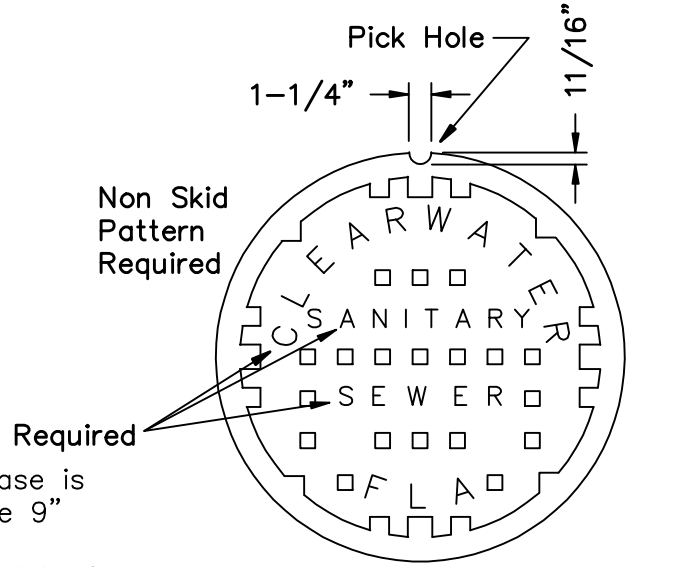
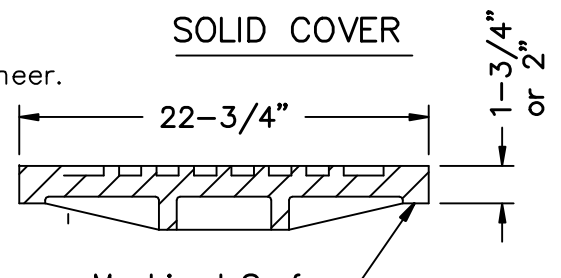


Minimum Weight 7" 232 lbs.
9" 278 lbs.



NOTES

1. Where roadway base is 8" or thicker, use 9" ring.
2. Manufacturers model of storm ring and cover to be approved by City Engineer.

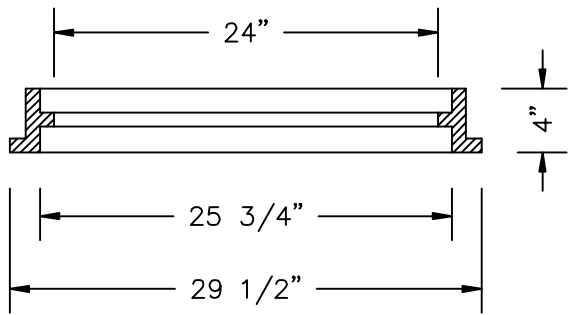


Minimum Weight 128 lbs.

SANITARY SEWER MANHOLE COVER

CITY INDEX NO. 301; 1 OF 2
N.T.S.

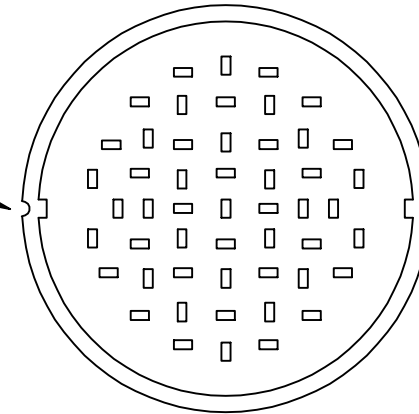
				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY Novo	SANITARY SEWER	DATE 02/09
				CHECKED BY W.J.S.	MANHOLE COVER	INDEX NO. 301
REV.	DATE	DESCRIPTION	APP.	DESIGNED BY D.G.B.		1 OF 2



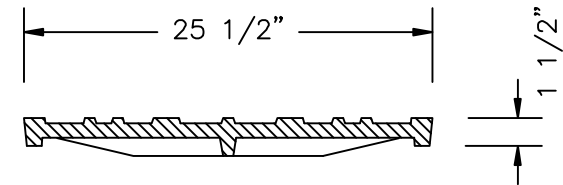
RING - SECTION

Weight 85 lbs.

2 Non-Penetrating Pick Holes



SOLID COVER



SOLID COVER SECTION

Weight 120 lbs.

NOTES

- 1. U.S. Foundry No. 117 Ring And BL Cover, Or Equal.

**SANITARY SEWER MANHOLE COVER
CAST IRON**

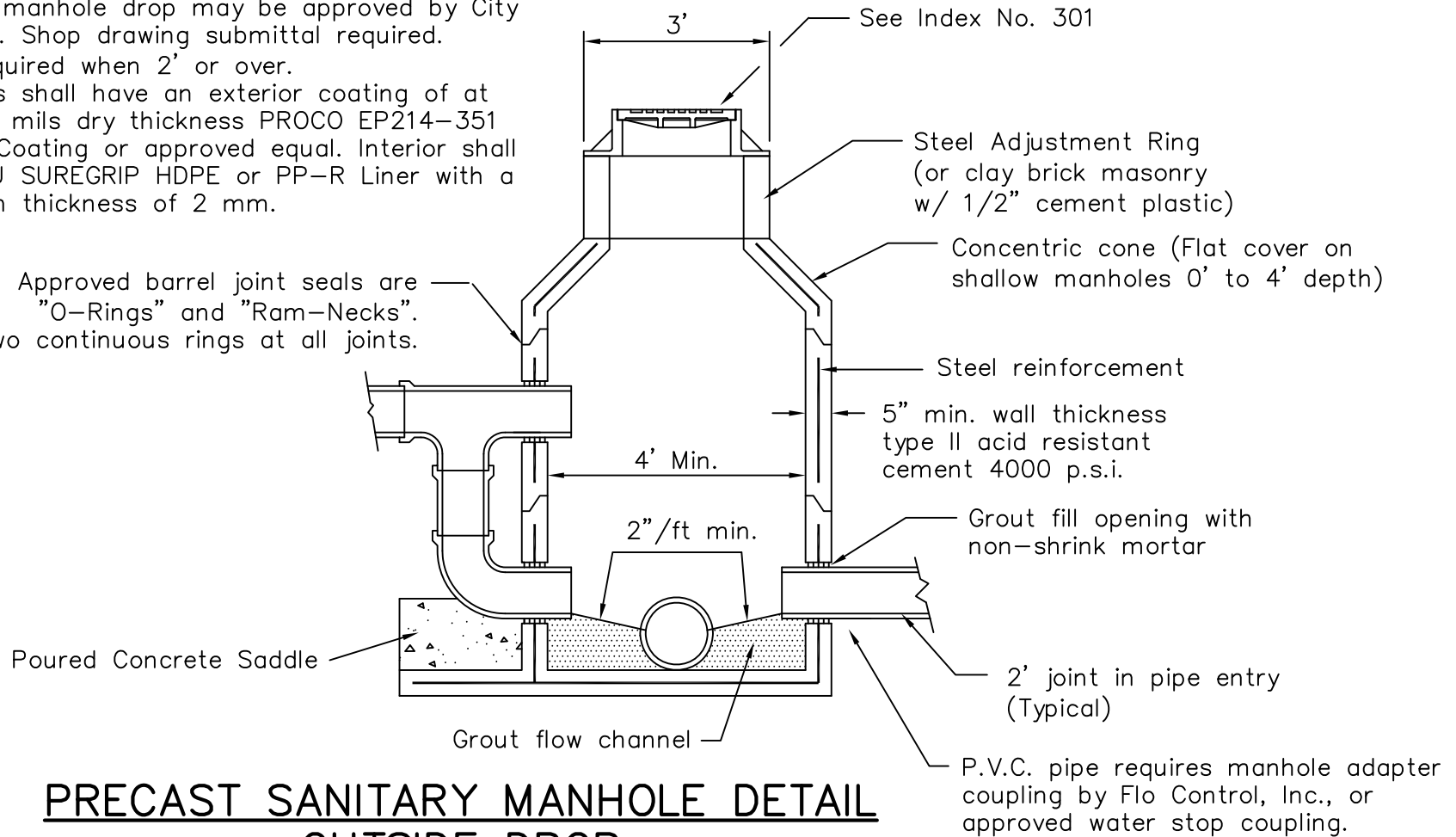
CITY INDEX NO. 301; 2 OF 2
N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY Novo	SANITARY SEWER	DATE 02/09
				CHECKED BY R.C.S.	MANHOLE COVER	INDEX NO. 301
				DESIGNED BY U.S.Foundry	CAST IRON	2 OF 2
REV.	DATE	DESCRIPTION	APP.			

NOTES

1. Precast manhole drop may be approved by City Engineer. Shop drawing submittal required.
2. Drop required when 2' or over.
3. Manholes shall have an exterior coating of at least 15 mils dry thickness PROCO EP214-351 Sewer Coating or approved equal. Interior shall be AGRU SUREGRIP HDPE or PP-R Liner with a minimum thickness of 2 mm.

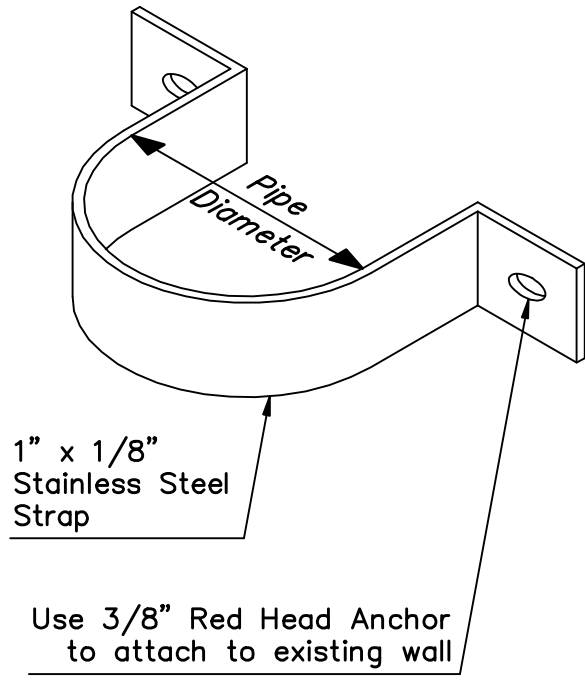
Approved barrel joint seals are "O-Rings" and "Ram-Necks".
Two continuous rings at all joints.



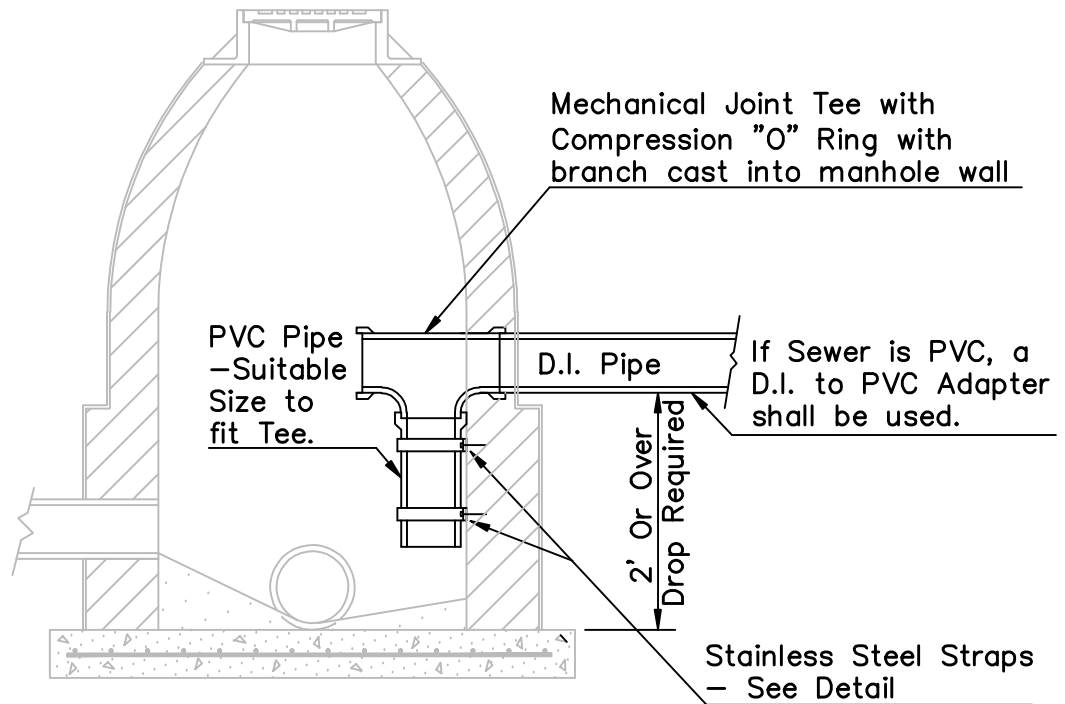
PRECAST SANITARY MANHOLE DETAIL
OUTSIDE DROP

CITY INDEX NO, 302; 1 OF 2
N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY Novo	PRECAST	DATE 02/09
1	5/15/2012	Rev. Notes	DSR	CHECKED BY W.J.S.	SANITARY MANHOLE	INDEX NO. 302
REV.	DATE	DESCRIPTION	APP.	DESIGNED BY T.C.J.	DETAIL	1 OF 2
					OUTSIDE DROP	



STRAP DETAIL



SECTION A-A

NOTES

1. P.V.C. pipe entry requires manhole adapter coupling by Flo Control Inc., or approved water stop coupling.

**SANITARY SEWER
DETAIL
INSIDE DROP**

CITY INDEX NO 302, 2 OF 2
N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY Novo	SANITARY SEWER	DATE 02/09
				CHECKED BY W.J.S.	DETAIL	INDEX NO. 302
				DESIGNED BY D.G.B.	INSIDE DROP	
REV.	DATE	DESCRIPTION	APP.			2 OF 2

CLEANOUT PLUG
 CHARLOTTE Pipe And Foundry Company
 Part No. 106 Or Equal

NOTE: Cleanout Plug Cover To Be
 U.S. Foundry 7623 Or Equal.

Concrete Pad 8"
 Thick x 1'-6" Sq.

FEMALE ADAPTER
 CHARLOTTE Pipe And Foundry Company
 Part No. 101 Or Equal

TWO-WAY CLEANOUT
 CHARLOTTE Pipe And Foundry Company
 Part No. 448 Or Equal

Sewer Lateral

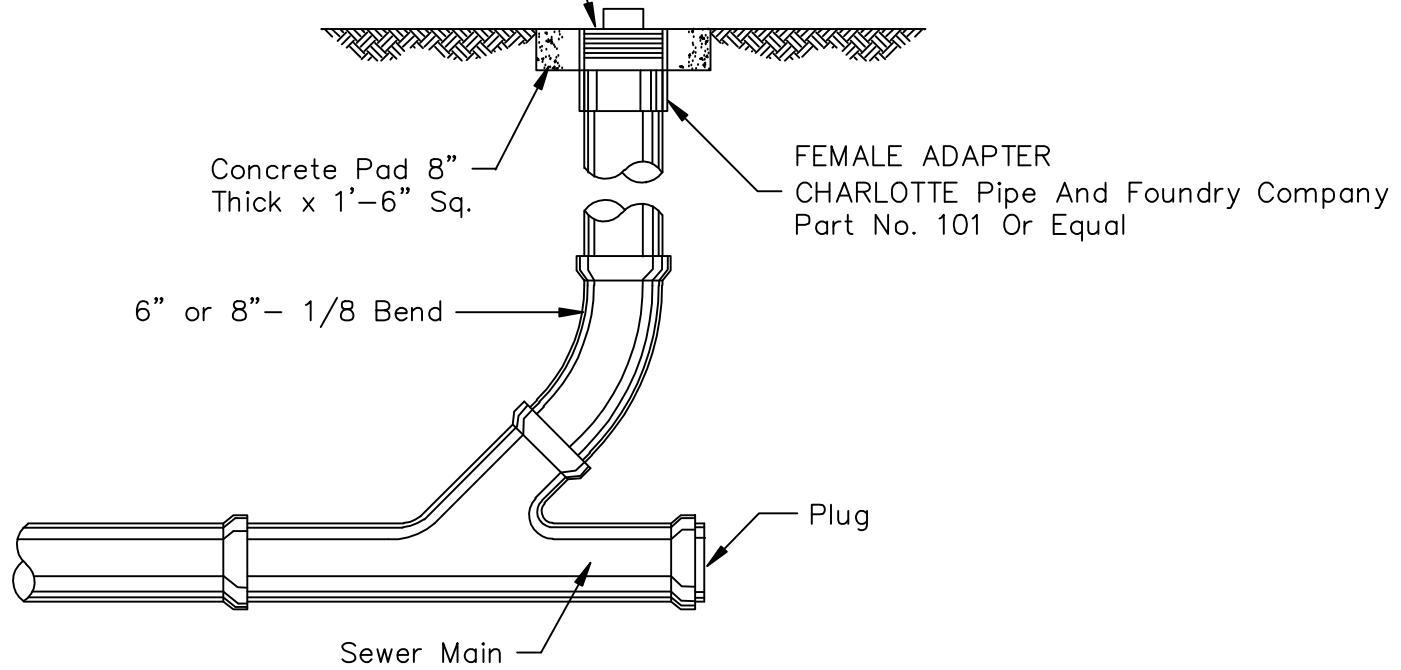
STANDARD CLEAN OUT (SANITARY)

CITY INDEX NO. 304; 1 OF 2
 N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY B.V.D.	STANDARD	DATE 02/09
				CHECKED BY W.J.S.	CLEAN OUT (Sanitary)	INDEX NO. 304
REV.	DATE	DESCRIPTION	APP.	APPROVED BY T.C.J.		1 OF 2

CLEANOUT PLUG
 CHARLOTTE Pipe And Foundry Company
 Part No. 106 Or Equal

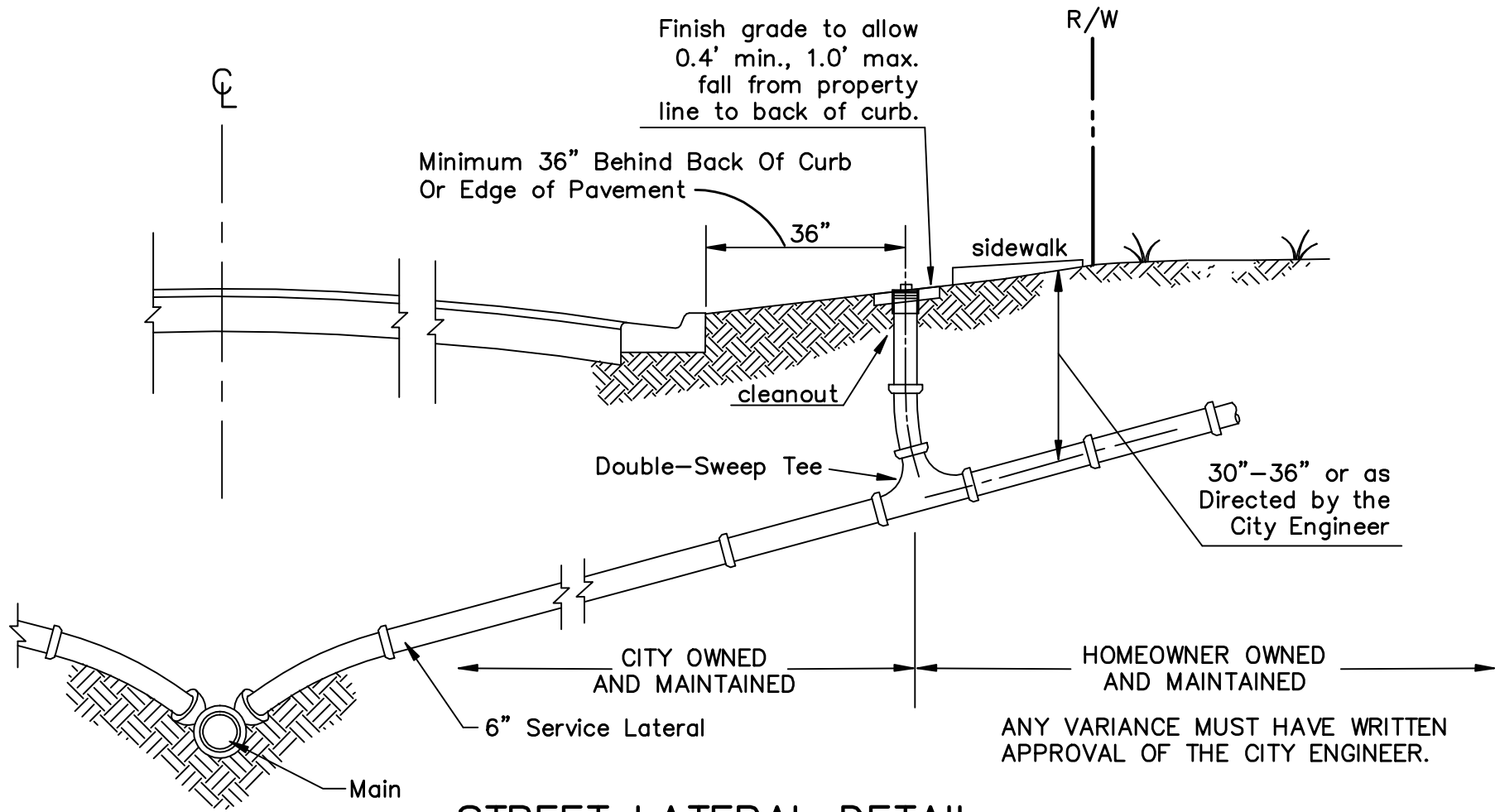
NOTE: Cleanout Plug Cover To Be
 U.S. Foundry 7623 Or Equal.



STANDARD TERMINAL END CLEAN OUT (SANITARY)

CITY INDEX NO. 304; 2 OF 2
 N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY B.V.D.	STANDARD	DATE 02/09
				CHECKED BY W.J.S.	TERMINAL END CLEAN OUT	INDEX NO. 304
REV.	DATE	DESCRIPTION	APP.	APPROVED BY T.C.J.	(Sanitary)	2 OF 2



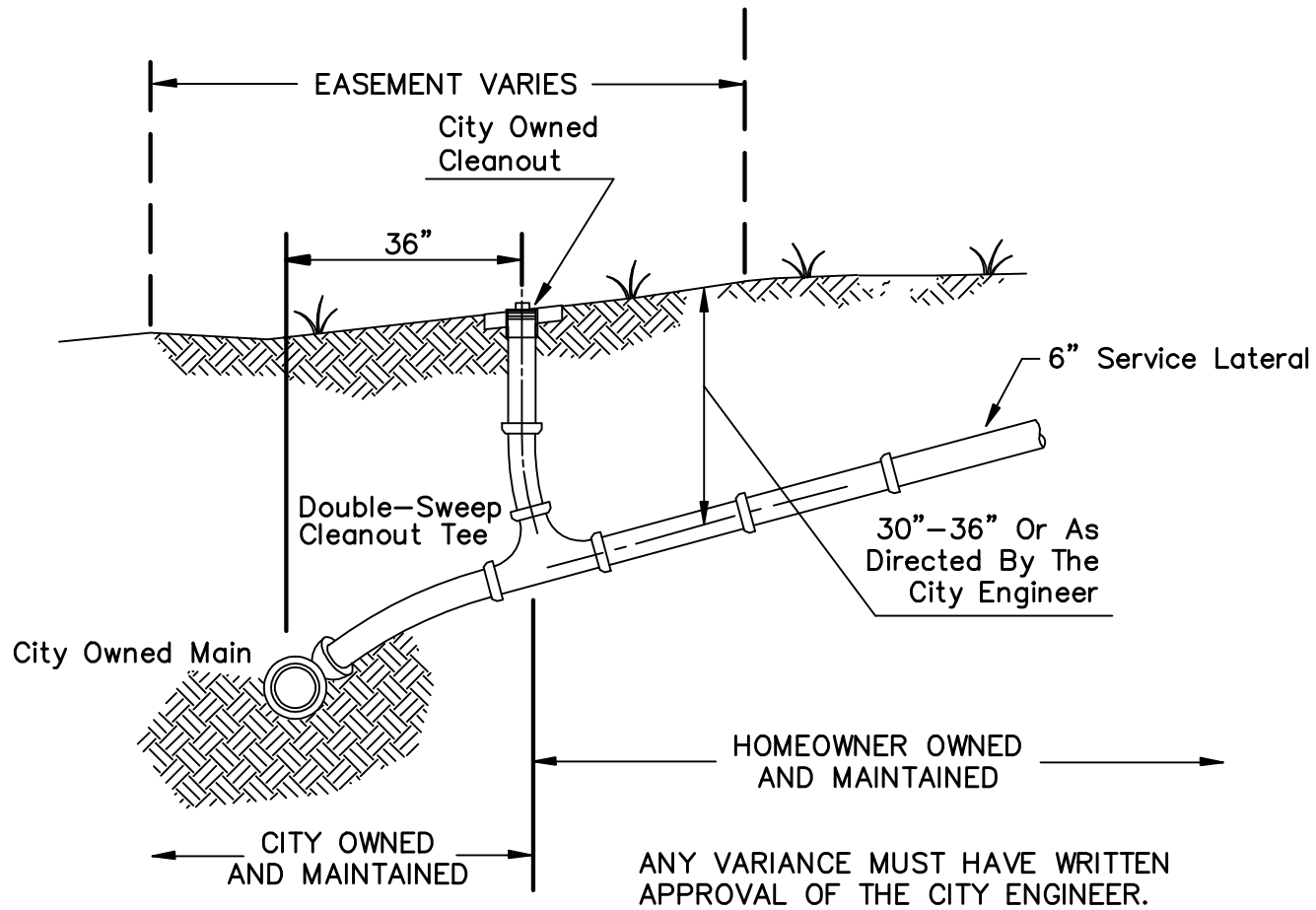
SECTION

STREET LATERAL DETAIL

CITY INDEX NO. 305; 1 OF 3
N.T.S.

ANY VARIANCE MUST HAVE WRITTEN APPROVAL OF THE CITY ENGINEER.

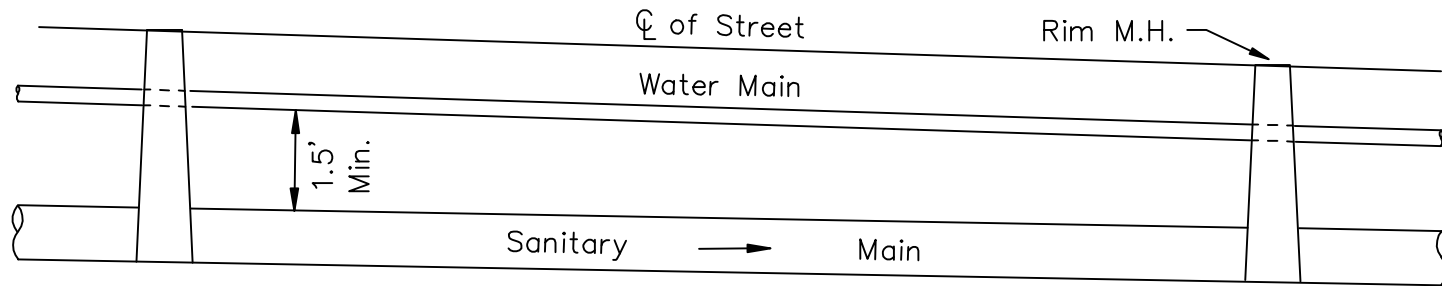
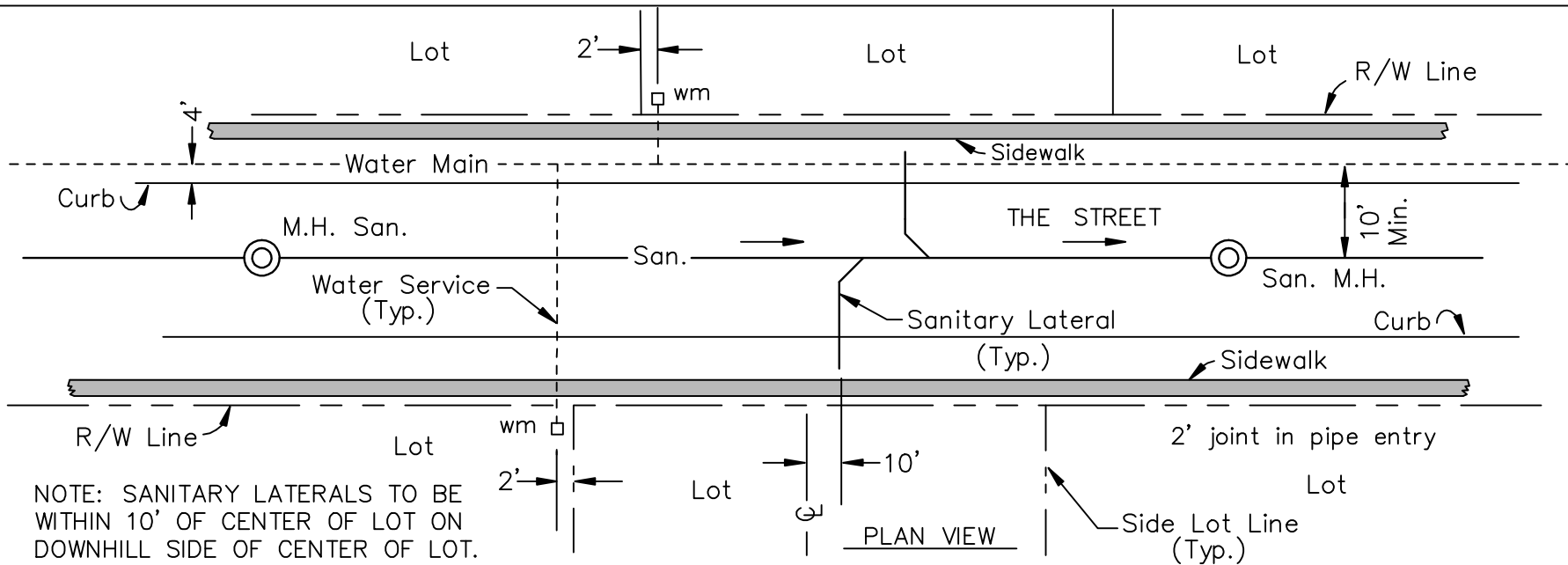
				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY D.King	STREET LATERAL	DATE 02/09
				CHECKED BY G.L.B.	DETAIL	INDEX NO. 305
				DESIGNED BY R.S.F.		1 OF 3
REV.	DATE	DESCRIPTION	APP.			



EASEMENT AREA LATERAL DETAIL

CITY INDEX NO. 305; 2 OF 3
N.T.S.

REV.	DATE	DESCRIPTION	APP.	CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY D.King	EASEMENT AREA	DATE 2/09
				CHECKED BY R.M.	LATERAL DETAIL	INDEX NO. 305
				DESIGNED BY R.S.F.		2 OF 3

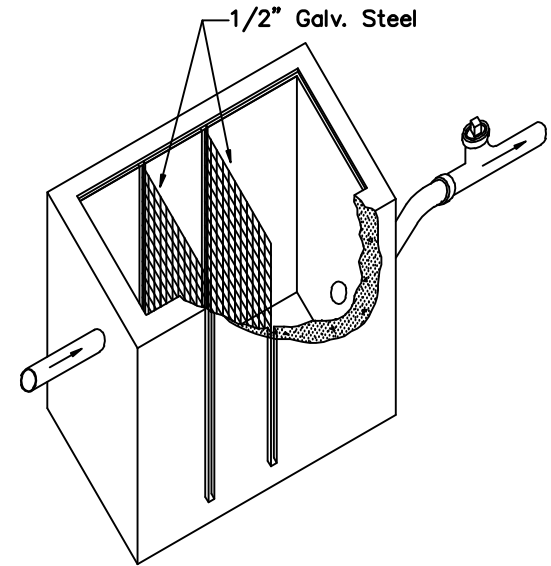
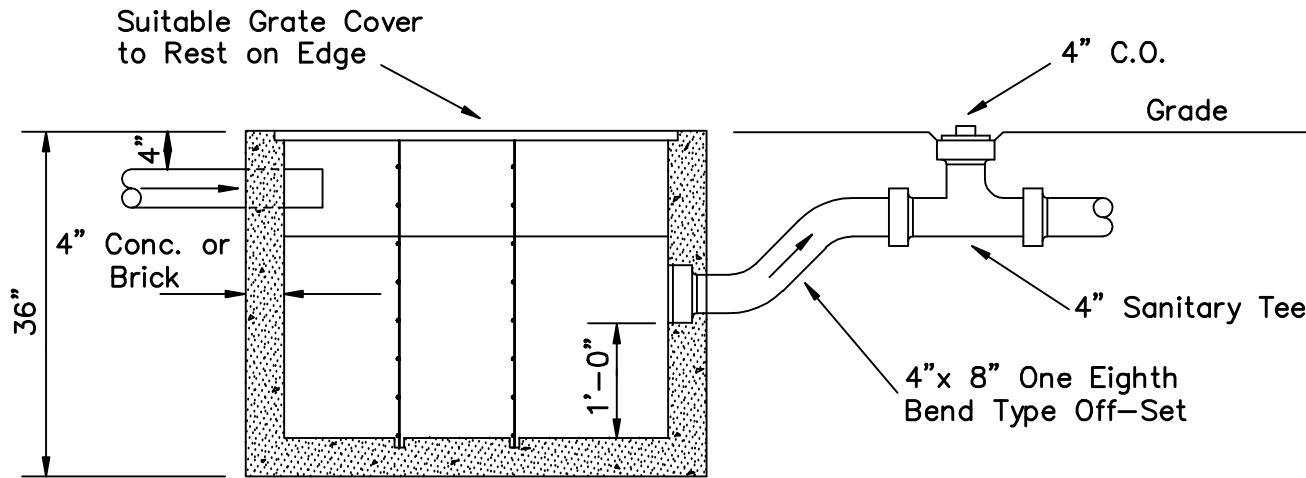


PROFILE

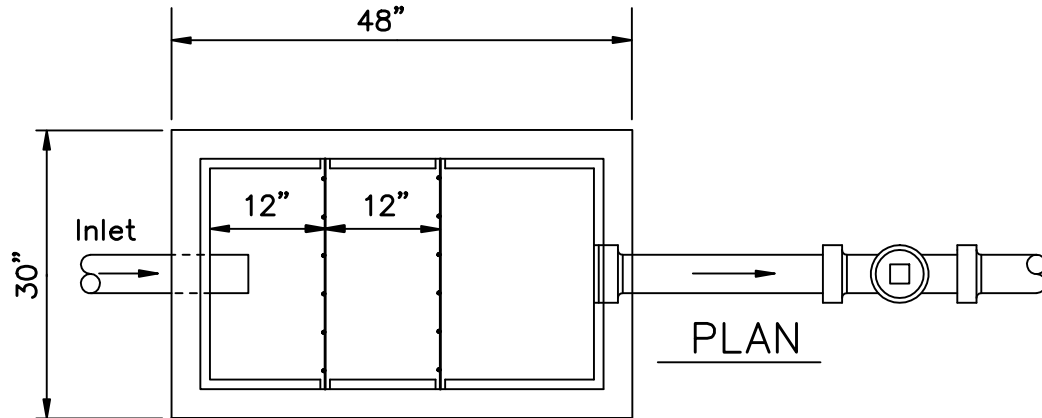
SANITARY LATERAL LOCATIONS

CITY INDEX NO. 305; 3 OF 3
N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY B.V.D.	SANITARY LATERAL LOCATIONS	DATE 02/09
				CHECKED BY G.C.H.		INDEX NO. 305
REV.	DATE	DESCRIPTION	APP.	APPROVED BY G.C.H.		3 OF 3



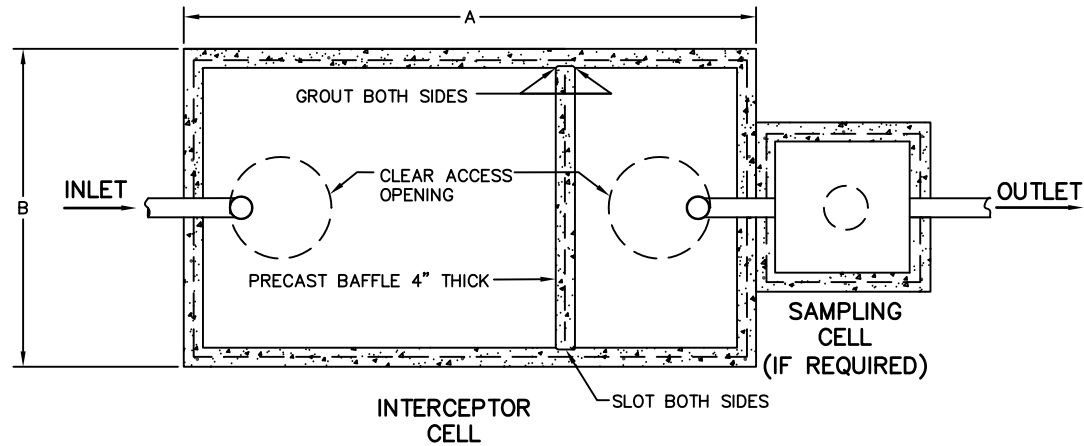
TYPICAL SAND or LINT TRAP



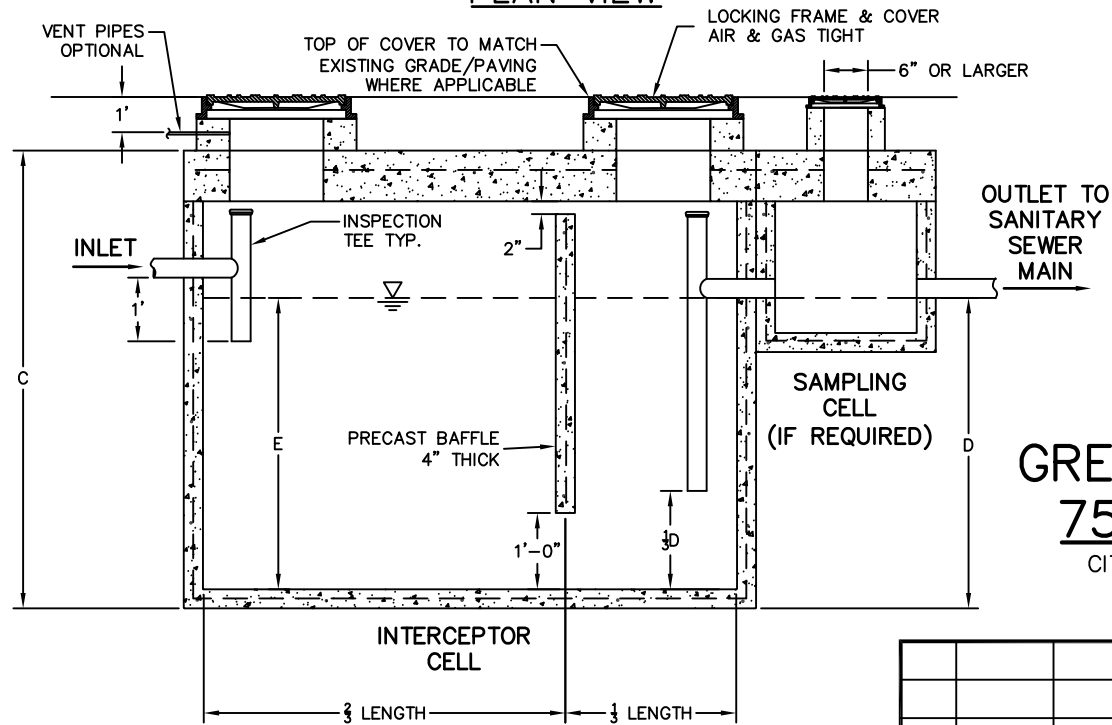
SAND or LINT TRAP for LAUNDROMATS or SERVICE STATIONS

CITY INDEX NO. 306; 1 OF 1
N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY J.C.J.	SAND or LINT TRAP	DATE 02/09
				CHECKED BY R.M.	for LAUNDROMATS or SERVICE STATIONS	INDEX NO. 306
REV.	DATE	DESCRIPTION	APP.	DESIGNED BY G.B.		1 OF 1



PLAN VIEW



SECTION VIEW

GALLON CAPACITY	A	B	C	D	E
750	7'-0"	4'-8"	7'-0"	4'-3"	3'-11"
1000	9'-0"	5'-0"	7'-2"	4'-2"	3'-10"
1250	9'-0"	5'-0"	7'-2"	5'-2"	4'-10"

GENERAL NOTES:

1. The interceptor system may consist of multiple interceptor cells, if required greater than 1250 gallon capacity.
2. One sampling cell per system shall be installed at outfall to main, only if required.
3. Concrete wall coating taking into consideration the water-oil mix.
4. Contractor to supply & install all piping and sanitary tee's, clean-outs for cleaning toward and away from interceptor (alternate dual sweep clean-outs).
5. Contractor shall assure 2,500 PSI minimum soil bearing capacity @ bedding elevation.

NOTES:

1. Concrete: 4500psi @ 28 day.
2. Rebar: ASTM A615 Grade 60.
3. Mesh: ASTM A815 Grade 65.
4. Design: ACI3 18-83 Building Code ASTM C857 Minimum Structural Design Loading for Underground Precast Concrete Utility Structures
5. Loads: H-20 truck wheels w/30% impact per AASHTO.
6. Fill w/clean water prior to start up of system.
7. Gray water only, black water shall be carried by separate sewer.

GREASE INTERCEPTOR 750-1250 GALLON

CITY INDEX NO. 307; Sheet 1 OF 1
N.T.S.

				CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT		
				REDRAWN BY E.A.	GREASE INTERCEPTOR	DATE 01/02
1	5/31/11	SAMPLING CELL NOTE	R.P.	CHECKED BY P.W.D.	750-1250 GALLON	INDEX NO. 307
REV.	DATE	DESCRIPTION	APP.	DESIGNED BY D.S.		1 OF 1