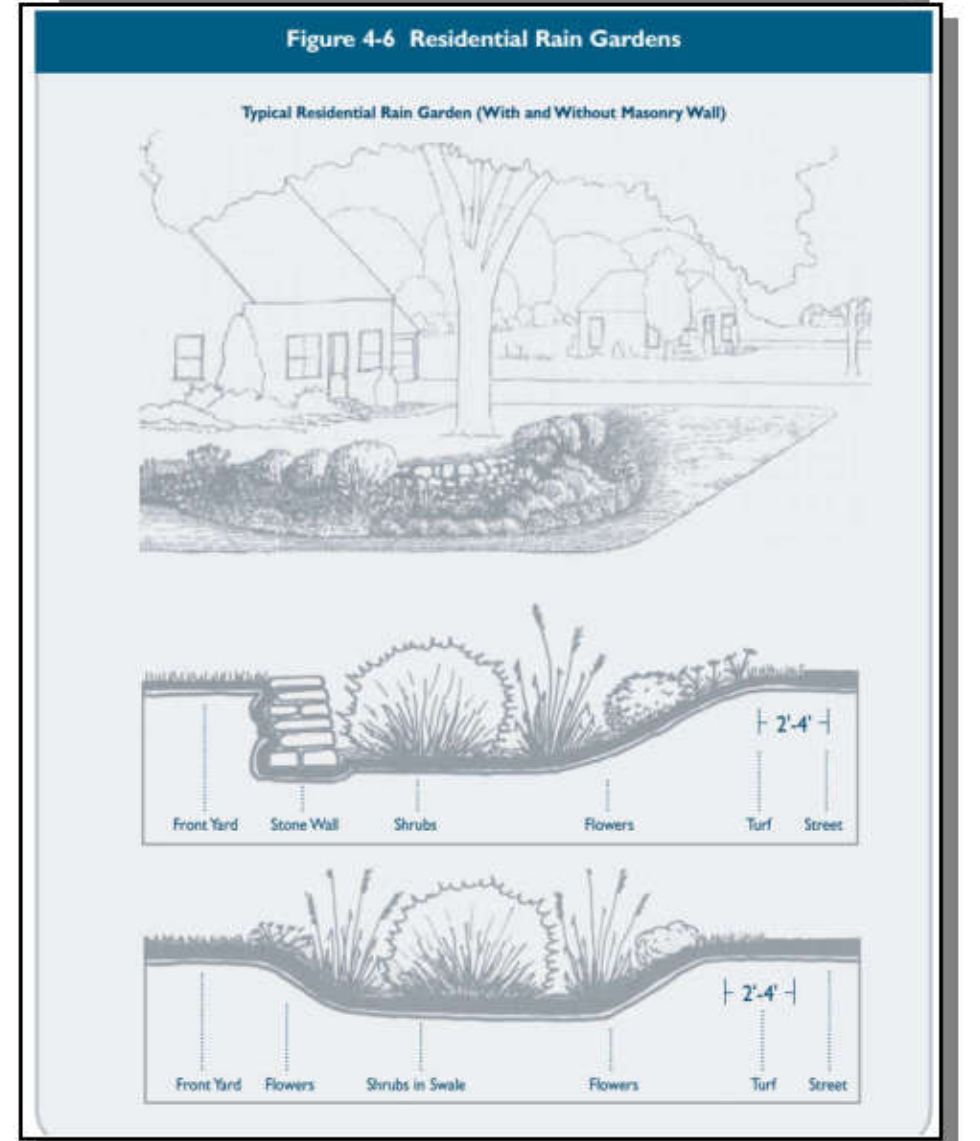
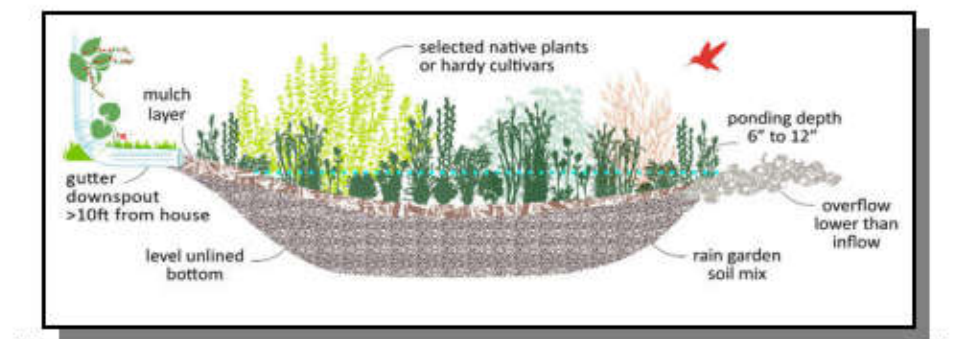


Water Quality Volume rainfall event 1" WQV rainfall  
 where:  
 $P$  = design precipitation, inches (1" for water quality storm)  
 $A$  = drainage area (acres) roof area 2,400 sf >> 0.055 ac  
 $V$  = runoff volume CF  
 $V = (1" / 12") \times 2,400 \text{ sf} = 200 \text{ CF}$   
 Rain Garden size 10-foot wide X 20-foot long x 1-foot deep = 200CF



- APPLICATION NOTES:
- THE PRIMARY PURPOSE OF A CHECK DAM IS TO REDUCE EROSION IN A CHANNEL BY REDUCING FLOW VELOCITY IN THE CHANNEL.
  - CHECK DAMS WILL CAPTURE SEDIMENT THAT FALLS OUT OF SUSPENSION BEHIND THE UPSTREAM SIDE OF THE CHECK DAM DUE TO DECREASED VELOCITY.
  - CHECK DAMS ARE NOT INTENDED TO, AND WILL NOT FILTER SEDIMENT FROM TURBID WATER.
  - SLOPES EXCEEDING 10% SHALL INCLUDE A CHANNEL PROTECTIVE LINING.
  - PERMANENT STONE CHECK DAMS LOCATED WITHIN THE ESTABLISHED ROADWAY CLEAR ZONE SHALL BE IN CONFORMANCE WITH CTDOT ROADSIDE DESIGN GUIDANCE.

- GENERAL NOTES:
- MAXIMUM DRAINAGE AREA CONTRIBUTING TO TEMPORARY STONE CHECK DAM SHALL BE 2 ACRES. MAXIMUM DRAINAGE AREA CONTRIBUTING TO PERMANENT STONE CHECK DAM SHALL BE 1 ACRE.
  - MEASURES SHALL BE INSPECTED EVERY (7) CALENDAR DAYS OR AFTER EACH RAINFALL OF 1/2" OR MORE WITHIN A 24 HOUR PERIOD. MEASURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
  - SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
  - COARSE AGGREGATE FACING MATERIAL FOR THE STONE CHECK DAM SHALL MEET THE GRADATION REQUIREMENTS OF SIZE DESIGNATION #1 OR #2 OF TABLE 703-4. STONE FILLING CORE MATERIAL FOR THE STONE CHECK DAM SHALL MEET THE GRADATION REQUIREMENTS OF LIGHT STONE FILLING.

DITCH SLOPE	STONE CHECK DAM PLACEMENT INTERVAL	
	TEMPORARY CHECK DAM PLACEMENT INTERVAL (BASED ON 2' HEIGHT)	PERMANENT CHECK DAM PLACEMENT INTERVAL (BASED ON 1' HEIGHT)
1 %	200'	100'
2 %	100'	50'
3 %	67'	33'
4 %	50'	25'
5 %	40'	20'
6 %	33'	17'
8 %	25'	-
10 %	20'	-

•  $I = H / S$   
 WHERE:  
 $I$  = CHECK DAM SPACING INT  
 $H$  = CHECK DAM HEIGHT  
 $S$  = CHANNEL SLOPE

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Project  
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PROPOSED BUILDING  
 SCALE: 1" = 100' & as noted  
 DATE: 10 OCT 2021  
 JOB NUMBER SHEET  
 1 of 1

DESCRIPTION: Building Lot Development and Grading Rain Garden Location and Drainage