Photo by Garrett Lacey

Flexing muscles and climate resiliency

PROJECT:	**Terwillegar Community Recreation Centre**
LOCATION:	**2051 Leger Road NW, Edmonton AB**
BUILDING TYPE:	**Recreation Centre**
TOTAL ROOF AREA:	**Not provided**

Ecoroof details

ECOROOF AREA: Approximately 335 m^2

DIRECTION: South facing roof

STOREY: Second floor

YEAR INSTALLED: 2013

NEW BUILD OR RETROFIT: New build

TYPE OF ECOROOF: Extensive ecoroof

ECOROOF SYSTEM: Built-up layers on roof

SUBSTRATE DEPTH: 15 – 20 cm

PLANTS: *Sedum, kamtschaticum*, native forb species

ACCESS: Not accessible to the public

Description

The Terwillegar Community Recreation Centre ecoroof is visible to the public from the indoor running track and accessible for parks and building staff through a secured access.

The Terwillegar ecoroof was installed in 2013, however was not consistently maintained until 2015 when the City Parks department took a proactive approach to replanting and maintaining the roof. In addition to the well-studied benefits of ecoroofs, this project is useful in understanding the growing tolerances of numerous native forb species which would be difficult to assess in an area with a lot of foot traffic or grass cover.

Challenges

Bringing the roof back from weed infestation due to no maintenance regime was a long and painstaking process. However, after four seasons of intensive management and monitoring, the roof is progressing nicely.

Benefits

Two seasons into native planting trials, the majority of the forb species are surviving and some are spreading. Many insects have been observed on the roof including bees, spiders and beetles.

Lessons Learned

The initial planting on the roof was done in blocks of a single type of plant. Because it was not consistently maintained after initial installation, this design approach put the spotlight on areas when a few plants died off, or if a whole block succumbs. Intermingling plants, therefore increasing biodiversity, is a more resilient approach that has many fringe benefits for pollinator species, etc.

The roof managers have shifted away from the original rigid planting plan towards a more natural and random drift of native plants. This has resulted in less obvious dieback and weeds, as well as a better time-layering of flowers.

This roof has been a long process of planting rehabilitation. If studies are permitted to continue, the City and Edmonton region stand to gain a lot of knowledge on native forbs and their potential landscape use, as well as a chance to measure the ecological benefits of the planting.

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Photo by Walter Sturn on Unsplash

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