Memorandum

Date: April 4, 2023

Project Number: NA
Project Name: Creekside Corporate Park – Landscape Review

From: Tricia McClellan
To: Cara Weber, Zionsville Redevelopment Commission
Copies:

Subject: Right-of-way Landscape Review

Remarks:

Background:

The original intent or overall guiding design vision for Creekside Corporate Park was to create a low-impact development which minimized impacts on the surrounding natural environment. The layout of Creekside Corporate Park was done to minimize development impacts. The design of the bio-basins as stormwater detention, but also as a place for native plantings, was an important piece of this design intent. Stormwater basins with mowed turf have higher rates of runoff downstream because of the lower rates of infiltration into the ground. Although small in area, the bio-basins can also provide habitat for bees and birds. This same type of initiative is being carried out throughout the Town's parks where possible including new plantings that will be installed in non-play areas of the golf course.

The original plantings for these areas were done with plug plantings instead of seed to encourage quicker growth and coverage. The areas also have irrigation which will aid in the implementation of new plantings. However, the current conditions demonstrate that even the lowest-impact solutions still require continued maintenance.

A few options to improve the current conditions of the plantings in the rights-of-way for Creekside Corporate Park are provided below. Additional attachments including the original landscape sheets from the bid set are included for information.

Options:

1. Supplement existing native/prairie/bio-basin plantings.

   The existing plantings in the bio-basins adjacent to the roadways have become infested with weeds and invasive plants. Since the original plantings were done with plugs and not a seed mix, and with irrigation, it is possible that a certain percentage of native plants remain in the bio-basins. An ecological specialist such as Ecologic or Cardno (now Stantec) can assess the number of native plants that have survived and develop a plan for supplemental planting either through plugs or with top-seeding and aggressive weed management. This option will require regular maintenance for the first couple of years with less frequent maintenance in future years to keep weeds out of the beds and give the native plants the space they need to fill in these areas. The ecologic specialist can provide more specific details on supplemental plantings and maintenance needed for establishment and long-term maintenance, but in general long-term maintenance will likely be needed a couple times each year.

Although this option will likely cost more in the initial year, over the long run savings may be seen with lower maintenance costs. The native plants also help to slow down and mitigate stormwater in the bio-basins. If the basins are replaced with mowed turf, runoff will be faster and could have impacts downstream.

2. Remove native/prairie/bio-basin plantings and replace with low-mow or no-mow grass.

Another option would be to remove the existing plantings and replace with a low-mow or no-mow grass. This option usually requires less maintenance to get established and only requires mowing once a month with a close mow in the fall. Long-term maintenance should include dethatching every five years and is ideally done in the fall. Periodic over-seeding is also needed to fill in bare areas or areas of damage.

The low-mow option would help to detain stormwater longer than mowed turf and provides habitat for some insects, although less beneficial than native plantings. No-mow grasses are not native and are developed/selected because of their low-growing stature. We have had limited success with low-mow areas in this region. Heritage Trail Park used to have low-mow grass in the area where the dog park is now located. The low-mow grass had decent coverage but never maintained good coverage across the area. There was also some misunderstanding of the low-mow grass in that many people thought it was normal turf that just wasn't mowed. We've seen better success with low-mow grass in shaded areas that are also protected from harsh winter winds. I've attached some images of low-mow grass in our region.

3. Remove native/prairie/bio-basin plantings and replace with turf.

The traditional treatment for areas within rights-of-way similar to Creekside Corporate Park would be to seed or sod with fescue turf and mow on a weekly basis. This option will give you more options in terms of who can maintain the areas and there are advantages in the ease of maintenance. Disadvantages include potential damage to the banks of the bio-basins with scouring from mowing equipment and damage to trees. As mentioned above, stormwater runoff will exit the bio-basins faster with mowed turf and could potentially affect the design of the detention basin's volume. This option will likely be more economical than either of the previous options to install but will require regular weekly maintenance and chemical treatment long-term. This option is also the most impactful in terms of potential environmental effects.

Creekside Corporate Park – Landscape Sheets from Bid Documents

No-Mow Grass Examples

Heritage Trail Park Low-Mow (Current dog park area)

Low – Mow Grass Example