

**COMMISSION FILE NO:** 21-107-7 **DATE INTRODUCED:** July 12, 2021

**INTRODUCED BY:** Executive Director (Signature on File in the Office of the Commission)

**REFERRED BY COMMISSION CHAIRPERSON TO:** Operations Committee

**RELATING TO:** Approval of 2021 Green Solutions Program Projects G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82

**SUMMARY:**

The Commission is requested to authorize the Executive Director to approve eight projects, G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82, under the 2021 Green Solutions Program in a total amount not to exceed \$2,387,213. The 2021 Green Solutions Program funding was allocated in the approved 2021 Capital Budget.

The primary goal of the Green Solutions Program is to support the District's Wisconsin Pollutant Discharge Elimination System permit goal of providing green infrastructure (GI) retention capacity of 50 million gallons. Additionally, this program helps to form mutually beneficial partnerships to generate quantitative data on the effectiveness of GI in managing stormwater runoff in the District's service area and qualitative data on the implementation and feasibility of various GI practices. This program also supports the District's 2035 Vision and implementation of the Regional GI Plan.

**ATTACHMENTS:** **BACKGROUND** ☐ **KEY ISSUES** ☐ **RESOLUTION** ☒  
**FISCAL NOTE** ☒ **S/W/MBE** ☐ **OTHER** ☐ \_\_\_\_\_

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**COMMITTEE ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**COMMISSION ACTION:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

## SUMMARY (Cont'd)

Approval of 2021 Green Solutions Program Projects G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82

The following projects and partners are recommended for funding and are requested for Commission approval:

Project Name	Applicant	Amount \$	Project Number
2020 Green Alleys	City of Wauwatosa	\$222,000 (total project cost now \$578,178)	G98005P51 Change Order 1
Burleigh Stormwater Trees	City of Milwaukee	\$480,110 (total project cost now \$896,509)	G98005P53 Change Order 1
2021 Green Alleys	Village of Whitefish Bay	\$250,900	G98005P64
2021 Green Alleys	Village of Shorewood	\$203,992	G98005P66
2021 Green Alleys	City of Milwaukee	\$446,556	G98005P76
2021 Stormwater Trees	City of Greenfield	\$173,250	G98005P78
2021 Green Alleys	City of Wauwatosa	\$268,000	G98005P81
Brown Deer Library Parking Lot	Village of Brown Deer	\$342,405	G98005P82
	<b>Total</b>	<b>\$2,387,213</b>	

Additional projects are proposed under the Green Solutions Program, but those are within the Executive Director's authority to approve. The projects subject to Commission approval are summarized below.

### **2020 Green Alleys, submitted by City of Wauwatosa (G98005P51 Change Order 1)**

Wauwatosa will replace two typical city alleys with green alleys. The green alleys will have a 12-foot-wide strip of porous pavers down their center. Surface water flow will drain through the voids in the pavers to an aggregate storage area beneath. Depending on soil conditions, water will either infiltrate the native soils or be routed by an underdrain to the storm sewer system. Wauwatosa will install a total of 23,300 square feet of porous pavers.

Location: West Meinecke Avenue, West North Avenue, North 102nd Street, North Mayfair Road; West North Avenue, Jackson Park Boulevard, North 81st Street, North 83rd Street; West Washington Boulevard, West Vliet Street, North 60th Street, Washington Circle, Wauwatosa, WI

Gallons Captured: 52,425

GI Strategy: Porous Pavement

## **SUMMARY (Cont'd)**

Approval of 2021 Green Solutions Program Projects G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82

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### **West Burleigh Street Stormwater Trees, submitted by City of Milwaukee (G98005P53 Change Order 1)**

Milwaukee will excavate 21, eight-foot-wide by 75-foot-long, stormwater tree trenches in the median of West Burleigh Street, installing a six-inch crushed stone base and approximately two feet of drainable soil. The drainable soil will be placed in interlocking loadbearing structures. The system will be capped with a cover and topsoil will be placed on the final one-foot layer. The total amount of stormwater tree trenches to be constructed is approximately 14,025 square feet. Three trees will be planted in each stormwater tree trench. Milwaukee will install a distribution pipe to collect stormwater from the street and distribute it throughout the system.

Location: Median of North 60th Street between West Capitol Drive and West Burleigh Street and in the median of West Burleigh Street between West Appleton Avenue and West Lisbon Avenue, Milwaukee, WI

Gallons Captured: 67,500

GI Strategies: Stormwater Trees and Rainwater Catchment

### **2021 Green Alleys, submitted by Village of Whitefish Bay (G98005P64)**

Whitefish Bay will reconstruct the alleys in the 5200 and 5300 blocks between North Bay Ridge Avenue and North Lydell Avenue and the alley south of the 100 block of East Silver Spring Drive. Additionally, porous pavers will be installed in the existing parking lot behind Winkie's gift shop at the corner of East Silver Spring Drive and North Marlborough Drive. Four feet wide strips of porous pavers will be installed in the alleys. The parking lot will have a strip of porous pavers 11 feet wide and 140 feet long. The total pervious paver area will be 7,350 square feet. Stone-filled chambers below the pervious pavers will allow stormwater to infiltrate into the surrounding soil. Excess stormwater will drain to existing storm sewers.

Location: North Bay Ridge Avenue, North Lydell Avenue, West Birch Avenue, West Henry Clay Street; East Silver Spring Drive, North Kent Avenue, North Shoreland Avenue, East Birch Avenue, Whitefish Bay, WI

Gallons Captured: 239,940

GI Strategy: Porous Pavement

## **SUMMARY (Cont'd)**

Approval of 2021 Green Solutions Program Projects G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82

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### **2021 Green Alleys, submitted by Village of Shorewood (G98005P66)**

Shorewood will reconstruct the alleys bounded by East Congress Street on the south, North Ardmore Drive on the east, East Kensington Boulevard on the north, and North Marlborough Drive on the west. Shorewood will install 4,375 square feet of porous pavement. Stone-filled chambers below the pervious pavers will allow stormwater to infiltrate into the surrounding soil. Excess stormwater will drain to existing storm sewers.

Location: East Congress Street, North Ardmore Drive, East Kensington Boulevard, North Marlborough Drive, Shorewood, WI  
Gallons Captured: 17,411  
GI Strategy: Porous Pavement

### **2021 Green Alleys, submitted by City of Milwaukee (G98005P76)**

Milwaukee will remove and replace approximately 52,722 square feet of alley, of which approximately 20%, or 10,753 square feet, will be a porous paver area. As part of the project, the entire lengths of the alleys will be excavated and removed to install the porous pavers in the center four feet of each alley. An underlying four-inch strip of bedding layer placed over a two-foot-deep storage area of 2.5-inch clean, washed stone will be installed to capture and store stormwater runoff from the adjacent land use, such as garages and surface runoff. For each green alley, a four-foot-long, six-inch-diameter perforated underdrain will be installed at the top of the storage layer. The underdrains will be connected existing catch basins located at the end of each alley to convey treated stormwater to the storm sewer system. The existing catch basins will also be used as overflow structures.

Location: West Congress Street, West Marion Street, North 61st Street, North 62nd Street; South Honey Creek Drive, South Madeline Avenue, West Parnell Avenue, West Ramsey Avenue; West Keefe Avenue, West Townsend Street, North 45th Street, North 46th Street; West Metcalf Place, West Townsend Street, North 89th Street, North 90th Street; West McKinley Avenue, West Vliet Street, North 20th Street, North 21st Street, Milwaukee, WI  
Gallons Captured: 315,000  
GI Strategy: Porous Pavement

## **SUMMARY (Cont'd)**

Approval of 2021 Green Solutions Program Projects G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82

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### **2021 Stormwater Trees, submitted by City of Greenfield (G98005P78)**

Greenfield will plant approximately 600 stormwater trees at various locations throughout the City of Greenfield to reduce stormwater runoff. The types of trees planted may include European Alder, Autumn Brilliance Serviceberry, Autumn Gold Ginkgo, River Birch, Espresso Kentucky Coffee, Prairie Pride Hackberry, Skyline Honey Locust, and other appropriate species. The trees will be 1.5-2 inches in diameter, with a two-year warranty. Greenfield's contracted City Forester will make regular inspections of all planting sites and perform necessary tree maintenance. Staking beyond the contractor warranty will be performed by the City of Greenfield. The trees will be planted in the municipal right-of-way. Greenfield's geographic information system will identify the location of the trees and required tree maintenance.

Location: Throughout Greenfield, WI  
Gallons Captured: 15,000  
GI Strategy: Stormwater Trees

### **2021 Green Alleys, submitted by City of Wauwatosa (G98005P81)**

Wauwatosa will replace three typical city alleys with green alleys. The green alleys will have a 12-foot-wide strip of porous pavers down the center of the alley. Stormwater will drain through the voids in the pavers to an aggregate storage area beneath. Depending on soil conditions, water will either infiltrate the native soils or be routed by an underdrain to the storm sewer system. Two of the alleys lie on the City limits and portions of the them are within the City of Milwaukee. Wauwatosa will serve as the lead municipality in bidding and constructing the project and will enter into a cost share agreement with the City of Milwaukee to fund their portion. Wauwatosa will install a total of 23,300 square feet of porous pavers.

Location: West Derby Avenue, West Hampton Avenue, North 110<sup>th</sup> Street, North 111<sup>th</sup> Street; West Grantosa Drive, West Marion Street, North 99<sup>th</sup> Street, North 100<sup>th</sup> Street, Wauwatosa, WI  
Gallons Captured: 69,900  
GI Strategy: Porous Pavement

## **SUMMARY (Cont'd)**

Approval of 2021 Green Solutions Program Projects G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82

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### **Brown Deer Library Parking Lot, submitted by Village of Brown Deer (G98005P82)**

Brown Deer is reconstructing its public library parking lot. The parking lot reconstruction will include both porous asphalt and porous pavers. Stormwater will drain through the voids in the porous asphalt and pavers to an aggregate storage area beneath. Depending on soil conditions, water will either infiltrate the native soils or be routed by an underdrain to the storm sewer system. Brown Deer will install a total of 10,000 square feet of porous pavers and 45,000 square feet of porous asphalt.

Location: 4301 W Brown Deer Rd, Brown Deer, WI  
Gallons Captured: 165,000  
GI Strategy: Porous Pavement

## RESOLUTION

Approval of 2021 Green Solutions Program Projects G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82

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**RESOLVED**, by the Milwaukee Metropolitan Sewerage Commission, that the Executive Director is authorized to approve eight projects under the 2021 Green Solutions Program, G98005P51 Change Order 1, G98005P53 Change Order 1, G98005P64, G98005P66, G98005P76, G98005P78, G98005P81, and G98005P82, and that the Executive Director is directed to execute contracts and agreements for projects in a total amount not to exceed \$2,387,213.