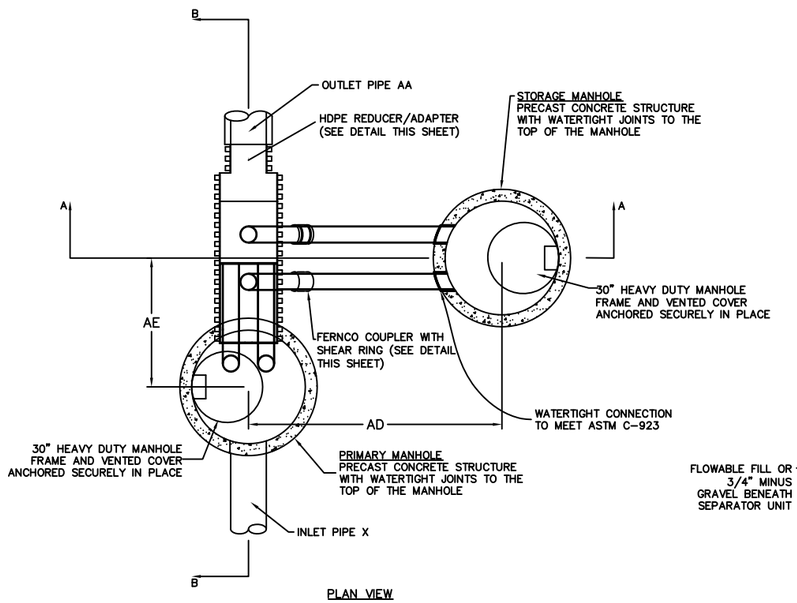
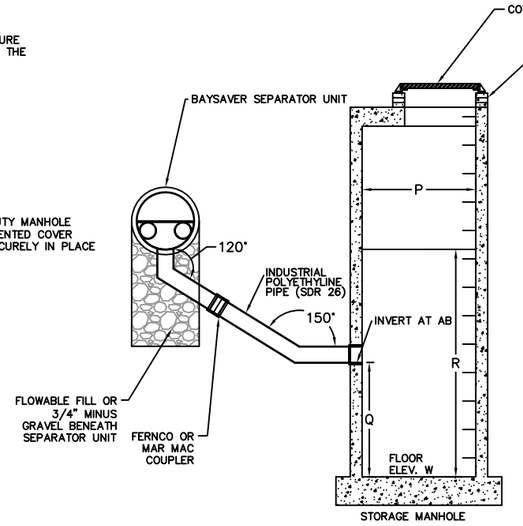
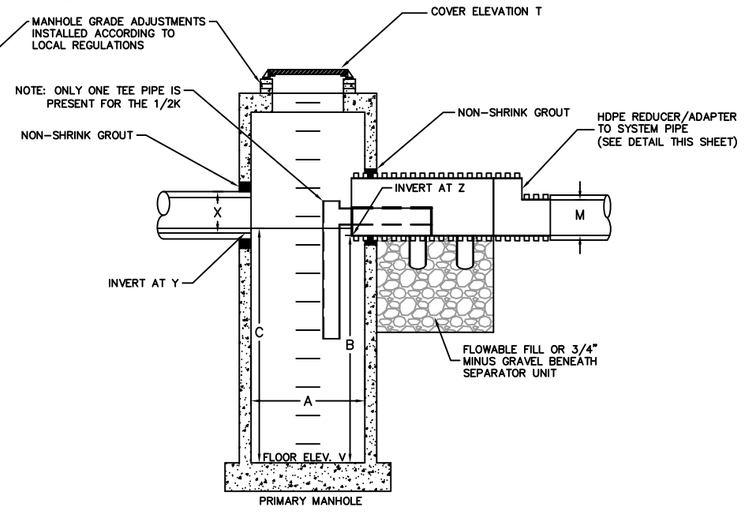


PLAN VIEW



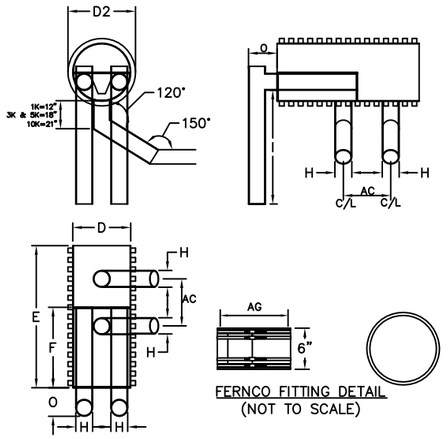
STORAGE MANHOLE

SECTION AA



PRIMARY MANHOLE

SECTION BB



FERNCO FITTING DETAIL
(NOT TO SCALE)

	DISTANCE AG	FERNCO NO.	SHEAR RING	MAR MAC NO.
1/2K	7.10"	1055-66	SR-27	N/A
1K	7.10"	1055-66	SR-27	N/A
3K	10.60"	1056-1010	SR-39	N/A
5K	12.73"	1004-1010	SR-44	N/A
10K	15.90"	N/A	N/A	15" POLY SEAL

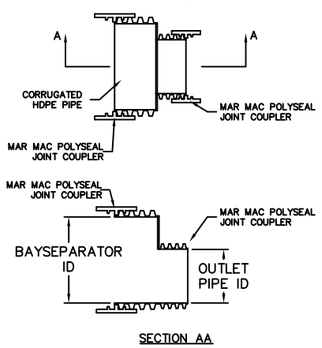
SEQUENCE OF CONSTRUCTION AND INSPECTOR'S CHECK-OFF LIST FOR DUAL MANHOLE SEPARATORS

Stage (X = Approval Required)	Developer's/Engineer Approval		Inspector		Geotechnical Engineer	
	Initials	Date	Initials	Date	Initials	Date
1. Pre-Construction Meeting.	X		X		X	
2. Install Manholes and associated storm drainage: a. Obtain approval of subgrade from Geotechnical Engineer. (Subgrade to have a minimum of 95% compaction)					X	
b. Installation of precast base, lower tank and lower piping.	X		X			
c. Backfill and min. 95% compaction around lower tank and lower piping.					X	
d. Installation of precast middle section(s) with separator unit and remaining piping.	X		X			
e. Installation of precast top slab.	X		X			
f. Installation of adjustment rings and frame and cover.	X		X			
g. Installation of flowable fill or concrete backfill.					X	
3. Backfilling operation and compaction.					X	
4. Site is permanently stabilized. Sediment control measures removed and all sediment and debris removed from dual manhole separators.			X			
5. Final inspection.			X			

BaySeparator Unit	BaySeparator Manhole Sizes (prim. x stor.)	Maximum Treatment (cfs)	Maximum Treatment (gpm)	Peak Design (cfs)
1/2K BaySeparator	48x48	1.1	494	8.5
1K BaySeparator	48x48 48x50 48x72 60x60	2.4	1076	10.0
3K BaySeparator	60x60 60x72 60x84 72x72	7.8	3498	30.0
5K BaySeparator	72x72 72x84 72x96 96x96	11.1	4978	50.0
10K BaySeparator	120x120	21.8	9777	100.0

HDPE REDUCER/ADAPTER DETAIL

FOR USE WITH ALL CIRCULAR OUTLET PIPES
NOT TO SCALE



SECTION AA

BAYSEPARATOR MAINTENANCE

BAYSEPARATOR SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK OR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EITHER MANHOLE EXCEEDS 2 FEET. MINIMUM INSPECTION IS RECOMMENDED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF BAYSAVER.

MAINTENANCE CONSISTS OF THE FOLLOWING:

A. STORAGE MANHOLE

1. REMOVE THE ENTIRE VOLUME OF THE CONTAMINATED WATER BY VACUUM TRUCK.

2. CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.

B. PRIMARY MANHOLE

1. USING A SUBMERSIBLE PUMP, PUMP THE CLEAN WATER FROM THE CENTER OF THE MANHOLE DIRECTLY INTO THE EMPTY STORAGE MANHOLE UNTIL THE WATER LEVEL FALLS TO 1 FOOT ABOVE THE SEDIMENT LAYER.

2. REMOVE THE SETTLED SEDIMENT AND REMAINING WATER BY VACUUM TRUCK.

3. CLEAN THE MANHOLE WALLS AND FLUSH OUT THE MANHOLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.

4. CONTAMINATED MATERIAL REMOVED FROM THE MANHOLES MUST BE DISPOSED OF RESPONSIBLY AND LEGALLY BY THE OPERATOR OF THE VACUUM TRUCK.

GENERAL CONSTRUCTION NOTES

1. ALL WORK MUST BE DONE WITH REGARD FOR THE SAFETY OF THE CONSTRUCTION CREW.

2. ALL WORK AND MATERIALS MUST COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS.

3. KNOW THE LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES BEFORE EXCAVATION BEGINS.

BAYSEPARATOR INSTALLATION INSTRUCTIONS

1. EXCAVATION MUST PROVIDE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO STORAGE MANHOLE AND BAYSEPARATOR UNIT. INSTALL PRECAST DROP STRUCTURES ON SOLID GROUND AS VERIFIED BY A GEOTECHNICAL ENGINEER.

2. VERIFY THE SUBGRADE ELEVATION AGAINST THE MANHOLE DIMENSIONS AND CONNECTING STORM DRAIN INVERTS.

3. MAKING SURE THE BASES ARE LEVEL AND THE STORAGE MANHOLE OPENINGS ARE ALIGNED WITH THE SEPARATOR UNIT, INSTALL PRIMARY AND STORAGE MANHOLES. INSTALL WATERTIGHT GASKETS ON BASE UNITS AND COAT WITH LUBRICATING GREASE (IF REQUIRED). INSTALL ADDITIONAL MANHOLE SECTIONS AS REQUIRED. SEAL LIFT HOLES WITH NON-SHRINK GROUT.

4. BACKFILL BASE SECTIONS OF MANHOLES TO INVERT OF STORAGE MANHOLE CONNECTING PIPES. USING APPROVED BACKFILL MATERIAL, BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL AND COMPACTION SHOULD BE MONITORED BY A GEOTECHNICAL ENGINEER.

5. INSTALL BAYSEPARATOR UNIT AND CONNECTING PIPES. SEAL ALL CONNECTING JOINTS AND INSTALL SEPARATOR HDPE REDUCER/ADAPTER. CUT EXCESS LENGTH OFF CONNECTING PIPES INSIDE STORAGE MANHOLE.

6. BACKFILL SEPARATOR UNIT AND MANHOLES. AREAS NOT ACCESSIBLE TO COMPACTION EQUIPMENT MUST BE BACKFILLED WITH 3/4" MINUS ANGULAR GRAVEL OR FLOWABLE FILL.

7. INSTALL AND SET MANHOLE COVER GRADE ADJUSTMENT RINGS AS NECESSARY.

8. INSTALL AND SET MANHOLE FRAME AND COVER UNITS.

BAYSEPARATOR SYSTEM DIMENSIONS

	DESCRIPTION	1/2K SYSTEM	1K SYSTEM	3K SYSTEM	5K SYSTEM	10K SYSTEM
	PRIMARY MANHOLE DIMENSIONS					
A	PRIMARY MANHOLE DIAMETER	48"	48"	60"	72"	120"
B	MANHOLE DEPTH BELOW OUTLET	6' - 0"	8' - 0"	8' - 0"	8' - 0"	8' - 0"
C	MINIMUM FLUID DEPTH	6' - 1"	8' - 3"	8' - 4"	8' - 6"	8' - 8"
	STANDARD SEPARATOR UNIT DIMENSIONS					
D	SEPARATOR UNIT ID	24"	24"	36"	47.6"	59.5"
D2	SEPARATOR UNIT OD	27.8"	27.8"	41.7"	53.6"	66.3"
E	SEPARATOR UNIT LENGTH	59.75"	59.75"	78.75"	78.75"	102"
F	BYPASS PLATE LENGTH	34.5"	34.5"	42.38"	47.63"	60"
G	WEIR/BYPASS PLATE THICKNESS	1/2"	1/2"	3/4"	3/4"	3/4"
H	TEE PIPE AND CONNECTING PIPE OD	7.125"	7.125"	10.75"	12.75"	16.0"
I	TEE PIPE LENGTH	35.38"	47.38"	48.63"	48"	48"
J	WEIR HEIGHT ABOVE INVERT	1"	3"	4"	6"	8"
K	BYPASS PLATE HEIGHT ABOVE INVERT	12"	12"	18"	24"	30"
L	WIDTH OF WEIR AT BASE	3"	3"	4 1/2"	6"	8"
M	OUTLET PIPE DIAMETER	M	M	M	M	M
N	TEE PIPE INVERT HEIGHT ABOVE UNIT INVERT	5"	5"	7 1/2"	11.5"	14.38"
O	TEE PIPE OVERHANG	12"	12"	18"	23"	30"
	STORAGE MANHOLE DIMENSIONS					
P	STORAGE MANHOLE DIAMETER	48"	48"	60"	72"	120"
Q	MANHOLE DEPTH BELOW INLET/OUTLET	36"	48"	48"	48"	48"
R	FLUID DEPTH	6' - 0"	8' - 0"	8' - 0"	8' - 0"	8' - 0"
S	TOTAL STORAGE VOLUME	150 CF	200 CF	300 CF	450 CF	1256 CF
	SYSTEM DIMENSIONS AND ELEVATIONS					
T	PRIMARY MANHOLE COVER ELEVATION	T	T	T	T	T
U	STORAGE MANHOLE COVER ELEVATION	U	U	U	U	U
V	PRIMARY MANHOLE FLOOR ELEVATION	V	V	V	V	V
W	STORAGE MANHOLE FLOOR ELEVATION	W	W	W	W	W
X	INLET PIPE ID AND MATERIAL	X1 X2	X1 X2	X1 X2	X1 X2	X1 X2
Y	INLET PIPE INVERT	Y1 Y2	Y1 Y2	Y1 Y2	Y1 Y2	Y1 Y2
Z	SEPARATOR UNIT INVERT	Z	Z	Z	Z	Z
AA	OUTLET PIPE ID AND MATERIAL	AA	AA	AA	AA	AA
AB	CONNECTING PIPE INVERT ELEVATION	AB	AB	AB	AB	AB
AC	CONNECTION PIPE SPACING	18.9"	18.9"	26.3"	26.3"	30.0"
AD	STORAGE MANHOLE SIDE OFFSET	5'-10"	7'-7"	8'-2"	7'-10"	10'-0"
AE	STORAGE MANHOLE DOWNSTREAM OFFSET	4'-6"	4'-6"	5'-2"	5'-8"	9'-1"
AF	BAYSEPARATOR UNIT ORIENTATION (PLEASE SPECIFY RIGHT OR LEFT)	(L) (R)	(L) (R)	(L) (R)	(L) (R)	(L) (R)

REV	DESCRIPTION	DATE	APPR

NOTES:

BAYSAVER TECHNOLOGIES, INC.
Engineering Stormwater Solutions
www.BaySaver.com 800.229.7283

DESIGNED:	TEP	DATE:	1/1/09
DRAWN:	EKH	SCALE:	N.T.S.
CHECKED:	EKH	DWG NO:	SD-1

BAYSEPARATOR™ STANDARD DETAILS