

# PERFORMANCE PARKING: Reimagining Lot 11B

## CAPTURE-DETAIN-INFILTRATE-TREAT



## PERFORMANCE

### HYDROLOGY



Catchment zones  
Surface drainage  
Subsurface drainage  
Outlet pipes

**100% Treatment of 1 year storm**

### IMPERVIOUS SURFACE



Impervious areas removed and replaced with infiltration zones and bioretention

**41% Reduction of impervious surface**

### CIRCULATION



Red double arrow: Pedestrian circulation  
Blue double arrow: Vehicular circulation

**8,640 ft<sup>2</sup> Dedicated pedestrian space**

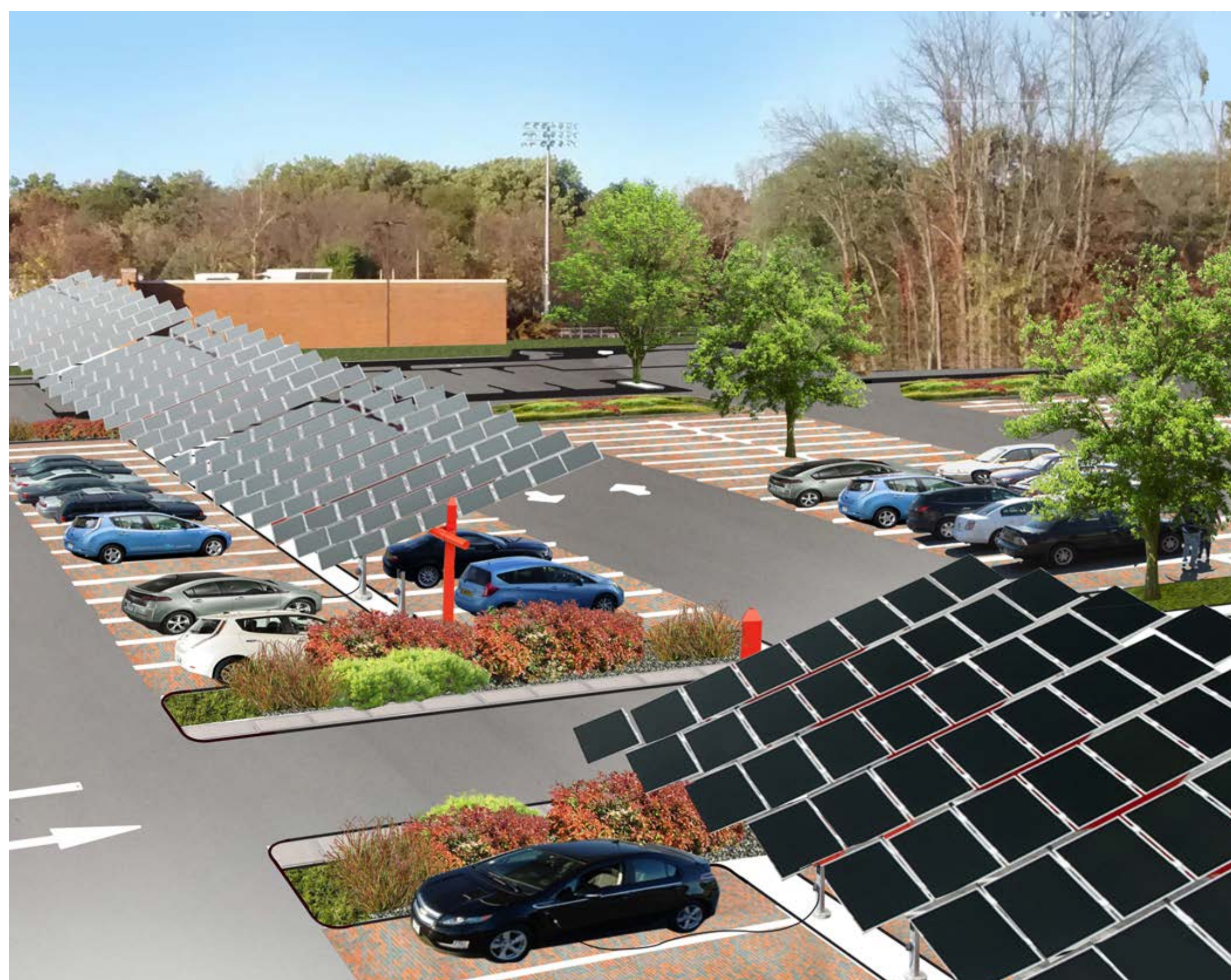
### VEGETATED COVER



Green circle: New trees  
Green square: New ground vegetation

**56 New Trees and 17,640 sq<sup>2</sup> new ground vegetation**

## PHOTOVOLTAIC



**12.3 MT Reduction carbon dioxide per year**

**17,150 kW power production per year**

**4 electric vehicle charging stations powered per year**

**56 shaded parking spaces**

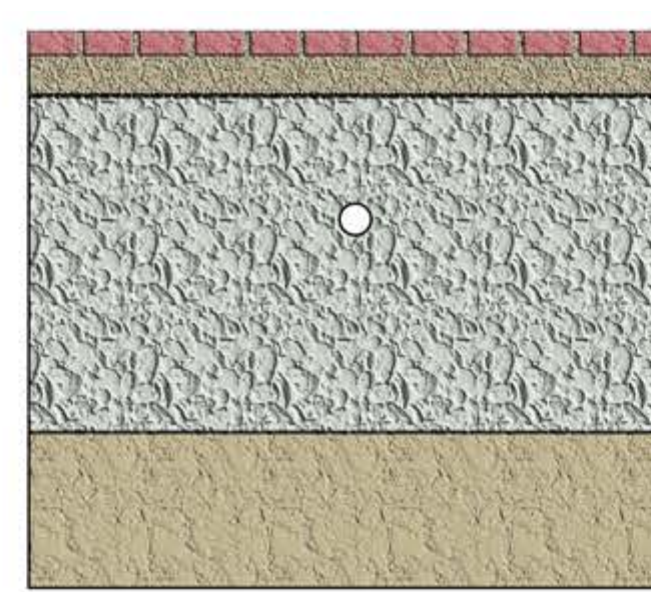
## TREATMENT TRAIN

### 1 TREES



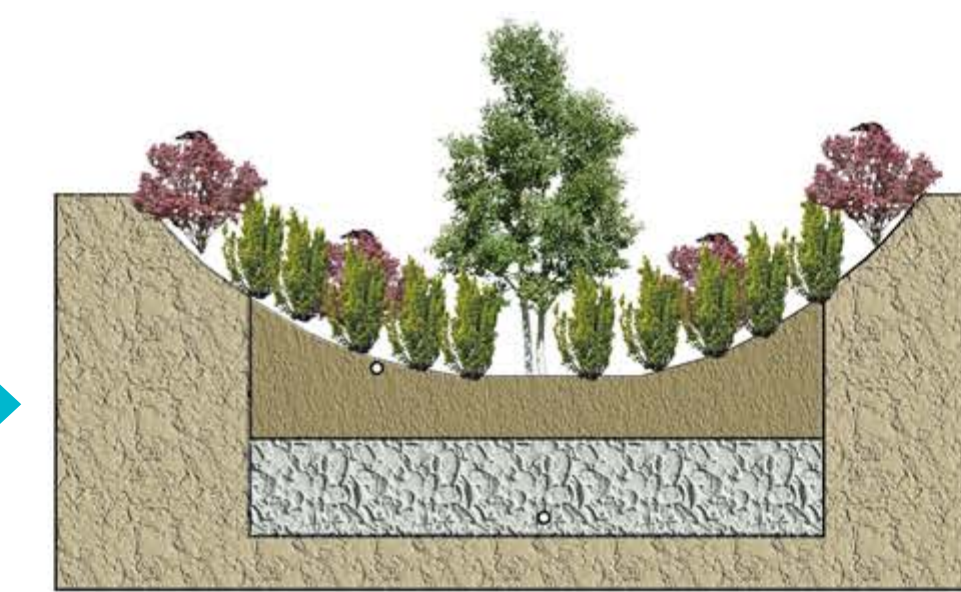
Trees intercept and slow down rain water.

### 2 PERMEABLE PAVERS



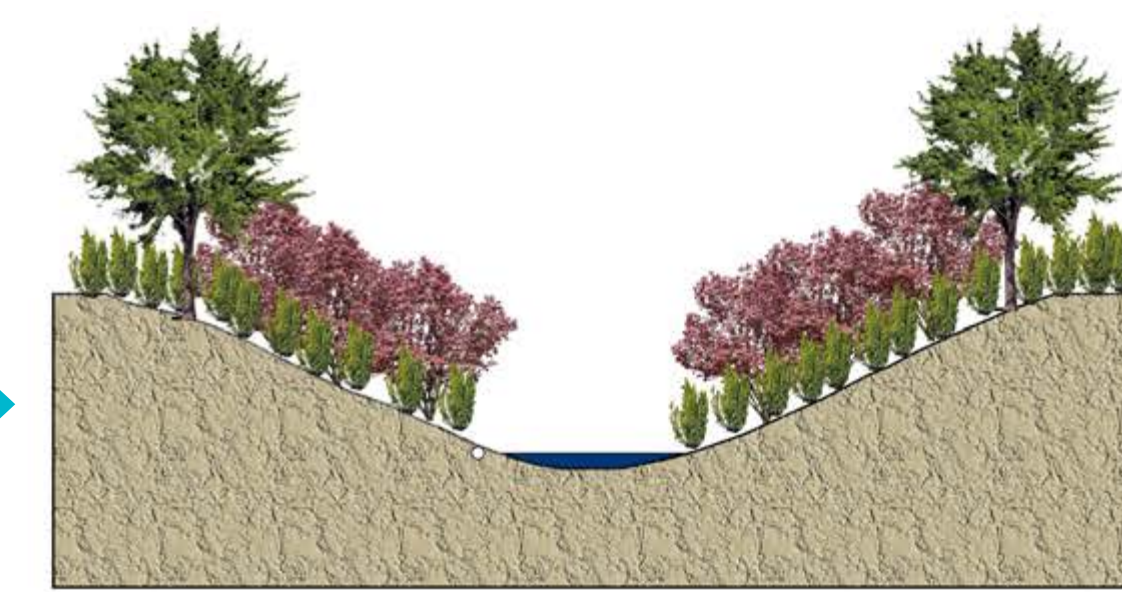
Permeable pavers treat and infiltrate rain water that is not intercepted by trees.

### 3 BIORETENTION CELLS



Bioretention cells treat and infiltrate rain water that is not infiltrated by permeable pavers

### 4 CAMPUS CREEK / WETLAND



Campus creek and the wetland receive rain water via underdrains only after it has been slowed and filtered by the trees, permeable pavers and bioretention cells.

## PHYTOREMEDIATION

### Hydrocarbons



SWITCHGRASS

### Lead



INDIGO BUSH

### Metals



WILLOW

### Metals



INKBERRY

### Nutrients



EASTERN COTTONWOOD

### Petroleum



RED TIPPED PHOTINIA

## RESILIENCY

### PLANTS

Selected plants are salt tolerant, provide phytoremediation for different pollutants, and are resistant to both drought and prolonged wet periods. These features make them resilient to the new extremes of climate change.

### STORMWATER

The permeable paving system has the capacity to detain the IPCC's A-2, 12-year extreme climate change scenario, providing 53% more storage volume than today's 1-year storm.