

Developing Olmsted :
Combatting Contemporary Health Problems through Century Old Design Ideas.

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Abstract

This thesis analyzes the health motives which influenced Olmsted when designing parks and park systems. It focuses on the influence that rapid industrialization and urbanization and the health issues that stemmed from these two processes in the 1800s had on his designs. Design elements including ‘cleansing’ open space within a city, promenades and lawn space for gathering are examined.

“Developing Olmsted” applies the design strategies utilized in Olmsted’s park systems to current open spaces in Seattle in an attempt to address contemporary health problems such as obesity and depression.

From these findings this thesis studies ways in which architecture and design can support Olmsted’s aspiration to foster healthy communities. The Department of Transportation is currently implementing a system of greenways throughout Seattle. The development of greenways shares the design intention with Olmsted of creating a safe place for walking. Developing the street experience along greenways and linking that development with park space could create a contemporary promenade for Seattle citizens.

In this thesis the design ideals that Olmsted held are applied to a planned greenway segment which will connect

the residential neighborhoods of Beacon Hill and Mount Baker. Scheduled for development in 2018, this future greenway passes through an area which has been identified by the Parks Department as lacking open space. Targeting design interventions to emphasize existing view corridors along the length of the greenway provides a contemporary interpretation of the solutions that Olmsted implemented.

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Introduction

The Olmsted plan for Seattle, designed over 100 years ago, emphasized the spectacular nature in and around the region in order to encourage citizens to explore their own city. The original plan set forth goals which Olmsted anticipated would take a century to achieve. Now that the Olmsted plan has 'expired' the city is in a position to utilize his plan as a guide for further development of public spaces throughout the city. A century and a half ago Olmsted was confronted by a health crisis affecting New York. Health experts were beginning to discover the reasons behind various diseases and these discoveries influenced Olmsted's work. While the fabric of the city had changed since then, problems which Olmsted had tried to address - including the relationship between community development and public health - are still relevant today. Using and further exploring Olmsted's design solutions to address contemporary health problems provides a framework for continued implementation of Olmsted's ideals.

The Olmsted plan for Seattle, *Parks, Playgrounds, and Boulevards*, created accessible and beautiful parks dispersed throughout the city. Unfortunately, due to dwindling funds, inability to acquire land and the lack of political will, the plan was never fully implemented. The parks which were created

are still well used today. Olmsted focused his attention on setting aside natural and untouched parts of Seattle so that they could be visited by all citizens. Locating these nature parks in an accessible location was important to the city since at the time it was relatively difficult for citizens to travel beyond city limits.

Today, over a century later, leaving Seattle to visit nature is not difficult. Cars, busses and trains provide an easy way for citizens to retreat from the city on weekends. However, due to the hectic pace of contemporary life, a great number of citizens are often unable to find enough time to travel even these relatively short distances. Designating new park space within the city would provide an accessible place to support healthy behaviors on a daily basis as Olmsted had done. Parks, Playgrounds and Boulevards were the forms that Olmsted used to combat environmental, health and community problems. Today gathering spaces, lookouts and greenways are forms which fit into the city fabric. Landscape and infrastructure design serves to connect gathering spaces together. Architecture provides access to previously inaccessible spaces and enables spaces which were previously dependent on weather to become daily fixtures in people's lives.

Chapter 1 :Frederick Law Olmsted's Ideals

What are advertised as apartment houses for people in New-York ..., are as yet only a more decent sort of tenement house, nearly half their rooms being without direct light and ventilation.

-Frederick Law Olmsted, *New-York Daily Tribune*, December 28, 1879

Around the mid-1800s industrialization was taking root within the United States. Through the end of the century the pace of industrialization accelerated. Coupled with the expansion of the railroad, industrialization centralized economic activity to the cities. As cities became strong economic centers their population grew, concentrating even more people together. By the 1890s the downsides to industrialization were becoming evident. Once been seen as a purely positive development, industrialization was increasingly considered a problem within the United States.¹

Frederick Law Olmsted envisioned a city where the economic benefits of industrialization were balanced with the social benefits of the countryside. He had seen country life as having greater political equality, economic opportunity and social harmony than city life. Olmsted's interest in rural life and nature had begun when he was a child. What had started as a childhood interest grew into a deep questioning of the romantic ideas of urbanism.²

1 Fairfield, John D., *The Mysteries of the Great City: The Politics of Urban Design 1877-1937*, "An Urban Republic", Ohio State University Press, Columbus, (1993) 16.

2 Fairfield., *The Mysteries of the Great City*, 17-18.

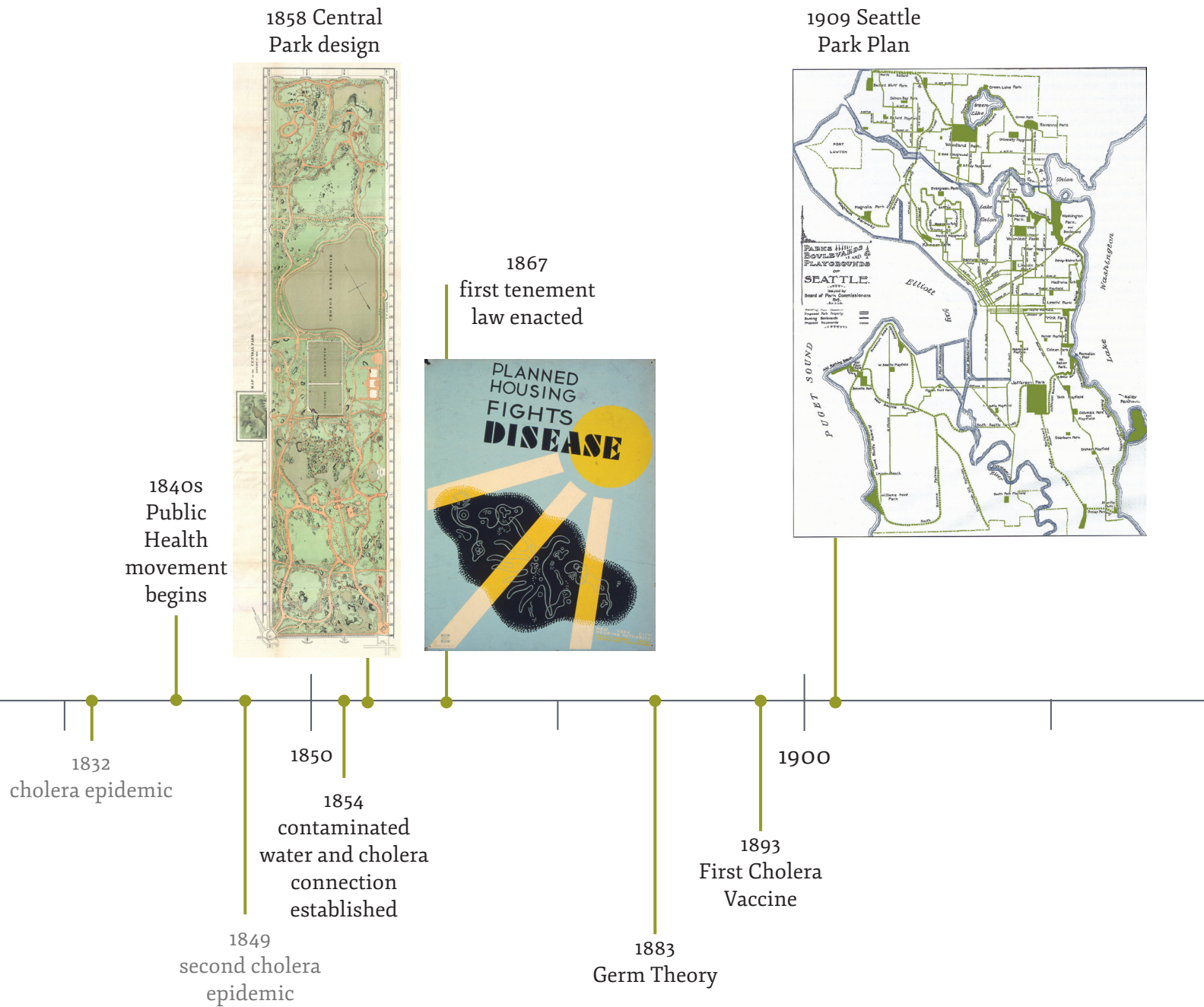


figure 1 : Health Influence Timeline

Industrialization and Urbanization

In the early 1800s the population of Manhattan was condensed to the area south of 14th Street, an area that has few streets running from one river to another, making it difficult for cross breezes to run through the streets. In 1832 a cholera outbreak hit a quarter of a million residents of Manhattan. Of those quarter of a million, 3,515 died in the cholera outbreak. (a little over 1.5% of the population). The outbreak of the disease was eventually, in 1854, traced to a public water pump which had been located adjacent to a cesspool. In the cesspool the diapers of an infected baby had been disposed. Less than two decades later another cholera outbreak hit the city. This outbreak occurred in 1849 when the population of New York had reached 500,000 and the death toll this time reached 5,071 (just over 1% of the population). While only a small percentage of the population died of cholera the outbreak terrified the residents of the city. The first signs of having cholera came on suddenly and included diarrhea, vomiting and abdominal cramps.³

By the mid-1800s Frederick Law Olmsted had become acutely aware of the negative impact that rapid urbanization was having on the health of the general

population. The Public Health movement had recently begun in Germany as a reaction to typhoid and typhus epidemics which had sprung up out of slums. A physician in Germany, Rudolf Virchow, had noticed a connection between poor sanitation in slums and an increase in the prevalence of disease. Inspired by Virchow's work, the American Medical Association (AMA) began to study the unhygienic living conditions within American cities. Based off of their findings, the AMA called for improvements in American's living conditions. The AMA specifically asked for improvements in sanitation systems and living quarters in the hopes that these improvements would help to avoid a future outbreak.⁴

Around the same time as the AMA's research Olmsted was working as an editor of Putnam's Monthly in New York City. With this job, Olmsted was provided with new findings in the health field. Along with reading about medical findings through work, Olmsted saw unhealthy living conditions every day in lower Manhattan. He became deeply concerned with the impact that living conditions were having on a population's health. A few years later,

³ Wilford, John Nobel, "How Epidemics Helped Shape the Modern Metropolis," The New York Times, April 15, 2008. http://www.nytimes.com/2008/04/15/science/15chol.html?_r=2&8dpc&

⁴ Fisher, Thomas, "Frederick Law Olmsted and the Campaign for Public Health," The Design Observer Group, November 15, 2010. <http://places.designobserver.com/feature/frederick-law-olmsted-and-the-campaign-for-public-health/15619/>



figure 2 : Olmsted: Benefits of Parks

in 1867, the first tenement law was enacted to control unhealthy housing conditions. In an effort to improve city sanitation this law regulated drainage and outdoor latrines.⁵

Despite the proof that health problems were flourishing in cities, Olmsted knew that people would not return to the countryside. It was apparent that the development of the city would increase as the industrial economy and transportation developed further. Instead of embarking on a futile attempt to bring an end to cities, Olmsted envisioned ways to improve people's lives by applying lessons from the countryside to an urban setting.⁶

The city fabric consisted of overcrowded buildings and disjointed street grids which blocked out natural light and fresh air. The dark and stagnant city experience was a drastic change from the 'tranquilizing recreation' of the countryside that many had moved from. This quintessential element of country living was believed to be essential in combatting the negative effects of the regimented conditions of industrial production.⁷ Recreational opportunities were predominantly located outside of the city, making it difficult for city residents, especially poorer

residents, to take advantage of them. Olmsted believed that setting tranquilizing parks within the city fabric would benefit city dwellers by creating an easily accessible countryside experience. Parks, especially those which took people off of crowded city streets, provided a setting in which people were able to rest their minds and take a break from the industrialized city life.

In the spring of 1858 Olmsted and the architect Calvert Vaux, won a competition to design Manhattan's Central Park. In their winning design they implemented a response to the health and social problems that Olmsted had observed in the city. Central Park was intended to become the 'lungs of the city', providing fresh air and natural light to all visitors. In order to achieve this, the park was designed to be well drained and included sanitary facilities. The drainage and sanitation features of the park keep the water in the park clean and free of disease to this day.⁸ As expected, the population of Manhattan expanded uptown and Central Park became an open space within the center of the city, a place where residents could breathe fresh air and have access to sunlight.

5 Fisher, "Frederick Law Olmsted and the Campaign for Public Health".

6 Fairfield, *The Mysteries of the Great City*, 19.

7 Fairfield, *The Mysteries of the Great City*, 20.

8 Fisher, "Frederick Law Olmsted and the Campaign for Public Health".

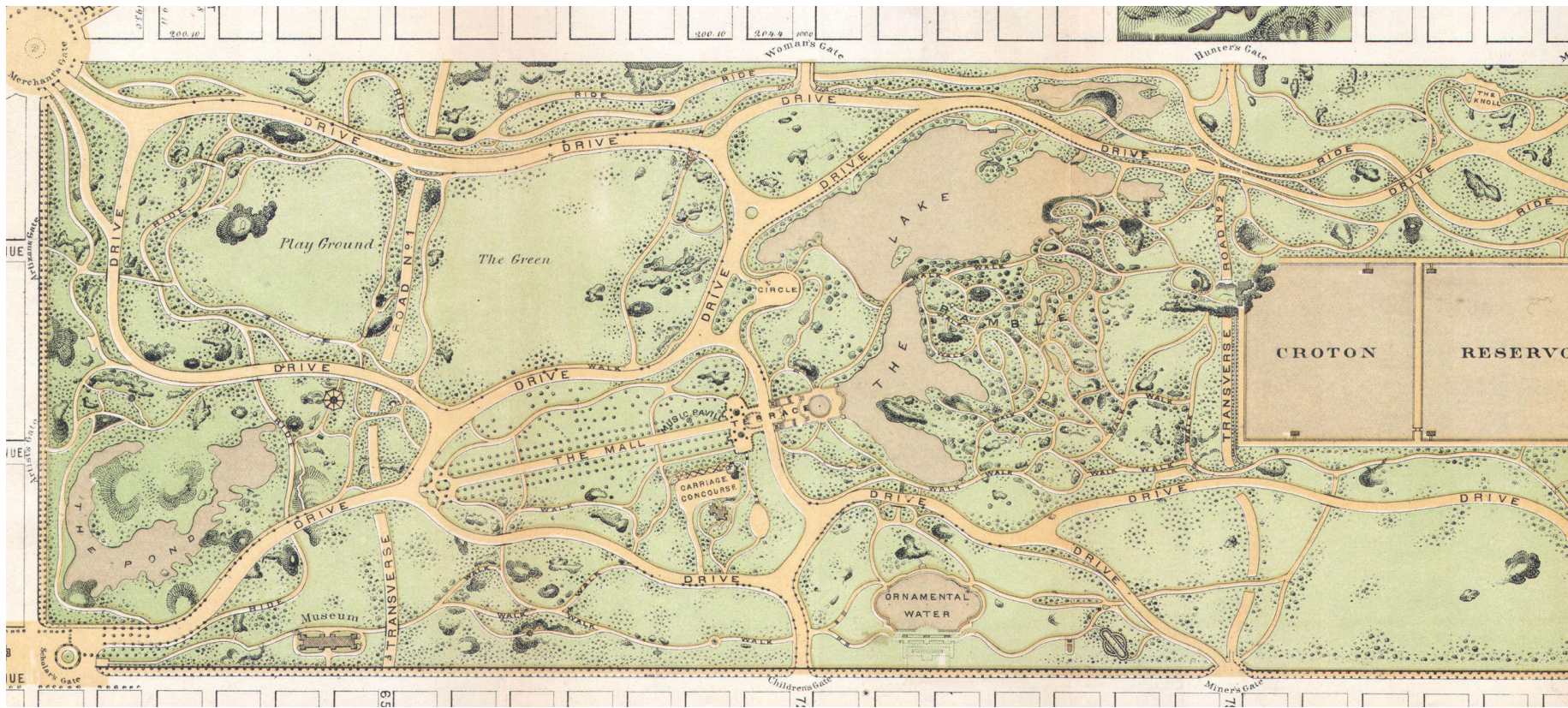
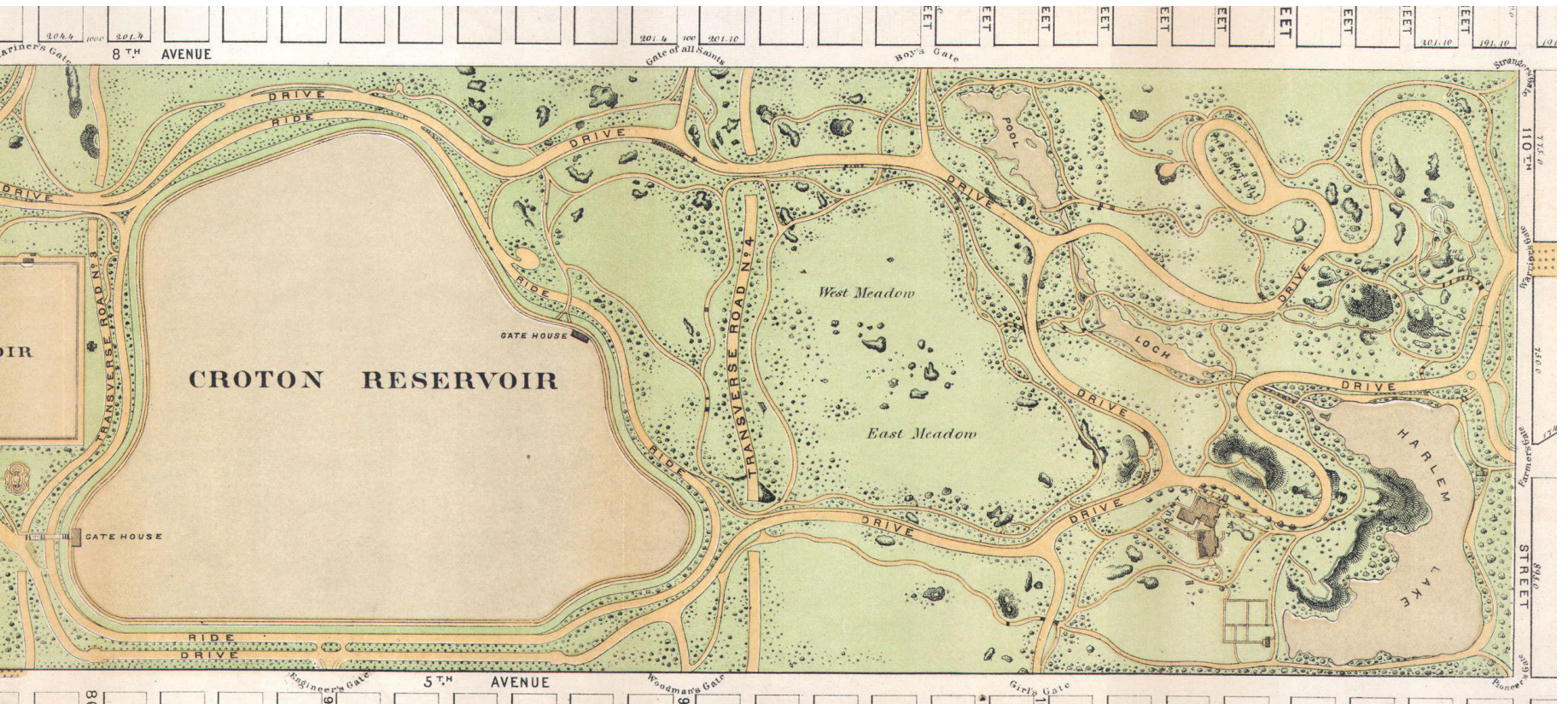


figure 3 : Central Park Plan 1858

Fostering “Sympathy, Admiration and Respect”

The design of Central Park not only reflected Olmsted’s interest in health but also his interest in politics. Parks provided a place of refuge within the industrialized city. When visiting a park, urbanites could retreat from their poor living conditions into an idyllic rural setting. Olmsted believed that people were naturally sympathetic and respectful of others but that their natural instinct

was suppressed in a city setting. As an admirer of the countryside, Olmsted believed that spending time in rural settings allowed people to develop their natural sympathetic and respectful nature. Urban parks brought people of different backgrounds together in a setting which encouraged their natural sympathy. The park was a place where people were connected by a mutual interest in the



surrounding beauty, rather than separated by their varied backgrounds.⁹

In order to further foster relationships between city dwellers Olmsted employed two design forms. One of these forms was the promenade which removed pedestrians from the bustling city street and into an idyllic setting where they were more likely to observe others. From observing people walking along city streets, Olmsted noted that it was not proximity alone which forged connections between people. In fact, the busier a street became the more people focused on themselves.¹⁰ Olmsted's promenades take people off of busy streets and bring them into a calm, idyllic setting. The promenades wind through parks allowing what lies ahead to be slowly revealed. The revealed progression of park elements along the promenade encourages people to move through the space, discovering new points of interest along the path.¹¹

The second design form was the lawn. The lawn provided space for smaller group interactions where acquaintances were able to relax and talk with each other.

9 Fairfield, *The Mysteries of the Great City*, 18.

10 Kosnoski, Jason, "Democratic Vistas: Fredrick Law Olmsted's Parks as Spatial Mediation of Urban Diversity" *Space and Culture*, 56. Accessed August 24, 2014. DOI: 10.1177/1206331210389268

11 Kosnoski, "Democratic Vistas" 60.

Small meetings could occur on lawns or benches and those meetings generally involved people with similar interests.¹² Because of their shared interests small groups tended to isolate themselves from their surroundings. Park benches and lawns provided a slightly isolated place where people could converse. Because small groups had a variety of interests, the lawn spaces had a variety of aesthetics. In Central Park lawns included open grass space, rocky terrains and lake side seating.

While the two ways of learning about others took on different form and activities from one another, the two complemented each other. The space for promenading delineated lawn spaces for gathering, while connecting them together and providing for further observation opportunities. While sitting on a lawn groups were able to talk with each other and watch others along the promenade. While directly interacting with people in their group, members are able to observe those who did not have a common interest.¹³ Lawns and landscapes within the park provide different settings for meeting and various opportunities for interacting.

12 Kosnoski, "Democratic Vistas" 57.

13 Kosnoski, "Democratic Vistas" 58.

A Plan for Seattle

Half a century after designing Central Park the Olmsted firm developed a vision for the rapidly growing city of Seattle. The park plan for Seattle, titled *Parks, Playgrounds, and Boulevards for Seattle*, set forth a 100 year citywide strategy for park acquisition and designing.¹⁴ Similar to the design of Central Park, *Parks, Playgrounds, and Boulevards for Seattle* designed opportunities for citizens to interact with nature and encourage gathering while remaining within the urban fabric. At the time of the plan's development, citizens of Seattle were concerned that the rapid urbanization taking place in their city would threaten their ability to experience nature. The implementation of The Olmsted Park Plan would ensure a continued presence of nature within the city.

Around the time that the Olmsted firm designed the park plan for Seattle, the city was rapidly acquiring park space. Between the years of 1884 and 1914 the city acquired land for 109 new parks. Most of these early parks were large tracts of land and almost a quarter of them incorporated playground space.¹⁵ At the time, real estate prices were relatively low, providing an opportunity for the

¹⁴ "Seattle Parks and Boulevards" 39.

¹⁵ Sarah Dooling, Gregory Simon and Ken Yocom, "Place-based Urban Ecology: A Century of Park Planning in Seattle," *Urban Ecosyst* 9 (2009): 306-308, accessed April 11, 2014, doi:10.1007/s11252-006-0008-1.

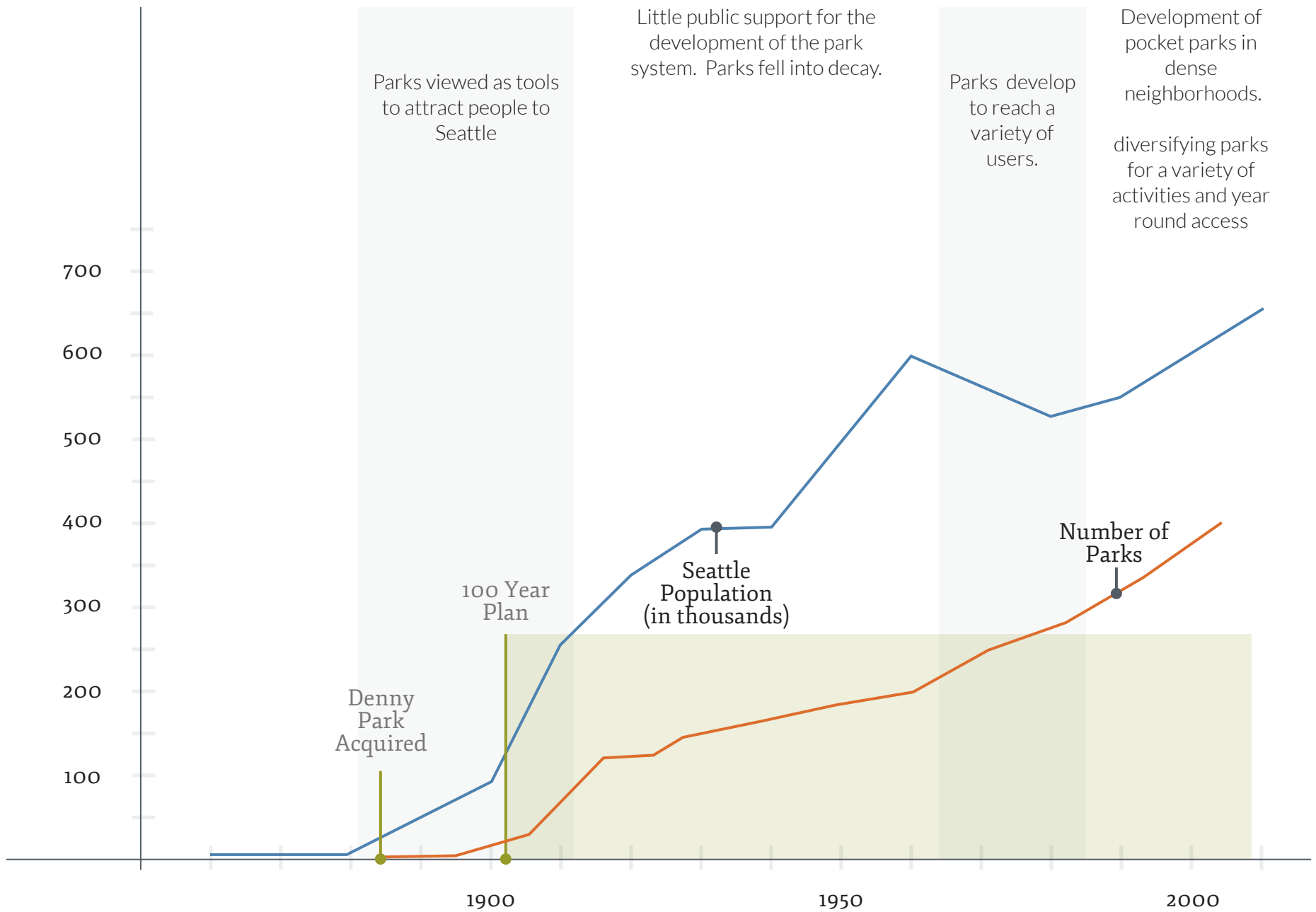


figure 5 : Seattle Population Rise in Conjunction with Eras in Park Management

city to purchase land for integration into the parks plan.¹⁶

The scale of Olmsted's park plan for Seattle was different than that of his plan for Central Park. The plan included a network of Boulevards running between gathering and activity space (as had been done in Central Park), but in Seattle the activity was distributed throughout the city. Following World War I the population and economy of Seattle plateaued and with it the acquisition of new park land paused. The pause in park land acquisition lasted almost 50 years, finally coming to an end after an outcry from Seattle citizens. In the decades that followed, Seattle expanded upon the Olmsted plan in an effort to meet the needs of a changing and densifying city. After half of a century the real estate climate had changed and fewer large untouched pieces of land were available for acquisition. Due to the difficulty of acquiring large untouched land, newly acquired park spaces started to take on new forms such as the Burke-Gilman Trail, a converted old railway line, and Gasworks Park, a reused industrial site.¹⁷ Both of these new parks were not pristine natural land to be preserved, but instead they built off of their context within an industrial and urban area. Gasworks Park retained remnants of its former

16 "Seattle Parks and Boulevards" 39.

17 Dooling, "Place-based Urban Ecology," 309-311.

use while the Burke-Gilman Trail became a long linear park for activities such as biking and running.¹⁸

18 Dooling, "Place-based Urban Ecology," 299.

Chapter 2 : Health in Design

I confess that I am astonished at the power of endurance, to say nothing of the moral insensibility, of my neighbors who confine themselves to shops and offices the whole day for weeks and months, ay, and years almost together.

-Henry David Thoreau, *Walking*

Health Conditions Today

Over the years, industrialization, technological advances and modernizing of living and working conditions have helped to stop the spread of bacterial diseases. As there was with the rise of industrialization, there have been unforeseen downsides of modernized living which have slowly become apparent. The new modern lifestyle, brought about in part by a reaction to the old prevalent diseases has led to new health challenges. For example, people are less physically active at work and during their commute and they have easier access to large quantities of food. As living conditions became less crowded and included better sanitary facilities, helping to combat the spread of diseases, it became easier for people to live a more sedentary lifestyle in their home. Diseases which had once been rare increased in response to the new modern lifestyle. These diseases have included diabetes, stress and cardiac disease which all increased in prevalence over the second half of the 20th century.¹⁹

In the beginning of the 20th century, around the time that Olmsted worked, architects responded to health problems related to housing quality. At that time cities were overpopulated and mostly comprised of run-down

¹⁹ Gehl, *How to Study Public Life*, 47.

housing linked together by alleys which smelled due to poor sanitation. Living quarters were cramped, allowing diseases to spread easily. These poor living conditions led to the prevalence of bacterial diseases including tuberculosis, diphtheria and cholera. Architects saw ways in which they could help to combat these diseases and have a positive impact on their community. They argued that modernizing the housing stock could potentially improve health conditions within the city. These efforts, coupled with new medical breakthroughs such as the invention of penicillin, led to a dramatic decrease in the number of bacterial diseases.²⁰

With many building and health codes now in place to protect citizens from unsanitary living conditions, designers and local governments have turned their attention towards combatting the latest health crisis: the increase in lifestyle diseases. In 2010, New York City began an attempt to combat lifestyle diseases by issuing Active Design Guidelines. Putting forth new guidelines and writing about how design can impact citizens' activity has helped to initiate the conversation about the relationship between the built environment and health in the United States. The New York AIA chapter has joined the conversation by sponsoring an

20 Gehl, *How to Study Public Life*, 42.

annual 'Fit City' symposium, hoping that the guidelines will become accessible and understandable on a national scale. These documents and symposiums have further emphasized the point that designers are in a position to provide nudges and inspire people to be active outside, as Olmsted had done.²¹ Once people are encouraged, architects are in the position to design space and support facilities for active people.

Changing housing stock had an impact on the amount of physical activity that people participated in. However, technological advances such as television have influenced people's activity even more. Currently the average adult American spends more than half of their free time watching TV, which adds up to almost 20 hours of TV watching every week. Watching TV is one of the most sedentary activities that a person can participate in. Even actives such as reading, talking on the phone or working at a desk expend more energy than watching television, though not much more.²² All of those hours spent watching TV leaves only an

21 Philip Kennicott, "City Planners are Increasingly Aware of Health Benefits of Clean, Living Landscapes," *The Washington Post*, June 24, 2014. http://www.washingtonpost.com/lifestyle/style/city-planners-are-increasingly-aware-of-health-benefits-of-clean-living-landscapes/2014/06/23/c45438ac-f324-11e3-9ebc-2ee6f81ed217_story.html

22 Otten JJ, Jones KE, Littenberg B, Harvey-Berino J. "Effects of Television Viewing Reduction on Energy Intake and Expenditure in Overweight and Obese Adults: A Randomized Controlled Trial." *Archives of Internal Medicine*.

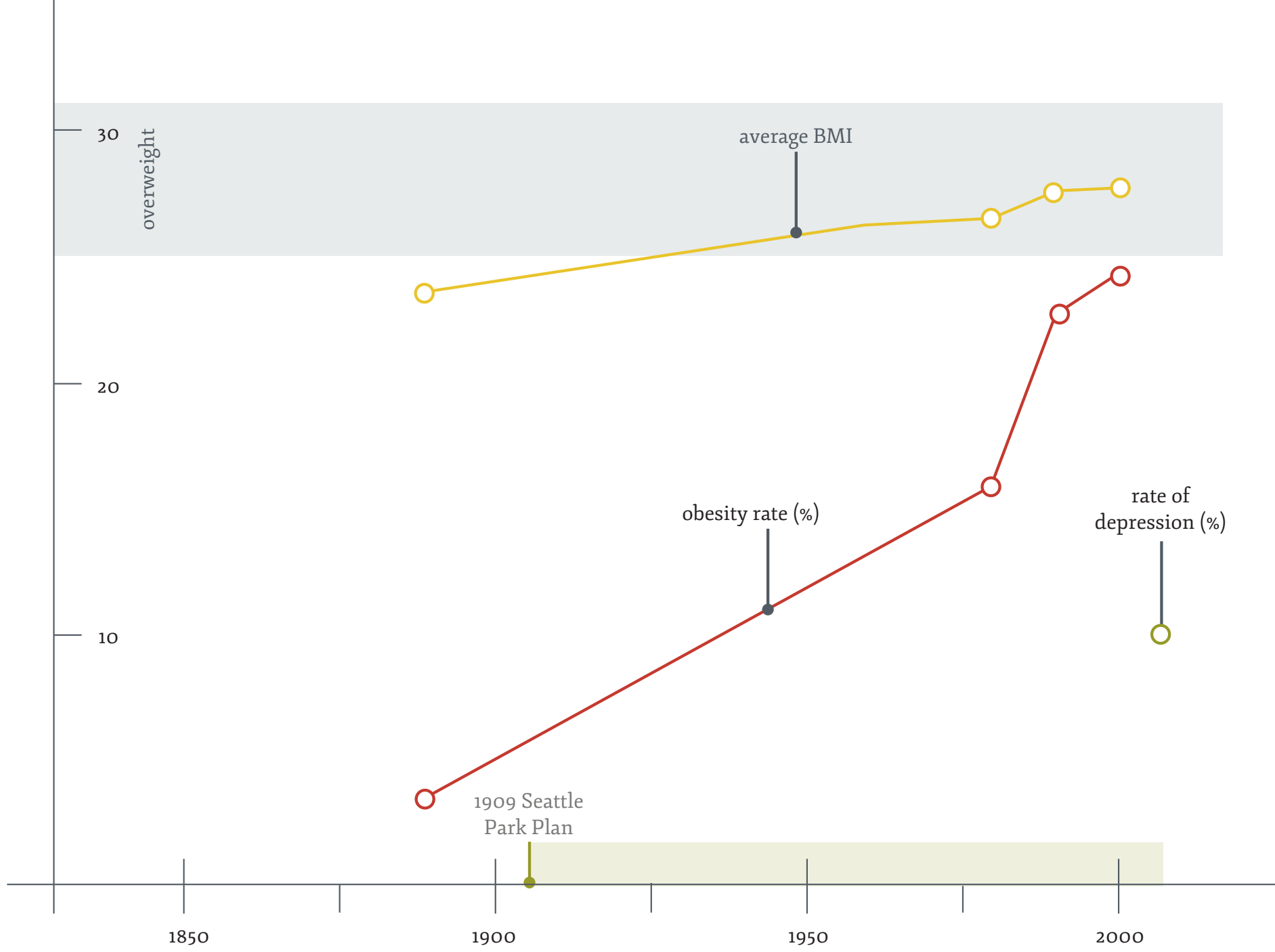


figure 6 : The Increasing Pervasiveness of Lifestyle Diseases

average of 19 minutes per day that is spent participating in recreational exercise, or 1.3% of the day.²³

Research has found that even ‘active couch potatoes’, people who exercise everyday but spend most of their time sitting still have an increased risk of diseases related to inactivity. Bouts of daily exercise alone do not negate the negative effects of excess sitting. The best way to combat the negative effects of prolonged sitting is to simply increase the amount of time spent being active.²⁴ Examples of physical activities range from the very active like biking or running to less demanding activities like walking. All of these activities are beneficial in reducing negative effects of sitting. Encouraging recreational use of public streets and parks could have a positive effect on the overall health of city residents.

The average Body Mass Index (BMI), a measure of health, has been growing over the years. Over the past decade there has been an increased awareness of the problems of sitting and inactivity. Articles published in

The New York Times have warned readers of the dangers of
2009;169(22):2109-2115. doi:10.1001/archinternmed.2009.430.

23 Bureau of Labor Statistics, *American Time Use Survey*, <http://www.bls.gov/tus/charts/leisure.htm>

24 Reynolds, Gretchen, “Phys Ed: The Med Who Stare at Screens,” *The New York Times* (July 14, 2010) <http://well.blogs.nytimes.com/2010/07/14/phys-ed-the-men-who-stare-at-screens/>

excessive sitting and a general lack of movement or exercise. Titles of *New York Times* articles have included, “The Hazards of the Couch,”²⁵ “Is Sitting a Lethal Activity?”²⁶ and “Stand Up While You Read This!”²⁷. All of these alarmingly titled articles present research which further demonstrates how dangerous excessive sitting is for one’s health.

For those who do participate in outdoor activities, like kids playing games or gardening, the back yard can be a beneficial resource. The city of Seattle has already integrated shared spaces for play and gardening into its fabric by providing playgrounds for children and p-patches for gardeners. The city is expanding its efforts to encourage Seattleites to be more active by increasing the infrastructure for walkers and bikers. Support for walking and biking infrastructure has the potential to improve the health conditions of city citizens, as Olmsted’s parks had done.

25 Roni Caryn Rabin, “The Hazards of the Couch,” *The New York Times*, January 12, 2011, Accessed September 15, 2014, <http://well.blogs.nytimes.com/2011/01/12/the-hazards-of-the-couch/>

26 James Vlahos, “Is Sitting a Lethal Activity?” *The New York Times Magazine*, April 14, 2011, accessed September 15, 2014, <http://www.nytimes.com/2011/04/17/magazine/mag-17sitting-t.html?module=Search&mabReward=relbias%3Ar>

27 Olivia Judson, “Stand Up While You Read This!,” *The New York Times*, February 23, 2010, Accessed September 15, 2014, <http://opinionator.blogs.nytimes.com/2010/02/23/stand-up-while-you-read-this/?module=Search&mabReward=relbias%3Ar>

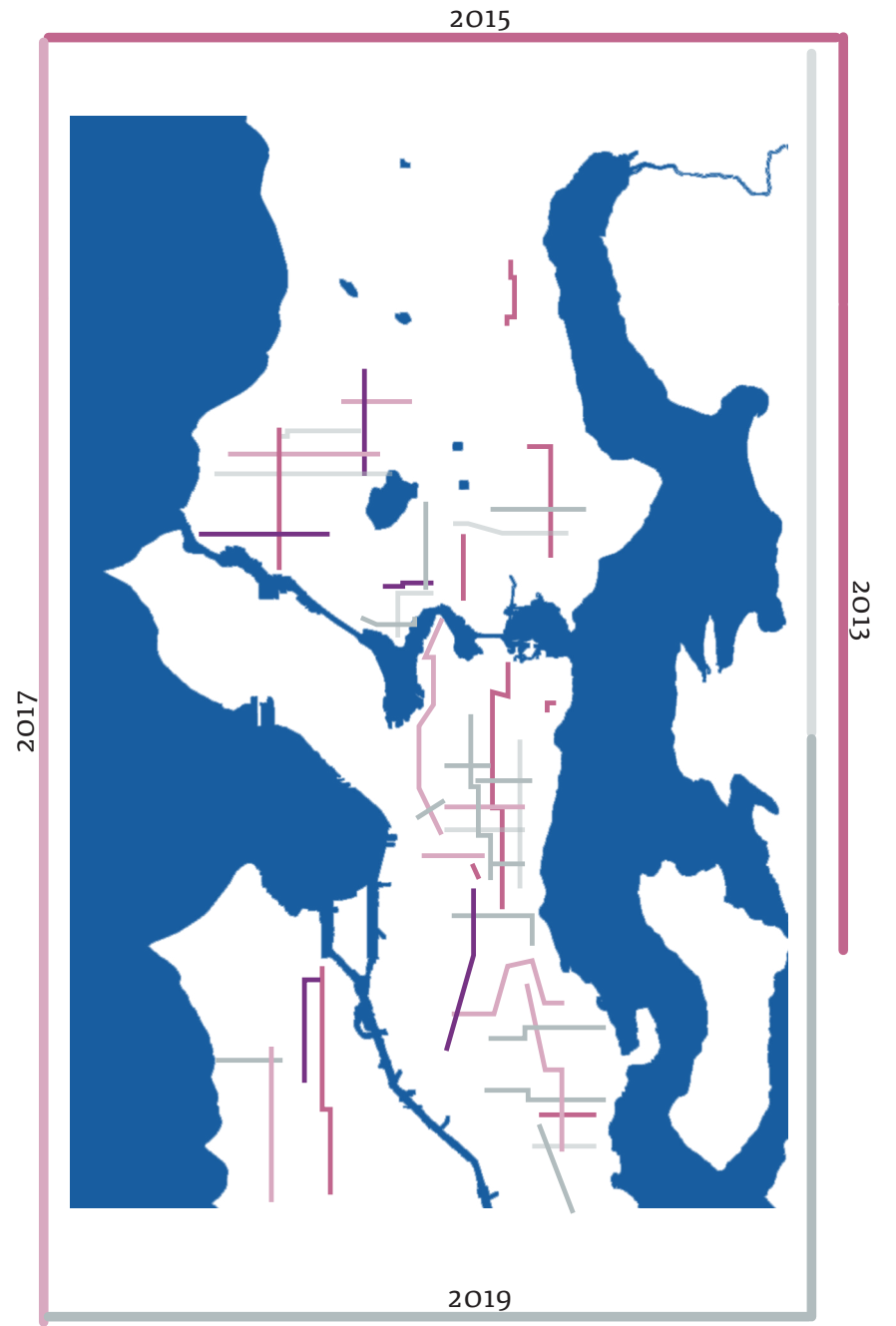


figure 7 : The Greenway System Expansion

Physical Activity

The Seattle Parks Department is not the only city department concerned with encouraging a healthy lifestyle. The Department of Transportation is in the process of expanding a system of greenways throughout the city. Greenways are intended to make neighborhood streets safer for pedestrians and cyclists through small infrastructure improvements such as traffic calming speed bumps and the addition of stop signs. In 2013 there were only six greenways scattered throughout Seattle, but the city has ambitious plans to greatly increase this number within the next decade. Within the first two years of expanding the program (2014-2015) ten new greenways are being constructed, increasing the greenway mileage from 9.9 to 26 miles. By 2019 there should be 45 individual greenway segments totaling more than 75 miles of greenways scattered throughout the city.²⁸

The prevalence of bacterial diseases is thankfully no longer a serious health concern within the United States as it was during Olmsted's lifetime. In the place of bacterial diseases the rate of lifestyle diseases have arisen in recent decades including obesity, hypertension, and stress. In

28 "Seattle's Neighborhood Greenway Work Plan," last modified November 17, 2014, <http://www.seattle.gov/transportation/greenwaysworkplan.htm>

2012 the CDC conducted a study in Washington state in which they asked how much physical activity people had participated in the past month. 20% of the people questioned had not participated in any form of physical activity.²⁹ In part this could be attributed to a lack of pleasant and accessible places to exercise. Studies have found that when there is a lack of good infrastructure the rate of walking diminishes. The development of greenways in Seattle could encourage walking. Targeted design and architectural interventions along the greenways could bring further attention to these routes and create paths which are pleasant to walk along, encouraging citizens to exercise more.

With all of these articles showing just how harmful a lack of daily activity can be, cities have been looking for solutions to this health epidemic. As they were in the past, architects are now in a unique position to have a positive influence on the major health problems of Americans.

29 CDC Office of Surveillance, Epidemiology, and Laboratory Services, "Prevalence and Trends Data: Washington - 2013 Exercise," Accessed December 23, 2014, <http://apps.nccd.cdc.gov/brfss/display.asp?yr=2013&state=WA&qkey=8041&grp=0&SUBMIT3=Go>

Mental Health and Well-Being

Natural environments have been found to be restorative to visitors and can lead to improved happiness, lower anger or aggression and decreased anxiety and depression. Environments which provide the greatest health benefits are those which impart a sense of separation from the usual urban surroundings. Studies looking at people who run or walk through urban parks found that their experience was more restorative than those who ran or walk on the street.³⁰ While studies have looked at parks mainly, buildings could also have a similar impact on how people live their life by separating people from their surroundings and providing a relaxing environment.

Settings which feel safe provide contact with greenspace and privacy, but they also provide opportunities for some contact with other people and have a favorable impact on mental health. These settings have a positive correlation with well-being, life satisfaction, quality of life, social support, the ability to concentrate and increased play in children. They also have a lower correlation with mental fatigue. Places with an unfavorable impact on mental health include places which are noisy, crowded and dangerous. Some of the negative impacts that these places have can

include social withdrawal, distress, anxiety, irritability and children with diminished social and motor skills.³¹

Increasing social ties can lead to a social support network which is beneficial for people's well-being. The formation of social ties is particularly important for the elderly. Among elderly individuals, those who have stronger social ties are in better physical shape, have a lower fear of crime and a lower rate of suicide. The built environment is able to shape the way in which people interact and can promote greater social interaction among neighbors. The promotion of social interaction can be encouraged through providing informal gathering spaces, or places of social contact as Olmsted had employed in his lawns. In order to provide a place which is conducive to encouraging social interaction the space should aim to be quiet and not crowded.³²

Mental fatigue can occur when a person has too many demands on their attention and need to process a lot of information. Excessive mental fatigue can lead to people becoming withdrawn from society, easily irritable, distracted, and accident prone. Being in a natural setting, viewing

³¹ Ed. Andrew L. Dannenberg, *Making Healthy Places: Designing and Building for Health, Well-being, and Sustainability*, Island Press:Washington, DC (2011) 108:table 7.1.

³² Ed. Andrew L. Dannenberg, *Making Healthy Places*, 108-109.

³⁰ Giles-Corti, "Increasing Walking...": 173.



figure 8 : Within a 10 Minute Walk to a Greenway

nature from a window, or being in a room with interior plants can alleviate mental fatigue. Once mental fatigue is alleviated, people's capacity to pay attention returns.³³

In 2005-2006 a little over 5% of Americans reported being depressed.³⁴ In Seattle, around 10% of the population has reported having frequent mental distress.³⁵ Stress and depression have also been shown to correlate with features of the environment surrounding us. Particular elements of the built environment, such as noise, crowded spaces and low levels of daylight, have a negative effect on well-being and in some cases can correlate with depression. Unwanted noise at work or at home such as loud traffic and airport noise has been linked to irritability. The prevalence of crowded places also has a correlation with an increase in distress.³⁶

Seasonal depression, also called seasonal affective disorder, can occur for many people when they are exposed to low levels of daylight. Some of the symptoms that people exhibit when they are affected by seasonal depression

33 Dannenberg, *Making Healthy Places*: 110.

34 Centers for Disease Control and Prevention. "Depression." Last modified October 4, 2013. http://www.cdc.gov/mentalhealth/data_stats/depression.htm

35 Centers for Disease Control and Prevention. "Non-Specific Psychological Distress." Last modified October 4, 2013. http://www.cdc.gov/mentalhealth/data_stats/nspd.htm

36 Dannenberg, *Making Healthy Places*: 111.

include sadness, withdrawing from social activities and having a difficult time concentrating. Since seasonal depression occurs mostly in winter months when people spend a majority of their time indoors spending time in a building with large windows may contribute to a lessening of symptom intensity and the duration of those symptoms.³⁷ Large windows provide more daylight for people and could also frame a view of nature. What Olmsted saw as a space to foster natural tendencies towards sympathy and respect, we now see as beneficial to personal well-being and mental health. Structures which protect visitors from the elements during colder months but still provide views and natural daylight have the potential to be beneficial to the mental health of visitors.

37 Dannenberg, *Making Healthy Places*: 111.

Chapter 3 : Design Elements

“A connected system of parks and pathways is manifestly far more complete and useful than a series of isolated parks.”

- The Olmsted Brothers, 1903

The Nature of a Promenade

Studies have proven what Olmsted intuitively knew to be true: people prefer to walk along areas which they perceive to be visually appealing and safe. The Promenade that Olmsted employed in Central Park took pedestrians along an easy to follow and well-choreographed path. The experiences along individual path segments were choreographed by Olmsted but people were able to direct their own overall experience by linking path segments together. Navigating through the park, visitors would follow one promenade segment then switch to another upon reaching an intersection. While the promenade acted as a path, leading a person from one point to another, it also became a destination in itself. The promenade provided a safe, unique and varied experience, allowing visitors to focus on their surroundings and other people instead of being overwhelmed by navigating their surroundings.

As work began on *Parks, Playgrounds and Boulevards for Seattle*, bike paths in the city were starting to be abandoned and falling into disrepair. In addition to public transportation, cars would soon become the vehicle of choice in the United States and the construction of parkways would expand. Parkway, like promenades and boulevards, were designed to allow travelers to enjoy the

landscape which passed them by. Because passengers on parkways were expected to be paying attention to the scenery, parkways were designed for cars to travel at moderate speeds ensuring safety as they traveled. Visitors enjoyed the act of being on a journey while on their way to their destination. In the 1920s, 20 years after the design of the Olmsted plan, the highway system moved away from parkways in favor of turnpikes, direct routes which allowed for high speed travel. Highways provided faster travel time for users than parkways but they sacrificed the element of enjoyment. Higher speeds and an emphasis on faster travel times led to a stripping of design elements intended to contribute to the experience of travel.³⁸ The boulevards and promenades that Olmsted designed were like parkways, emphasizing a slower, more leisurely journey over a faster travel time.

By 2019 the city of Seattle will implement a network of 39 greenways which will span throughout the city. Greenways are targeted infrastructural improvements along selected existing roads intended to support and encourage active transportation like biking and walking over fast vehicle transit. The roads selected to become greenways already

³⁸ Hvattum, Mari, Ed., *Routes, Roads and Landscapes* (Burlington, VT: Ashgate Pub., 2011), 106.



have low volumes of car traffic. Once one of these roads gets designated as a greenway it receives infrastructure improvements to increase safety for pedestrians and cyclists. The addition of traffic lights and stop signs along the length of a greenway help users to cross busy streets, while speed bumps or other traffic calming measures discourage through traffic. These infrastructural improvements create a road which is safer and more pleasant for pedestrians and cyclists. The emphasis on a slower means of travel hints back to Olmsted's promenade ideals, making the greenway system a potential catalyst for transporting Olmsted's ideas into neighborhoods across Seattle.

Research has been done on the benefits of active commuting and ways in which to encourage active commuting. The greenway system is intended to encourage bike commuting as a means of traveling to work, but it also designates a place which would be beneficial to encouraging physical activity during free time.

Studies in Chicago and Australia have found that proximity to a park plays a large factor in how frequently people visit that park. Those who live close to a park which is easy to access will use that park more frequently and the closer one lives to a park, he or she is more likely to visit on

a daily basis. People who travel further distances to access a park are more likely to visit infrequently and drive to their location instead of using active means of getting there.³⁹ Since the Seattle greenway system will span through many neighborhoods, people's local greenway has the potential to become an everyday fixture in people's lives.

Studies have found that being closely located to public open space alone, independent of how large the space was, played a strong factor in whether people made use of the space. Those who made use of public open space in a city were almost three times as likely to reach the recommended activity levels each week compared to those who didn't. Providing space for people to visit within walking distance to where they live or work has potential to have a positive impact on the health of Seattle citizens.⁴⁰

Adding infrastructure and scenic elements to streets, turning streets into greenways, turns back the clock and slows travelers down. A slower means of movement provides time for travelers to take note of their surroundings. Olmsted designed his promenades

39 Billie Giles-Corti, Melissa H. Broomhall, Matthew Knuiman, Catherine Collins, Kate Douglas, Kevin Ng, Andrea Lange, Robert J. Donovan, "Increasing Walking: How Important is Distance to, Attractiveness, and Size of Public Open Space?," *American Journal of Preventive Medicine*, 28(2005): 170.

40 Billie Giles-Corti, "Increasing Walking": 172-174.

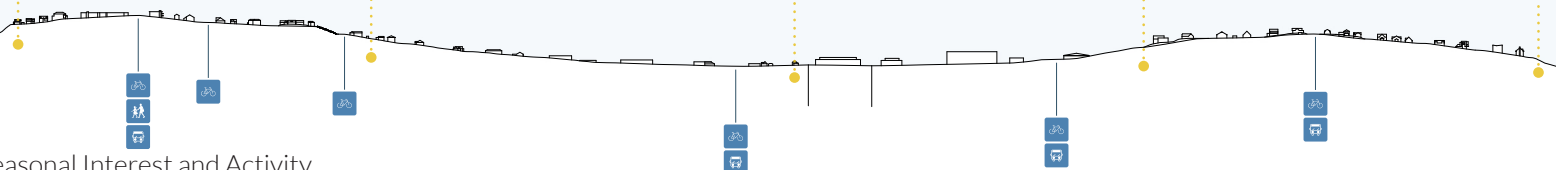
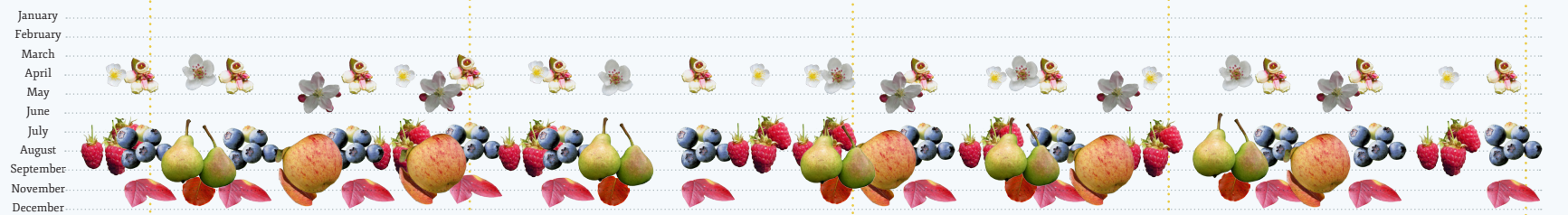


figure 10: Seasonal Interest and Activity

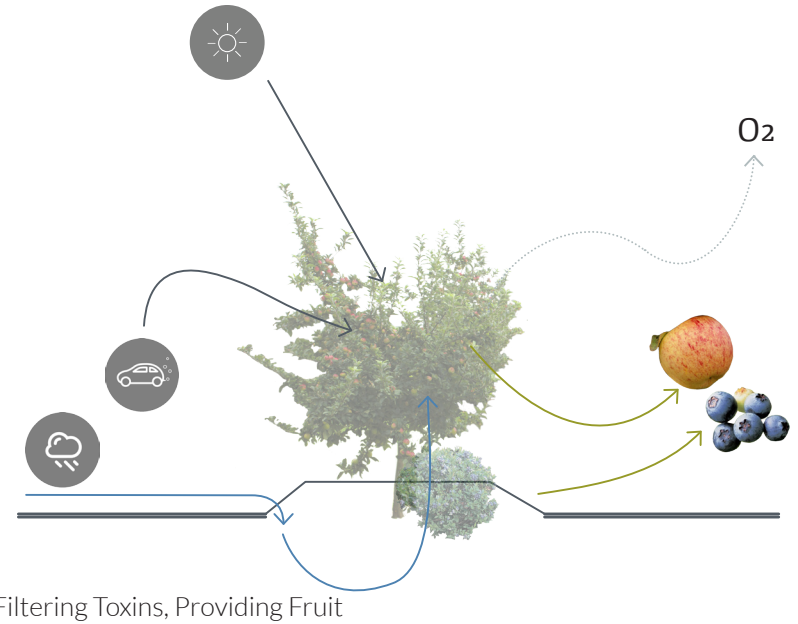
to meander through a park or city. The curvilinear nature of the promenade allowed elements along the path to be revealed as visitors walked through the space. Building an updated promenade off of existing street infrastructure makes it impossible to redesign the plan of the street in order to achieve Olmsted's slowly unveiling experience. Instead the unveiling must be created through the street section. Utilizing trees to slowly reveal the greenway allows the lower portion of the section to remain open, creating a balance between safe and open feeling space and an unfolding experience. Olmsted intended the promenade to be a safe place where visitors could relax and feel comfortable enough to focus on others. In order to maintain a safe feeling along the sidewalk, infrastructure should remain light and open while supporting users.

Sidewalk lighting for early morning and evening walks keep the sidewalk visible, creating a safer environment. With lighting, pedestrians are able to see people ahead of them and avoid uneven walking surfaces. Diagrammatic maps helps visitors place themselves in the context of the trail and gain a sense of distances. Single person seating allows people to rest either because they physically need to or simply because they wish to observe others and their

surroundings.

According to the urban design firm, Gehl Architects, streetscapes should have something new every 20-25 feet. This spacing keeps the pedestrian engaged while walking. Since Seattle greenways are intended mainly for use by neighborhood residents, incorporating seasonal interest can create a path which is dynamic throughout the year. Large open Central Park lawns start the year covered in snow. The long allée entrance blooms in the spring time while wildlife moves into the park in the summer and tree leaves bring vibrancy in the autumn. A visitor could walk along the same promenade over the course of the year and have a varied experience each time even they passed through the park. While the structural support of the park remains the same, the planned natural elements take on a new life each year.

Since greenways makes use of the public right of way, maintenance of the planned natural elements requires the support of people living along the path. This support has the potential to foster greater relationships between people who live along the greenway. Support from the Seattle Parks Department could assist beginner gardeners in planting trees and low lying bushes along the trail while encouraging interaction between green thumbs and new gardeners.



Seattle Parks
Department

Path Neighbors⁺



Neighborhood Involvement

Parks Department Beginners Green Thumbs



Inclusive of Multiple Experience Levels

figure 11 : Eatable Pathways

Some Seattle residents already have fruit trees planted along their parking strips throughout the city. Encouraging more building owners to grow fruit trees and berry bushes along greenways would not only provide seasonal interest along the path, but it would also support healthy habits by bringing fresh fruit and berries to greenway users. Plants along the greenway would include fruit trees including apple, cherry and pear and berry bushes like blueberry and raspberry. Not only are these types of plants low maintenance which could encourage new gardeners to participate but they also have seasonal interest, creating a varied and dynamic experience for people traveling along the greenway.

Street trees help to filter polluted air and take up water runoff from the street. Trees provide shade for pedestrians in the warmer months and fresh fruit in the harvest months. Towards the end of the harvest season, uneaten fruit could be collected and distributed to food banks, helping to provide healthy food to people in need.

Planting along the greenway increases the opportunity to observe nature within the city. Choosing planting that attract wildlife like hummingbirds and butterflies can let students and families in the neighborhood

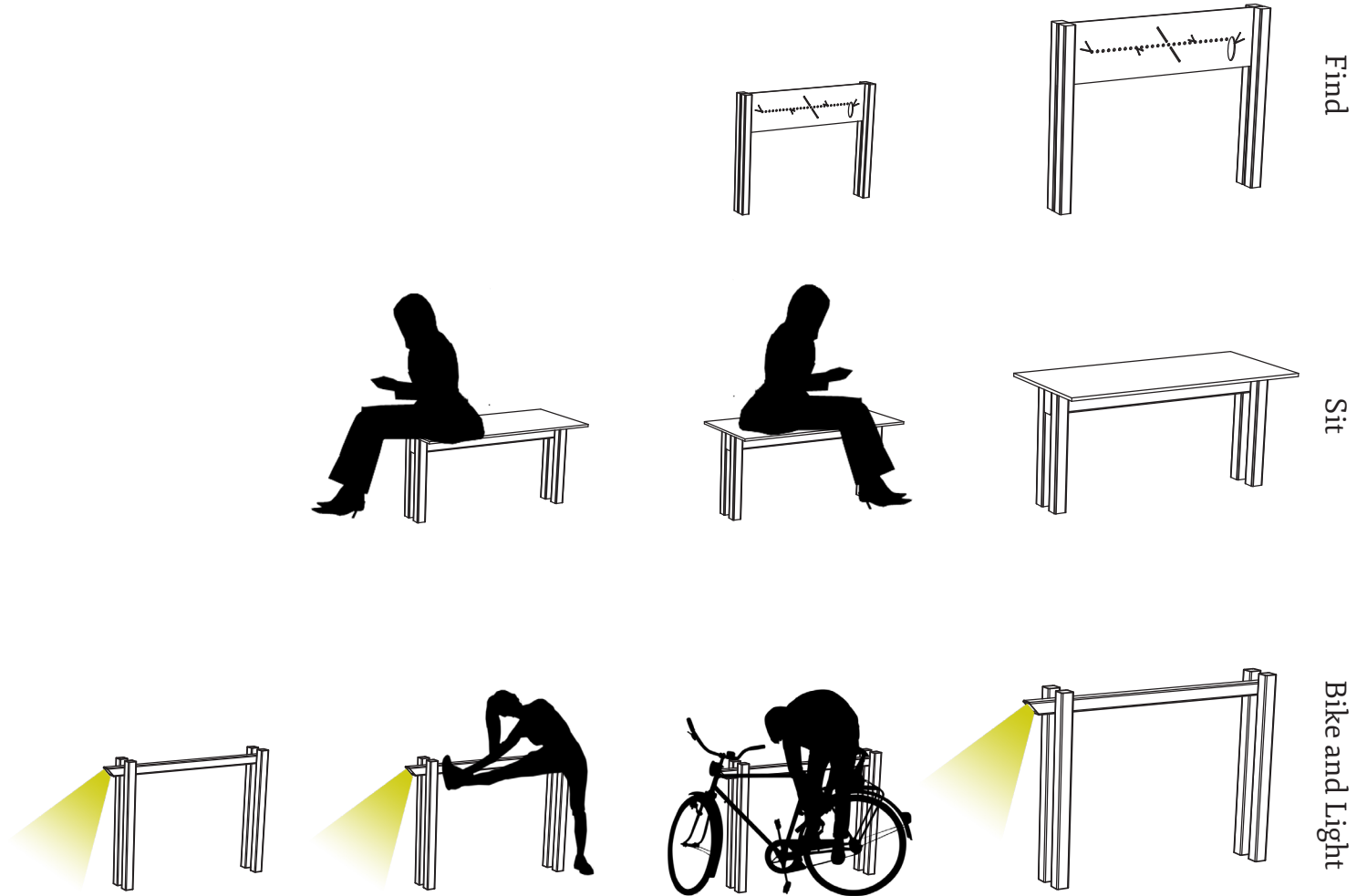
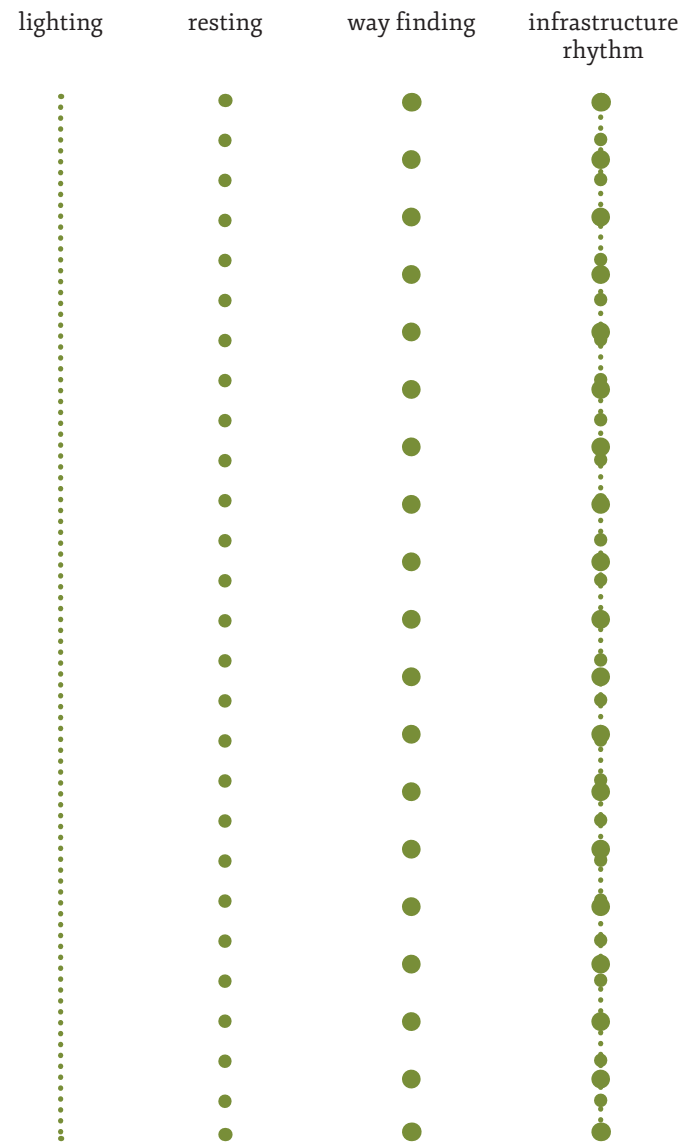


figure 12 : Infrastructure to Support Greenway Use

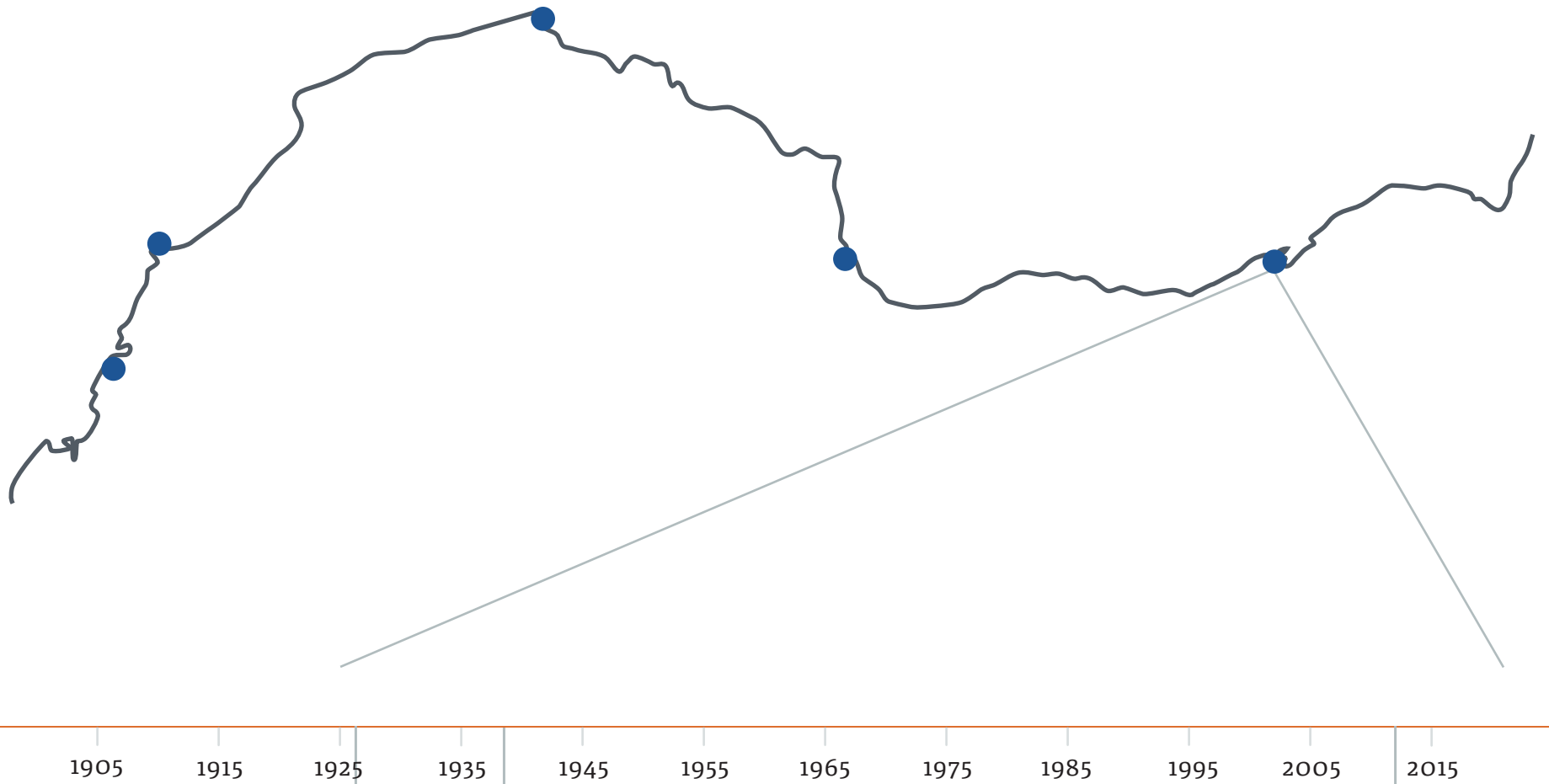
observe wildlife. In the Seattle region, the Anna’s hummingbird can be observed year round while the Rufous joins between May and October.⁴¹ Encouraging habitats for these species helps to increase awareness among Seattle citizens, but also increases the pollination of plants, allowing even more healthy food to grow along the promenade.

The plantings, combined with infrastructure elements along the greenway such as lighting and way-finding would set a rhythm for the path and help people feel confident that they are following the greenway. Lighting, low lying and targeted toward the sidewalk, would occur every five to ten feet in order to provide a continuous lighted pathway without creating excess light pollution. Two or three times per block a bench would be placed, creating an opportunity for individuals to rest. Once a block a way-finding sign would indicate where a visitor stood in relation to the trail. This way-finding would not only give basic directions but also graphically indicate how long the trail is and how many gatherings spaces are located along the greenway.



41 Washington Department of Fish and Wildlife: Conservation, "Hummingbirds and How to Attract Them," Accessed January 17, 2015. <http://wdfw.wa.gov/living/hummingbirds/index.html>

figure 13: The Rhythm of Infrastructure



1905 1915 1925 1935 1945 1955 1965 1975 1985 1995 2005 2015



figure 14 : Infrastructure Uniting a Route

The Infrastructure of Gathering

When Olmsted designed the promenades to be incorporated into his parks, he set specific entry and exit points for visitors. Once a visitor entered the park they had to experience the promenade completely before exiting at another point. The path prevented the pedestrian from using the park as a shortcut or an extension of the street grid.⁴² Unlike Central Park promenades, the boulevards of Seattle stretched throughout the city. These urban boulevards inherently had many entry and exit points along them due to the interconnected nature of the street grid. Instead of forcing visitors to promenade long distances as in Central Park, visitors needed to be coaxed into following the whole boulevard path.

While the development and expansion of parkways took place almost a century ago in the United States, a modern interpretation of the idea can be seen in Norway. The Norwegian Tourist Route provides an example of a parkway whose infrastructure elevates the experience of the path beyond the purely functional. Tourist Route segments are formed through the development of infrastructural elements along the road. Stopping points demarcate where

it is safe for visitors to pull over and they also direct the visitors focus to chosen points along the route. Olmsted choreographed the promenade experience with vegetation while the Norwegian Tourist Route choreographs with infrastructure. While there are obvious differences between the Norwegian Tourist Route and an urban Olmsted promenade, there are still elements that overlap between the two.

Along both the urban promenade and the Norwegian Tourist Route, the road itself cannot be manipulated. The tourist route is largely set within a rural setting with few intersecting streets, making travel along the route straightforward and fairly easy to navigate. When moving into an urban setting the rate of infrastructure and signage must be increased in order to create a cohesive feeling and easy to navigate path. Another difference is that along the Norwegian Tourist Route the main mode of transportation is by car. When traveling by car a rest stop is a place to use the facilities and eat some food but also becomes a place to stretch your legs and walk around. The opposite is true along a promenade. While the importance of using the facilities and eating food remains, the rest stop becomes an actual place of rest, giving walkers, runners and bike riders a

⁴² Kosnoski, Jason, Space and Culture, "Democratic Vistas: Fredrick Law Olmsted's Parks as Spatial Mediation of Urban Diversity," 61. Accessed August 24, 2014. DOI: 10.1177/1206331210389268

chance to relax their legs.

The Norwegian Tourist Route Project includes 18 scenic routes, most of which were built between the 1880s and the 1940s as a way to bring citizens to scenic view points throughout the country.⁴³ As the stops became popular with national and international visitors alike, the nature which drew people to the sites in the first place became worn down. Recently, existing rest stops along the route underwent improvements in order to preserve and enhance the existing natural and iconic viewpoints.⁴⁴ Stops preserve the existing conditions of the site while creating new spaces to experience the already well known trail, giving well known trails a new life.⁴⁵

Rest stops along parkways are not the only case studies applicable to the development of Seattle greenways. The city of Seattle is surrounded by many trails which provide access to the natural settings surrounding the city. Use of the trails is supported by infrastructural elements

43 Larsen, Janike Kampeveld, *Global Tourism Practices as Living Heritage: Viewing the Norwegian Tourist Route Project*. p68.

44 Hvattum, Mari, Ed., *Routes, Roads and Landscapes* (Burlington, VT: Ashgate Pub., 2011), 181-180. "galleri NOR," Nasjonalbiblioteket, Accessed May 2014, http://www.nb.no/cgi-bin/galnor/gn_sok.sh?context=8091719&user_offset=1&offset=20&skjema=0&invnr=&userid=&type=e&limit=20&tittel=trollstigen&komm=&sted=&ar1=&ar2=&person=&persontype=&person2=&persontype2=&fm=1&tilbake.x=16&tilbake.y=12

45 Larsen, Janike Kampeveld, *Global Tourism Practices as Living Heritage: Viewing the Norwegian Tourist Route Project*. p70.

along them. This infrastructure encourages casual hikers to use the trails by providing basic amenities in order to make the journey easier. Infrastructure elements along hiking trails provide insight into what essential facilities are needed for a well-used trail.

Infrastructure elements along the hiking trails include structures for negotiating changes in topography, places for rest, and lookouts to take in the surroundings. Restrooms and water fountains provide necessary amenities for park visitors. Bridges and stairs provide a means of negotiating topographic changes while logs or stones along hillsides provide places for rest and reflection. These infrastructure elements take on the role of marker points, creating a designated place to stop and reflect along a trail.

In addition to its functional uses, infrastructure takes on another role along a trail, as a tool to experience important elements within a route. A bridge over a waterfall enables navigating the terrain while also providing a place for observing the waterfall. A rock by a clearing provides a resting place and also marks a place for observing the scenery. Places for resting or pausing create moments of reflection along the trail. The start and end of a route provides a place to use the restroom facilities. The beautiful

vista at the end of the trail creates a place for a group to gather and enjoy a lunch.

The Highline in Manhattan, a linear trail running through the city, integrates small infrastructural nodes seen in a hiking trail throughout its length in order to engage users. Located above the street grid, the trail runs through the urban space while remaining separate from the rest of the city. Unlike hiking trails, the Highline does not have a defined end point that draws the user through the length of the trail. Entry and exit points appear where the trail intersects with the street grid, differing from hiking trails and Olmsted promenades. In order to keep pedestrians engaged along the trail, infrastructural nodes provide interest and pull visitors through the whole site.

The disbursement of program along the Highline allows the opportunity for visitors to see a small portion or to visit the entire trail. Spreading program along the entirety of the length encourages visitors to move through the entirety of the trail. What is considered a minor node along a rural trail, like places of rest, take on a larger role in the urban environment. There is no single final focal point which draws people to hike the entire distance of an urban trail, but instead there are scattered points of interest. Nodes

provide an opportunity to form gathering spaces, taking on an element of the Olmstedian lawn.

An urban trail which integrates gathering spaces as the Olmsted lawn had done can be found in Nørrebro, Copenhagen. This trail creates larger, more condensed programmed nodes than those along the Highline. Superkilen is a short path which cuts between two busy streets. While it is integrated into the street grid, not many busy side roads cut through the path which makes it ideal for biking or walking. A bike and pedestrian path weave through the linear park, like a promenade. The weaving path delineates different program elements along its length. Instead of having open un-programmed lawn spaces for neighbors to gather as Olmsted would have done, many of the meeting points along Superkilen are programmed spaces. These programmed nodes create a unique identity for the gathering places and enable moments of interaction between neighbors as Olmsted had aimed to form.

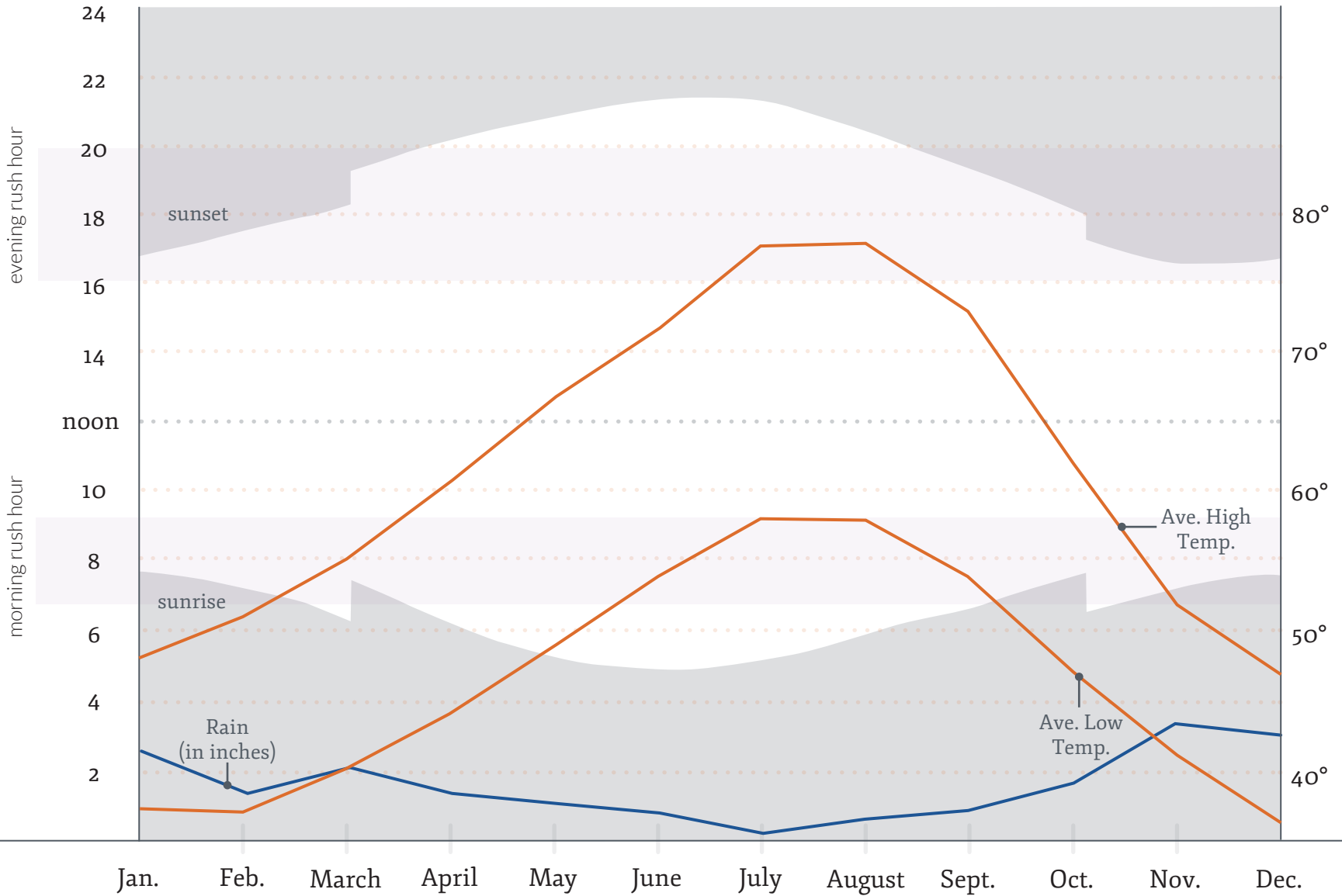


figure 15 : Seattle Weather and Lighting Needs

The Lawn

Throughout the 20th century, the city of Seattle densified, making large plots of land become even harder for the Parks Department to obtain. By the mid-1990s it became so difficult to acquire traditional large park lands that the city shifted their focus towards investing in pocket parks. Pocket parks are small parks which are tucked into the city's grid. Because of their small size, pocket parks are easier to acquire than the large tracks of pristine land that the Olmsted Plan called for.⁴⁶ The parks department has utilized the small scale of pocket parks as a way to insert public open space into more neighborhoods throughout the city.

By strategically acquiring pocket parks along greenways, pocket parks could become gathering spaces as the lawns of Central Park had become. Olmsted envisioned social harmony to be fostered through the small gatherings that took place on lawns. Designing places of gathering where people would be comfortable meeting with others of a similar interest could provide a program for pocket parks. Noise and pollution from traffic can make gathering in an open space difficult and weather in the winter and shoulder seasons does not encourage sitting outside. These

environmental conditions can make meeting outside difficult or inconvenient for much of the year. Designing protective structures on pocket park land would protect gatherers from the elements and encourage gathering throughout the year.

The 2006 Seattle Parks and Recreation Development Plan noted the import role that climate plays in park use. Due to the maritime climate in Seattle, the Parks Department specifically emphasized further development of indoor recreation space.⁴⁷ While the development plan was referring specifically to the development of play facilities, protection from weather is even more important for meeting spaces. During the warmer months beaches and lawns throughout Seattle act as informal meeting places but there are few equivalent places for the colder months. Places for meetings include libraries, which are generally quiet and not ideal for loud gatherings, and community centers which generally include space for planned activities instead of informal spaces. As the weather turns colder and wetter the use of outdoor spaces dissipates. Providing small and informal sheltered public space where community

46 Dooling, "Place-based Urban Ecology," 312-313.

47 "Seattle's Park and Recreation 2006 Development Plan," Adopted May 8, 2006, 6, <http://www.seattle.gov/parks/Publications/Development/Plan2006.pdf>

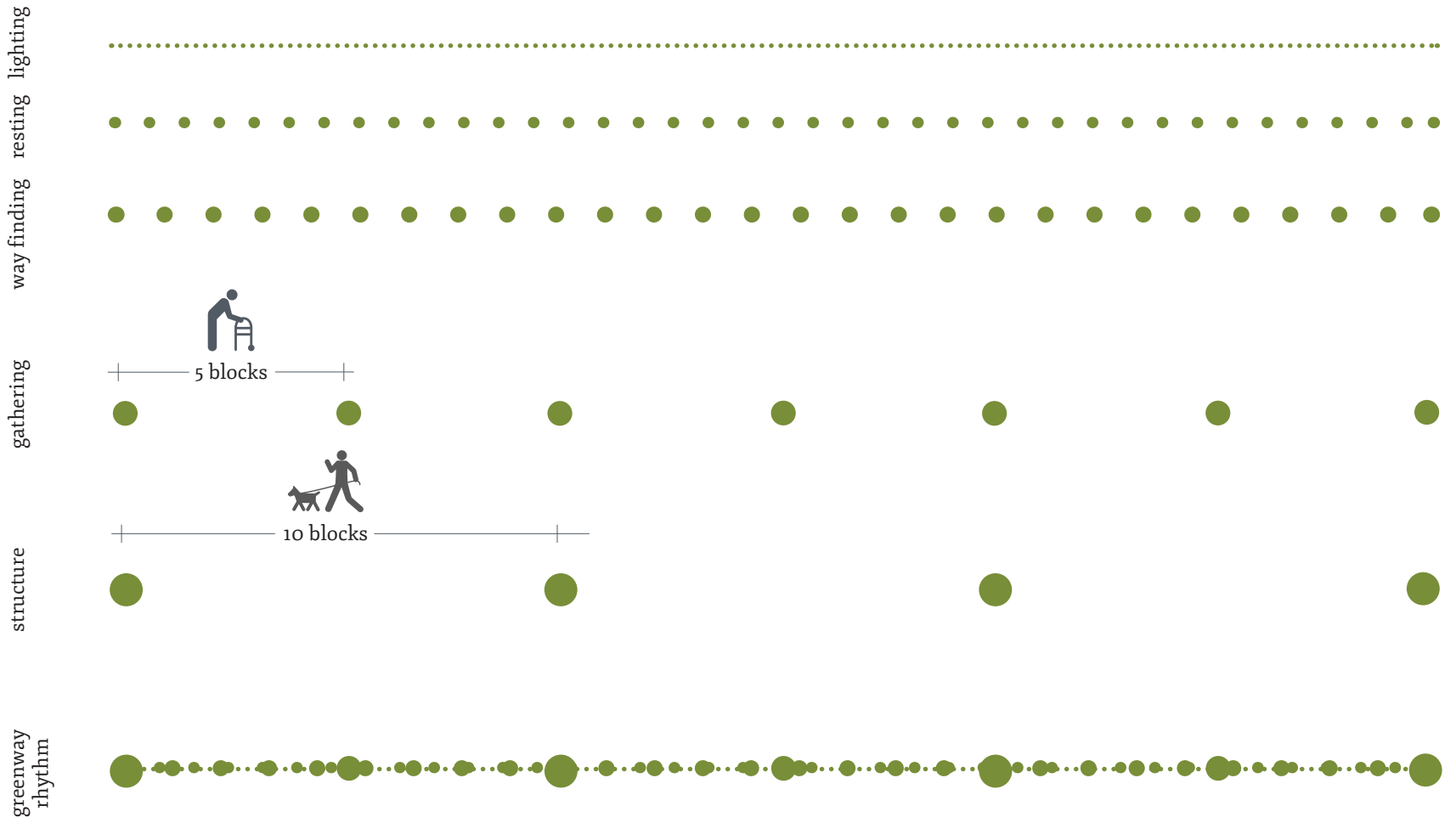


figure 16 : The Greenway Rhythm

gatherings could take place would allow the neighborly interactions which Olmsted envisioned to continue into the cold, wet and dark winter.

The city of Seattle has recently begun to encourage gathering along streets through turning parking spaces into small gathering spaces called parklettes. These small parks are structures which protect visitors from cars and provide a place for people to sit. The Olmsted lawn was an outdoor gathering space separated from the city, but in today's urban environment spaces for gathering have become more flexible, fitting into nooks within the city fabric, as parklettes do. Pocket parks being larger in size and seemingly more permanent than parklettes provide an opportunity to build a structure that would support gathering along the street and in a more permanent structure which could be designed to support particular activities. The gathering space would act as a community pavilion within the urban environment, setting aside a permanent space separated from the street. Since the city is currently undergoing a period of densification, there is an opportunity for the Parks Department to acquire land in areas where development is increasing while land is still available. Setting aside pieces of land now, even small ones, could have a positive impact on

the city in the future, keeping the tradition of Olmsted alive while supporting community development for generations to come.

Olmsted designed varied gathering spaces to meet the tastes of users. Designing gathering structures for varied site factors responds not only to sites, but also varied tastes. Three types of gathering spaces have been identified in this thesis: the open lawn, the small structure and the large structure. The open lawn type most resembles the Olmsted lawn. The second type is a small structure placed within a residential neighborhood, and the third type is a larger structure and corresponding outdoor space is placed within a commercial or heavily trafficked area.

In order to create a rhythm between the greenway and open space, pocket parks along the greenway should be placed at approximately five minute walk away from each other, or about five blocks apart. Five blocks is close enough for users to feel a consistent pattern along the greenway but far enough to allow each pocket park to maintain its own identity as a neighborhood gathering space.

The Seattle Parks Department acquires property that falls into one of two categories, neighborhood park acquisition and green space acquisition. The intention of



green space acquisition is to acquire undeveloped land which may not be accessible due to site restrictions such as steep slopes. Neighborhood park acquisition is aimed at acquiring properties for accessible park space. The 2006 Parks and Recreation Development Plan and Gap Analysis identified neighborhoods in Seattle which are falling short of targets for neighborhood parks set forth by the City's comprehensive plan.⁴⁸ Architecture set into inaccessible green spaces could provide site access for citizens and increase the amount of accessible park space throughout the city.

Developing every other gathering space to have a larger architectural presence creates a node which pulls people to the space. Placing these architectural pocket parks ten minutes apart from each other encourages people to walk, run or bike a further distance while still remaining easily accessible. This spacing leaves every other pocket park space to remain open space, adding to the amount of neighborhood park space. The two park types dispersed along the greenway add to the rhythm of the trail.

The less structured neighborhood parks would be the gathering space which most resembles Olmsted's

48 "Parks and Green Spaces Levy Acquisition Projects," last modified February 26, 2014, <http://www.seattle.gov/parks/levy/acquisition.htm>
figure 17 : An Open Lawn

open lawn. Few programmed elements would be contained within these parks besides benches and tables in order to encourage gathering. Like the Olmsted lawn, these nodes would provide flexible open space to be used by people playing lawn games or gathering in small informal groups. The open space could become a turning point for people out on a daily walk, providing them with an end destination and space for looping back home. If the orientation of the site allows for growing, p-patch space should be included in the site plan. A p-patch would provide space for growing healthy food, fostering community, and providing visual seasonal interest for visitors. Since the lawn space would be open, clear sight lines would exist for park visitors. Clear sight lines maintain safety within a park by allowing people to view their surroundings and see those who surrounded them.

As a greenway passes through areas of different zoning and activity, the form and program of the gathering spaces should take on different formations. When designing structures for gathering adjacent zoning, street activity, and perceived safety should be considered. Pocket park gathering spaces located within urban centers or commercial districts should fit within their context by implementing urban design strategies when applicable

like holding the street edge and providing programmed activity. Activity within the gathering space would provide a programmatic continuity with the surrounding neighborhood. The form of the structure should also be similar to building forms in the neighborhood. The development of a park structure in a heavily trafficked section of the trail creates an opportunity to both shelter visitors from the elements and increase access to a view of nature. Along a street where there is heavy traffic a structure enables a separation from the road. Separation from the road ensures that people within the site can distance themselves from the noise of the street, creating a place of well-being within the urban fabric.

Developing a gathering space along a main road or heavily traveled corridor provides a public frontage for the greenway. While many of the greenways are embedded within quiet residential neighborhoods, a benefit when designing a calming street this location does not provide much access for people who do not live near the greenway. Having a gathering space fronting a busy intersection or street allows the greenway to gain a visible presence to the wider neighborhood. This visible presence has the potential to attract people working or shopping in the area

by encouraging them to visit the structure and greenway segments closest to the structure. Because of the larger volumes of visitors expected on these sites, the structure should be larger and designed for a higher turnover of visitors.

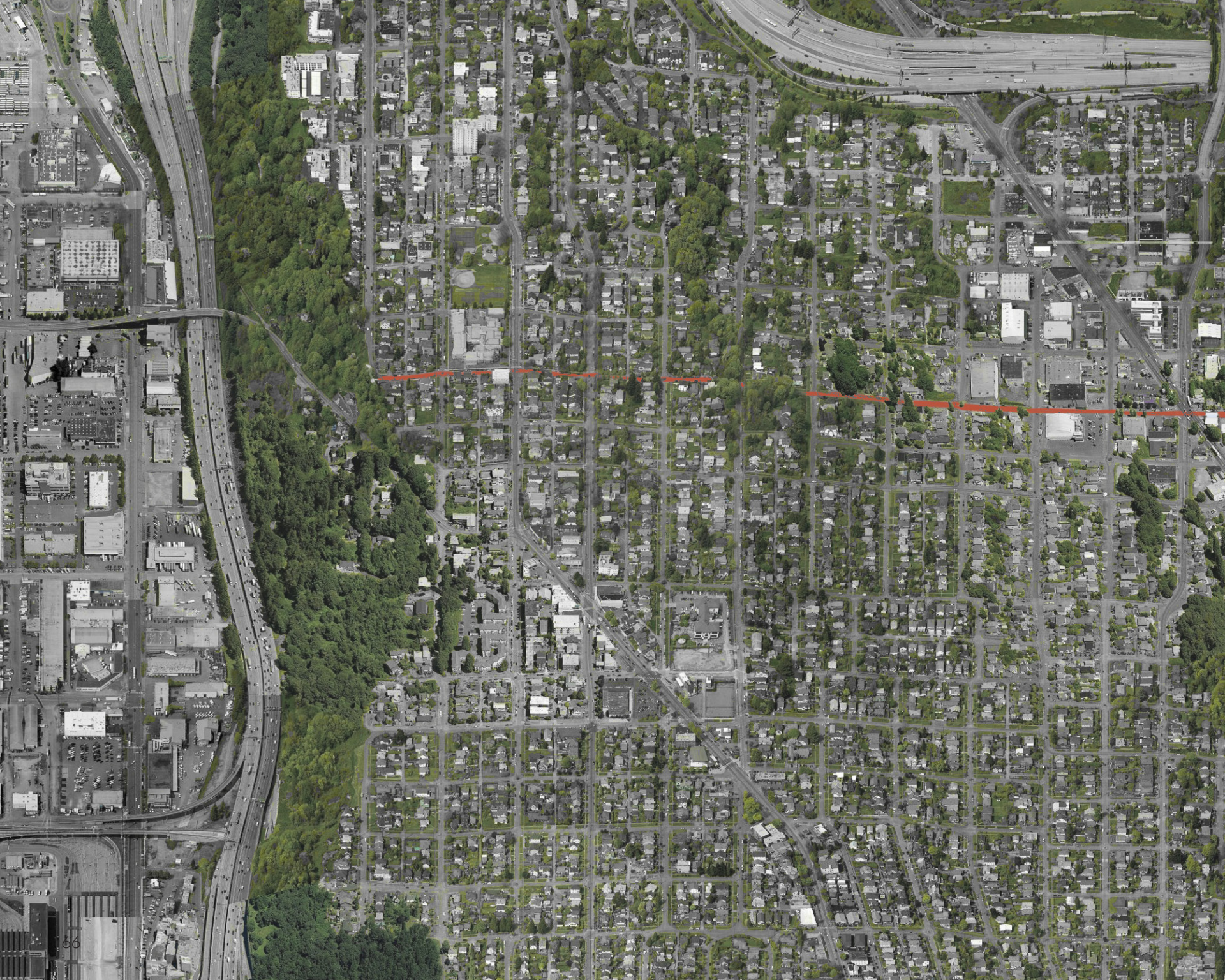
Program encompassed within the structure should be accessible to anyone and include spaces such as public kitchens, eating areas or open meeting or gathering space. The inclusion of more regulated program elements, such as space for classes, brings people to the site throughout the day and year. In order to ensure that the space is active a partnering with community and not for profit groups should be encouraged. Neighborhood offices could be placed within structures, ensuring that the structures remained staffed, making them feel safer while remaining open to the public.

If the site falls within the prevue of areas of the city where there should be a significant increase in usable outdoor space should be incorporated then that should be included in the site plan of this gathering space if possible. This would not only meet the city's recommendations but would also provide a restorative setting for visitors. A structure within a commercial area has an opportunity to

provide protection from the neighboring elements which contribute to stress, throughout the day.

Within residential neighborhoods, where people have living rooms, yards and neighborhood park space to gather with large groups of friends, gathering spaces should provide intimate protective space for a family or small groups.

The city of Seattle owns many lots of natural land which are not accessible. These sites are inaccessible due to fragile landscape or steep topography. The introduction of structures could provide choreographed access to this space while preserving the unique natural attributes of the site. The provision of a structure can create places for gathering, public facilities and enable a unique experience within the site. Within a park setting the structure encourages an expanded use of the park and choreographs a shared experience.





Chapter 4 : Criteria for Selecting a Path and Site

“Travel is based on the enjoyment of scenery”.¹

-mid 1910s Stephen Mather, the first director of US National Park Service

1 Hvattum, Mari, Ed., Routes, Roads and Landscapes (Burlington, VT: Ashgate Pub., 2011), 129.

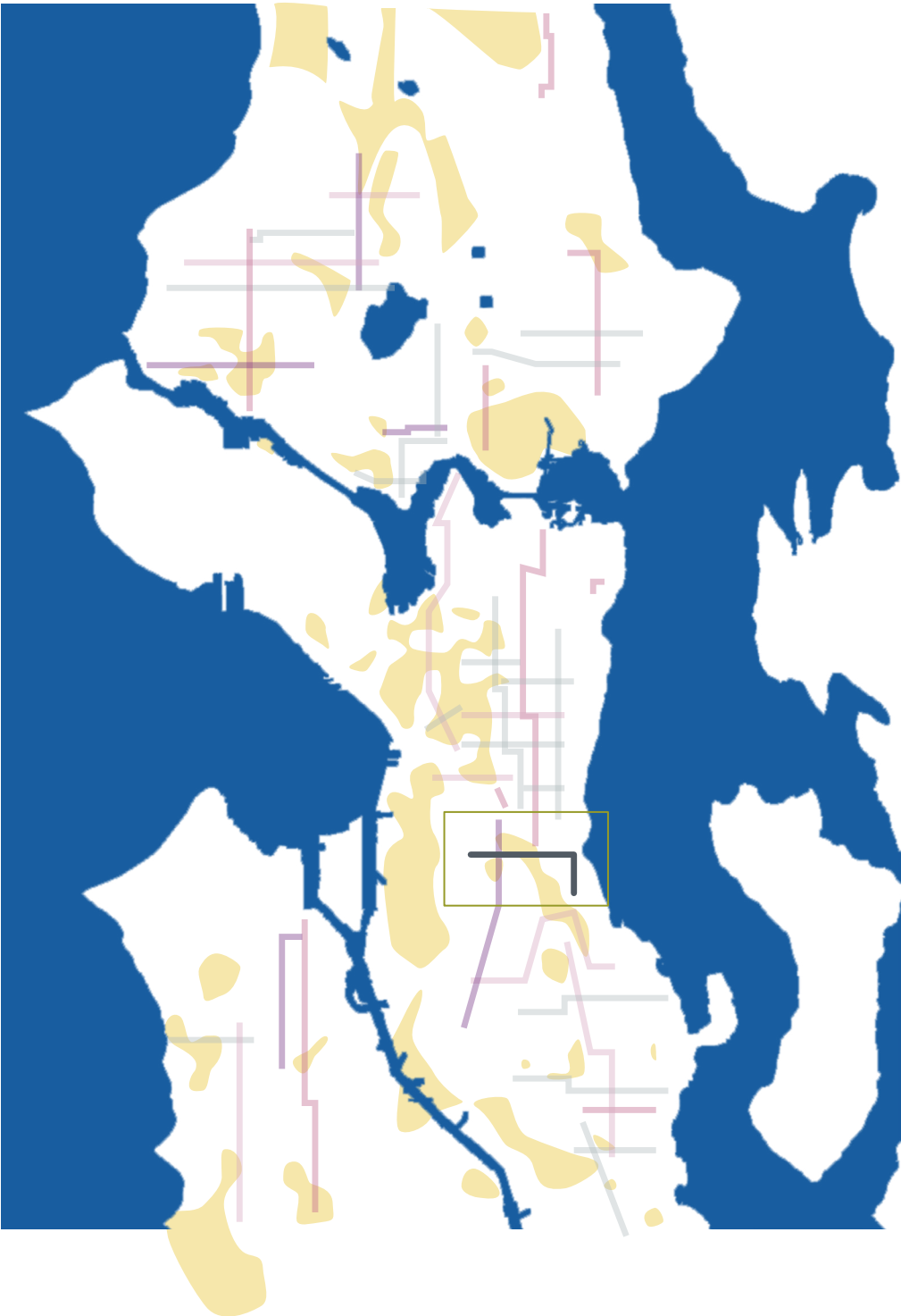
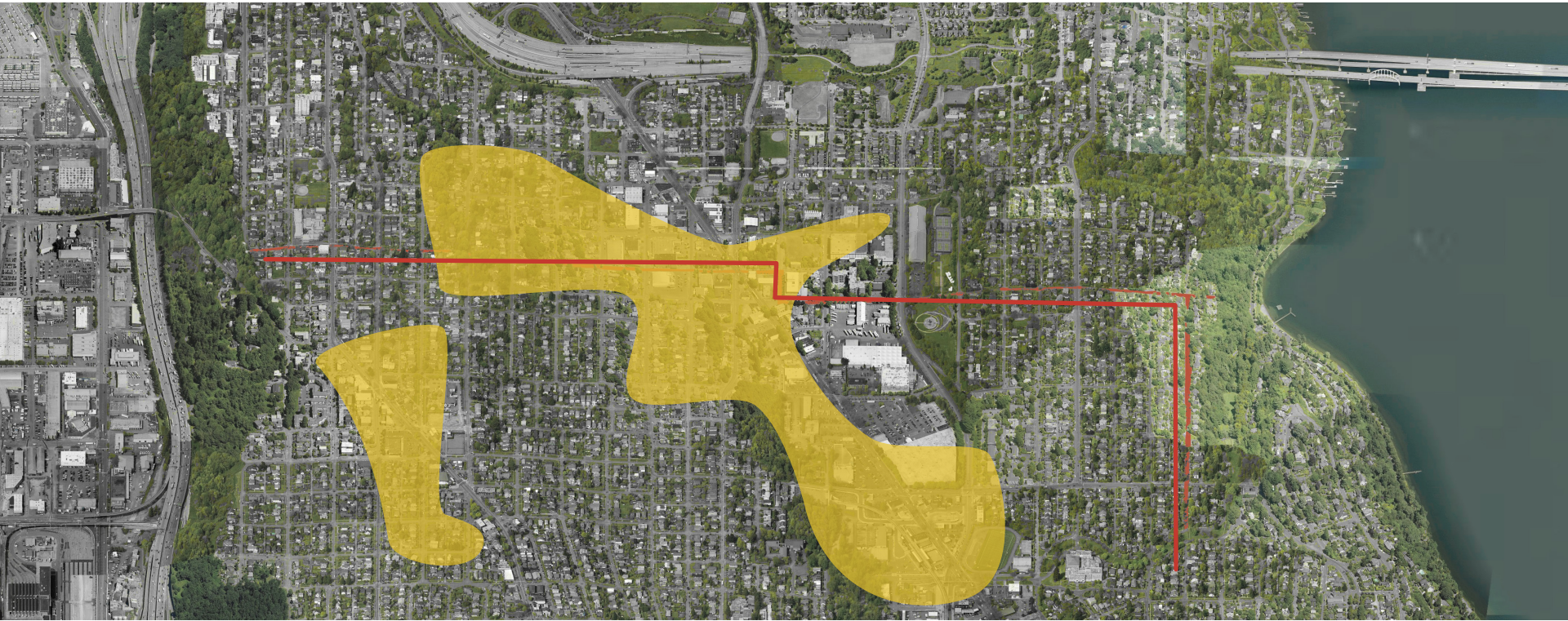


figure 19 : Site of Focus

This thesis intends to explore what form a modern Olmsted promenade would take in Seattle, and the relation that this promenade would have to gathering space along the trail. The complete greenway system, or the modern promenade, will run through many neighborhoods therefore the scope of this thesis will focus on the development of one greenway section which crosses multiple neighborhood types. Focusing the design of this thesis on a greenway which encompasses multiple neighborhood fabrics will provide the greatest opportunity for exploring the form that future gathering spaces would take on within different of neighborhood settings.

The greenway which will be focused on for this thesis will span between the Beacon Hill and Mt. Baker neighborhoods when completed in 2018. This greenway will connect these two neighborhoods across the busy business district along Rainier Avenue South and will total 1.7 miles in length, or a little over a 30 minute. In addition to commercial buildings, many services are located around Rainier Ave. S. one of these services include Treehouse, a group assisting foster kids through help with school, summer programs and advising.¹ A quarter block of the TreeHouse property

¹ "Academics: Fostering Success in School," treehouse : giving foster kids a childhood and a future, <http://www.treehouseforkids.org/how-we-help/>



Hill Street

S Walker St.

S Dose Terrace

24th Ave. S.

34th Ave. S.

figure 20 : Thesis Site + Gaps in Usable Open Space

is dedicated to growing food along with food related educational facilities.²

In total, the trail will cross three distinct zoning areas, low rise multifamily, commercial and single family. The western portion of the greenway is a neighborhood in flux where single family homes are being torn down and replaced with town homes. Despite the fact that the population of the area is growing and new people are moving in the area has maintained a safe and family friendly feeling. Even though multiple large parks are located along the greenway, the city has identified a large segment of the greenway as lacking in public open space. The development of gathering spaces along this greenway would increase access to public open space, a benefit to residents.

The remainder of the land area surrounding the greenway is zoned as Single Family 7200. Moving up one of the steep hills on either side of Rainier Ave. S. leads a traveler into a very quiet area of the city. While traveling the eastern portion of the trail along 34th Ave. S. the trail becomes relatively flat and easy to travel along and is also very quiet, making it a pleasant place to walk or bike. Dirt

academics/
2 "King County Parcel Viewer 2.0," last modified December 5, 2013,
<http://gismaps.kingcounty.gov/parcelviewer2/>



figure 21 : Site Conditions

trails connect this portion with Mt. Baker Park where people can be seen running and walking dogs.

The percentage of foreign born people living within the site area is higher than the average for Seattle. Within Seattle, most neighborhoods have less than 30% of residents who were born outside of the United States but half of the residents in the area around this greenway live in a neighborhood with almost 40% foreign born residents.³

The amount of time residents take to travel to work varies slightly along the course of the greenway but on average takes between 20 and 25 minutes. A relatively large percentage of residents walk, bike or ride public transit to work. For these residents the greenway could become a potential daily fixture during their commute.

The best untapped resource along this greenway is the presence of a four view corridors. Because of the steep slope on either side of Rainier Ave.. S. views unfold when walking down to the commercial core. At either end of the greenway a view towards the distant mountains awaits. Both ends of the greenway terminate at inaccessible land which is currently owned by the parks department.

3 "City Data: Seattle Washington," accessed February 15, 2015, <http://www.city-data.com/zipmaps/Seattle-Washington.html>

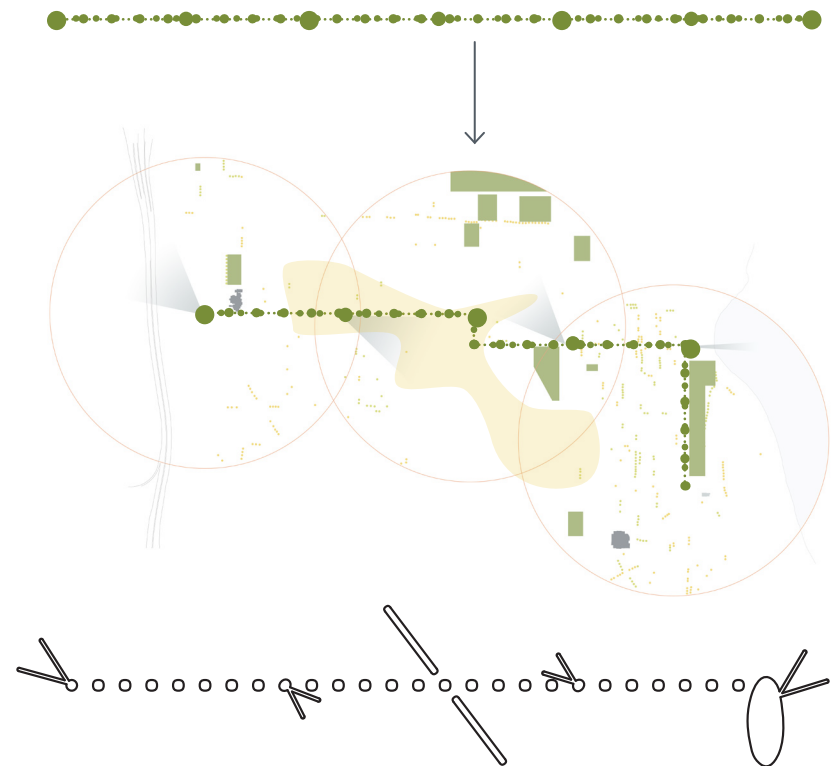


figure 22 : Application of Greenway Prototype

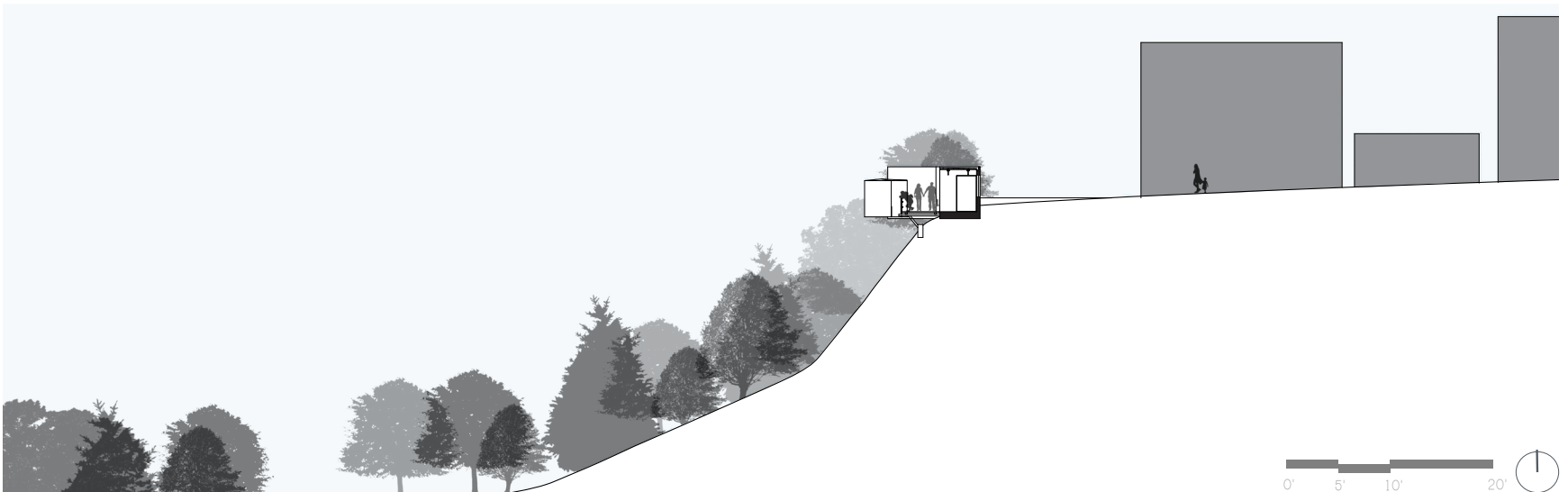
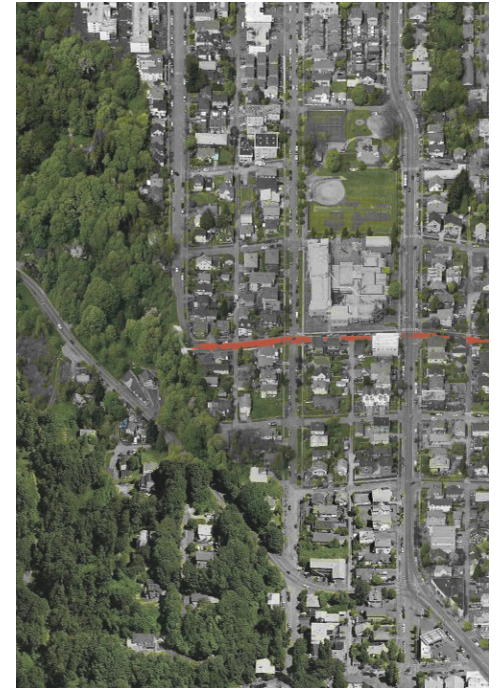
Chapter 5 : The Mountain to Mountain Trail

“Nature has blessed Seattle with a magnificent setting for a beautiful park system. With the placid waters of the Puget Sound...Lake Washington...the lofty Olympic Mountains...the Cascades...with two large lakes within the city itself, what more could one conceive in the way of scenic environment.”

-The Seattle Park Commissioner in 1912



figure 23 : Viewing the Sunset over the Sound



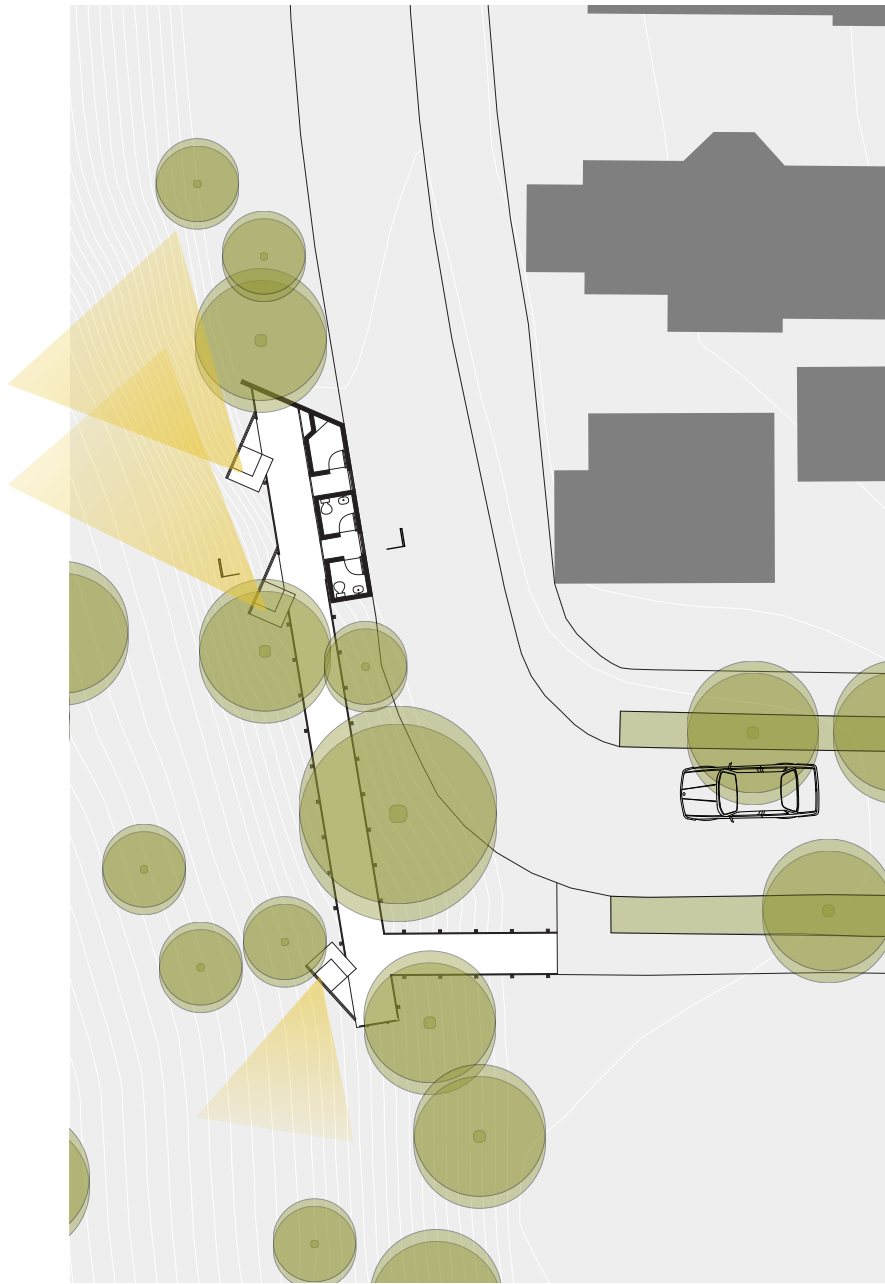
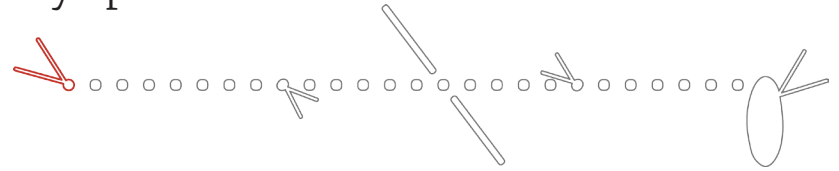


figure 24 : Over the Edge
 figure 25 : Viewing over the Trees

Olympic Overlook



This view point to the Puget Sound and the Olympics is set within a family neighborhood. The cantilevered structure is tucked behind a retaining wall, creating an isolated feeling when on the overlook. While the site feels isolated a visual connections remains through windows punched in the retaining wall providing a visual connection when on the street and safety when on the overlook.

The overlook highlights the relationship between the shipping port and the natural scene of the mountains. Even though visitors come to watch the sunset over the sound, they are first directed towards the industrial zone, featuring the man-made landscape before turning towards the mountain view. When walking out along the pathway towards a gathering place, visitors walk beneath tree branching, bringing the scale of the space down while still maintaining an open feeling. Upon reaching a place to sit, visitors step down into a protected area where they can gather in small groups. A thin roof covers the gatherers from light rain as they sit on a wood bench, separating them from the cold steel structure.



figure 26 :Greenway Lawn

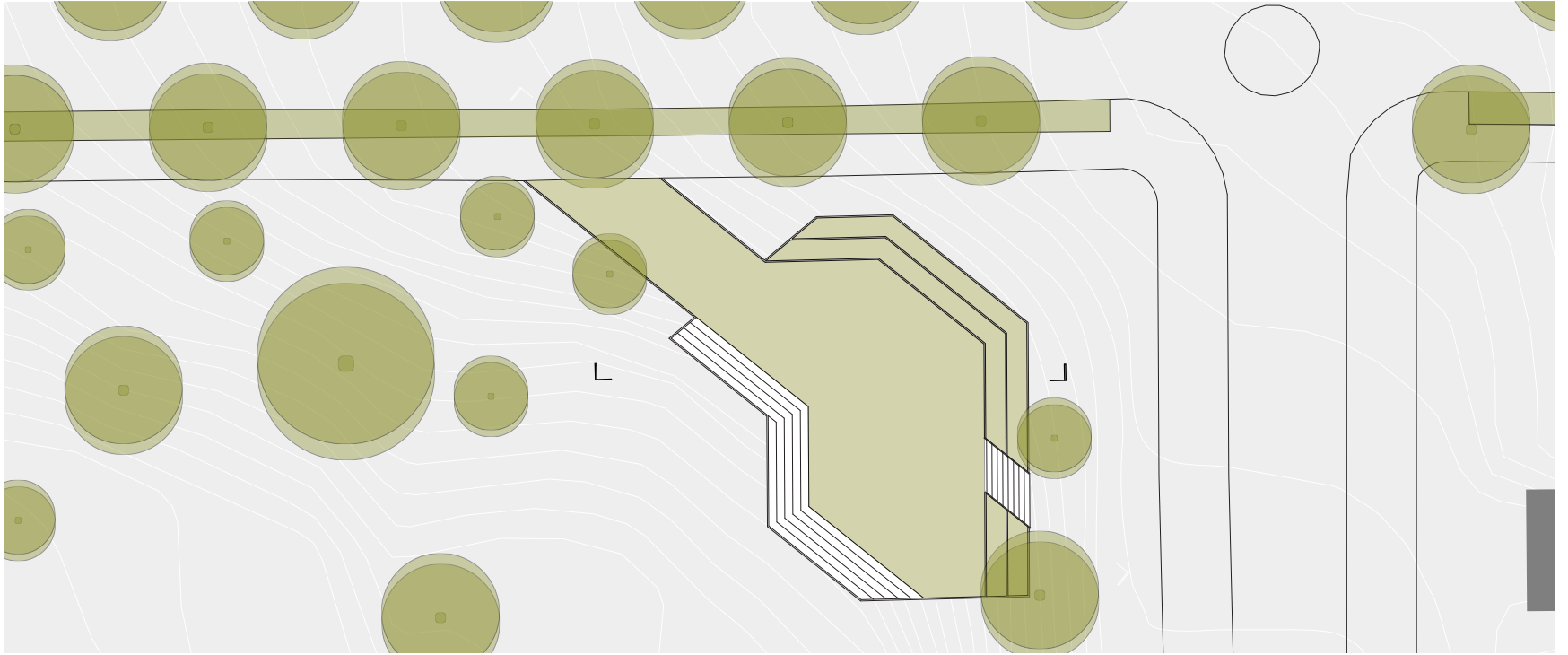
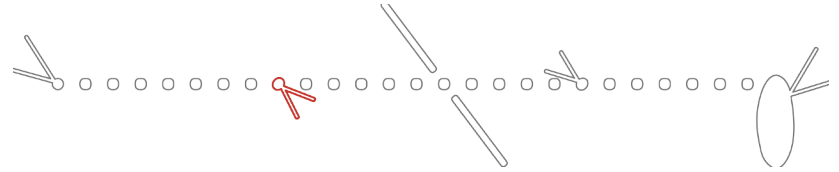


figure 27 : Lawns Connecting Greenways

Beacon Hill Breakfast



Located in an area that is lacking in public open space, this stop provides an open area for neighbors to utilize. The site is currently owned by a private individual but should be targeted for acquisition by the parks department if it should go on the market. This lot is one of the few larger lots of land in the area and is located on the cross roads of two greenway segments. Due to the location of this site, partway between the heart of the residential neighborhood and Rainier Avenue South an open lawn could provide a large benefit to residents of the neighborhood and worker along Rainier Avenue.

While no structures currently stand on this site, there is a large topographic change, requiring the use of retaining walls in order to create a lawn space. The presence of a retaining wall creates space for seating overlooking the sunrise over the valley.

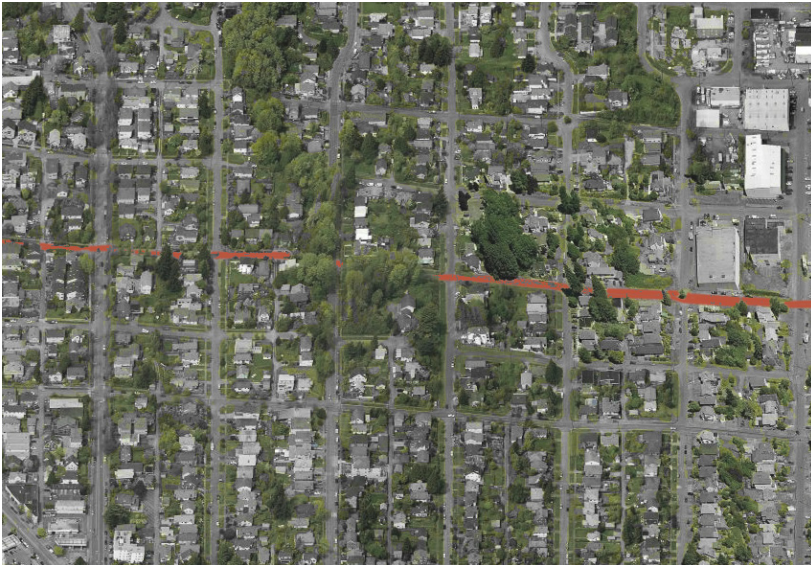


figure 28 : Activity on the Lawn

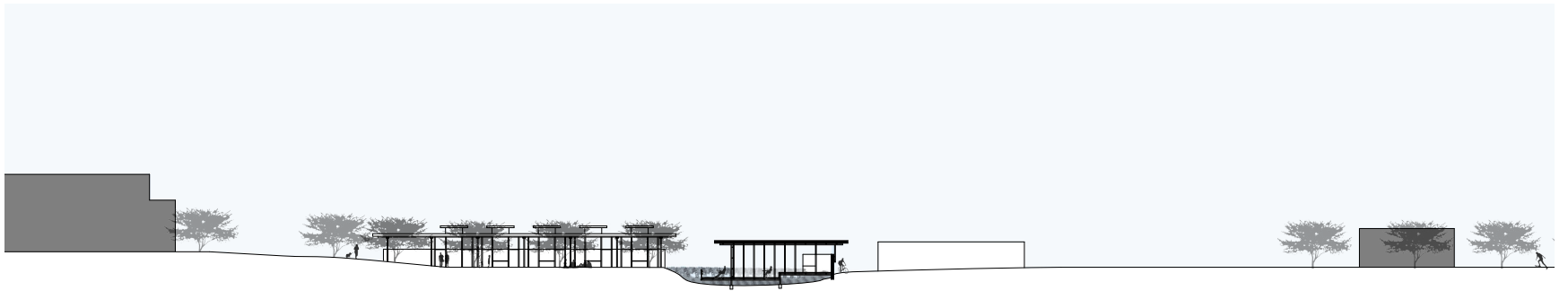


figure 29 : Preservation Section

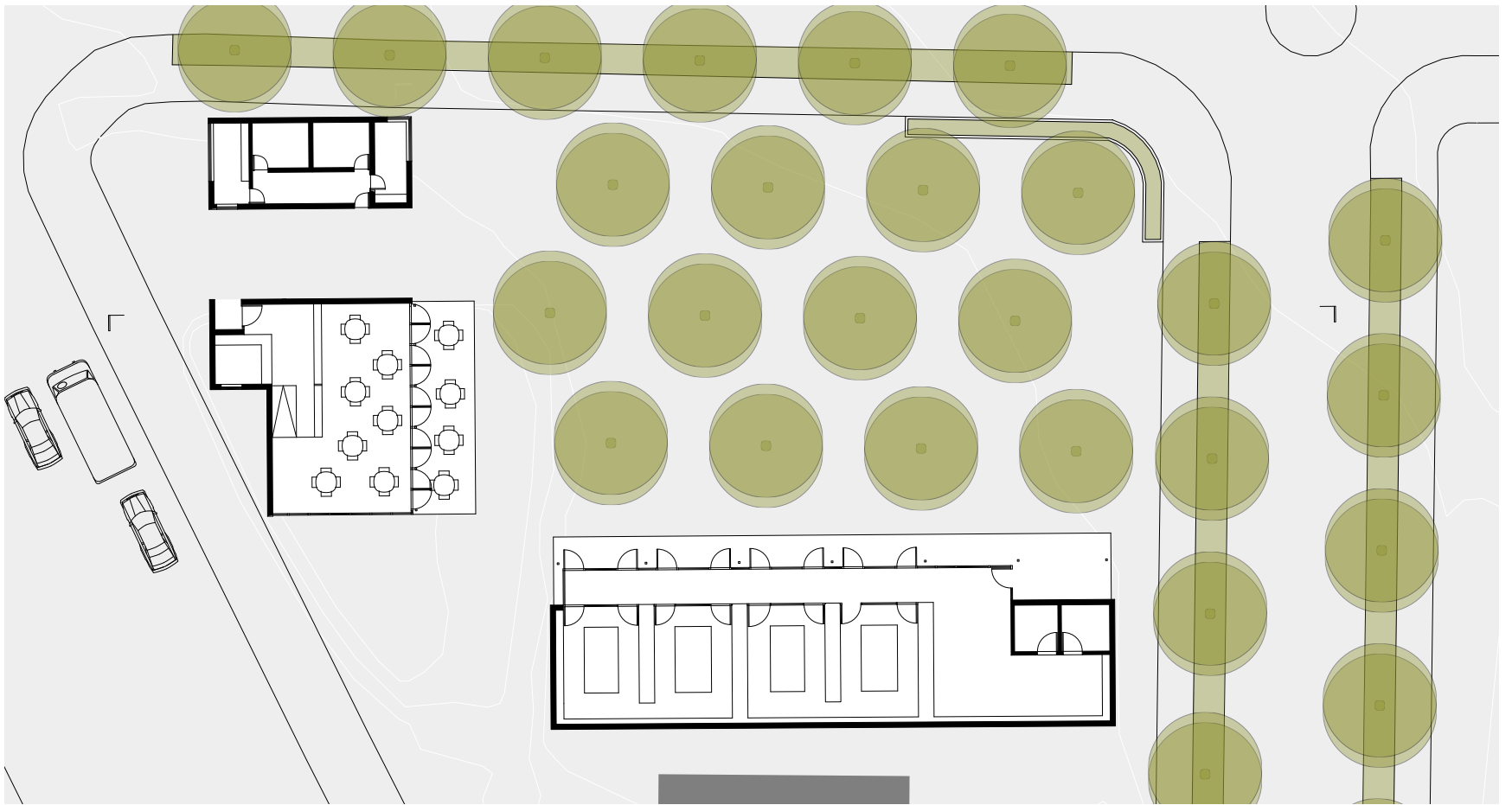


figure 30 : Preservation Structures

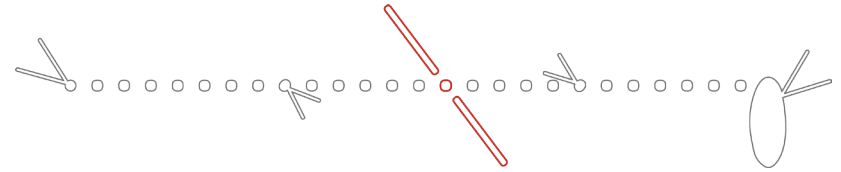


figure 31 : Entry Front Rainier



figure 32 : Harvest in the Orchard

Preservation Station



At the center point of the future greenway an abandoned lot is located where the future trail will cross Rainier Avenue South. If acquired, this land could grow an orchard along the heavily trafficked Rainier Ave. S. This orchard, coupled with rentable kitchen space would form an active space dedicated to cooking and food preservation.

Food stands give people starting a business space to sell their goods to residents, commuters and shoppers. A cafe located along Rainier would open onto the orchard, allowing people to have a restorative lunch break in the middle of their workday throughout the year.

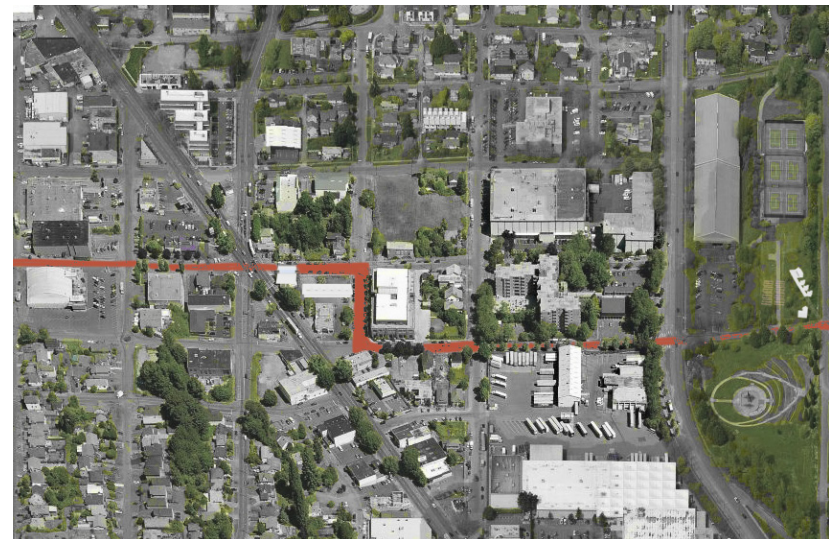




figure 33 : A Summer Afternoon

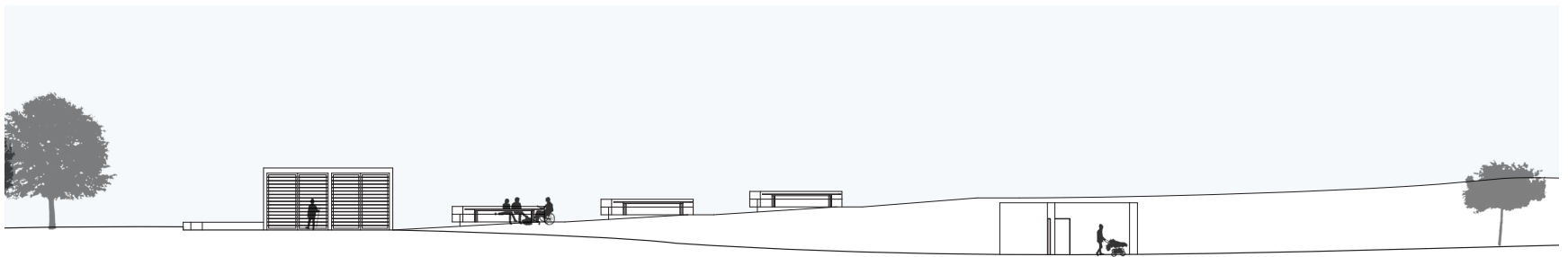


figure 34 :Picnic Section

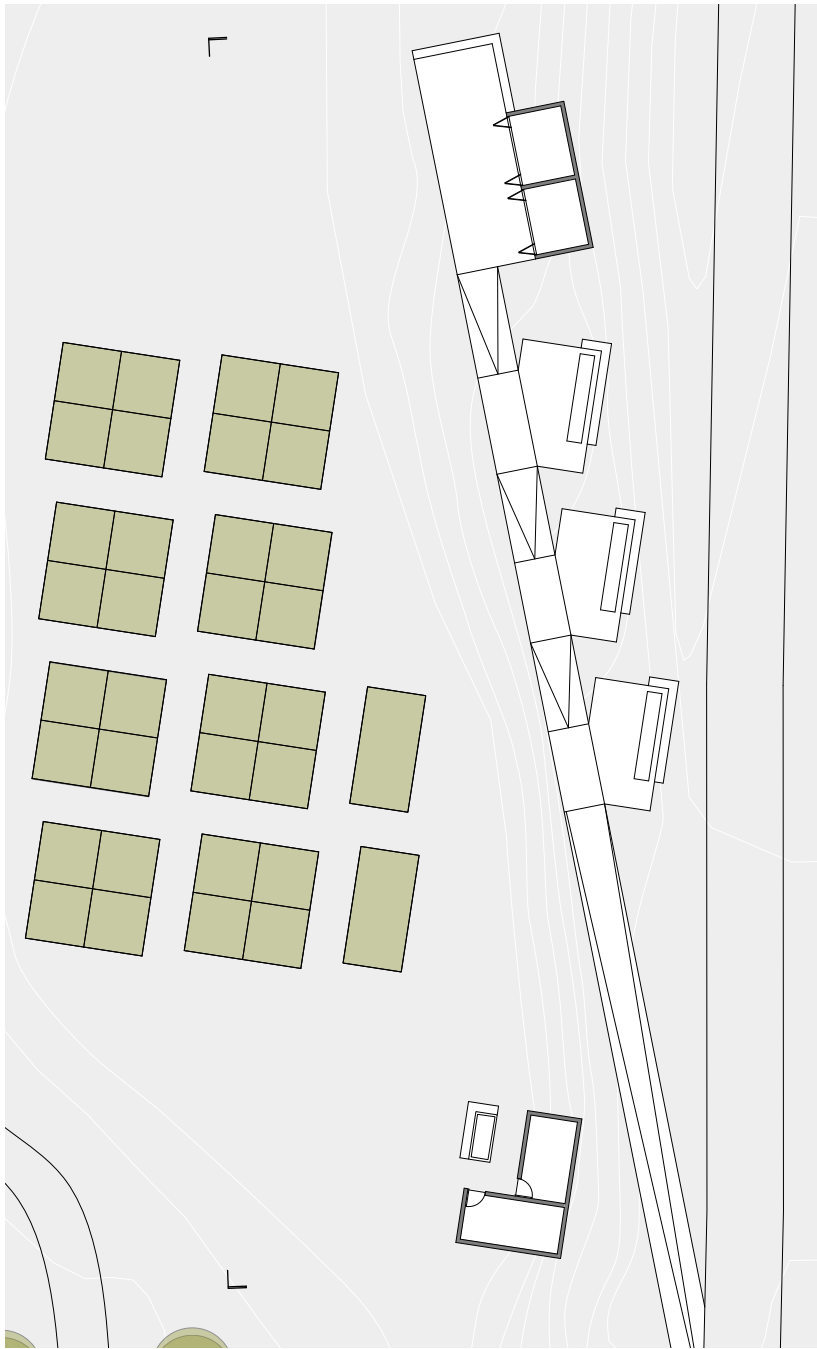
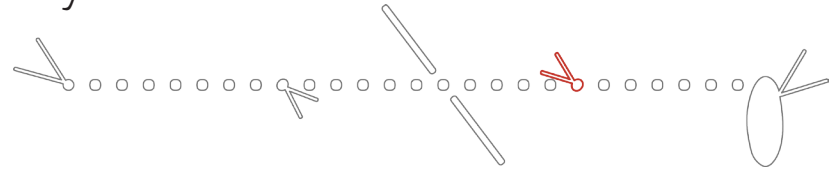


figure 35 :P-Patch Plan



City View P-Patch



To the east of Martin Luther King Boulevard an open piece of land held by the Seattle Parks Department currently acts as a long, wide driveway. The development of this parcel would provide open and programmed space through the addition of a p-patch and picnic area. Adding small support structures such as a tool shed for use by the Parks Department and gardeners would support site activity.

This site has a view to downtown and adding picnic benches and tables would create a space for p-patch members to meet and for members of the surrounding neighborhood to enjoy an outdoor meal with a view. The addition of restroom facilities would allow people to gather in the park for an extended period of time.





figure 36 :Lake Front Viewing



figure 37 :Park Entry



figure 38 :Above the Lake

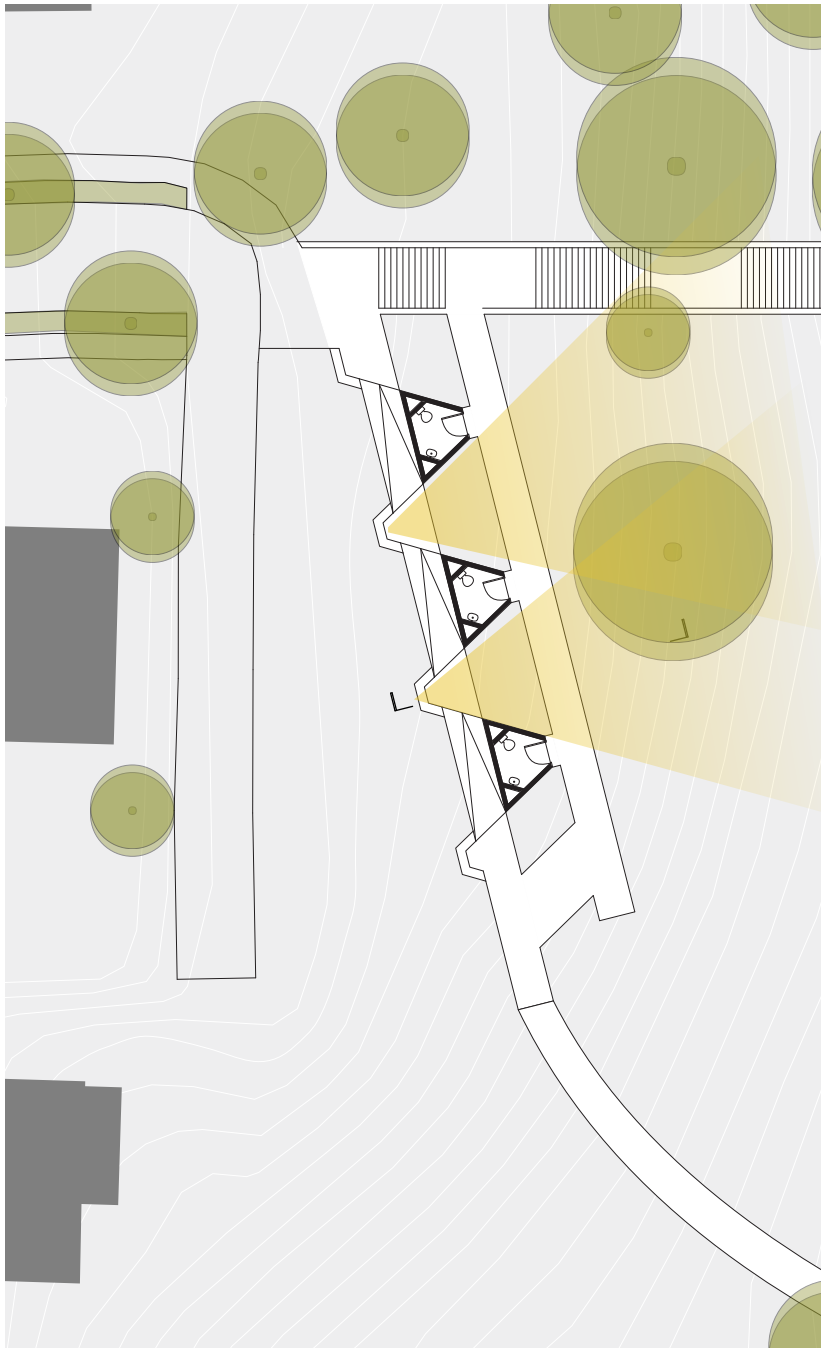
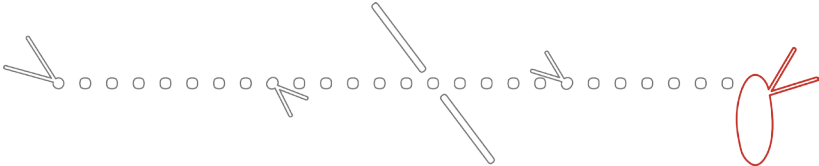


figure 39 : Framing the Cascades

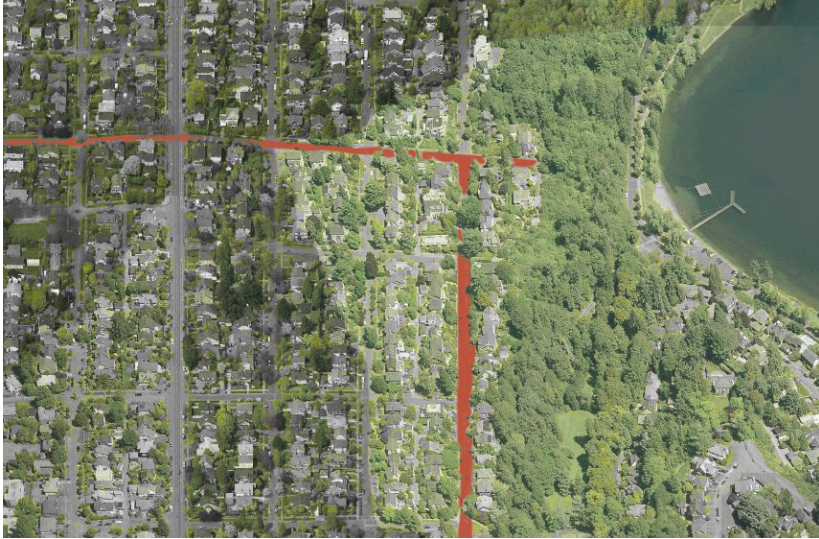


Cascade Coffee



Located where the greenway turns south along a park edge, this stop creates a link between the park, lake and greenway. The link between these three elements creates a turnaround point for people exercising and an opportunity for people visiting the park to extend their trip. This stop is located at a high point in the topography and benches allow for a place to rest after climbing back up to the greenway from Lake Washington.

Restroom facilities placed along a ridge frame views to the Cascade Mountains for the small groups of people sitting in benches dug into the terrain.



Conclusion

Olmsted designed outdoor spaces for people to promenade through and gather in because he believed that the natural environment was an antidote to the problems of the industrialized city. The cleansing air of a park would combat devastating diseases while observing others in that park would foster respect and sympathy among neighbors.

Today we know that a cleansing the environment is not what combats disease, but we still recognize the benefits of being in a natural setting. Viewing nature or being in a natural setting is beneficial for mental health and can be paired with physical activity. The pairing that Olmsted employed created a dynamic and interdependent relationship between the promenade and gathering spaces.

While the urban landscape has changed over the century, health concerns and Olmsted's design solutions are still pertinent. Today, developing urban infrastructure like that of greenways hearkens back to Olmsted's aspirations. Linking greenway development with architecture can create a connected urban promenade which is varied in experience. The development encourages local residents to extend their active commute or increase their participation in recreational activity throughout the year. The consistency of the infrastructure along the greenway enables visitors

to relax and feel safe while seasonal changes bring visual interest through variability.

While Olmsted envisioned a park experience as an outdoor experience, providing an enclosed structure can increase the use of the space throughout the year. Having access to park space year round increases the access that citizens have to beneficial spaces. Architecture plays an important role in creating the unique year round environments for gathering. Structures are able to highlight the positive attributes of a site and enable access to previously inaccessible sites. Developing the city wide network of greenways to be reflective of Olmsted's park designs could greatly increase residents' access to healthy spaces.

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