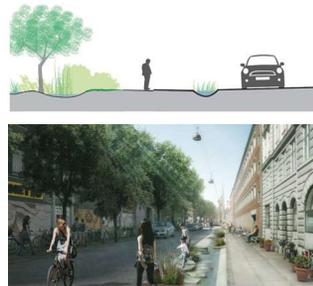


Stormwater Infrastructure Toolbox

Green infrastructure and low impact development are considered climate resilience best management practices. They use surface features including native vegetation, soils, and other natural processes to reduce flooding and improve water quality. These systems collect and store runoff, aiding in infiltration and treatment of the stormwater. Green infrastructure opportunities considered in the evaluation of the Strawberry Brook Watershed are summarized below.

Bioswales / Sunken Planters

Bioswales or sunken planters capture and hold stormwater runoff and allow it to slowly infiltrate through soil media, thus reducing flooding. Roots uptake water as well as nutrients in the runoff. These systems provide water quality benefits by removing pollutants. They can be installed along sidewalks, in medians, and parking lot edges to directly treat runoff from surrounding impervious surfaces. These components can retain stormwater for future use or detain it before it flows back into the drainage system after the storm event.



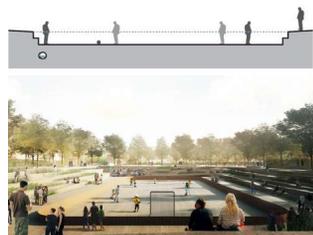
Floodable Parks

Floodable parks and recreation spaces represent the greatest opportunity for large retention spaces within urban areas. They can be located throughout the watershed and receive stormwater via conveyance systems or adjacent water bodies. They can provide a combination of hydrological services including water quality improvements via retention, detention, and infiltration.



Wet Plazas

Wet plazas or floodable public spaces are another great opportunity for large retention capacity within denser urban environments. Typically hardscapes with some potential vegetation, these spaces collect, detain and retain stormwater to reduce flooding. Additionally, they can incorporate drainage connections to allow the plaza, courtyard, and other spaces to return to normal use quickly.



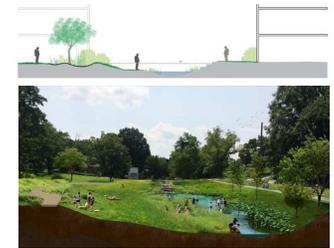
Pond Restoration

Pond restoration and targeted dredging can help build capacity for stormwater through retention and detention. Restoration can occur through edge transformations, dredging, or outlet structure design. Additionally, redesign of pond or waterfront parks to allow for seasonal and stormwater flooding can reduce downstream flooding in unwanted areas.



Stream Daylighting

Daylighting pipes can involve reopening historic streams, formalizing existing streams, or creating new streams as conveyance connections between other cloudburst elements. Typically smaller in scale, urban creeks can re-establish or create new neighborhood character, increase biodiversity, and social spaces.



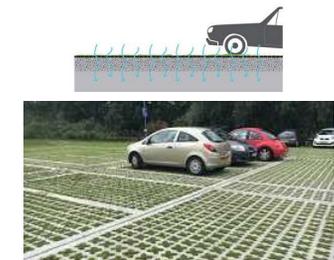
Street Tree Planters

Tree planters can be installed on their own, or in conjunction with bioswales. These systems have the potential to contribute significantly to stormwater management, with large capacity to transpire water, intercept rainfall, and treat water quality. They also aid in reducing the urban heat island effect and add character and value to the neighborhood.



Permeable Pavement

Roadways and sidewalks are big contributors to stormwater runoff. Replacing impervious surfaces with permeable pavement allows for reduced runoff and slower infiltration back into the ground or stormwater system. Permeable pavement can be used where stable, hard surfaces are needed along streets, sidewalks and in parking areas and can be used in conjunction with underground storage.



Underground Storage

Designed to store large volumes of stormwater underground, storage chambers can be used for reuse, retention, detention, or controlling the flow of on-site stormwater runoff. They can be implemented with various depths and forms, i.e. chambers, vaults.

