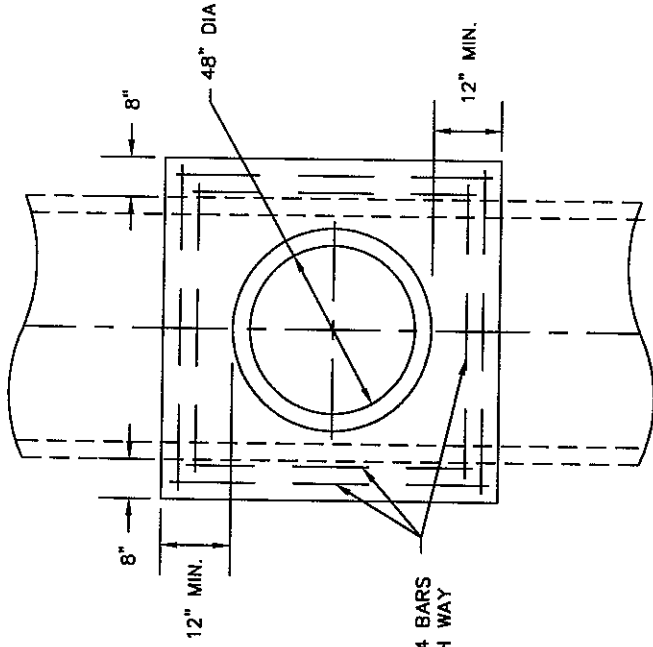
STANDARD 24" FRAME & COVER



TYPE A
(CAST-IN-PLACE PIPE ONLY)



TYPE B



SECTION A-A

NOTES:

1. REMOVE CONCRETE IN MANHOLE OPENING AND CONSTRUCT RISER BASE WHILE CONCRETE IS STILL FRESH.
2. PLACE RISER SECTION AFTER CONCRETE HAS SET.

NOTES:

1. ALL PIPE OTHER THAN CAST-IN-PLACE PIPE.
2. CAST-IN-PLACE PIPE LESS THAN 48" DIA.

COUNTY OF SUTTER

TYPE A & B SADDLE MANHOLE

3/17/06

DATE

APPROVED

SCALE : NONE

DRN : PSO

6/11/04

DATE

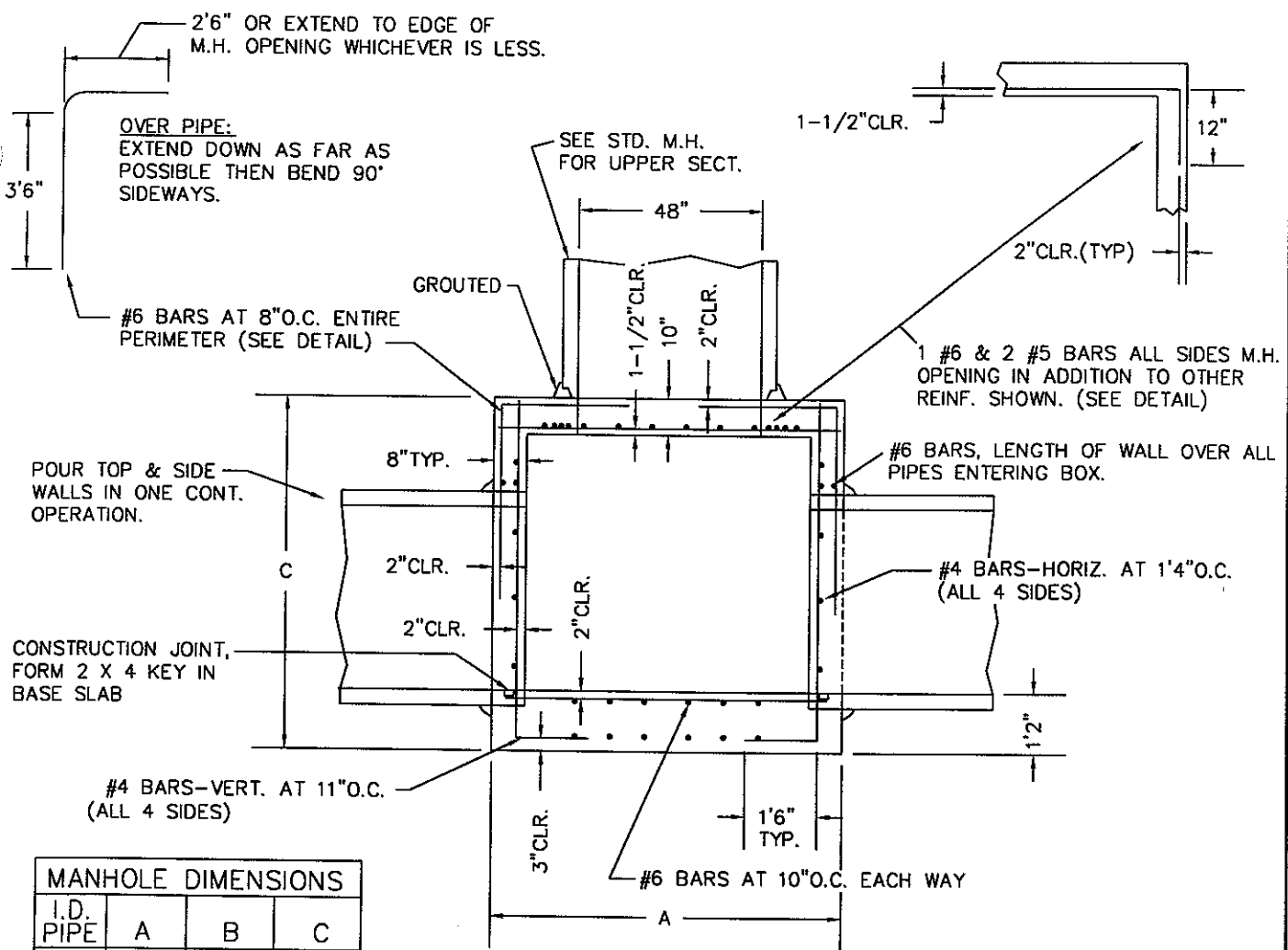
K.X.

REVISIONS

BY

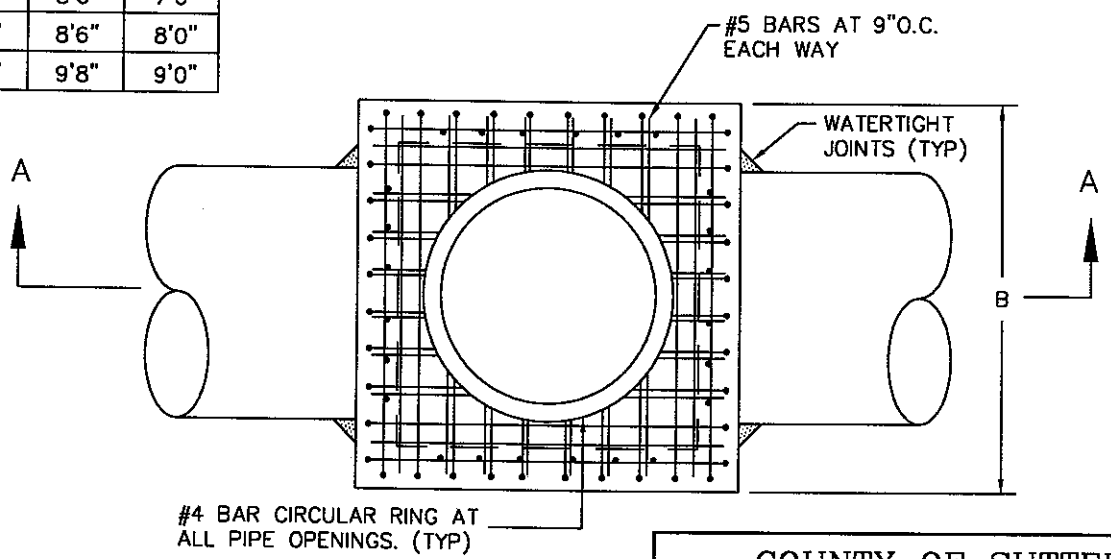
DWG NO. D-11

Apr. 20, 1999 - 07: DWG Name: R:\develop\SU\T0202\Std-Det\Sutter\0-12.dwg Updated By: Cystal



MANHOLE DIMENSIONS			
I.D. PIPE	A	B	C
30"	5'6"	4'6"	5'4"
36"	6'0"	5'6"	5'10"
42"	6'6"	6'6"	6'4"
48"	7'0"	7'0"	7'0"
54"	7'10"	8'0"	7'6"
60"	8'0"	8'6"	8'0"
72"	9'0"	9'8"	9'0"

SECTION A-A

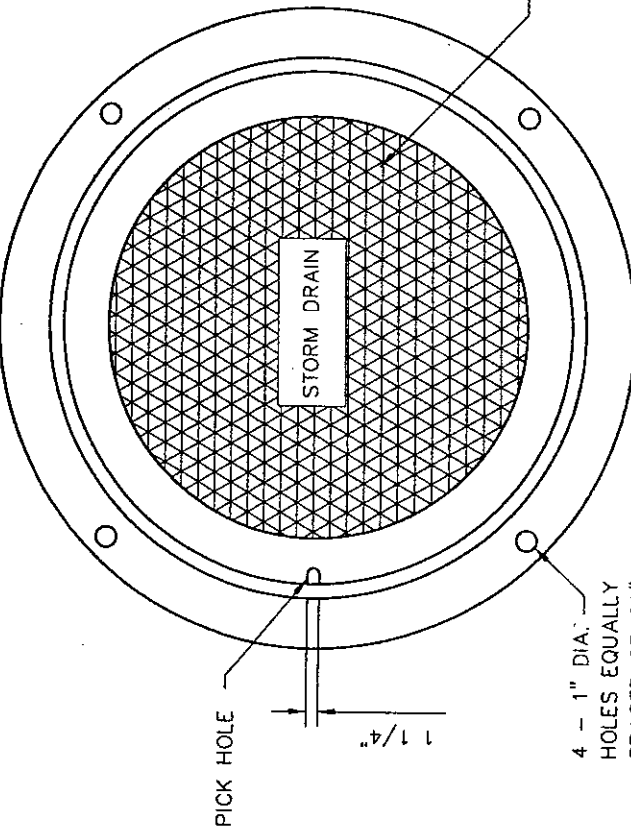


DATE	REVISIONS	BY
6/14/04		K.X.

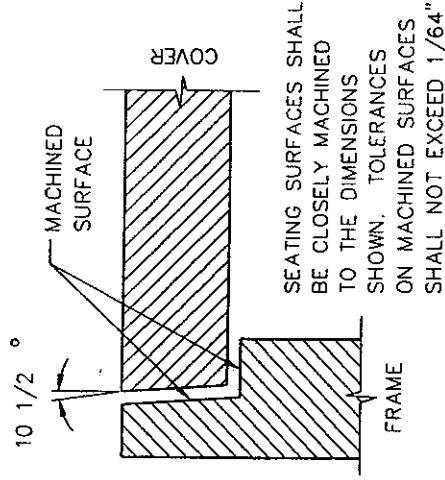
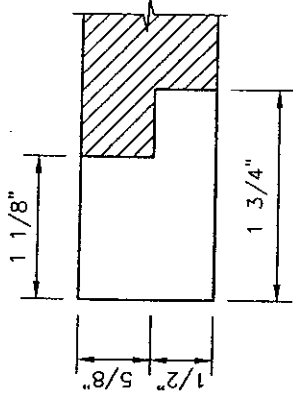
COUNTY OF SUTTER	
30" DIAM. PIPE OR GREATER JUNCTION BOX	
<i>[Signature]</i> APPROVED	3/14/06 DATE
SCALE : NONE DRN : PSO	DWG NO. D-12

ITEM	APPROXIMATE WEIGHT (LBS.)
ASSY.	270
FRAME	142
COVER	128

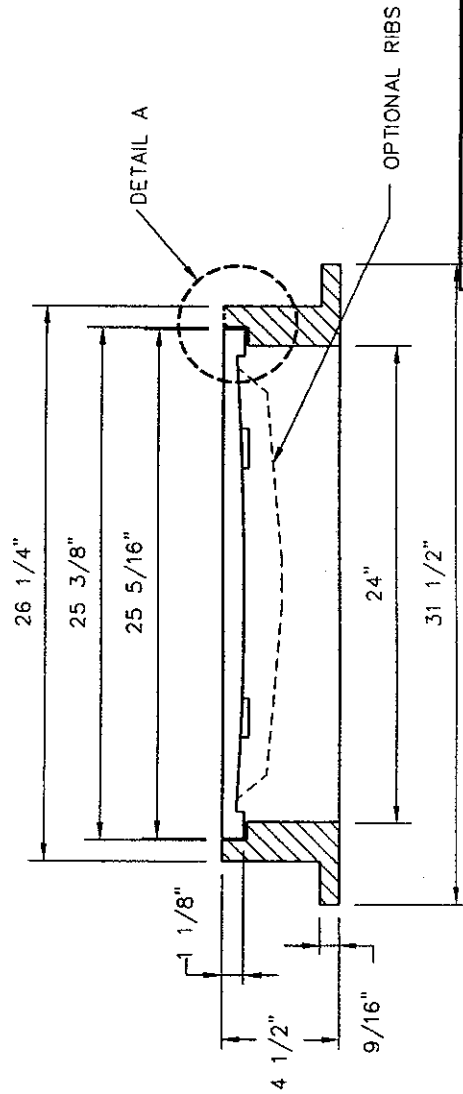
MATERIAL: CAST IRON



SECTION THROUGH CENTER OF PICK HOLE



DETAIL A

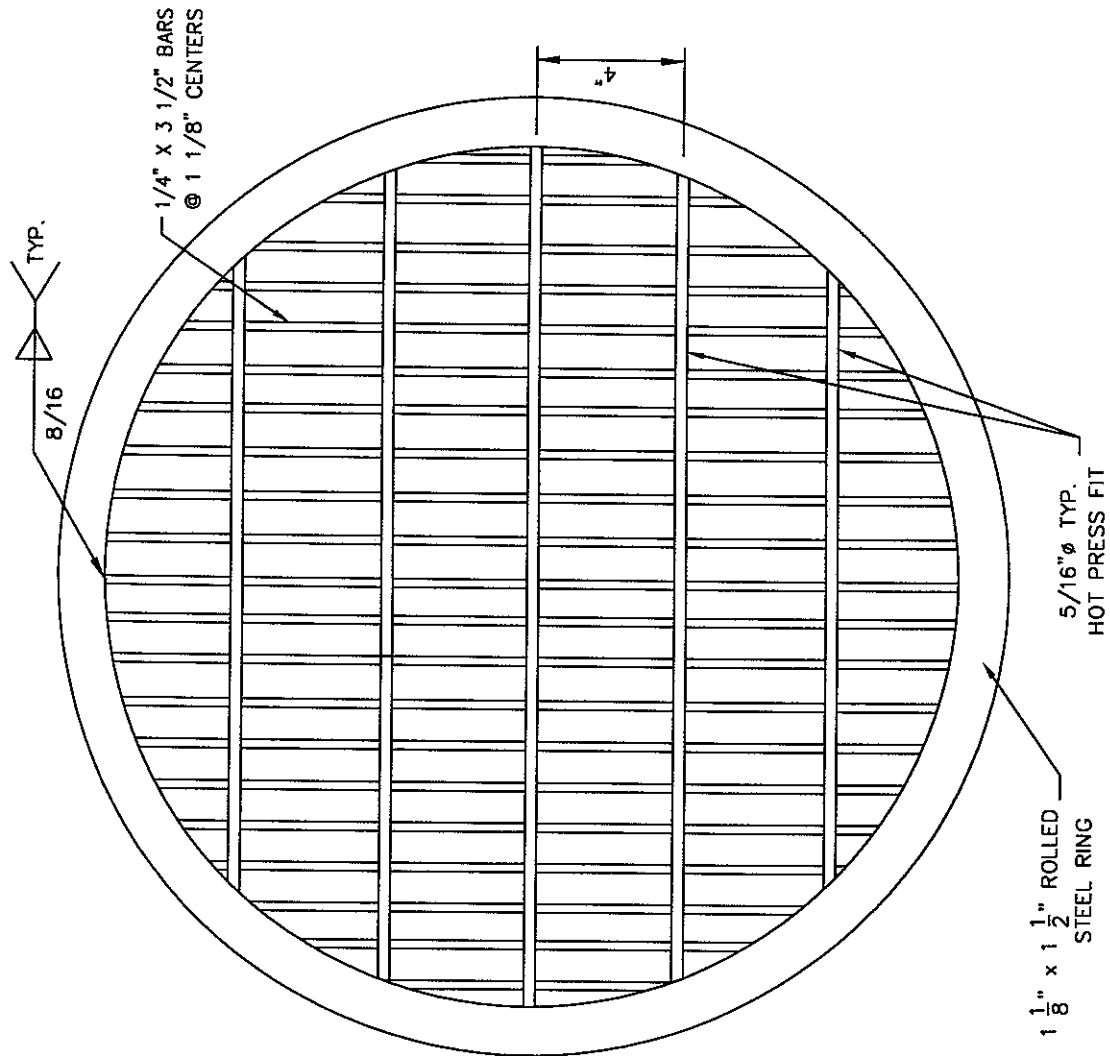
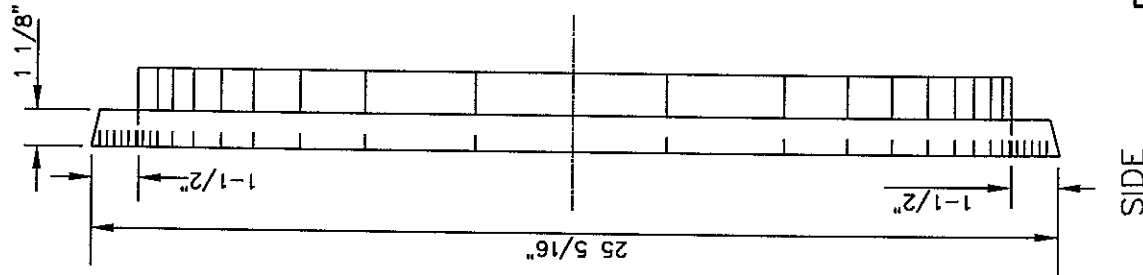


NOTE:

ALL MATERIALS TO BE MADE IN U.S.A.

COUNTY OF SUTTER
STANDARD 24" MANHOLE FRAME & COVER
APPROVED <i>[Signature]</i> DATE <i>[Date]</i>
SCALE : NONE
DRN : PSO
DWG NO. D-13

DATE	REVISIONS	BY

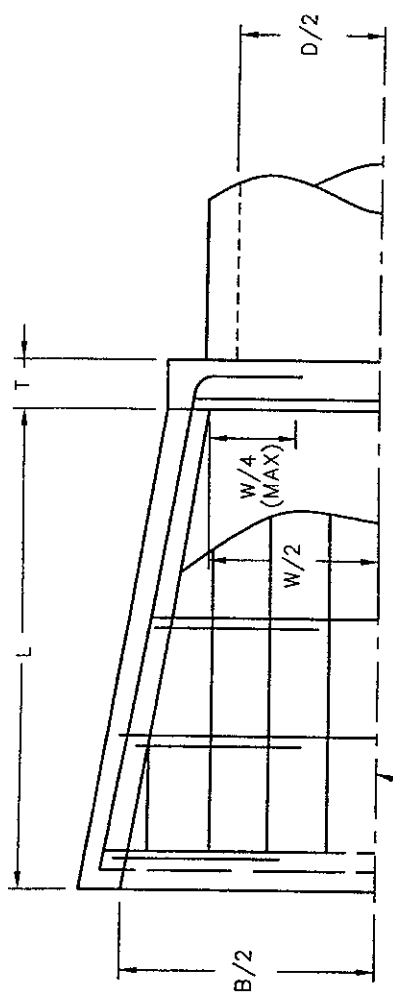


NOTES:

1. MANHOLE COVER SHALL FIT FRAME SHOWN ON DRAWING D-13.
2. SEATING SURFACES SHALL BE MACHINED AS SHOWN IN DETAIL ON DRAWING D-13.
3. THIS COVER MAY BE USED ONLY WITH APPROVAL OF ENGINEER
4. GALVANIZE AFTER FABRICATION.

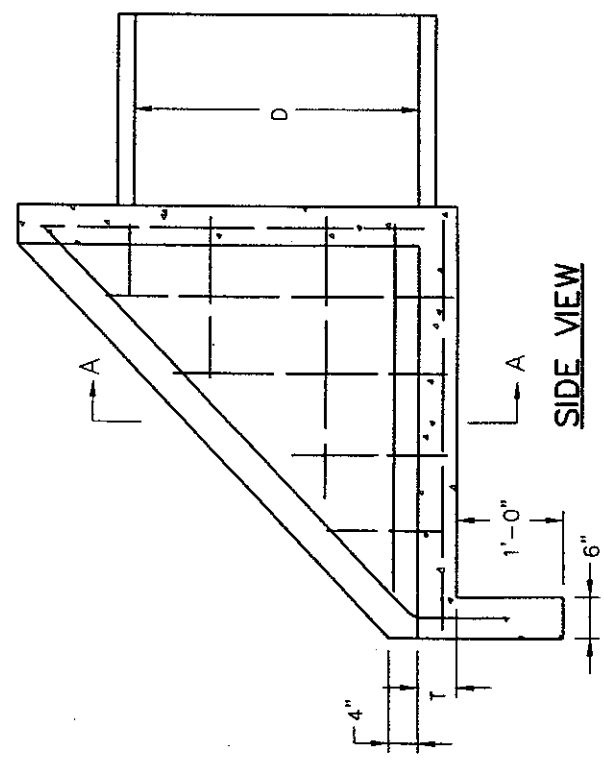
COUNTY OF SUTTER	
GRATE TYPE MANHOLE COVER	
APPROVED	DATE
<i>[Signature]</i>	3/19/06
SCALE : NONE	DWG NO. D-14
DRN : PSO	

DATE	REVISIONS	BY	K.X.
6/14/04			

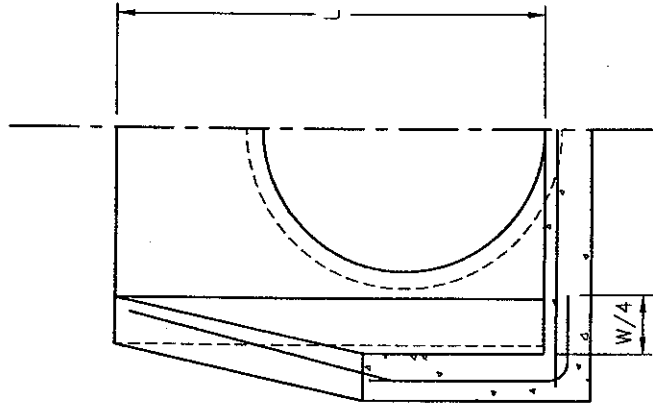


SYMMETRICAL ABOUT C/L

TOP VIEW



SIDE VIEW



HALF SECTION A-A

DIMENSIONS AND REINFORCING

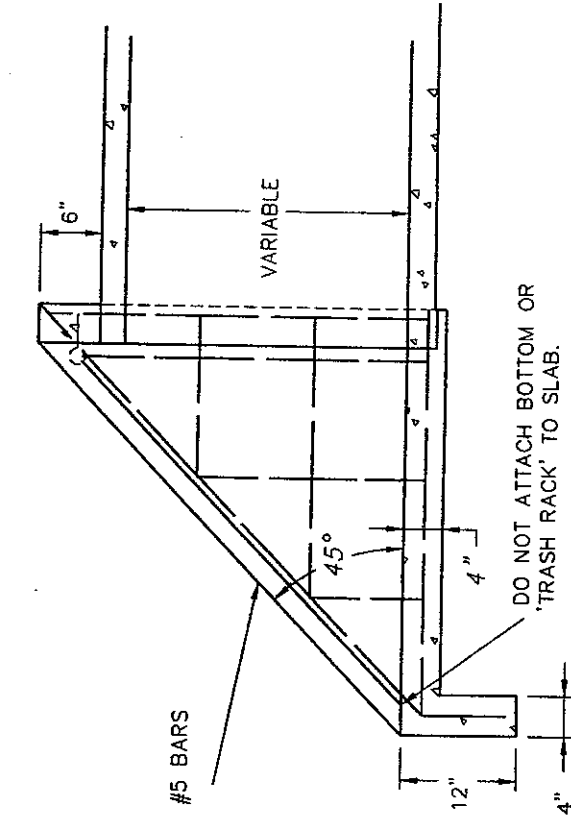
D	W	B	L	T	ALL REINFORCING
33"	3'-3"	5'-3"	4'-0"	6"	#3'Ø12"
36"	3'-8"	5'-8"	4'-2"	6"	#3'Ø12"
42"	4'-4"	6'-4"	4'-8"	6"	#3'Ø12"
48"	4'-10"	7'-2"	5'-2"	8"	#6'Ø12"
54"	5'-4"	8'-0"	6'-0"	8"	#6'Ø12"
60"	6'-0"	8'-10"	6'-6"	8"	#6'Ø12"

NOTES:

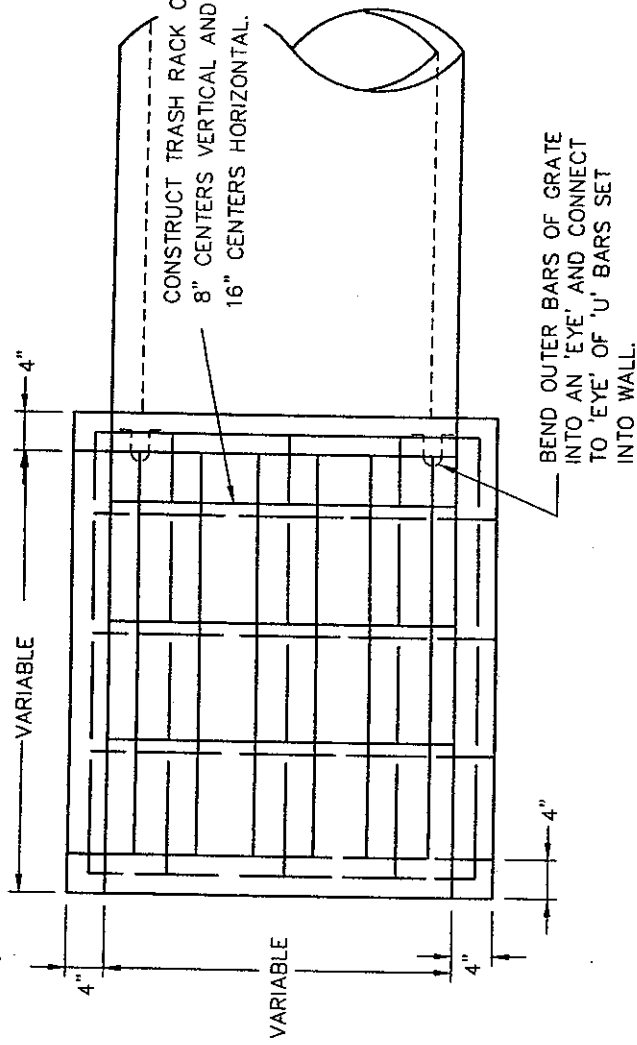
1. "B" MAY BE REDUCED IF REQUIRED BY CHANNEL DIMENSIONS.
2. REINFORCING BAR SPACING SHOWN IS MAXIMUM SPACING.
3. USE CLASS 'B' CONCRETE.

COUNTY OF SUTTER	
PIPE INLET STRUCTURE	
APPROVED	DATE
SCALE : NONE	DWG NO. D-15
DRN : PSO	

DATE	REVISIONS	BY



SIDE VIEW



TOP VIEW

NOTE:
 ALL REINFORCING TO BE #4 @ 12"
 USE CLASS 'B' CONCRETE

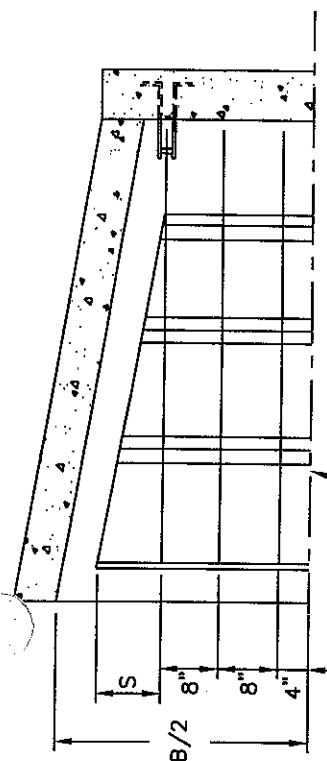
COUNTY OF SUTTER	
PIPE INLET STRUCTURE AND TRASH RACK (30" PIPE & SMALLER)	
APPROVED	DATE
SCALE : NONE	DRN : PSO
DATE	REVISIONS
BY	
DWG NO. D-16	

TRASH RACK DIMENSIONS

DIA.	NUMBER & SIZE		L	L'	S	H
	BAR 'A'	L BAR				
33"	8-3/8" x 2-1/2"	3-2 x 2 x 1/4	5'-1"	1'-10"	8"	3'-8"
36"	8-3/8" x 2-1/2"	3-2 x 2 x 1/4	5'-4"	1'-11"	8"	3'-10"
42"	9-3/8" x 2-1/2"	3-2 x 2 x 1/4	5'-11"	2'-3"	9"	4'-4"
48"	9-3/8" x 2-1/2"	4-2 x 2 x 1/4	6'-7"	1'-9"	10"	4'-10"
54"	10-3/8" x 3"	4-3 x 3 x 1/4	7'-9"	2'-1.5"	10.5"	5'-8"
60"	11-3/8" x 3-1/2"	4-3 x 3 x 1/4	8'-5"	2'-4"	11"	6'-2"

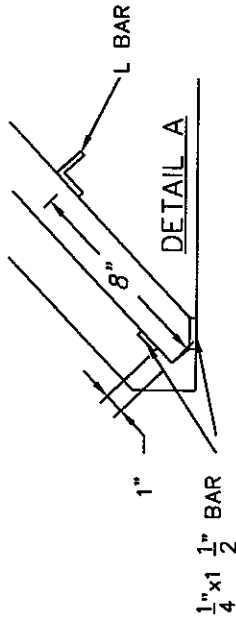
NOTES:

1. THIS TRASH RACK TO BE USED WITH PIPE INLET STRUCTURES.
2. MATERIAL TO CONFORM TO ASTM DESIGNATION A-36.
3. 'S' MAY VARY WITH 'B' SEE PLATE.
4. ALL FILLET WELDS TO BE 3/16"
5. 2 HINGES REQUIRED FOR 33,36 & 42 INCH PIPES. 3 HINGES REQUIRED FOR 48, 54 & 60 INCH PIPES.



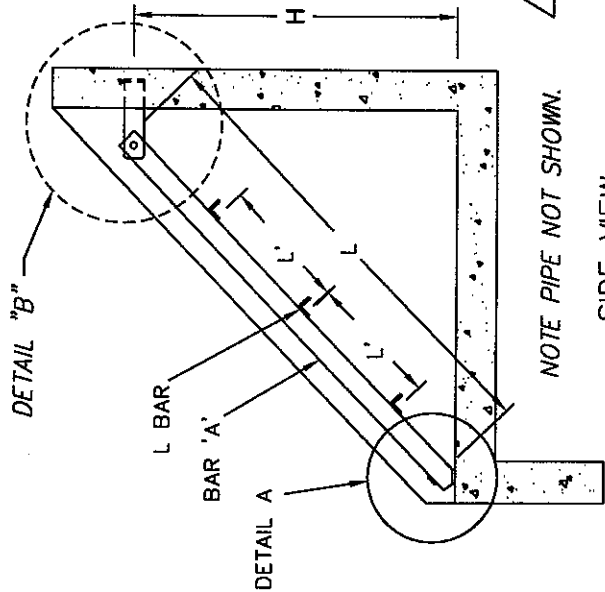
TOP VIEW

SYMMETRICAL ABOUT C/L



DETAIL A

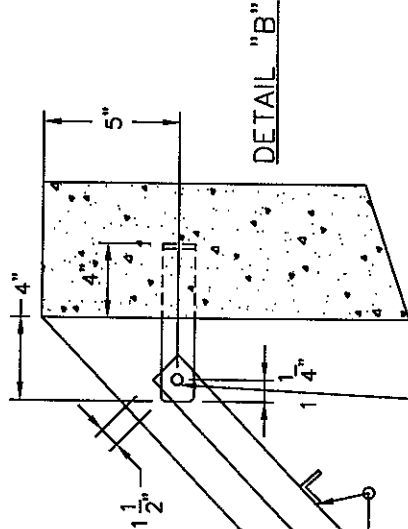
1" x 1 1/4" BAR



SIDE VIEW

NOTE PIPE NOT SHOWN.

SEE NOTE 4



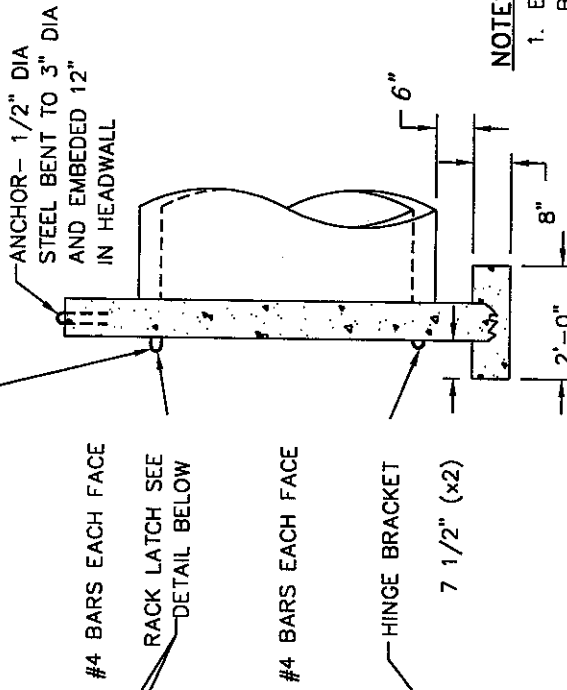
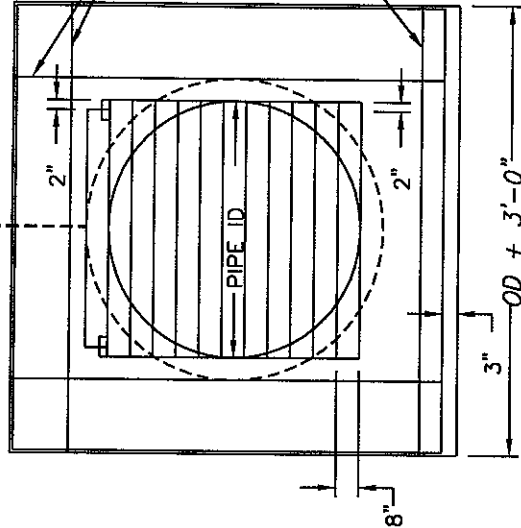
DETAIL B

DRILL 13/16" CONNECT TRASH RACK TO BRACKET WITH 3/4" BY 2 3/4" HEX BOLTS WITH TWO HEX NUTS EACH.

COUNTY OF SUTTER	
TRASH RACK (33" PIPE OR LARGER)	
APPROVED	DATE 3/17/06
SCALE : NONE	DRN : PSO
DATE 11/3/05	BY K.X.
REVISIONS	BY
DATE	BY

TRASH RACK LATCH LINKAGE, SEE TABLE AT RIGHT FOR SIZE OF SQUARE TUBING STOCK FOR FABRICATION

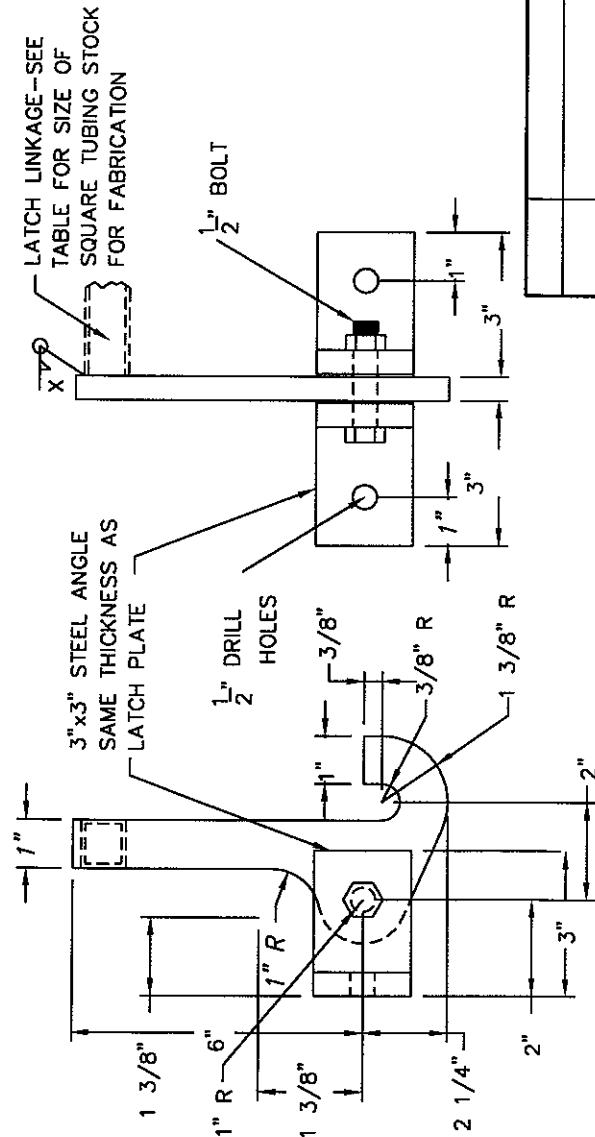
FASTEN LATCH LINKAGE TO ANCHOR WITH CHAIN AND PADLOCK



PIPE SIZE	RACK BAR SIZE	LATCH PLATE THICKNESS	LATCH PLATE SIZE
21"	#4	1/4"	1" x .095" THICK
24"	*	*	*
27"	#5	*	*
30"	*	3/8"	*
33"	#6	*	*
34"	*	*	1" x .133" THICK
42"	#7	*	*
48"	*	1/2"	*
54"	*	*	*
60"	#8	*	*
66"	*	*	*
72"	*	*	*
84"	*	*	*

NOTES:

1. ENTIRE RACK TO BE WELDED REINFORCING STEEL OR ROUND BARS OF EQUAL DIA WITH HORIZONTAL BARS BEING 8" CENTER TO CENTER
2. USE CLASS "B" CONCRETE.
3. ROOM SHALL BE PROVIDED DOWNSTREAM TO LAY RACK FLAT.
4. FASTEN LATCH BRACKET, TO HEADWALL WITH 1/2"x6" BOLTS
5. WHEN RACK BAR SHALL BE TIGHT AGAINST THE TOP OF THE HINGE BRACKET SO THAT THE RACK CANNOT BE LIFTED OFF THE LATCH.
6. FABRICATE HINGE BRACKET FROM #4 RE-BAR.
7. ALL REINFORCING STEEL SHALL HAVE 2" EMBEDMENT EXCEPT AS NOTES



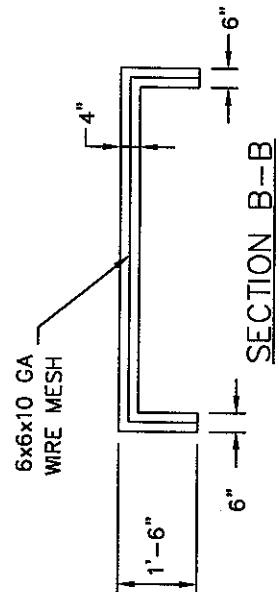
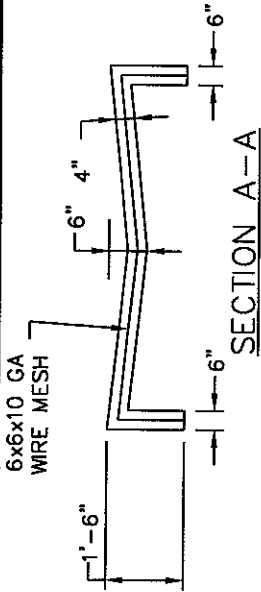
COUNTY OF SUTTER

PIPE OUTFALL-ACCESS CONTROL RACK

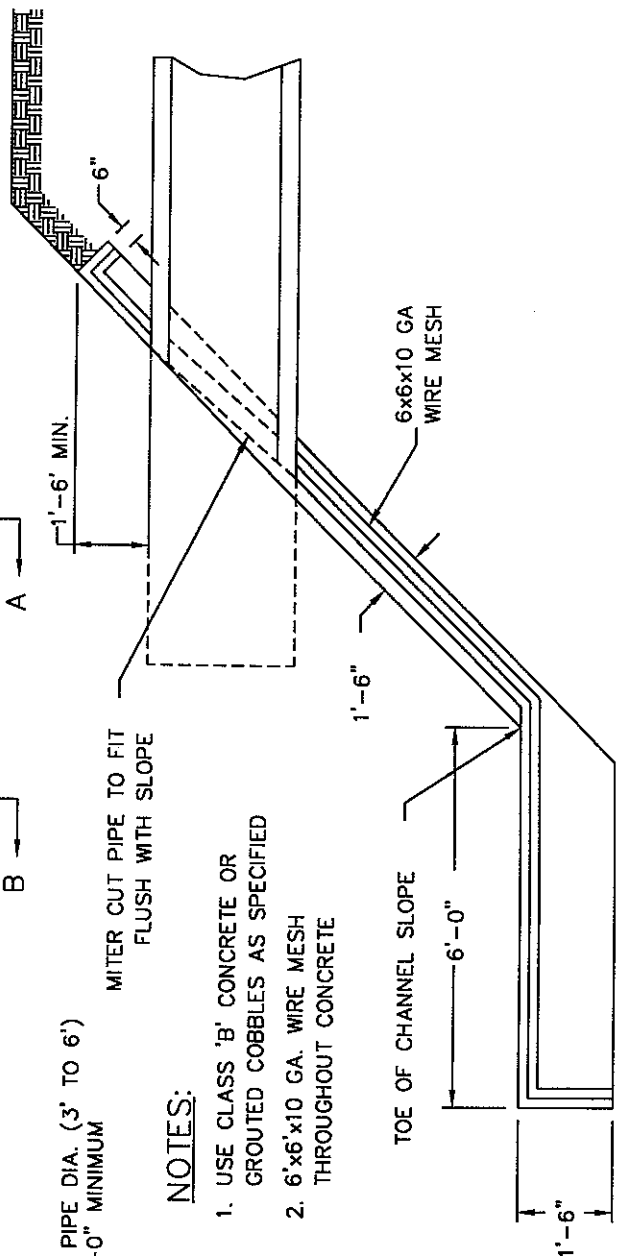
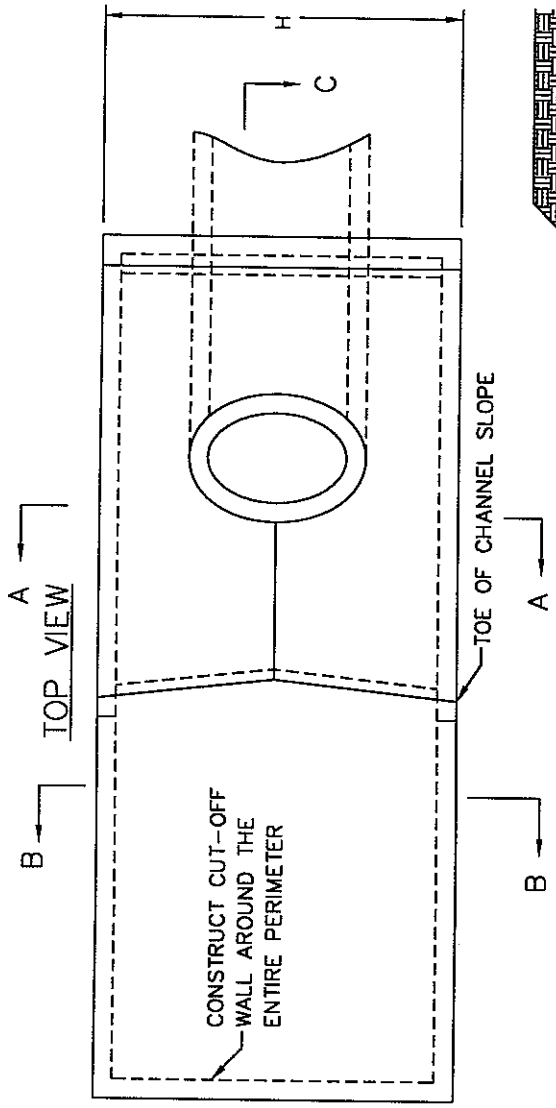
APPROVED *[Signature]* DATE 3/14/06

SCALE : NONE DRN : PSO

DATE	REVISIONS	BY
6/14/04		K.X.



H = 2x PIPE DIA. (3' TO 6')
 H = 6'-0" MINIMUM



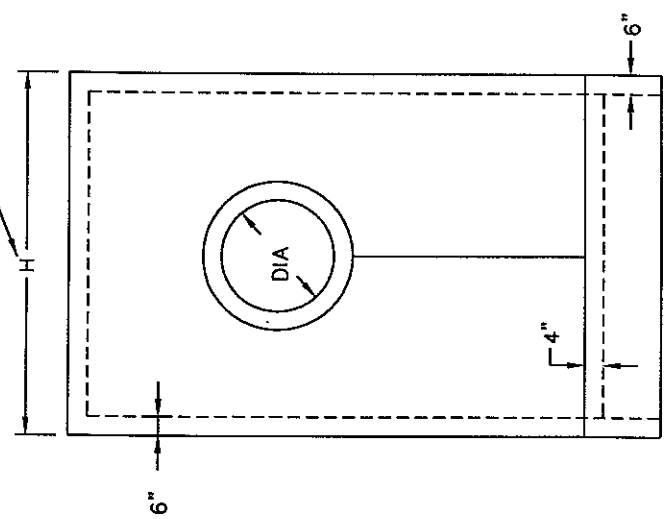
NOTES:

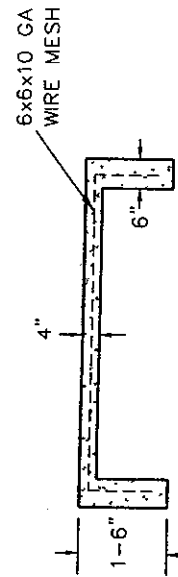
1. USE CLASS 'B' CONCRETE OR GROUTED COBBLES AS SPECIFIED
2. 6'x6'x10 GA. WIRE MESH THROUGHOUT CONCRETE

COUNTY OF SUTTER	
EROSION CONTROL PIPE DISCHARGE	
APPROVED	DATE 3/14/06
SCALE : NONE	DRN : PSO
DWG NO. D-19	

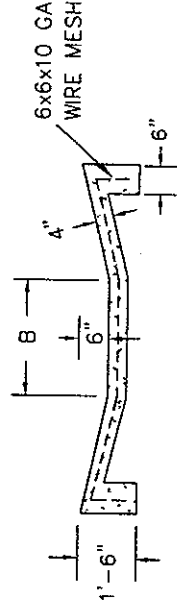
DATE	REVISIONS	BY
6/23/04		K.X.

FRONT VIEW



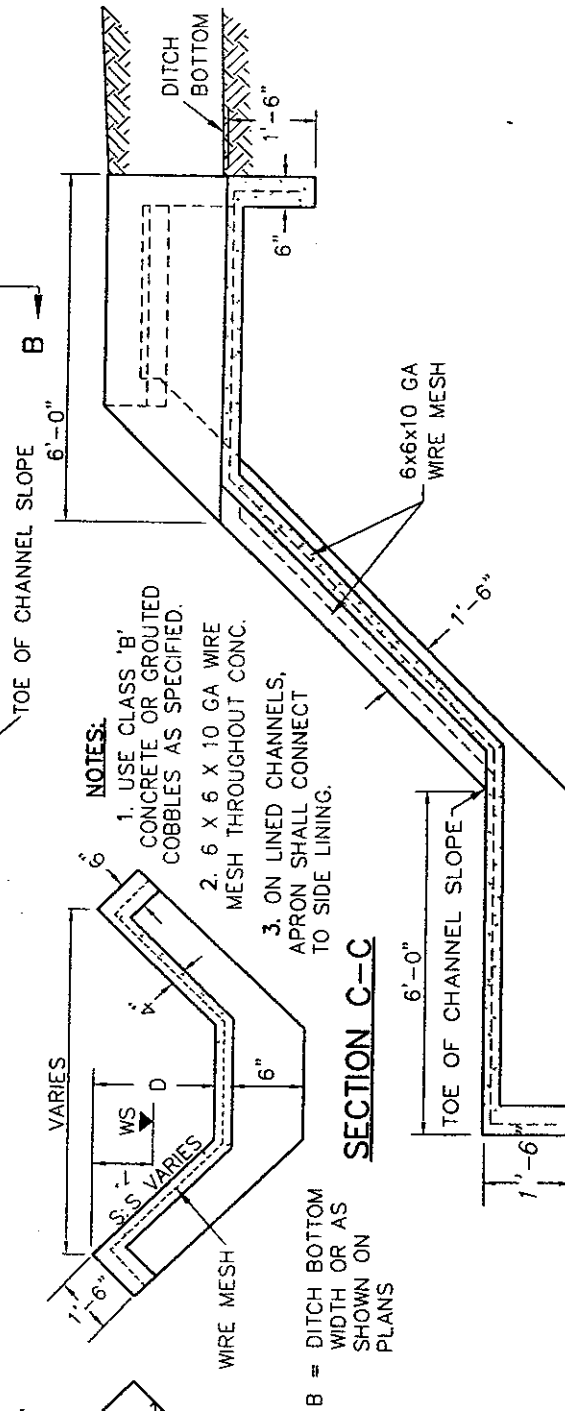
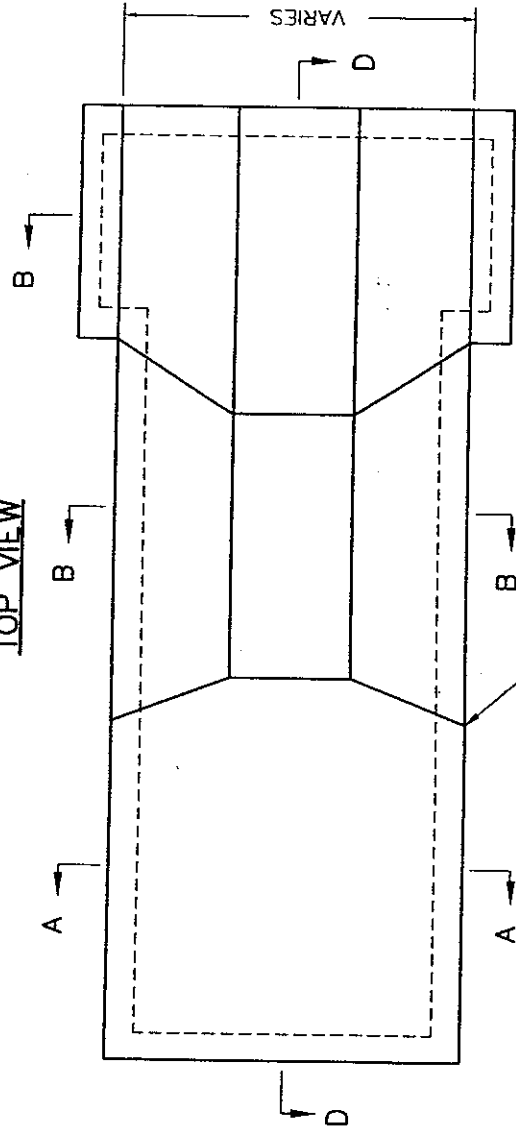


SECTION A-A



SECTION B-B

TOP VIEW



SECTION C-C

NOTES:

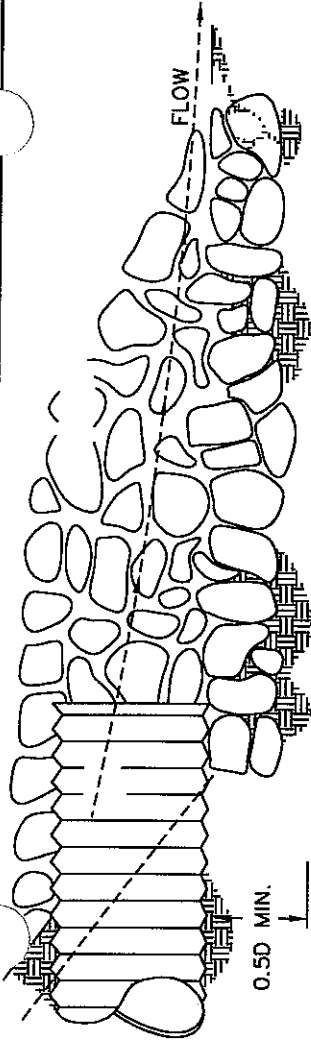
1. USE CLASS 'B' CONCRETE OR GROUTED COBBLES AS SPECIFIED.
2. 6 X 6 X 10 GA WIRE MESH THROUGHOUT CONC.
3. ON LINED CHANNELS, APRON SHALL CONNECT TO SIDE LINING.

B = DITCH BOTTOM WIDTH OR AS SHOWN ON PLANS

SECTION D-D

FRONT VIEW

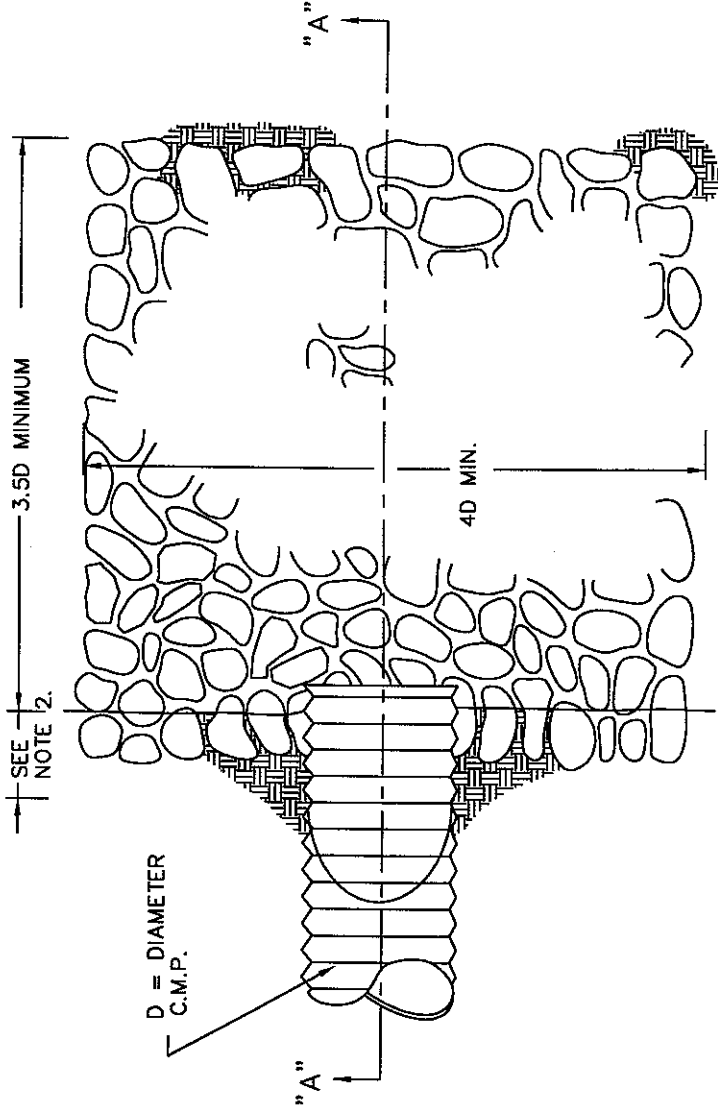
COUNTY OF SUTTER	
EROSION CONTROL DITCH DISCHARGE	
APPROVED	DATE
<i>[Signature]</i>	4/18/02
SCALE : NONE	DWG NO. D-20
DRN : PSO	
DATE	BY
	REVISIONS



SECTION A-A

NOTE:

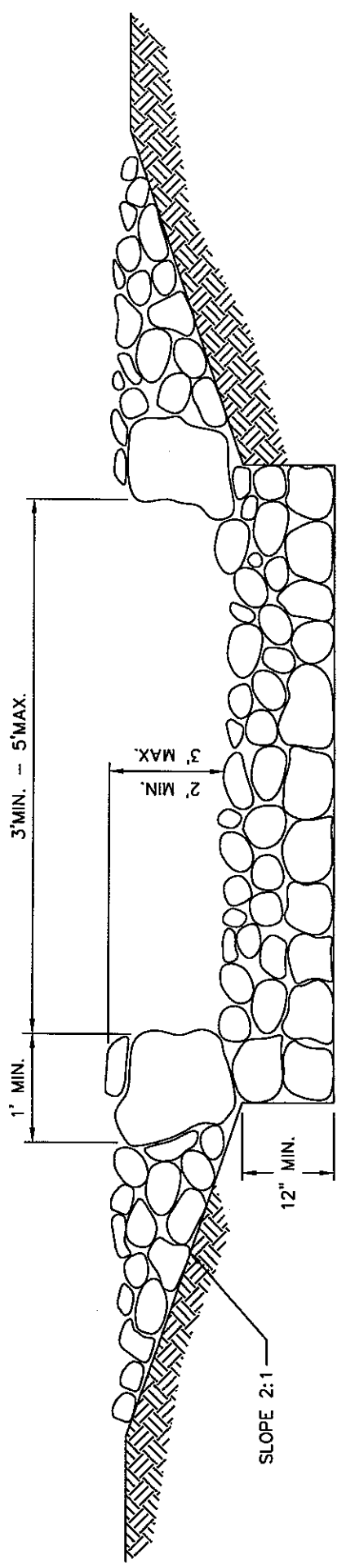
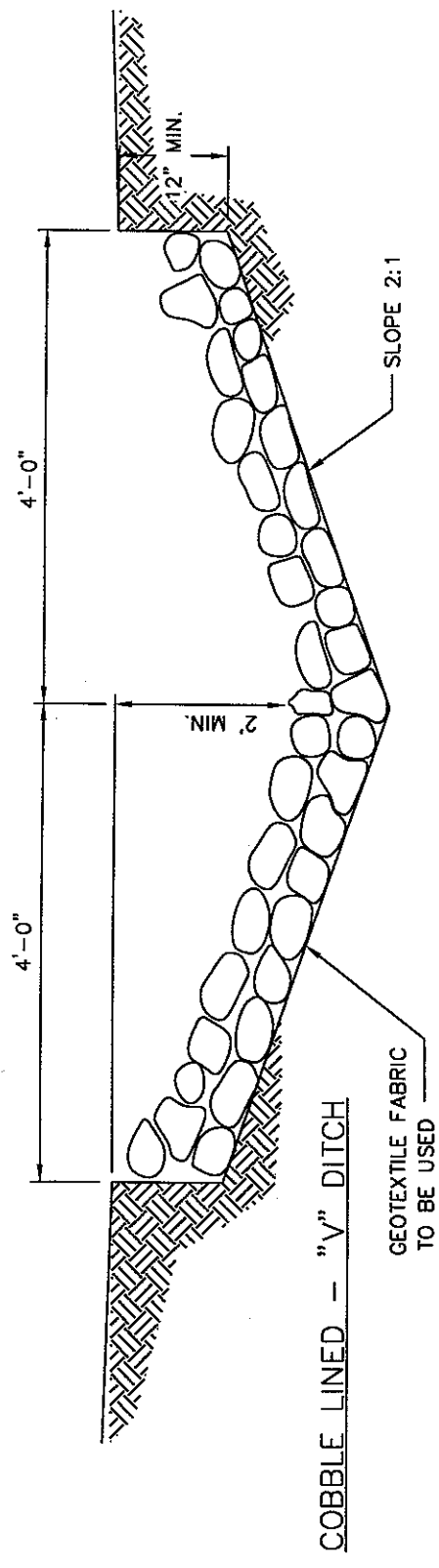
1. STONE LINING SHALL BE COBBLES CONFORMING TO THE REQUIREMENTS SECTION 72 OF THE STANDARD SPECIFICATIONS OR SHOT ROCK AS DIRECTED BY THE ENGINEER.
2. 0.5D OR 1' WHICH EVER IS GREATER.



PLAN

COUNTY OF SUTTER	
CULVERT OUTFALL	
APPROVED	2/19/06 DATE
SCALE : NONE	DWG NO. D-21
DRN : PSO	

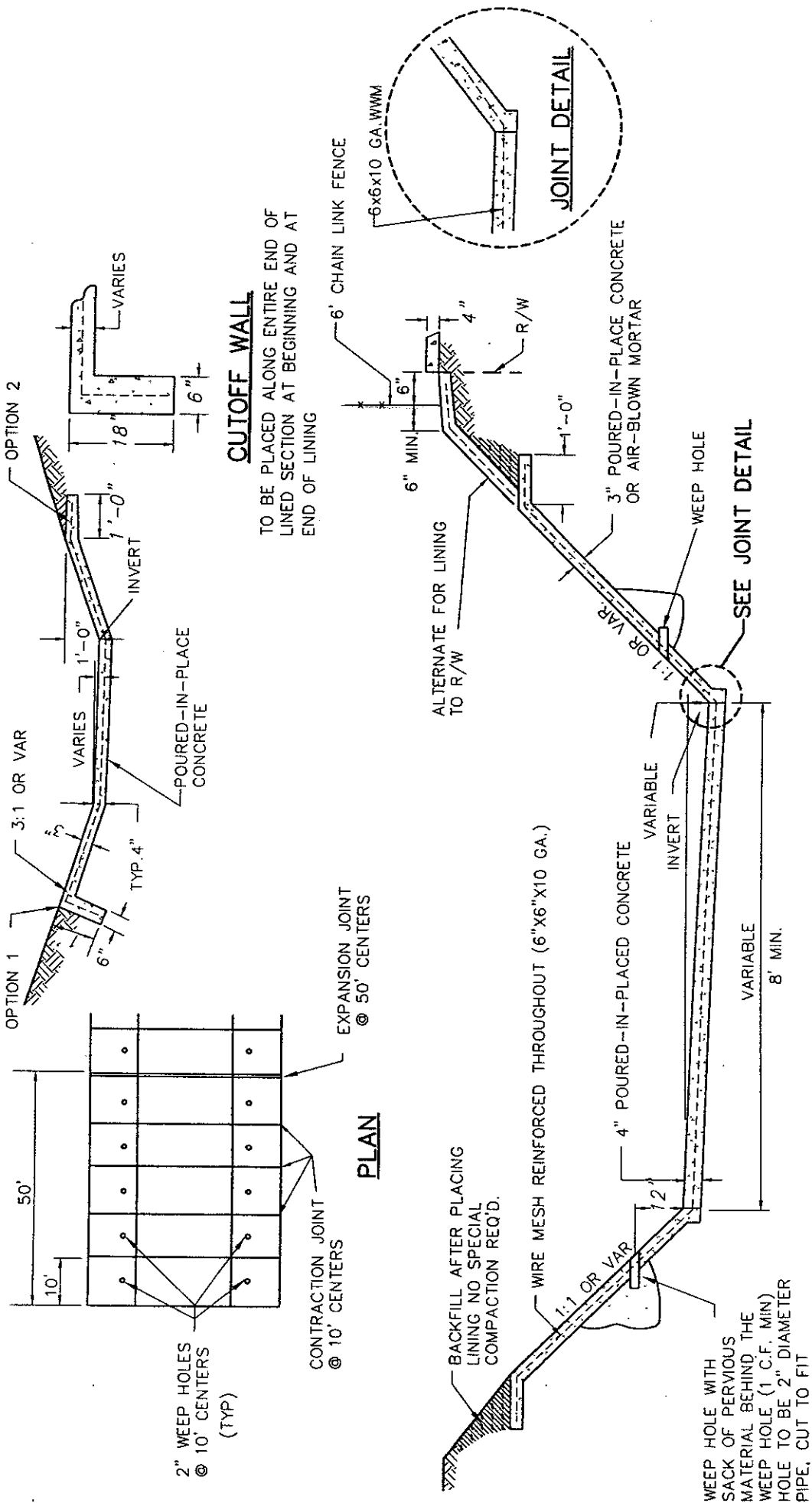
DATE	REVISIONS	BY
11/3/05		K.X.



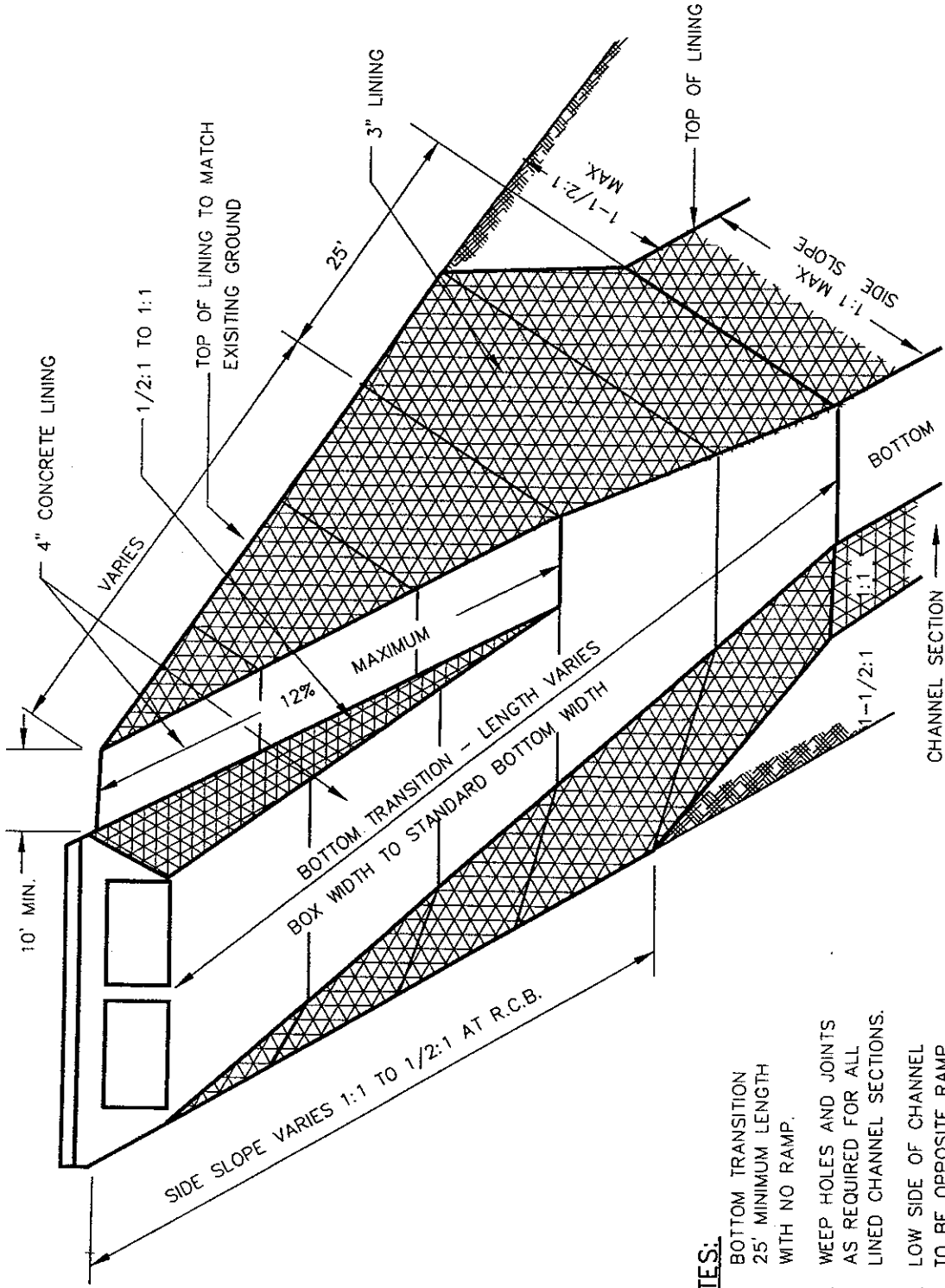
NOTE:
6" TO 36" COBBLE

COUNTY OF SUTTER	
ROCK LINED CHANNEL SECTION	
APPROVED	DATE 3/14/06
SCALE : NONE	DRN : PSO
DWG NO. D-22	

DATE	REVISIONS	BY
6/14/04		K.X.



COUNTY OF SUTTER	
LINED CHANNEL SECTION	
APPROVED	DATE
SCALE : NONE	BY
DRN : PSO	REVISIONS
DATE	DATE



NOTES:

1. BOTTOM TRANSITION 25' MINIMUM LENGTH WITH NO RAMP.
2. WEEP HOLES AND JOINTS AS REQUIRED FOR ALL LINED CHANNEL SECTIONS.
3. LOW SIDE OF CHANNEL TO BE OPPOSITE RAMP.
4. SIDE SLOPE LINING MAY BE DELETED ON CHANNELS WITH BOTTOM LINING ONLY

COUNTY OF SUTTER	
ACCESS RAMP DETAIL	
APPROVED <i>Robert E. Sutter</i>	DATE 4/20/99
SCALE : NONE	DWG NO. D-24
DRN : PSO	

DATE	REVISIONS	BY

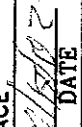
MEASURED SURFACE TO BOTTOM OF TRENCH IN FEET		REINFORCED CONCRETE PIPE								CAST IN PLACE				
		--CLASS--												
DIAMETER	C-14 CONC. PIPE --CLASS--		I		II		III		IV		V		VCP E.S.	NO LIMIT
	1	2	3	1	2	3	4	5	6	7	8	9		
10	12	17	29	NOT PERMITTED		8	12	15	19	23	27	30	35	NO LIMIT
12	12	17	21	NOT PERMITTED		10	15	19	23	27	30	35	35	
15	12	17	20	NOT PERMITTED		11	16	20	24	28	31	35	35	NO LIMIT
18	11	17	19	NOT PERMITTED		12	17	21	25	29	32	36	36	
21	11	17	19	NOT PERMITTED		12	17	21	25	29	32	36	36	NO LIMIT
24	11	16	19	NOT PERMITTED		12	16	20	24	28	31	35	35	
27	11	16	18	NOT PERMITTED		13	18	22	26	29	32	36	36	NO LIMIT
30	11	15	17	NOT PERMITTED		14	19	23	27	30	33	37	37	
33	11	15	16	NOT PERMITTED		14	19	23	27	30	33	37	37	NO LIMIT
36	10	13	14	NOT PERMITTED		13	17	21	25	28	31	35	35	
42	NOT PERMITTED			NOT PERMITTED		14	18	22	26	29	32	36	36	DESIGN BASIS APPROVED ON
48	NOT PERMITTED			NOT PERMITTED		15	19	23	27	30	33	37	37	
54	NOT PERMITTED			NOT PERMITTED		16	20	24	28	31	34	38	38	DESIGN BASIS APPROVED ON
60	NOT PERMITTED			NOT PERMITTED		16	21	25	29	32	35	39	39	
66	NOT PERMITTED			NOT PERMITTED		15	22	26	30	33	36	40	40	DESIGN BASIS APPROVED ON
72	NOT PERMITTED			NOT PERMITTED		15	23	27	31	34	37	41	41	

TYPE	CLASS	MIN. COVER	
		STREET	OFF ST.
C-14 CONC. PIPE	1	30	12
	2	27	12
	3	24	12
REIN. CONCRETE	I	27	12
	II	24	12
	III	18	12
	IV	12	12
	V	12	12
VCP	ES.	24	12
CAST IN PLACE CONCRETE PIPE	---	12	12

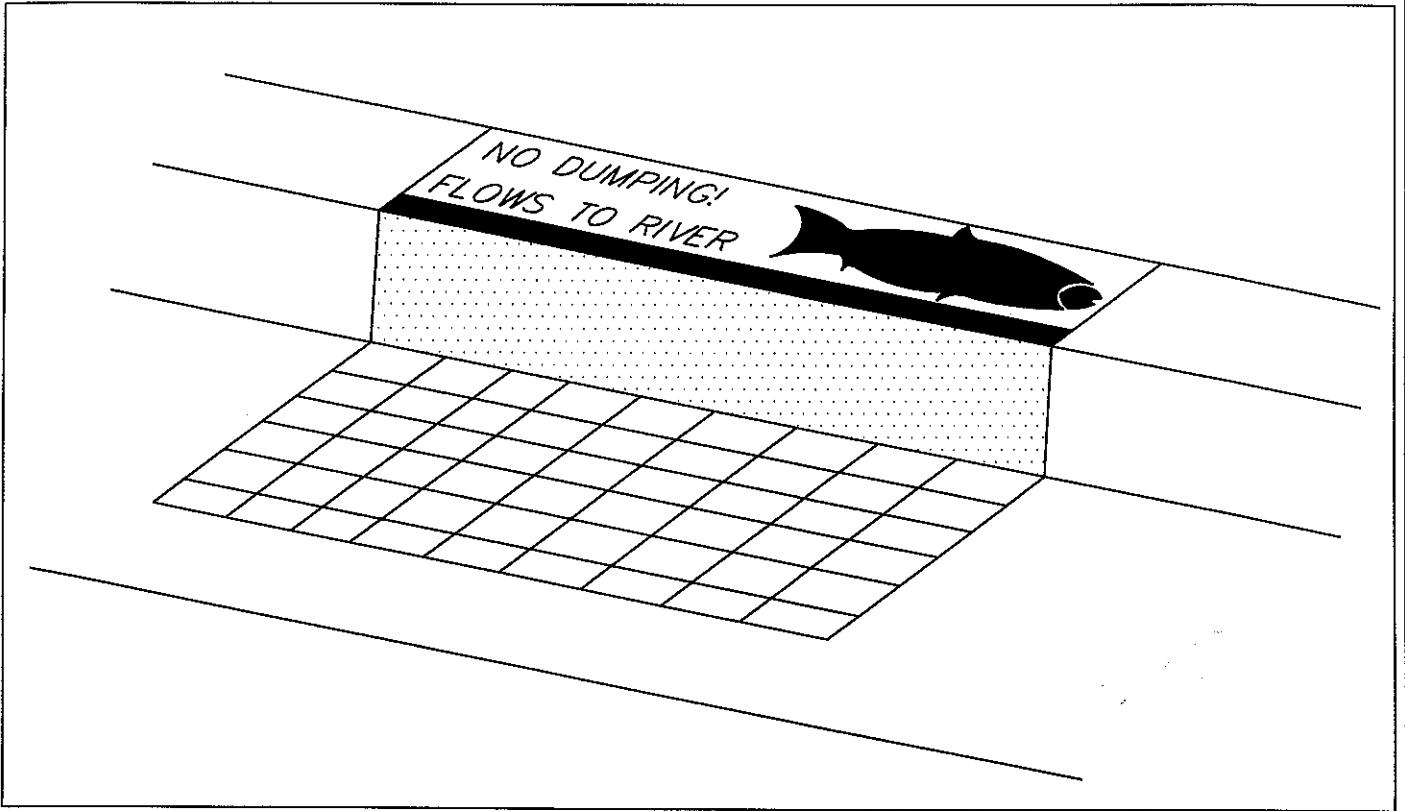
NOTES:

1. ALL DEPTHS SHOWN FOR FLEXIBLE PAVEMENT AND TRENCH WIDTH EQUAL TO O.D. OF PIPE PLUS 16" FOR PIPE 33" AND SMALLER IN INSIDE DIAMETER. TRENCH WIDTH EQUALS O.D. OF PIPE PLUS 24" FOR PIPE 36" AND LARGER IN INSIDE DIAMETER. TRENCH WIDTH MEASURED AT TOP OF PIPE.

2. THIS DETAIL SHALL BE A GUIDE ONLY. THE COUNTY REQUIRES THAT A NCPI LOAD CALCULATION BE RUN ON ALL PIPES FOR TRENCH LOAD DESIGN.

COUNTY OF SUTTER	
PIPE COVER REQUIREMENTS RCP, VCP & CAST-IN-PLACE	
APPROVED:  DATE: <u>4/20/99</u>	
SCALE: NONE	DWG NO. D-25
DRN: P50	
DATE	REVISIONS
BY	

A PUBLIC NOTICE SHALL BE PLACED ADJACENT TO ALL DRAIN INLETS
IN ACCORDANCE WITH THE DETAIL BELOW.



NOTES:

1. MESSAGE AND SYMBOL SHALL BE PERMANENTLY PLACED WITH THE USE OF BOMACRON OR ANOTHER METHOD APPROVED BY THE COUNTY PRIOR TO THE CONSTRUCTION OF THE CURB AND GUTTER.
2. LETTERS SHALL BE 1-1/2" IN HEIGHT. OUTSIDE DIMENSION OF PUBLIC NOTICE BACKGROUND SHALL BE 12" x MINIMUM OF 30" (FIT TO BACK OF INLET).
3. COLORS SHALL BE BLACK LETTERING AND GRAPHIC WITH GREY BACKGROUND.
4. PAINTING OF MESSAGE WILL NOT BE ALLOWED.
5. FOR AREA DRAIN INLETS, NOTICE WILL BE PLACED ADJACENT AND PARALLEL TO THE LONG AXIS OF THE DRAIN.

Apr. 20, 1999 - 32 DWG Name: R:\develop\SU\0202\Sid-Det\Sutter\0-26.dwg Updated By: GYustal

COUNTY OF SUTTER		
NO DUMPING PUBLIC NOTICE DETAIL		
	<i>[Signature]</i>	3/14/06 DATE
6/25/04	K.X.	APPROVED
DATE	REVISIONS	BY
		SCALE : NONE DRN : PSO
		DWG NO. D-26

THE VORTECHS™ STORMWATER TREATMENT SYSTEM

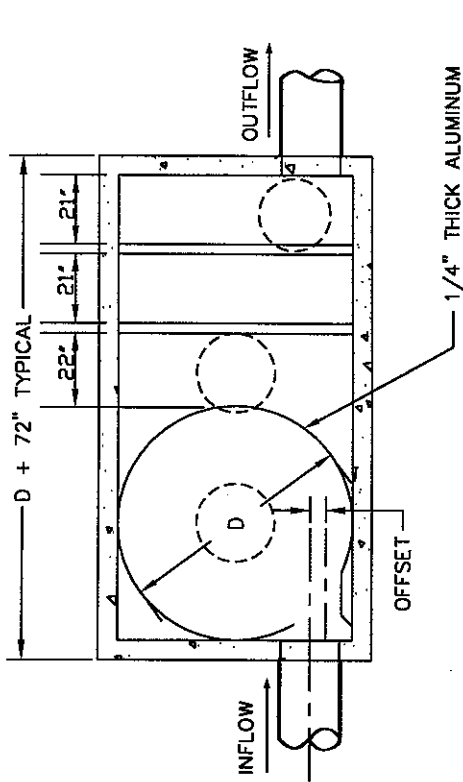
VORTECHS™ MODEL	GRIT CHAMBER DIAM./AREA FT/FT ²	PEAK DESIGN FLOW* CFS	SEDIMENT STORAGE ^B CYS	APPROX. SIZE ^C L x W FT
1000	3/7	1.6	0.75	9x3
2000	4/13	2.8	1.25	10x4
3000	5/20	4.5	1.75	11x5
4000	6/28	6.0	2.5	12x6
5000	7/38	8.5	3.25	13x7
7000	8/50	11.0	4.0	14x8
9000	9/64	14.0	4.75	15x9
11000	10/79	17.5	5.5	16x10
16000	12/113	25.0	7.0	18x12

ENGINEERING NOTES:

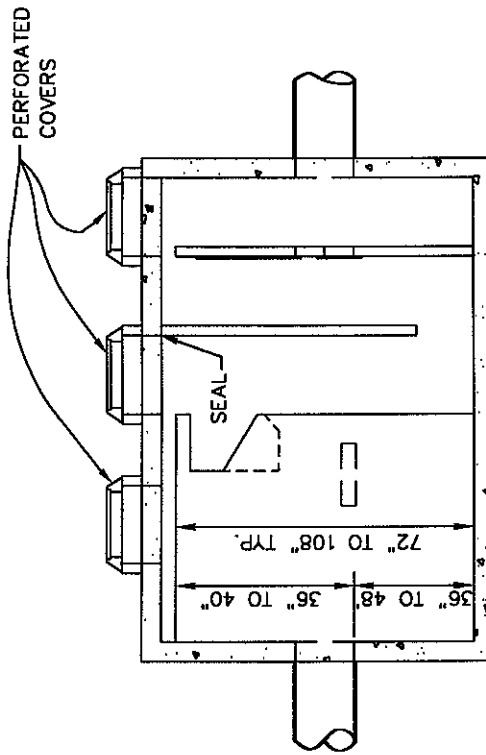
- A) FOR IN-LINE SYSTEMS WITHOUT A BYPASS, SIZING CRITERIA IS BASED ON PROVIDING ONE SQUARE FOOT OF GRIT CHAMBER SURFACE AREA FOR EACH 100 GPM OF PEAK DESIGN STORM FLOW RATE (E.G. 10-YEAR STORM). FOR MORE DETAILS ABOUT VORTECHNICS SIZING CRITERIA REFER TO VORTECHNICS TECHNICAL BULLETIN 3.
- B) SEDIMENT STORAGE VOLUME ASSUME A 3 FOOT SUMP.
- C) CONSTRUCTION DETAILS MAY VARY DEPENDING ON THE SPECIFIC APPLICATION. ANY ALTERATIONS TO THE SIZING CHART SPECIFICATIONS WILL APPEAR ON VORTECHNICS DIMENSIONAL AND SHOP DRAWINGS. PLEASE CALL VORTECHNICS FOR THE WEIGHT OF SPECIFIC VORTECHS SYSTEMS IF NEEDED.

SPECIAL NOTE:

OIL STORAGE CAPACITY, WHEN IT IS NEEDED TO MEET A SPECIFIC REQUIREMENT FOR SPILL CONTAINMENT, CAN BE SIZED TO MEET THE STORAGE REQUIREMENT WITH THE SELECTED MODEL. VORTECHNICS TECHNICAL STAFF WILL OPTIMIZE SYSTEM GEOMETRY TO MEET CONTAINMENT REQUIREMENTS WITHIN A CORRECTLY SIZED VORTECHS SYSTEM. (207) 885-9830.



PLAN VIEW



ELEVATION VIEW

COUNTY OF SUTTER

SAND AND OIL TRAP MANHOLE WITH FLAT SLAB TOP

APPROVED *[Signature]* 3/14/06
DATE

SCALE : NONE
DRN : K. XIONG

DWG NO. D-27

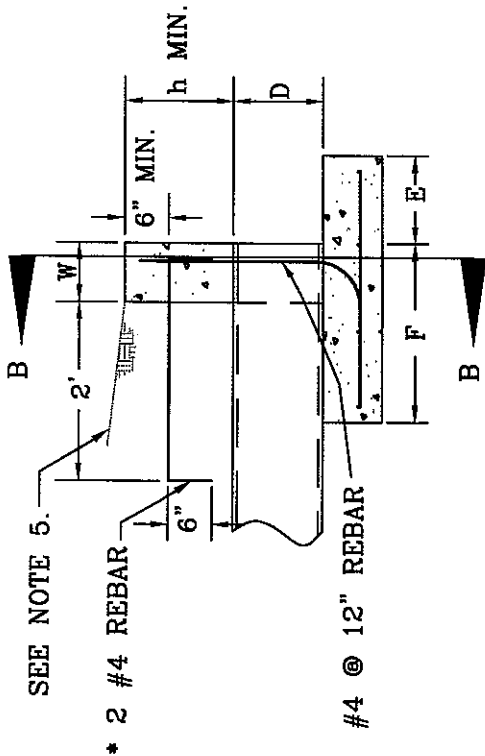
BY

REVISIONS

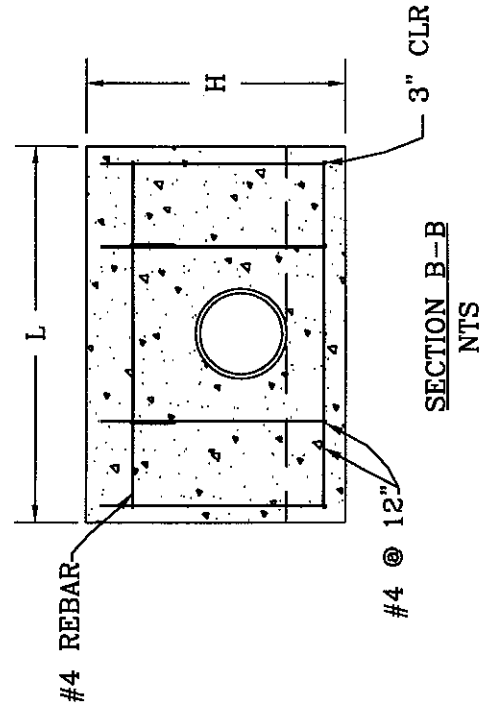
DATE

NOTES:

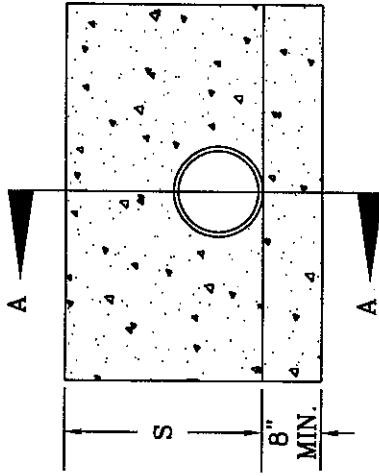
1. "L" MAY BE REDUCED IF REQUIRED BY CHANNEL DIMENSIONS.
2. REINFORCING BAR (REBAR) SPACING SHOWN IS MAXIMUM SPACING.
3. ALL REBAR CLEARANCE SHALL NOT BE LESS THAN 2" UNLESS SPECIFIED.
4. "#4" THESE REBARS ARE REQUIRED IF THE WALL HAS NO FOOTING OR FOOTING LESS THAN THE REQUIREMENT.
5. SLOPE AND TOE OF SLOPE INTERSECTION MAY BE ADJUSTED IF REQUIRED BY SITE CONDITIONS AND AS DIRECTED BY INSPECTOR.
6. USE CLASS "B" CONCRETE



SECTION A-A
NTS



SECTION B-B
NTS



SECTION A-A
NTS

PIPE D	WALL L	WALL H	WALL S	WALL W	FOOTING F	FOOTING E	FOOTING FOOTING	PIPE COVER h
12"	4'	2'-8"	2'	6"	2'	1'	1'	1'
15"	6'	3'-2"	2'-6"	8"	2'	1'	1'	1'-3"
18"	7'	3'-8"	3'	8"	2'	1'	1'	1'-6"
24"	9'	4'-2"	3'-6"	8"	2'	1'	1'	1'-6"
30"	11'	4'-8"	4'	8"	2'-3"	1'	1'	1'-6"

COUNTY OF SUTTER

HEADWALL

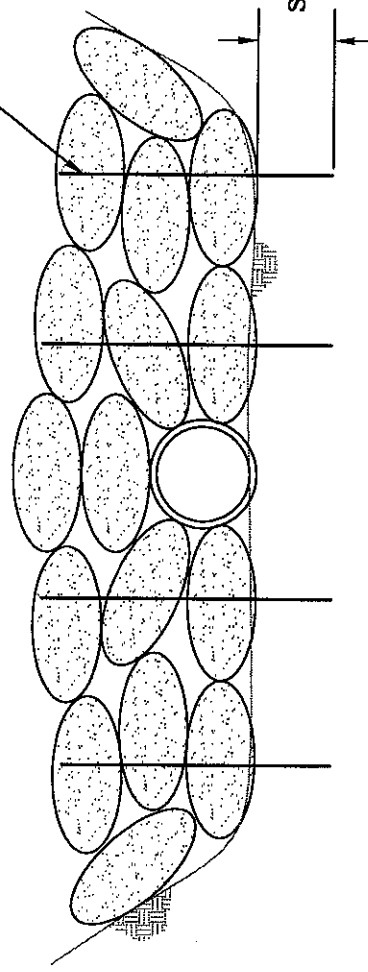
APPROVED *[Signature]* 3/14/06
DATE

SCALE : NONE
DRN : K.XIONG

DATE REVISIONS BY

DWG NO. D-28

#4 REBAR



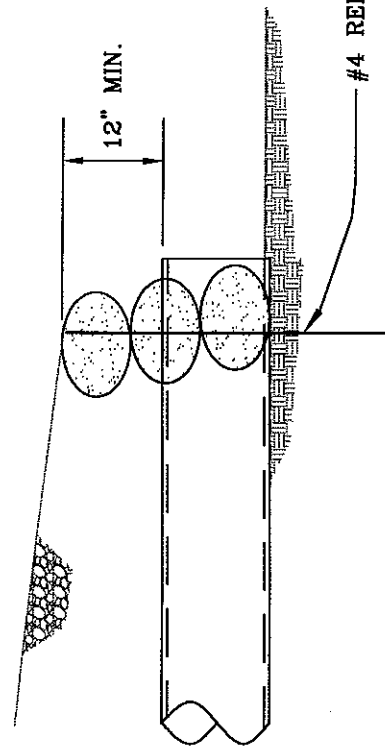
SEE NOTE 4.

NOTES:

1. PIPE SHALL BE PLACED SLIGHTLY BELOW EXISTING GRADE.
2. BACKFILL REQUIREMENT FOR PRIVATE ROAD AND DRIVEWAY CONNECTION, SEE DWG NOS. H-12 AND H-13.
3. REBAR SHALL CUT OFF A MINIMUM ONE INCH BELOW THE SURFACE.
4. REBAR SHALL PENETRATE INTO THE GROUND AS REQUIRED TO SECURE THE SAND BAGS IN PLACE OR AS DIRECTED BY INSPECTOR.

12" MIN.

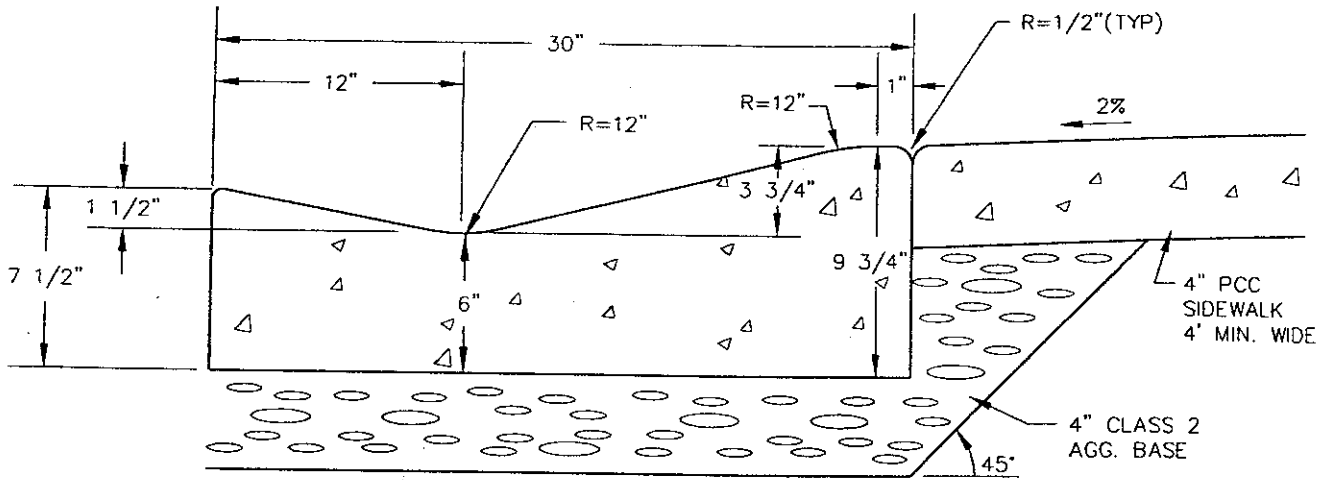
#4 REBAR



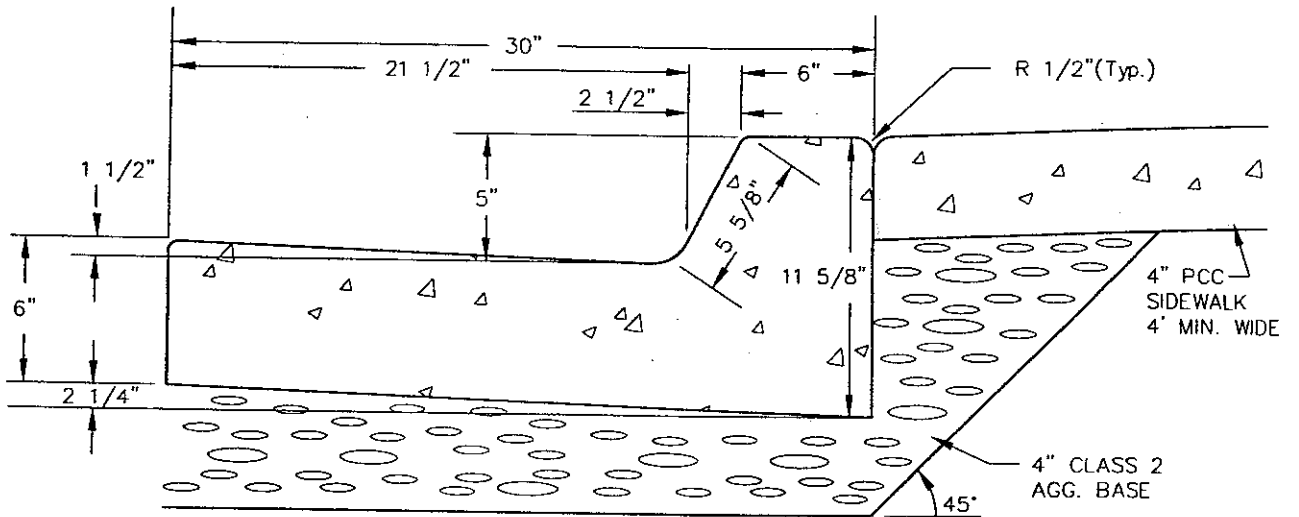
SIDE VIEW

COUNTY OF SUTTER	
SANDBAG	
APPROVED	3/14/06
DATE	
SCALE : NONE	DWG NO. D-29
DRN : K.XIONG	

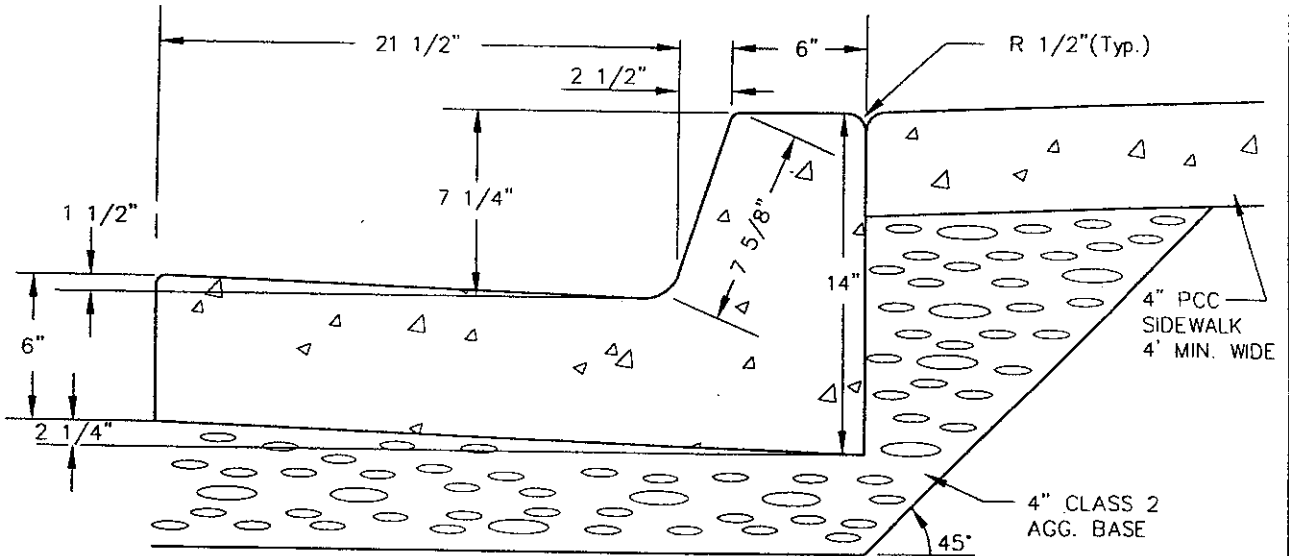
DATE	REVISIONS	BY



TYPE 1 ROLL CURB



TYPE 2 - (6") CURB & GUTTER



TYPE 2 - (8") CURB & GUTTER

DWC Name: R:\develop\SU10202\Std-Det\Sutter\H-1.dwg Updated By: RLehutsky

COUNTY OF SUTTER

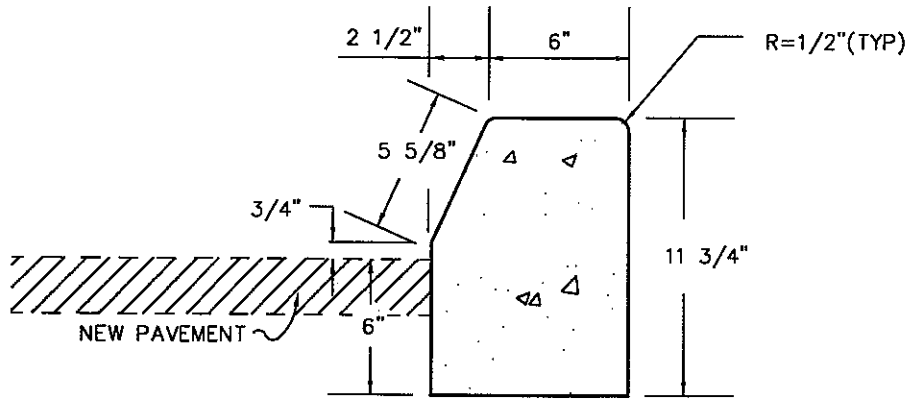
CURB & GUTTER

[Signature]
APPROVED DATE

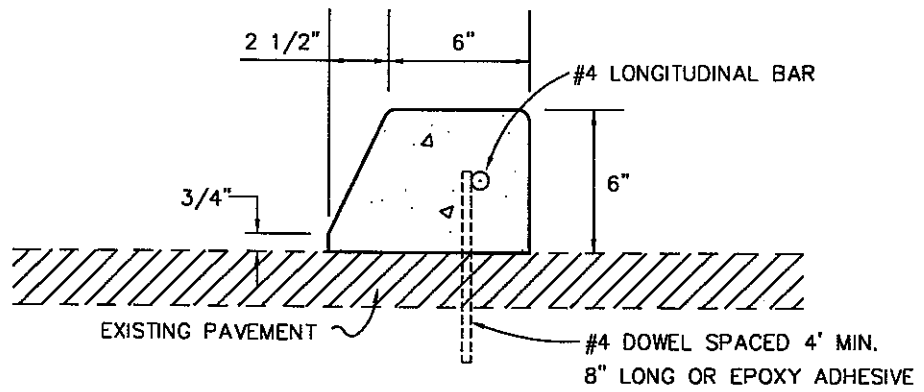
DATE	REVISIONS	BY

SCALE : NONE
DRN : PSO

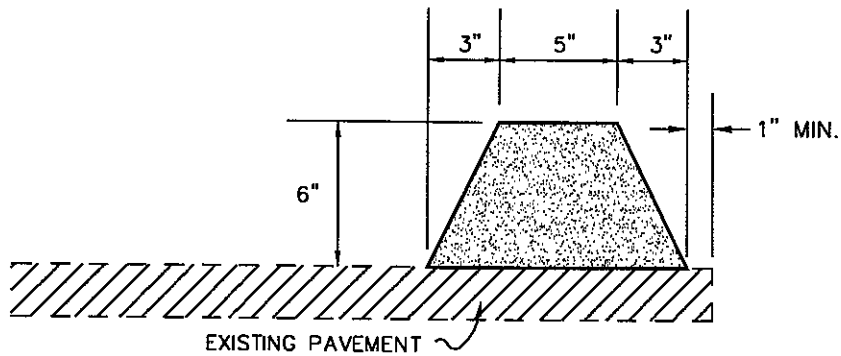
DWG NO. H-1



6" P.C.C. CURB (TYPE A)



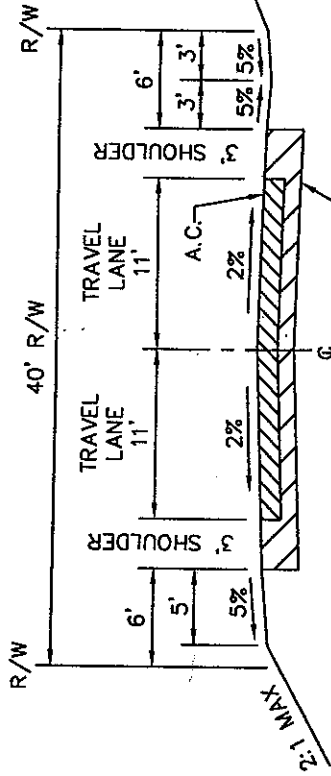
6" P.C.C. CURB (TYPE B)



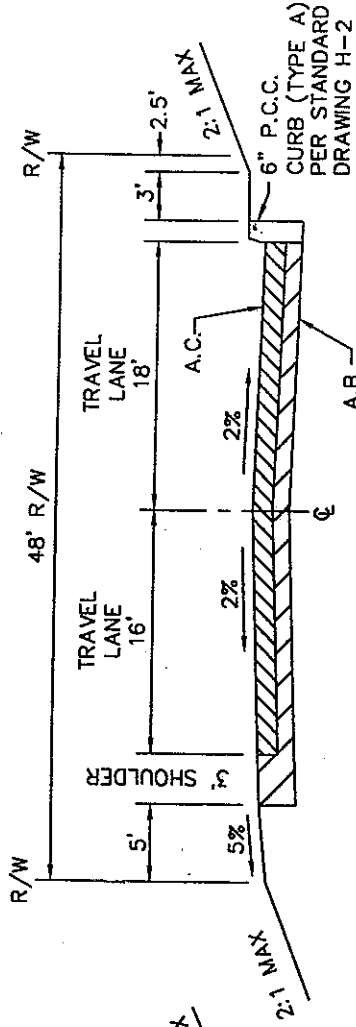
6" A.C. DIKE

Apr. 09, 1999 - 14
 DWG Name: R:\develop\SUT0202\Sid-Def\Sutter\H-2.dwg Updated By: RChirsky

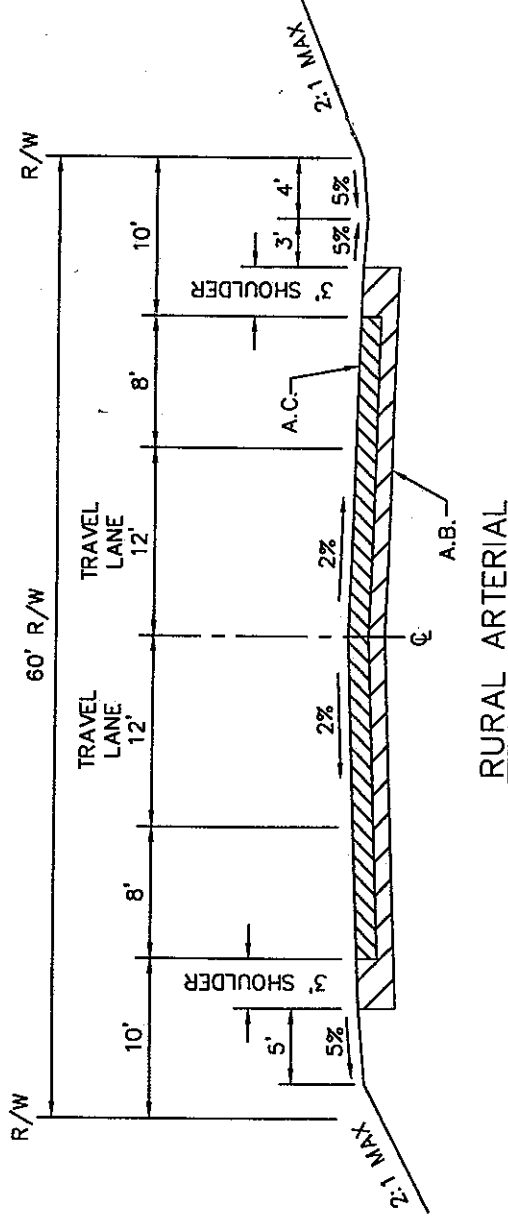
			COUNTY OF SUTTER	
			BARRIER CURB	
			3/14/06	
			APPROVED DATE	
11/8/05		K.X.		
DATE	REVISIONS	BY	SCALE : NONE DRN : PSO	DWG NO. H-2



RURAL LOCAL



RURAL COLLECTOR



RURAL ARTERIAL

NOTES:
SEE SECTION 4-3 OF THE DESIGN
STANDARD FOR MINIMUM STRUCTURAL
SECTIONS.

COUNTY OF SUTTER

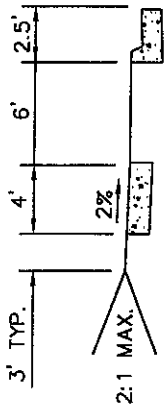
RURAL ROAD SECTIONS

APPROVED *[Signature]* DATE 3/19/06

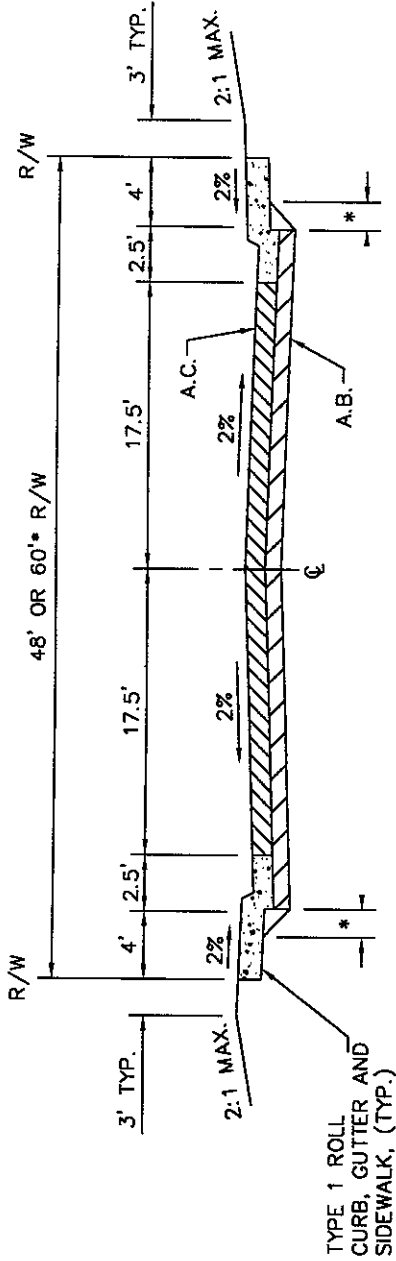
SCALE : NONE
DRN : PSO

DWG. H-3

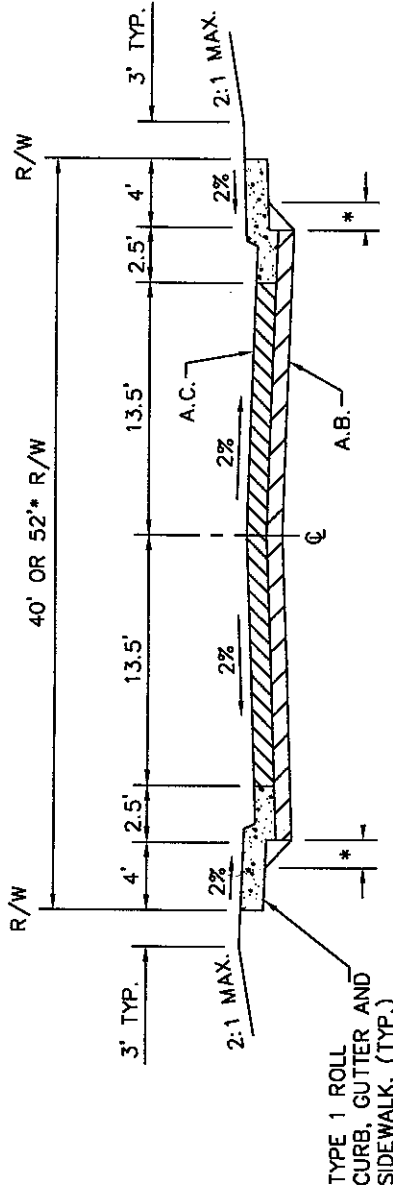
11/8/05	K.X.		
DATE	REVISIONS	BY	



* 6' OPTIONAL PLANTER STRIP BETWEEN BACK OF CURB AND SIDEWALK



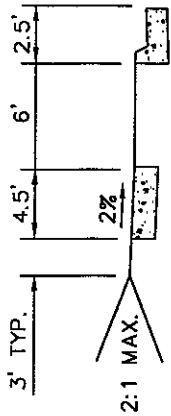
STANDARD RESIDENTIAL



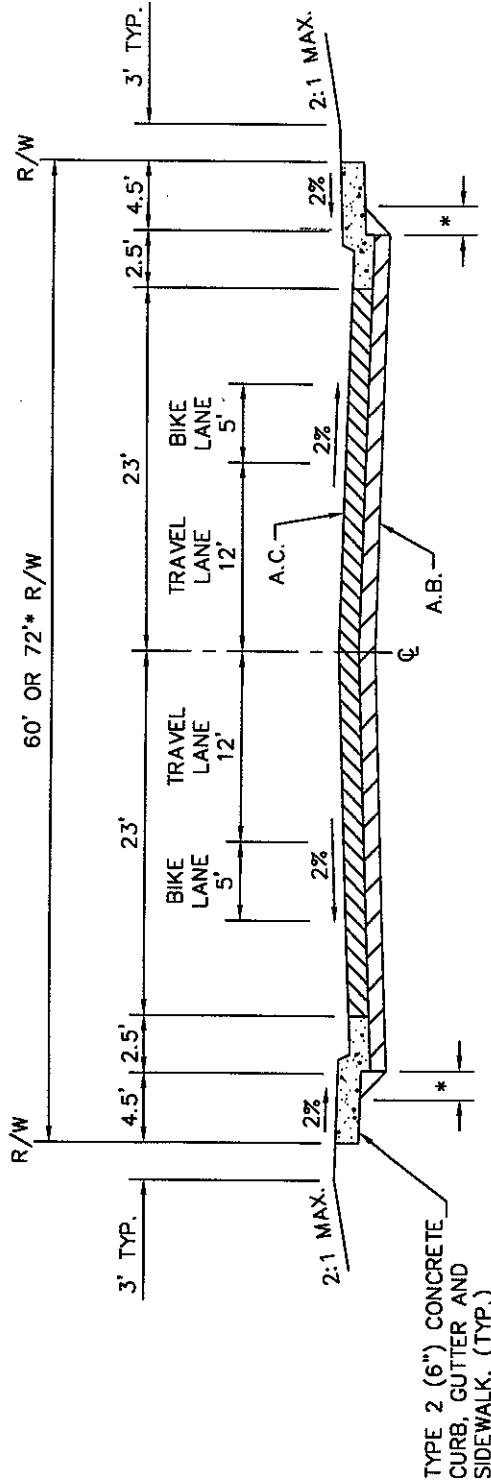
MINOR RESIDENTIAL

NOTES:
SEE SECTION 4-3 OF THE DESIGN STANDARD FOR MINIMUM STRUCTURAL SECTION.

COUNTY OF SUTTER		TYPICAL SECTIONS	
URBAN RESIDENTIAL STREETS		URBAN RESIDENTIAL STREETS	
APPROVED <i>[Signature]</i>		DATE 7/14/06	
SCALE : NONE		DWG NO. H-4	
DRN : PSO			
DATE	REVISIONS	BY	
11/8/05		K.X.	



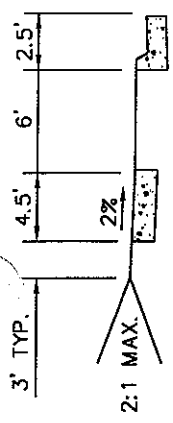
* 6' OPTIONAL PLANTER STRIP BETWEEN BACK OF CURB AND SIDEWALK



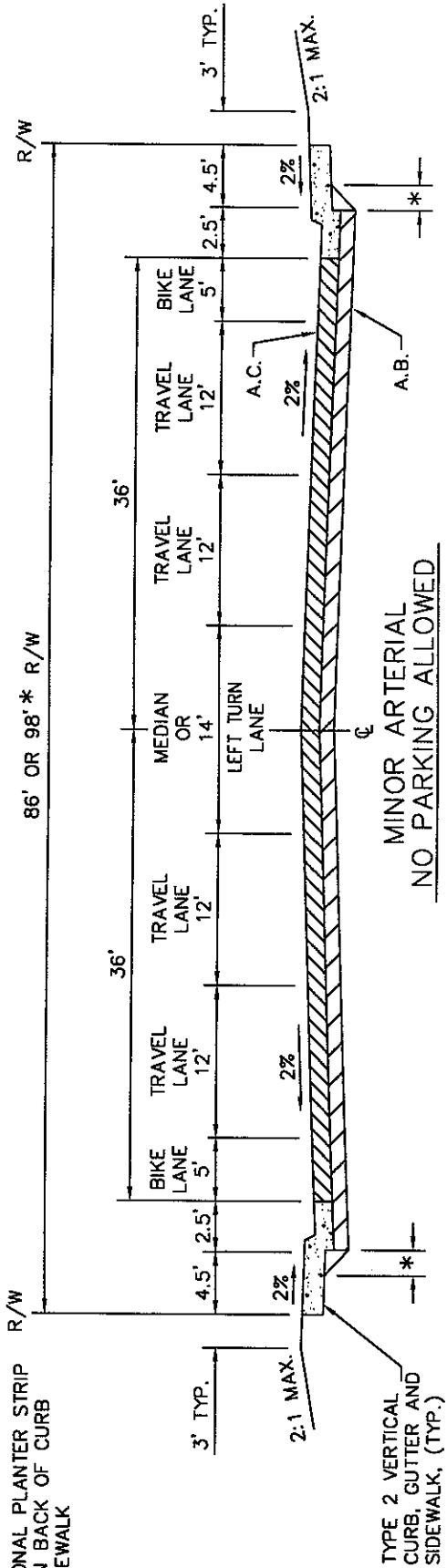
COLLECTOR

NOTES:
SEE SECTION 4-3 OF THE DESIGN STANDARD FOR MINIMUM STRUCTURAL SECTION.

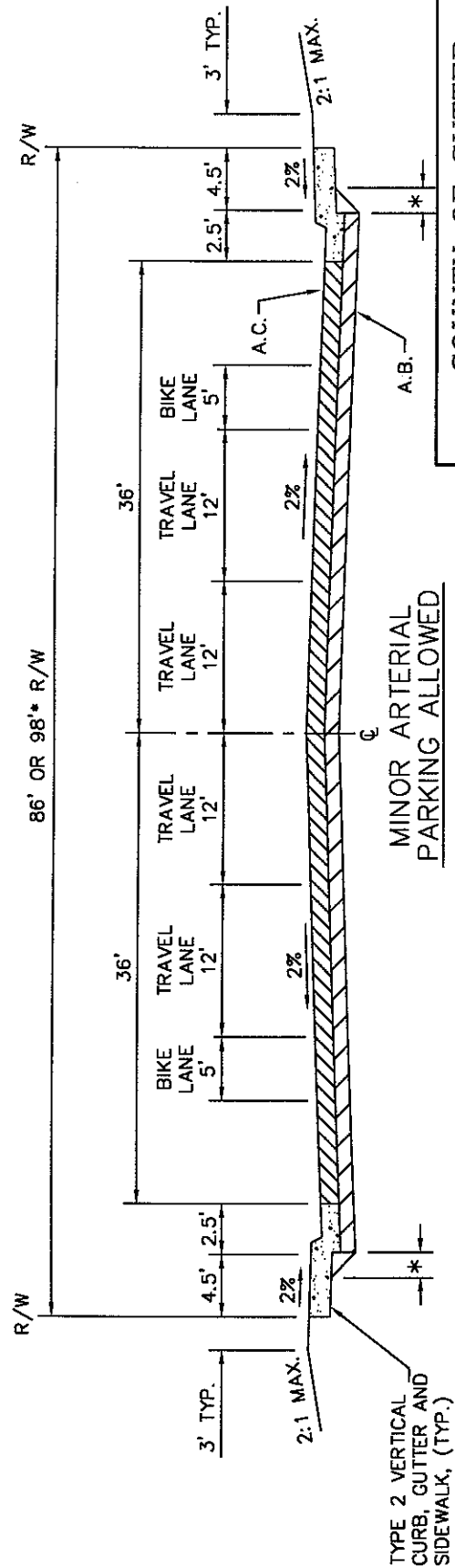
COUNTY OF SUTTER	
TYPICAL SECTION 60' COLLECTOR STREET	
APPROVED	DATE 3/14/06
SCALE : NONE	DWG NO. H-5
DRN : PSO	
DATE	REVISIONS
6/15/04	
K.X.	
BY	



*6' OPTIONAL PLANTER STRIP BETWEEN BACK OF CURB AND SIDEWALK



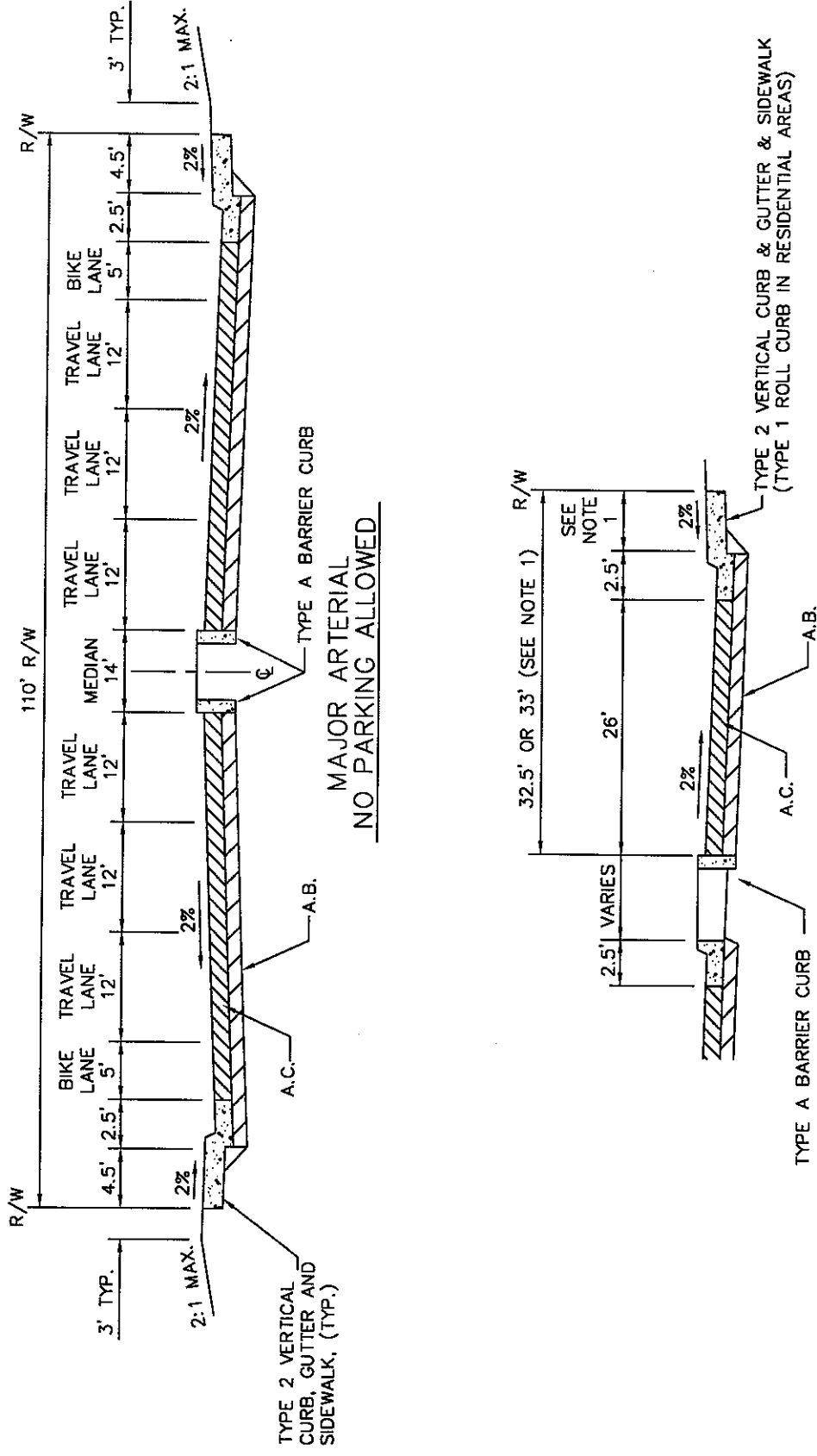
MINOR ARTERIAL
NO PARKING ALLOWED



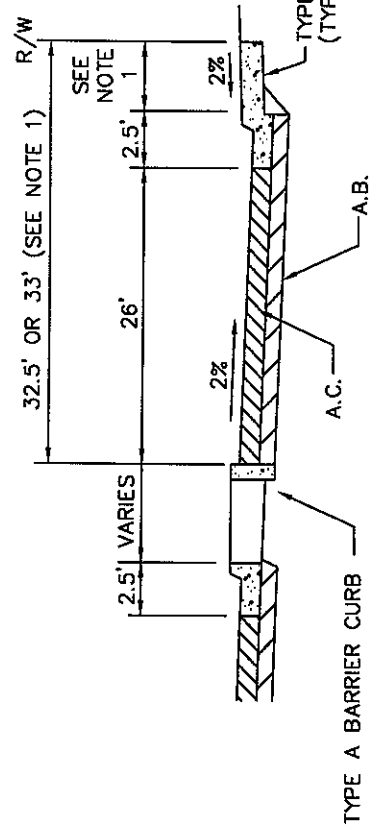
MINOR ARTERIAL
PARKING ALLOWED

NOTES:
SEE SECTION 4-3 OF THE DESIGN STANDARD FOR MINIMUM STRUCTURAL SECTION.

COUNTY OF SUTTER		TYPICAL SECTION	
		86' MINOR ARTERIAL	
APPROVED		DATE 3/14/06	
SCALE : NONE		DRN : PSO	
DWG NO. H-6			
DATE	REVISIONS	BY	
11/8/05		K.X.	



110' R/W
 MAJOR ARTERIAL
 NO PARKING ALLOWED



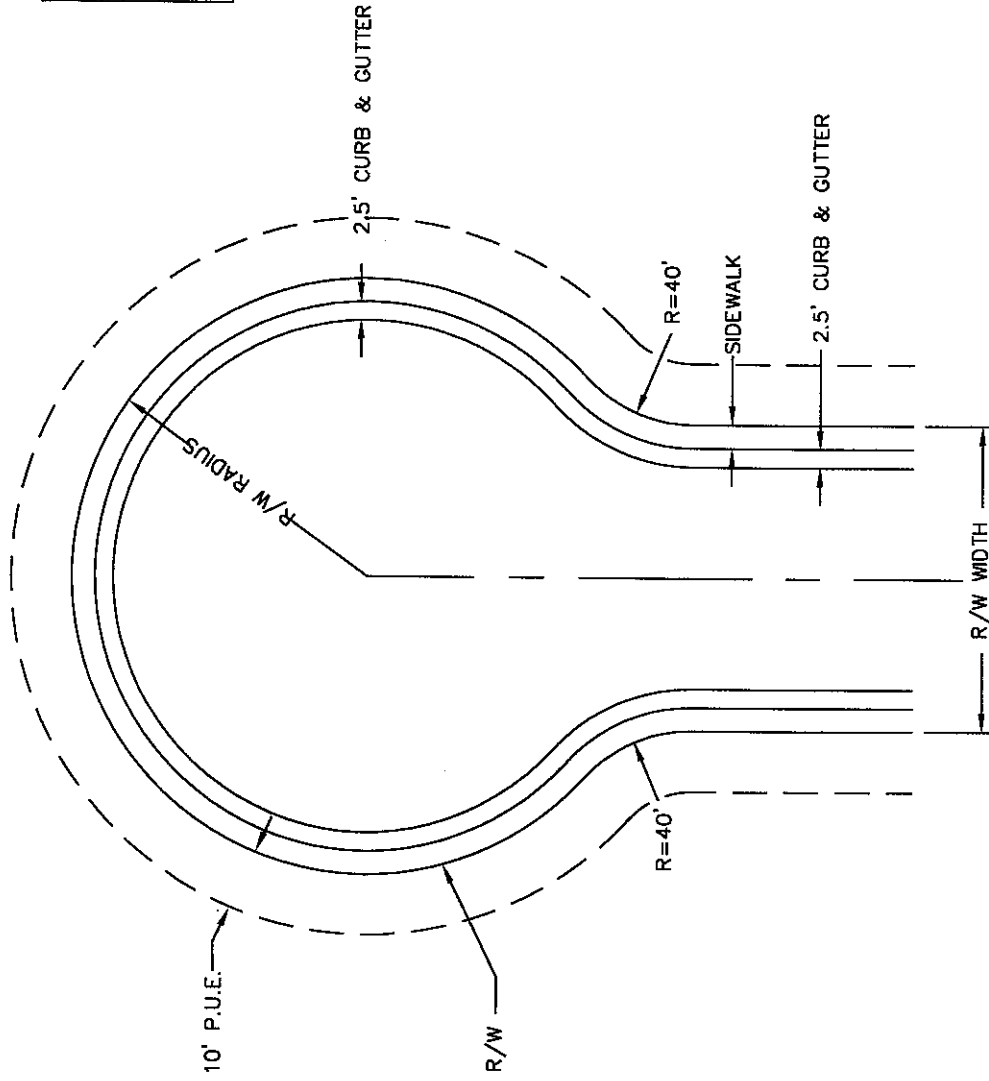
FRONTAGE ROAD

NOTE:

1. SIDEWALK SHALL BE 4' WIDE IN SINGLE FAMILY & DUPLEX RESIDENTIAL AREAS AND 4.5' IN ALL OTHER AREAS.
2. SEE SECTION 4-3 OF THE DESIGN STANDARD FOR MINIMUM STRUCTURAL SECTION.

COUNTY OF SUTTER	
TYPICAL SECTION 110' MAJOR ARTERIAL	
APPROVED	DATE 3/14/06
SCALE : NONE	DRN : PSO
DATE 11/9/05	BY K.X.
REVISIONS	BY

STREET R/W WIDTH	STREET R/W RADIUS
40'	50'
48'	50'
60'	56'

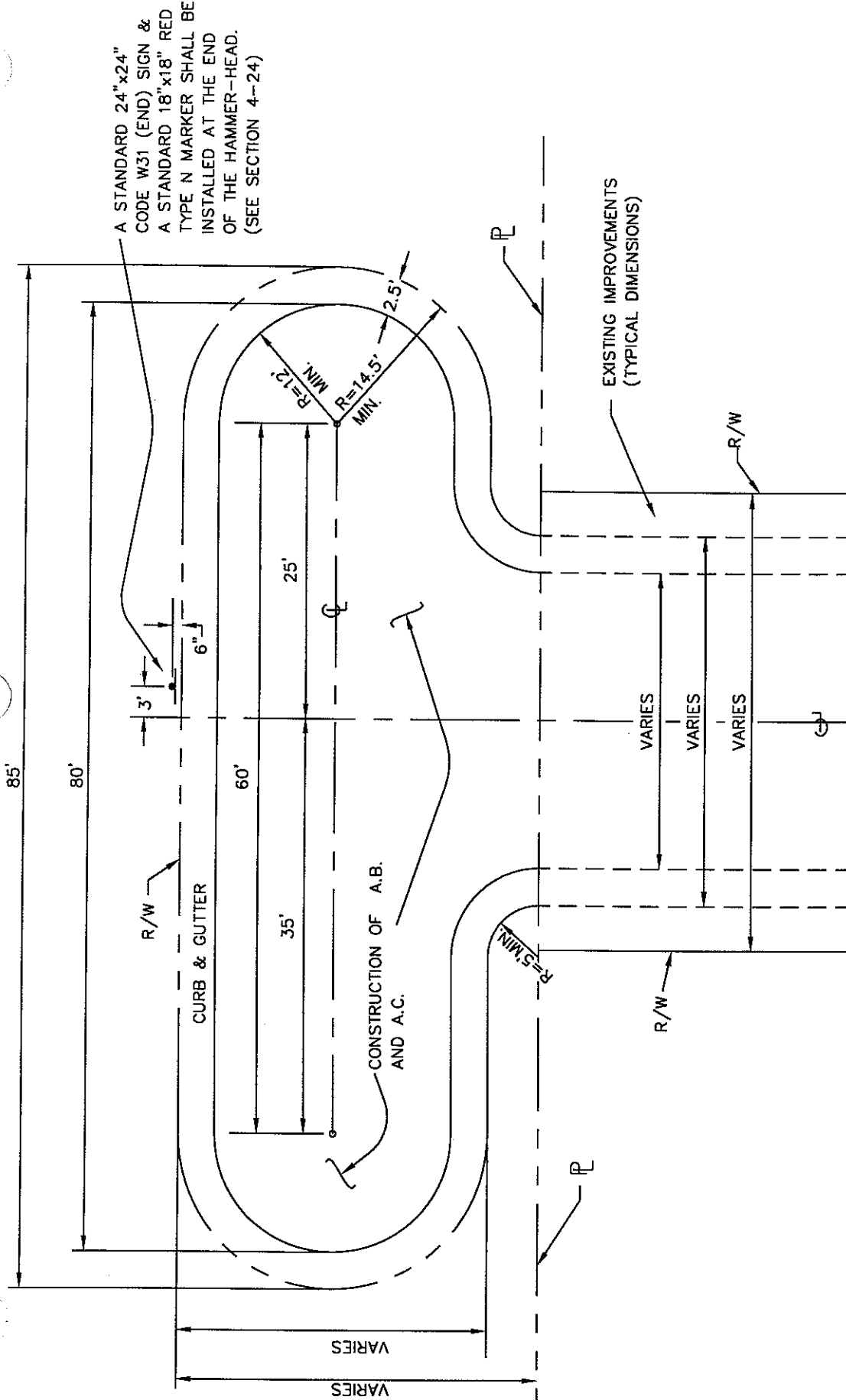


NOTE:

1. A STANDARD CODE W53 (NOT A THROUGH STREET) SIGN IS TO BE POSTED AT THE ENTRANCE TO ALL CUL-DE-SACS GREATER THAN 250 FEET IN LENGTH.
2. SEE SECTION 4-3 OF THE DESIGN STANDARD FOR MINIMUM STRUCTURAL SECTION.

COUNTY OF SUTTER	
STANDARD CUL DE SAC	
APPROVED	3/14/06
DATE	
SCALE : NONE	DWG NO. H-8
DRN : PSO	

DATE	REVISIONS	BY
11/8/05		K.X.



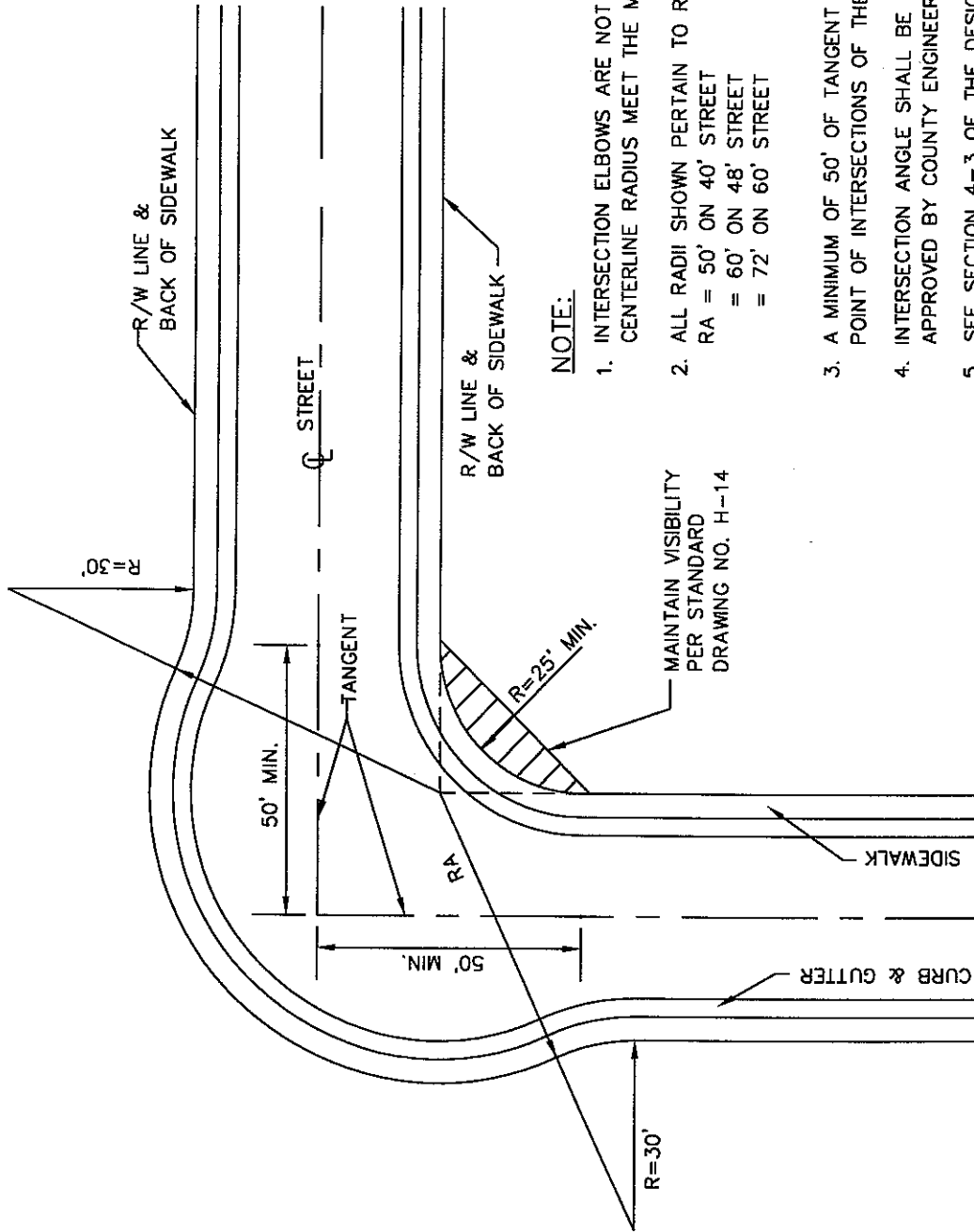
NOTE:

1. HAMMER-HEAD DESIGN MAY BE USED WHERE TEMPORARY CUL-DE-SAC CAN NOT BE CONSTRUCTED.
2. SEE SECTION 4-3 OF THE DESIGN STANDARD FOR MINIMUM STRUCTURAL SECTION.

EXISTING PAVEMENT

COUNTY OF SUTTER	
HAMERHEAD CUL DE SAC	
APPROVED <i>[Signature]</i>	DATE 3/14/06
SCALE : NONE	DWG NO. H-9
DRN : PSO	

DATE	REVISIONS	BY
11/8/05		K.X.



NOTE:

1. INTERSECTION ELBOWS ARE NOT REQUIRED WHERE THE CENTERLINE RADIUS MEET THE MINIMUM REQUIREMENTS
2. ALL RADII SHOWN PERTAIN TO R/W LINES.
 $RA = 50'$ ON $40'$ STREET
 $= 60'$ ON $48'$ STREET
 $= 72'$ ON $60'$ STREET
3. A MINIMUM OF $50'$ OF TANGENT IS REQUIRED FROM THE POINT OF INTERSECTIONS OF THE CENTERLINES.
4. INTERSECTION ANGLE SHALL BE $90^\circ \pm 5'$ EXCEPT AS APPROVED BY COUNTY ENGINEER.
5. SEE SECTION 4-3 OF THE DESIGN STANDARD FOR MINIMUM STRUCTURAL SECTION.

COUNTY OF SUTTER

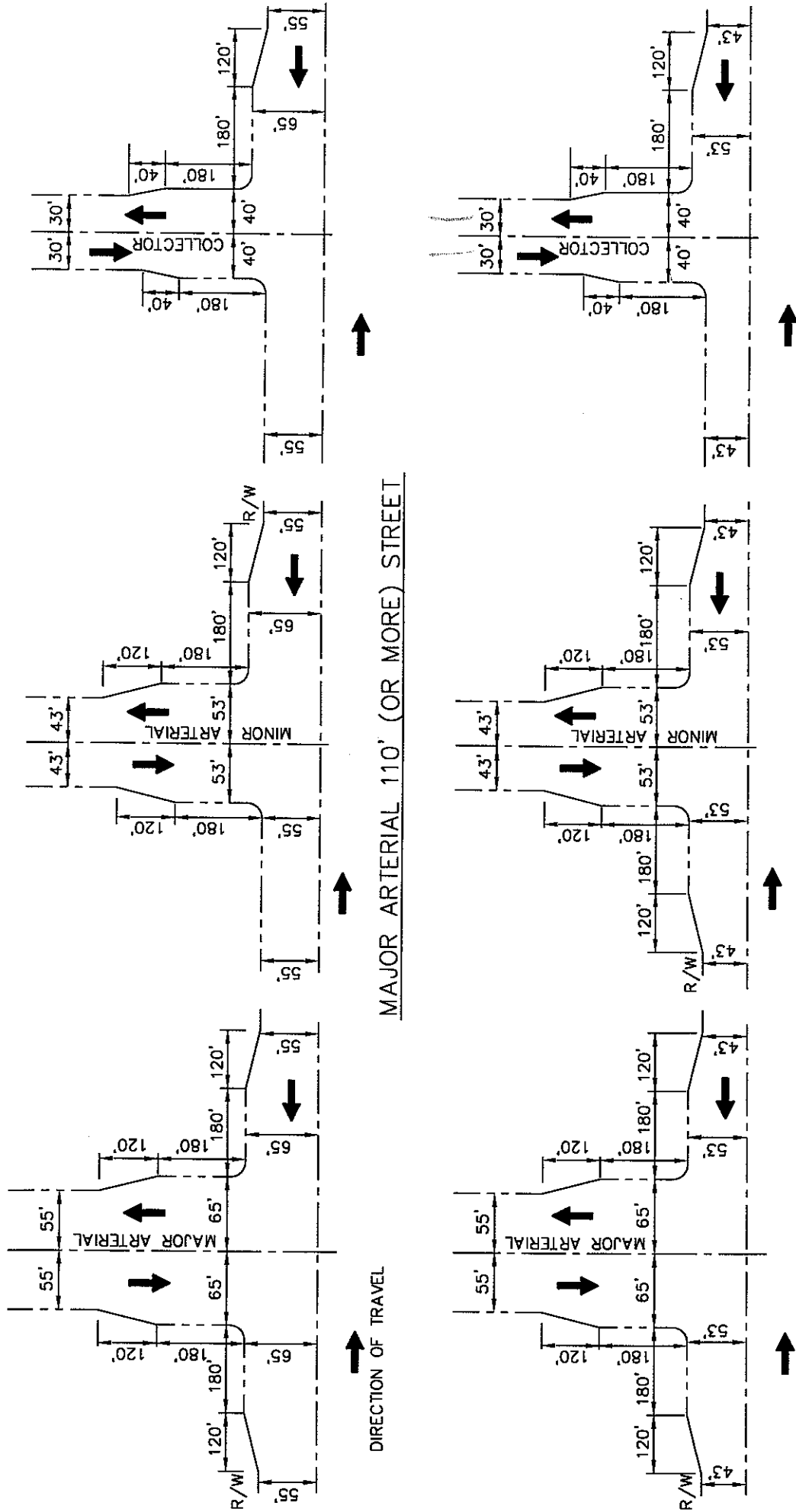
90° INTERSECTION ELBOW

APPROVED *[Signature]* DATE 7/14/06

SCALE : NONE
 DRN : PSO

DWG NO. H-10

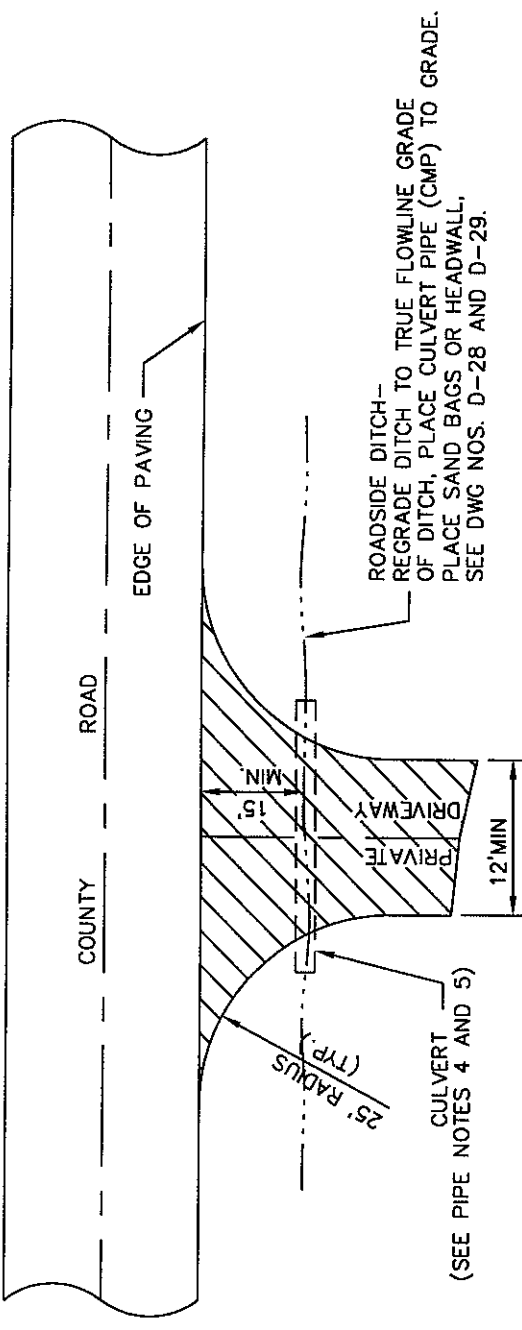
DATE	REVISIONS	BY
11/8/05		K.X.



NOTE:
 1. WIDENING NOT USUALLY REQUIRED AT COLLECTOR/ COLLECTOR AND SMALLER INTERSECTIONS.
 2. ANY MODIFICATIONS TO THESE STANDARDS MUST BE APPROVED BY THE DIRECTOR.

DATE	REVISIONS	BY
6/16/04		K.X.

COUNTY OF SUTTER	
WIDENING DETAILS AT MAJOR STREET INTERSECTIONS	
APPROVED	DATE 3/14/06
SCALE : NONE	DWG NO. H-11
DRN : PSO	

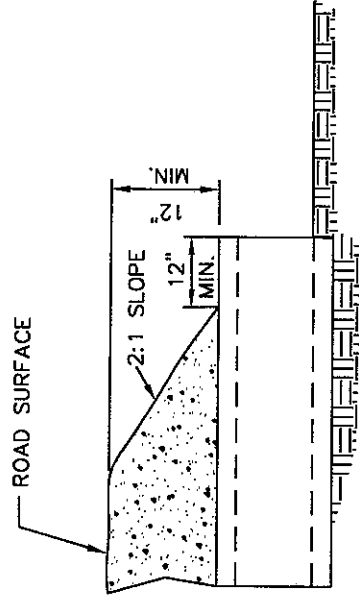


NOTE:

1. Pipe shall be placed slightly below existing grade or at a grade specified by the County Road Department.
2. Pipe sections shall be joined together securely to prevent infiltration.
3. Used pipe is unacceptable.
4. Pipe diameter shall be 12" minimum.
5. Pipe placement shall be 100' maximum in length. Any pipe placement more than 100' in length shall install a DI or leave 5' gap between.

NOTES:

1. Prior to new paving, edge of existing paving at County road is to have a neat, straight, vertical sawcut to tie into.
2. Prior to placing asphalt concrete the sawcut edge is to have a SS-1 tack coat applied.
3. The driveway approach section shall be a minimum of 2 1/2" asphalt concrete on 4" Class II aggregate base rock for residential approaches and 4" asphalt concrete on 6" Class II aggregate base rock for commercial drive approaches. Asphalt concrete shall consist of AR4000, 1/2" maximum aggregate asphalt concrete. Base rock shall be compacted to 95%.
4. Asphalt concrete placement at County road is to be a flush butt joint. Placed to sawcut edge of road and sloped away from road.
5. Finish grade is to slope away from County road at a minimum 2% fall, 5% maximum fall.
6. Paving surface at butt joints shall be sealed with SS-1 emulsion 4" each side of joint after final compaction of asphalt concrete. Sealant shall be sanded as necessary to prevent traffic pick up.
7. All work shall conform to the Standard Specifications of the State of California, Department of Transportation, current edition.
8. Public Works shall be notified 24 hours after permit issue and prior to any work performed. Phone Number 822-7450
9. No additional drainage water direct to County right of way.
10. Appropriate agencies shall be contracted/notified of work prior to any work start for necessary utility permits and USA notification (1-800-227-2600) and markings by permittee/owner.

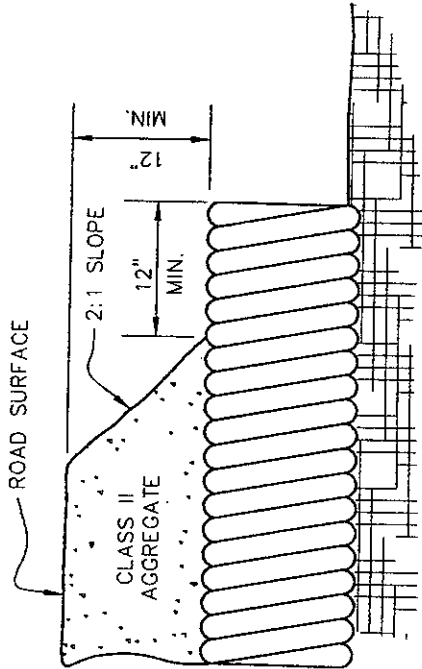


CULVERT DETAIL

COUNTY OF SUTTER	
	DRIVEWAY CONNECTION
	APPROVED <i>[Signature]</i> 3/14/06 DATE
	SCALE : NONE DRN : PSO
	BY K.X.
	REVISIONS
	DATE 11/3/05
	DWG NO. H-12

LENGTH OF TAPER FOR
COUNTY ROADS WITH
LESS THAN 8' SHOULDERS

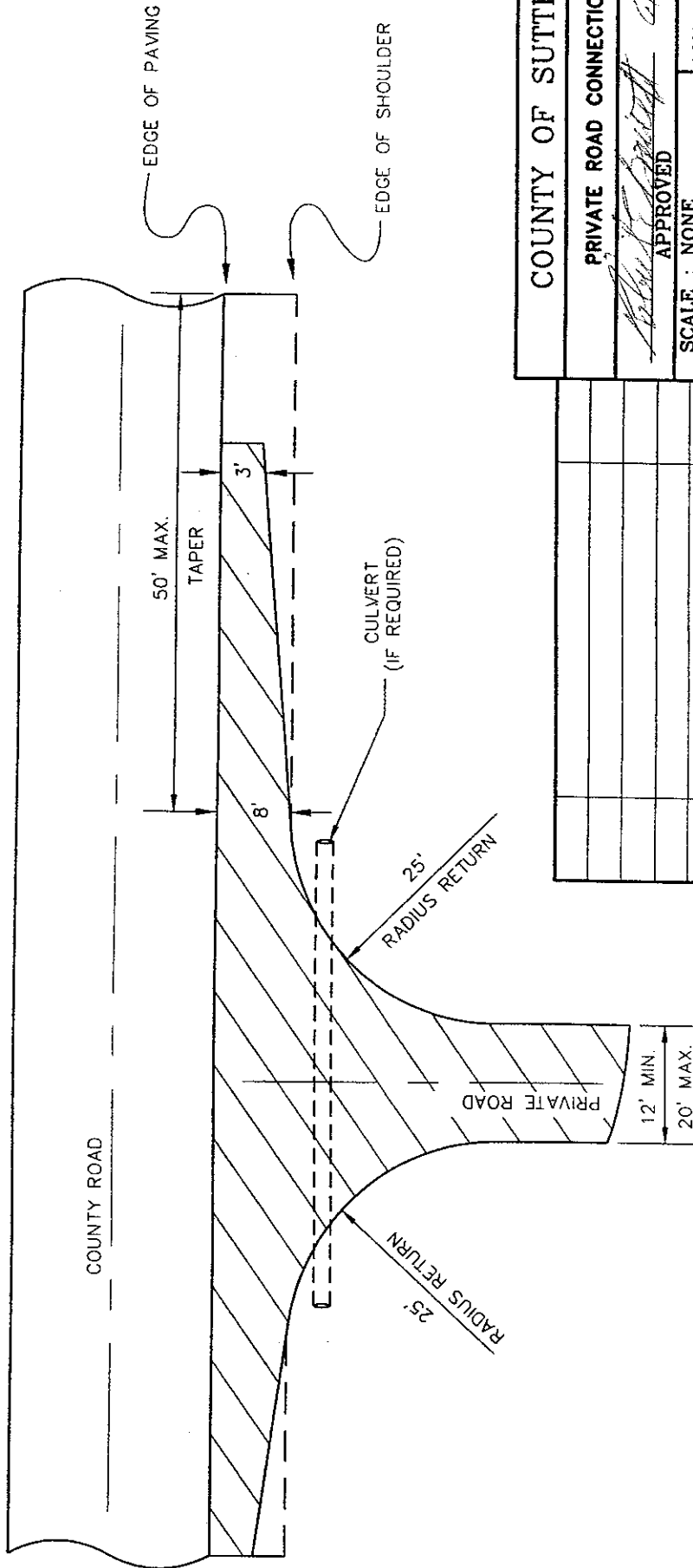
SHOULDER WIDTH	8'	6'	4'	2'	0'
LENGTH OF TAPER	50'	38'	25'	13'	0'



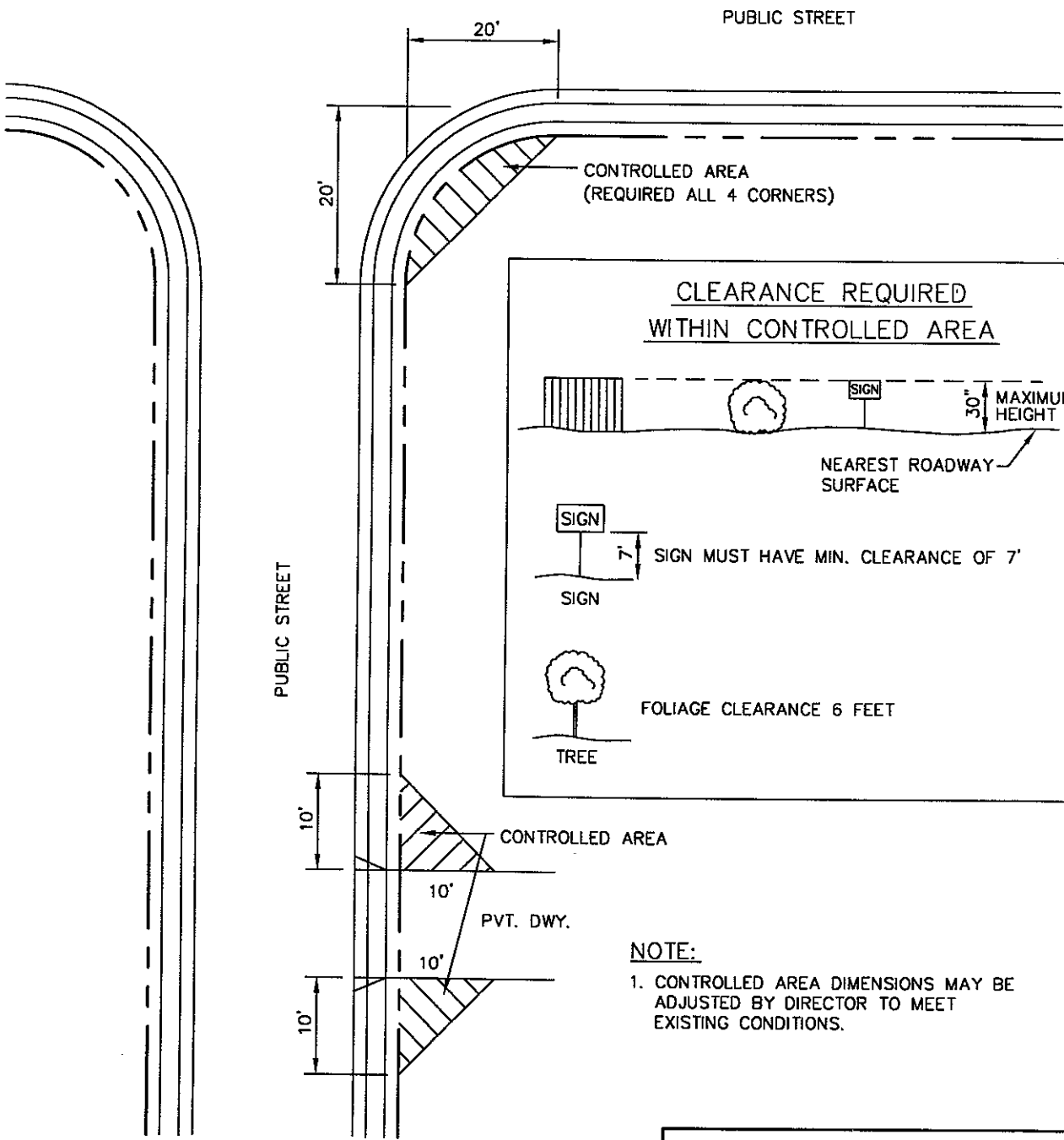
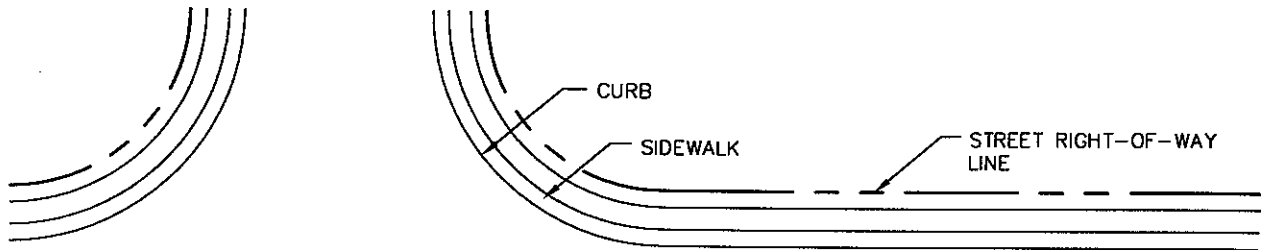
NOTES:

1. PIPE SHALL BE PLACED SLIGHTLY BELOW EXISTING GRADE OR AT A GRADE SPECIFIED BY THE COUNTY ROAD DEPARTMENT
2. PIPE SECTIONS SHALL BE JOINED TOGETHER SECURELY, SO THAT NO INFILTRATION OCCURS.
3. USED PIPE IS UNACCEPTABLE

CULVERT DETAIL



COUNTY OF SUTTER	
PRIVATE ROAD CONNECTION	
APPROVED	DATE
SCALE : NONE	DWG NO. H-13
DRN : PSO	
DATE	BY
REVISIONS	



CLEARANCE REQUIRED WITHIN CONTROLLED AREA

30' MAXIMUM HEIGHT

NEAREST ROADWAY SURFACE

SIGN MUST HAVE MIN. CLEARANCE OF 7'

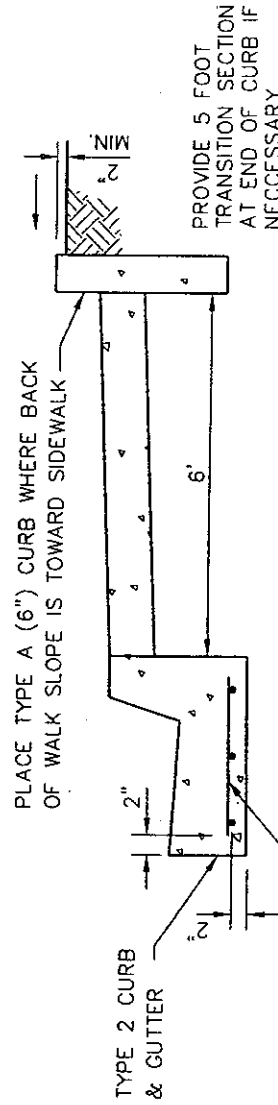
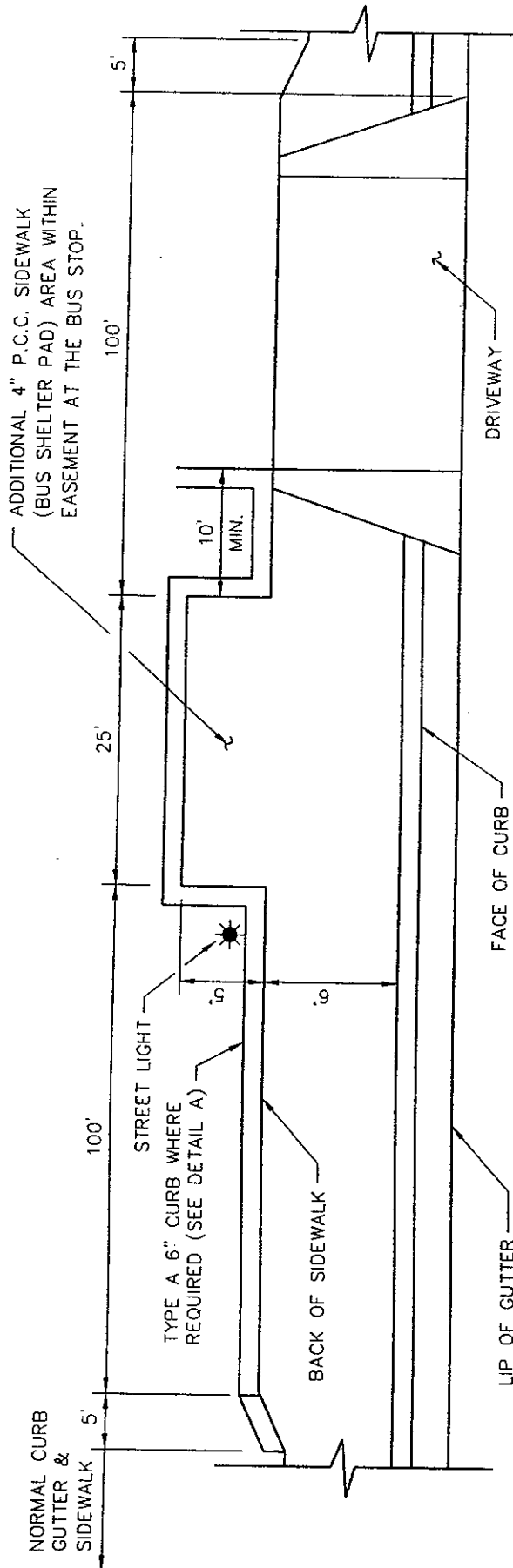
FOLIAGE CLEARANCE 6 FEET

TREE

NOTE:
 1. CONTROLLED AREA DIMENSIONS MAY BE ADJUSTED BY DIRECTOR TO MEET EXISTING CONDITIONS.

Mar. 23, 1995 45 DWG Name: E:\develop\SUJ0202\SUJ-04\Sutter\H-14.dwg Updated By: J.Milrod

COUNTY OF SUTTER		
VISIBILITY REQUIREMENTS RESIDENTIAL STREETS		
	 APPROVED	3/14/06 DATE
11/8/05	K.X.	SCALE : NONE
DATE	REVISIONS	BY
		DRN : PSO
		DWG NO. H-14



NOTES:

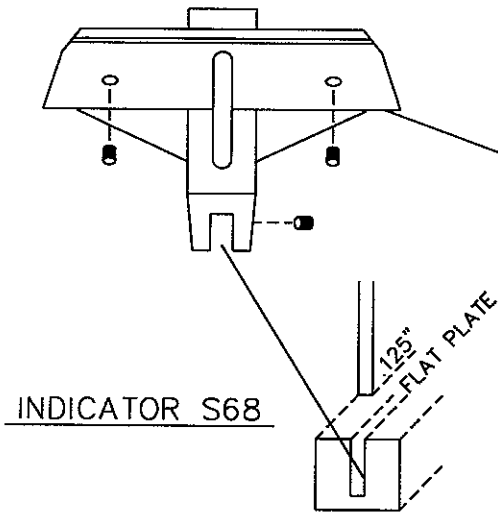
1. DETAIL 'A' SECTION SHALL BE USED FOR 100 FEET EACH SIDE OF BUS STOPS WITHOUT TURNOUTS. THE WIRE MESH REINFORCING STEEL SHALL BE CONTINUED ACROSS ANY DRIVEWAYS WITHIN THE 100 FOOT DISTANCE FROM THE BUS STOP.
2. PLACE UNDER-SIDEWALK DRAINS AT ALL BEHIND-SIDEWALK DRAINAGE CATCH POINTS.

COUNTY OF SUTTER		DATE	BY	REVISIONS	SCALE : NONE DRN : P50	DWG NO. H-15
BUS STOP		APPROVED				
		<i>[Signature]</i>				
		DATE				

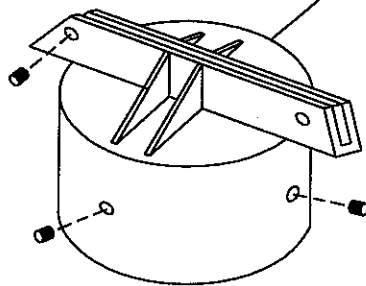
NOTE:

Use heavy duty slotted high tensile aluminum alloy die castings for caps & cross pieces Hawkins & Hawkins (part #'s given) or equal.

90° CROSSPIECE NO. V14(HD)SL-105-90

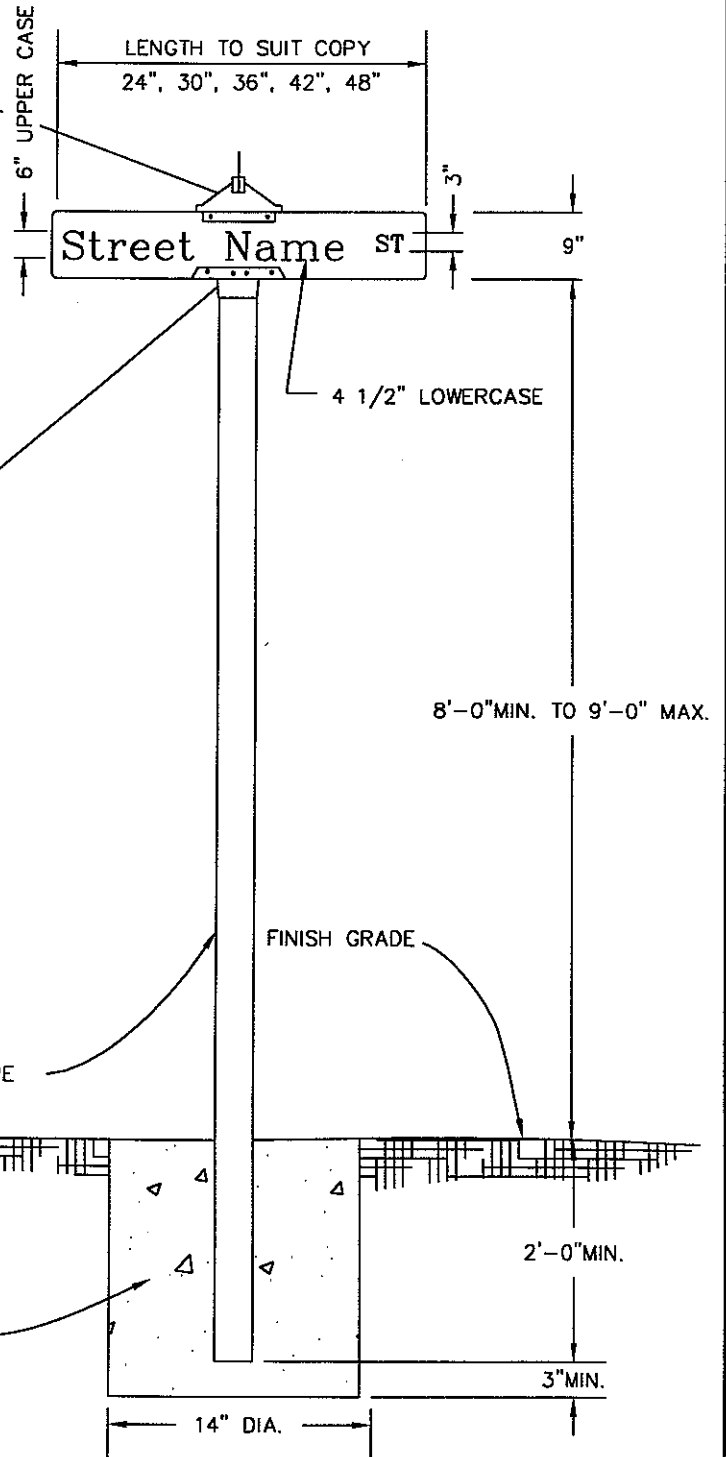


Cap & Crosspiece set screws 5/16"-18x1/4 steel plated socket hd. No. v14(hd) 110S.



Cap for 2" I.D. Pipe NO. V14 (hd)SL-107.2C

2" DIA. GALVANIZED PIPE



NOTES:

- 1.) Sign location to be determined by the County Engineer.
- 2.) Name plates & mounting assemblies to meet the requirements of the County Engineer.
- 3.) Spot weld mounting assembly to pipe to prevent turning.
- 4.) Plate color shall be white on green & shall be reflective.
- 5.) Reflective letters to be 6" (Series C) for name, and 3" ST., CT., AVE., etc. & placed on top
- 6.) Flat Plate thickness is .125", round corners

DWG Name: E:\Development\SU102024\Std-Dwg\Sutter\Std-Dwg-V1-16.dwg Updated By: Rlenulsky

Jan. 08, 2003 - 17

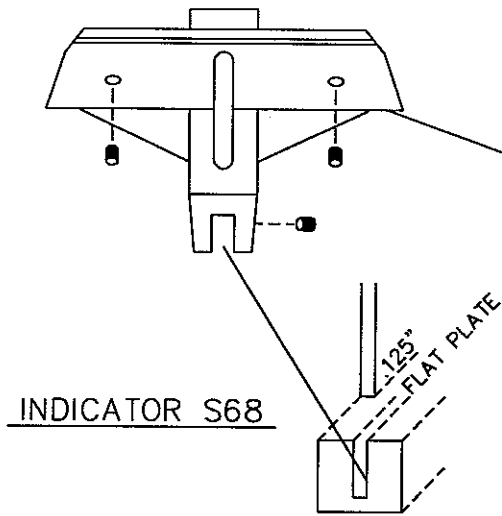
DATE	REVISIONS	BY
6/22/04		K.X.

COUNTY OF SUTTER	
STANDARD STREET NAME SIGN TYPE "A"	
<i>[Signature]</i>	3/14/06
APPROVED	DATE
SCALE : NONE	DWG NO. H-16
DRN : PSO	

NOTE:

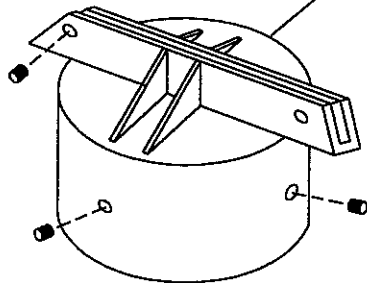
Use heavy duty slotted high tensile aluminum alloy die castings for caps & cross pieces Hawkins & Hawkins (part #'s given) or equal.

90° CROSSPIECE NO. V14(HD)SL-105-90



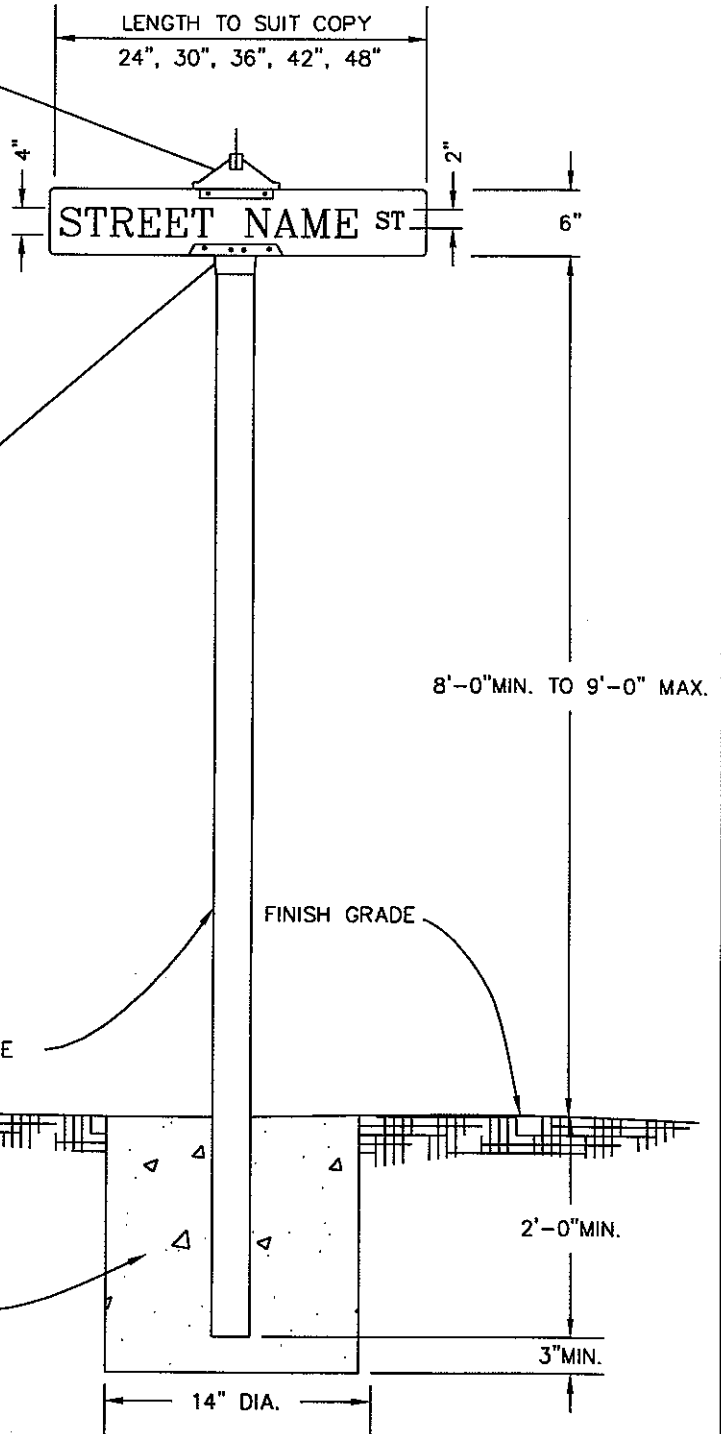
INDICATOR S68

Cap & Crosspiece set screws 5/16"-18x1/4 steel plated socket hd. No. v14(hd) 110S.



Cap for 2" I.D. Pipe NO. V14 (hd)SL-107.2C

2" DIA. GALVANIZED PIPE



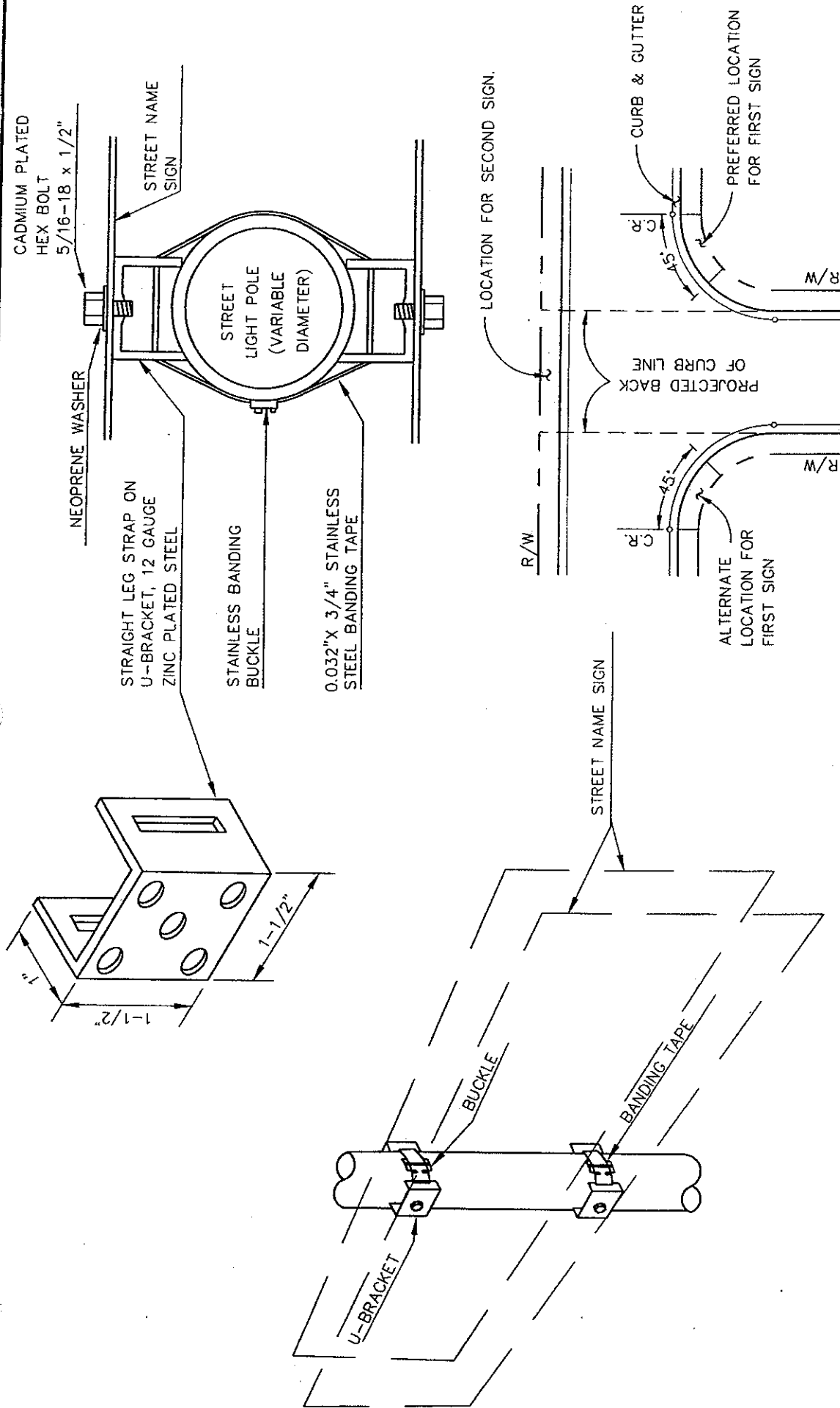
NOTES:

- 1.) Sign location to be determined by the County Engineer.
- 2.) Name plates & mounting assemblies to meet the requirements of the County Engineer.
- 3.) Spot weld mounting assembly to pipe to prevent turning.
- 4.) Plate color shall be white on green & shall be reflective.
- 5.) Reflective letters to be 4" (Series C) for name, and 2" ST., CT., AVE., etc. & placed on top
- 6.) Flat Plate thickness is .125", round corners

COUNTY OF SUTTER	
STANDARD STREET NAME SIGN TYPE "B"	
<i>[Signature]</i>	3/14/06
APPROVED	DATE
SCALE : NONE	DWG NO. H-16A
DRN : PSO	

DATE	REVISIONS	BY
6/22/04		K.X.

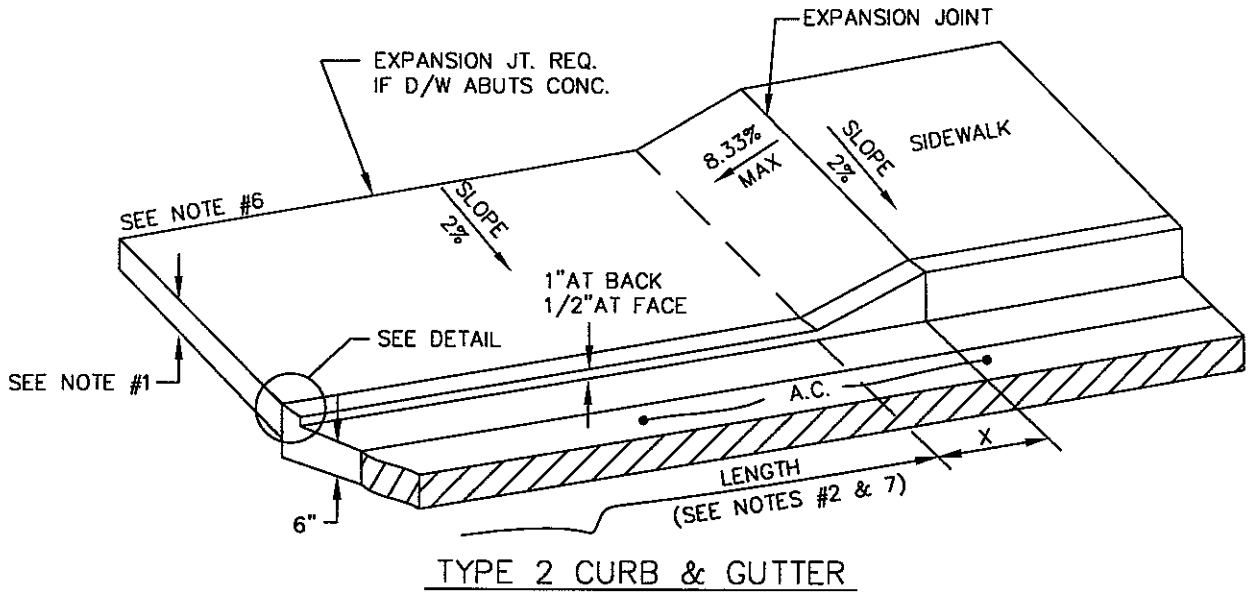
Jan. 08. 2003 -- 14
 DWG Name: C:\newton\SU10202\Sid-Dat\Std\Sign\Std.Dwg Updated By: Rlehisky



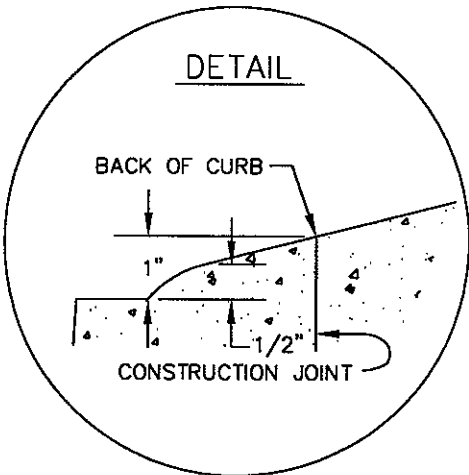
NOTES:

1. DETAIL SHOWN IS FOR TWO SIGN INSTALLATION. FOUR SIGN INSTALLATION MAY BE MADE, WHERE APPLICABLE, BY FASTENING A SECOND PAIR OF SIGNS IN THE SAME MANNER.
2. STANDARD CLEARANCE TO BOTTOM OF LOWEST SIGN IS 7 FEET.
3. STREET NAME SIGNS MAY BE INSTALLED ON STREET LIGHT POLES WHEN THEY ARE LOCATED WITHIN THE LIMITS DEFINED ON THIS DETAIL.

COUNTY OF SUTTER	
STREET NAME SIGN INSTALLATION PLACEMENT ON STREET LIGHT POLE	
APPROVED <i>[Signature]</i>	DATE 2/18/02
SCALE : NONE	DRN : P50
DATE	BY
REVISIONS	DWG NO. H-17



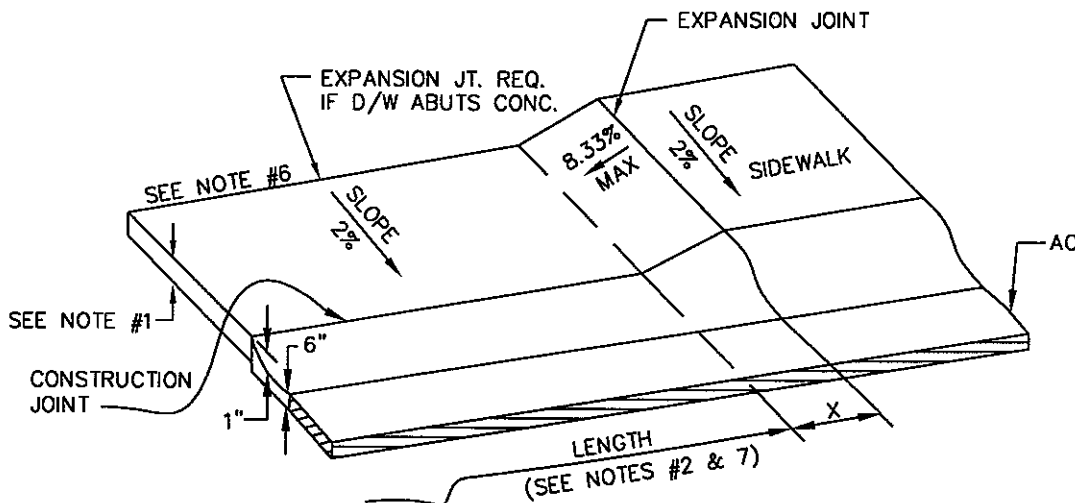
TYPE 2 CURB & GUTTER



"X" LENGTH		
ROLL	6" CURB	8" CURB
3'	5'	7'

NOTES:

- 1.) Min. D/W slab thickness in single family residential areas shall be 4".
- 2.) Min. width of residential D/W shall be 12', & max of 24'.
- 3.) All concrete removals shall be to neat saw cut lines.
- 5.) D/W approach shall be poured separately from curb unless otherwise approved by the engineer.
- 6.) On site grading may be required to eliminate excessive grade change and to maintain suitable drainage.
- 7.) Maximum curb opening may be increased due to special conditions on approval of county engineer.

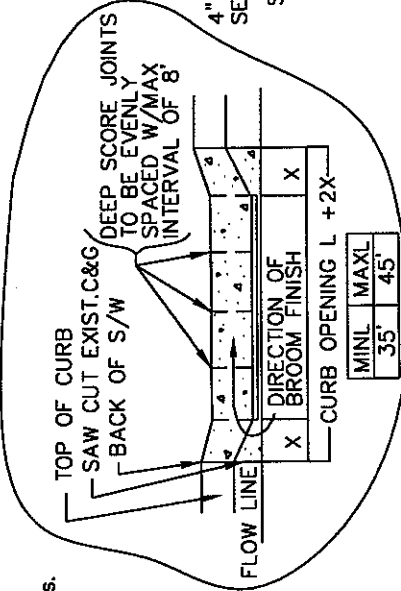
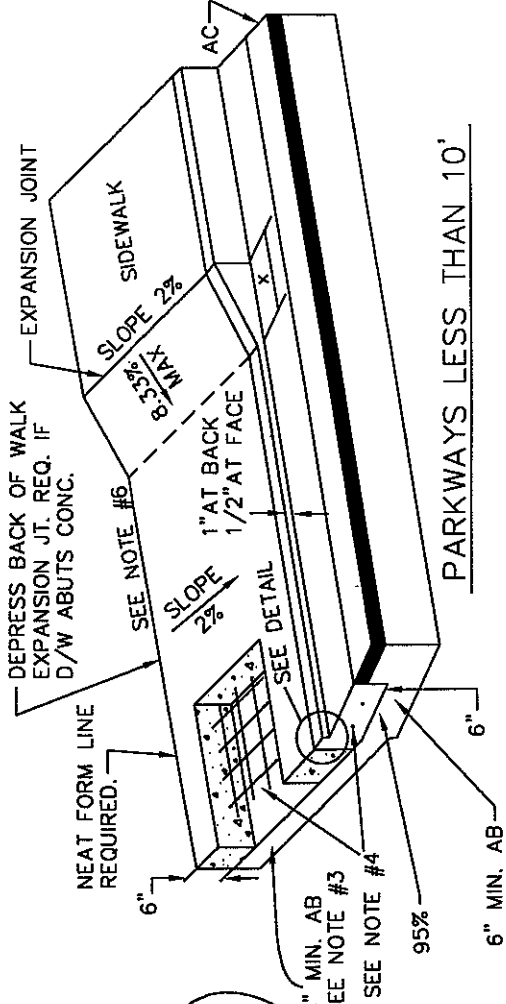
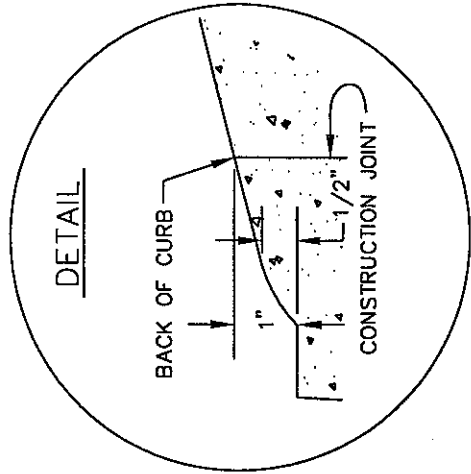
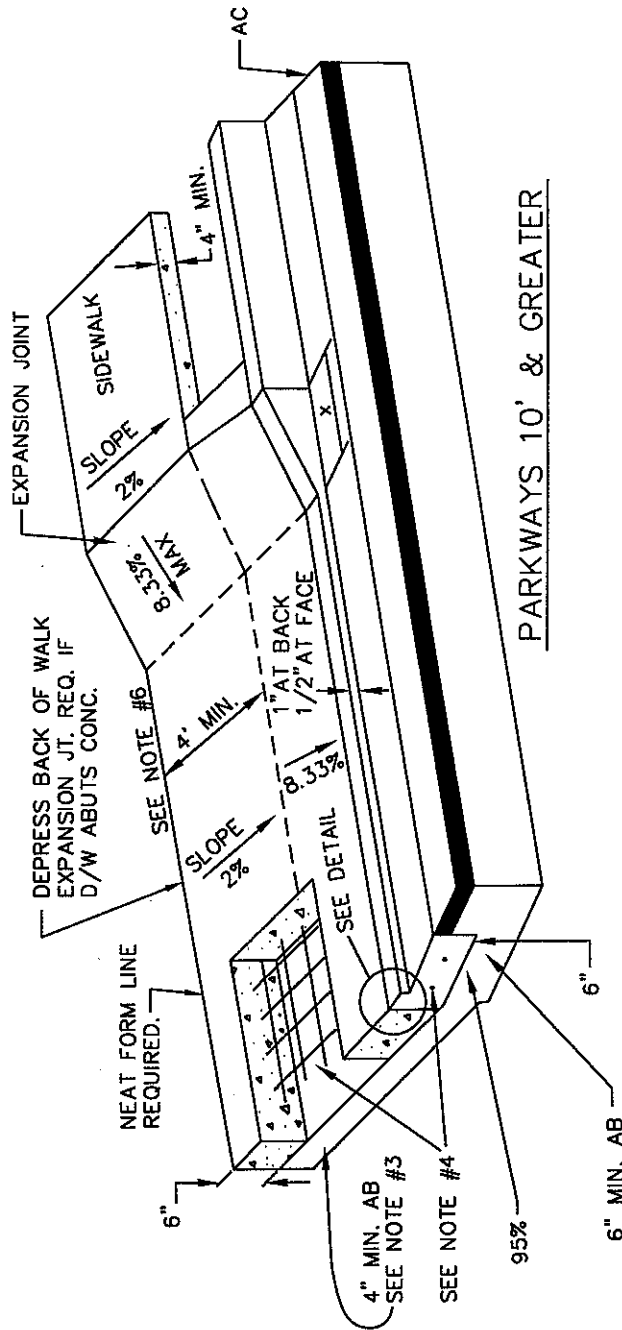


TYPE 1 ROLL CURB

Name: R:\develop\SU10202\Sid-Del\Sutter\H-18.dwg Updated By: JHillard
x. 26, 1999 - 17:16:5

COUNTY OF SUTTER	
RESIDENTIAL DRIVEWAY	
<i>Detail</i> APPROVED	3/14/06 DATE
SCALE : NONE	DWG NO. H-18
DRN : PSO	

DATE	REVISIONS	BY
11/9/05		K.X.



NOTES:

- 1.) All concrete removal shall be to neat saw cut lines.
- 2.) 95% relative compaction required on subgrade.
- 3.) 1" additional concrete thickness may be substituted for the required 4" of class 2 A.B.
- 4.) All driveways shall have 2 No. 4 rebar 12" O.C. in the gutter and 6"x6"x10 G.A. wire mesh throughout the approach.
- 5.) D/W approach shall be poured separately with curb unless otherwise approved by the engineer.
- 6.) On site grading may be required to eliminate excessive grade change and to maintain suitable drainage.
- 7.) Maximum curb opening may be increased due to special conditions on approval of county engineer.

PARKWAY WIDTH	X LENGTH	
	6" CURB	8" CURB
≥ 10'	3'	5'
< 10'	5'	7'

DATE	REVISIONS	BY
6/22/04		K.X.

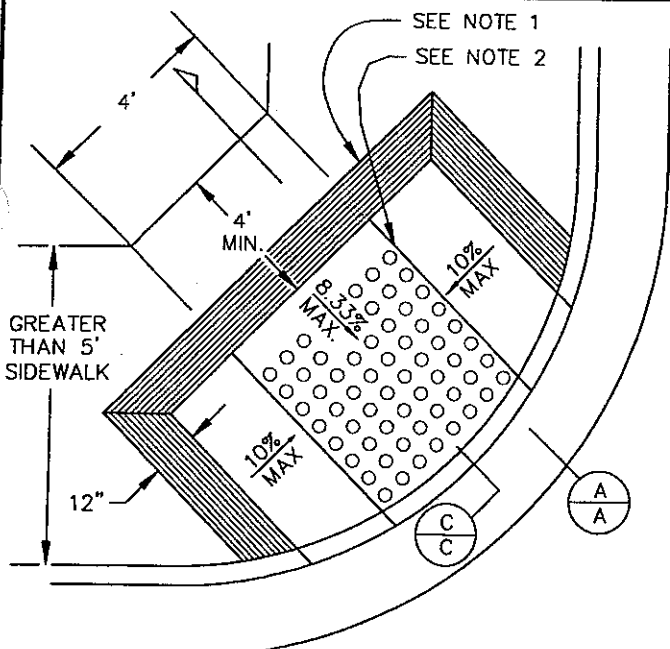
COUNTY OF SUTTER

COMMERCIAL DRIVEWAY

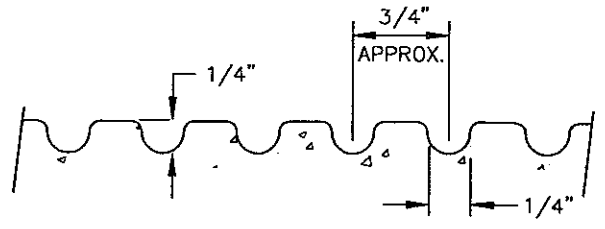
APPROVED *[Signature]* DATE 3/19/06

SCALE : NONE DWG NO. H-19

DRN : PSO

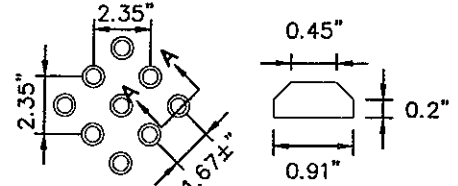


WHEELCHAIR RAMP
FOR SIDEWALKS GREATER THAN 5'

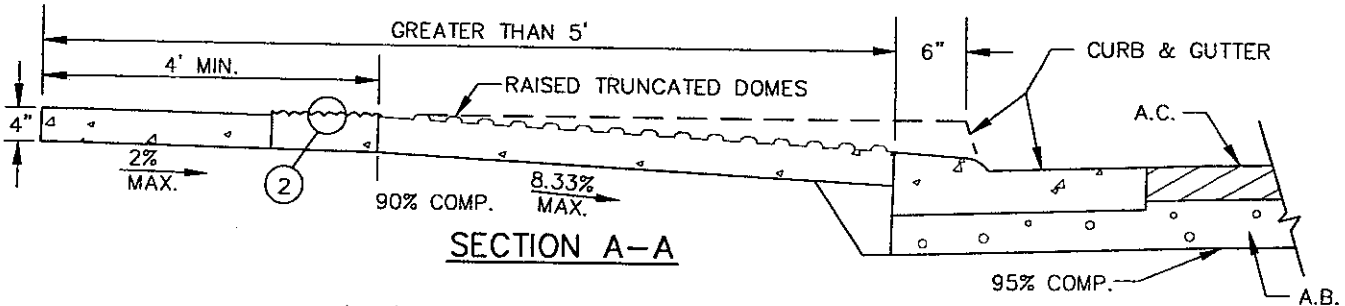


GROOVE DETAIL (2)
N.T.S.

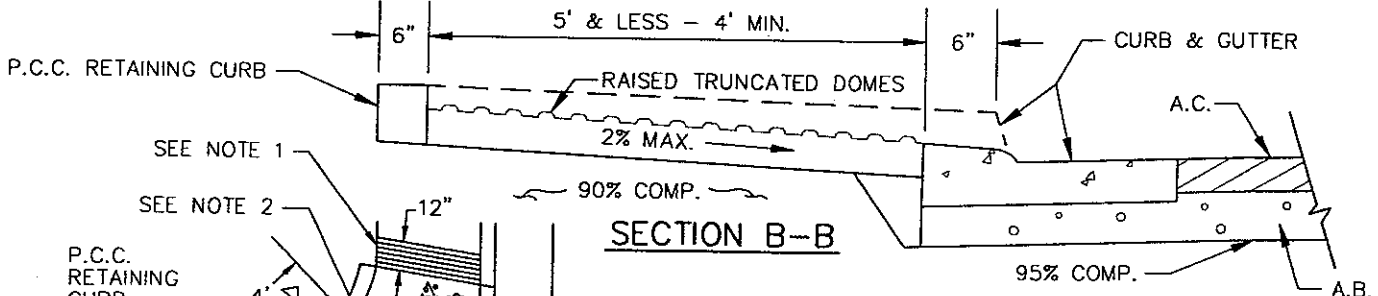
- NOTES:**
- 1.) The ramp shall have a 12" wide border w/1/4" grooves approx. 3/4" O.C. (see groove detail). The surface of the ramp shall have a transverse broomed surface texture rougher than the surrounding sidewalk.
 - 2.) Domes may be omitted when ramp slope exceeds 6.67%. Truncated domes per Caltrans Std. Pln. a88-1. See section 71-4 c.2. and 71-5 of the Caltrans Const. Specs. for required product or approved equal information.



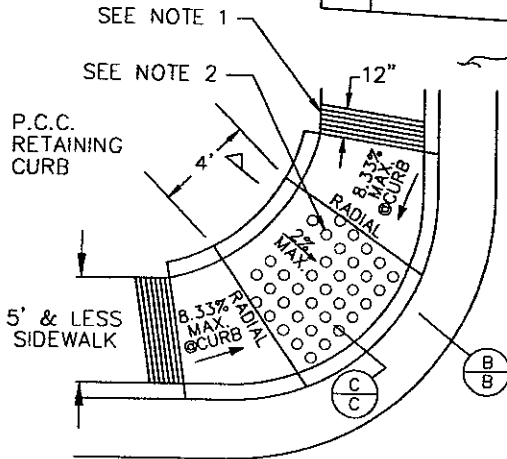
PLAN SECTION A-A
TRUNCATED DOME DETAIL



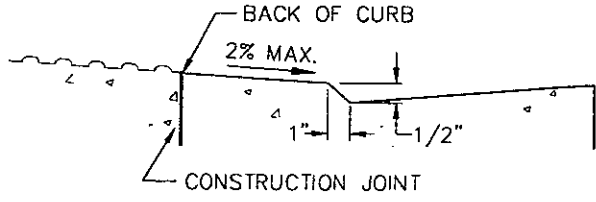
SECTION A-A



SECTION B-B



WHEELCHAIR RAMP
FOR SIDEWALKS 5' AND LESS



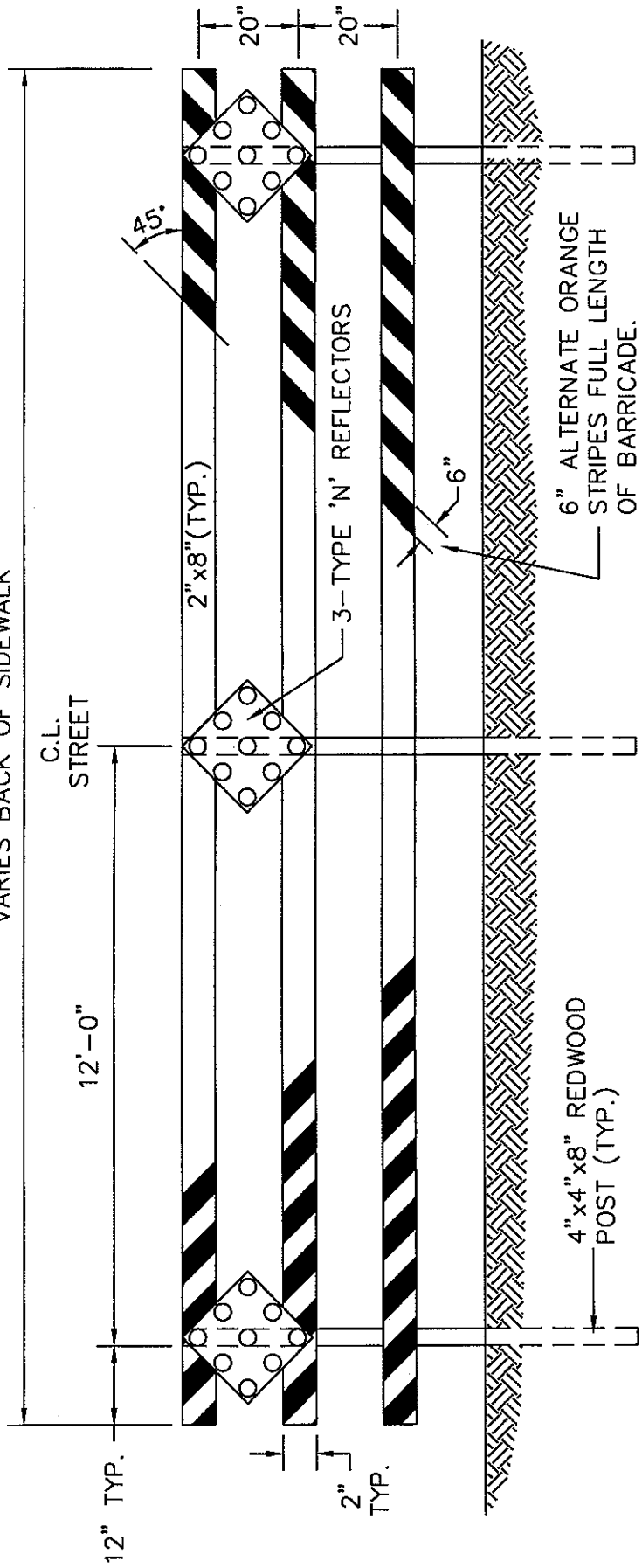
SECTION C-C

Nov. 13, 2007 09:51:53 DWG Name: R:\develop\SU10202\Sid-Dat\Sutter\H-20.dwg Updated By: Rlehuisky

COUNTY OF SUTTER	
WHEELCHAIR RAMP	
<i>[Signature]</i>	DATE
APPROVED	DATE
SCALE : NONE	DWG NO. H-20
DRN : PSO	

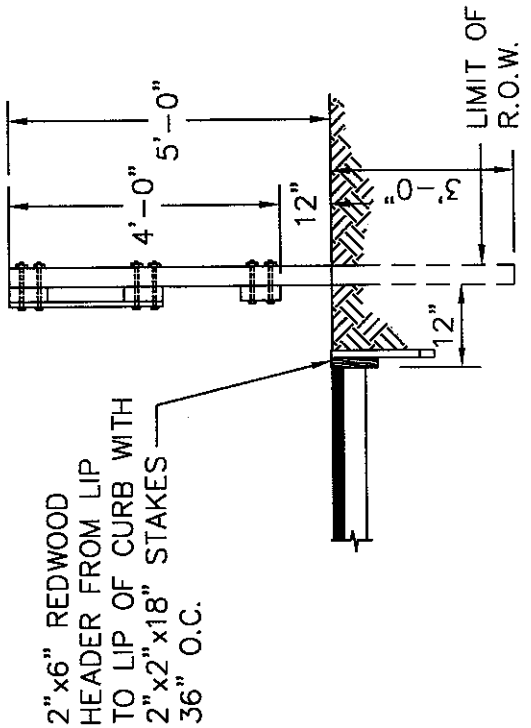
DATE	REVISIONS	BY

VARIES BACK OF SIDEWALK



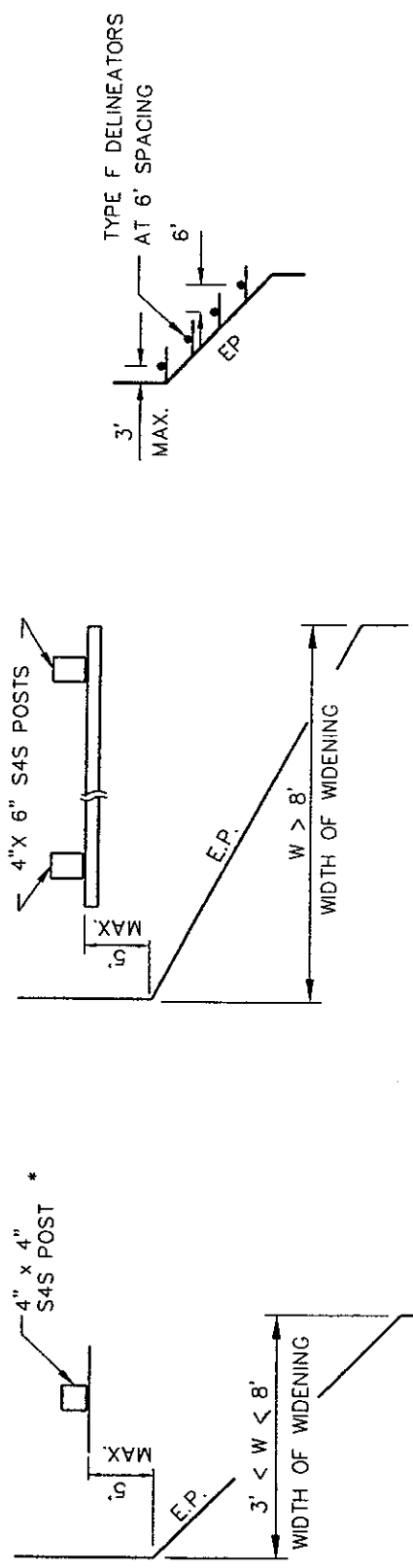
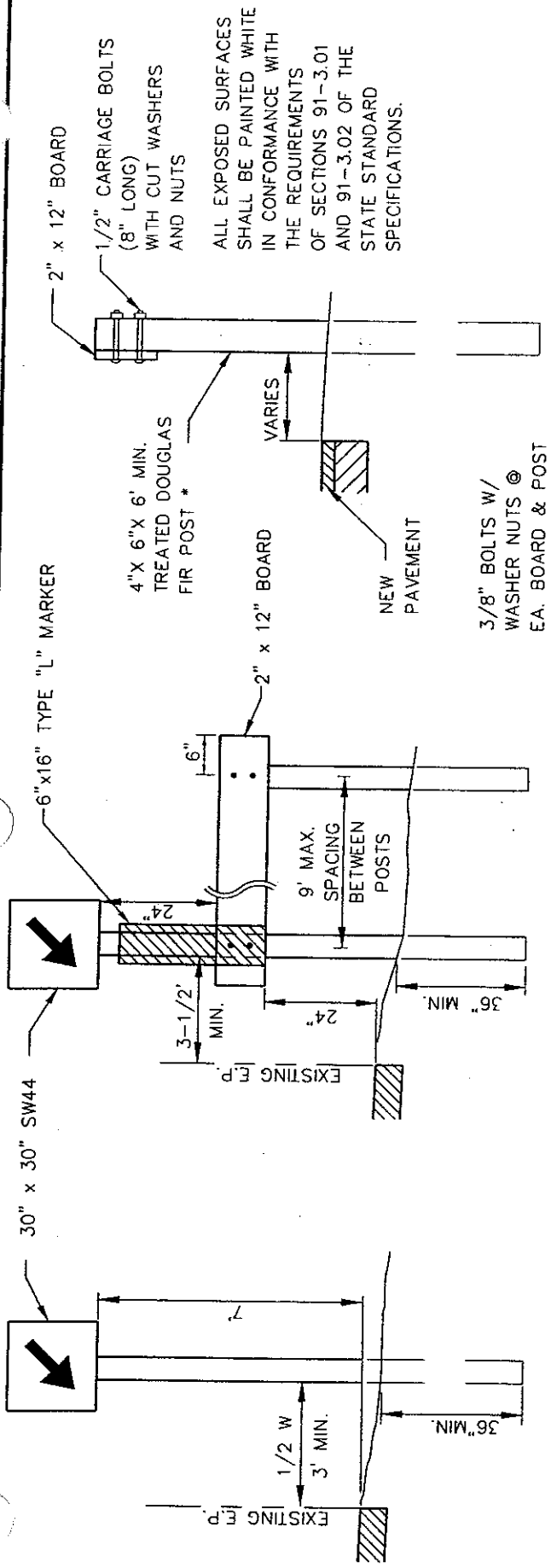
FRONT

NOTE:
 ALL EXPOSED SURFACES TO BE PAINTED WITH 2 COATS OF WHITE AND ONE COAT OF ORANGE FOR STRIPES. BOTH PAINTS TO CONFORM TO SECT. 91-3.02 OF THE CA. DIV. OF HIGHWAYS STANDARD SPECS. ALL POSTS SHALL BE FOUNDATION GRADE REDWOOD. 2" x 8" CROSS MEMBERS SHALL BE CONSTRUCTION GRADE DOUGLAS FIR. BARRICADE(S) SHALL EXTEND TO BACK OF WALK.



SIDE

COUNTY OF SUTTER	
STANDARD TIMBER BARRICADE	
APPROVED	3/14/06
DATE	
SCALE : NONE	DWG NO. H-21
DRN : PSO	
REVISIONS	BY
6/16/04	K.X.
DATE	BY

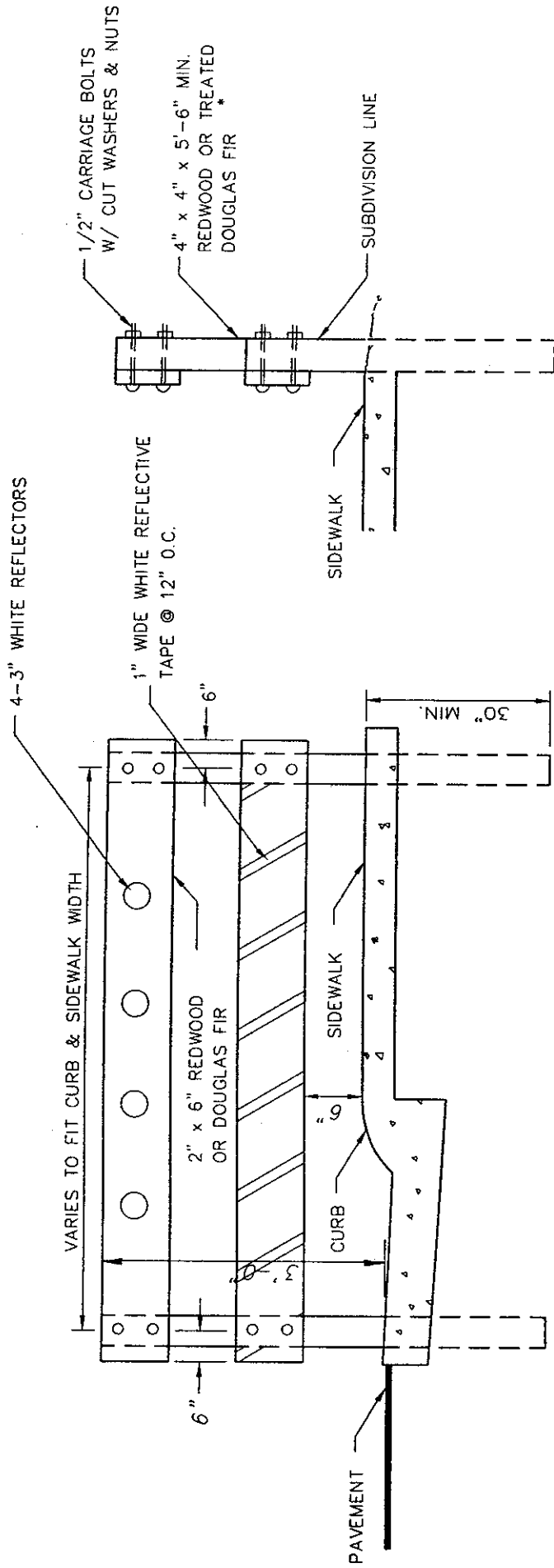


SPECIAL APPLICATION AT DIRECTION OF ENGINEER
 **W4-2 IN LIEU OF TYPE F DELINEATOR
 AT DIRECTION OF ENGINEER

* STATE OF CALIFORNIA SPECIFICATIONS 56-2.02B

COUNTY OF SUTTER	
BARRICADE PAVEMENT WIDENING	
APPROVED	DATE
SCALE : NONE	DWG NO. H-22
DRN : P50	

DATE	REVISIONS	BY

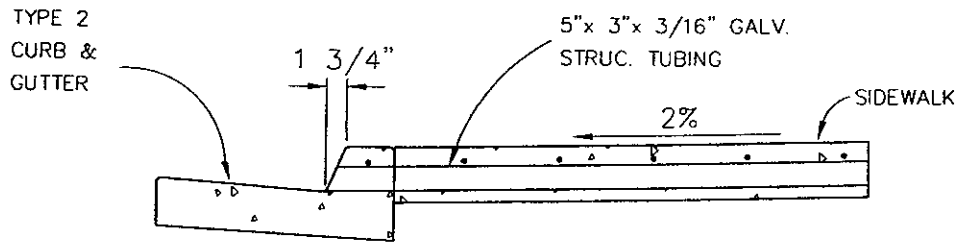


NOTE:

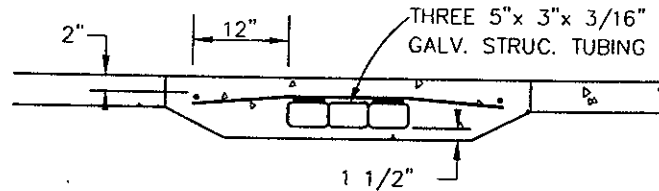
1. SIDEWALK BARRICADES TO BE ERECTED AT EACH LOCATION WHERE SATISFACTORY PROVISION CAN NOT BE MADE FOR PEDESTRIANS TO CONTINUE BEYOND THE TERMINUS OF A SIDEWALK.
2. ALL EXPOSED SURFACES TO BE PAINTED WITH TWO (2) COATS OF WHITE PAINT CONFORMING TO SECTION 91-3.02 OF STATE SPECIFICATIONS.

* STATE OF CALIF. SPECIFICATION #58-1.02

COUNTY OF SUTTER	
SIDEWALK BARRICADE	
APPROVED	DATE
<i>[Signature]</i>	<i>[Signature]</i>
SCALE : NONE	DWG NO. H-23
DRN : PSO	
DATE	BY
	REVISIONS



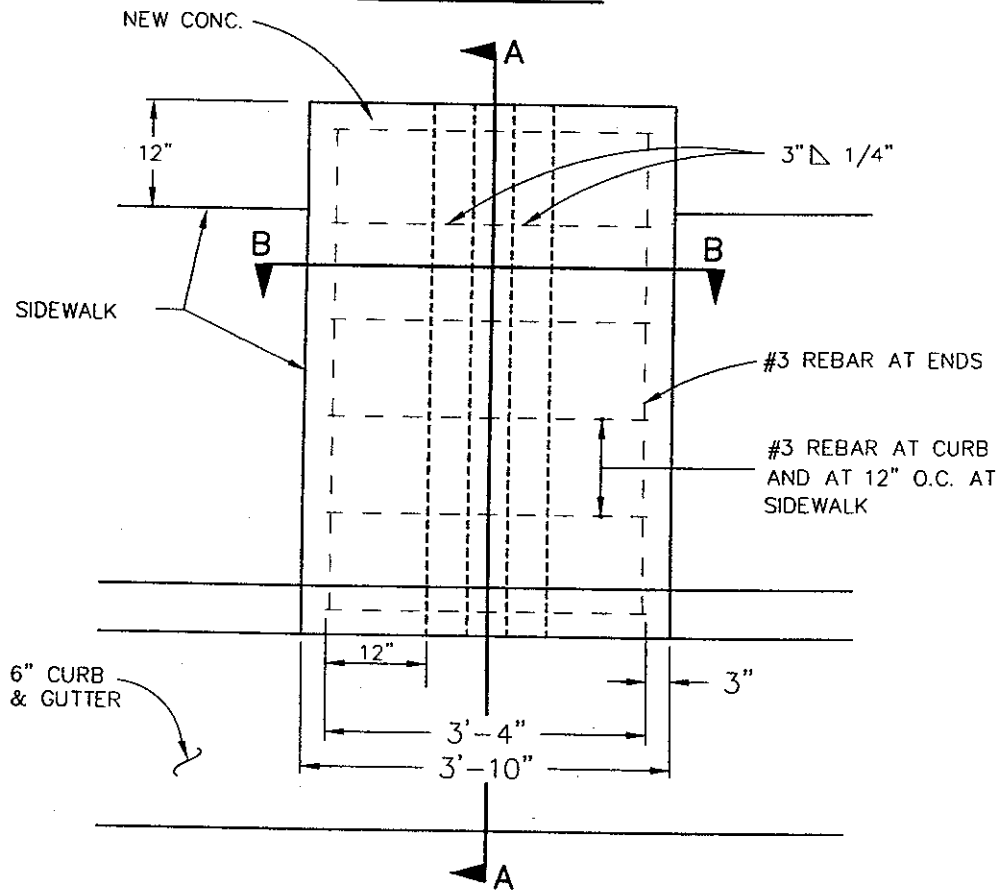
SECTION A-A



SECTION B-B

NOTE:

1. DRAIN ASSEMBLY SHALL BE FABRICATED AND HOT DIP GALVANIZED.
2. STRUCT. TUBING TO BE CUT TO FIT CURB ANGLE. COAT ENDS W/MIN. 2 COATS SHERWIN WILLIAMS "GALVITE" OR EQUAL.



PLAN VIEW

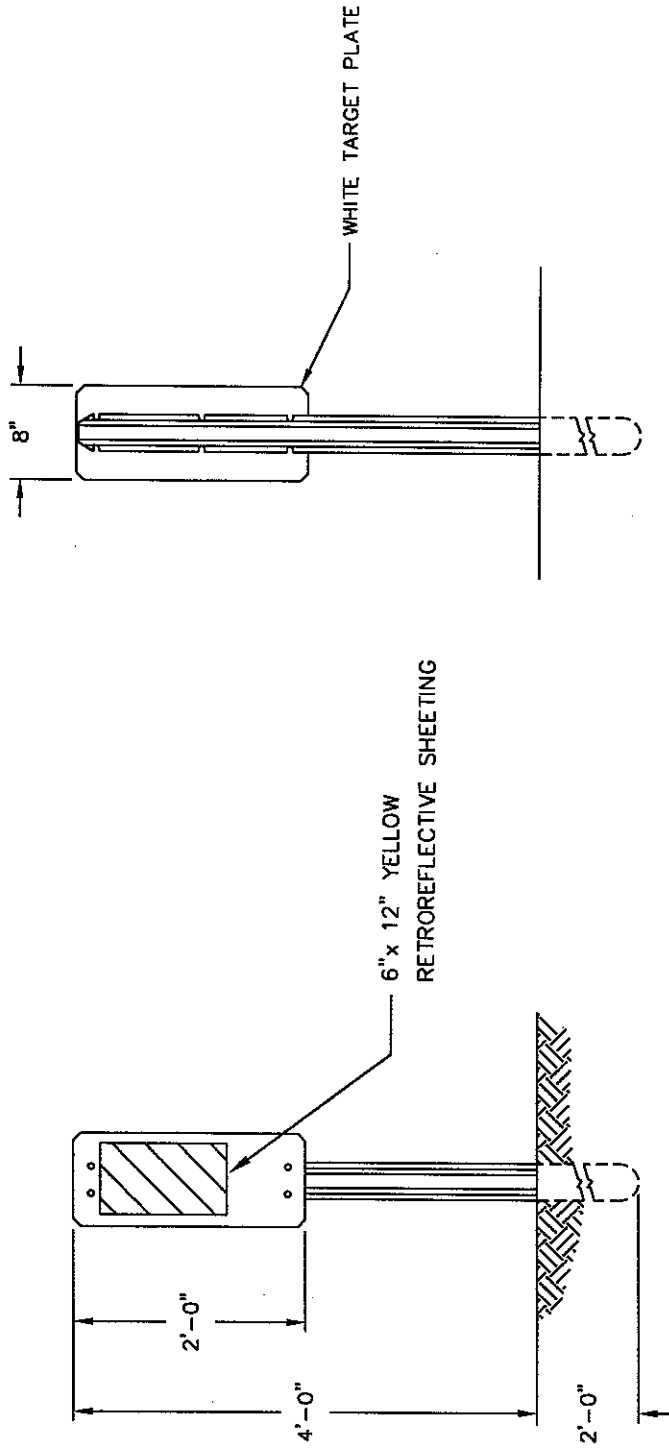
DATE	REVISIONS	BY

COUNTY OF SUTTER	
SIDEWALK DRAIN	
<i>Robert Barrett</i>	
APPROVED	DATE
SCALE : NONE DRN : PSO	DWG NO. H-24

Mar. 25, 1999 - 14:30:16 DMC Name: R:\develop\SU070202\Sid-Def\Sutter\H-24.dwg Updated By: RLehutsky

NOTES:

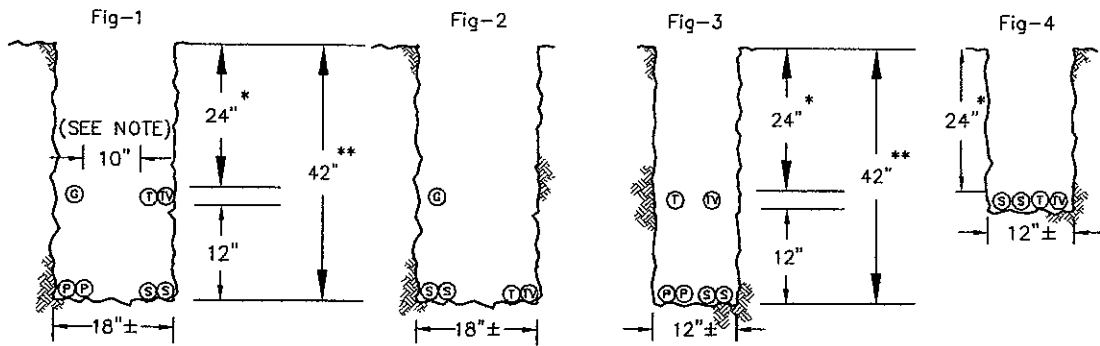
1. CONSTRUCTION AND MATERIALS SHALL CONFORM TO CALTRANS STD. PLAN SHEET A73A.
2. PLACE 6" BEYOND EDGE OF PAVEMENT. SPACE AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.



FRONT

REAR

COUNTY OF SUTTER	
OBJECT MARKER	
APPROVED	DATE
<i>[Signature]</i>	3/14/06
SCALE : NONE	DWG NO. H-25
DRN : K. XIONG	
DATE	BY
	REVISIONS



LEGEND:

- (G) — GAS
- (P) — ELECT. PRIMARIES
- (S) — ELECT. SECONDARIES
- (T) — TELEPHONE
- (TV) — TELEVISION

NOTE:

- * — INCREASE TO 30" IN STREET AREA
- ** — INCREASE TO 48" IN STREET AREA

SEPARATION MAY BE REDUCED TO NOT LESS THAN 6' WHEN NECESSARY, INSTEAD OF INCREASING TRENCH WIDTH.

TYPICAL SIDEWALK & STREET JOINT TRENCH CONFIGURATIONS

Sect.	(G)	(P)	(S)	(T)	(TV)	Fig.
A	X	X	12" Trench Width			1
B	X	X	X	12" Trench Width		1
C	X	X	X	X		1
D	X	X		X		1
E	X		X	12" Trench Width		1
F	X		X	X		2
G	X	X			X	1
H	X		X		X	2
I	X			X		1

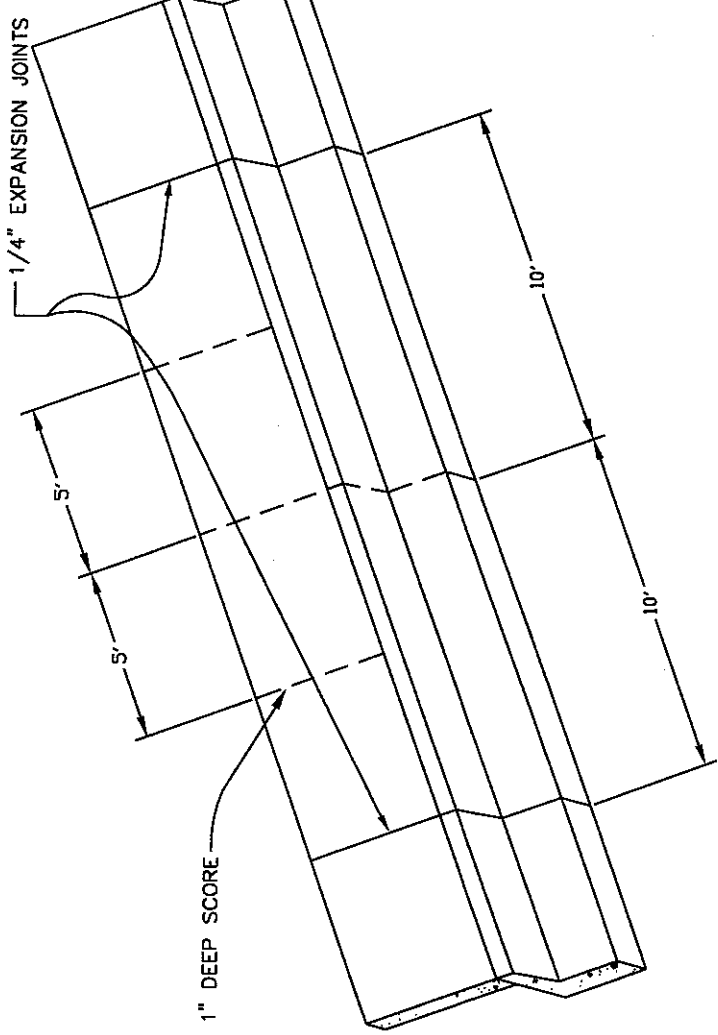
Sect.	(G)	(P)	(S)	(T)	(TV)	Fig.
J	X			X	X	1
K	X				X	1
L		X	X	36" Min. Cover		3
M		X	X	X		3
N		X		X		3
P		X		X	X	3
Q		X	X		X	3
R		X			X	3
S			X	X		4

Sect.	(G)	(P)	(S)	(T)	(TV)	Fig.
T			X		X	4
U				X	X	4
V	X	X	X	X	X	1
W	X		X	X	X	2
X		X	X	X	X	3
Y			X	X	X	4

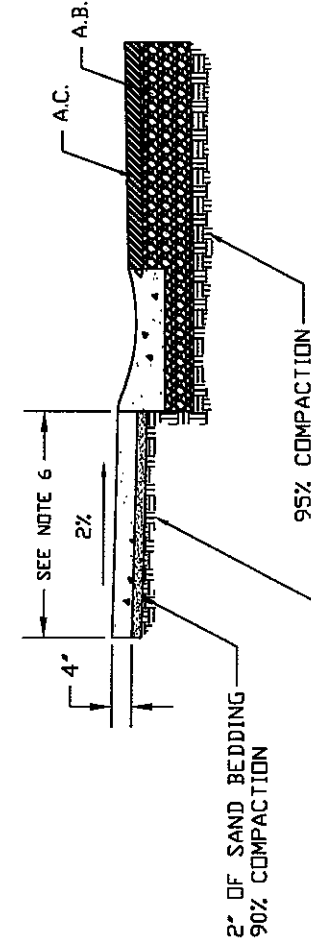
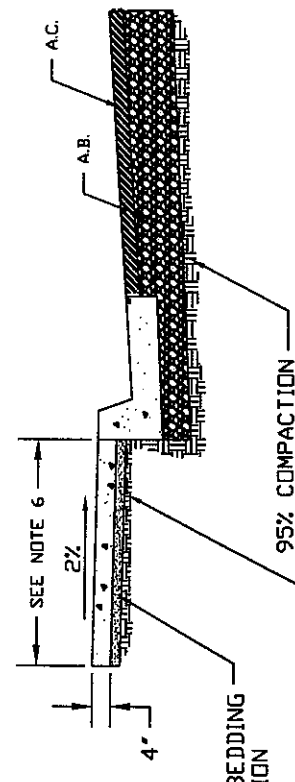
JOINT TRENCH OCCUPANCY GUIDE

Nov. 01, 2002 - 15:28:03 DWG Name: R:\develop\SU70202\Std-Det\Gutter\Std Dwg\H-26.dwg Updated By: Rukhutsky

			COUNTY OF SUTTER		
			JOINT UTILITY TRENCH		
			2/14/06		
			APPROVED DATE		
			SCALE : NONE		
			DRN : PSO		
			DWG NO. H-26		
DATE	REVISIONS	BY			



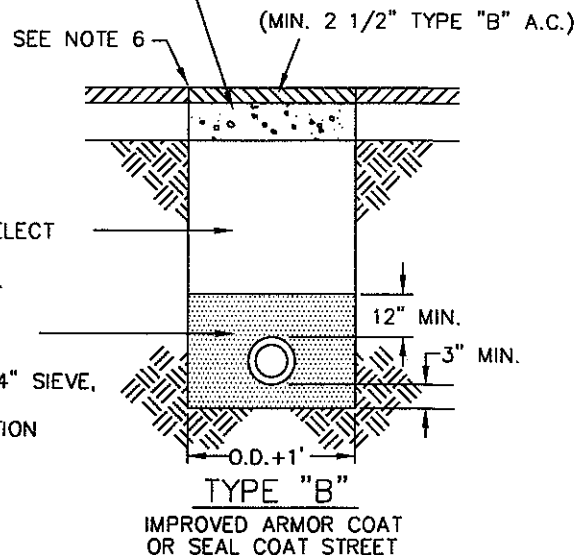
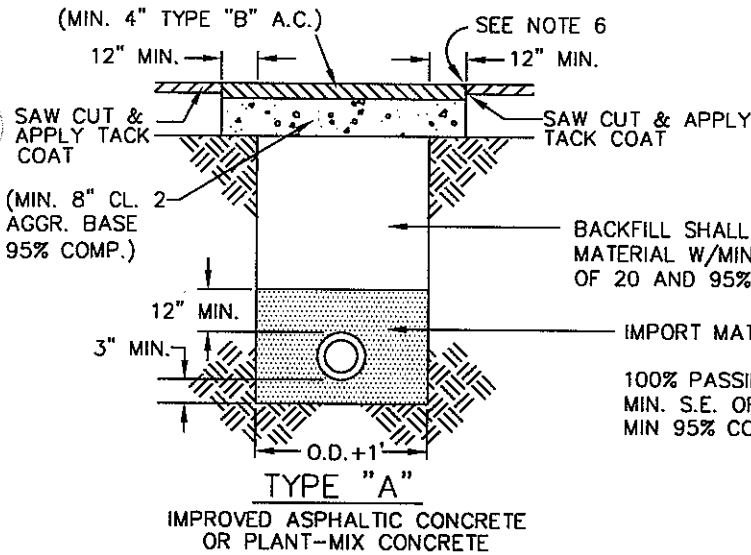
- NOTES:
1. DISTANCE BETWEEN SCORE LINES TO BE 5' IN SIDEWALK.
 2. 1/4" TRANSVERSE EXPANSION JOINTS AT 20' INTERVALS FOR SIDEWALK.
 3. 1/4" TRANSVERSE EXPANSION JOINTS AT 60' INTERVALS FOR CURB AND GUTTER.
 4. SIDEWALK EXPANSION JOINTS TO COINCIDE WITH THOSE IN CURB AND GUTTER.
 5. CURB AND GUTTER TO HAVE 1" DEEP SCORE AT 10' INTERVALS.
 6. SIDEWALK WIDTH, SEE STANDARD DRAWING NOS. H-4, H-5, H-6, H-7.



COUNTY OF SUTTER	
STANDARD SIDEWALK	
APPROVED	DATE 3/14/06
SCALE : NONE	DRN : K.X.
BY	REVISIONS
DATE	

DWG NO. H-27

(MIN. 6" CL. 2 AGGR. BASE 95% COMP.)



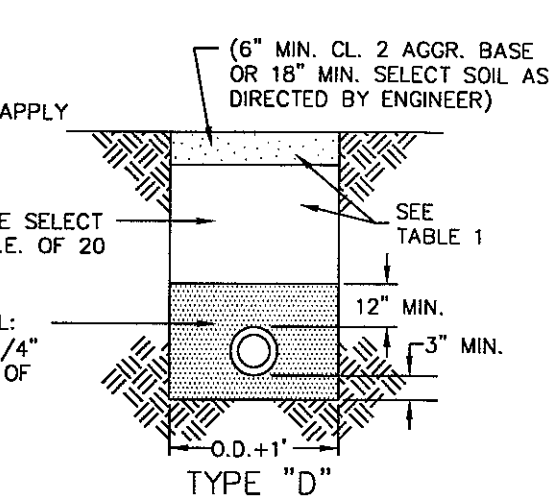
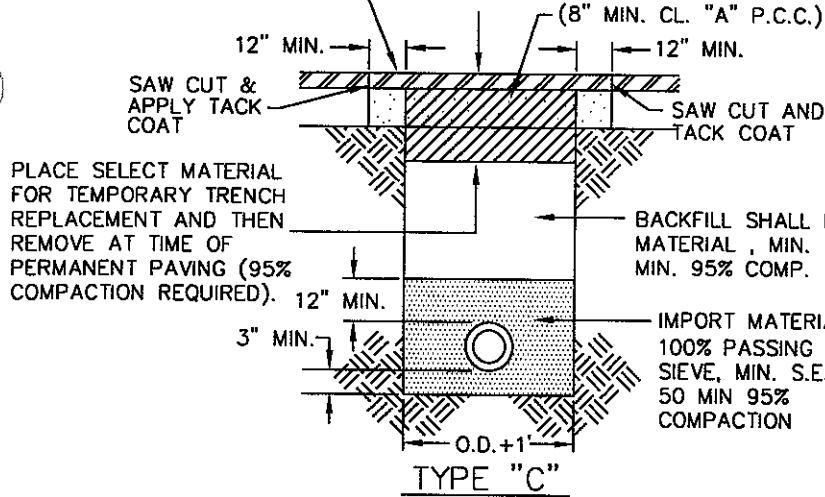
BACKFILL SHALL BE SELECT MATERIAL W/MIN. S.E. OF 20 AND 95% COMP.

IMPORT MATERIAL:
100% PASSING 3/4" SIEVE,
MIN. S.E. OF 50
MIN 95% COMPACTION

TABLE 1

TYPE	LOCATION	BACKFILL & COMP.	RESTORATION TYPE
D-1	WITHIN 5' OF E.P.	SELECT MATERIAL 95%	6" CL. 2" A.B.
D-2	GREATER THAN 5' TO E.P.	SELECT MATERIAL 90%	18" MIN. SELECT SOIL
D-(SW)	SIDEWALK AREAS	SELECT MATERIAL 95%	4" P.C.C. OR EQUAL TO EXIST. WHICHEVER IS GREATER

(PLACE TYPE "B" A.C. IF PAVEMENT HAS AN A.C. OVERLAY) SEE NOTE 6



NOTES: PORTLAND CEMENT CONCRETE STREETS UNIMPROVED STREETS ALLEYS OR EASEMENTS

- Type "A", "B" & "C" trenches require (2) two cuts: first cut initial trench width then 30 days after work has been completed it shall be saw cut 12" wider both sides.
- Type "A", "B" & "C" trenches require placement and maintenance of temporary pavement (sc-800 cold mix) for a minimum of 30 days prior to permanent paving.
- Structural thickness shown is minimum allowable. Other thickness of structural sections may be required by director if existing structural section exceeds these minimums.
- All trench work 5' and deeper shall have approved trench sloping or shoring plan.
- Paving surface at trench joints shall be sealed with asphalt emulsion 4" each side of joint after final compaction of asphalt concrete. Sealant shall be sanded as necessary to prevent traffic pickup.
- Contact Sutter County Public Works (822-7450) 24 hrs. prior to trenching.
- Contractor shall provide S.E. (Sand Equivalent) test Results for backfill and bedding material from geotech lab.

3. All trenches in the public R/W shall be either properly backfilled or sealed w/steel plates at the end of each working day.

DATE	REVISIONS	BY
6/22/04		K.X.

COUNTY OF SUTTER

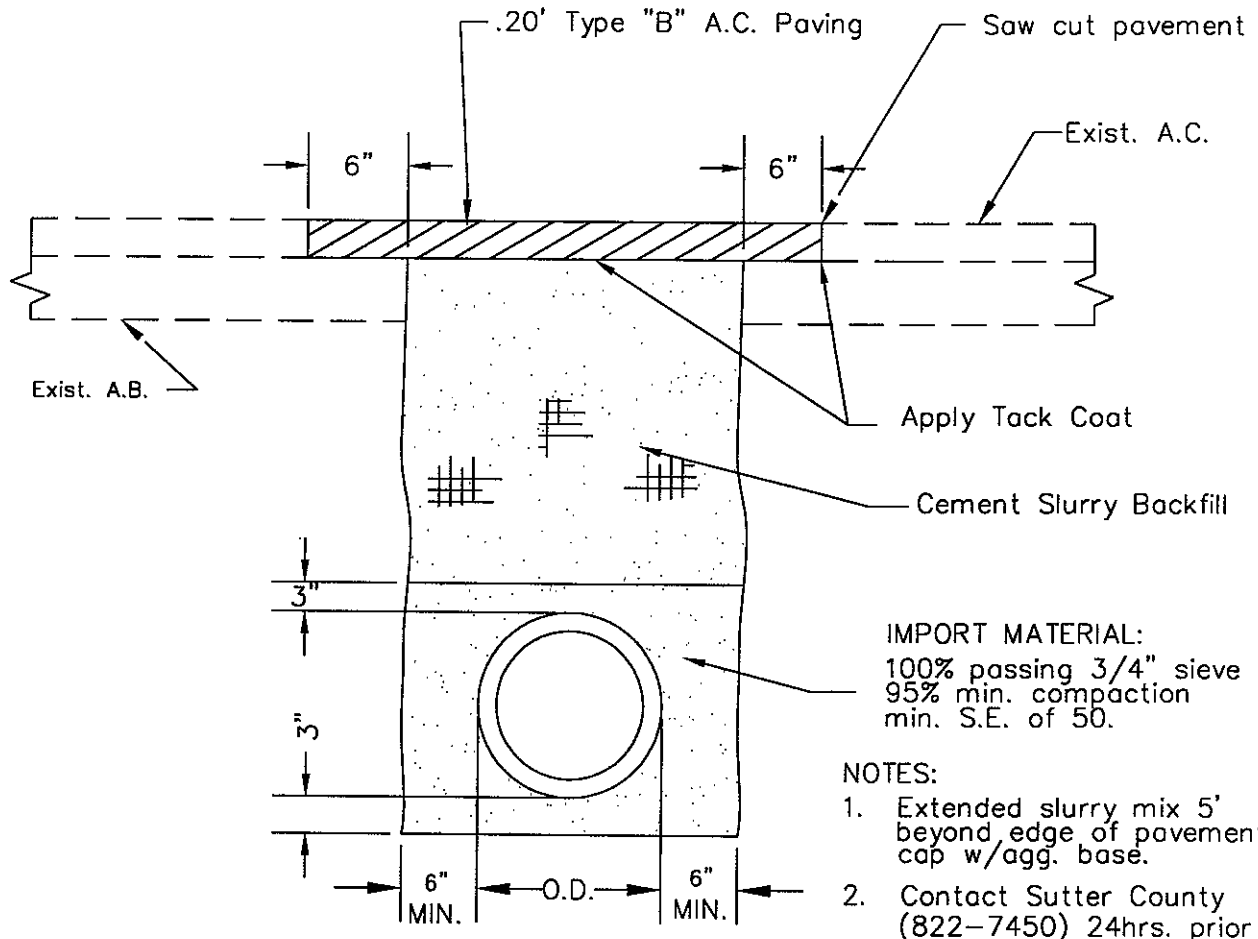
TYPE I TRENCH RESTORATION

[Signature] 2/14/06
APPROVED DATE

SCALE : NONE
DRN : PSO

DWG NO. H-28

Nov. 25, 2002 - 09: [Illegible text]



TYPE II TRENCH RESTORATION

CEMENT SPECIFICATIONS

2 Sack Portland Cement (188 lbs.)
 52 Gallons Water
 814 lbs. 3/8" rock SSD Weight
 2310 lbs. Sand

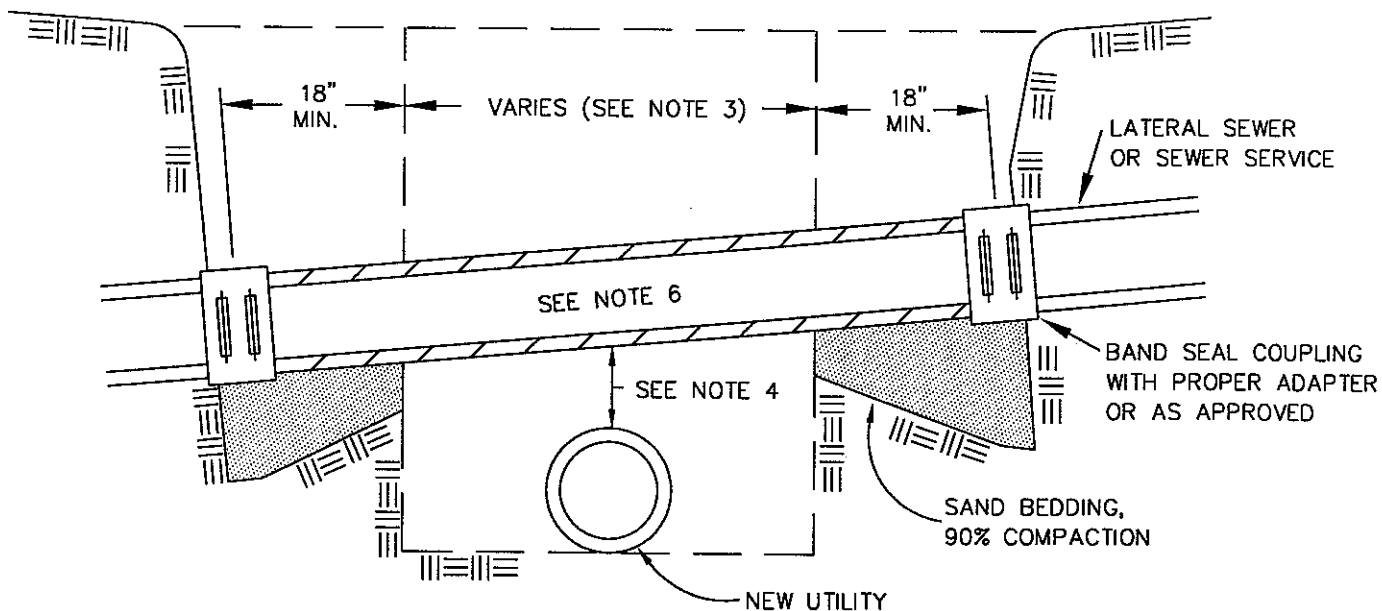
TOTAL BATCH WT. 3,750 LBS. PER CUBIC YARD ±10% TO BE SHOWN ON DELIVERY TICKET.

Backfill Slurry mix to top of exist. a.b. and bridge w/metal plate until slurry mix can support vehicular traffic.
 Asphalt concrete patch to match existing thickness, 0.2' min.
 Do not move slurry once placed in ditch.
 2% max. (by cement wt.) calcium chloride may be added to slurry mix.

- NOTES:
1. Extended slurry mix 5' beyond edge of pavement & cap w/agg. base.
 2. Contact Sutter County (822-7450) 24hrs. prior to trenching.
 3. Paving surface at trench joints shall be sealed with asphalt emulsion 4" each side of joint after final compaction of asphalt concrete. Sealant shall be sanded as needed to prevent traffic pickup.
 4. All trenches in the public r/w shall be either properly back-filled or sealed w/steel plates at the end of each working day.

6/22/04		K.X.
DATE	REVISIONS	BY

COUNTY OF SUTTER	
TYPE II TRENCH RESTORATION	
<i>[Signature]</i>	3/14/06
APPROVED	DATE
SCALE : NONE	DWG NO. H-28A
DRN : PSO	



NOTES:

1. INSIDE DIAMETER OF PIPE TO BE THE SAME AS THE PIPE TO WHICH IT CONNECTS.
2. ALTERATIONS OF SEWER GRADES WILL BE PERMITTED ONLY AFTER PERMISSION HAS BEEN RECEIVED FROM THE COUNTY OR SPECIAL DISTRICT.
3. WHENEVER THE SPAN OF THE PIPE EXCEEDS 5'-0" REPLACEMENT PROCEDURE AND MATERIAL SHALL BE AS DIRECTED BY THE COUNTY OR SPECIAL DISTRICT.
4. MINIMUM CLEARANCE BETWEEN PIPES SHALL BE 3".
5. TRIM THE END OF THE SIDE SEWER PIPE TO A CLEAN CUT UNDAMAGED END WITH MECHANICAL PIPE CUTTER.
6. EXTRA STRENGTH VITRIFIED CLAY PIPE OR DUCTILE IRON PIPE FOR SANITARY SEWER LINES; FOR STORM DRAIN LINES, CONCRETE PIPE OF THE SAME TYPE REMOVED.
7. BAND SEAL COUPLING SHALL HAVE STAINLESS STEEL SHEAR RING.

DWG Name: R:\develop\SU10202\516-De\Sutter\N-27.dwg Updated By: RLehulsky
 Mar. 26, 1999 - 1

DATE	REVISIONS	BY

COUNTY OF SUTTER	
UTILITY CROSSING	
<i>[Signature]</i> APPROVED	3/14/06 DATE
SCALE : NONE DRN : PSO	DWG NO. H-29

FORNI 9- $\frac{1}{2}$ " TRAFFIC IRRONSIDE'S VALVE
 BOX TYPE 80-60-03 OR APPROVED EQUAL
 MARKED "MONUMENT"

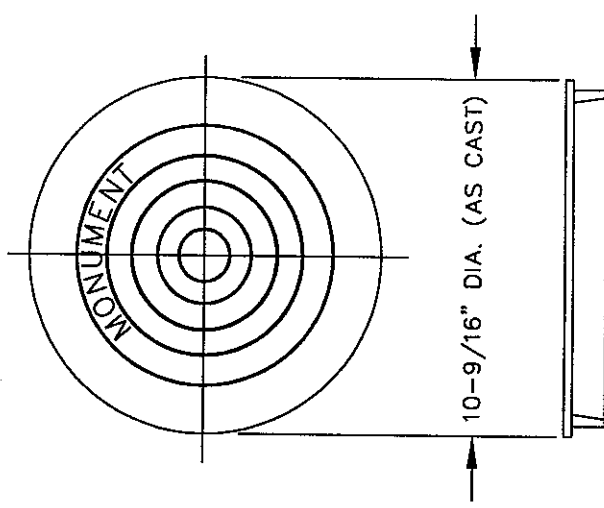
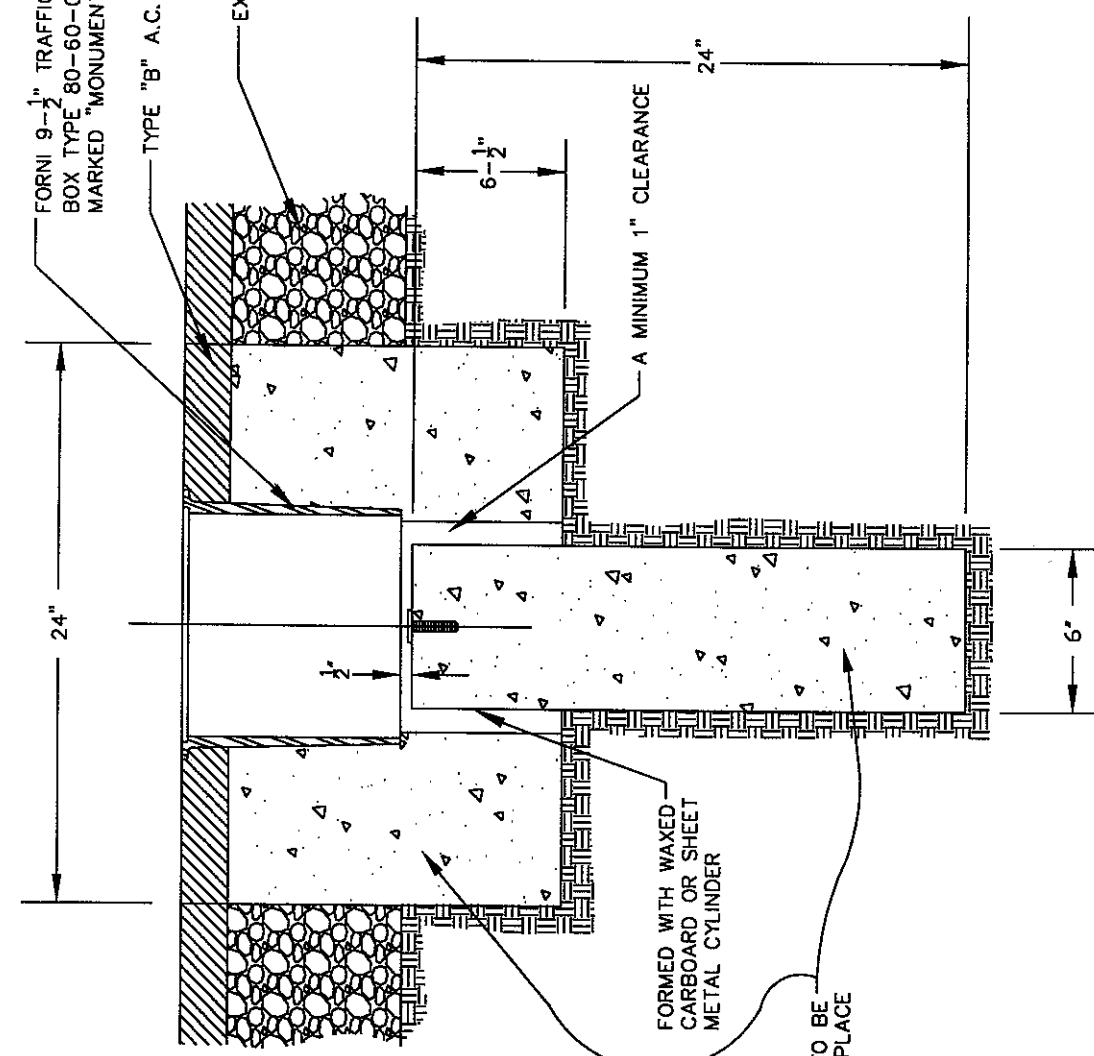
TYPE "B" A.C. (2" MIN.)

EXISTING AB

A MINIMUM 1" CLEARANCE

FORMED WITH WAXED
 CARBOARD OR SHEET
 METAL CYLINDER

CONCRETE TO BE
 POURED IN PLACE



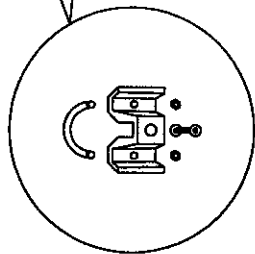
NOTE:
 SURVEY MONUMENT MARKER
 SOLID BRASS, 1- $\frac{3}{8}$ " DIA. TOP
 AND $\frac{7}{16}$ "x2" SHANK

COUNTY OF SUTTER	
MONUMENT WELL	
APPROVED	3/14/06
DATE	
SCALE : NONE	
DRN : M. MILLER 6/15/92	DWG NO. H-30

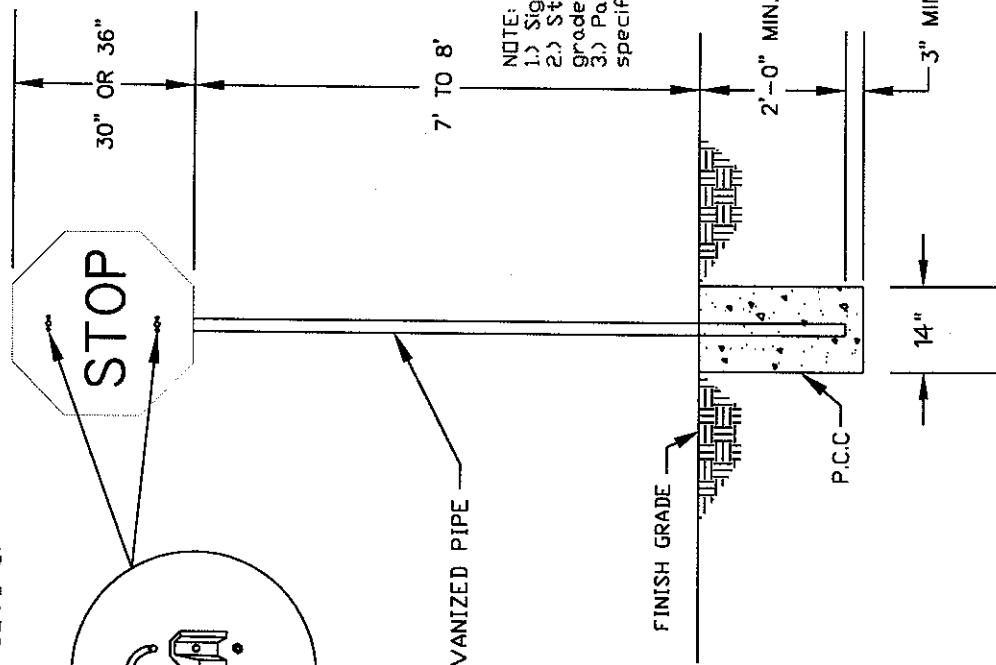
DATE	REVISIONS	BY
6/2/04		K.X.

Note:

Bracket Set-Shell be
Hawkins M26-C2VB or
equivalent



2" DIA. GALVANIZED PIPE

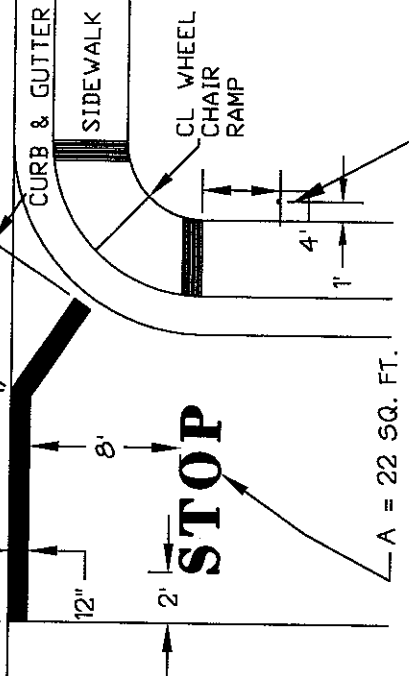


NOTE:

- 1.) Sign location & Size to be determined by county engineer
- 2.) Stop sign thickness is 0.80 & shall be standard engineering grade aluminum.
- 3.) Pavement marking & limit line shall conform to 2002 standard specification and section 84-2.02

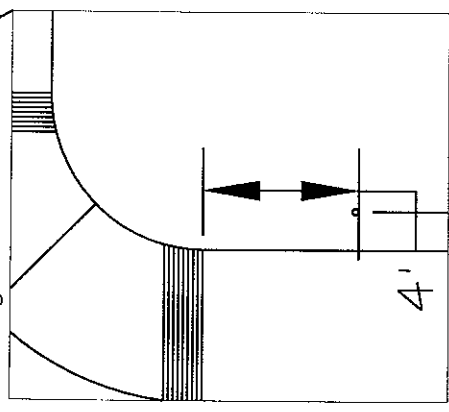
SEE WHEELCHAIR
RAMP & GROOVE
DETAIL DWG. NO.
H-20

STANDARD
STREET SIGN
& POST



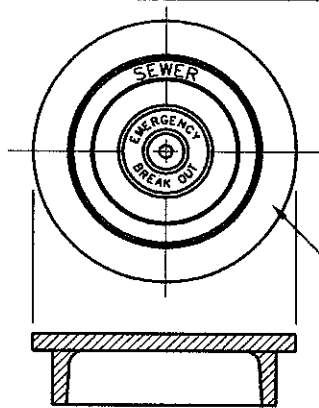
A = 22 SQ. FT.

Standard Stop
Sign and Post



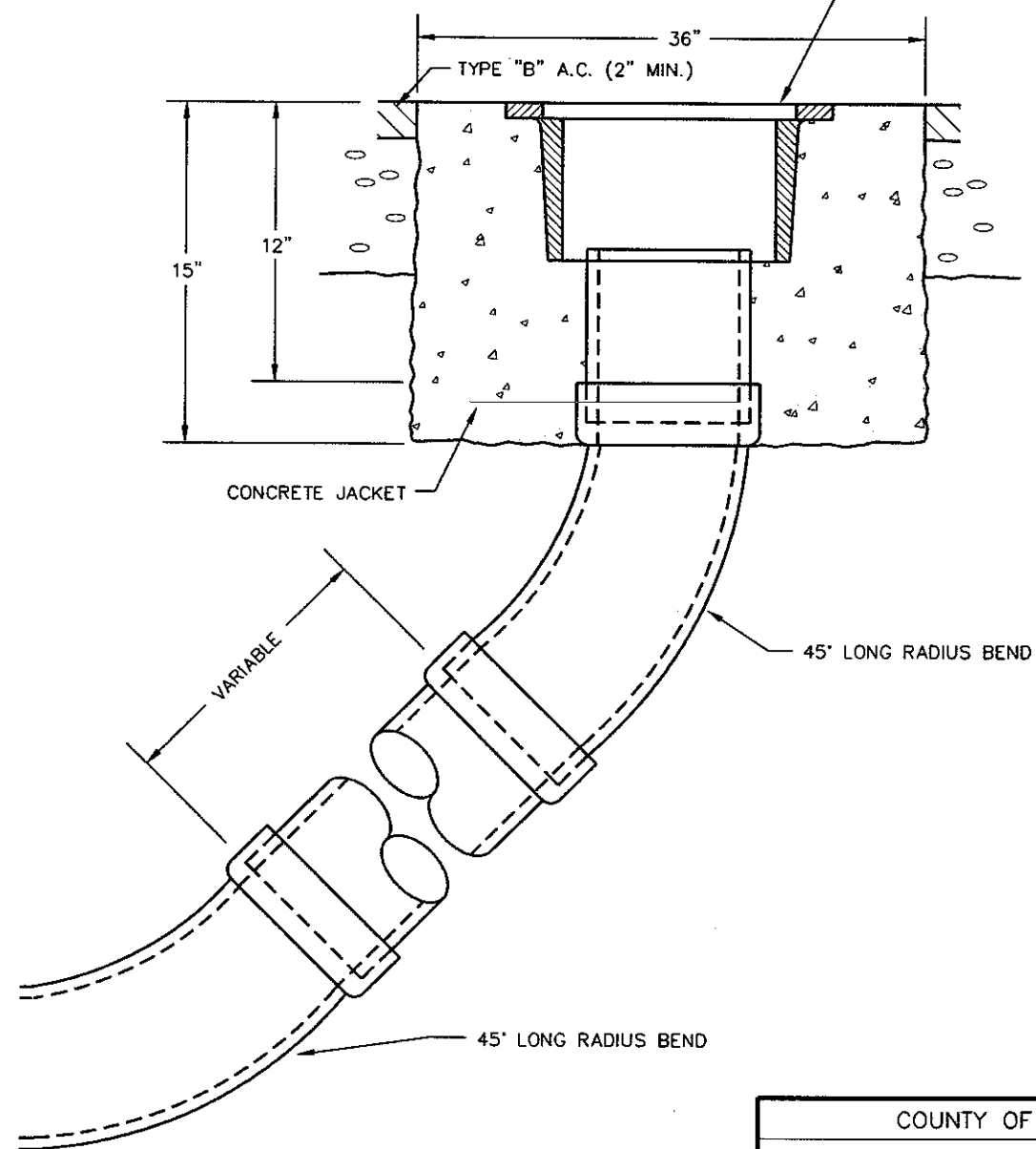
COUNTY OF SUTTER	
STANDARD STOP SIGN	DATE
APPROVED	3/19/06
SCALE : NONE	DWG NO. H-31
DRN : B. MOODY	

DATE	REVISIONS	BY

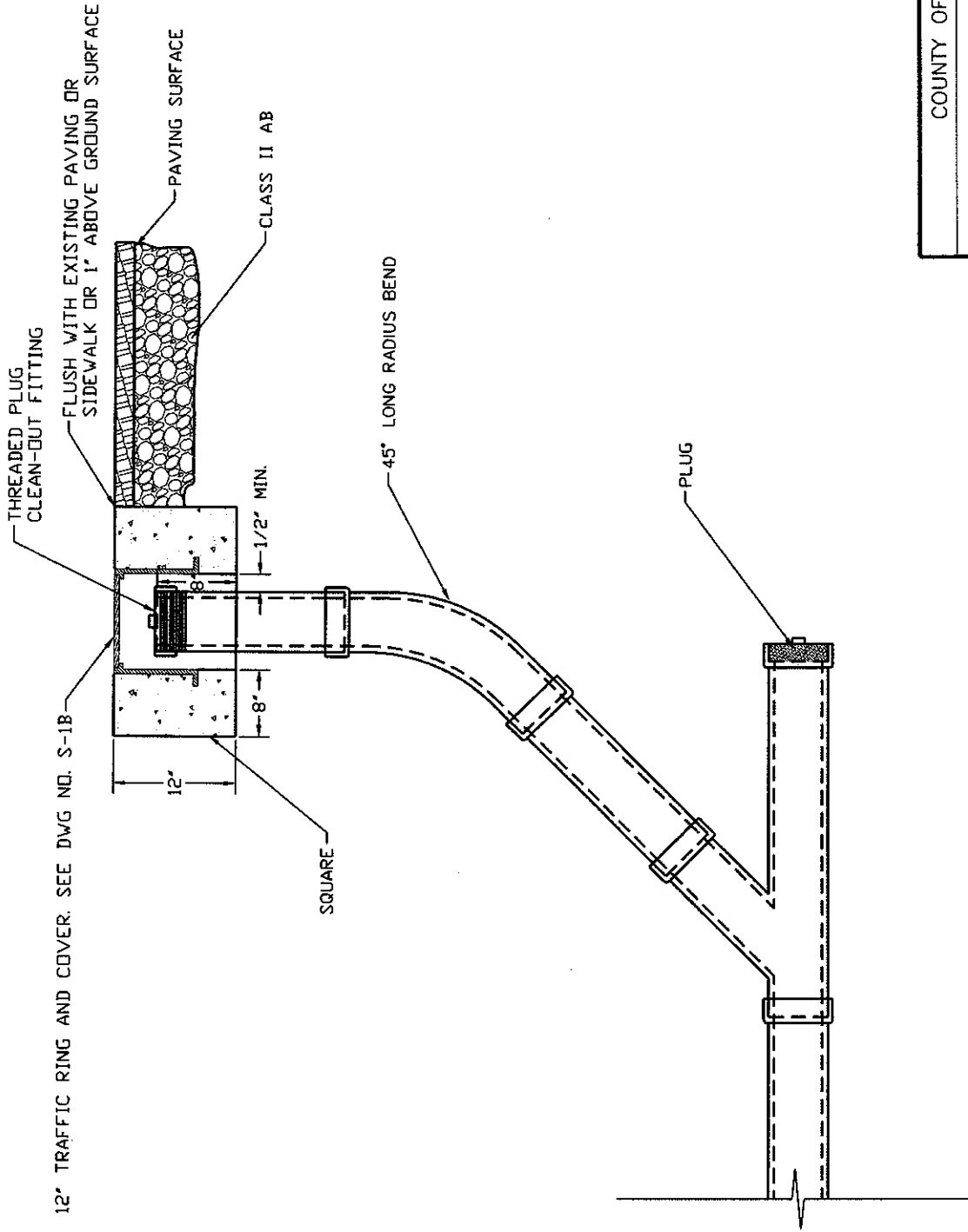


COVER DETAIL

- (1) FOR 6" SEWER MAIN USE D & L SUPPLY 9 1/2" TRAFFIC VALVE BOX TYPE H8030 OR APPROVED EQUAL MARKED "SEWER".
- (2) FOR 8" 10" AND 12" SEWER MAINS USE D & L CLEAN-OUT ASSEMBLY H-8026 OR EQUAL MARKED "SEWER".



COUNTY OF SUTTER		
SEWER CLEANOUT		
<i>Douglas W. Bault</i>		
DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DATE: 11/2010	DWG NO. S-1
DRN: PSO		



12" TRAFFIC RING AND COVER. SEE DWG NO. S-1B

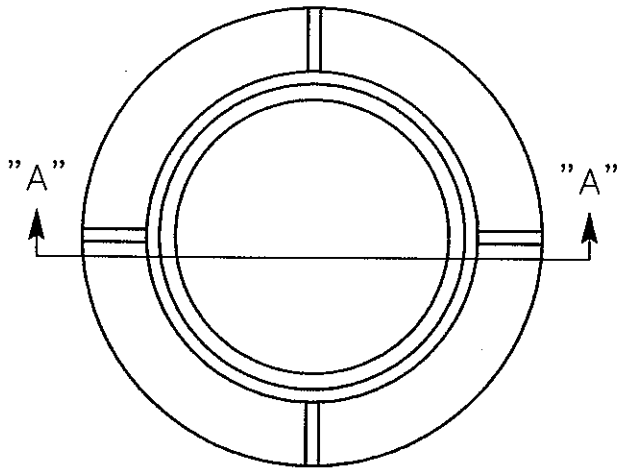
COUNTY OF SUTTER

8" FLUSHING BRANCH

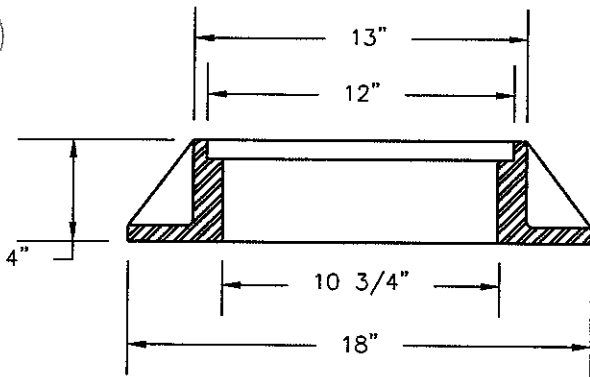
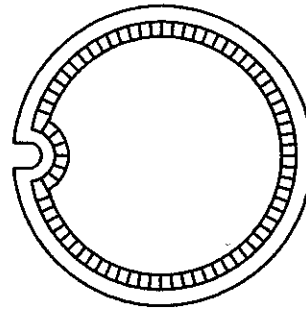
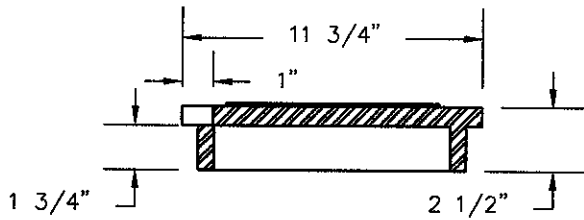
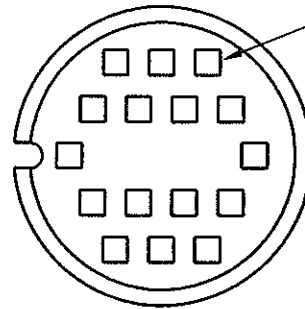
K. Xiong
DIRECTOR OF PUBLIC WORKS

SCALE: NONE
DRN: K.XIONG DATE: 11/2010 DWG NO. S-1A

PLAN



1" SQUARE
HEIGHT 1/8"



SECTION A-A

NOTES:

1. USE D&L SUPPLY H-8024 OR APPROVED EQUAL. MARKED "FLUSHING".
2. ALL MATERIALS USED IN MANUFACTURING SHALL CONFORM TO ASTM 48, CLASS 35B.
3. CASTING SHALL BE DIPPED IN BLACK, BITUMINOUS PAINT.
4. FRAME AND COVER MEETS H-20 WHEEL LOADING.

COUNTY OF SUTTER

FRAME AND COVER

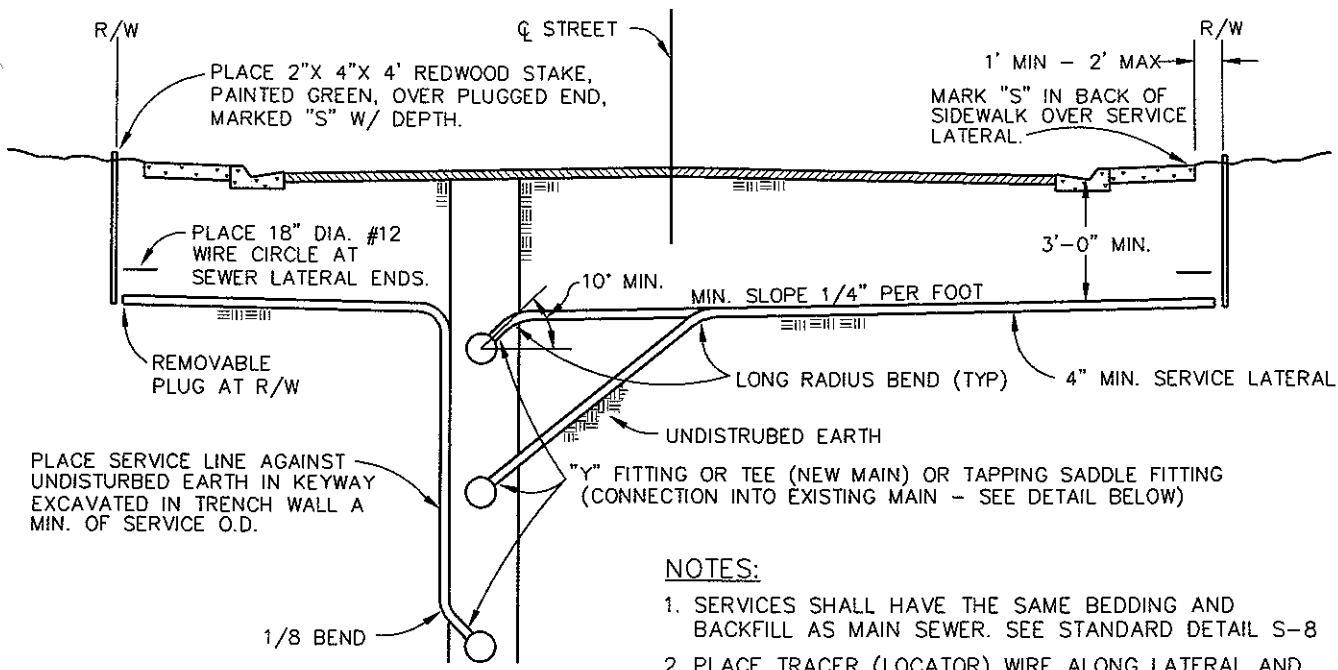
Waylon N. Gault
DIRECTOR OF PUBLIC WORKS

SCALE: NONE

DRN: K.XIONG

DATE: 11/2010

DWG NO. S-1B



PLACE SERVICE LINE AGAINST UNDISTURBED EARTH IN KEYWAY EXCAVATED IN TRENCH WALL A MIN. OF SERVICE O.D.

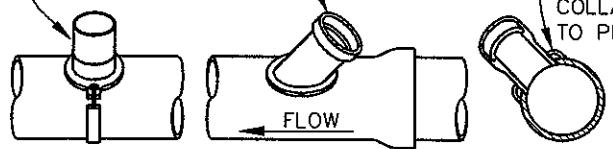
NOTES:

1. SERVICES SHALL HAVE THE SAME BEDDING AND BACKFILL AS MAIN SEWER. SEE STANDARD DETAIL S-8
2. PLACE TRACER (LOCATOR) WIRE ALONG LATERAL AND MAIN.
3. ANY REPAIRS TO SERVICES AND MAINS SHALL HAVE COMPRESSION COUPLINGS WITH STAINLESS STEEL SHEAR RINGS.
4. COLLAR WYE SADDLE OR CUT IN WYE SHALL BE USED FOR 4-INCH AND 6-INCH LATERAL. 8-INCH LATERALS OR LARGER REQUIRE A STANDARD MANHOLE.
5. "HAMMER TAP" CONNECTIONS ARE NOT ACCEPTABLE. THE HOLE FOR THE COLLAR OR WYE FITTING FOR A SEWER SADDLE SHALL BE MADE WITH A TAPPING MACHINE. THE HOLE SHALL BE CLEANLY MACHINED AND IF NECESSARY WORKED BY HAND WITH A RASP OR SANDED TO ACCOMPLISH A TRUE AND NEAT OPENING FOR THE COLLAR WYE.
6. TAP TO BE MADE AT APPROXIMATELY CENTER OF JOINT.
7. THE SADDLE CONNECTION SHALL BE ENCASED TO THE LIMITS SHOWN WITH CONTROLLED LOW STRENGTH CONCRETE (100 PSI, MAX) AFTER THE CONNECTION IS APPROVED BY THE INSPECTOR. THE BELL IN THE LATERAL SHALL NOT BE ENCASED.
8. ALL CHIPS, DIRT, MORTAR, AND CONCRETE SHALL BE KEPT OUT OF THE SADDLE. CLEANING AND BALLING OF THE SADDLED REACH SHALL BE PERFORMED IF DIRECTED BY THE INSPECTOR.
9. ANY DAMAGED PIPE SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE INSPECTOR.
10. MAIN LINE SHALL CUT FOR SADDLE ONLY IN THE PRESENCE OF THE INSPECTOR.

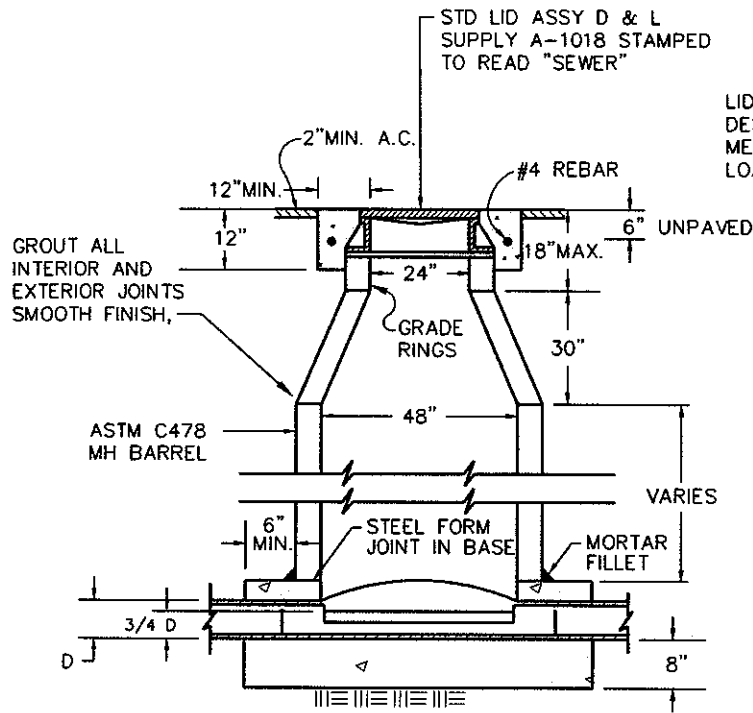
TAPPING SADDLE (CONNECTED TO PIPE W/STAINLESS STEEL STRAP) SEALTITE OR APPROVED EQUAL.

TAPPING COLLAR WYE SADDLE (GROUT TO PIPE) (APPROVAL REQUIRED PRIOR TO CONSTRUCTION)

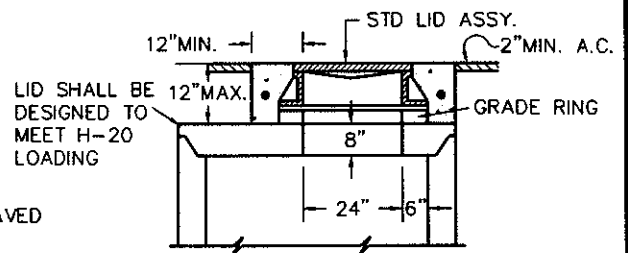
GROUT COLLAR TO PIPE



COUNTY OF SUTTER		
SEWER SERVICE CONNECTION		
<i>Douglas R. Gault</i> DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DATE: 11/2010	DWG NO. S-2
DRN: PSO		



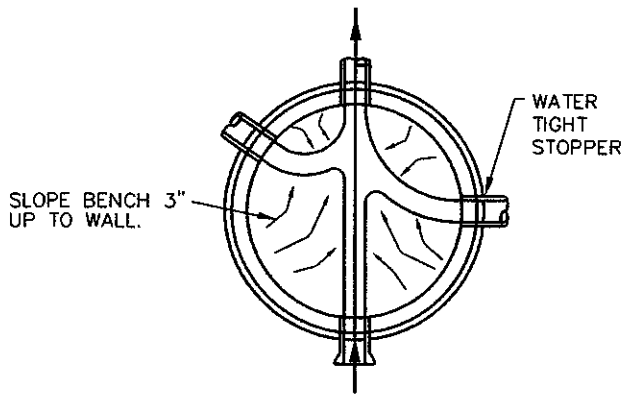
SANITARY SEWER



**SHALLOW MANHOLE DETAIL
(FOR PIPES WITH LESS THAN 4' COVER)**

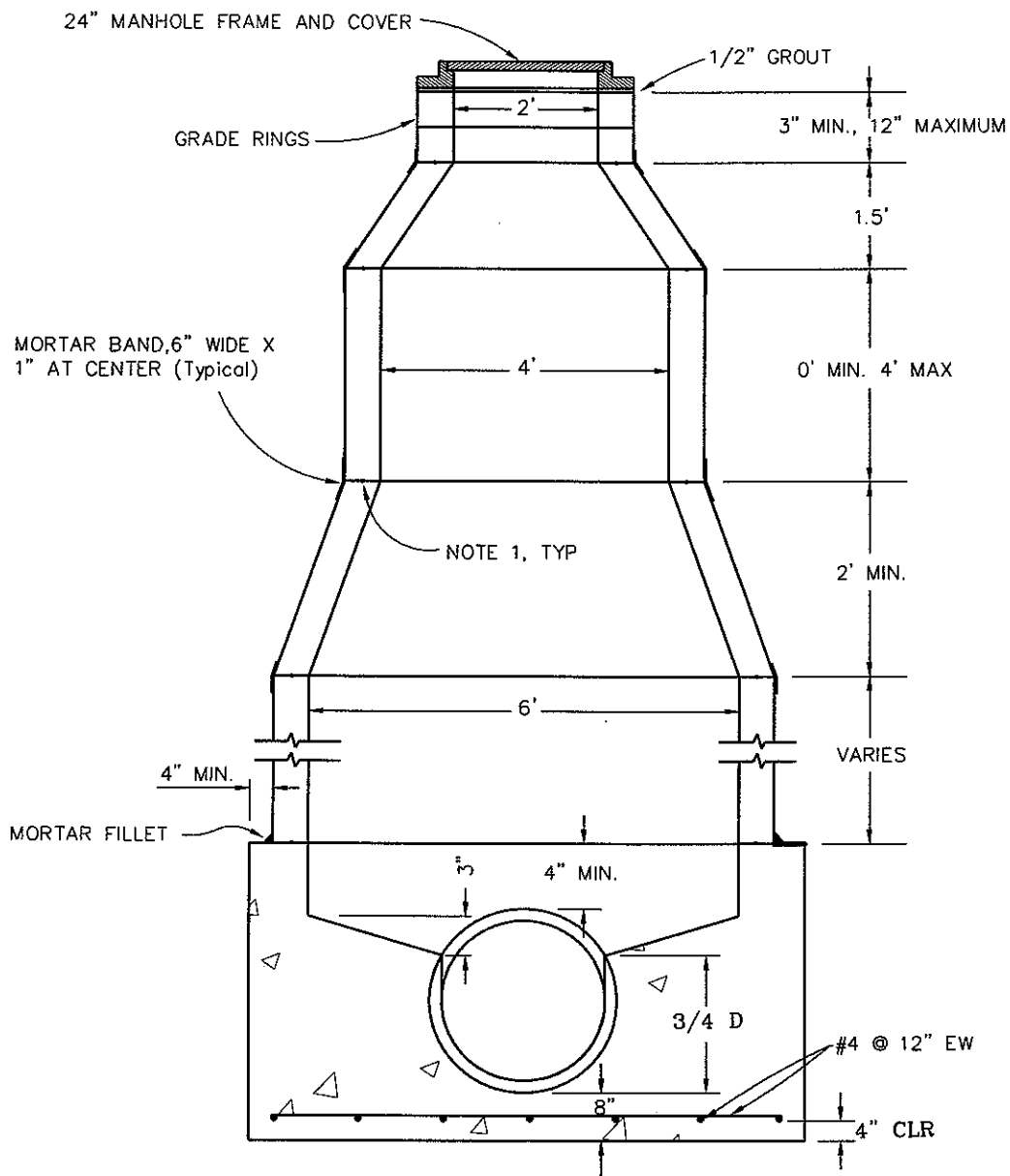
NOTES:

1. FOR PIPES WITH LESS THAN 4' COVER USE THE SHALLOW MANHOLE DETAIL.
2. ALL MANHOLE BASES TO BE CAST IN PLACE UNLESS OTHERWISE APPROVED.
3. MANHOLE BASE TO HAVE 0.1' FALL FROM INLET FLOWLINE TO OUTLET FLOWLINE.
4. ALL CONCRETE TO BE CLASS A, 3000 PSI MIN.
5. 60" MANHOLE REQUIRED FOR 24" AND LARGER PIPE.
6. ALL MANHOLE JOINTS TO BE TOUNGE AND GROOVE WITH "RAMNECK" OR APPROVED EQUAL WATER STOP.
7. PROVIDE 2 GRADE RINGS MIN, 4 GRADE RINGS MAX.
8. SEE DETAIL S-9 FOR DROP CONNECTION REQUIREMENTS.



**CHANNELIZATION FOR
SANITARY SEWER MANHOLES**

COUNTY OF SUTTER	
STANDARD SEWER MANHOLE	
<i>Douglas N. Bault</i> DIRECTOR OF PUBLIC WORKS	
SCALE: NONE	DATE: 11/2010
DRN: PSO	DWG NO. S-3

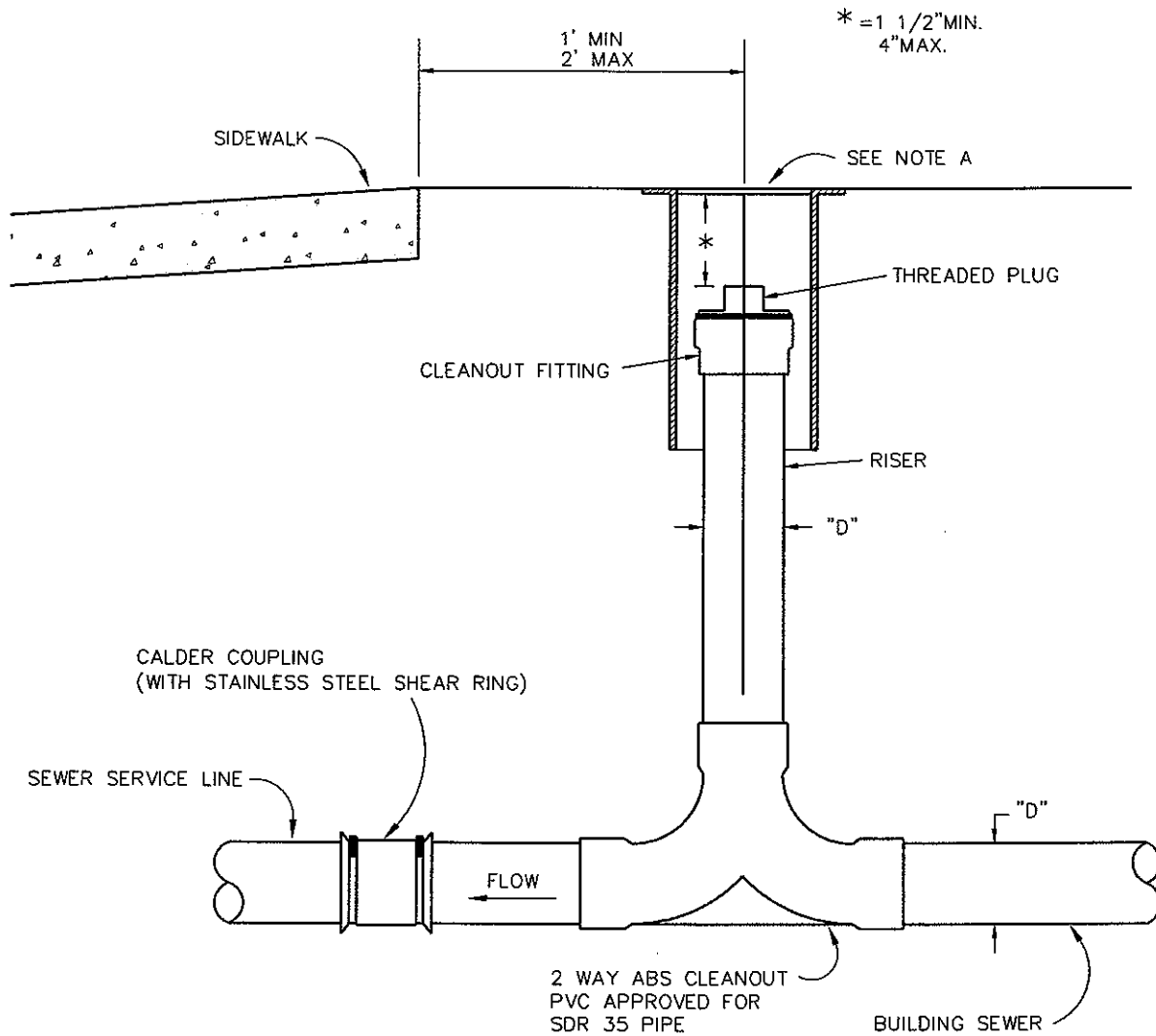


NOTES:

1. SEAL ALL JOINTS WITH RAM-NEK. GROUT JOINTS INSIDE AND OUTSIDE, TYP.
2. REMOVE TOP OF PIPE INSIDE MANHOLE.

SANITARY SEWER SPECIAL MANHOLE

COUNTY OF SUTTER		
SPECIAL SEWER MANHOLE		
<i>Douglas R. Hault</i> DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DATE: 11/2010	DWG NO. S-4
DRN: PSO		

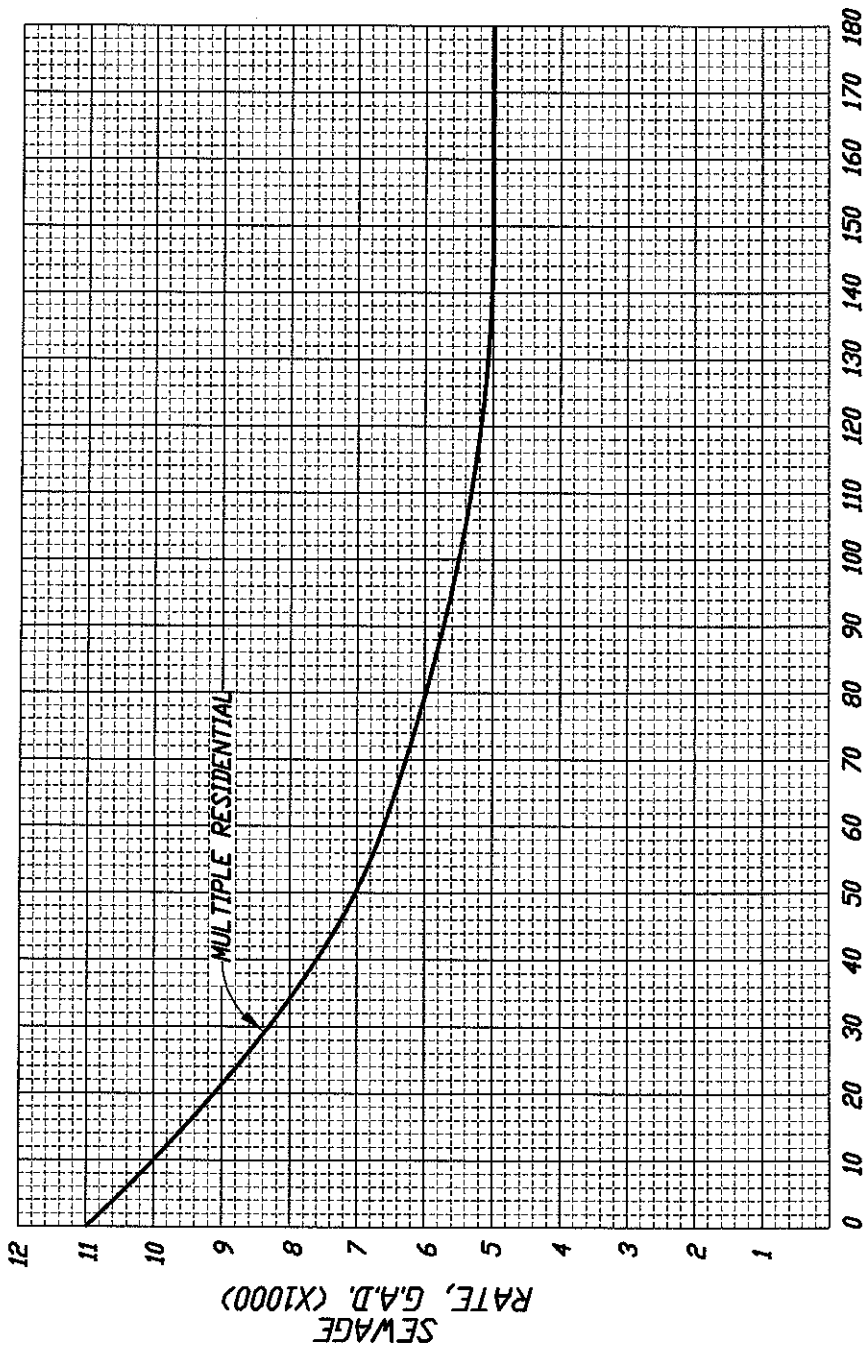


NOTE A:

WHEN INSTALLED IN DRIVEWAY USE BROOKS 3RT SERIES VALVE BOX, MARKED "SEWER"— WHEN INSTALLED IN LAWN OR PLANTER USE BROOKS 1-SP SERIES VALVE BOX MARKED "SEWER".

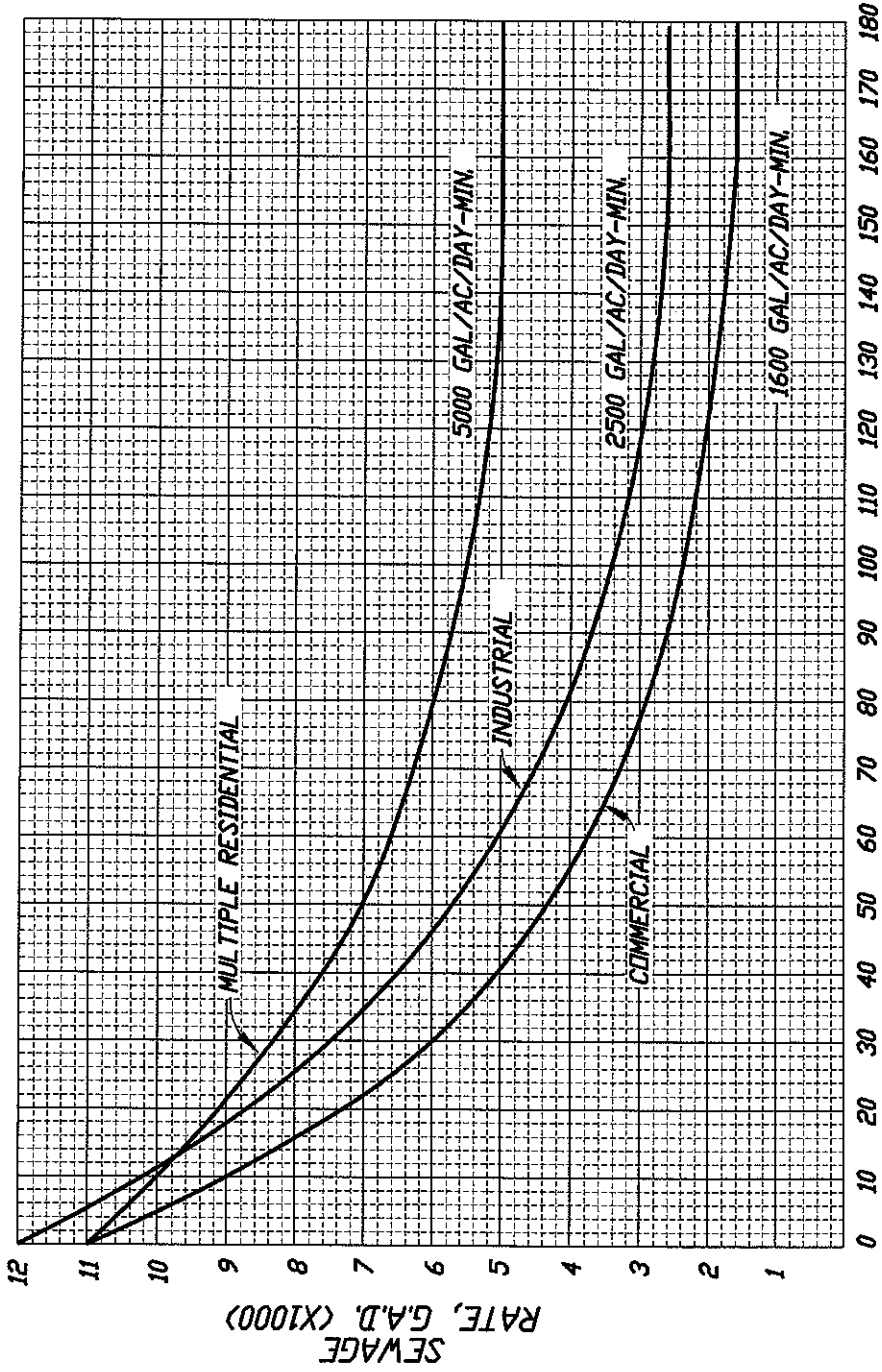
SANITARY SEWER ACCESS CONTROL

COUNTY OF SUTTER		
SEWER ACCESS CONTROL		
<i>Douglas N. Hault</i>		
DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DATE: 11/2010	DWG NO. S-5
DRN: PSO		



CONTRIBUTING AREA, ACRES

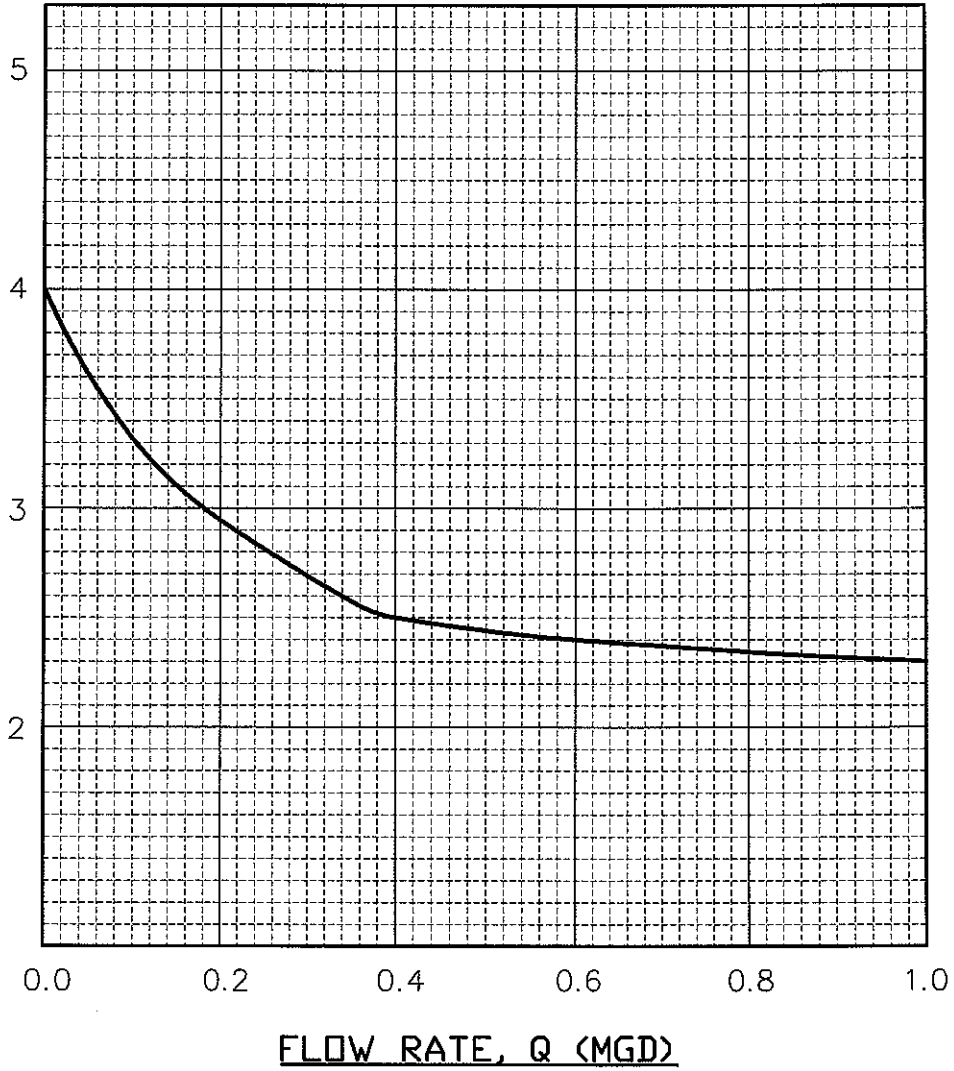
COUNTY OF SUTTER	
AVERAGE SEWER FLOWS	
<i>Douglas A. Hunt</i> DIRECTOR OF PUBLIC WORKS	
SCALE: NONE	DATE: 11/2010
DRN: P50	DWG NO. S-6



CONTRIBUTING AREA, ACRES

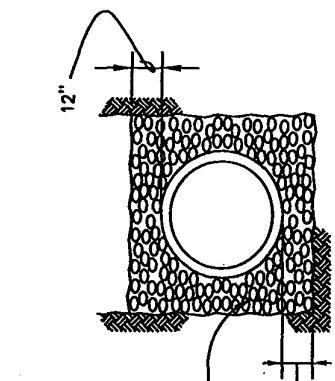
COUNTY OF SUTTER	
AVERAGE SEWER FLOWS	
<i>Gregory A. Bault</i> DIRECTOR OF PUBLIC WORKS	
SCALE: NONE	DATE: 11/2010
DRN: PSO	DWG NO. S-6A

PEAKING FACTOR



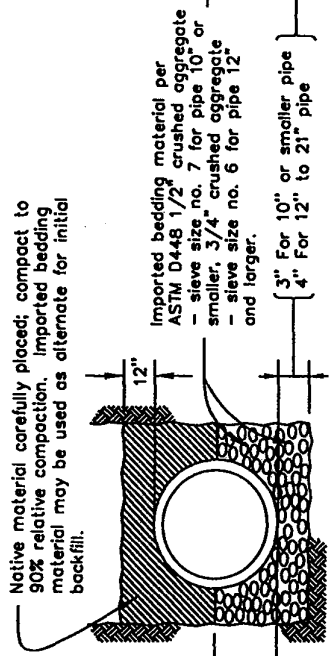
FLOW RATE, Q (MGD)

COUNTY OF SUTTER		
SEWER PEAKING FACTORS		
<i>Douglas N. Hault</i> DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DATE: 11/2010	DWG NO. S-7
DRN: PSO		



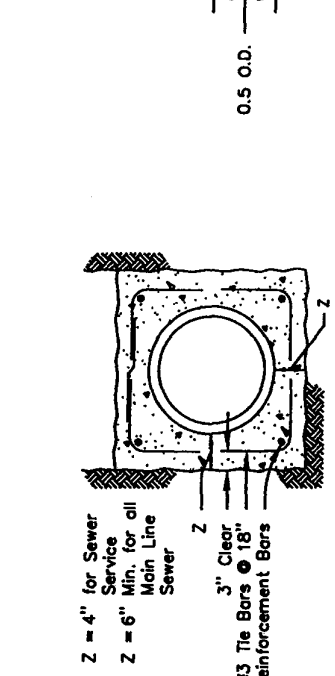
Bedding Factor = 2.2 for 36" or less; for greater than 36" dia. field condition only (see note 2).

TYPE II ALTERNATE



Bedding Factor = 1.9

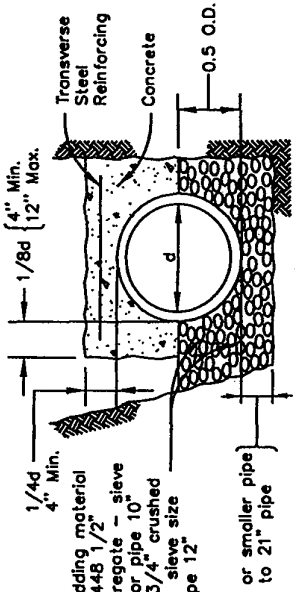
TYPE II
(See Note 5)



Z = 4" for Sewer Service
Z = 6" Min. for all Main Line Sewer

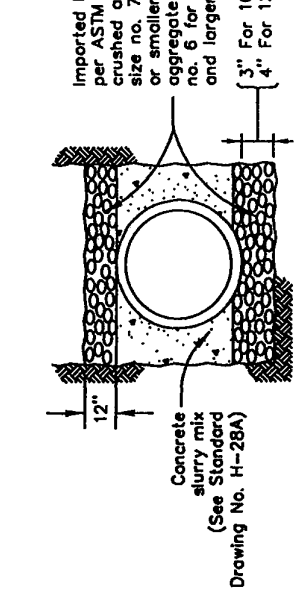
3" Clear
#3 Tie Bars @ 18"
#4 Reinforcement Bars

CONCRETE ENCASEMENT



Bedding Factor = 3.4
P = 0.4%

TYPE IV
(See Notes 3 & 4)



Bedding Factor = 2.7

TYPE III
(See Note 3)

(Concrete must extend from pipe to the trench walls. TYPE III not allowed where soils are expensive)

GENERAL NOTES:

1. Minimum depth of bedding and material under pipe bells shall be 3 inches.
2. For pipe greater than 36" in diameter Type II Alternate shall be allowed only when field encountered construction conditions have resulted in the allowable trench width for Type II being exceeded and calculations must be submitted for the Engineer's approval to determine the appropriate bedding factor for the situation. Design method No. 38 as published by the American Concrete Pipe Association shall be the basis for the calculations. Maximum allowable Bedding Factor is 2.2.
3. Type III and IV may be used only when construction conditions encountered in the field have resulted in the allowable trench width for Type II and Type II Alternate being exceeded. Written approval of the Engineer is necessary.
4. For reinforced concrete, P is the percentage of the area of transverse steel to the area of concrete above the top of the pipe barrel. Use wire mesh or uniformly distributed small diameter rebar.
5. For all flexible (non-rigid) pipe, imported material must be used for bedding and initial backfill to 12 inches over pipe bell.

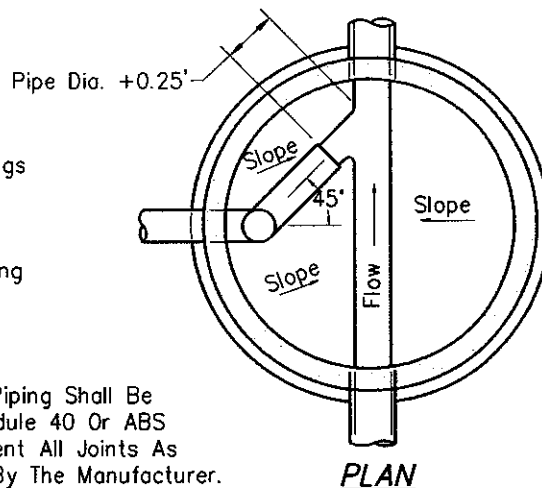
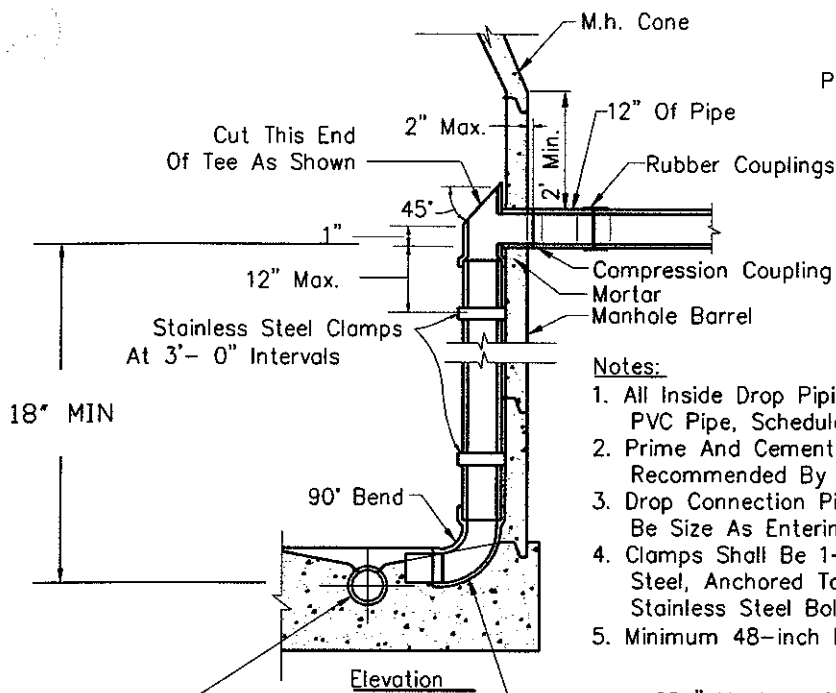
COUNTY OF SUTTER

PIPE BEDDING & INITIAL BACKFILL

APPROVED *[Signature]* 3/17/06
DATE

SCALE : NONE
DRN: PSO
DWG NO. S-8

DATE	11/3/05	BY	K.X.
REVISIONS			



Notes:

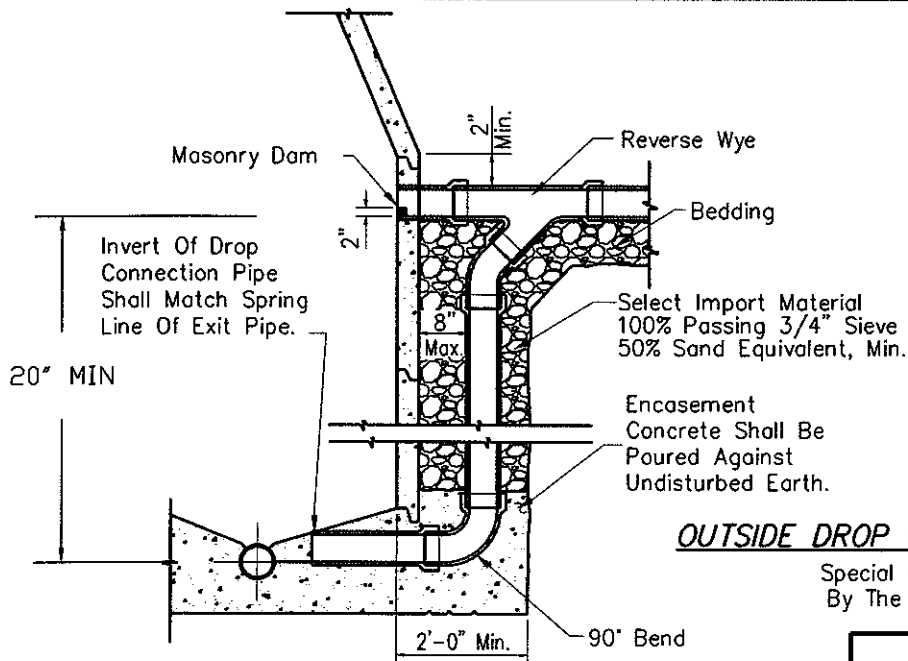
1. All Inside Drop Piping Shall Be PVC Pipe, Schedule 40 Or ABS
2. Prime And Cement All Joints As Recommended By The Manufacturer.
3. Drop Connection Pipe & Fittings To Be Size As Entering Pipe.
4. Clamps Shall Be 1-1/2" x 12 Gage Stainless Steel, Anchored To M.H. Wall With 2-1/2" Stainless Steel Bolts.
5. Minimum 48-inch Diameter Manhole. See Detail S-3 for M.H.

use 60" Manhole If:

1. Depth Exceeds 12' (measured From Rim Elevation To Deepest Invert Elevation), Or
2. Size Of Inside Drop Is 10" Or Greater, Or
3. Two (2) Or More Inside Drop Connections Of Any Size Are Placed Within Manhole.

Ell Embedded In Conc. At 45° W/sewer Flow.

INSIDE DROP CONNECTION UP TO 8" IN SIZE



Note:

Drop Connection Pipe And Fittings To Be Same Size & Material As Lateral.

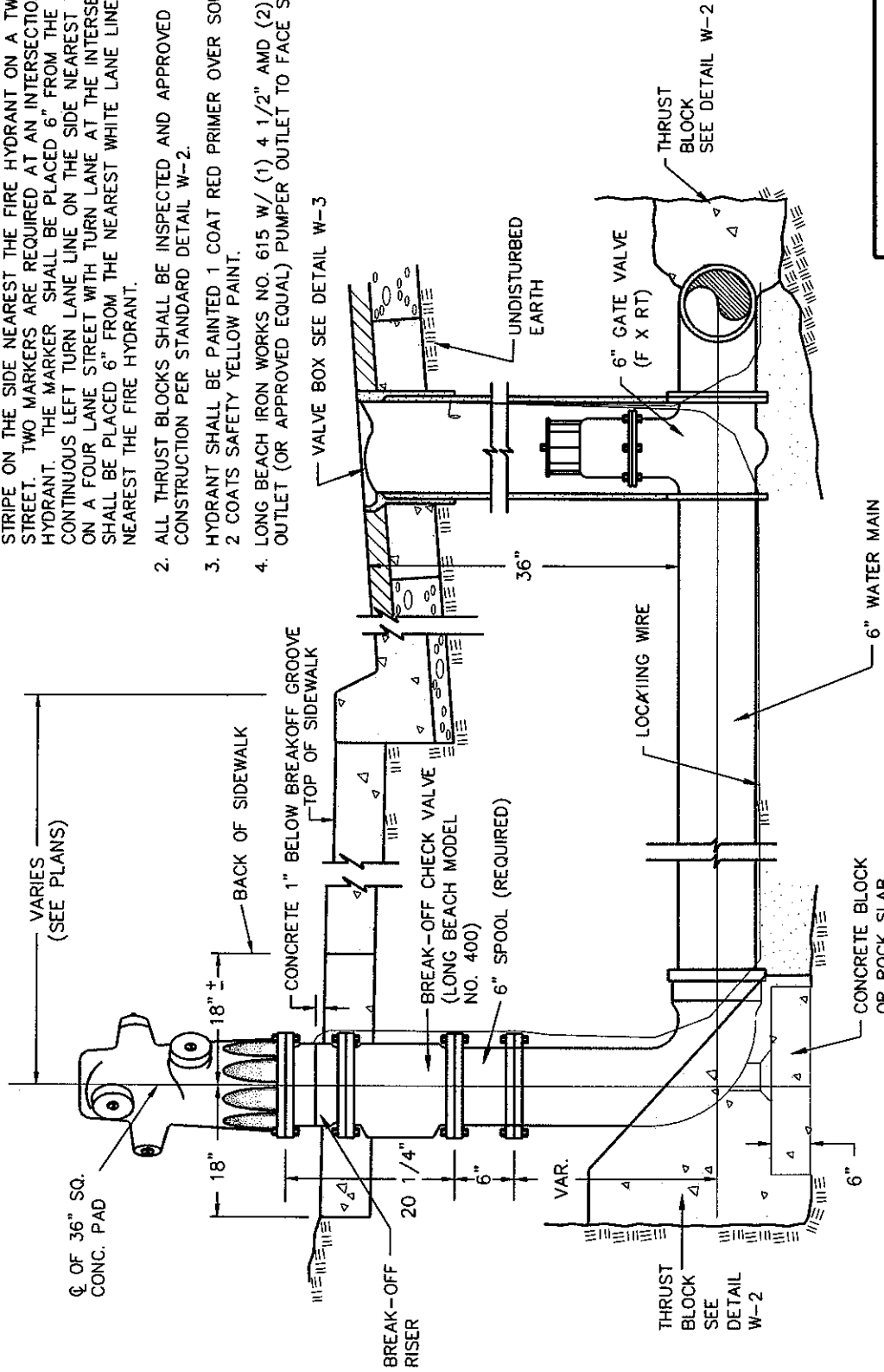
OUTSIDE DROP CONNECTION OVER 8" IN SIZE

Special Case (use Only As Directed By The Director Of Public Works)

COUNTY OF SUTTER	
SEWER DROP CONNECTION	
<i>Angelo N. Hauert</i> DIRECTOR OF PUBLIC WORKS	
SCALE: NONE	DWG NO. S-9
DRN: PSO	DATE: 11/2010

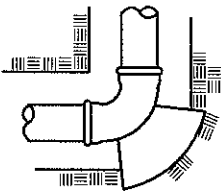
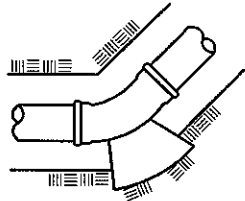
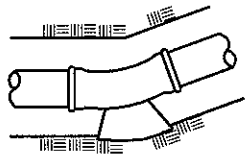
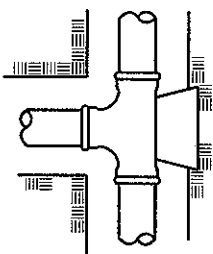
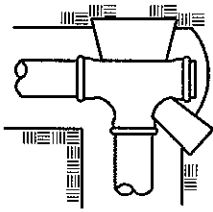
NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED 6" FROM CENTERLINE STRIPE ON THE SIDE NEAREST THE FIRE HYDRANT ON A TWO OR MULTI-LANE STREET. TWO MARKERS ARE REQUIRED AT AN INTERSECTION HAVING A FIRE HYDRANT. THE MARKER SHALL BE PLACED 6" FROM THE EDGE OF THE CONTINUOUS LEFT TURN LANE ON THE SIDE NEAREST THE FIRE HYDRANT ON A FOUR LANE STREET WITH TURN LANE AT THE INTERSECTION, THE MARKER SHALL BE PLACED 6" FROM THE NEAREST WHITE LANE LINE ON THE SIDE NEAREST THE FIRE HYDRANT.
2. ALL THRUST BLOCKS SHALL BE INSPECTED AND APPROVED AT THE TIME OF CONSTRUCTION PER STANDARD DETAIL W-2.
3. HYDRANT SHALL BE PAINTED 1 COAT RED PRIMER OVER SOUND METAL & 2 COATS SAFETY YELLOW PAINT.
4. LONG BEACH IRON WORKS NO. 615 W/ (1) 4 1/2" AMD (2) 2 1/2" HOSE OUTLET (OR APPROVED EQUAL) PUMPER OUTLET TO FACE STREET.



COUNTY OF SUTTER
FIRE HYDRANT
Paula M. Hunt
 DIRECTOR OF PUBLIC WORKS
 SCALE: NONE
 DRN: PSO
 DATE: 11/2010
 DWG NO. W-1

REQUIRED BEARING AREA - TOTAL SQUARE FEET

TYPE OF FITTING		90° BEND	45° BEND	11 1/2° OR 22 1/2° BEND
TYPICAL INSTALLATION				
SIZE OF PIPE	4"	2	1	1
	6"	4	2	1
	8"	7	4	2
	10"	12	6	3
	12"	16	10	5
TYPE OF FITTING		TEE OR DEAD END	TEE WITH PLUG	
TYPICAL INSTALLATION				
SIZE OF PIPE	4"	2	2	
	6"	3	4	
	8"	5	7	
	10"	8	12	
	12"	12	16	

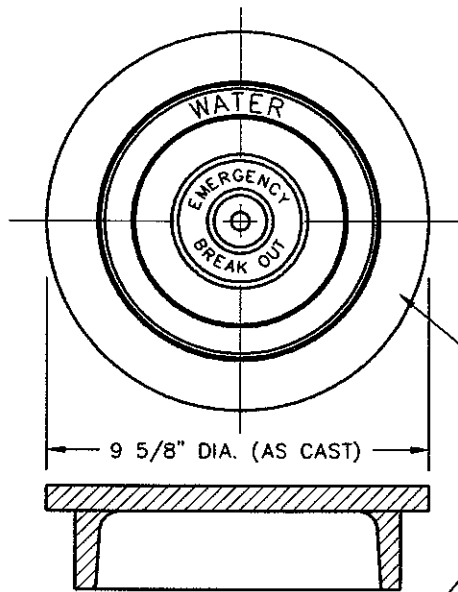
NOTES:

1. THRUST BLOCKS TO BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. AREAS GIVEN ARE FOR CLASS 150 PIPE AT TEST PRESSURE OF 150 P.S.I. IN SOIL WITH 2,000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES SHOULD BE ADJUST AREAS ACCORDINGLY, SUBJECT TO APPROVAL OF ENGINEER.
3. BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
4. JOINTS TO BE KEPT CLEAR OF CONCRETE.
5. BLOCKS TO BE IN PLACE 7 (SEVEN) DAYS BEFORE TESTING.
6. ALL PLUGS SHALL BE SECURED WITH THRUST BLOCKS.
7. SEE STANDARD DETAIL W-10 FOR CROSS THRUST BLOCK.

COUNTY OF SUTTER		
THRUST BLOCK DETAILS		
<i>Douglas N. Bault</i>		
DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DATE: 11/2010	DWG. NO. W-2
DRN: PSO		

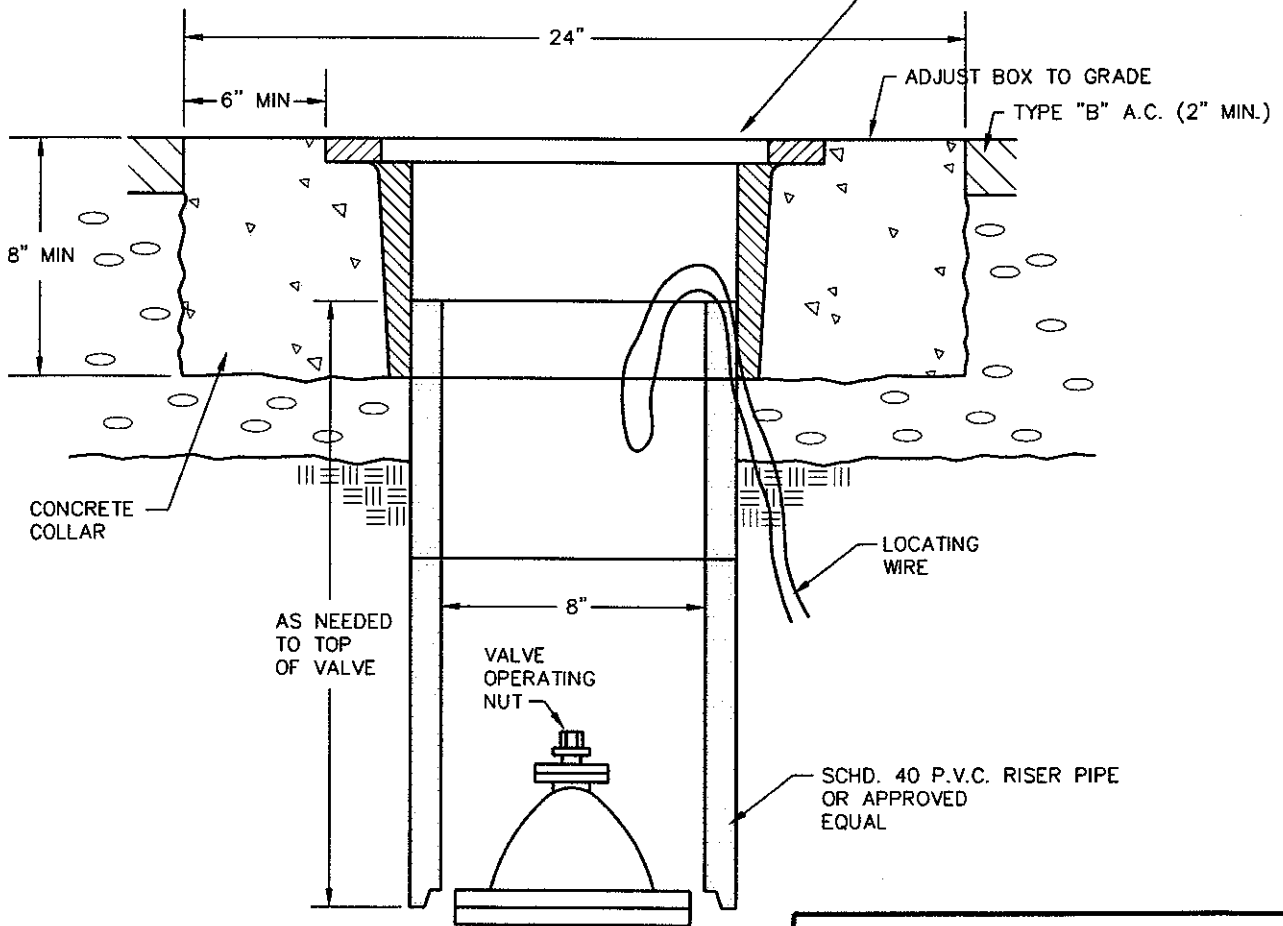
NOTES:

1. RESILIENT SEAT GATE VALVES SHALL COMPLY WITH AWWA C-509. BUTTERFLY VALVES SHALL COMPLY WITH AWWA C-504.
2. VALVE BOX RISER TO BE ONE CONTINUOUS PIECE AND CENTERED ON VALVE.
3. VALVE OPERATING NUT EXTENSION SHALL BE REQUIRED WHERE VALVE NUT IS IN EXCESS OF 5' BELOW FINISHED GRADE.

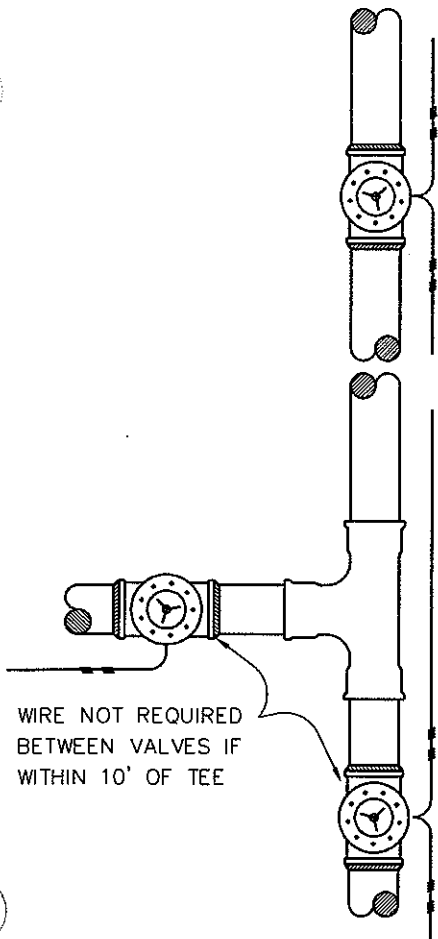


BROOKS No. 3-RT
SERIES TRAFFIC BOX
WITH C1 COVER
MARKED "WATER" OR
APPROVED EQUAL

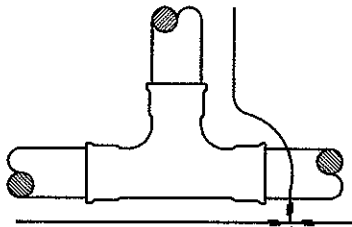
COVER DETAIL



COUNTY OF SUTTER	
WATER VALVE BOX	
<i>Douglas Abault</i> DIRECTOR OF PUBLIC WORKS	
SCALE: NONE	DATE: 11/2010
DRN: PSO	DWG NO. W-3

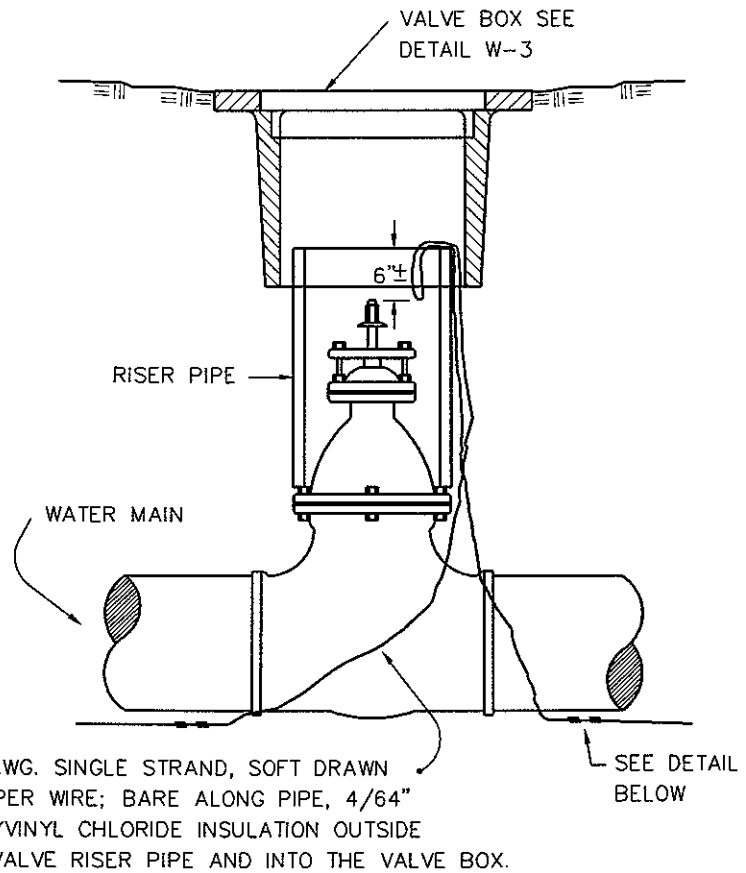


WIRE NOT REQUIRED BETWEEN VALVES IF WITHIN 10' OF TEE



SPLICE RUNS TOGETHER KEEP CLEAR OF FITTING

TYPICAL LAYOUT



VALVE BOX SEE DETAIL W-3

RISER PIPE

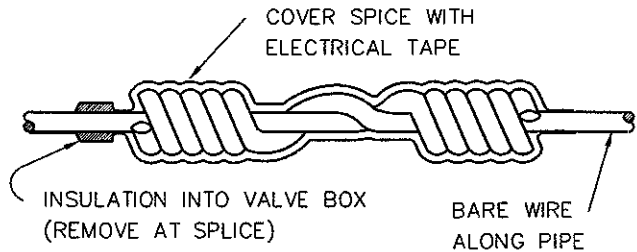
WATER MAIN

6"

SEE DETAIL BELOW

10 AWG. SINGLE STRAND, SOFT DRAWN COPPER WIRE; BARE ALONG PIPE, 4/64" POLYVINYL CHLORIDE INSULATION OUTSIDE OF VALVE RISER PIPE AND INTO THE VALVE BOX.

VALVE DETAIL



COVER SPICE WITH ELECTRICAL TAPE

INSULATION INTO VALVE BOX (REMOVE AT SPLICE)

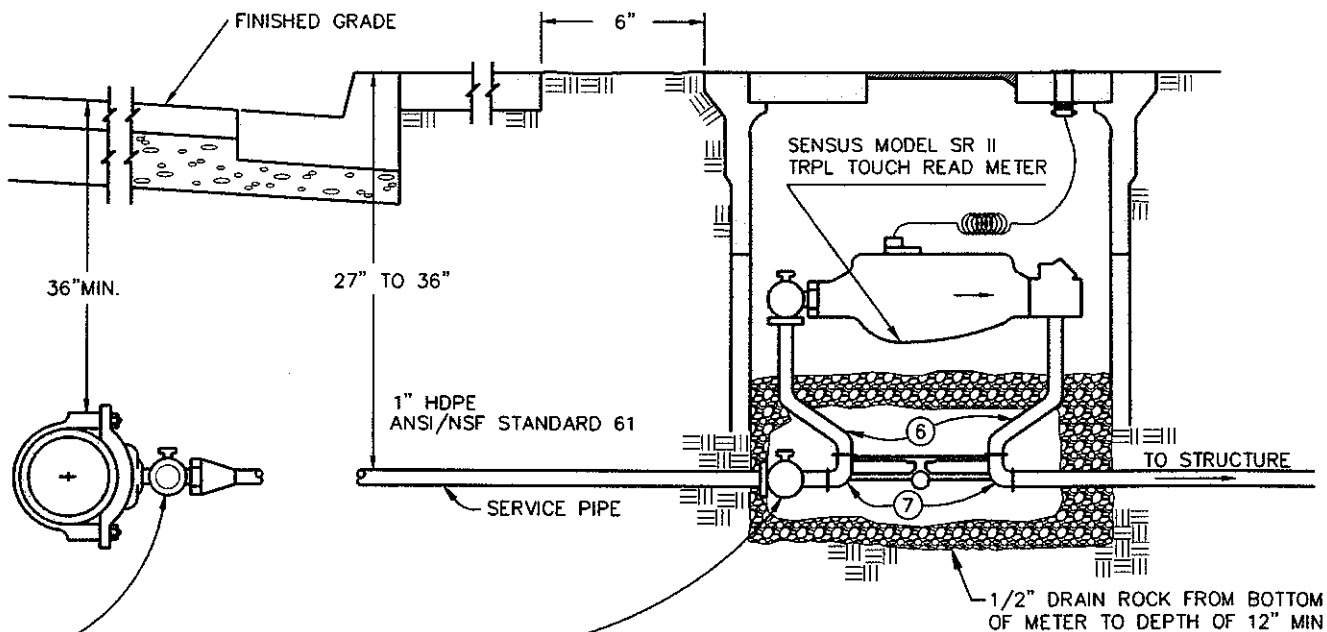
BARE WIRE ALONG PIPE

SPLICE DETAIL

NOTES:

1. WIRE TO BE CONTINUOUS BETWEEN VALVE BOXES, EXCEPT AS NOTED.
2. BARE WIRE NOT TO TOUCH METAL VALVES OR FITTINGS.
3. LOCATING WIRE TO BE LAID AT BOTTOM OF TRENCH, NEXT TO PIPE.
4. LOCATING WIRE MUST BE TESTED & BE IN WORKING ORDER AFTER ALL UNDERGROUND WORK IS DONE, AND PRIOR TO STREET PAVING.

COUNTY OF SUTTER		
WATER MAIN LOCATING WIRE		
<i>Douglas N. Gault</i> DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DRN: PSO	DATE: 11/2010
		DWG NO. W-4

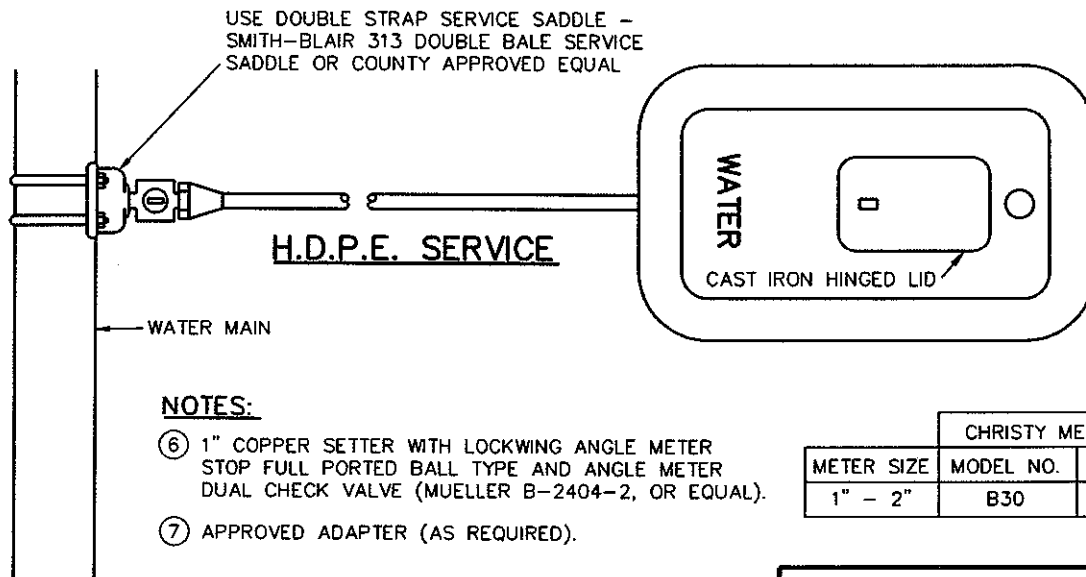


CORPORATION STOP—
FORD BALLCORP FB700
OR COUNTY APPROVED EQUAL.

1" SERVICE USE A BALL VALVE CURB
STOP WITH LOCKWINGS. McDONALD
4602BF OR APPROVED EQUAL.
1 1/2" OR 2" SERVICE USE McDONALD
6102 OR APPROVED EQUAL.
PLACE CURB STOP 1"
INSIDE OF BOX

NOTES:

1. SINGLE SERVICE SHALL BE 1" H.D.P.E. (IPS).
2. SPLICES IN THE SERVICE LINE ARE TO BE AVOIDED; BUT IF ALLOWED, THEY SHALL BE MADE USING CTS GRIP-TYPE COMPRESSION COUPLINGS
3. PIPE MUST BE LABELED WITH A LABORATORY SEAL OR MARK ATTESTING TO SUITABILITY.
4. ALL SERVICE LATERALS MUST HAVE TRACE WIRE INSTALLED.
5. METER BOX SHALL NOT BE LOCATED IN DRIVEWAY.



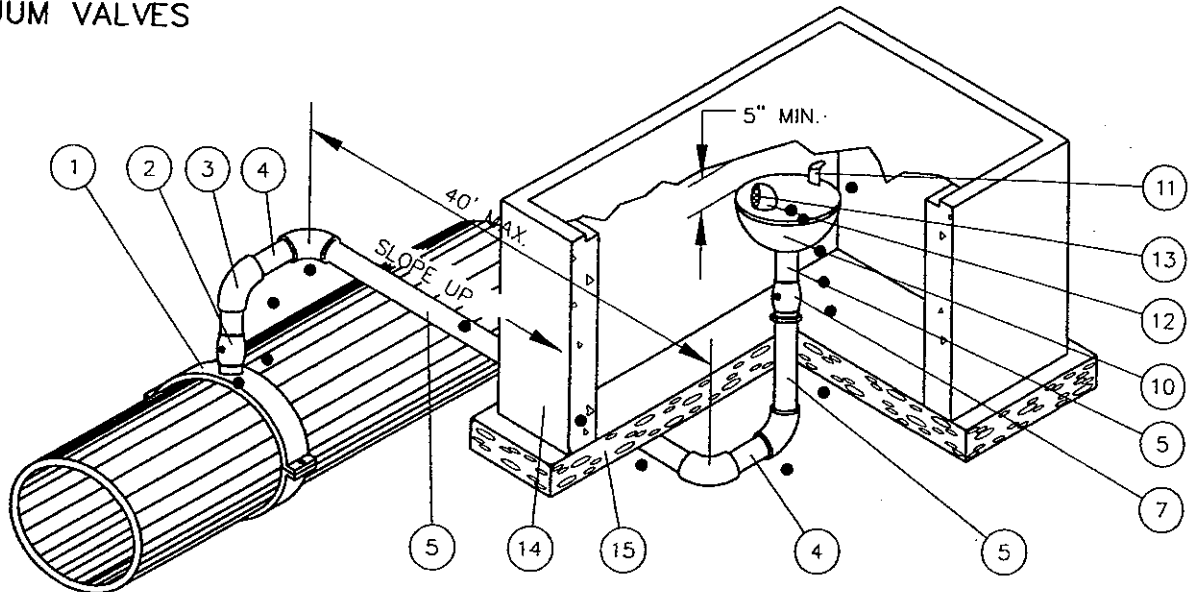
NOTES:

- ⑥ 1" COPPER SETTER WITH LOCKWING ANGLE METER STOP FULL PORTED BALL TYPE AND ANGLE METER DUAL CHECK VALVE (MUELLER B-2404-2, OR EQUAL).
- ⑦ APPROVED ADAPTER (AS REQUIRED).

CHRISTY METER BOX		
METER SIZE	MODEL NO.	LID TYPE*
1" - 2"	B30	B30GP

COUNTY OF SUTTER	
SINGLE WATER SERVICE	
<i>Douglas N. Gault</i> DIRECTOR OF PUBLIC WORKS	
SCALE: NONE DRN: KSX	DATE: 11/2010
DWG NO. W-5	

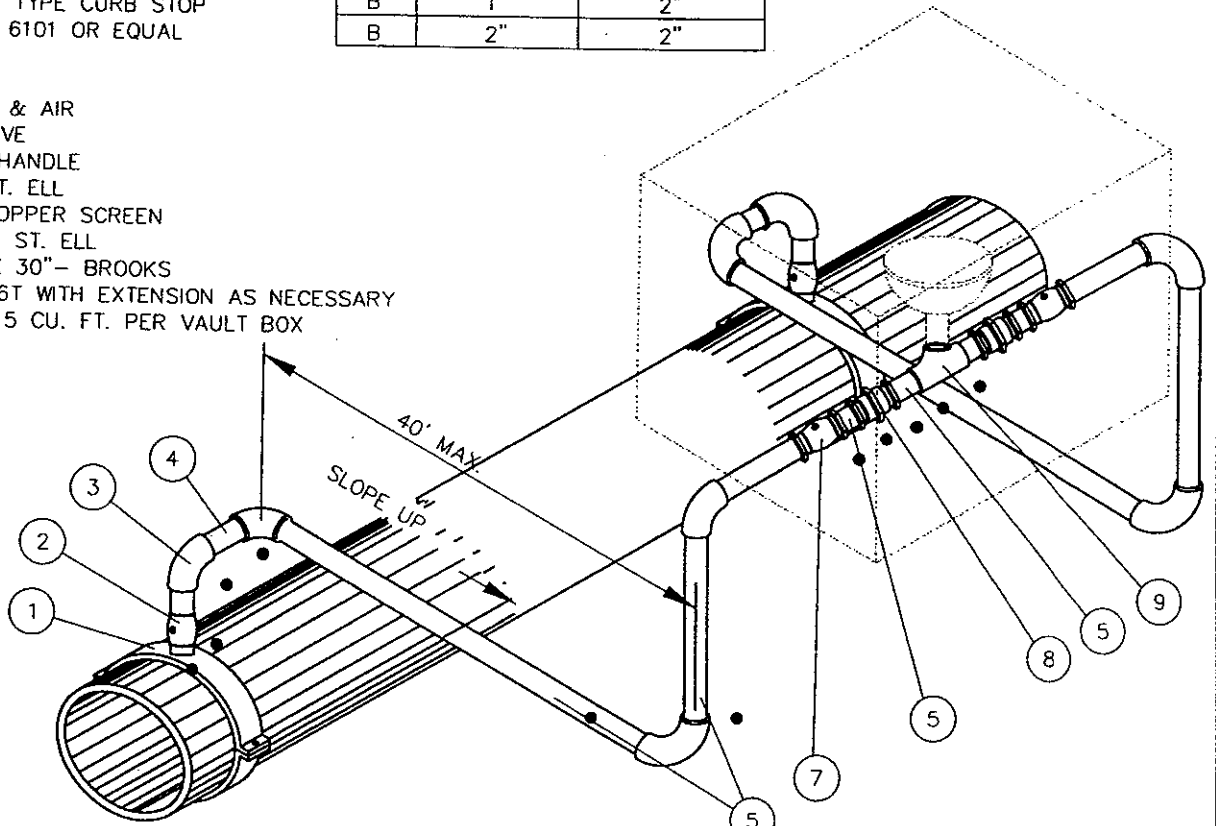
AIR-VACUUM VALVES



**SINGLE AIR-VACUUM VALVE
TYPE "B"**

1. SERVICE SADDLE—SMITH BLAIR #313 OR APPR. EQUAL (DBL STRAP FOR D.I. FULL BODY FOR PVC)
2. CORP. STOP—FORD FB 1700
3. 90° ELL
4. NIPPLE
5. GALV. PIPE—RIGID
7. TEFLON BALL TYPE CURB STOP McDONALD # 6101 OR EQUAL
8. UNION
9. TEE
10. AIR-VACUUM & AIR RELEASE VALVE
11. BIBB W/TEE HANDLE
12. 90° BRASS ST. ELL
13. FINE MESH COPPER SCREEN WIRE AROUND ST. ELL
14. VAULT: 17" X 30"—BROOKS MODEL NO. 66T WITH EXTENSION AS NECESSARY
15. DRAIN ROCK, 5 CU. FT. PER VAULT BOX

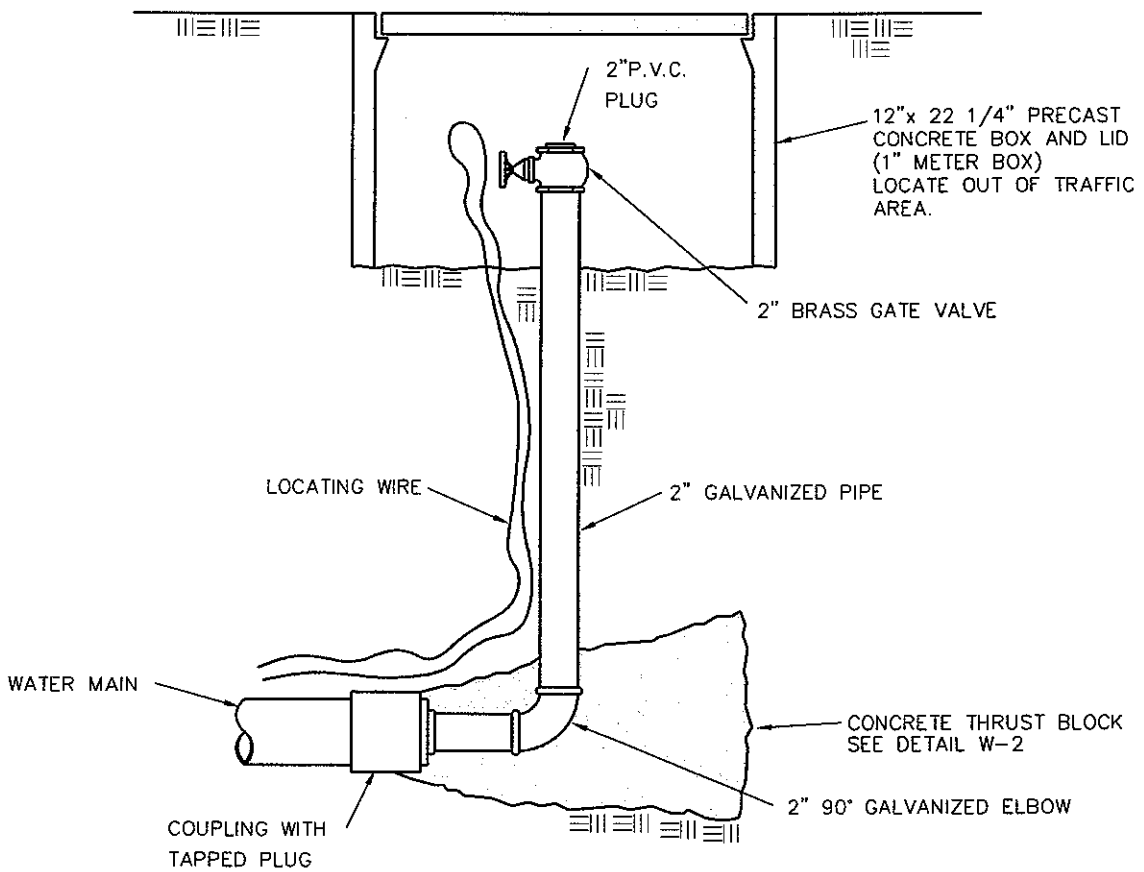
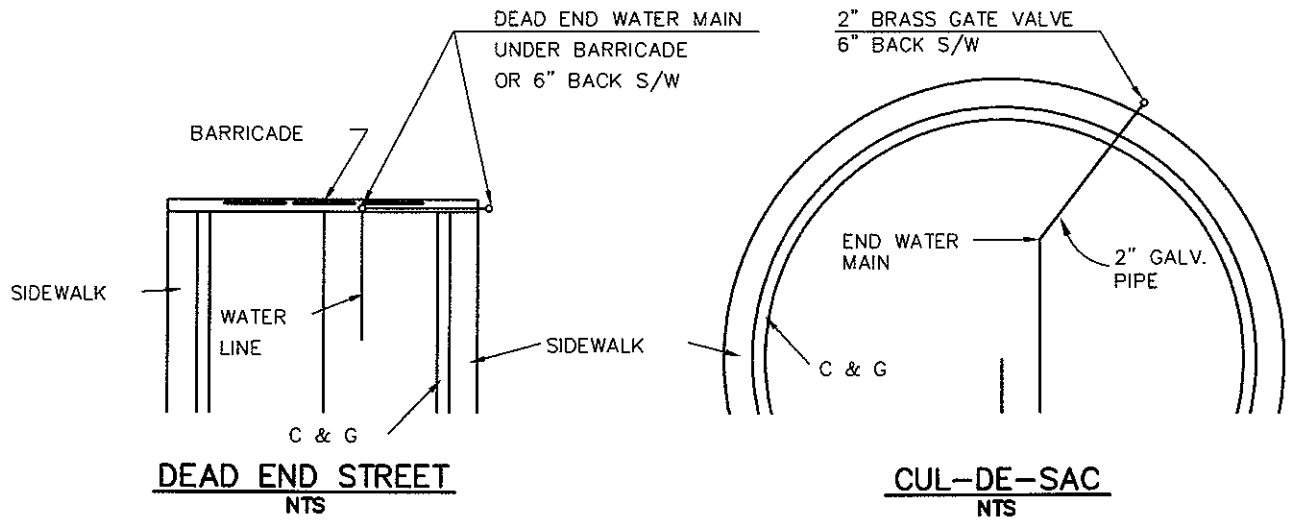
TYPE	AIR-VALVE SIZE	SIZE OF PIPE FITTINGS
A	1"	1"
A	2"	2"
B	1"	2"
B	2"	2"



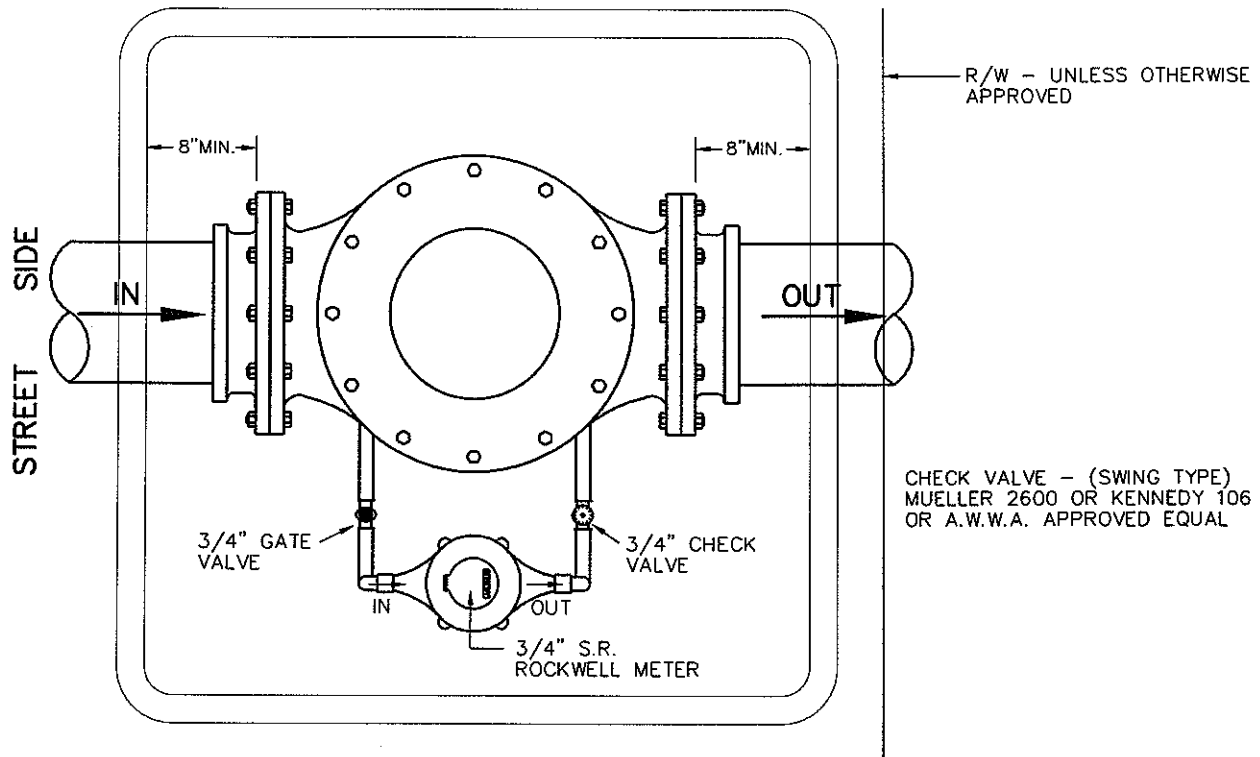
**DOUBLE AIR-VACUUM VALVE
TYPE "A"**

DATE	REVISIONS	BY

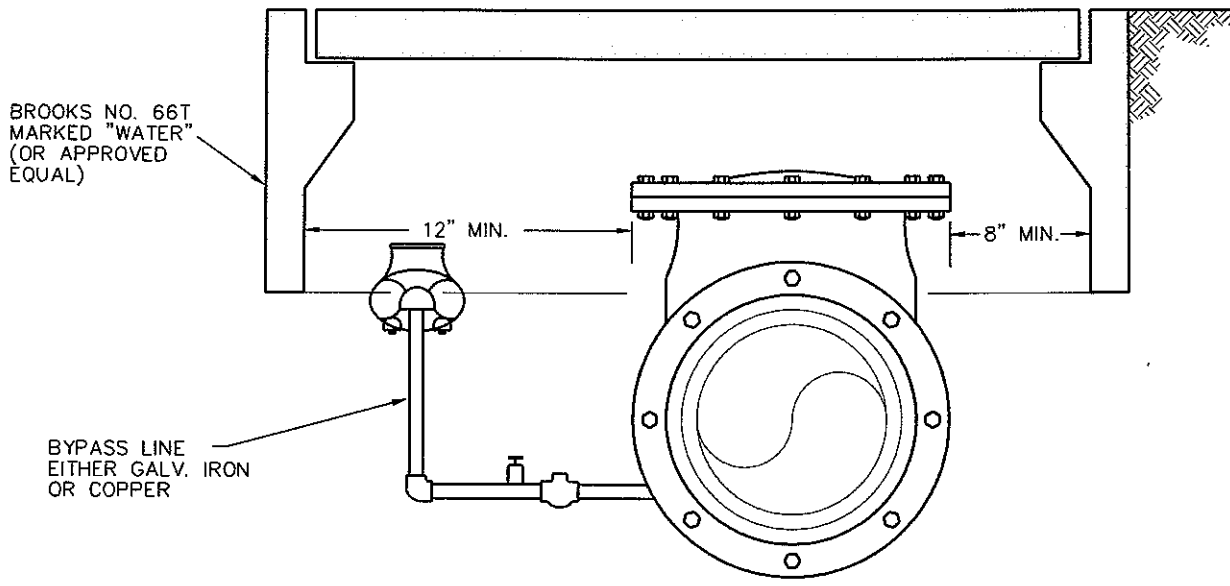
COUNTY OF SUTTER	
AIR VACUUM VALVE	
<i>[Signature]</i> APPROVED	DATE
SCALE : NONE DRN : PSO	DWG NO. W-6



COUNTY OF SUTTER		
BLOW OFF		
<i>Douglas N. Hault</i>		
DIRECTOR OF PUBLIC WORKS		
SCALE: NONE	DATE: 11/2010	DWG NO. W-7
DRN: PSO		



PLAN VIEW

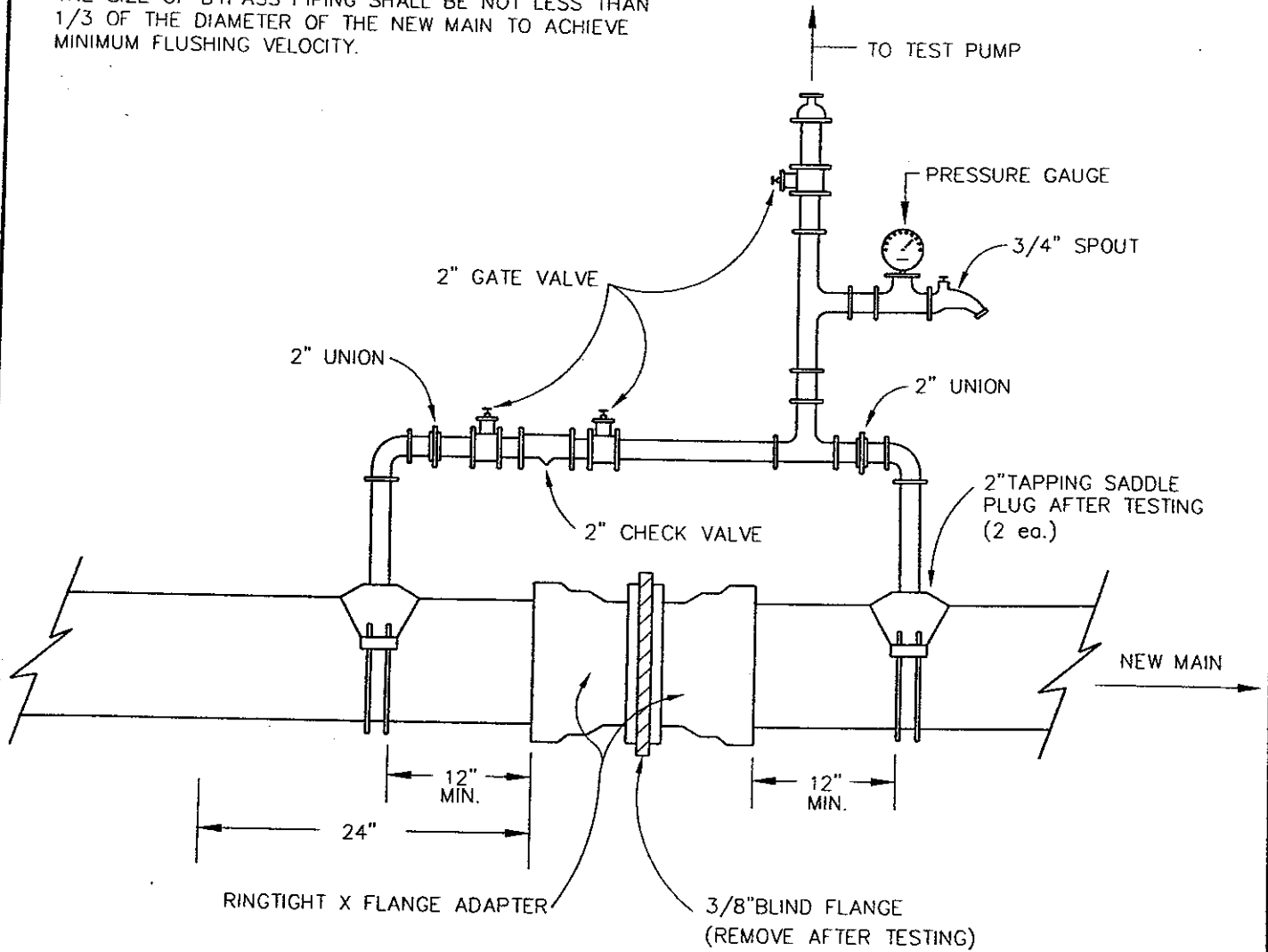


END VIEW

COUNTY OF SUTTER	
FIRE SERVICE CHECK VALVE	
<i>Douglas N. Hault</i>	
DIRECTOR OF PUBLIC WORKS	
SCALE: NONE	DATE: 11/2010
DRN: PSO	DWG NO. W-8

NOTE:

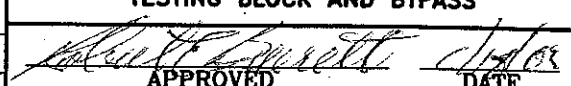
THE SIZE OF BYPASS PIPING SHOWN IS FOR A 6" MAIN
 THE SIZE OF BYPASS PIPING SHALL BE NOT LESS THAN
 1/3 OF THE DIAMETER OF THE NEW MAIN TO ACHIEVE
 MINIMUM FLUSHING VELOCITY.

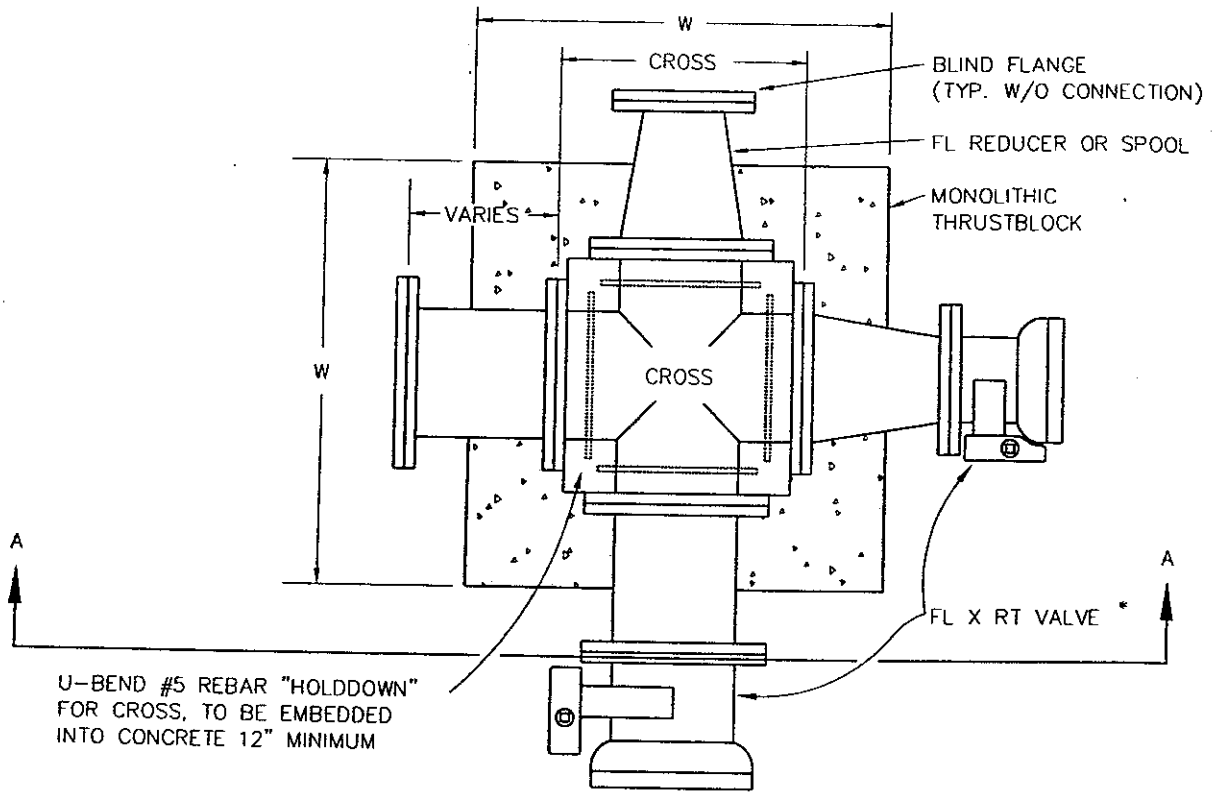


NOTE: ALL MATERIAL INSTALLATION AND RECONNECTION TO BE FURNISHED BY CONTRACTOR

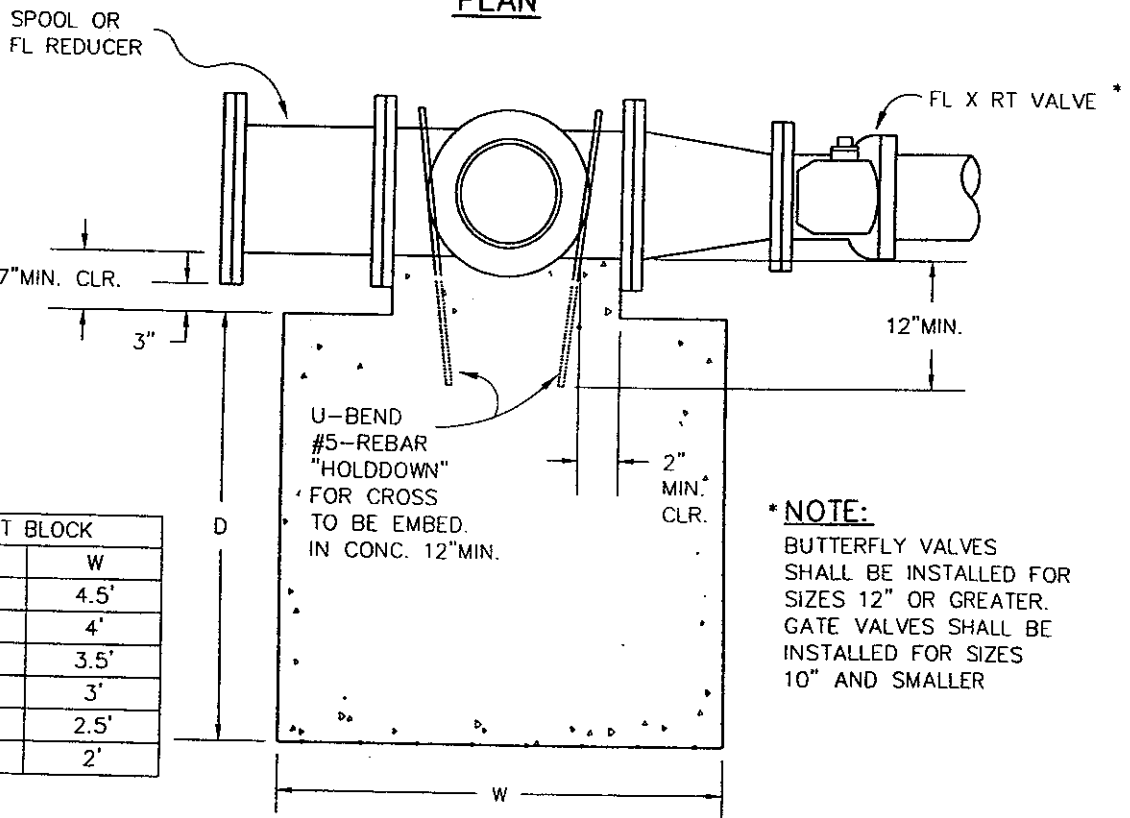
FOR NEW WATER MAIN CONSTRUCTION

Mar. 24, 1999 - 1
 DWG Name: R:\develop\SUJ0202\Std-Det\Sutter\W-9.dwg Updated By: jiffard

			COUNTY OF SUTTER		
			TESTING BLOCK AND BYPASS		
			 APPROVED DATE		
			SCALE : NONE		
			DRN : PSO		
			DWG NO. W-9		
DATE	REVISIONS	BY			



PLAN



SECTION A-A

SIZE OF THRUST BLOCK		
SIZE OF CROSS	D	W
16"	4.5'	4.5'
14"	4'	4'
12"	3.5'	3.5'
10"	3'	3'
8"	2'	2.5'
6"	1.5'	2'

*** NOTE:**
 BUTTERFLY VALVES SHALL BE INSTALLED FOR SIZES 12" OR GREATER. GATE VALVES SHALL BE INSTALLED FOR SIZES 10" AND SMALLER

Mar. 24, 1999 - DWG Name: R:\develop\SUJ0202\Sid-Del\Slitter\W-10.dwg Updated By: JWillard

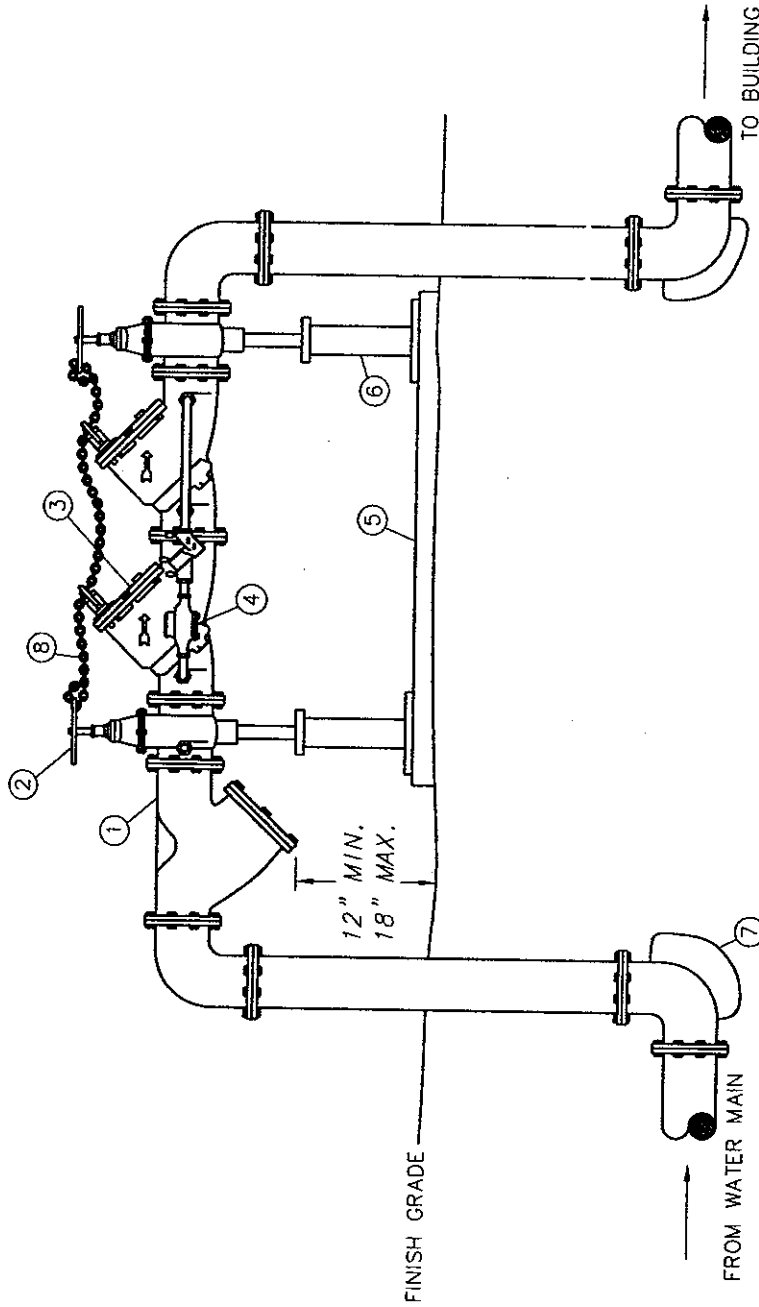
COUNTY OF SUTTER		
THRUST BLOCK FOR FLANGE CROSS		
<i>[Signature]</i> APPROVED		<i>[Signature]</i> DATE
SCALE : NONE DRN : PSO		DWG NO. W-10
DATE	REVISIONS	BY

NOTES:

1. NO WATER SHALL BE DRAWN THROUGH THE BACKFLOW DEVICE UNTILL IT HAS BEEN TESTED BY THE COUNTY.
2. THE BACKFLOW DEVICE SHALL BE INSULATED WITH AN APPROVED FREEZE PROTECTION BAG.
3. FITTINGS SHALL BE FLANGE BY FLANGE OR RESTRAINED.
4. BURIED NUTS AND BOLTS SHALL HAVE SAP CAPS.
5. BURIED PIPE AND FITTINGS SHALL BE WRAPPED WITH 8 MIL POLYETHYLENE OR APPROVED EQUAL.
6. PIPE AND FITTINGS SHALL BE DUCTILE IRON.

MATERIALS:

- ① FLANGED "Y" TYPE STRAINER
- ② OS & Y GATE VALVE (TYP.)
- ③ DOUBLE DETECTOR CHECK-ALL DEVICES TO BE APPROVED BY COUNY
- ④ DETECTOR METER
- ⑤ 4" THICK REINFORCED CONCRETE SLAB (CLASS "B" CONCRETE)
- ⑥ SUPPORTS 2-TYP. SHALL BE BOLTED DOWN WITH A MINIMUM OF TWO BOLTS EACH
- ⑦ THRUST BLOCK (TYP.) DETAIL W-2
- ⑧ 1/4" NON CASE HARDENED CHAIN WITH LOCK BETWEEN VALVES



COUNTY OF SUTTER	
ONSITE FIRE PROTECTION AND BACKFLOW ASSEMBLY	
APPROVED	DATE
<i>[Signature]</i>	<i>[Signature]</i>
SCALE : NONE	DWG NO. W-11
DRN : PSO	
DATE	REVISIONS
	BY