

GREEN INFRASTRUCTURE

Green infrastructure is the network of open spaces, parks and other natural areas that supports native species, maintains ecological processes to sustain clean air and water and contributes to health and quality of life. Grand Rapids' green infrastructure includes environmental assets, green spaces and the links between them, such as wetlands, community gardens, streetscapes, sidewalks, and trails.

The Green Grand Rapids Master Plan Update provides the vision for the future of Grand Rapids and the use of Green Infrastructure across six areas: Natural Systems, Greening, Connections, the Grand River, Parks & Recreation, and Local Food. The ‘Connections’ theme explores how complete streets improvements, off-street trails, and transit can provide expanded areas for street trees, landscaping, and stormwater management best practices.

GREEN INFRASTRUCTURE AND VITAL STREETS

Vital streets are complete streets with green infrastructure. Per the Vital Streets Guide, low impact design will be the default design approach for street, sidewalk and right-of-way repair, improvement, and reconstruction projects. Low impact design shall be used unless clear engineering difficulties prevent its use in order to enable the City to achieve a minimum of Stormwater Management Level C investment by FY 2022 as depicted in the 2013 Stormwater Asset Management and Capital Improvement Plan.

Street designers must balance the needs of competing road users when designing within limited street right-of-way. They must carefully consider how best to incorporate green infrastructure elements. In many cases, green infrastructure elements can be incorporated into other street elements, such as medians or bulb-outs. In other situations, green infrastructure can be incorporated on its own. Balancing the needs of street users with the proper application of green infrastructure should be sought.

The objective of Grand Rapids’ green infrastructure is to:

- Reduce stormwater run-off that would normally flow directly into the City’s already overburdened storm sewer system.
- Improve water quality by filtering pollutants.
- Slow stormwater run-off velocity.
- Reduce local flooding and ponding.
- Provide a “traffic calming” element and pedestrian safety.
- Increase habitat for birds and butterflies.
- Increase native plantings and plant species diversity.

Text for these design elements was adapted from the Green Infrastructure Guidance Manual, prepared originally for the City of Grand Rapids by TetraTech and modified for Vital Streets. For more complete information on green infrastructure designs and considerations and use, refer to the Stormwater Management Oversight Commission.

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