

*Appendix H*  
*Green Block Cost Calculation*

**Typical Residential Block with Green Infrastructure to Capture 0.5-inch of Runoff**

**Option 1**

**Pervious Concrete in Parking Lanes**

Block length (Ft)	Road removed	Right-of-Way Width (Ft)	Road Width (Ft)	Drainage Area (Ac)	Storage Volume Needed, Ac-Ft	Storage Volume Needed, CF	Option 1			Option 1					
							Control type for 1/2" runoff	Volume Aggregate Req'd, CF	Aggregate Depth req'd for parking lanes (6-ft each side), Ft	Open Graded Aggregate Unit Cost (per SF)	Excavation Unit Cost (per SF)	10-inch Pervious Concrete unit cost (per SF)	6-inch underdrain unit cost (per LF)	Green component total cost	Green component adjusted cost
350	Full width	60	24	0.48	0.02	875	Perv. Conc., 6' on each side of street	2188	0.52	\$ 0.49	\$ 0.62	\$ 8.00	\$ 6.50	\$ 42,817	\$ 15,517

Use a min. of 8 inches of aggregate depth. **The Green Component Adjusted Cost is the additional cost per block for "Green" as part of a road reconstruction project.**

**Option 2**

**Bioretention Curb Extensions (nodes)**

Block length (Ft)	Road removed	Right-of-Way Width (Ft)	Road Width (Ft)	Drainage Area (Ac)	Storage Volume Needed, Ac-Ft	Storage Volume Needed, CF	Option 2			Option 2								
							Control type for 1/2" runoff	Area of Bioretention Req'd, SF	Open Graded Aggregate Unit Cost (per SF)	Excavation Unit Cost (per SF)	Engineered Soil Unit Cost (per SF)	Vegetation Unit Cost (per SF)	Mulch Unit Cost (per SF)	Curb and Gutter Unit Cost (per LF)	6-inch underdrain unit cost (per LF)	Overflow Catch Basin and Pipe Unit Cost (per EA)	Green component total cost	Green component adjusted cost
350	Full width	60	24	0.48	0.02	875	Bioretention Curb Extensions	438	\$ 2.22	\$ 0.83	\$ 2.22	\$ 5.00	\$ 0.42	\$ 12.00	\$ 6.50	\$ 2,500	\$ 11,538	\$ 7,886

**The Green Component Adjusted Cost is the additional cost per block for "Green" as part of a road reconstruction project.**

Notes:

Assume 0.5-inch of runoff.

The green component adjusted cost for pervious concrete is the green infrastructure practice cost less what would have typically been spent on traditional concrete pavement (~\$5/SF), 8-inch aggregate base (\$8.50/SY), and 18 inches of excavation (\$10/CY).

Cross-section design for bioretention: 6 inches of ponding, 1.5 feet of engineered soil (20% void), 3 feet of aggregate (40% void). 1 SF of bioretention = 2 CF of storage

Assume the bioretention practice is 5 feet wide from existing curb toward center of road.

The area of bioretention (438 SF) is equivalent to a curb extension approximately 5 feet wide by 44 feet long per side of the street. This could be designed as one unit or multiple smaller units at the corners and mid-block.

The green component adjusted cost for bioretention is the green infrastructure practice cost less what would have typically been spent on traditional concrete pavement (~\$5/SF), 8-inch aggregate base (\$8.50/SY), 18 inches of excavation (\$10/CY) and concrete curb and gutter (\$12/LF).

Aggregate void space is assumed to be 40% of total aggregate volume.