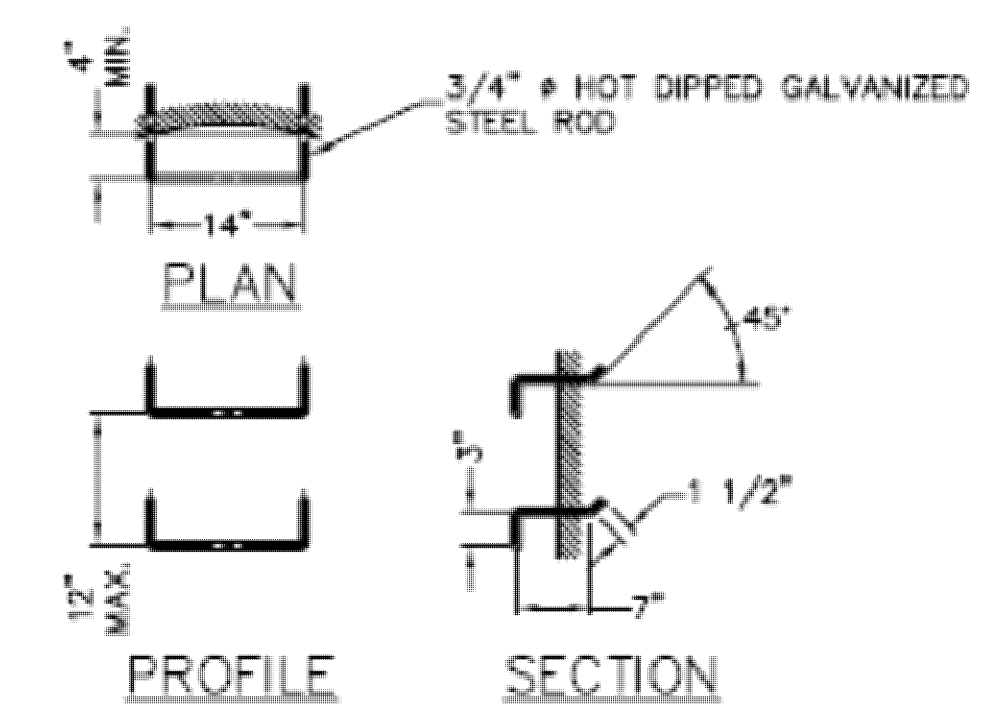
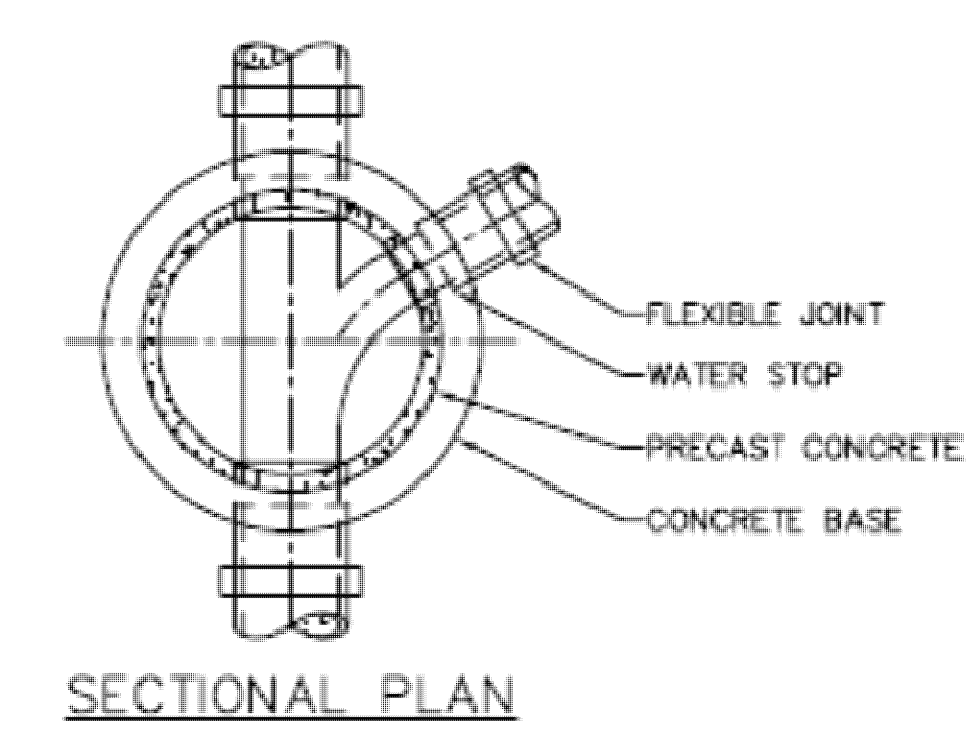


TYPE H
FRAME AND COVER DETAILS

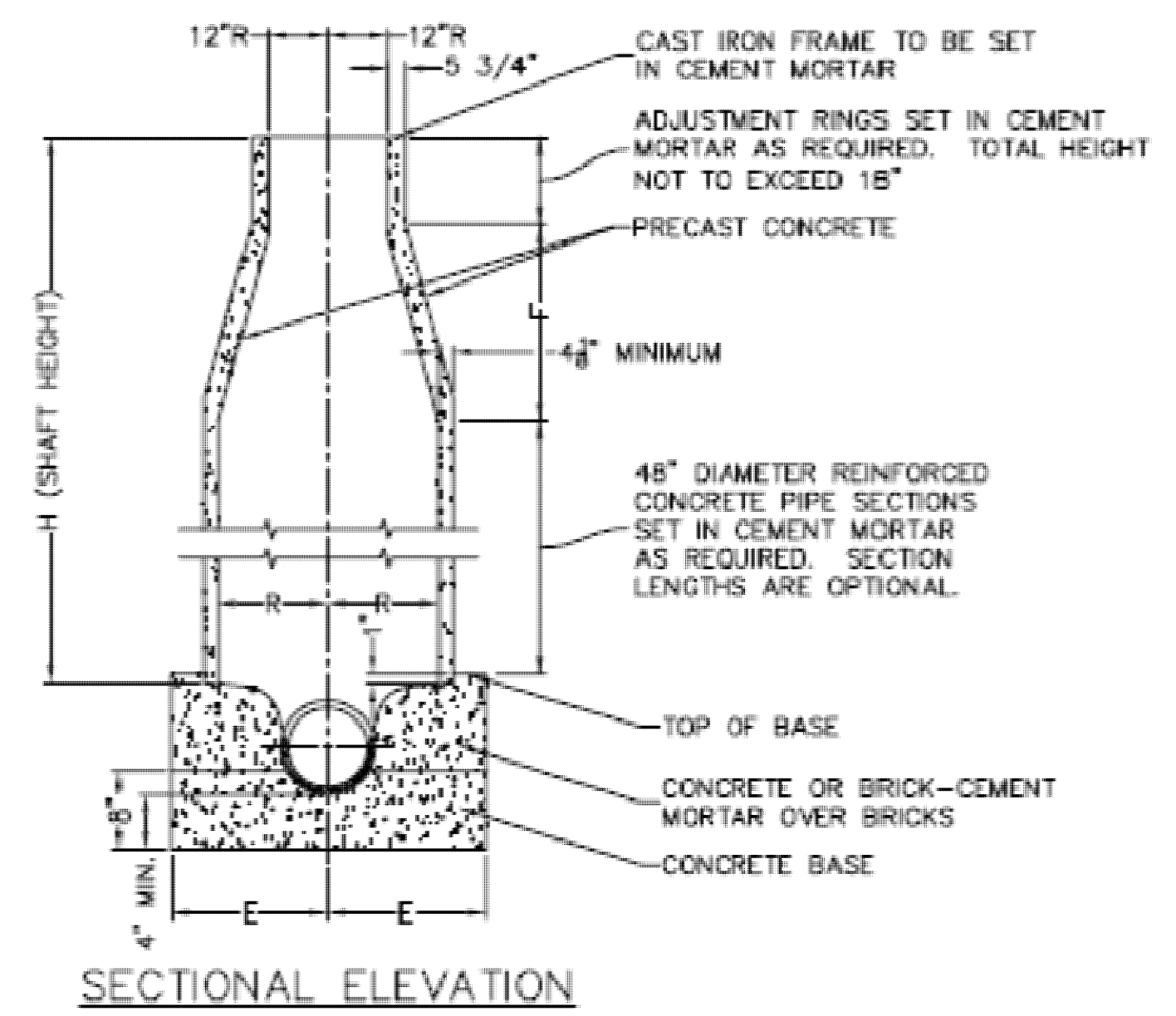


NOTE: STEPS ARE REQUIRED WHEN DEPTH OF
MANHOLE OR DROP INLET EXCEEDS 4 FT



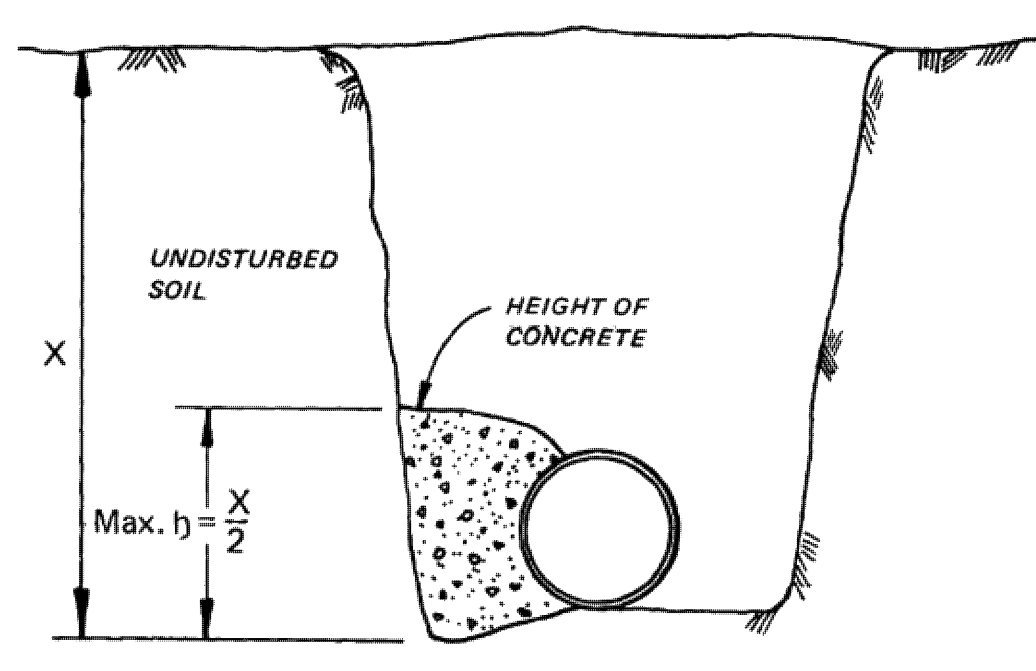
SECTIONAL PLAN

H	R	E	F
3'-6" OR LESS	1'-6"	2'-3"	2'-6" MAXIMUM
OVER 3'-6"	2'-0"	2'-9"	3'-0" MAXIMUM



SECTIONAL ELEVATION

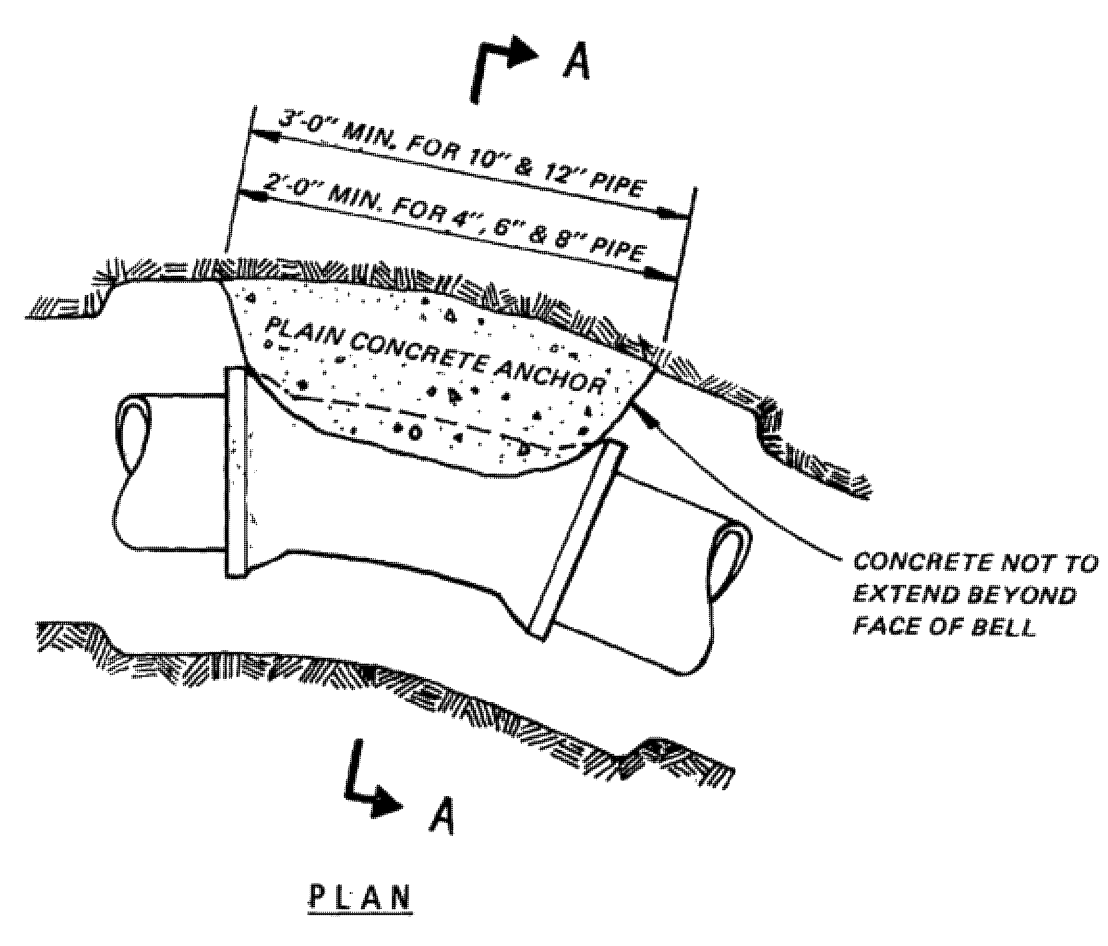
TYPE 1 MANHOLE
PER OAKLAND STANDARD DETAILS D-11
NOT TO SCALE



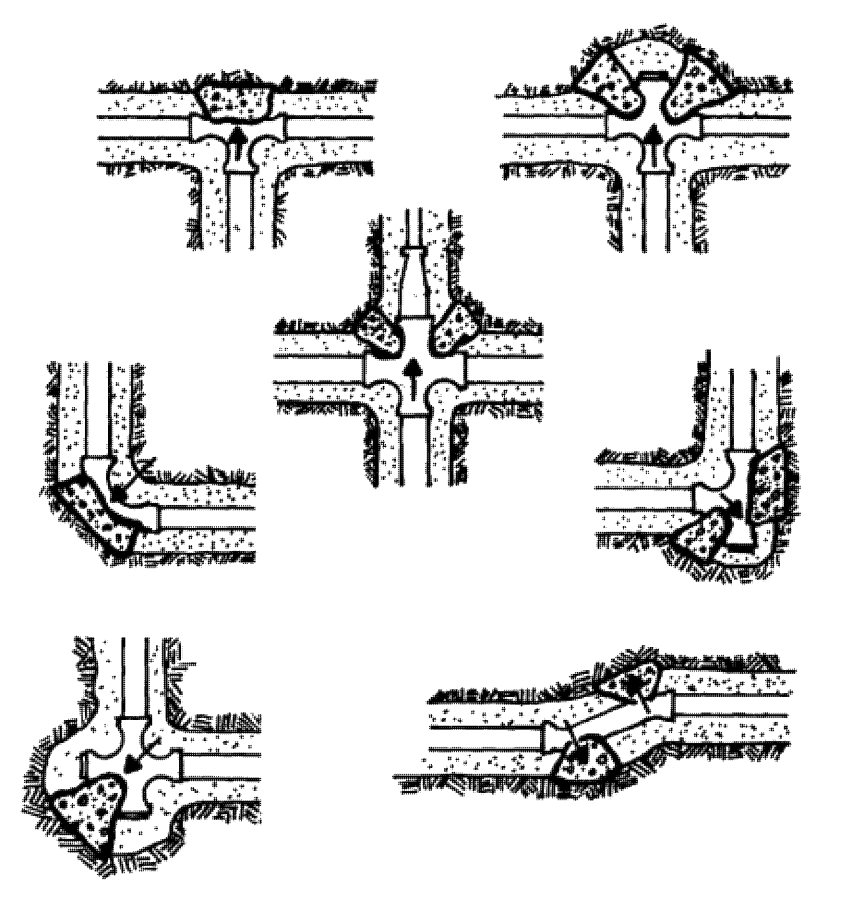
ANCHOR BLOCK SECTION A-A

PIPE SIZE	FITTING	REQUIRED SIZE OF ANCHOR BEARING AREA IN SQ. FT.		
		SOFT CLAY	MEDIUM CLAY or LOOSE GRANULAR SOIL	HARD CLAY or MEDIUM GRANULAR SOIL
4"	TEE/CROSS	4	2	2
4"	22½° ELL	2	2	2
4"	45° ELL	3	2	2
4"	90° ELL	5	3	2
6"	TEE/CROSS	9	3	3
6"	22½° ELL	3	2	2
6"	45° ELL	7	3	2
6"	90° ELL	12	4	3
8"	TEE/CROSS	*	5	4
8"	22½° ELL	5	3	2
8"	45° ELL	10	4	3
8"	90° ELL	*	7	4
12"	TEE/CROSS	*	12	6
12"	22½° ELL	12	5	3
12"	45° ELL	*	9	5
12"	90° ELL	*	*	9

* USE ONLY RESTRAINED JOINTS - WHEN SIZE OF ANCHOR BEARING AREA REQUIRED BY THE SOFT CLAY IS TOO LARGE TO OBTAIN, USE 5/8" TIE RODS AND CONCRETE ANCHORS TO RESTRAIN THE FITTING FROM MOVING OFF THE STABBED PIPE ENDS, SIMILAR TO DWG. 194-EA.



PLAN



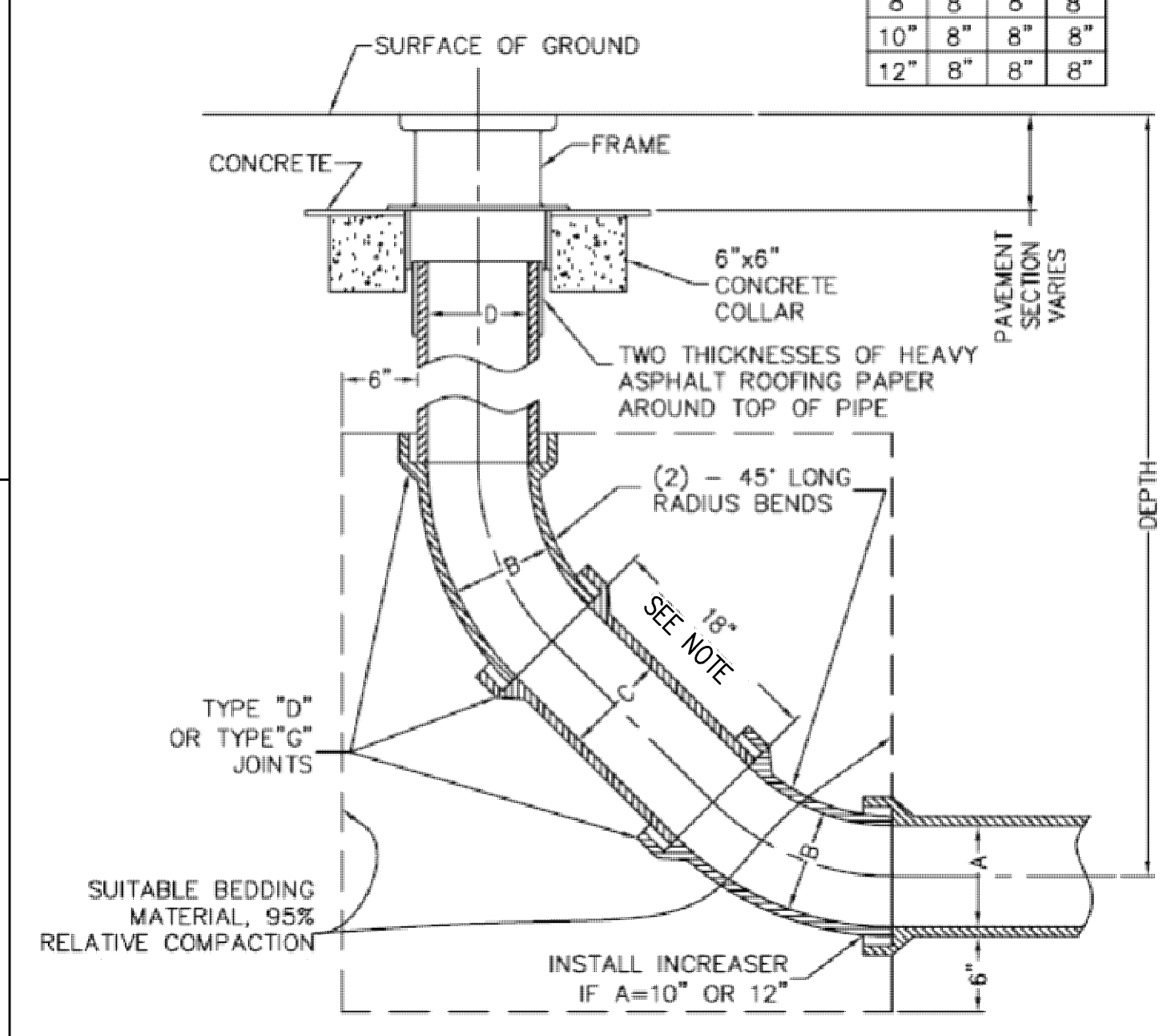
ANCHOR BLOCK LOCATIONS

A PRESSURIZED WATER PIPE ANCHORAGE
C3.01 NOT TO SCALE

ANCHOR BLOCK NOTES:

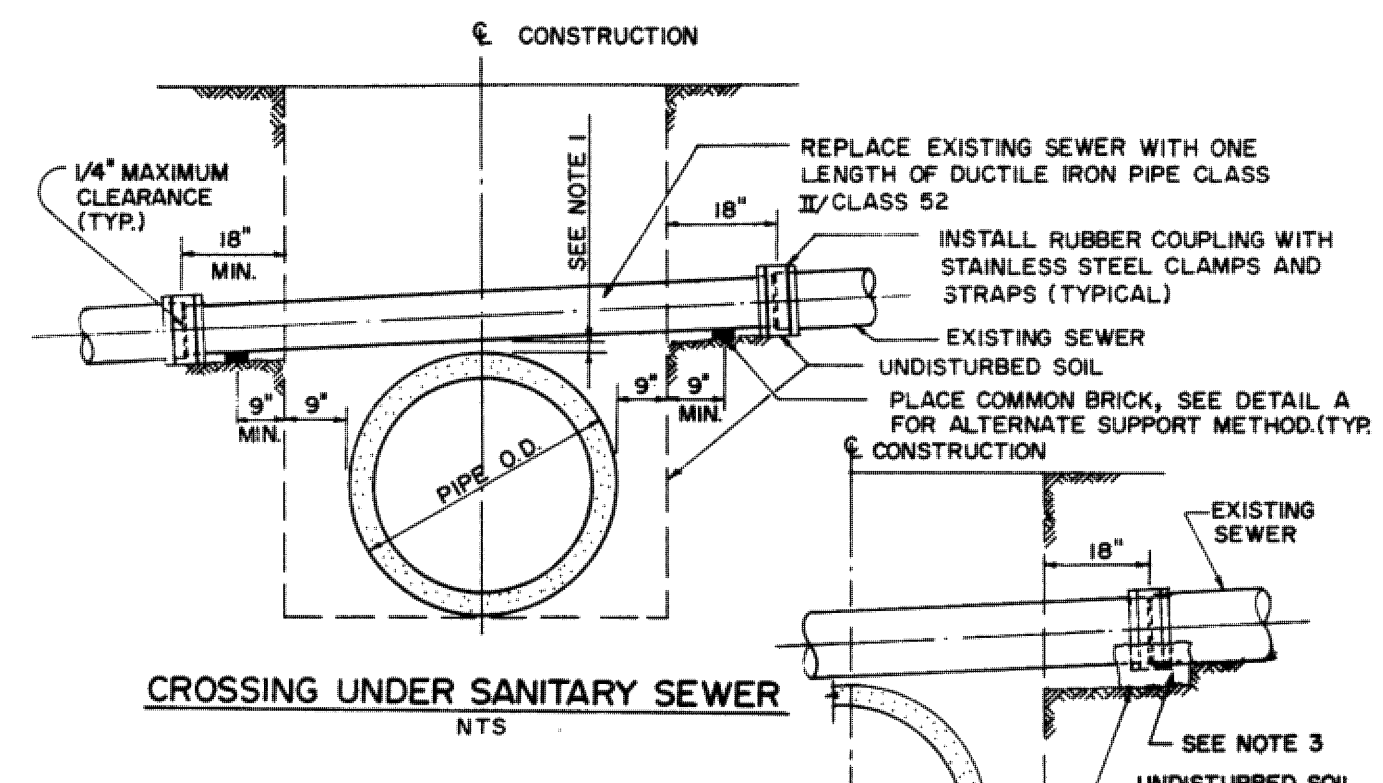
- POUR CONCRETE AGAINST UNDISTURBED SOIL.
- NO CONCRETE IS TO BE PLACED BEYOND THE FACE OF THE BELL.
- MAXIMUM HEIGHT OF ANCHOR IS HALF THE DEPTH FROM GROUND SURFACE TO BASE OF ANCHOR AT THE TRENCH WALL.
- COAT PORTION OF FITTING IN CONTACT WITH CONCRETE WITH MASTIC, OR POLYWRAP IN ACCORDANCE WITH OAKLAND PUBLIC WORKS SPECIFICATIONS.
- CONTRACTOR SHALL INSTALL THRUST BLOCK ANCHORAGES ON ALL PRESSURIZED WATER PIPE TURNS AND TEES.

A	B	C	D
8"	8"	8"	8"
10"	8"	8"	8"
12"	8"	8"	8"

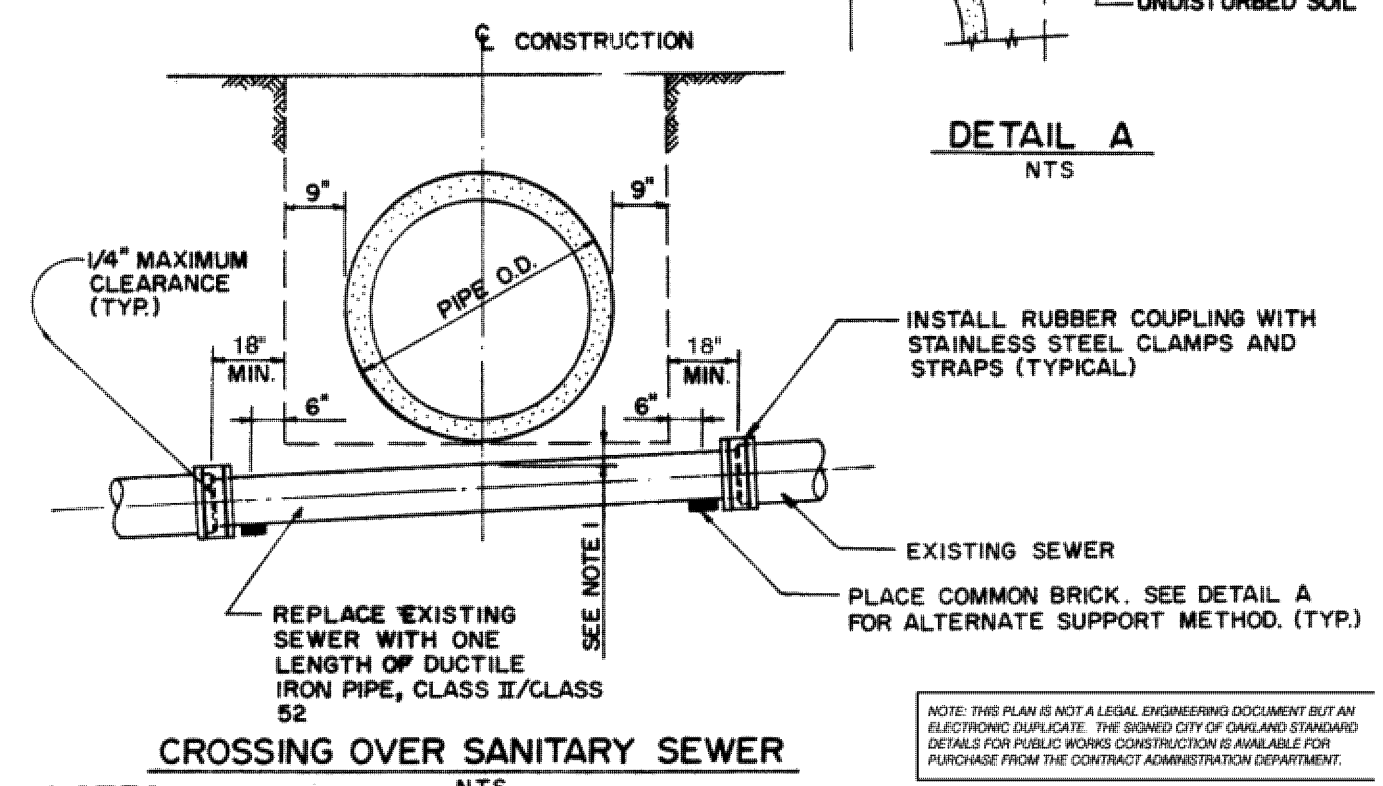


NOTE: FOR CLEANOUT LESS THAN 4' DEEP, OMIT 18" SECTION.

SEWER CLEANOUT
PER OAKLAND STANDARD DETAILS D-2
NOT TO SCALE



CROSSING UNDER SANITARY SEWER
NTS



CROSSING OVER SANITARY SEWER
NTS

- NOTES:
- PROVIDE MINIMUM CLEARANCE OF 6". IF LESS THAN 6", USE LAYERS OF STYROFOAM.
 - THE WORK SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
 - PLACE 450-B-2000 CONCRETE SUPPORT UNDER COUPLINGS.

SANITARY SEWER CROSSING DETAIL
PER OAKLAND STANDARD DETAILS D-23
NOT TO SCALE

D
C3.01