

Draft Notes

6/11/21 – June 2021 CAC introduction and review. Note this is a working draft and additional conversation and research is anticipated.

ENVIRONMENTAL SUSTAINABILITY

Introduction

Sustainability and resiliency are core city values. The 2040 Comprehensive Plan states that: “[Saint Paul is] a city that understands the importance of environmental stewardship of our abundant natural, historic and cultural resources, and ensures that future growth protects those resources.” At Hillcrest, we have an opportunity to plan for best practices in sustainable development to benefit the health of residents, workers and ecological systems, and mitigate negative contributors to climate change.

In recent years, the City of Saint Paul has adopted numerous policies, plans, and ordinances that aim to make the city more sustainable and resilient. In addition to the Comprehensive Plan quoted above, the *Climate Action and Resiliency Plan* (2019) set ambitious goals of reducing carbon emissions citywide by 50% by 2030 and achieving carbon neutrality by 2050. The *Strategic Framework for Community Resiliency* (2015) has as a guiding principle incorporation of climate change adaptation into relevant local and regional plans and projects. Finally, the City’s innovative Sustainable Building Ordinance (2018) sets high sustainability-related standards for projects receiving more than \$200,000 of city funding.

As site owner and partner, the Saint Paul Port Authority (SPPA) has a mission to create quality job opportunities, expand the tax base and advance sustainable development. The SPPA is independently seeking pre-certification at the platinum level in the U.S. Green Building Council’s (USGBC) LEED for Cities and Communities (v4.1, Plan and Design) program. The certification process takes a holistic view of district-scale function and evaluates a wide variety of components from transportation to energy to water use. Hillcrest would be the first site to receive this designation. The City supports this effort, and many of the goals and strategies below complement those contained in the LEED for Communities certification structure. The SPPA also has a record of working with industrial and commercial users to develop innovative covenants that advance sustainability on a project-by-project basis. The City anticipates this valuable work will continue and prove to be an effective implementation tool for the strategies found in this chapter.

The goals and strategies in this chapter expand on current requirements and do not duplicate the existing state and local regulations that contribute to sustainability. For example, there are city, state, and watershed district requirements for stormwater treatment and discharge, Saint Paul Regional Water Services requirements for potable water monitoring, and zoning requirements for trees and landscaping in parking lots. A detailed list of sustainability-related regulations and tools has been developed and is included as Appendix X in this plan.

Goals and Strategies

The following goals and strategies are intended to reduce negative environmental impacts related to development and create a healthier site for the people of the neighborhood. All strategies apply to public and private projects unless otherwise specified.

Strategies indicated with an asterisk* may be dependent on funding considerations.

Goal 1: Carbon-neutrality site-wide.

Strategies:

1. Support site-wide strategies that reduce carbon emissions, such as alternative transportation options, well-connected and varied land uses, and meeting city-wide waste reduction and diversion goals to support emissions reductions.
2. Strongly support registering and LEED-certifying all buildings greater than 5,000 square feet.
3. [Placeholder for potential monitoring (site-wide and/or building by building)]*
4. Meet energy demand using renewable energy sources to the greatest extent feasible, prioritizing on-site generation.
5. Restrict natural gas service to systems or devices for which an equivalent all-electric system or design is unavailable, impractical, not cost effective, or is determined to present an equity gap.
6. Pursue the integration of geothermal energy system(s) at the site and/or district scale to reduce energy demand.*
7. Incorporate electric vehicle (EV) infrastructure to meet anticipated need, with the goal of installing Level 2 charging stations (240V) for at least 2% of all public parking spaces.
8. Explore the possibility of incorporating a community solar garden.
9. Use landscaping along exterior building walls to provide shade and cooling except where solar access is needed for photovoltaic panels.
10. Plan for increased energy needs for cooling and potential on-site backup power.
11. Should more than \$200,000 of City financing be applied to part or all of the site, the City's Sustainable Building Ordinance will apply.*

Goal 2: Integrate development with the ecology of the site.

Strategies:

1. Foster a robust urban ecology through complimentary elements such as robust tree canopy, green streets/corridors, and native vegetation.
2. Design landscaping to be hardy, primarily native, and connected.
 - a. To the greatest extent feasible and working around development, retain existing healthy native trees and vegetation.
 - b. Plant trees at a rate that, at maturity, will sequester at least as much carbon as was sequestered at the time the golf course was closed and meet the Comprehensive Plan's tree canopy goal (LU-19).
 - c. Plant species of trees and other vegetation that can adapt to anticipated climate change in the region and provide a variety of benefits such as pollution reduction and habitat. Tree species selection is subject to approval by the City Forester.
 - d. Use biologically diverse native prairie plantings instead of turf where feasible, with low-maintenance turf preferred when it is necessary.
 - e. Design landscaping considering long-term maintenance needs.
 - f. Plant at least fifty (50) percent of all landscaped area that is not turf or hardscape with species native to the state.
 - g. Exotic invasive species are prohibited, such as European buckthorn and Tartarian honeysuckle.
 - h. Wherever possible, connect new landscape areas to neighboring planted areas to increase its contiguous size.
3. Reduce light pollution to the greatest extent allowed by ordinance and the Department of Public Works.
4. Mitigate the effects of the urban heat island through surface treatments, tree canopy, green roofs, etc.
5. Monitor outdoor air quality with metrics publicly displayed in key residential, commercial, industrial, and sensitive areas.
6. Prepare a plan for vacant private parcels to be attractive, stable, and ecologically valuable and productive until developed.
7. Explore opportunities for community gardens.

Goal 3: Responsible material and waste stream management.

Strategies:

1. Pursue circular economy and eco-industrial strategies within employment-focused areas to reduce waste and increase efficiency of natural resource use.
2. Divert a minimum of 35% of construction and demolition waste from all infrastructure construction and strive for at least 70%. [Further work on #s required]
3. [Placeholder for source and waste diversion expectation for buildings.]
4. Responsibly source construction materials based on MnDOT standard practices and industry best practices for sustainable design. [Further work on specific guidance required]
5. Model embodied carbon for all construction per industry standards and building materials and techniques that lower embodied carbon shall be used to the greatest extent feasible.

Goal 4: Effective, integrated, and visible stormwater treatment.

Strategies:

1. Treat stormwater as a resource and maximize its co-benefits such as passive recreation and habitat creation.
2. Make the majority of stormwater infrastructure visible through a natural, "light touch" aesthetic that helps define the identity of the site, provide unique public and private amenities, and maximize use of land.
3. Integrate stormwater runoff into the site and surrounding green infrastructure system of streets, public open spaces, and private yards.
4. Use economies of scale where possible to make stormwater improvements more cost-effective.
5. Explore the creation of a comprehensive, site-scale green infrastructure district.
6. Encourage roof catchment and reuse for irrigation needs.