FILTRATION RAIN GARDEN NOTES
DESIGN NOTES:

1. PLANT PER COBG ST–13.13. NATIVE PLANTS ARE PREFERRED, BECAUSE NON–NATIVE AND INVASIVE SPECIES CAN MOVE DOWNSTREAM DAMAGING HABITAT AND CHANGING HYDROLOGY. IF NON–NATIVES ARE CHOSEN, BE SURE THAT THEY WILL NOT DAMAGE DOWNSTREAM HABITAT.
2. IMPERMEABLE LINER MAY BE 30 MIL PE OR PVC POND LINER OR BENTONITE CLAY MAT.

CONSTRUCTION NOTES:

3. BUILD AND VEGETATE RAIN GARDEN AS EARLY AS POSSIBLE TO ESTABLISH PLANTINGS BEFORE DIRECTING STORMWATER RUNOFF TO IT OR DIVERT STORMWATER AROUND FACILITY. PREFERABLY, THIS PERIOD WOULD LAST A MINIMUM OF 3 MONTHS.
4. INFILTRATION AREAS (THE AREA OF THE RAIN GARDEN AS DEFINED BY THE TOP ELEVATION OF THE FACILITY) SHALL BE FENCED OFF FROM INITIAL EXCAVATION UNTIL PROJECT COMPLETION TO PREVENT COMPACTION OF THE SUBGRADE, DIRT TRACKING ONTO ANY LAYER OF THE FACILITY AND STOCKPILING OF CONSTRUCTION MATERIALS THAT MAY CLOG THE SURFACE.
5. DURING EXCAVATION OF NATIVE SOILS TO THE BOTTOM OF THE FACILITY, RAINFALL MAY CAUSE FINES TO CLOG THE SURFACE OF THE FACILITY. IF THE NATIVE SOIL HAS BEEN EXPOSED TO RAINFALL, HAND RAKE THE SURFACE TO A DEPTH OF 3" TO RESTORE INFILTRATION CAPACITY.
6. NOTIFY INSPECTOR 24 HOURS IN ADVANCE OF CONSTRUCTING THIS FACILITY.
7. DURING AREA DRAIN INSTALLATION, DISTURB NATIVE SOILS AS LITTLE AS POSSIBLE.
8. DO NOT PUNCTURE LINER ANYWHERE EXCEPT AT THE TOP AS SHOWN. IF AN ALTERNATE LINER CONFIGURATION IS USED, ENSURE THAT DURING EVERY STORM FOR EVERY DEPTH OF WATER THAT MAY BE RETAINED, THE LINER PROTECTS STRUCTURES FROM WATER DAMAGE.

AMENDED PLANTING SOIL MIX SPECIFICATIONS

1. AMENDED PLANTING SOIL MIX SHALL HAVE THE FOLLOWING CHARACTERISTICS:
   a. 60% LOAMY SAND AND 40% COMPOST.
   b. ORGANIC CONTENT MATTER FROM 5–8% BY WEIGHT
   c. CATION EXCHANGE CAPACITY (CEC) GREATER THAN OR EQUAL TO 5 MILLIEQUIVALENTS/100 GRAMS OF DRY SOIL
   d. 2–5% MINERAL FINES CONTENT
   e.

US STANDARD SIEVE SIZE	PERCENT PASSING
3/8"	100
#4	95–100
#10	75–90
#40	25–40
#100	4–10
#200	2–5

   MINIMUM LONG–TERM HYDRAULIC CONDUCTIVITY OF 1 INCH/HOUR PER ASTM D2434 AT 85% COMPACTION PER ASTM D 1557.
   f. MAXIMUM IMMEDIATE HYDRAULIC CONDUCTIVITY OF 12 INCHES/HOUR.
2. AMENDED PLANTING SOIL MIX MAY BE CREATED BY TESTING ON–SITE NATIVE SOILS AND MIXING MATERIALS FROM OFF–SITE AS NEEDED TO MEET THE SPECIFICATIONS IN NOTE 1 ABOVE.
3. AMENDED PLANTING SOIL MIX SHOULD BE UNIFORMLY MIXED WITH A SOIL MIXER.
4. PLACEMENT OF AMENDED PLANTING SOIL MIX SHALL OCCUR PER THE FOLLOWING GUIDELINES:
   a. PLACE SOIL IN 12" LIFTS, KEEPING MACHINERY OUTSIDE OF INFILTRATION AREA.
   b. DO NOT PLACE SOILS IF SATURATED.
   c. COMPACT EACH LIFT WITH WATER OR BOOT PACKING UNTIL JUST SATURATED TO 85% COMPACTION. DO NOT COMPACT WITH HEAVY MACHINERY OR VIBRATORY COMPACTION.

N.T.S.

LINED FILTRATION RAIN GARDEN (2)

STANDARD DETAIL

THE CITY OF BATTLE GROUND

CITY OF BATTLE GROUND
APPROVED

Mark Henrey 06/11/2018

CITY ENGINEER DATE

REVISIONS:	DATE:	DRAWN:	DESIGNED:
1	01/23/17	KDU	KDU
2	02/09/17	CAS	KDU

ST–13.06