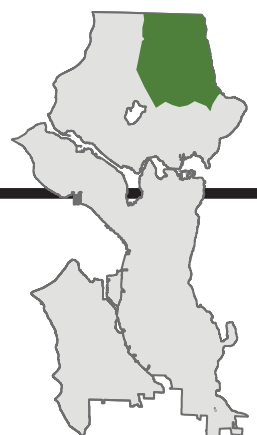


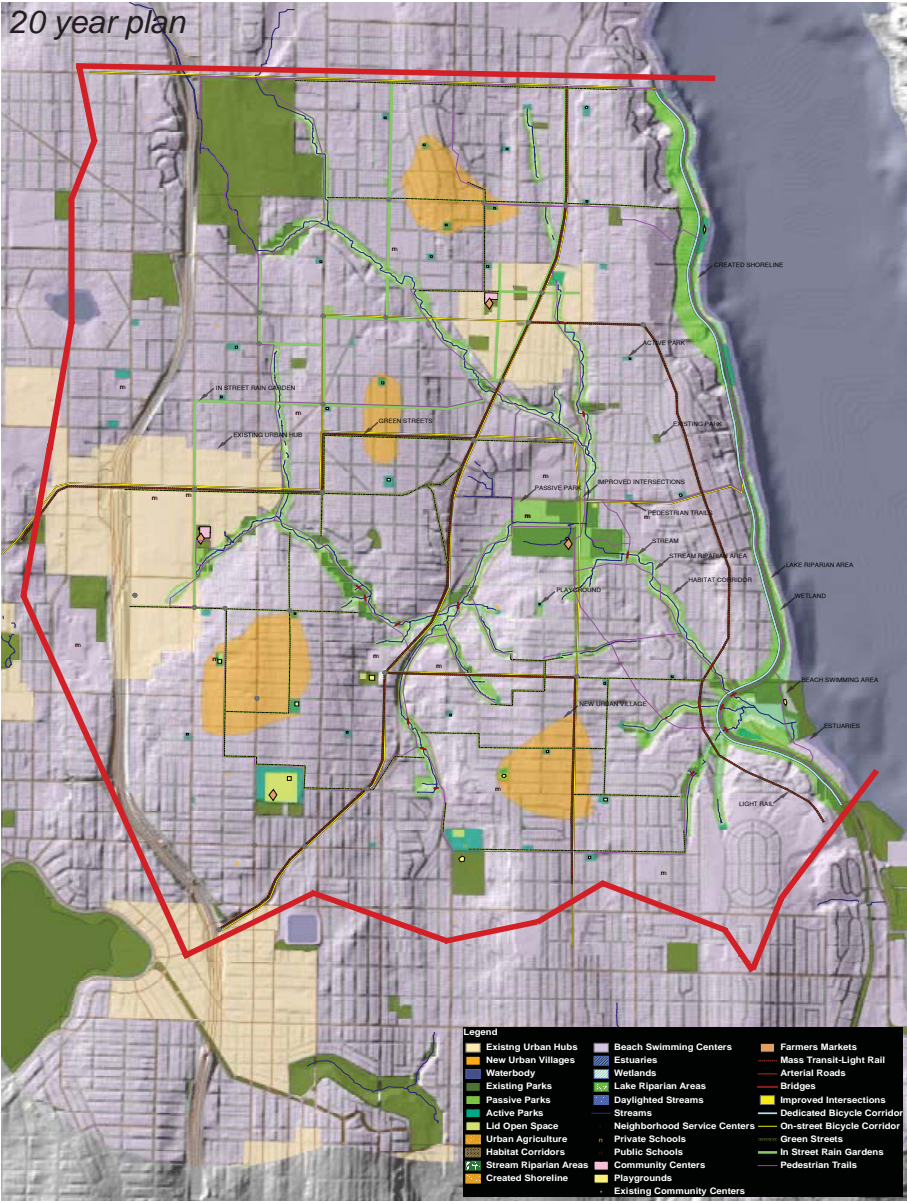
THORNTON CREEK

URBAN FLOW

Team Leaders: April Mills and Brooke Richardson
Student Team Leaders: Savannah Hines-Elzinga and Tehia Kalebough
Team Members: Hilary Dahl, Molly Deardorff, Cheryl Klinker and Marcy Kubbs



20 year plan



SITE ANALYSIS

Prior to the charrette, we thoroughly researched the Thornton Creek area. We talked with members of the community including the Thornton Creek Alliance and other residents. Along with our own explorations of the area, we conducted a site tour with our charrette team members to help us understand the area and what would be the priorities needing to be addressed.

CONCEPT: URBAN FLOW

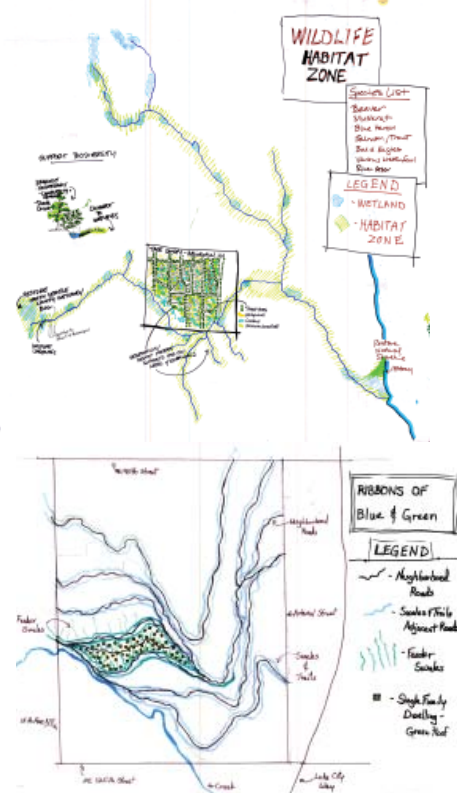
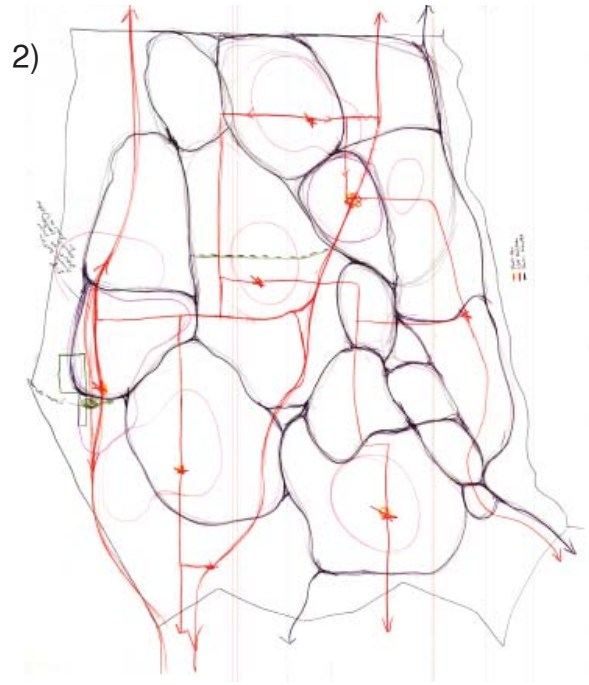
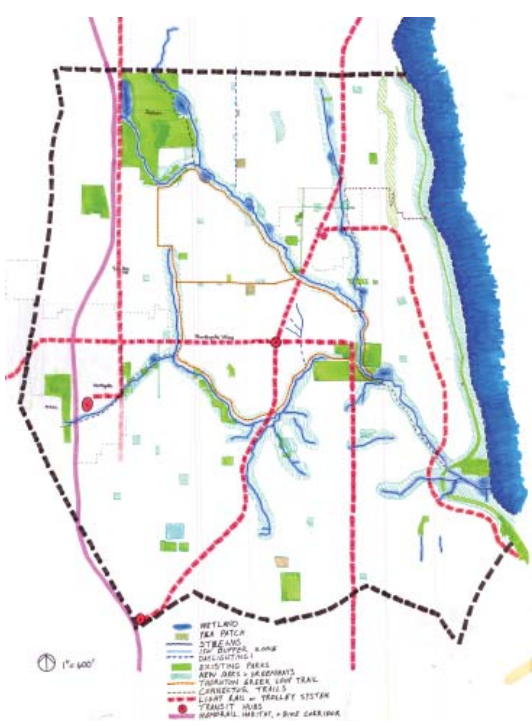
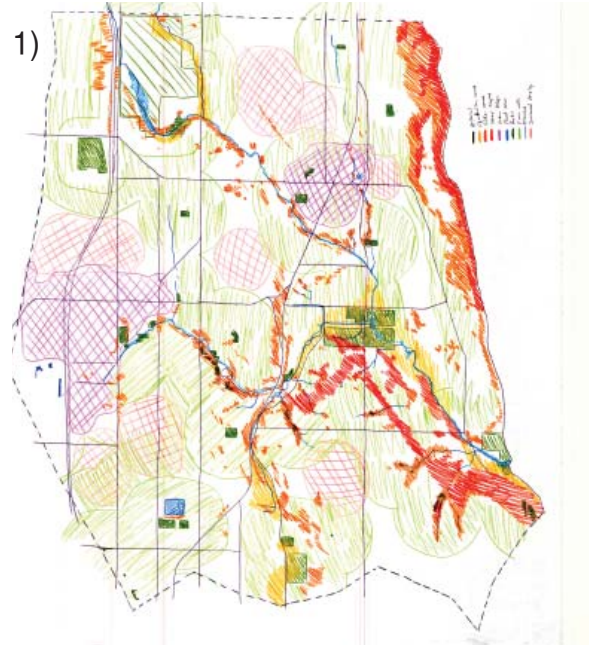
Three strong elements emerged from this concept: transportation flow, hydrological flow, and pedestrian flow. This concept recognizes that urban flows should be integrated with the watershed.

100 year plan



Thornton Creek

THE CHARRETTE PROCESS



Thornton Creek

Post-charrette

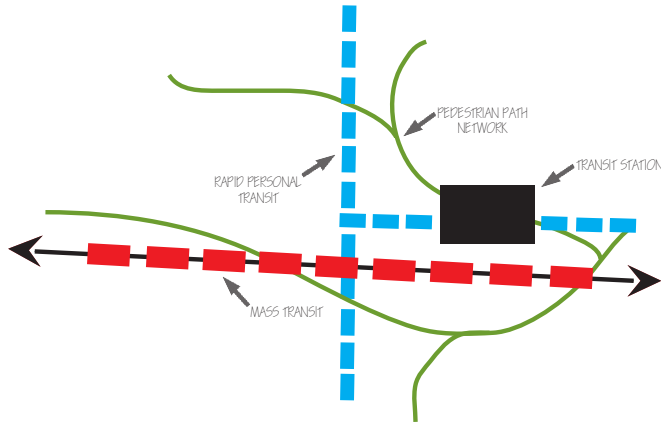
The diagrams above demonstrate continued exploration of the existing conditions of the area and how that would influence growth.

- 1) a close examination of hazard zones such as slide and liquafaction areas, current urban hubs and potential hubs on more stable ground;
- 2) circulation overlay on the hazard analysis to assess pedestrian and vehicular movements;
- 3) synthesis of 1) and 2) led to analysis of potential open spaces and urban hub locations.

During the charette (top photos) participants focused on the ecological conditions of the area and how these would be integrated with the urban fabric.

ENHANCING TRANSPORTATION FLOW: TYPOLOGIES

- Variety of transportation options including mass transit (along I-5 corridor) and personal transit (along major arterials).
- Transit nodes or hubs where multiple forms of transportation come together.
- Commuter bike tube (running along present I-5 corridor) that is climate controlled to encourage people to bike to work in all weather.
- Boulevard system that integrates green infrastructure, widen sidewalks, and lots of lush green trees to soften the edges



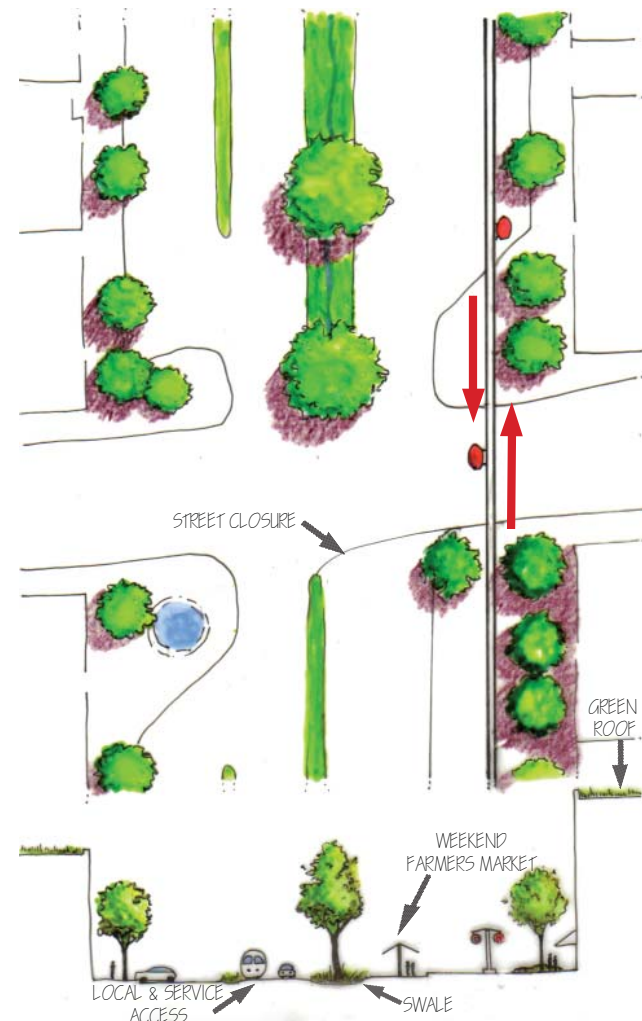
Typical transit hub diagram



Personal rapid transit



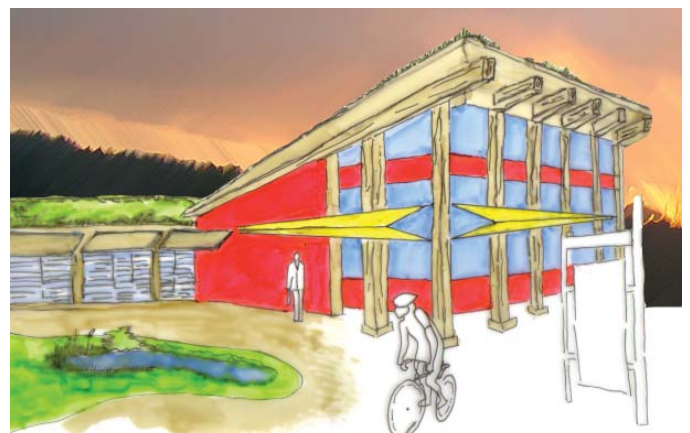
Mass transit monorail



Typical boulevard layout



Commuter bike tube



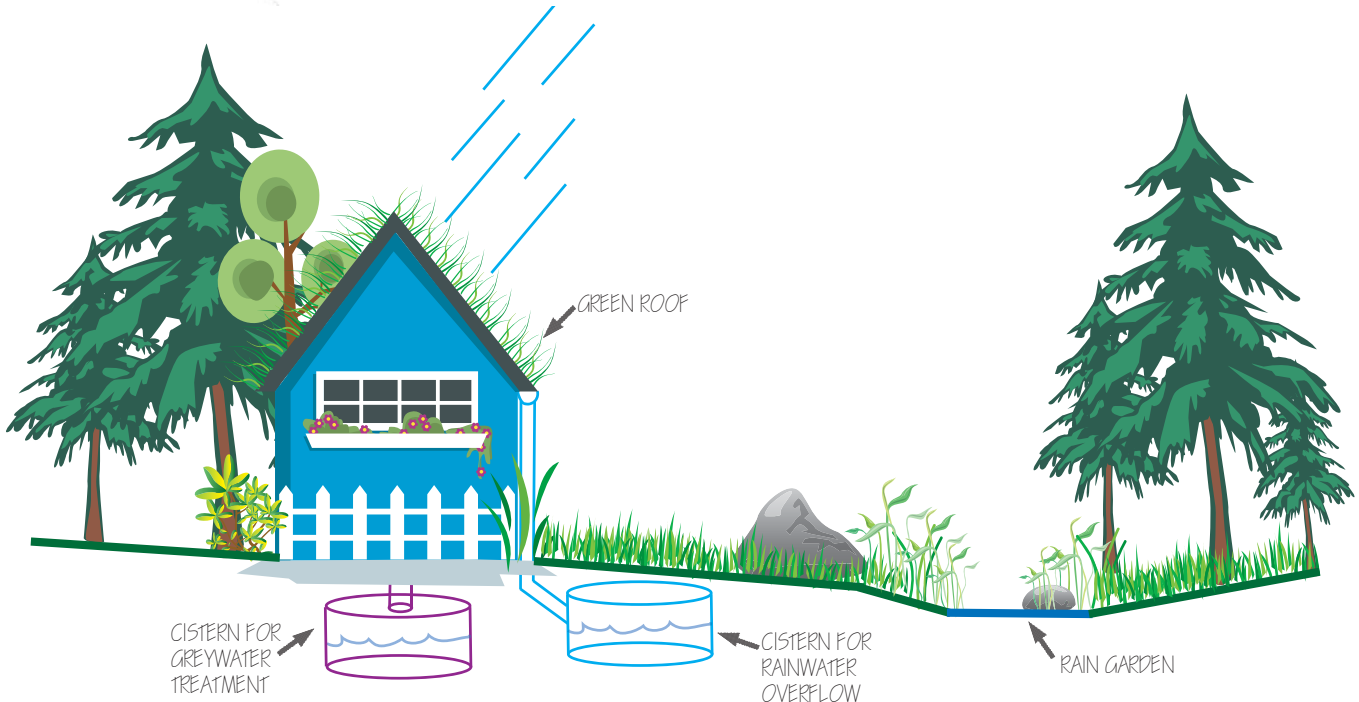
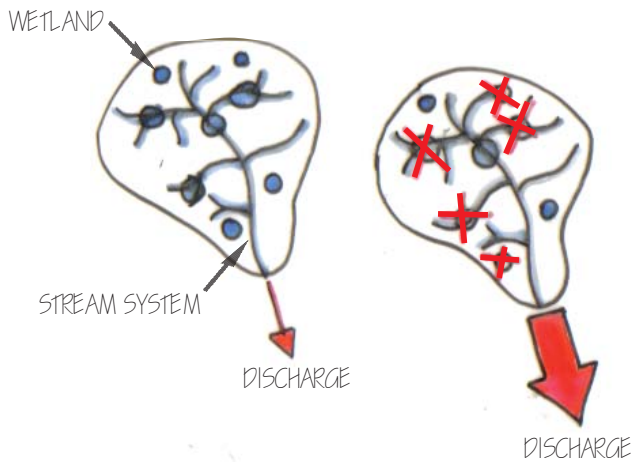
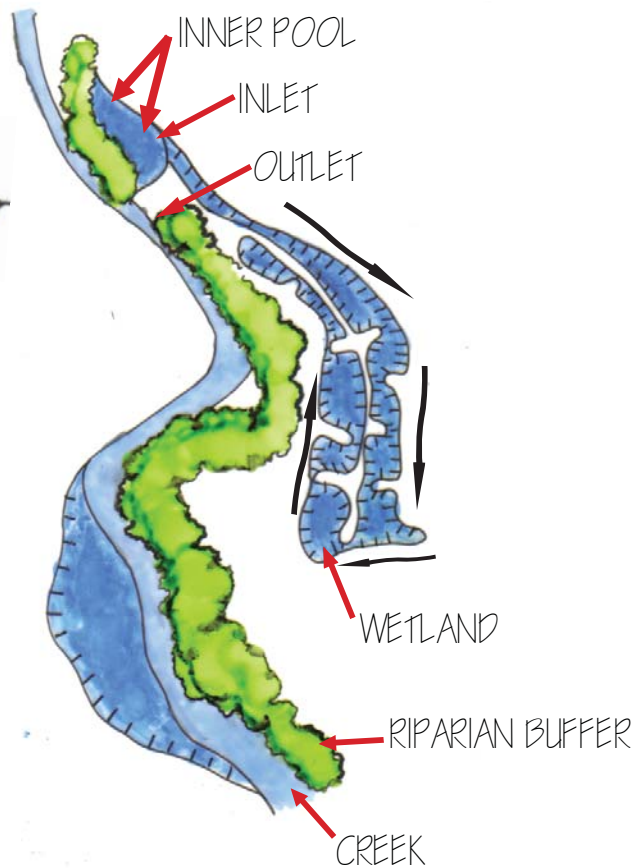
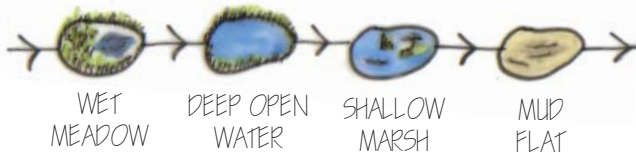
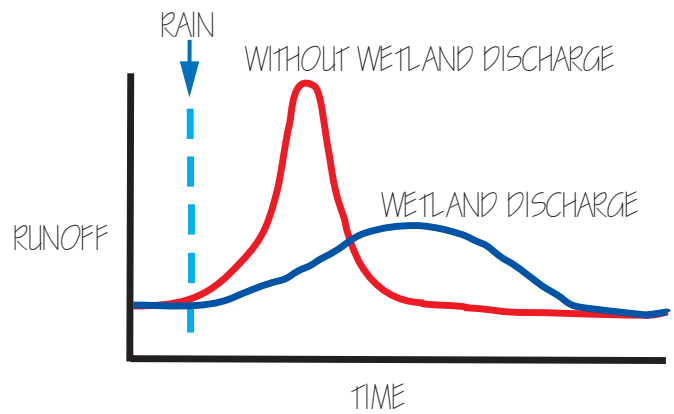
All transit hubs will include bike stations (concessions, lockers and showers)

Thornton Creek

ENHANCING HYDROLOGICAL FLOW TYPOLOGIES

Main Goals

- Decrease runoff into streams and successfully manage all stormwater
- Use wetlands to their highest potential
- Restore as many natural wetlands as possible. Wetlands provide habitat and act as a natural sponge soaking up contaminants and decreasing the amount of runoff in the watershed.
- An increased number of wetlands reduces the amount of discharge into Lake Washington creating slower waters for fish habitat.
- By placing contaminant reducing wetlands (designed and built specifically for this purpose) at the headwaters of creeks we can greatly reduce the number of contaminants that flow through these waters.
- Designing green infrastructure into the street system with the help of vegetated swales will add beauty and function for the community.
- Designing eco-function into the built environment, through the use of cisterns, graywater systems and green roofs will place responsibility on the individual homeowner.



Thornton Creek

ENHANCING PEDESTRIAN FLOW

- Designate some areas as wildlife-only areas in order for them to retain maximum health
- Create a series of walking loops for human movement and ecological corridors that link urban hubs and villages
- Design at human scale to create streets which are pedestrian friendly, less car-centric
- Incorporate "nature" in even the densest areas to educate people about our watershed and provide them with restorative environments
- Separate user on the trail system to provide everyone with the most enjoyable experience
- Provide everyday interaction with the watershed so people value it as a system



Green infrastructure



Wildlife-only areas



Integration of transportation with the creek



Nature in density

Thornton Creek



Separation of users

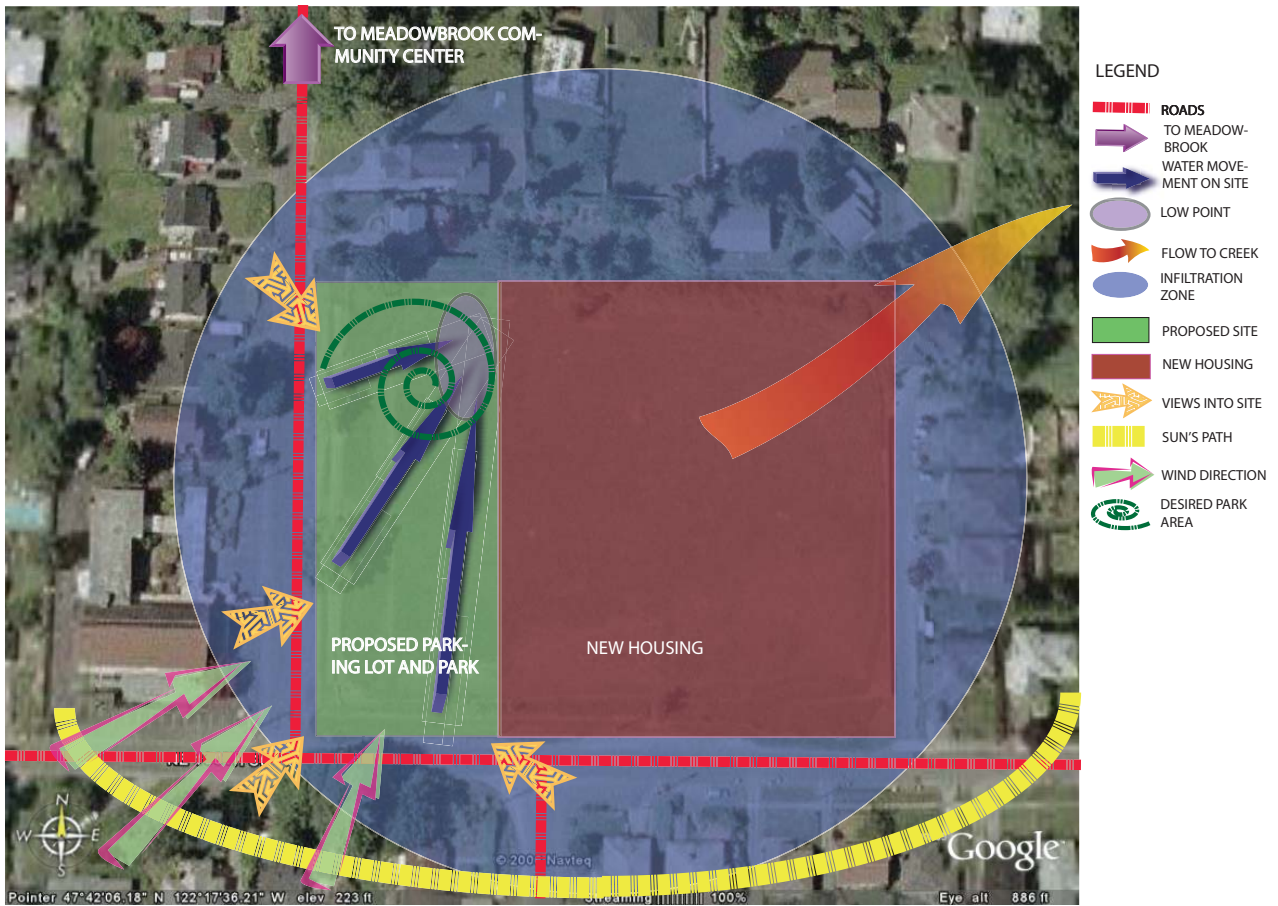


Diagram of hill and flow direction to creek

SITE ANALYSIS

This site is located on 32nd Avenue NE and NE 100th. Though there is not a creek visible here, this is an important infiltration site that leads to the creek down the hill. The client, a Lutheran church, requires a 100-car parking lot and a small play area. This analysis and design project attempts to demonstrate how the requests of the client can be met while retaining water infiltration in an innovative way.



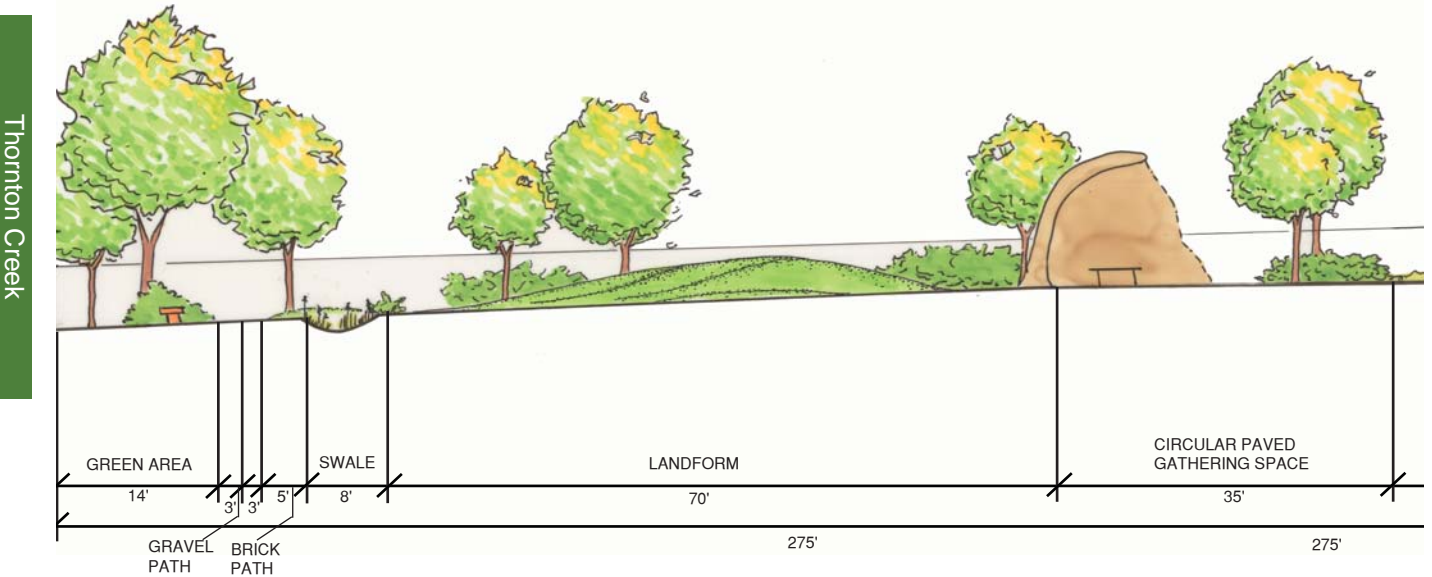
Photos of the site



A GrassPave system which is capable of supporting vehicles' weight. This would allow the parking space to be used for events, such as weddings, or various sports.



Sample of mosaic tile work to be placed in the gathering areas and retaining wall. This can be designed by the local community.

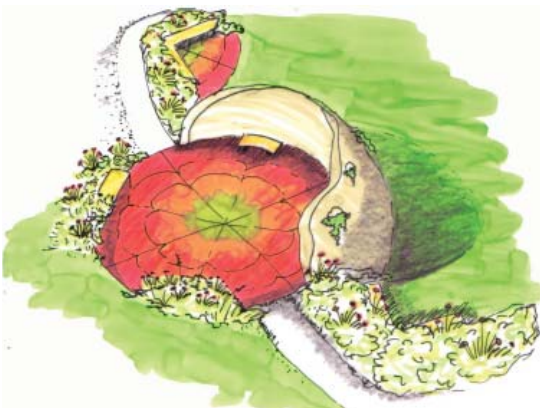
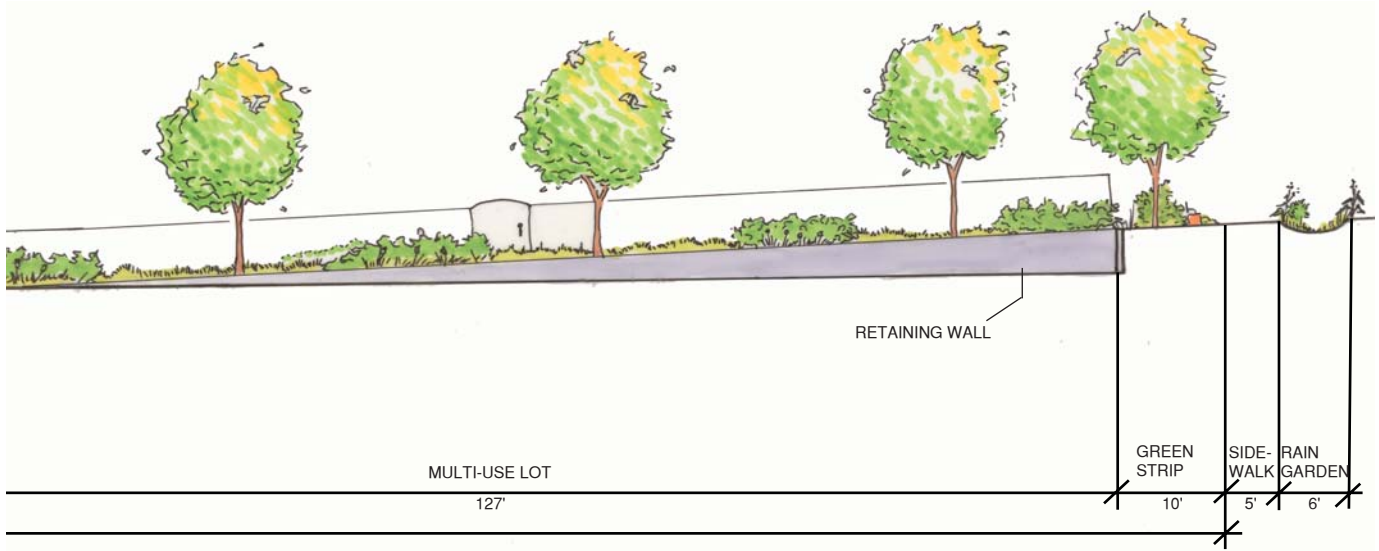
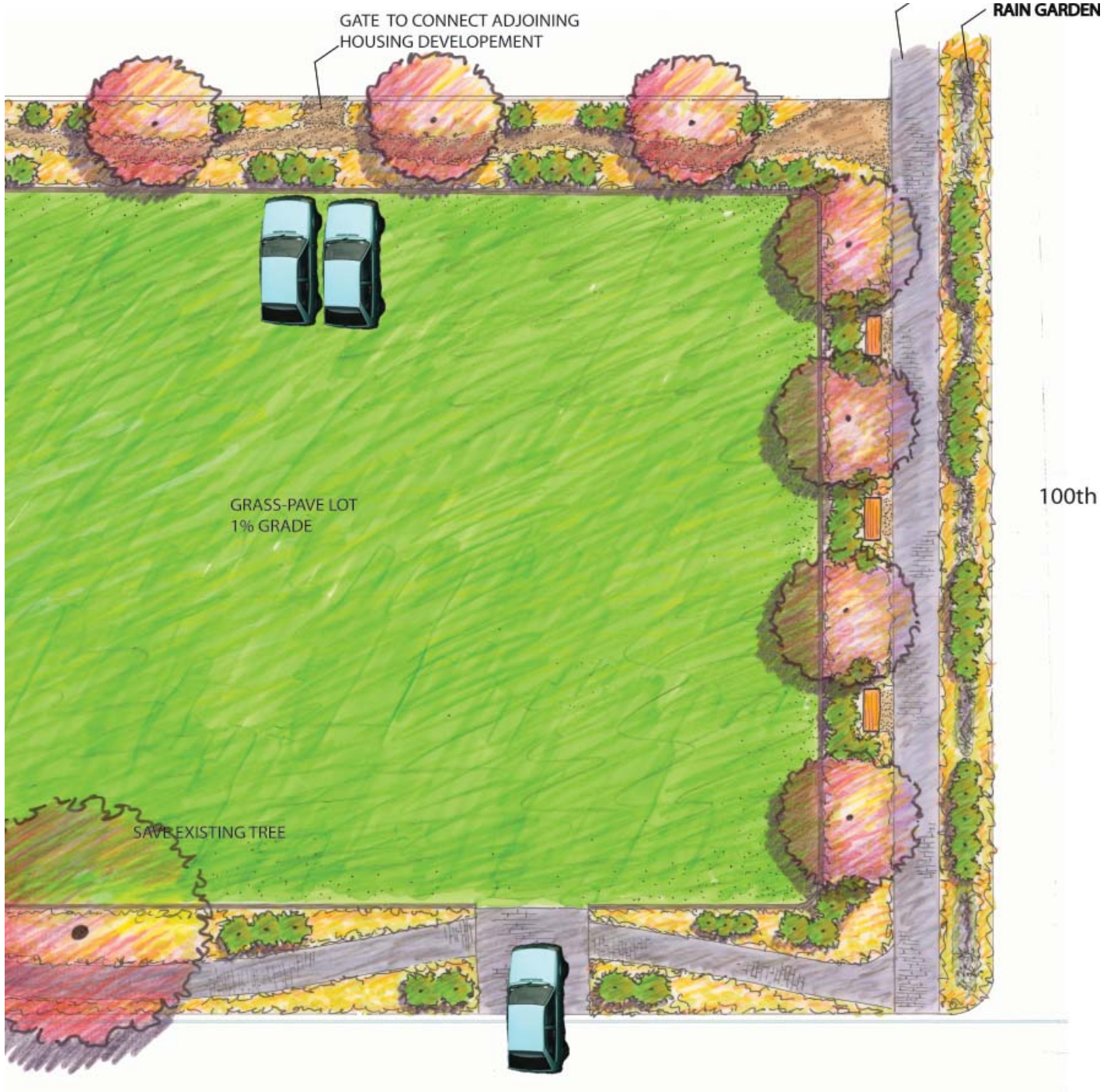


SITE DESIGN FEATURES

- A GrassPave system used for parking lot area, creates a multi-functional surface
- Focal gathering space for events, two smaller spaces for more intimate gatherings
- Swale system along street and North end of property to catch and filter stormwater runoff
- Several entry points onto the property, including a gate to connect the new development
- Experiential play and relaxing space
- Native planting throughout



Instead of a conventional play area, this design allows for various modes of play and exploration with choices in sitting and walking areas for all ages.



This 35-foot round gathering space can be utilized for a variety of uses, from weddings to picnics.



The current sidewalk on NE 100th would be updated to include a vegetated swale where the current grass strip is placed and add benches with vegetation to screen the parking lot below.