



Rain Garden/Parking Lot Update - July 2021

First Lutheran Church Land History and Possibilities

When a heavy rain falls in Columbia Heights, the water runs off the many and large roofs on our building, picking up materials that have gathered there -- bird feces, pollutants carried by the wind or rain, roofing materials that are wearing away, etc.

The water falls to the ground, and much of it enters our parking lot where it picks up dirt and debris, oil and winter salts and sand carried there by our cars, nutrients associated with fertilizer and other plant materials such as grass and leaves. At this time, all of these materials flow to the storm drains. From there it is carried to LaBelle Park.

Stormwater runoff from a 100-acre area in Columbia Heights drains into LaBelle Pond. Until recently, the runoff flowed into the pond untreated, carrying a variety of pollution with it. As part of a larger park improvement project, the Mississippi Watershed Management Organization (MWMO) provided funding to stabilize the shoreline of LaBelle Pond, planting it with native vegetation that will filter some of the stormwater before it enters the pond and provide habitat for area wildlife. Eventually, the water is carried to the Mississippi River.

BACKGROUND

Back in the 1980s, this church acquired our current property from the City of Columbia Heights, the site of Silver Lake Elementary School from 1922 and through 1981. The property was used by area residents and the school as a landfill, as the southeast portion was mostly wetlands connected to Ostrander Park's pond. There was no community garbage collection in those days, and many residents (and the school) burned their trash, with other items dumped in the landfill.

On top of this landfill, First Lutheran created a large parking lot in the 1980s. With the help of an engineering and design firm, the landfill was safely capped to prevent any items from breaking through the parking lot, and the sewer drains do not pick up water from the landfill material. This avoids polluting LaBelle Park or the Mississippi River.

GOALS

It was our goal in the Living Connected capital appeal in 2019 that we would construct one or two rain gardens to filter and mitigate (diminish, lessen) water runoff from our roofs and parking lot.

In 2020, we were granted a planning grant from the Mississippi Watershed District Organization (MWMO) to assist us in planning and researching how to mitigate pollutants in the water flowing from our property into the sewer system. First Lutheran retained the services of Earth Wizards who helped us with our work. In 2020, we also used their services to repair the broken driveway in the lane that passed closest to the church and they laid down a first layer of asphalt. They re-ground the old asphalt to use as a new base, which prevented all of that asphalt from being added to public landfills.

It was also important to gain a greater understanding of the contents of the landfill. Earth Wizards brought in equipment to dig below the asphalt, through the layer of lime that 'seals' the landfill, and about 4-6 feet into the landfill itself. We dug in three spots. The first location revealed a high concentration of petroleum (oil), likely from used oil from cars, as many residents did their own oil changes before the 1970s. The second hole was filled with construction debris, including asbestos, now known to be a strong carcinogenic material. The third hole contained parts of a small tractor. *Who knows what else could be under there?*

With this information and research available from the original engineers who worked on our lot in the mid-1980s, it was clear that a standard rain garden would not work in our lot. This type of garden uses native plants to strain and mitigate pollutants and releases cleaner water into the soil. To add clean water to contaminated soil serves no purpose.

THE PLAN

In its place we are looking for bids that would include:

1. A sealed mitigation system in the northeast corner near the existing sewer drain. Water would seep into a clay & vinyl-sealed pond that includes native plants that are able to filtrate water. "Cleaned" water would then run into the sewer system and on to LaBelle Park and the Mississippi River.
2. Redesign of the north side of the parking lot near the front entrance. Traffic would be redirected into the parking areas, allowing more safe pedestrian traffic into the building and additional handicap parking. The existing pine trees (near the end of their beneficial lives) would be replaced with lower-height native plants to add interest and welcome to our space.

3. Resurfacing our parking lot. The existing parking lot surface was well done! Now is the time to apply a fresh “lift” of asphalt across the entire lot.

We are going out to bid at this time for contractors who do this type of work, including our consultants, Earth Wizards.

The funding for this project will come from two sources:

- (a) Member gifts to the Living Connected appeal that began in 2019. With current pledges we will be close to the funds we need. Additional gifts are helpful and invited!
- (b) Application for a grant from the MWMO for construction costs. This application is due in November for work to be done in 2022, and awards may be up to \$50,000.

We are grateful for the work of former Business Administrator, David Reilly, and our current Finance and Operations Manager, Julie Wilson, as well as the task force of members who have participated in this project: Jerry Erickson, John Miller, Sarah de la Cruz and her son, Lucas, Tiffany Lovik and her son, Matthew.

We expect to hold an informational meeting when bids are available to review.

Pastor Bonnie Wilcox