

DRAWINGS

MWS – Linear

Hybrid Stormwater Filtration System



MODULAR WETLAND SYSTEMS - LINEAR GRATE TYPE



*FLOW BASED DESIGN

FLOW RATES

PRIMARY PEAK
TREATMENT FLOW RATE
= .27 CFS OR 120 GPM

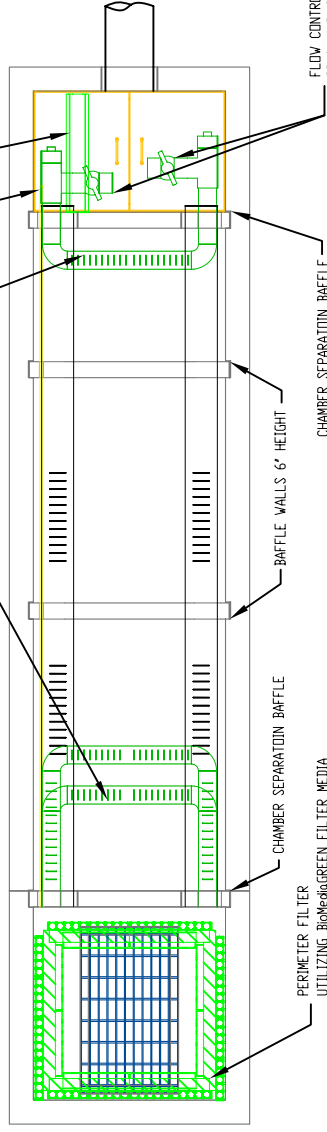
PEAK BYPASS FLOW RATE
= 4.28 CFS

PERIMETER FILTER
UTILIZING BioMedGreen FILTER MEDIA

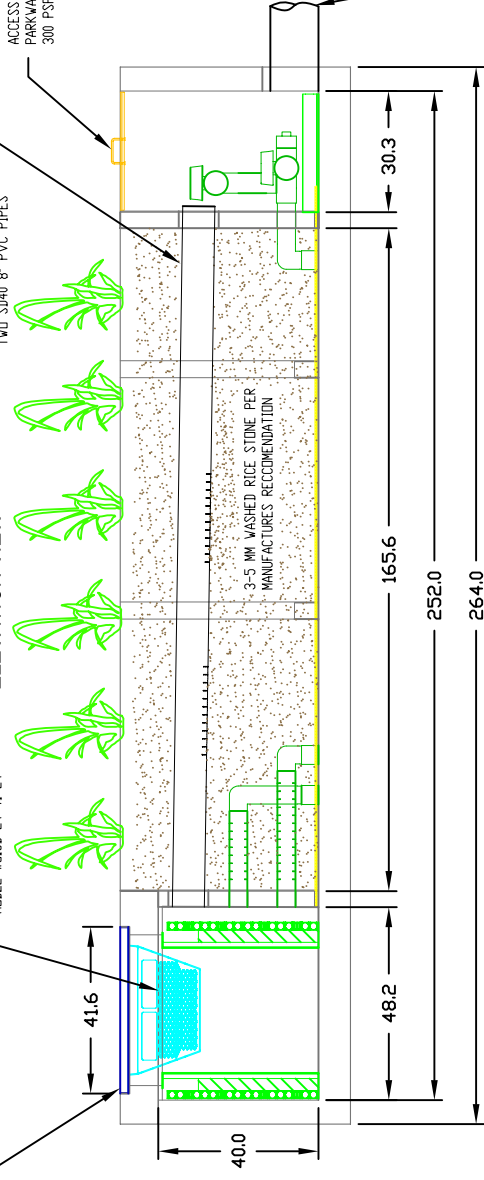
DRAIN DOWN LINE - SD35 1/2" PVC PIPE
WITH FLOW CONTROL OFFICE PLATE

PLAN VIEW

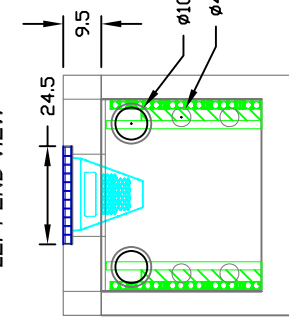
INFLOW CHAMBER TRANSFER PIPES
SD35 4" PERFORATED PVC PIPING
AND COUPLINGS



ELEVATION VIEW



LEFT END VIEW



SPECIFICATIONS

- INSTALL AT SURFACE
- O.D. DIMENSIONS
= 22' X 5' X 4.8'
- TOP OF GRATE TO INVERT OUT
= 4.13'
- STORAGE CAPACITY
= 1000 LBS OR 23.5 CF

INSTALLATION NOTES:

1. INSTALL UNIT ON LEVEL BED OF GRAVEL OF AT LEAST 6" IN DEPTH. PATENT PENDING
2. CONCRETE 28 DAY COMPRESSIVE STRENGTH $f_c=5,000$ PSI.
3. REINFORCING-ASTM A-615, GRADE 60.
4. SUPPORTS AN H2O LOADING AS INDICATED BY AASHTO.
5. ALL WALLS ARE 6" THICK, BAFFLES ARE 4" THICK
BOTTOM 8" THICK, TOP 10" THICK.
6. JOINT SEALANT: BUTYL RUBBER SS-S-00210

MODULAR WETLAND SYSTEMS INC.
P.O. BOX 869
OCEANSIDE, CA 92049
www.ModularWetlands.com

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PROHIBITED.

TITLE:

MWS LINEAR -
GRATE TYPE

NAME

P. Ashoff

DATE

7.23.07

DRAWN

EDITED

COMMENTS:

SIZE DWG. NO.

A

MWS-L-G

REV

SCALE 1:50

UNITS = INCHES

SHEET 1 OF 1

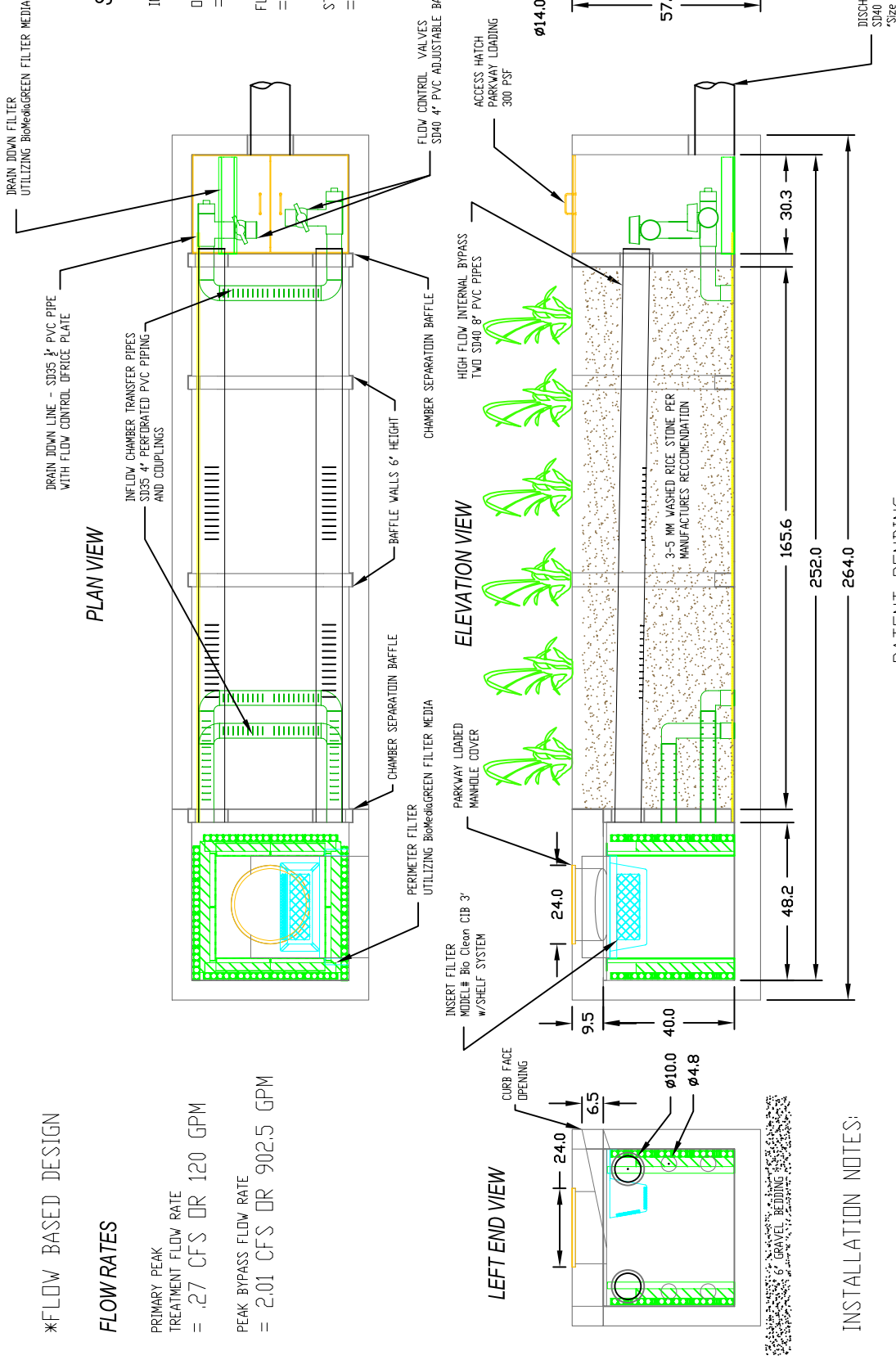
MODULAR WETLAND SYSTEMS - LINEAR CURB TYPE



*FLOW BASED DESIGN

FLOW RATES

PRIMARY PEAK TREATMENT FLOW RATE = .27 CFS OR 120 GPM
 PEAK BYPASS FLOW RATE = 2.01 CFS OR 902.5 GPM



PLAN VIEW

ELEVATION VIEW

LEFT END VIEW

RIGHT END VIEW

INSTALLATION NOTES:

1. INSTALL UNIT ON LEVEL BED OF GRAVEL OF AT LEAST 6" IN DEPTH. PATENT PENDING
2. CONCRETE 28 DAY COMPRESSIVE STRENGTH $f_c=5,000$ PSI.
3. REINFORCING ASTM A-615, GRADE 60.
4. RATED FOR PARKWAY LOADING 300 PSF.
5. ALL WALLS ARE 6" THICK, BAFFLES ARE 4" THICK BOTTOM 8" THICK, TOP 10" THICK.
6. JOINT SEALANT: BUTYL RUBBER SS-S-00210

SPECIFICATIONS

- INSTALL AT SURFACE
- O.D. DIMENSIONS = 22' X 5' X 4.8'
- FLOW LINE (6' CURB) TO INVERT OUT = 3.575'
- STORAGE CAPACITY = 1000 LBS OR 23.5 CF

MODULAR WETLAND SYSTEMS INC. P.O. BOX 869 OCEANSIDE, CA 92049 www.ModularWetlands.com		NAME P. Ashoff	DATE 7.23.07
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TITLE: MWS LINEAR - CURB TYPE			
SIZE A	DWG. NO. MWS-L-C	REV	
SCALE 1:50	UNITS = INCHES	SHEET 1 OF 1	

MODULAR WETLAND SYSTEMS - LINEAR VAULT TYPE



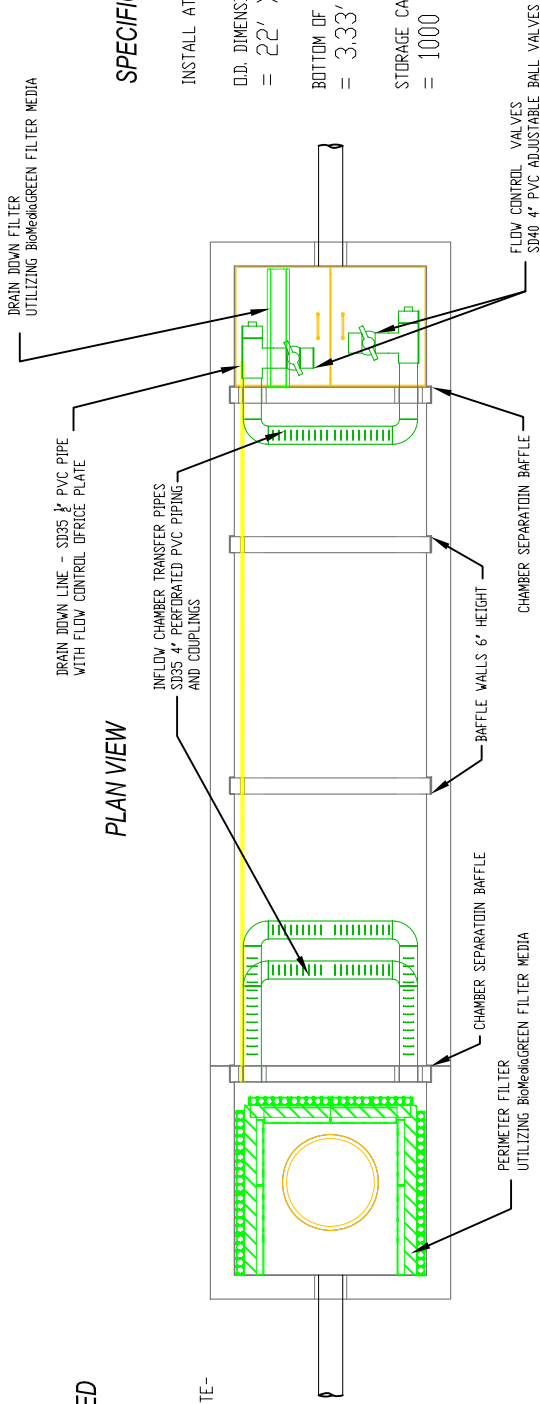
* VOLUME BASED DESIGN

VOLUME RATE - VOLUME BASED

PRIMARY PEAK TREATMENT VOLUME = 4000 CF
 (MAX TREATMENT VOLUME WITH 48 HOUR DRAIN DOWN TIME, 10 GPM DISCHARGE RATE- DETERMINED BY TREATMENT AREA)
 INSTALL OFFLINE/BYPASS HIGHER FLOWS EXTERNALLY

DRAIN DOWN FILTER UTILIZING BIOLOGREEN FILTER MEDIA

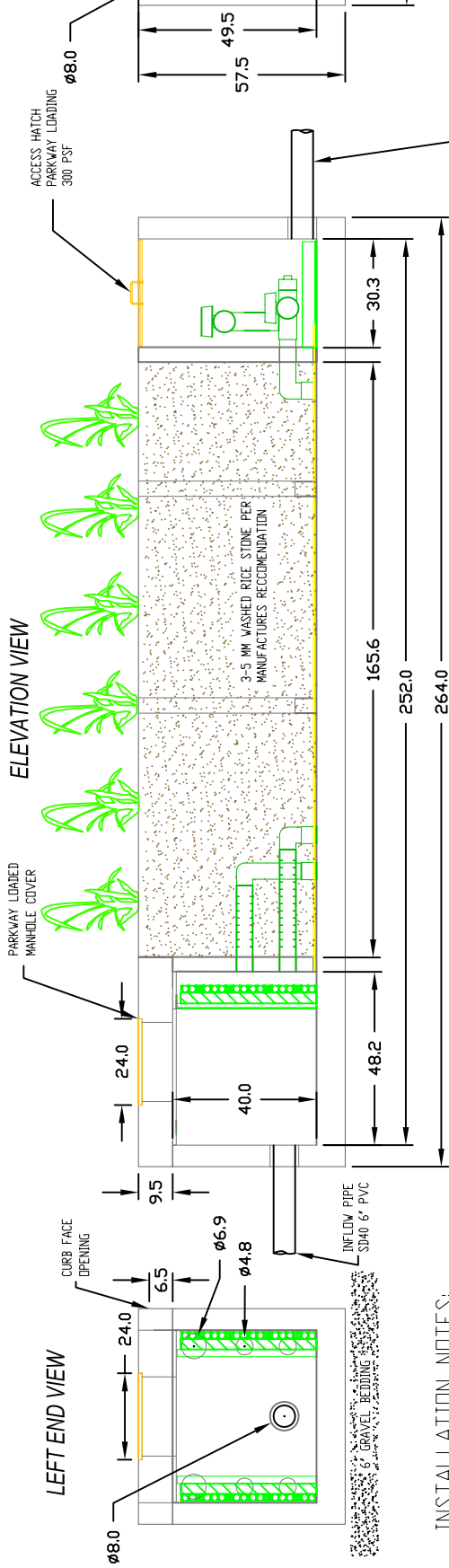
PLAN VIEW



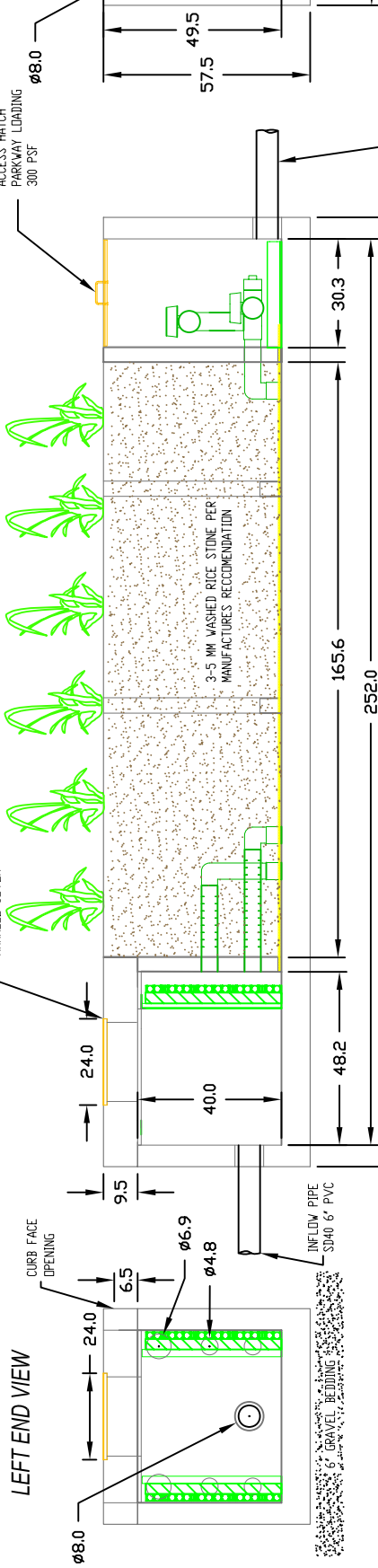
SPECIFICATIONS

INSTALL AT SURFACE
 O.D. DIMENSIONS = 22' X 5' X 4.8'
 BOTTOM OF CURB OPENING TO INVERT OUT = 3.33'
 STORAGE CAPACITY = 1000 LBS OR 23.5 CF

ELEVATION VIEW



LEFT END VIEW



INSTALLATION NOTES:

1. INSTALL UNIT ON LEVEL BED OF GRAVEL OF AT LEAST 6" IN DEPTH. PATENT PENDING
2. CONCRETE 28 DAY COMPRESSIVE STRENGTH $f_c=5,000$ PSI.
3. REINFORCING ASTM A-615, GRADE 60.
4. RATED FOR PARKWAY LOADING 300 PSF.
5. ALL WALLS ARE 6" THICK, BAFFLES ARE 4" THICK BOTTOM 8" THICK, TOP 10" THICK.
6. JOINT SEALANT: BUTYL RUBBER SS-S-00210

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TITLE: MWS LINEAR -

CURB TYPE

SIZE DWG. NO. REV

A MWS-L-C

SCALE 1:50 UNITS = INCHES SHEET 1 OF 1

MODULAR WETLAND SYSTEMS - LINEAR UG VAULT TYPE



*VOLUME BASED DESIGN

VOLUME RATE - VOLUME BASED

PRIMARY PEAK TREATMENT VOLUME
= 4000 CF

(MAX TREATMENT VOLUME with 48 HOUR
DRAIN DOWN TIME, 10 GPM DISCHARGE RATE -
DETERMINED BY TREATMENT AREA)

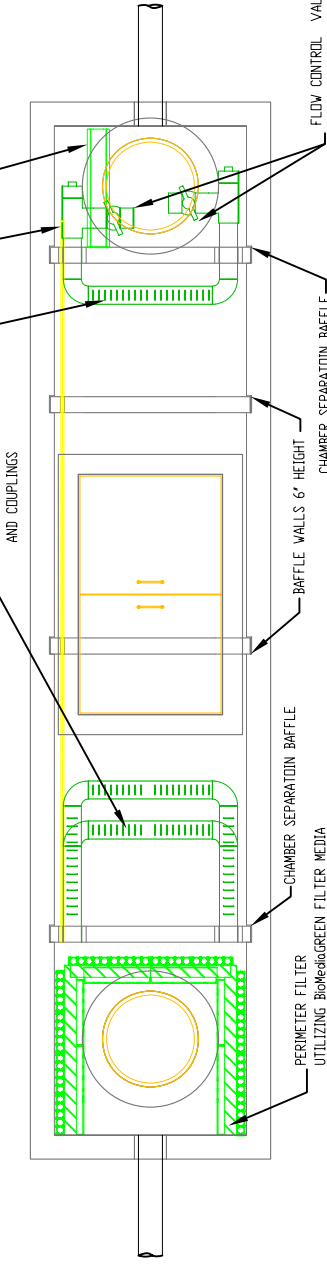
INSTALL OFFLINE/BYPASS HIGHER FLOWS
EXTERNALLY

DRAIN DOWN FILTER
UTILIZING BioMediaGREEN FILTER MEDIA

DRAIN DOWN LINE - SDS5 1/2" PVC PIPE
WITH FLOW CONTROL OFFICE PLATE

PLAN VIEW

INCLUDE CHAMBER TRANSFER PIPES
SDS5 1/2" PERFORATED PVC PIPING
AND COUPLINGS



PERIMETER FILTER
UTILIZING BioMediaGREEN FILTER MEDIA

CHAMBER SEPARATION BAFFLE

CHAMBER WALLS 6" HEIGHT

CHAMBER SEPARATION BAFFLE

FLOW CONTROL VALVES
SD40 4" PVC ADJUSTABLE BALL VALVES

MANHOLE COVER
SUPPORTS H2O
LOADING

ACCESS HATCH
SUPPORTS H2O
LOADING

3-5 MM WASHED RICE STONE PER
MANUFACTURES RECOMMENDATION

DISCHARGE PIPE
SD40 6" PVC

6" GRAVEL BEDDING

VARIES

9.5

36.0

22.0

ø4.8

INCLUDE PIPE
SD40 6" PVC

ø8.0

8.0

34.0

24.0

70.0

60.0

34.0

24.0

48.2

165.6

252.0

264.0

30.3

67.0

49.5

ø8.0

ø11.0

48.0

60.0

RIGHT END VIEW

LEFT END VIEW

ELEVATION VIEW

SPECIFICATIONS

INSTALL AT SURFACE

O.D. DIMENSIONS
= 22' X 5' X 4.8'

TOP OF GRATE TO INVERT OUT
= 4.92' (MINIMUM)

STORAGE CAPACITY
= 1000 LBS OR 23.5 CF

INSTALLATION NOTES:

1. INSTALL UNIT ON LEVEL BED OF GRAVEL OF AT LEAST 6" IN DEPTH. PATENT PENDING
2. CONCRETE 28 DAY COMPRESSIVE STRENGTH $f_c=5,000$ PSI.
3. REINFORCING ASTM A-615, GRADE 60.
4. SUPPORTS AN H2O LOADING AS INDICATED BY AASHTO.
5. ALL WALLS ARE 6" THICK, BAFFLES ARE 4" THICK
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NAME	DATE
P. Ashoff	7.23.07
DRAWN	
EDITED	
COMMENTS:	

TITLE: MWS LINEAR - VAULT TYPE		REV
SIZE	DWG. NO.	
A	MWS-L-V	
SCALE	UNITS = INCHES	SHEET 1 OF 1
1:50		

