



Southwest Bike Path/Waite Circle Culvert Reconstruction

**Public Information Meeting
by City of Madison Engineering Division
July 11, 2019**

Project Location

- Culvert under Southwest Bike Path at Waite Circle



Existing Conditions

- ▶ Original Stone Arch constructed in late 1800s
- ▶ Approximately 6-foot high and 6-foot wide
- ▶ Opening ~ 32 square feet

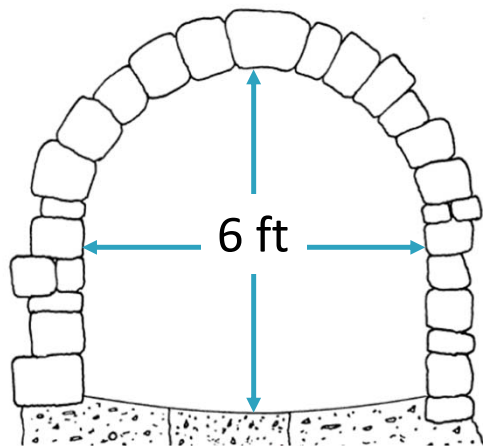


Photo courtesy of Adam Mednick

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Existing Conditions

- ▶ Stone Arch began to fail in 2017
- ▶ Was emergency slip-lined with 60" pipe
- ▶ Flow area ~19 square feet



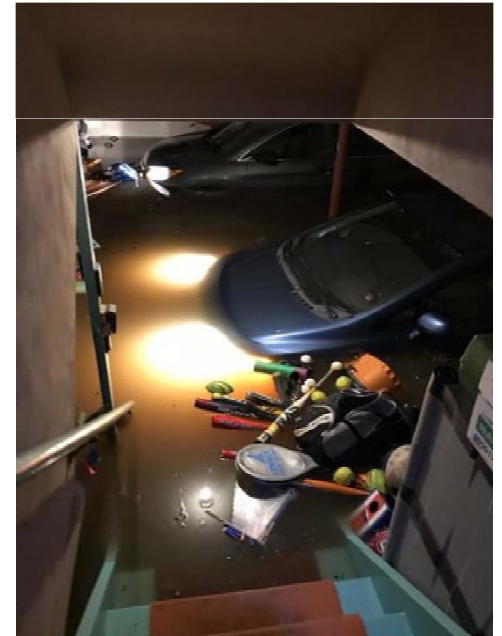
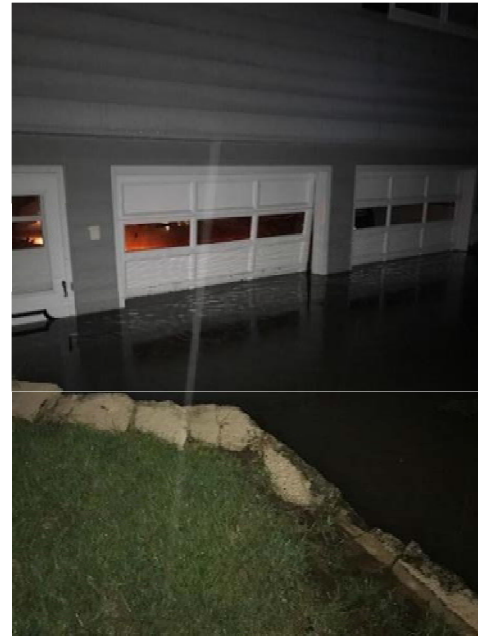
Photo courtesy of Brown and Caldwell

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Extreme Rain Events

- ▶ Extreme rain events occurred in June and August 2018
 - June ~ 50–100–yr storm event
 - August ~500–yr storm event
- ▶ Caused flooding and property damage



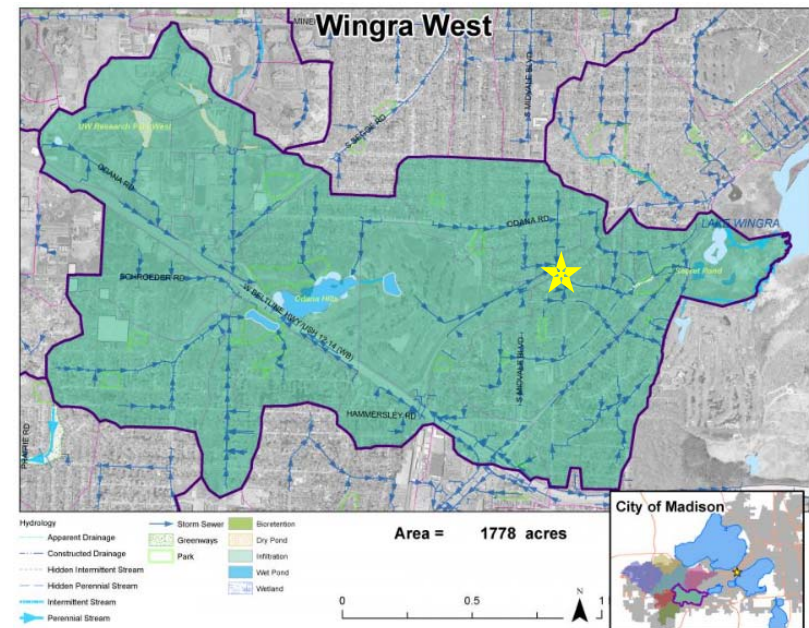
August 2018 flooding photos courtesy of Waite Circle residents

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Wingra West Watershed Study

- In parallel, a comprehensive watershed study is being conducted for the West Wingra Watershed
- Study will evaluate flood-reduction solutions for the overall watershed
- SW Bike Path Culvert is a key component of the watershed drainage system



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Proposed Design

- The proposed culvert will be an 6' x 10' box culvert
~58 square feet opening
- A restrictor plate will be placed over the front to create an opening equivalent to the area of the original arch
~32 square feet opening

This will restore the water conveyance to the Stone Arch condition and provide flexibility if the watershed study concludes a larger opening is needed.

Proposed Design

- ▶ Remove 60" pipe and arch



Proposed Design

- Install 6' x 10' box culvert



Proposed Design

- Install restrictor plate to reduce open area to original arch



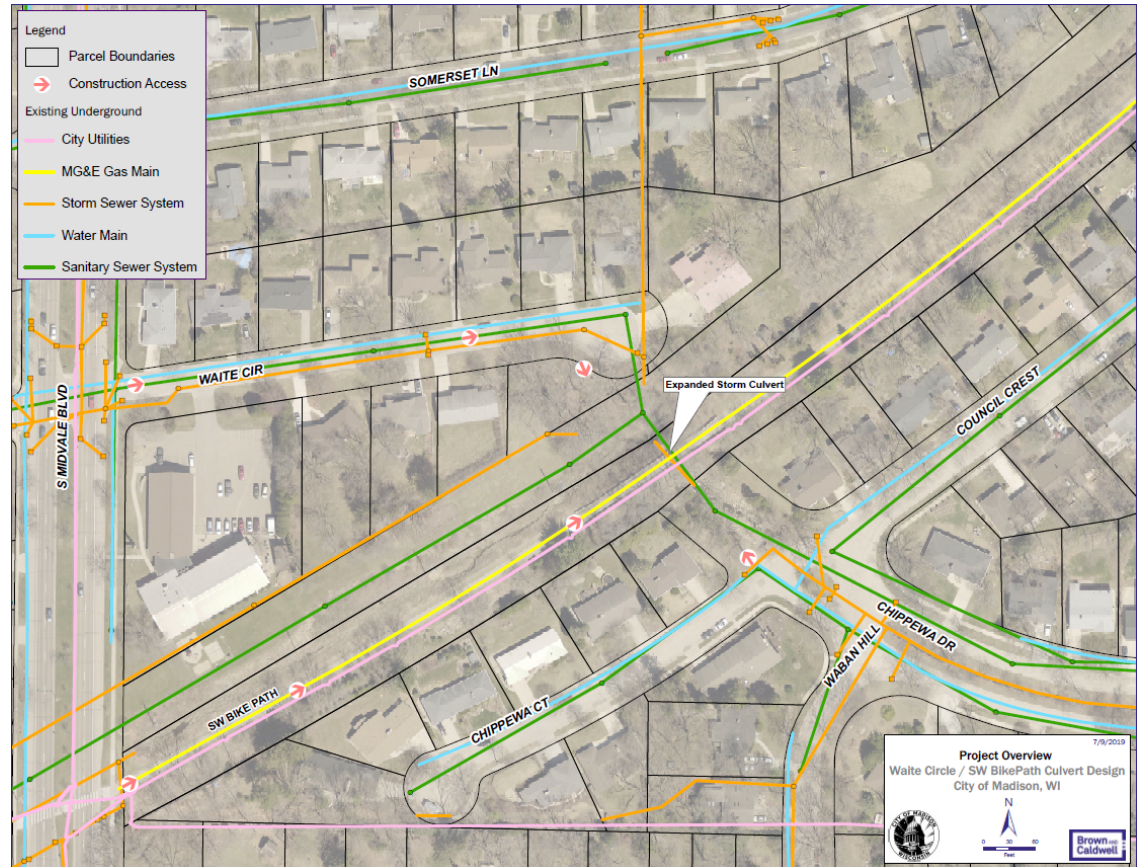
Proposed Design

- Determine ultimate opening size during watershed studies



Existing Conditions

- ▶ Steep Slopes
- ▶ Mature Trees
- ▶ Utilities
 - Fiber Optic
 - Overhead Lines
 - Gas Main (12")
 - Storm Sewer
 - Water Main
 - Sanitary Sewer



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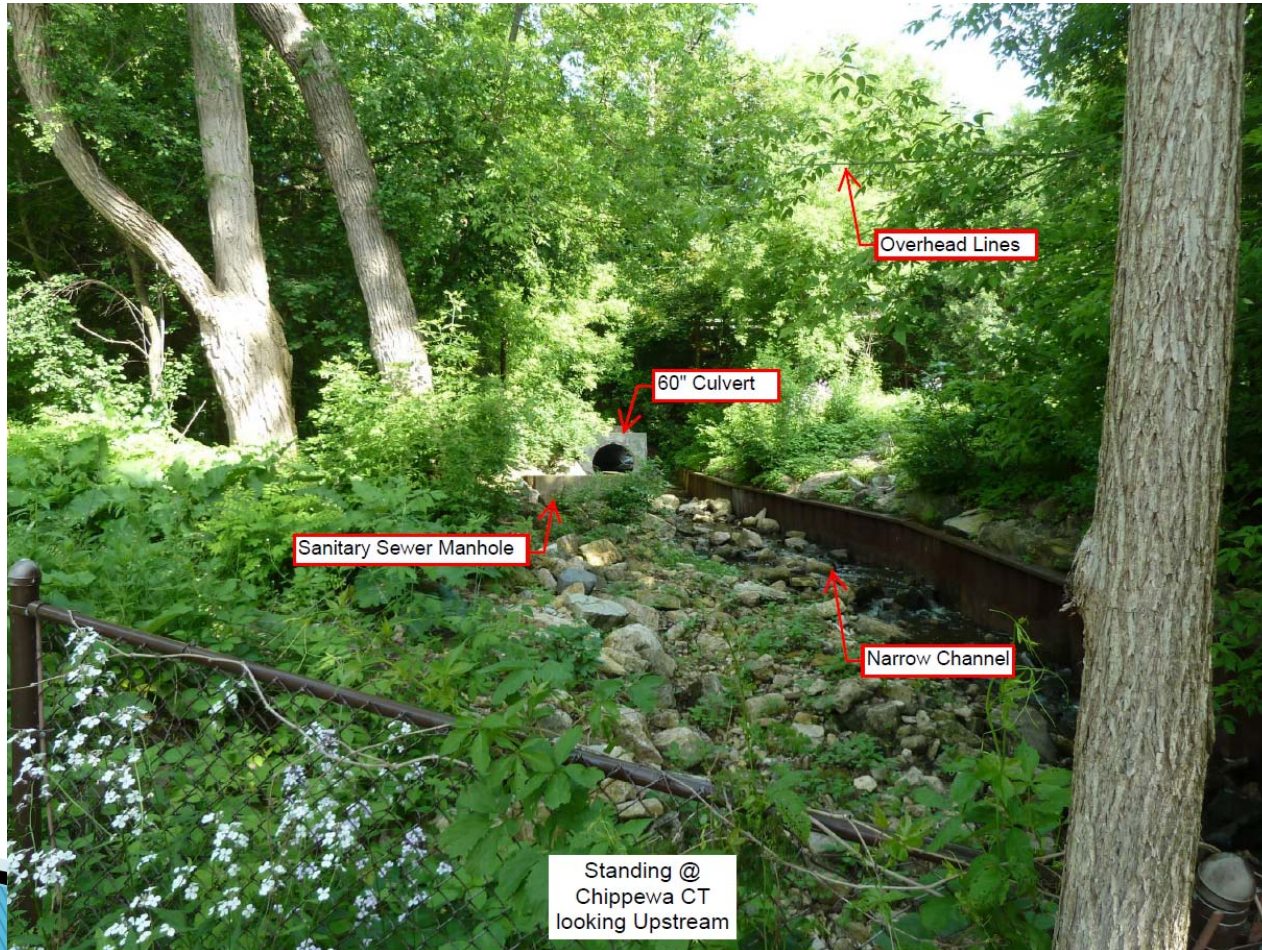
Existing Conditions – Upstream at Waite Circle



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Existing Conditions – Downstream from Chippewa Court



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Existing Conditions – Bike Path

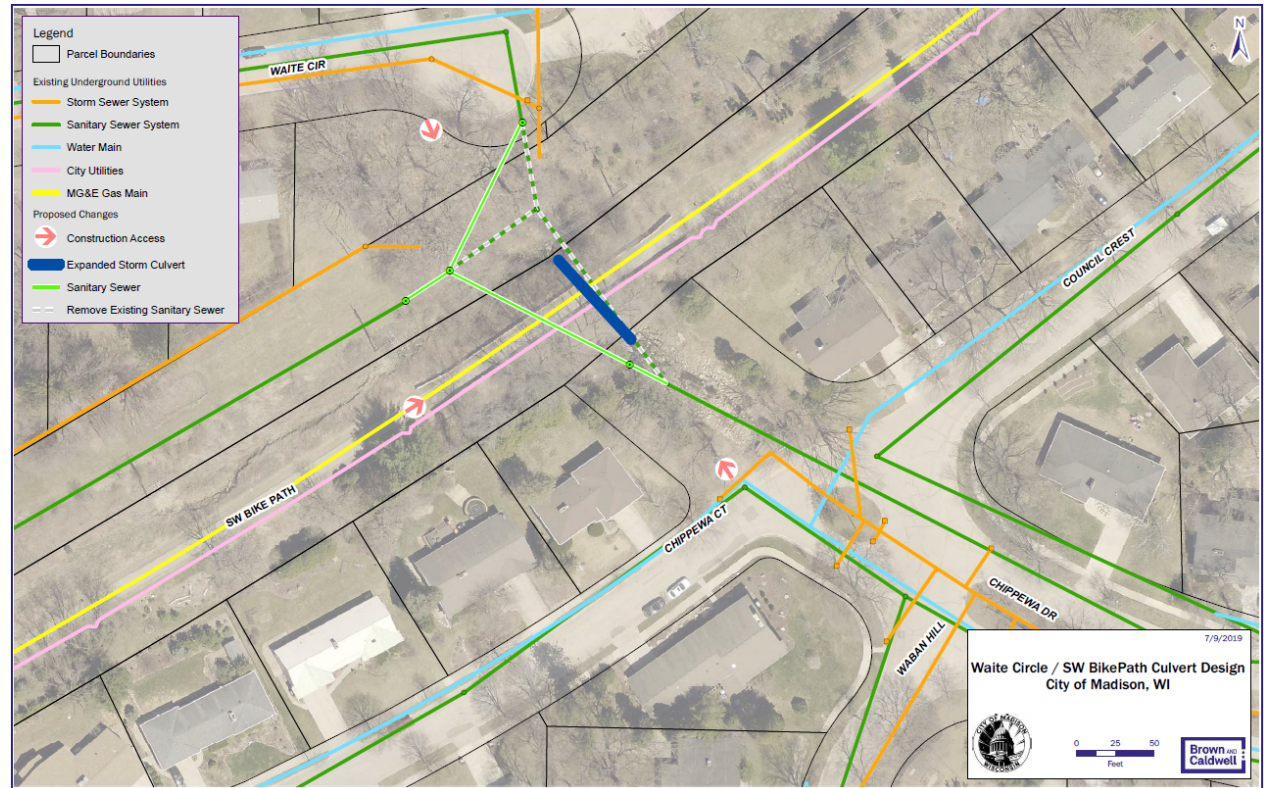


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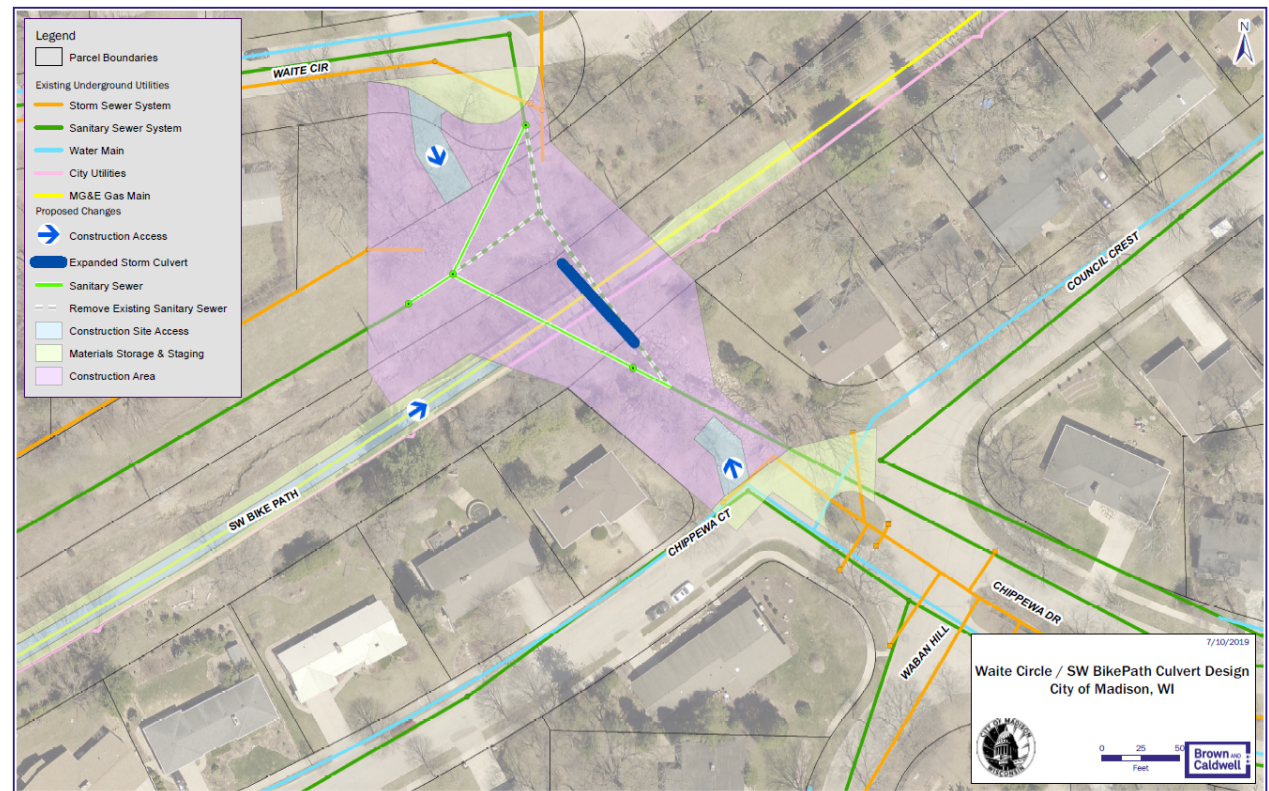
Construction & Access

- ▶ Approximately 6–8 weeks of construction
- ▶ Access from 3 directions
- ▶ Bike path detour during construction



Construction & Access

- ▶ Relay sanitary sewer first
- ▶ Then reconstruct culvert
- ▶ Preliminary construction limits and staging area



Project Schedule

- August 22, 2019: Advertise for Bids
- September 18, 2019: BPW Public Hearing
- October 1, 2019: Common Council Hearing
- October 28, 2019 +/-: Begin Construction
- December 20, 2019 +/-: End Construction
- NOTE: Final paving of the path is weather dependent. Paving of the path may need to extend into the spring of 2020.



Contact Information & Resources

- Engineering
 - Engineer 3, Caroline Burger, cburger@cityofmadison.com
 - Engineer 3, Phil Gaebler, pgaebler@cityofmadison.com
 - Principal Engineer, Janet Schmidt, jschmidt@cityofmadison.com

- Project Website: <https://www.cityofmadison.com/engineering/projects/southwest-bike-path-waite-circle-culvert-reconstruction>

- Sign-up for project email updates on the website
 - Updates on closures & work progress will be posted to the project website

- Facebook – City of Madison Engineering