Enhancing Public Life through Green Stormwater Infrastructure

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Background
- Our cities are built primarily with gray infrastructure
- Gray infrastructure prioritizes cars over people

Purpose
- I aimed to understand how design could enhance public life while reducing pollution

Internship
- I worked on the Public Life Counts! Project
- We used a Gehl Method to collect data
- Data informed design recommendation for a local housing organization

Research Questions
- What are the systems of an urban environment?
- How can improvements be made on these systems?

Methods
- A literature review
- Precedent studies
- A site analysis of Pike and Pine (Figure 1)

Results
(existing conditions)
- Urban environments contain human and natural systems
- Human systems, or public life, are limited by cars
- Natural systems are not embraced by gray infrastructure

(proposed conditions)
- Green stormwater infrastructure is a potential solution to human and natural system issues
  - Filters pollutants and limits stormwater entering sewers through bioretention planters (figure 2)
  - Activates the space and draws people in
  - Provides greenspace, making space more inviting
- Figure 3 sets out guidelines to how green stormwater infrastructure can enhance public life

Legend
- Stormwater drainage system
- Highest Quality Score (89-90)
- Average Quality Score (20-28)
- Lowest Quality Score (12-30)

Conclusions
- Cities are growing both in size and population
- This redesign of Pike and Pine fits Seattle's Comprehensive plan, which emphasizes community and environmental stewardship
- It also fits into Washington's growth management act, which says to "design natural infrastructure into public projects to mimic ecological processes (Chapter 36.70A RCW, Tovar 2020)

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