

1. A RAIN GARDEN IS A STORMWATER MANAGEMENT SYSTEM WITH A VEGETATED TEMPORARY POOL THAT STORES AND TREATS STORMWATER. IT MAY BE DRY IN BETWEEN STORMS.
2. CLEAR CRUSH DRAIN ROCK (IE. AASHTO NO. 57 STONE) TO BE USED WITHIN THE UNIT HOLLOW CORES AND BEHIND THE RETAINING WALL UP TO 1' (0.3M) ABOVE HIGH WATER LEVEL TO ENSURE PROPER DRAINAGE.
3. CLEAR CRUSH DRAIN ROCK TO BE WRAPPED IN FILTER SEPARATION FABRIC TO AVOID INTRUSION OF SOIL INTO THE STONE VOID MATRIX.
4. PERFORATED DRAIN PIPES MAY BE ADDED AS REQUIRED.
5. ADDITIONAL SCOUR ANALYSES AND RIP-RAP SIZING CALCULATIONS SHOULD BE COMPLETED SEPARATELY. THESE CALCULATIONS WILL DETERMINE EMBEDMENT DEPTH BELOW THE SCOUR RANGE.
6. RETAINING WALL MAY BE TERRACED WITH PLANTING SOIL POCKETS WITHIN THE EXPOSED HOLLOW CORES TO INCORPORATE PLANTS TO COMPLEMENT THE RAIN GARDEN. SEE OTHER DETAILS FOR PLANTABLE WALLS.
7. SEE OTHER DETAILS FOR GEOGRID REINFORCED MSE RETAINING WALL OPTION FOR THE RAIN GARDEN (BIORETENTION) SCENARIO.



PLANTING SOIL AND PLANT IN HOLLOW
CORE OF BLOCKS WHERE CORE IS EXPOSED

NON-WOVEN GEOTEXTILE FABRIC

MAGNUMSTONE® STANDARD BLOCK WITH
SECURELUG CONNECTION; ATTACHED WITH
EXTENDER UNIT PER ENGINEER'S DESIGN

APPROXIMATE HIGH WATER MARK.

PERFORATED DRAIN PIPE (REF.
DWG DETAIL **102 /1100 MS_GEN**)

RIP-RAP PROTECTION.

OVERFLOW INLET.

RAIN GARDEN PLANTINGS

COMPACTED IMPERVIOUS MATERIAL AT
TOE OF WALL

MULCH LAYER.

WELL DRAINED PLANTING SOIL

GEOTEXTILE FABRIC

STONE LAYER

UNDERDRAIN PIPE

SAND LAYER

COMPACTED GRAVEL LEVELING PAD

FOUNDATION SOIL

GRAVITY-BIORETENTION POND DETAILS

GENERAL NOTES:

These drawings are intended solely to act as an aid when designing a wall. This drawing should not be used for final design or construction.

Each site-specific wall should be certified and signed by a registered geotechnical engineer in the State or Province that it is being built.

The accuracy and use of the details in this document are the sole responsibility of the user.

01	ADDENDUM INFORMATION	08-10-2023
00	INTERNAL APPROVAL	07-01-2023
Rev	DESCRIPTION	DATE

REMARKS:

PURPOSE OF ISSUE:

- ☐ INFORMATION
- ☐ REVIEW / APPROVAL
- ☐ PRODUCTION

SHEET CONTENT

**MAGNUMSTONE
GRAVITY WALL
STORMWATER APPLICATIONS**

BIORETENTION POND CROSS SECTION DETAILS

SHEET REFERENCE

101

1114-MS-STM

DRAWING INFORMATION

SCALE : AS INDICATED
PAPER SIZE: 17" WD X 11" HT
PREPARED BY: RM



MagnumStone®
RETAINING WALLS

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MAGNUMSTONE® TOP BLOCK WITH PLANTING SOIL INFILL; WALL SET BACK 18" [450mm] FROM THE LOWER COURSE

PLANTING SOIL AND PLANT IN HOLLOW CORE OF BLOCKS WHERE CORE IS EXPOSED

NON-WOVEN GEOTEXTILE FABRIC

MAGNUMSTONE® STANDARD BLOCK WITH SECURELUG CONNECTION; WITH GEOGRID REINFORCEMENT PER ENGINEER'S DESIGN

APPROXIMATE HIGH WATER MARK

PERFORATED DRAIN PIPE (REF. DWG DETAIL 102 /1100 MS_GEN)

RIP-RAP PROTECTION

OVERFLOW INLET

RAIN GARDEN PLANTINGS

COMPACTED IMPERVIOUS MATERIAL AT TOE OF WALL

MULCH LAYER

WELL DRAINED PLANTING SOIL

GEOTEXTILE FABRIC

STONE LAYER

UNDERDRAIN PIPE

SAND LAYER

COMPACTED GRAVEL LEVELING PAD

2.4°

1" [25mm] SETBACK

APPROVED COMPACTED BACKFILL

CLEAR CRUSHED DRAIN GRAVEL

FOUNDATION SOIL

PLANTING SOIL

RETAINED SOIL

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02

GEOGRID-BIORETENTION POND DETAILS

SCALE 1 : 20