

TEMPORARY
PHYSICALLY DISTANCED



LANDSCAPES
SOCIALLY TOGETHER

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Temporary Landscapes:

Physically Distanced, Socially Together

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Thesis Abstract

Temporary landscapes are where things happen, the bread and butter of urban life. Social, political, and economic battles have been waged in the open spaces of our cities. This is where change starts and grows. Even now, during a time when daily life is filled with Zoom meetings, Black Lives Matter marches are happening. Another breed of protesters stormed the capital. While the morality of these actions are in question, things are constantly happening in the temporary which effect how we remember and use spaces. The scope of this design thesis is to understand how to leverage temporary spaces during a different type of social unrest- infectious disease. This design looks at the phasing of temporary space, the arrangement of elements which impact and encourage participation in social distancing, and the social aspect of placing temporary landscapes. It will examine a temporary landscape the size of several parking spaces. The research methodology will include an analysis of temporary landscapes, current landscape habits (ex. pedestrians walk on the right side of the sidewalk and congregate at intersections), and social distancing best practices. These patterns will be used to identify pain points where social distancing is not followed and inform theoretical models of circulation and use of small spaces. A successful design will encourage social distancing while creating a usable outdoor space during a time when public outdoor space is a critical asset for mental and physical wellbeing.

Narrative

Context

Since early 2020, we have been living in an unprecedented time where the rules of design and interaction have fundamentally shifted. Modern designers have never worked with the mandatory constraint of all users maintaining a distance of 6ft. Social distancing guidelines confront ingrained habits and require constant user vigilance to comply with best practices. Cities across the country and the world have gone into unprecedented lock downs of varying severity in attempts to stifle the spread of the SARS-CoV-2 virus. The quality of life in cities is suffering, but there is an asset available in every city around the world to improve quality of life while attempting to slow the spread of infection- the outdoors. To reopen cities and establish a sense of normalcy, outdoor spaces must be used to their fullest potential.

Growing research evidence suggests that several factors related to the outdoors may reduce the infection rate of COVID-19. (4)

- UV rays may rapidly inactivate viral particles.
- The virus is viable longer on smooth non porous surfaces vs. porous surfaces such as wood, paper, and cloth.
- Air movement from wind rapidly dilutes the viral load, and particles may settle out faster in turbulent air.
- An increase in humidity may decrease aerial

transmission of viruses.

- Greater space is available outdoors for easier physical distancing.

Problem

Expanding to the outdoors allows for activities such as dining, classes, and events to occur with reduced risk when proper social distancing practices are also followed. Schools in Colorado have created outdoor classrooms, some New York streets have transitioned to non vehicular use, and Hong Kong has admitted that limited public space is making social distancing a challenge (9, 11, 12). World Landscape Architecture held a design competition encouraging students to re-imagine the space between buildings for people, and the City of Chicago hosted a competition seeking creative outdoor dining solutions to encourage outdoor operation as the weather in the Midwest turns chilly (10, 13).

Spending time outdoors is also important for mental and physical health. Pandemic related stress and mental health issues are on the rise, and access to outdoor space is a public health asset. Many city parks have shown increased usage since social restrictions were first imposed. Going outside can boost mood, reduce fatigue, alleviate feelings of being trapped, and help with other mental health symptoms (4).

Creating additional public outdoor space is essential, especially in areas of high density such as urban cores and schools. Public space inequality exists across American which means that densely populated, lower income neighborhoods will have restricted access to safe outdoor space, especially in areas of reduced transit.

Opportunity

Because of the rapid pace of changing circumstances, cities and organizations should look to temporary, quick, and cheap interventions until there is a better understanding of current circumstances, and lasting impacts. These quick designs can act as prototypes and templates to showcase what has worked, what hasn't, and what design might look like in the future. Examples of a few temporary design ideas used so far include floor dots and arrows, barricades to direct one way circulation, posters, spray painted 6ft circles, mowing lawns to create paths and spaces, and removing site furniture.

There is also the opportunity to add temporary outdoor space in response to the growing need and inequalities.

But where would these pop-up landscapes go?

Luckily landscape architects have been working on this question since 2005 when three urban designers in San Francisco created the first installation of which evolved to be known as PARK(ing) Day (16).

"The idea of redefining streetscapes as places for people and not just cars is the driving force behind PARK(ing) Day, an annual national initiative that uses the creative conversion of on street parking spaces into pop-up parks as a way to demonstrate alternative ways of thinking about city life." -Sept 16, ASLA Press Release, Jacquelyn Bianchini.

The United States has roughly 2 billion parking spaces, and only 250million vehicles. That's 8 parking spaces per car (and this data is from 2012).

"The area of parking per car in the United States is thus larger than the area of housing per human." -Donald Shoup -UCLA transportation scholar and founding father of transportation economics (7).

Even more parking spaces have been left open than usual since the pandemic has shifted 46% of the American workforce to working from

home (6). Many companies have announced they will make working from home permanent (5). From now to the foreseeable future, many parking spaces and lots are merely interstitial spaces, in limbo, waiting to be used. The opportunity is ripe to re-imagine our urban landscape by transforming parking spaces into temporary public spaces. Pop-up landscapes could be quick builds, allowing communities the freedom to rapidly expand their outdoor space in neighborhoods and urban cores, the way they might set up and create a field hospital. But while a field hospital is reactive, increasing outdoor space and advocating for its use would be a proactive way to slow the virus spread.

The Design Goal

But how can these spaces be transformed, and what should municipalities' goals be when creating temporary landscapes to alleviate lock down stress? Besides the opportunity to flip traditional space use, designers must also work to create spaces which encourage social distancing to keep users safe.

We have habits in relation to every part of our lives. In the landscape for example, we walk on the right side of the sidewalk, touch and lean against railings, cue at intersections, and sit on any raised surface. Forming a new habit can be made easier with a new cue (16). This new cue triggers the new routine. How can designers passively influence users of outdoor spaces to follow social distancing best practices?



Project Typology

The project typology is a temporary landscape intervention, inspired by PARK(ing) Day projects. Small, temporary landscapes were chosen because they are accessible, adaptable, and blend both circulation and destination programming. This typology offers an opportunity for modeling and rapid prototyping to analyze the success of design elements meant to encourage users to comply with social distancing guidelines.

As a small template, successful designs have positive implications for larger scale projects. As the world situation progresses rapidly, quick action is required. The scale allows the project to be widely accessible to various communities and quick to implement.

The location determines the function of the intervention which can take the form of a pop up library, market, cafe, outdoor classroom, meeting space, place for relaxation, park, etc.

Case Study 1

Groundplay | San Jose Guerrero Park

“Groundplay works with ordinary San Franciscans to build temporary installations that turn underused public spaces into joyful community places.” Originated in 2009 as Pavement to Parks, Groundplay is a multi agency organization led by the San Francisco Planning department. Their temporary and phased landscapes are designed to fit on the street, curbside, on the sidewalk, or in vacant lots.

Location: San Francisco, CA

Size: 6,000 Square feet

Surrounding context: 3 story residential units, cafe across the street

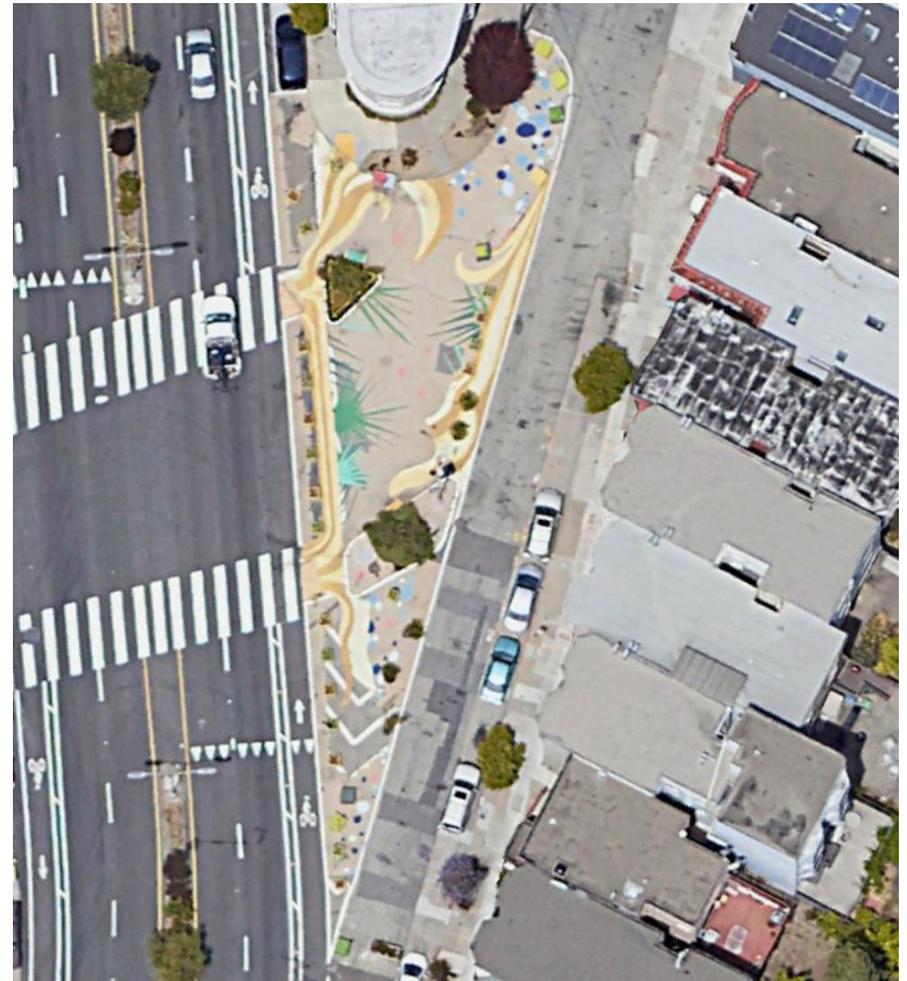
Typology: Plaza, Street Removal, Traffic Calming

Program Elements: Public art, bollards, drought resistant vegetation, city bike station, seating, traffic calming, trash

Partners: Sponsors and partners provide funding, city, Groundplay, area residents who established a stewardship and maintenance plan

History: San Jose Guerrero Park has been constructed in 3 phases beginning in 2009 with temporary painting and wood planters. Phase 2 updates happened in 2016, and phase 3 was completed in 2018 with community

feedback and idea generation events held with each phase. One of the main goals of the project was traffic calming at the intersection of Guerrero St and San Jose Ave.





Case Study 2

NYC Plaza Project | Corona Plaza

The "DOT works with selected organizations to create neighborhood plazas throughout the City to transform underused streets into vibrant, social public spaces. The NYC Plaza Program is a key part of the City's effort to ensure that all New Yorkers live within a 10-minute walk of quality open space." The plaza program has been a part of the New York department of transportation since 2008. The DOT funds the design and construction of selected projects. Community input is gathered through workshops to help create socially sensitive designs.

Location: New York, NY

Size: 30,000 Square feet

Surrounding context: 1-3 story mixed use, restaurants, subway entrance

Typology: Plaza, Market Space, Street Removal

Program Elements: Food trucks, vendors, weekly farmers market, seating, umbrellas, rounded seating facing on a central point vegetation, bike parking, subway entrance, informational kiosk, bollard, trash

Partners: City, neighborhood nonprofit group, long term funding secured through an outside source, as well as revenue from concession contracts going to support plaza maintenance.

History: A service road and 26 metered parking spaces





once separated local shops from a minor green space consisting of a few bushes and trees leading up to an overhead rail. The area previously hosted, and continues to host a farmers market and with little surrounding open space, area residents were happy for the chance to have an improved plaza. The first phase was undertaken in 2012. The plaza was 13,000 sq ft and built with temporary materials such as epoxy gravel mix, recycled heavy granite blocks to stop traffic, benches, and the standard double white line painted around the site. In 2018, during the 10 year anniversary celebration for the Parks to Plazas program, the second phase of Corona Plaza was unveiled. Phase 2 brought permanent materials and expanded the plaza to 30,00 sq ft, was completed.



The Parks to Plazas project has found success focusing on temporary materials and phasing projects.

Case Study 3

Project for Public Spaces | Congress Square Park

“Project for Public Space is a nonprofit planning, design, and education organization dedicated to helping people create and sustain public spaces that build stronger communities.” PPS has been operating since 1975.

Location: Portland, ME

Size: 13,000 Square feet

Surrounding context: 1-10 story mixed use, restaurants, Portland Art Museum, and residential (10,00 residents live within a 5 minute walk of the park)

Typology: Public Square

Program Elements: Food truck, many arrangements of seating, umbrellas, vegetation, movable planters, public art in the form of murals and sculpture, rounded seating facing on a central point, trash

Partners: Grassroots campaign, nonprofit organization for programming, funding secured through an outside source

History: Congress Square Park was originally built in the 1980's as part of an urban renewable project. In the early 2000s the park was in disrepair and the city was planning to sell the property to a developer. Neighbors formed the Friends of Congress Square Park nonprofit and held a social media campaign which took off. Project for Public





Spaces began work on the project by suggesting Lighter, Quicker, Cheaper interventions which responded to some of the requests of the social media campaign.

Success found through regular programming, active maintenance, and new furniture.

Case Study Reflection

Similarities

This case study series was selected to analyze temporary or phased landscapes, as well as the organization leading these projects. The leading organization, partners, and funding for each project is similar. This establishes a pattern for creating a temporary landscape. Each organization focused on underused street spaces to create urban spaces for people. Each project required a combination of partners including designers, nonprofit organizations, funding from an outside source, and neighborhood residents. The phasing of the projects always started temporary and moved toward permanent installations.

Differences

San Jose Guerrero is the smallest site, with the least programming, and mainly surrounded by residential units making the space more of a residential park than the other cases.

Corona Plaza is the largest space, and specifically noted for being located in an ethnically diverse neighborhood with poor access to public space. Much of the activity in this plaza is generated from shoppers and vendors.

Congress Square Park was an improvement upon an existing park, rather than a new park on previous street area. This site included community input, Lighter, Quicker,

Cheaper design interventions, and similar project elements as the other two examples.

Influence on the Thesis

The scale, project elements, typology, and site context all informed and improved upon the ideas of this thesis proposal. Each site varied in size, but was smaller than 1 acre. The project elements were also very consistent across each case. Two cases even included circular/semi-circular seating elements which focused on a central "performance" area. The locations varied from highly residential (San Jose Guerrero Park) to largely shops (Corona Plaza), but each was located in a densely populated urban area. There was also an emphasis on a connection to public transportation with the inclusion of the city bus and a subway station.

Major Project Elements

A pocket park (the size of 6-12 parking spaces)

Seating configurations to fit various user group scenarios

Circulation for people to pass through the space, from both directions, without impeding on other users

Space for desired use/activity

Must meet social distancing guidelines of maintaining 6 feet of space between disparate groups

Use of porous materials (because the virus does not stay viable as long)

Vegetation (which impacts the microclimate and welcoming feel)

Ecosystem services (provides an element of green design where applicable)

User Description

Context

Users of the site may be experiencing stressful home living circumstances along with other stressors related to the pandemic. They may not have quick access to traditional outdoor space or greenspace. This site is meant to positively influence public health by giving community members a place to go when coffee shops, malls, and libraries may be closed. The users of the site may be experiencing lock-down, or the “new normal”, both requiring proper social distancing to slow the virus spread.

As social distancing applies to individuals outside of your household, various scenarios for users exist. Space arrangements must allow users to maintain social distancing in each scenario.

- An individual user
- Two individuals/small groups (1-4) from different households meeting
- Multiple individuals, all separate but engaged in the same thing

Peak user numbers will be determined by social distancing guidelines, with the integrity of the design maintained even at peak occupation.

Site Information

In order to best serve the public, the site should meet the following requirements:

Surrounding issues:

- Underutilized parking
- Poor access/lack of surrounding public space
- Overcrowded park/plaza/public space
- Near a highly utilized/populated area
 - Downtown district
 - School
 - Museum
 - Library
 - Busy restaurant district
- Size of 1-8 parking spaces
 - Approximately 1800-14,500 sq ft
- Nearby resources such as public transportation



Project Emphasis

The emphasis of this project is to understand how design elements can influence space use and social distancing. Meeting CDC guidelines will be fundamental to the design. Research into social habits and how to influence habits will assist in the process of design ideation. Virtual simulations, along with multiple prototypes will be used to characterize the effectiveness of design interventions. The result will be a set of concise guidelines for implementation and best practices for designing with pandemic driven criteria at the forefront.

Goals of the Thesis

- Improve our collective knowledge on design in response to pandemic circumstances
- Work towards a new normal -feel as though I am contributing to something
- Provide a set of guidelines for designing outdoor spaces
- Show the importance of temporary landscapes
- Combine public health, green design principles, and urban design

The goal of this thesis project is to create clear, adaptable, accessible information as the conversation of designing for social distancing is just beginning. I see improved utilization of outdoor spaces as an integral step towards reclaiming cities, reclaiming individual mobility, and reclaiming confidence in social interaction. Just as there is flu season, there will likely be SARS-CoV-2 season in the future. The design and use of shared outdoor spaces could impact the severity and duration of these instances. This research is a step to understanding and transforming user experience. When I see the arrows on the floor directing me through the grocery store, I barely register them on my way through my ingrained route through the grocery store. Many others around me also continue on with their shopping habits, oblivious to the

directional signage. Dots and arrows on the floor are not enforced, enticing, or always intuitive. There must be a better way to design our spaces to impact functionality of these safety measures.

This thesis packet is meant as a tool for organizations and parties interested in creating temporary landscapes which respond proactively to pandemic restrictions and limitations. The research that will be developed in the course of this thesis is intended to further our understanding of how to design spaces which positively impact social distancing. What design interventions are most successful at influencing user behavior?

Plan for Proceeding

Definition of a Research Direction

Research of habits and observation of interactions will be used to create simulations of how users will interact with spatial layouts. These simulations and prototypes will be compared to show which arrangements provide the greatest compliance with social distancing protocols.

Design Methodology -Mixed method quantitative/qualitative analysis

- Observation and graphic analysis of existing spaces
- Digital Simulations
- Digital modeling
- User interaction with model

Documentation of the Design Process

Documentation

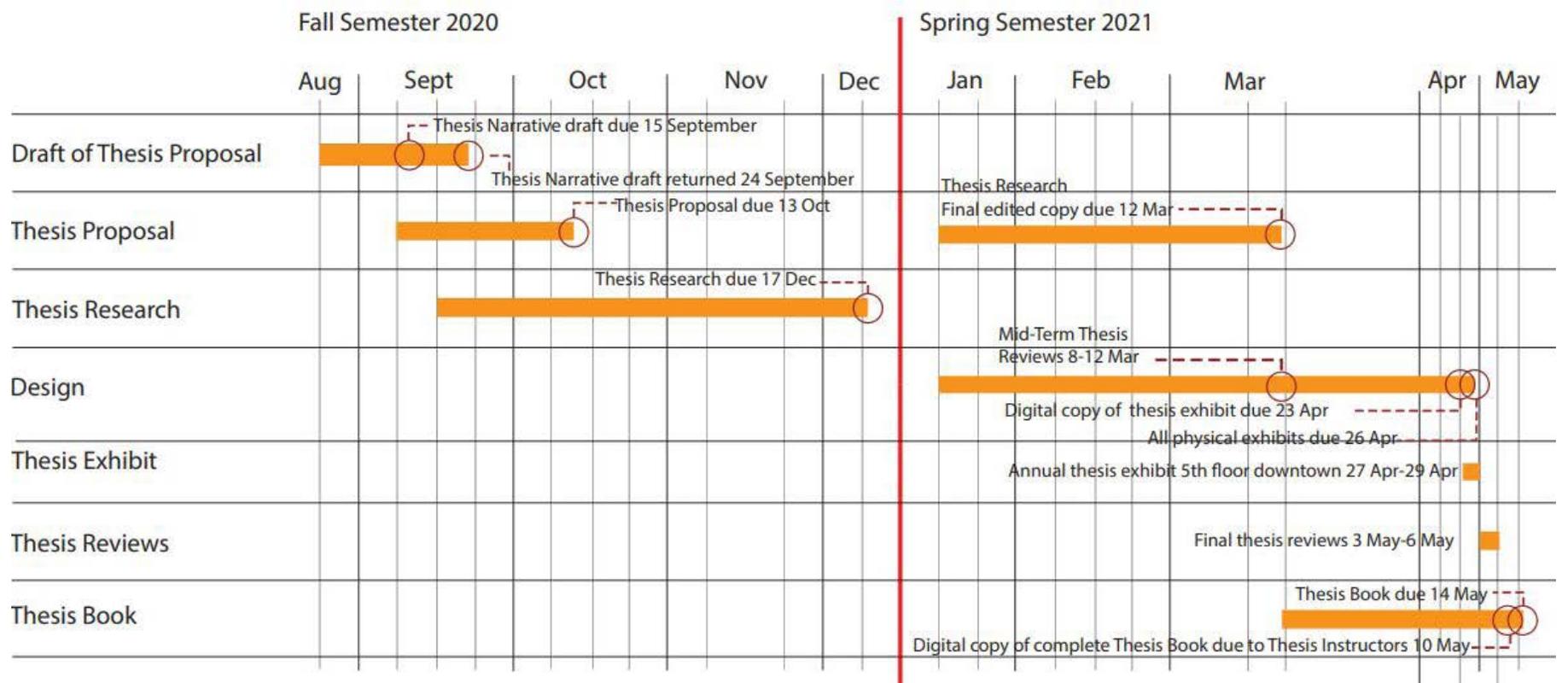
- Scan hand graphics and document physical models every other week
- Backup all files using Backup and Sync

Preservation

- Thesis will be stored by NDSU library archives and available to future design students

Presentation

- Virtual, prerecorded presentation.



Literature Review

This is an atypical literature review as the project in question does not have a long standing history as a topic investigated by the design professions. There are few built artifacts to study and at this time no studies to glean information on the success or failure of those designs. The groundwork then begins with establishing the design parameters and the social atmosphere within which this new design typology has come to fruition. As such, this literature review seeks to answer the following questions:

- What is social distancing, why do we have it, and what types of safety guidelines have been developed?
- Up to now, what types of design interventions have surfaced?
- What is a temporary landscape, and does it fit the design typology?
- What are the fundamentals of designing a good public space, pre-pandemic?

What is social distancing, why do we have it, and what types of safety guidelines have been developed?

Social distancing has become a catch all term to describe the set of nonpharmaceutical measures which can help prevent the spread of disease. As described by Fong et. al. these include physical distancing (staying a recommended distance away from members of different households), isolating ill individuals, quarantine of exposed persons, contact tracing, limiting crowds, school, work, and business closures (2020). Social distancing and physical distancing can both mean maintaining a standard distance from persons, and will be used interchangeably. The goal of these measures includes three desired outcomes.

“The first outcome would be to delay the timing of the peak of infections to buy time for preparations in the healthcare system, the second to reduce the size of the epidemic peak so that the healthcare system is not overwhelmed, and the third to spread infections over a longer time period, enabling better management of those cases and the potential for vaccines to be used at least later in the epidemic to reduce impact” (Fong et. al, 2020).

In the United States, many of these same measures were utilized during the 1918 pandemic. This is often illustrated by the example of Philadelphia holding a parade attended by more than 200,000 people just as the Spanish flu

Social Distancing



was beginning to spread, while in St. Louis schools, pool halls, and movie theaters were closed after only the first few reported cases of the virus (Roos, 2020). St. Louis flattened the curve of the initial flu wave, while just 72 hours after the Liberty Loan parade was held in Philadelphia, all the local hospitals were full. These nonpharmaceutical prevention measures still take a toll on cities and citizens, in the form of mental health, public unrest and economic turmoil. As the measures are only effective as long as they are in place, and a combination must be used to slow the spread of more infectious diseases, additional solutions to virus prevention should be sought. In St.

Louis, the social distancing measures could not be maintained indefinitely, and the city was eventually hit with a large second wave of the virus (Roos, 2020).

One of the most challenging parts of enforcing social distancing and explaining its importance to the public is that the spread of the disease can not physically be seen. If virus particles came out of an infected person neon orange, it would be a constant reminder to follow best practices. As is, everyone must be treated, and act, as though they could be spreading the infection.

Such an abundance of guidelines have been published that it can be overwhelming to sift through everything to ensure you are following a comprehensive set of safety guidelines. I reviewed information published from government regulated sources such as the CDC, WHO, OSHA, ND Smart Restart Guidelines, as well as guidelines from private

companies such as the reopening policies followed at Disney World and Six Flags. These guidelines were combined to create the following chart, broken into 3 categories. This compilation of health and safety could not be maintained indefinitely, and the city was eventually hit with a large second wave of the virus (Roos, 2020).

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Physical Distancing

- Maintain 6 feet of distance between seating, circulation, and separate groups
- Provide physical barriers where necessary
- Diversify pathways to allow for one way circulation
- Remember that it is both distance and time of an expose that matter

Practice Good Hygiene

- Wash hands frequently
- Wear masks
- UV rays provide natural sensitization of surfaces
- Provide touchless amenities
- Waste Baskets

Social Habits

- Discourage crowding
- Encourage and post reminders of good hygiene
- Encourage users to stay home if feeling unwell
- Provide adequate signage about circulation



Current Designs



Up to now, what types of design interventions have surfaced?

Not much has been done in the vein of designing and documenting outdoor spaces which uphold social distancing. Various types of signage were the first interventions created. These include floor dots, reminders to wash hands, reminders to wear masks, and arrows to encourage one way circulation. A few images of small outdoor events and creative mowing of parks have circulated, but in terms of built solutions, examples are sparse.

Some of the institutions publishing restart guidelines included diagrams of designs which would fit the new parameters. These publishers include Rockwell and Mackenzie design firms and NACTO. Additionally, several competitions were launched including one by the City of Chicago and one by World of Landscape Architecture which asked for submissions of design solutions for pandemic responsive outdoor spaces. Value can be gleaned from these design concepts, several of which are located in the appendix.



Rockwell's design solutions are unique because they suggest a kit of parts that can be assembled in any desired pattern to create socially distanced outdoor dining experiences (Harrouk, 2020). This kit of parts design technique would help create a design that is rapidly adaptable and rapidly constructible, potentially

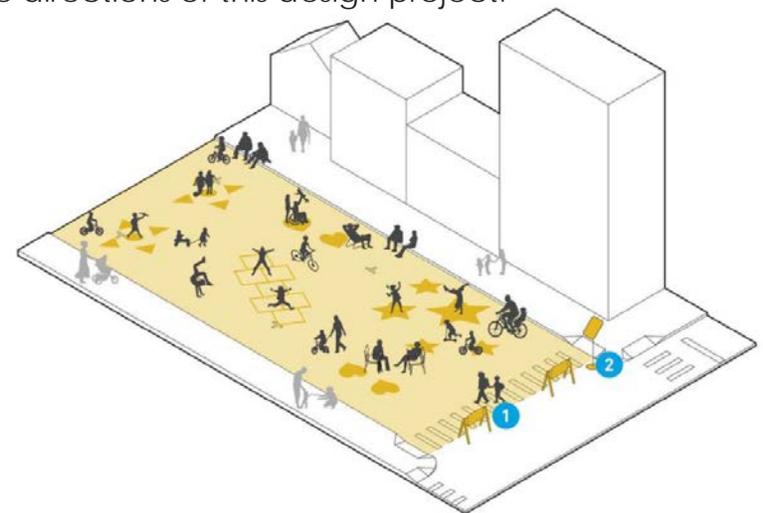
expanding the accessibility of the final design solution. The trade off associated with these kit of parts designs is in the lack of uniqueness and responsiveness of the design. Each design is a generic reorganization of the same theme out together to fit inside a new perimeter.

The Mackenzie diagrams consider a range of socially distanced scenarios from curbside pickup to office work space (COVID-19, 2020). A public space would essentially be designed like a socially distanced office, with separate seating areas. The designs which consider parking scenarios, while being outside, are less applicable to this project. Because of natural delays in timing, the number of people who will continue to work from home post pandemic, combined with parking lots for many businesses remaining almost vacant, the justification for socially distanced parking is not a vital concern.

NACTO provides the most relevant design diagrams. As the National Association of City Transportation Officials, their publication focuses on the use of streets. They provide a set of simple diagrams showing streets used as outdoor classrooms, COVID testing site, open play, dining, markets, and variations of shared streets (Streets, 2020). The guide talks about adapting streets to the response, and evolving through the recovery phase. Their three scenarios include full shut down of nonessential businesses, staged re-opening, and post vaccine administration. If streets are completely deserted with a firm stay at home order in place, why not adopt them as public spaces? As traffic returns, one way streets, shared streets, land closures, or removal of some parking can allow for the continued use of streets as public space during and after the recovery phase. The publication also provides suggestions for finding space, supporting local and choosing materials.

The 6 principles behind the NACTO guidelines perfectly align with the directions of this design project:

- Support the most vulnerable people first
- Amplify and support public health guidelines
- Safer streets for today and tomorrow
- Support local economies
- Bring communities into the process
- Act now, adapt over time



Temporary Landscapes



What is a temporary landscape, and does it fit the design typology?

As stated by Project for Public Spaces and in *Seven Rules for Sustainable Communities* by Patrick Condon, we need to think of city interventions that are lighter, greener, faster, cheaper. By working within the framework of existing built environments, small shifts can create rapid and equitable change. Supply of these changes can fuel demand for more, and more permanent solutions.

Buildings are seen as immobile and inflexible, but the landscapes surrounding them have throughout history functioned as a public stage.

William Whyte, Jane Jacobs, and Jan Gehl would all agree that the most interesting things on the streets to watch are the people themselves.

As an article by James Mayo entitled “Temporary Landscapes” describes, “Temporary landscapes are places that express current events that may or may not be repeated” (2009). The author frequently compares the landscape to a performance with separate scenes which may repeat themselves, or never appear again. These scenes are social events, and they require participants and witnesses. The landscape described as a performance is not a new concept. Lawrence Halprin and his wife interpreted and designed landscapes using dance, and street performers intentionally and unintentionally use landscapes as integral parts of their performances.

There is a correlation between landscape, which is typically a public space, or at least in the public view, and social change. Sometimes these temporary movements, in temporary landscapes, leave a lasting public memory which can be layered, or preserved. "Temporary landscapes are associated with stories" because they give a context to the time and place (Mayo, 2009). These memories are often captured through historical photographs. Everyone has seen the photo of the United States National Mall taken during Martin Luther King Jr. "I Have a Dream" speech. It has been compared to inaugural turnouts throughout the decades. The memory of many temporary landscapes are layered at the National Mall.



In New York City exists the first National Monument dedicated to LGBT rights. It is located in a .19 acre park called Christopher Park, directly across the street from the Stonewall Inn. The site of the 1969 Stonewall Riots, what is regarded as the start of the movement for LGBT rights in the US, is a temporary landscape which has been preserved. People can travel to the landscape, see photographs, and read the stories that began right where they are standing. Temporary landscapes shape our cities, and our future. When they become part of the public memory, they become an artifact of the time, place, and culture and may be physically preserved.

Because of the rapidly evolving nature of our current circumstance, it is fitting that public space be temporarily retrofitted. Landscapes have been the venue of social change all of history. Mayo writes "Temporary landscapes usually require social institutions," and "may involve either social or physical change" (2009). Mayo provides examples of landscapes being converted during riots, around concerts, and during war. The social and cultural influences on temporary landscapes inform the type of landscape and the success. Temporary landscapes perform a public

necessity, uphold public memory, and facilitate public growth. “Either planned or not, temporary landscapes ebb and flow as events may either enrich or corrode our place culture. People may look forward to these landscapes, or fear them, but they expect them to occur.”

Mayo concludes that “at first temporary landscapes may appear irrelevant to the design professions,” but continues to illustrate that by assuming temporary landscapes will arrive by default, we can actively design to accommodate and inspire them (2009). He also insists on the importance of knowing the history and memory of a place as it will influence the success of a project, and should influence the overall design. I think designers can do even more. Temporary landscapes represent a city’s culture. The city is the stage for all residents. The scenes and events themselves can be influenced by design. Design down on the street, in the niches where life happens, can shape use. And because we are making lighter, greener, faster, cheaper solutions, they can evolve as the social situations informing the landscapes evolves, even if, all the while, the buildings remain static around us.

As a historic artifact, the design of my socially distanced landscape represents this time in history. If built it would become a part of the public image of this time, a reminder of the realities of the pandemic when the circumstances have passed. It would serve as an educational tool preserving how we reacted and how we prepared. “Societies typically prepare for the worst” when it comes to fire, natural disaster, violence, etc (Mayo, 2009). This design would be a testament to preparation, and social perseverance, in the face of infectious disease.

Social Life of Small Urban Spaces

What are the fundamentals of designing a good public space, pre-pandemic?

To understand the who, what, and wheres of good public spaces, the landmark *Social Life of Small Urban Spaces* by William Whyte was analyzed in comparison to the various parameters of social distancing (1980). Whyte's research conclusions were found to be extremely relevant, and answer many questions about design, location, amenities, circulation, peak usage, and observation of social habits.

William Whyte's famous conclusion that "people tend to sit most where there are places to sit" and "what attracts people most, it would appear, are other people," both indicate that the road to creating a successful socially distanced public space will not be smooth. To create a design which encourages social distancing is one task. To make the design something people want to use is another. The justification for this project is to create a space for people to enjoy and improve their experience of city life, which really, can be said about the creation of all pocket parks, plazas, and stripe seating areas of the city. While the urgency and social circumstances may have changed, the ultimate use and goals remain the same as what Whyte had in mind.

Whyte also had an opinion on social distancing, in the context of people using spaces he says "Social distance is a subtle measure, ever changing, and the distances of fixed seats do not change, which is why they are rarely quite right for anybody." His view is that fixed seating will always be uncomfortable, but the obvious answer to maintaining social distancing of 6 ft is the utilization of fixed elements. How then, can a fraction of choice be entered into the landscape to allow users to experience what Whyte called "the satisfying exercise of choice". Can this satisfying experience be duplicated with an illusion of choice that still maintains 6 ft?

Another aspect of successful public spaces is what Whyte called "triangulation". It is the event, vista, or happenstance that gets strangers to break their vow of silence and comment to one another. While it indicates that these performances, temporary landscapes themselves, bring spaces to life. With so little interaction happening right now amongst everyone, it will be interesting to consider how something could be brought into the design to encourage these interactions. Even a way to share an asynchronous exchange. As a temporary landscape, its entire existence is a type of performance, a scaffolding for public memory.

One revelation about social habits from Whyte lies in how we use site circulation. People who stumble across acquaintances on the street or in a plaza, will usually stop to talk in the middle of the circulation path. Whyte's explanation is that remaining in the path of circulation allows for the maximum choice to break off and continue on to your intended destination. This social quirk might undermine otherwise well spaced circulation paths.

Peak site usage is an important question for a socially distanced landscape. How many people is too many and how will the space be regulated? Whyte's research holds an answer to this as well. On an average day, a site's carrying capacity will never be reached. The research concluded that people are adept at self regulating the appropriate density of a space based on circumstance. A Tuesday for lunch and a Friday night concert feel comfortable at different crowding levels. By this logic, peak usage is of little concern as Whyte points out "Underuse, not overuse, is the prevailing problem." Even in a busy well used public space, the research indicated that typical use will equal the amount of linear feet of sitting space divided by 3. On the inverse, this means that observed use of a site can be considered a success if it is full during peak use. With a strategic layout providing plenty of sittable areas, there is little worry that capacity will be breached, even with higher demand for outdoor space.

A list of elements desired for a proper public space, along with some dimensions from the building code the original research resulted in, are included in the following table. These elements are sun or harnessing reflected light, wind protection, trees, shade, water feature, access to nearby food, and, of course, sitability. An optimal location is also important for optimal use. A minimum of 1000 passerby during peak use times is indicated for the success of a space. Otherwise a few benches on the sidewalk would sufficiently hold the number of potential users of the site. Drastic change in elevation or lack of site lines into spaces also reduce the ease of accessibility to potential site users. Designs which drastically cut the site off from the street should be avoided as they lead to safety concerns, reduced use, and additional issues. Greater use will always be the easiest answer to creating safer spaces.

The wealth of information from *The Social Life of Small Urban Spaces* can be related to every part of the design of the temporary landscape. The dimensions and design considerations charted combined with the social distancing guidelines to create a solid set of design parameters for creating a small socially distanced urban space.

Features	Seating	Social Habits	Location
Water Feature	Linear ft of seating = to perimeter of space OR	Users will stop to talk in the flow of circulation spaces	Near a busy sidewalk. 1000 passerby or more during peak hours
Sun capturing	6-10% of site size OR	Users will gather at corners and edges of steps and ledges	OR A location of great need and good access
Planting/Vegetation	1 linear ft of seating every 30ft ² of space	Users will gather at points -pillars, flag poles, sculpture	Visible site lines to streets
Wind protection	For every 1000ft ² = 1 tree	Users enjoy freedom of choice and movable seating	Near a restaurant or cafe
Triangulation to make the space memorable	Seating heights between 1-3ft	Design with visual clutter to catch the eye and draw in potential users	Southern exposure is best
Food	Variety- Up front, in back, to the sides, in sun, in shade, in groups, off alone	Limit elevation change to increase access. 11 rise and 7.5 run on steps	

Literature Summary

After the literature review, the relationship between the chosen topics is strengthened. Guidelines have been published, but they amount to a few concepts and have a large focus on person hygiene and separating workers. Several government and private organizations have generated ideas for socially distanced spaces, but the design are conceptual and have not been tested. Most of the work is diagrammatic and needs to be developed further into a design that addresses the social and cultural circumstances. A design that can become a place, even if only temporary. Because temporary landscapes have power, and they have the potential to become a part of the history of the pandemic. Everyone wants to know when we will get back to normal, and what changes will stay after the pandemic is "done". By leveraging temporary landscapes, positive community change could be a part of our post-pandemic lives. After reviewing the Social Life of Small Urban Spaces, it is clear that the design needs to fit with social behavior, rather than fight against it, to achieve a functional socially distancing space. If the design is poor and without users, the project ultimately fails. This design needs to serve the community as a temporary landscape for the pandemic generation. Underuse rather than overuse is the primary concern, especially in areas where cold weather may lead to more time spent indoors.

Project Justification

Why is the project that you have defined important to you as a person (your personal reasons)?

This project, on designing during outdoor spaces in response to pandemic circumstances, is important to me because it is providing an outlet to act. I can use my specific skill set to add to the current conversation. When faced with an immediate problem, acting helps to regain a sense of control, a sense of purpose. I want to help add to the conversation that is happening now. The fact that this project is relevant and new information is rapidly being produced is part of what makes it so interesting. The best answer tomorrow might be outdated in a month and that's okay because we need transitional phases and we need to evolve as rapidly as the circumstances.

Why is it important for you to do this project at this stage of your academic and professional development?

It represents a culmination of topics I'm interested in: equal access to public space, the importance of outdoor space for physical and mental health, consequences of vacant land in urban areas, quick interventions which can be leveraged to create lasting change. This is the type of work I would be interested in doing after graduation. I truly believe that access to public space is a human right and essential for the sustainability of our urban communities, otherwise I wouldn't be pursuing an education to become a landscape architect. We can make beautiful spaces, but the most important thing is to fight for space to begin with.

Why is doing the project important for the profession at this time?

In many places around the country and world experiences lock down, outdoor spaces became the sole outlet for many people. It is crucial to be adaptive and design to meet the needs of the present, while understanding how what we do now may inform the future. Yes it is important to provide more places, and accessible places, for physical and mental well being right now. But a global pandemic may happen again at any time, and what we do know informs how we will react to future events. This is the time to test, experiment, iterate, and evaluate.

How can you justify the project economically?

Lighter, faster, cheaper, greener. This is a public health crisis that is affecting every aspect of daily life, and everyone wants money. The goal of this project is to generate an amenity that truly has the potential to help people, at a very low price. It's not about high design but about accessibility and sustainability of the design in terms of economics, social, and environmental.

How can you justify expending the funds to implement the project?

As a high impact, low cost intervention, various interest groups would have the ability to fund individual projects. Plus there is precedent to show that temporary landscape interventions can be integrated as full projects if shown to be successful, but that's a post pandemic discussion.

Where might the funds come from for your project and are the sources justified?

This project will provide a template design which meets and encourages users to follow best safety guidelines. Various user groups may be interested ranging from community and recreation centers, neighborhood organizations, parks districts, churches, schools, and the tourism industry. In theory, an intervention program will work for a dense community lacking greenspace, as well as an amusement park struggling to abide by regulations.

Is your project justified based on a return on investment?

The return on investment is in mental and physical wellbeing. And of course furthering the practice of landscape architecture into the mainstream.

What would be the post-occupancy impacts of your project?

Theoretically the post occupancy of this project would be very small, as the footprint, and lifespan are meant to be small. Perhaps even collapsible and reusable for other projects. Maybe a goal is that the material is never transformed (i.e. cut, glued, painted) and can be disassembled and used in typical construction. Or potentially available for conversion into a permanent public space.

Why is the project important to be implemented in its social context?

This project directly addresses our current needs and living conditions. It is important because no one should be trapped indoors. Fresh air is rejuvenating and with everything changing, it is even more important to get outside and gain some perspective. Plus being outdoors provides safer conditions for socializing which is also largely connected with people's mental status during the current circumstances.

How is the project justified in its chosen site location?

The location is meant to help serve undervalued community areas, provide public space where it is lacking, and utilize vacant land to do so. The site impact, community impact, and environmental impact are all positive.

Performance Criteria

The three categories I'm focusing on are:

- 1. Design Follows Social Distancing Guidelines**
- 2. Behavioral Performance (usage patterns)**
- 3. Cost (which relates to feasibility)**

The first way to evaluate the design performance is evaluate the extent to which the guidelines have been met. Diagrams of the design could be used to illustrate how specific goals are reached, such as simple circles showing distances from various seating and interaction areas. To determine how the design holds up against the parameters, I will make a scorecard similar in concept to SITES and LEAD except the points are awarded based on meeting pandemic related recommendations. Those recommendations will be pulled from government publications on best practices. My personal goal with the design will be to follow all of the regulations. This type of bronze, silver, gold scoring system is already understood by the profession. It will be up to my discretion using research to determine what is most appropriate for score categories and points.

Behavioral Performance (usage patterns) would also apply and it would be interesting to attempt to compare the designs with pre-pandemic designs. To determine user behavior, simulations would need to be run using a program like AnyLogic. With the goal of influencing behavior performance, pre and post occupancy simulations will need to be run, although I'm not sure what constitutes a successful behavior stimulation. Circumstances allowing, virtual reality simulations with a group of site users could also indicate how individuals may interact with the designed space.

The third performance criteria is cost effectiveness. In order for the project to be feasible, the cost must be relatively low. Programs which produce temporary landscape, usually work off a grant basis. To determine cost effectiveness, case studies will be evaluated to determine what is considered a reasonable price for a temporary landscape intervention. A brief material cost estimate will be completed on the finished design.

Historical Context

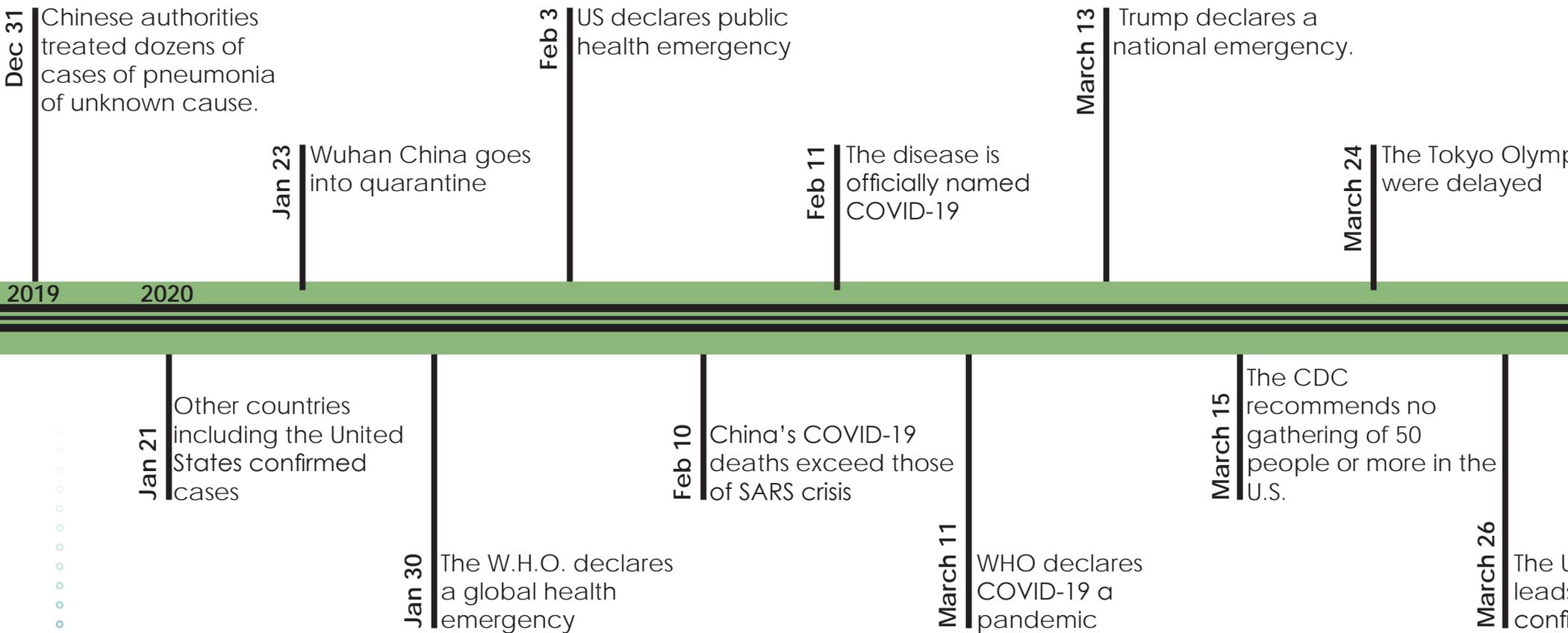
2018 marked the centennial of the Spanish flu. Reading articles dated two years ago feels incredibly eerie as the voices of the past predict our present. But they had no idea how soon their predictions of a new pandemic would come to fruition.

The 1918 Spanish Influenza pandemic did not originate in Spain, but it did begin while many countries were engaged in World War I. To avoid showing national weakness, countries fighting in the war did not report on the flu or flu related deaths. History of World War I rarely includes mention of the Spanish flu, but the history of the 1918 pandemic could not be told without mentioning the cultural setting of the war. More than 16 million people died in World War I. Between 50-100 million people died in the first two years of the Spanish flu pandemic. Between the war and the flu, the average life expectancy of Americans in 1918 dropped 12 years.

In 1918, microscopes weren't even powerful enough to isolate and examine the viral particles causing the flu. Antibiotics to treat secondary infections did not exist. Developing a vaccine for the flu took 18 years after the initial outbreaks. Nonpharmaceutical methods to slow virus spread were the only life saving options. Where weather allowed, outdoor field hospitals were erected and some reports show higher patient recovery rates in these makeshift hospitals (Hobday, 2020). The working theory is that the improved air quality, constantly being exchanged by the wind, helped patients recover.

Today many cities are growing larger and as all the centennial articles published in 2018 predicted, there will be more pandemics after COVID-19. The year 2020 is an ongoing research case from which scholars must try and obtain as much information as possible to prepare societies for future scenarios. With empty streets playing host to closed shops, wearing masks, hand sanitizing, social anxiety, anger, helplessness, revolution, and riots, citizens are ready for a change. Anything that will bring back a sense of normalcy and control.

COVID-19 Timeline





ics

April 2 World wide cases top 1 million

May 31 Large protests drive concerns about new infections

July 7 US surpasses 3 million infections, begins withdrawal from WHO

Aug 28 First known case of COVID-19 reinfection reported in US

Oct 19 Global Cases top 40 million

Nov 9 Pfizer publishes vaccine results

May 27 Corona virus deaths in the U.S. passed 100,000

June 10 US COVID-19 cases reach 2 million

Aug 17 COVID-19 now the third-leading cause of death in the US

Sept 28 Global COVID-19 deaths surpass 1 million

Nov 4 US reports 100,000 cases in 1 day

United States
s the world in
irmed cases



Social, and Cultural Context

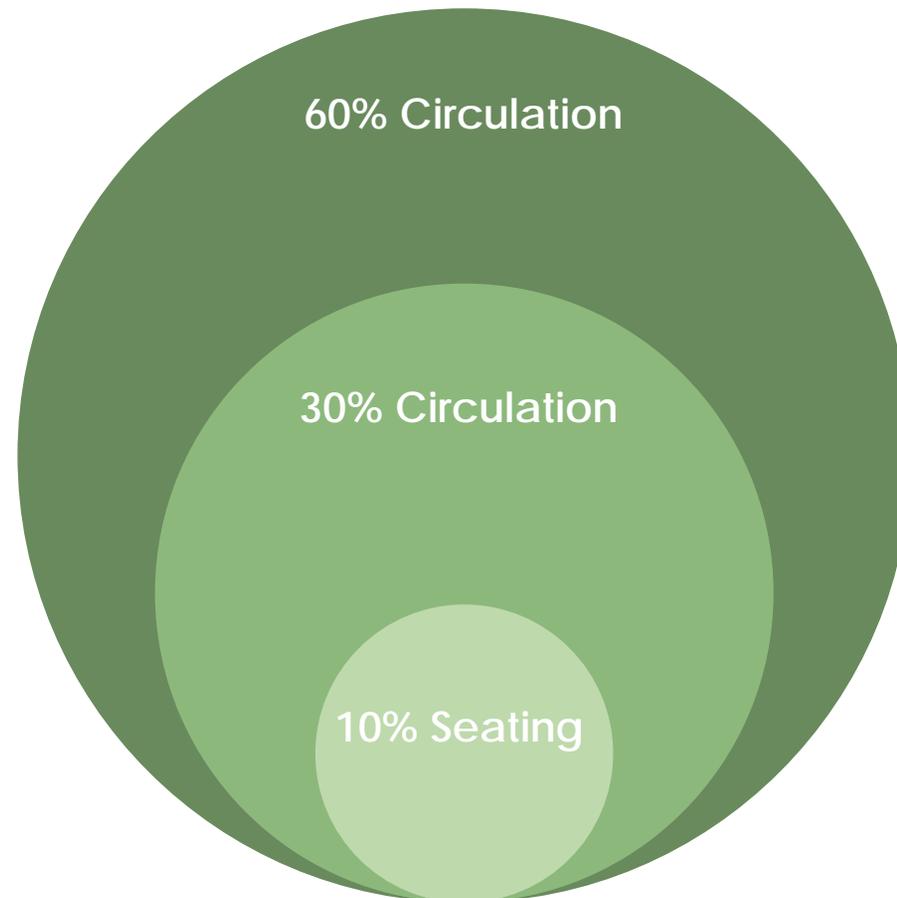
As with the 1918 pandemic, the 2020 pandemic can not be fully understood without the cultural and social context.

Protests and riots over police brutality against people of color have helped spread the message of the Black Live Matter movement. As an election year, 2020 brought debates that will go down in history, and perhaps the longest delay between election day and the final vote count. Kamala Harris will become the first female vice president. The U.S. withdrew from the World Health Organization during the middle of a pandemic, and withdrew from the Paris Climate Agreement even as we faced the worst hurricane and wildfire seasons on record. This is the stage on which the pandemic plays.

On an individual level, people have lost jobs. Stay at home orders were given, trips were canceled, and feelings of control were forfeit. For most people adjustments have included staying home, entertaining children, cooking more, working from home, watching videos, trying to stay positive, doom-scrolling, and staying home some more. There are new things to worry about. Worrying about getting sick, worrying about a family member getting sick, worrying about losing a job, worrying about finding a job. The mental and physical well being of the nation has declined.

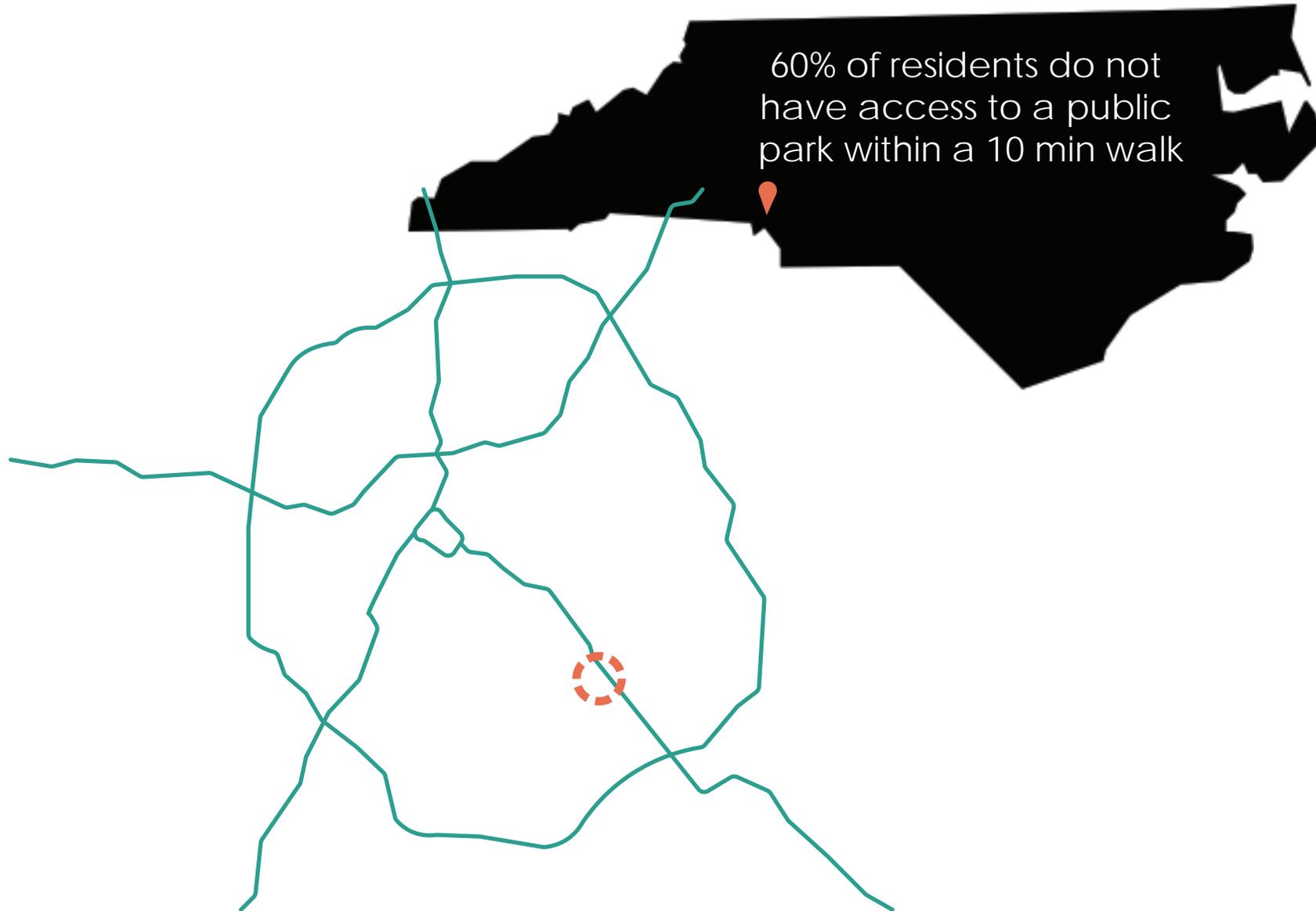
Incidentally, the 3 places people most like to blow off steam - bars, restaurants, and gyms - are also the 3 locations associated with the highest risk of viral exposure and may remain closed the longest. Fortunately, a temporary landscape could provide outdoor venues to address each of these locations.

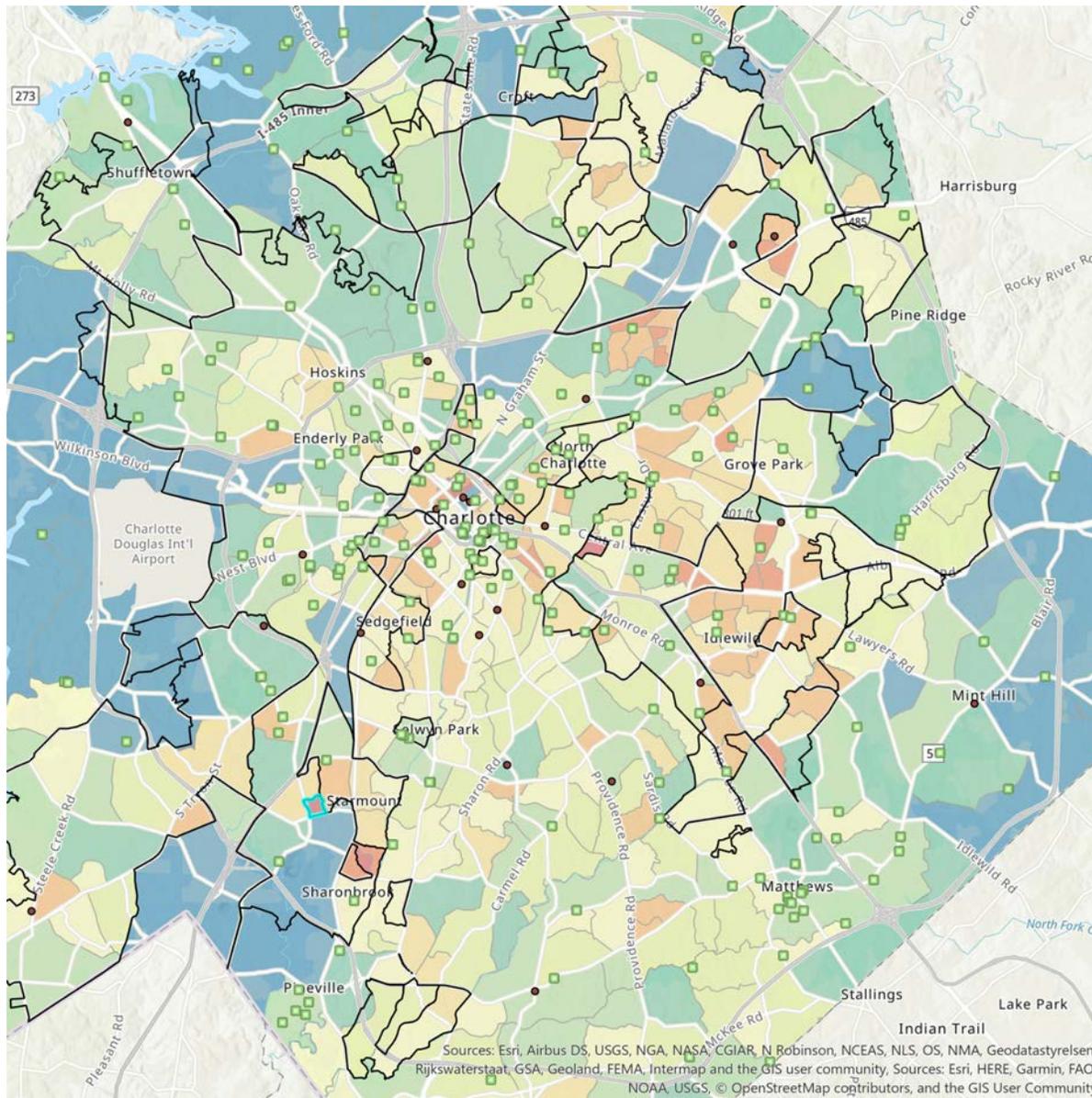
Space Allocation Table



Site Analysis

Independence Regional Library | Charlotte, NC

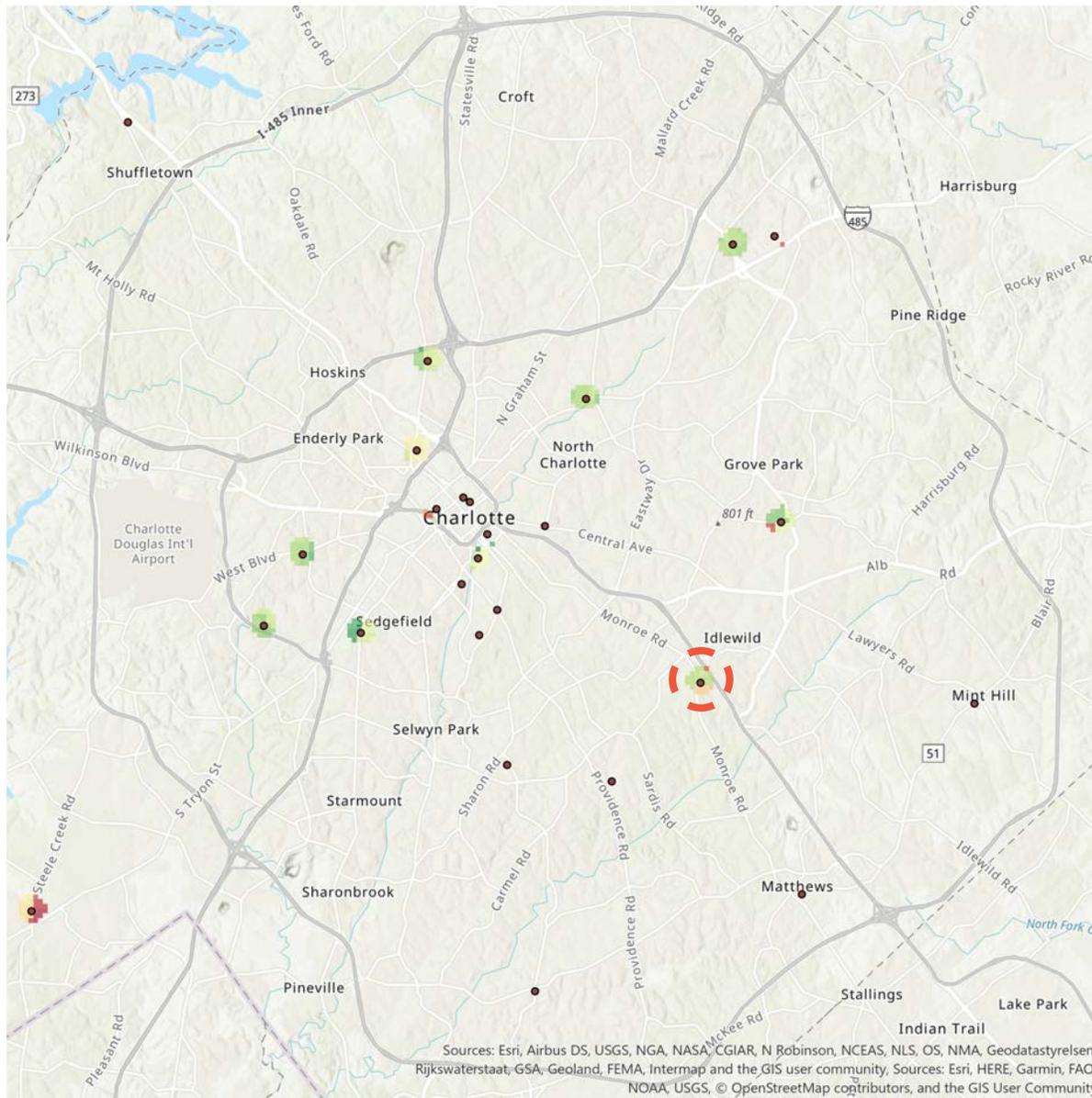




GIS Data

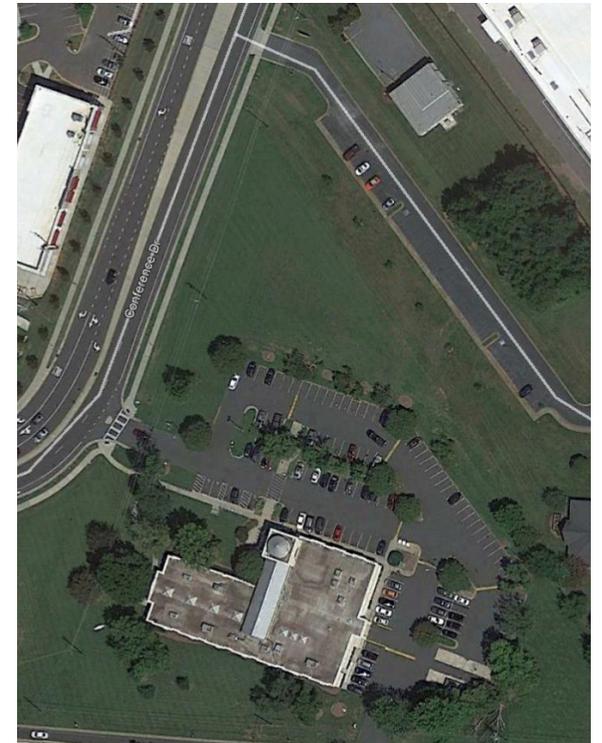
A spatial analysis of Charlotte was conducted using ArcGIS Pro. The map on the left shows the four layers which were transformed and then weighted to generate a final suitability surface. These layers include:

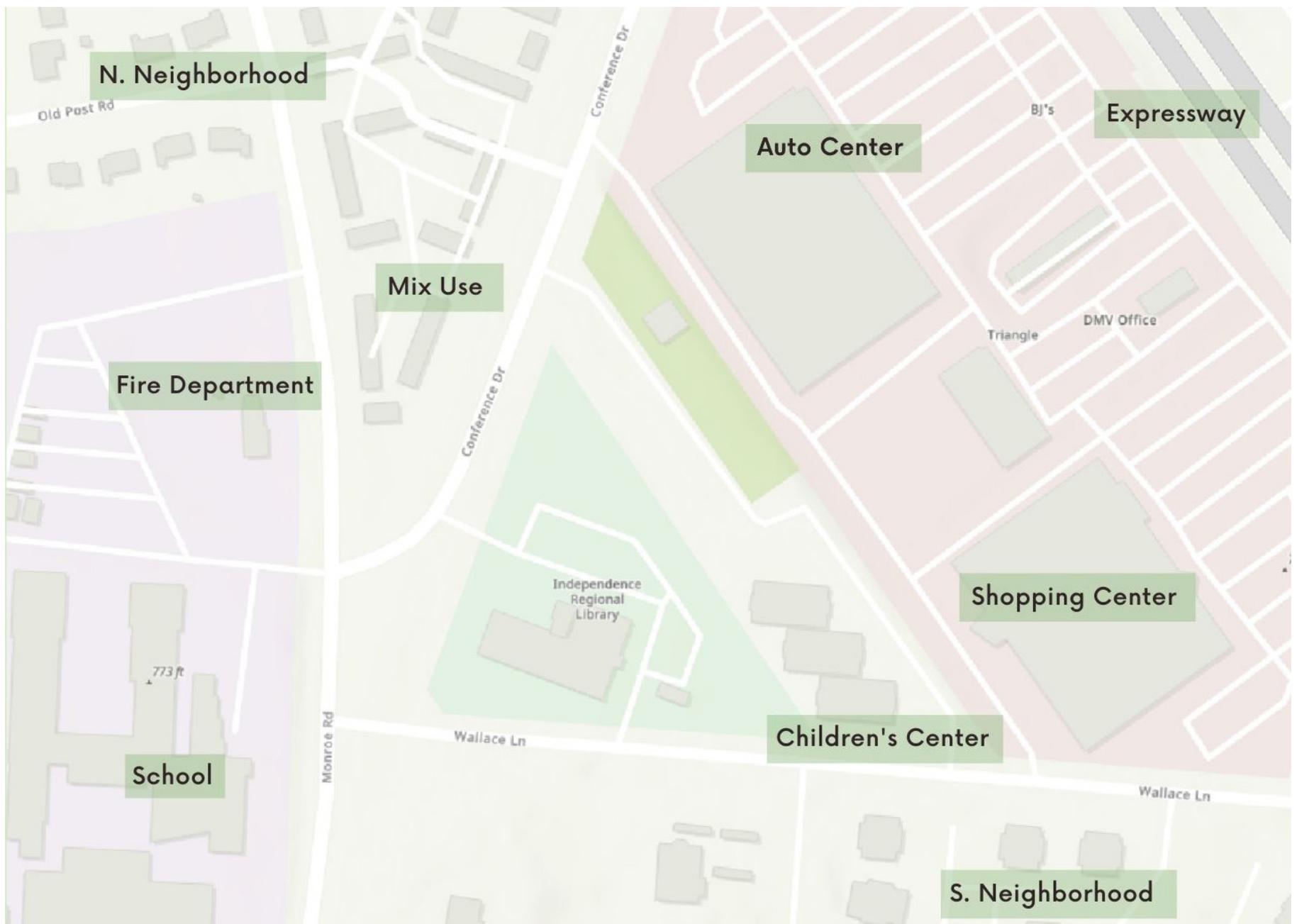
- Location of Parks
- Neighborhood Population Density
- Location of Libraries
- Located within a Neighborhood Improvement Grant zone



Final Suitability Surface

This raster surface displays the areas around qualifying libraries with darker reds indicating areas of greater need. After analyzing each location from greatest need to least, it was determined that the Independence Regional Library was in high need and had ample space for an intervention.





Weather: Minimal wind. Frequently sunny. Temps range between 33-89 degrees.
Flooding: No chance of flooding, grass portion of site is slightly raised
Pedestrian Traffic: Minimal even with large amounts of surrounding residential.
Noise: Potential noise pollution from the expressway.
Soils: Urban soils, highly disturbed, construction fill.
Vegetation: Mowed lawn, broad leaf and coniferous trees in varying conditions.

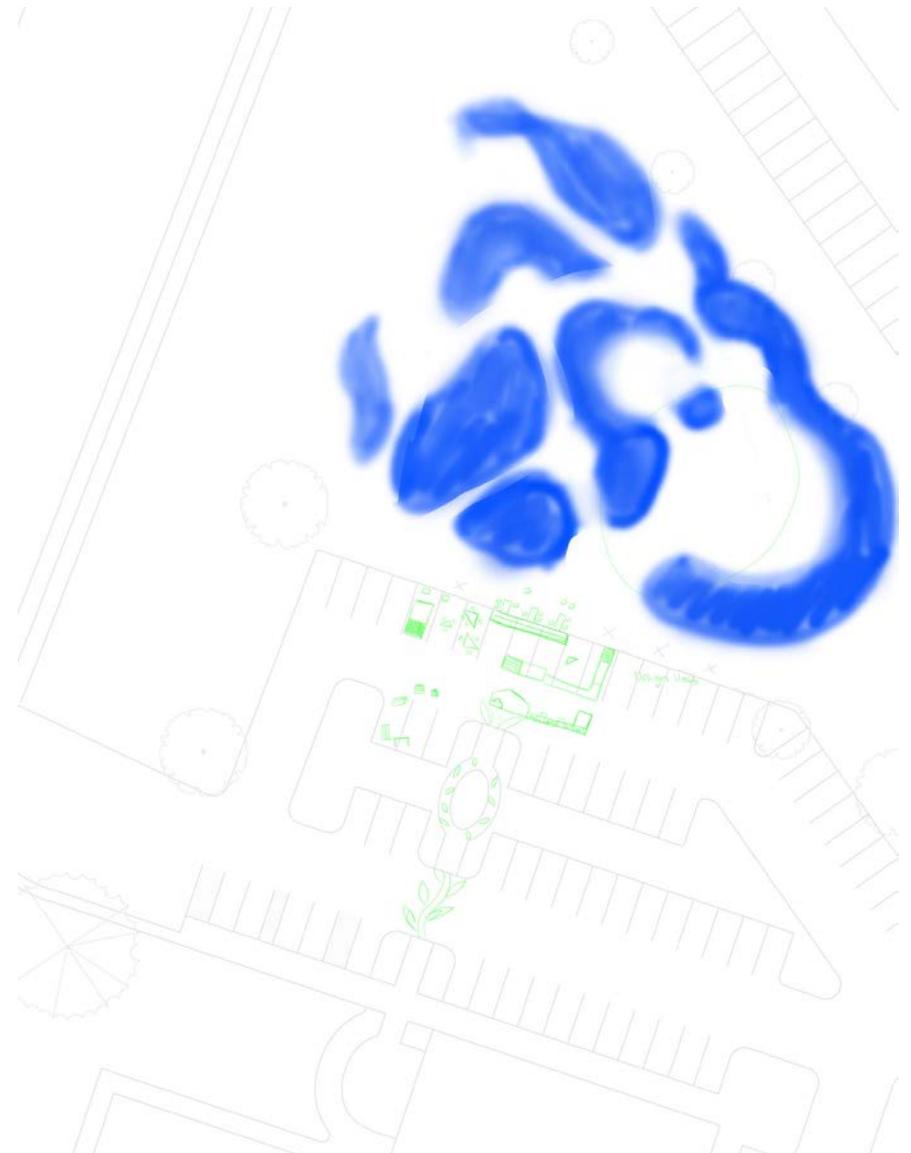
Design Concept

6 Guiding Principles

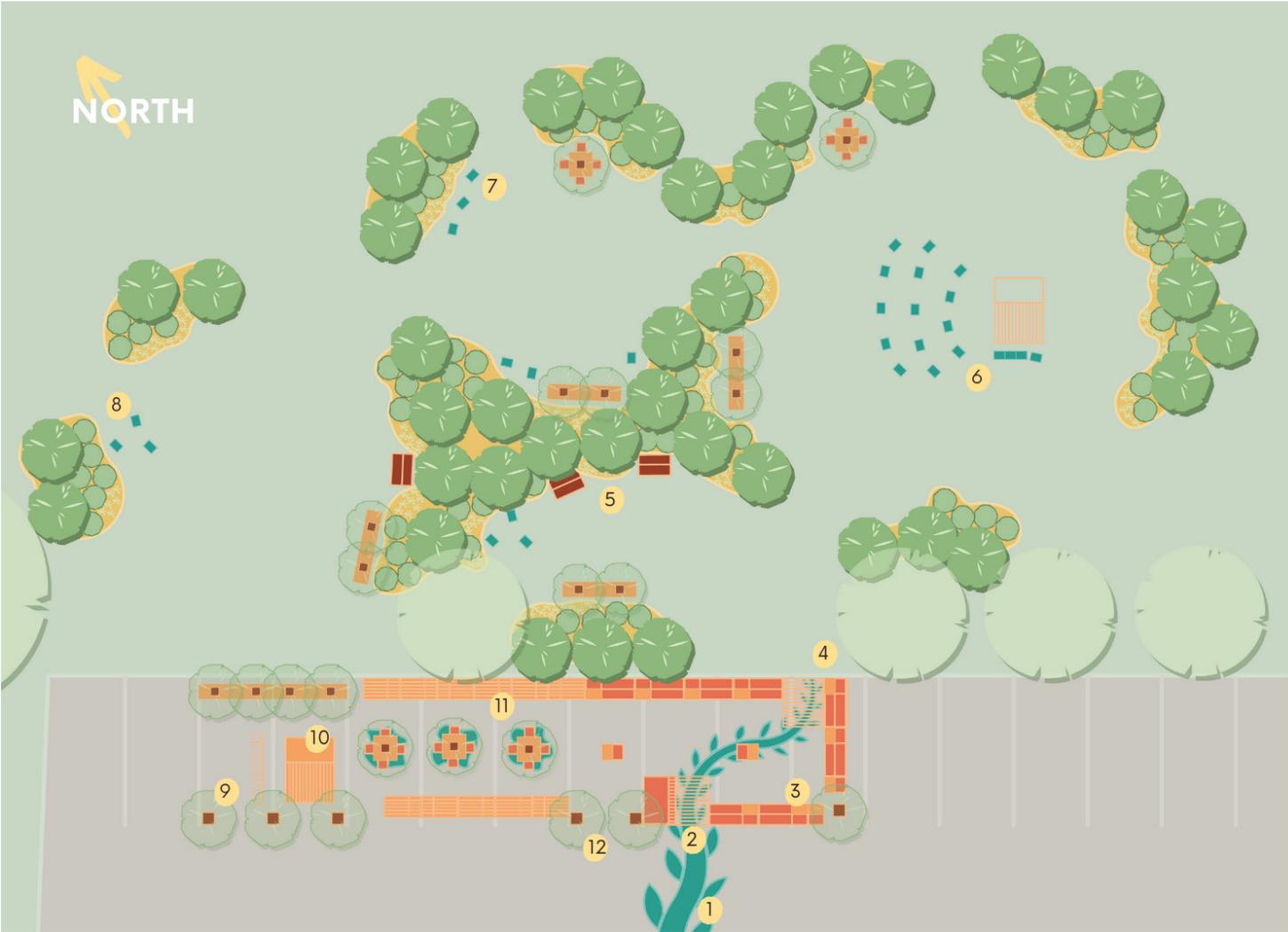
- Provide Accessible Public Space
- Locate Areas of Great Need -densest population, farthest from accessible space
- Acknowledge and Support Public Health Guidelines
- Allow for safe Interaction/Socialization
- Act Now, Evaluate, and Adapt
- Better Access to Public Space Today, and for the Future

Design Concept Statement

Social interaction during a pandemic: designing temporary public space which accommodates comfortable engagement in social activities.



Schematic Drawings



PROGRAM ELEMENTS:

- 1 Pavement pattern leading from Library
- 2 Entrance & Help Desk
- 3 The Little Library
- 4 Entrance to the Enchanted Forest
- 5 McGregor's Tiny Garden
- 6 The Story Pavilion
- 7 Trials & Quests
- 8 The Return Trip
- 9 Bike Rack
- 10 Coffee Kiosk
- 11 Motion Sensor El Fresco Café
- 12 Exit

Phase 1: Library Closed

Story Pavilion

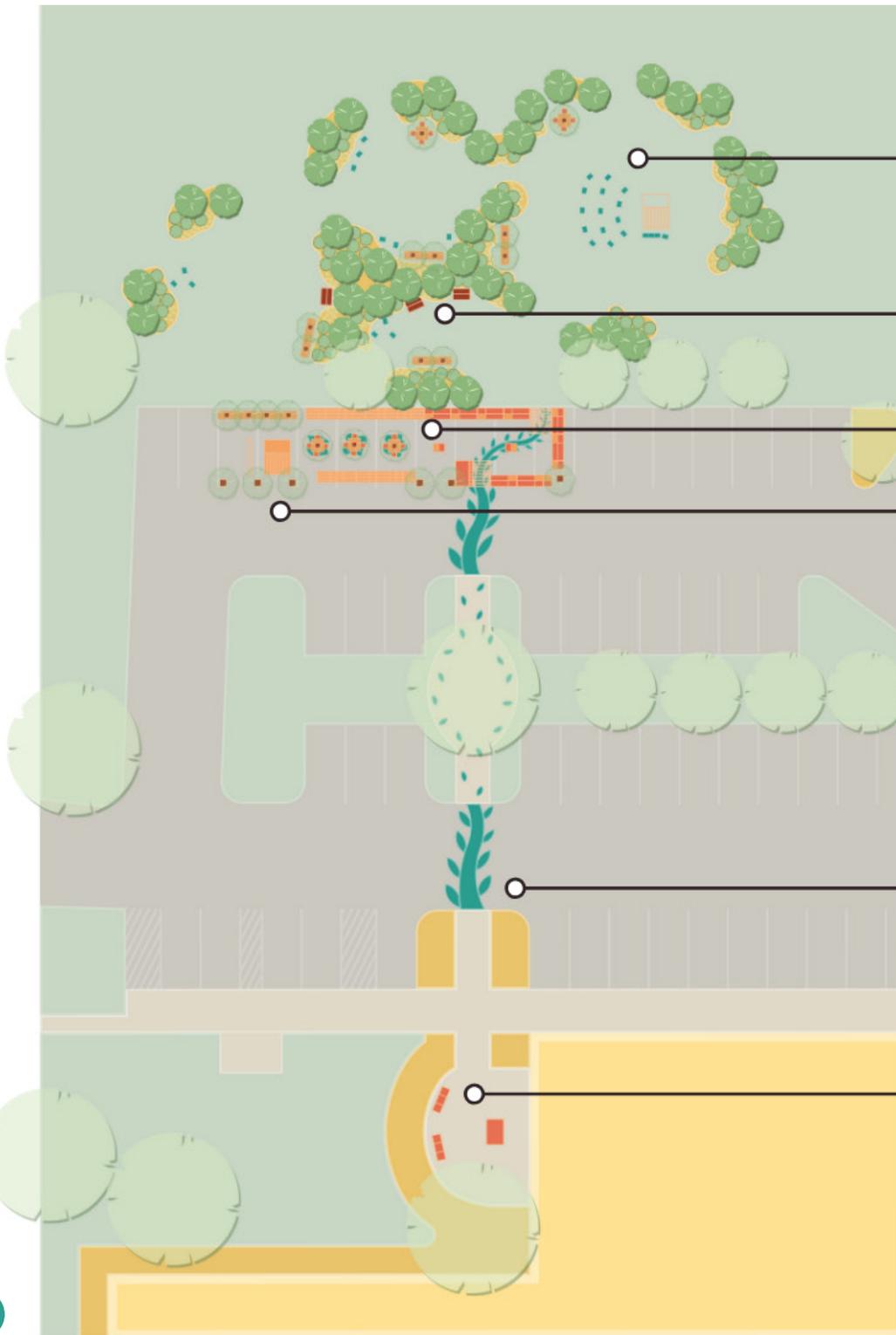
Tiny Community Garden

Seating & Reading Areas

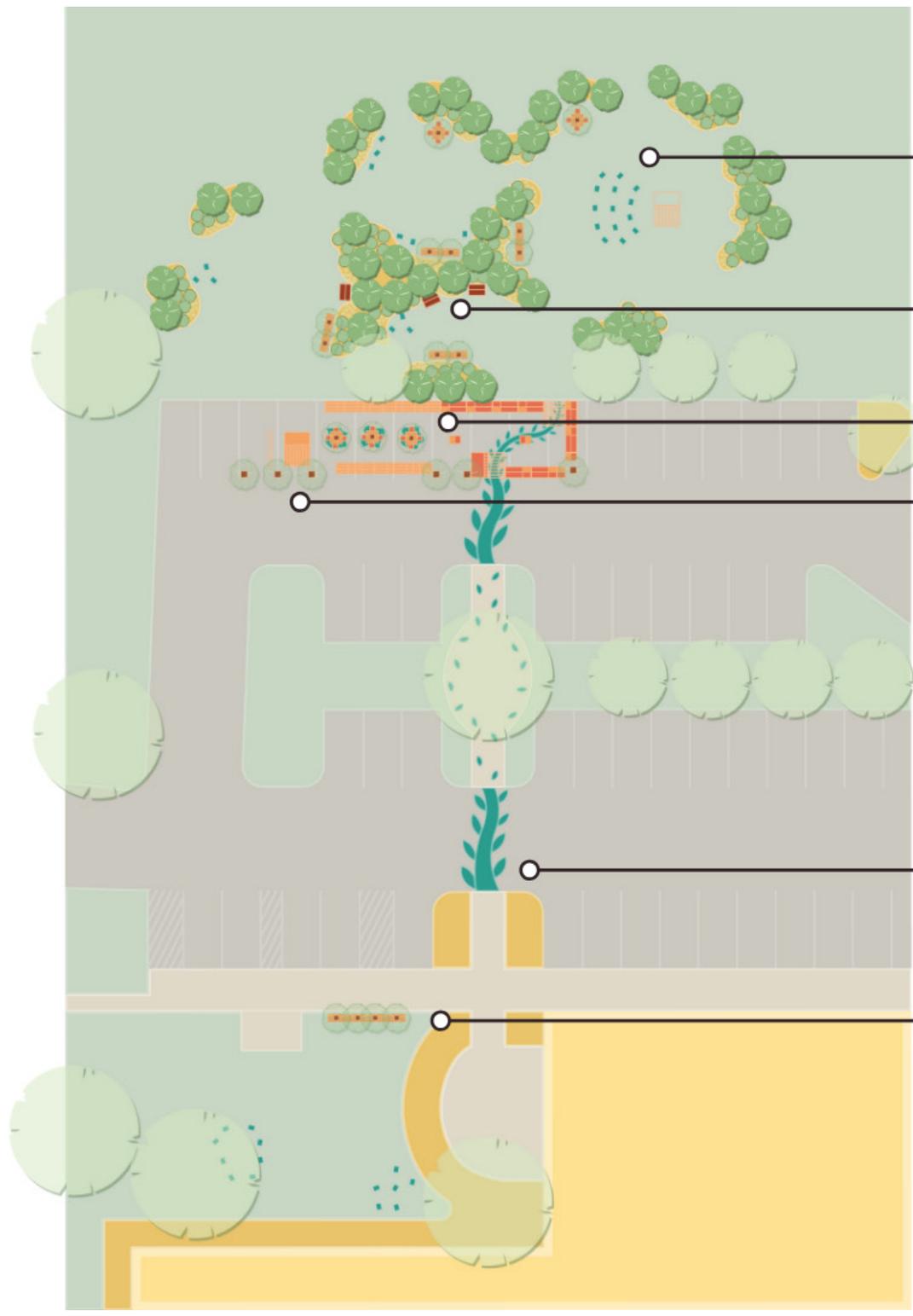
Coffee/Food Truck

Painted Pavement

Printing & Book Pick Up



Phase 2: Library Partially Open



Story Pavilion

Tiny Community Garden

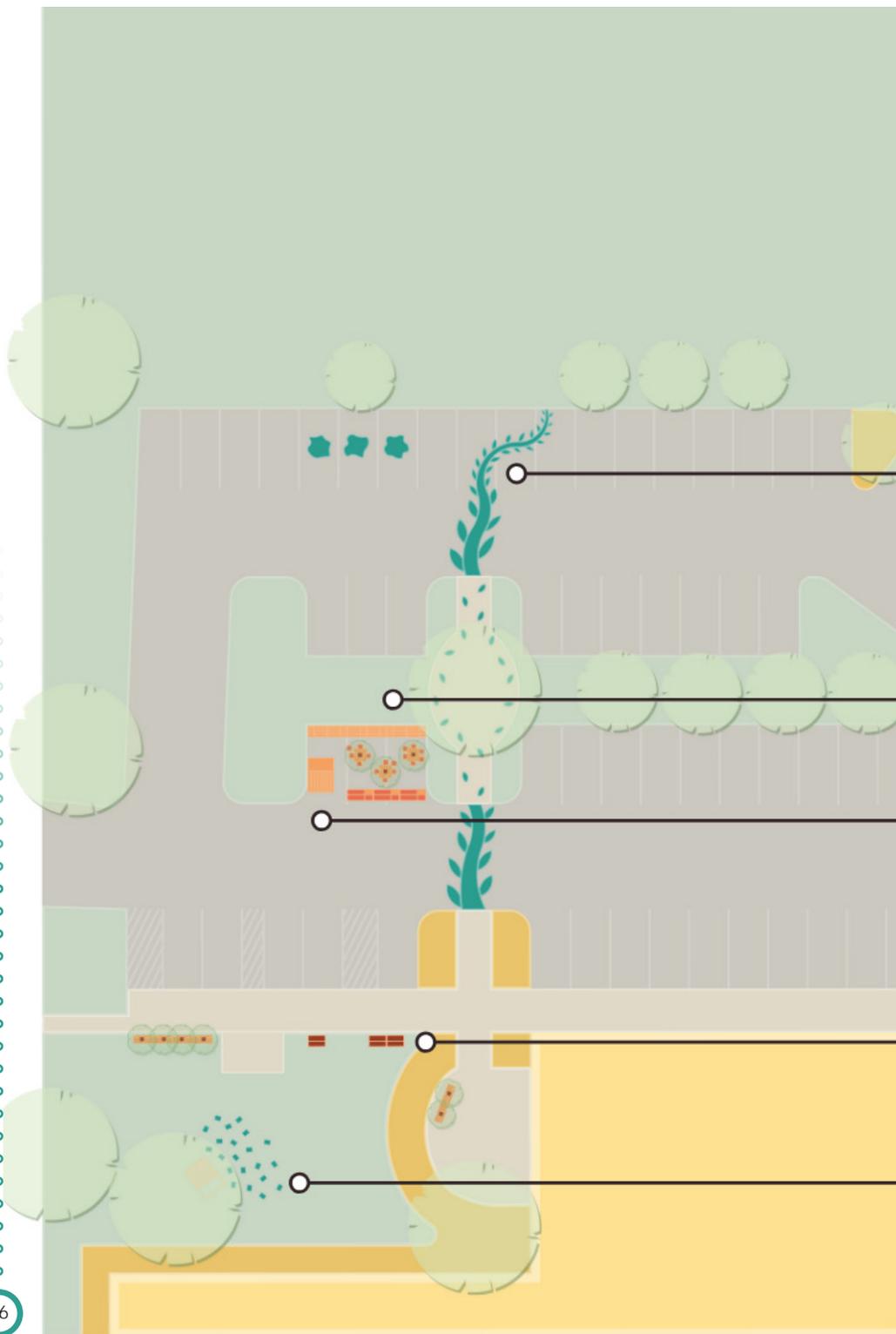
Seating & Reading Areas

Coffee/Food Truck

Painted Pavement

Benches

Phase 3: Library Open



Painted Pavement

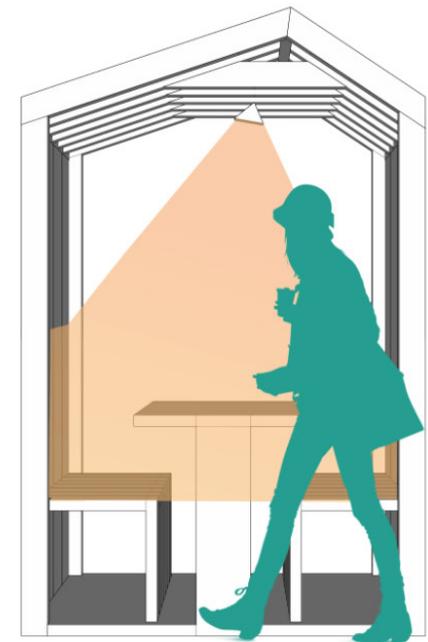
Seating & Reading Area

Coffee/Food Truck

Tiny Community Garden

Story Pavilion

Design Development



MOTION SENSOR SOLAR LIGHTS

A light that is on indicates a table that is or recently was in use

Approaching the Park



Entrance & Help Desk



Gateway to Enchanted Forest



The Story Pavilion



McGregor's Garden



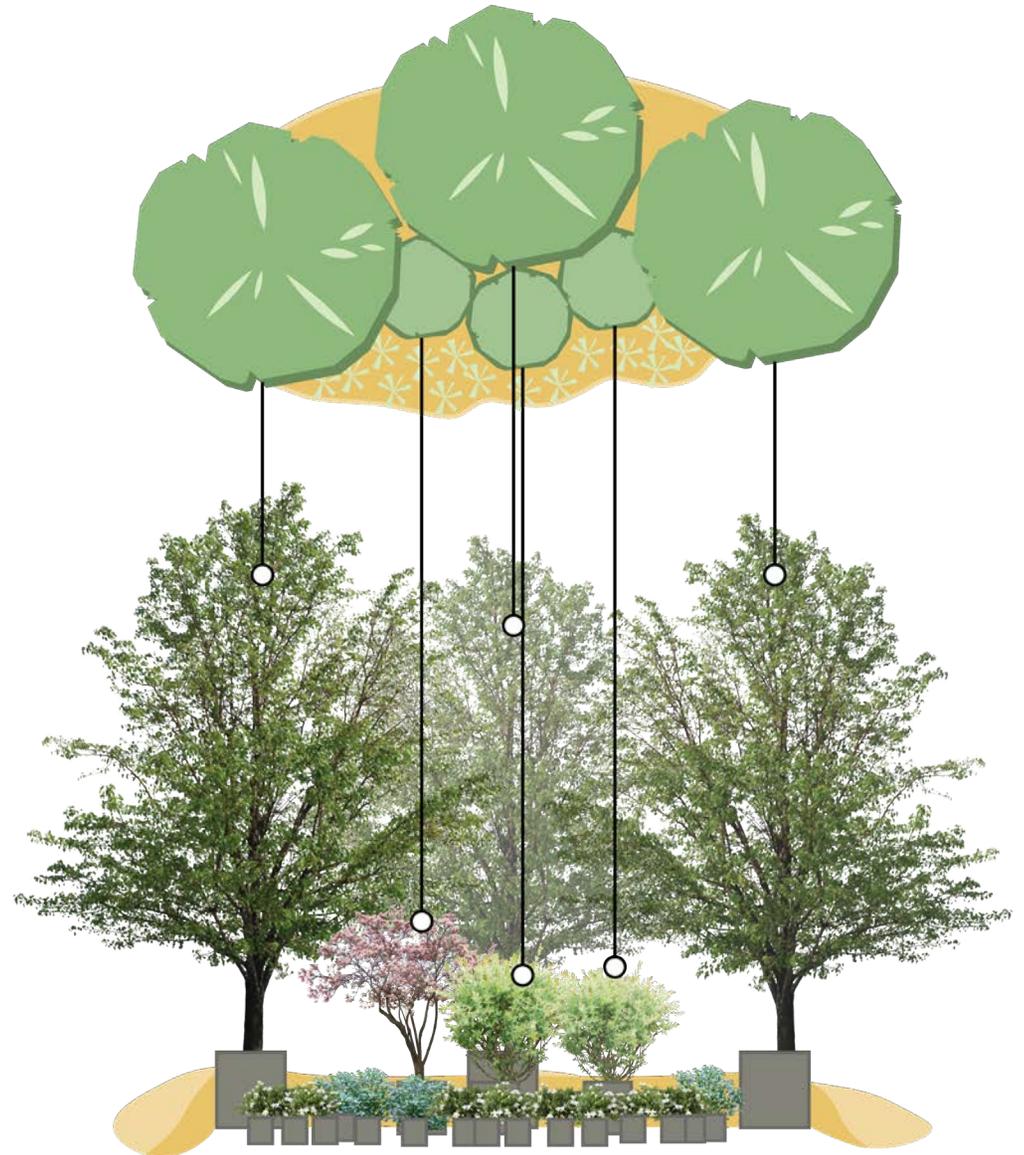
Motion-Light El Fresco Cafe



Design Details

How to Construct an Enchanted Forest

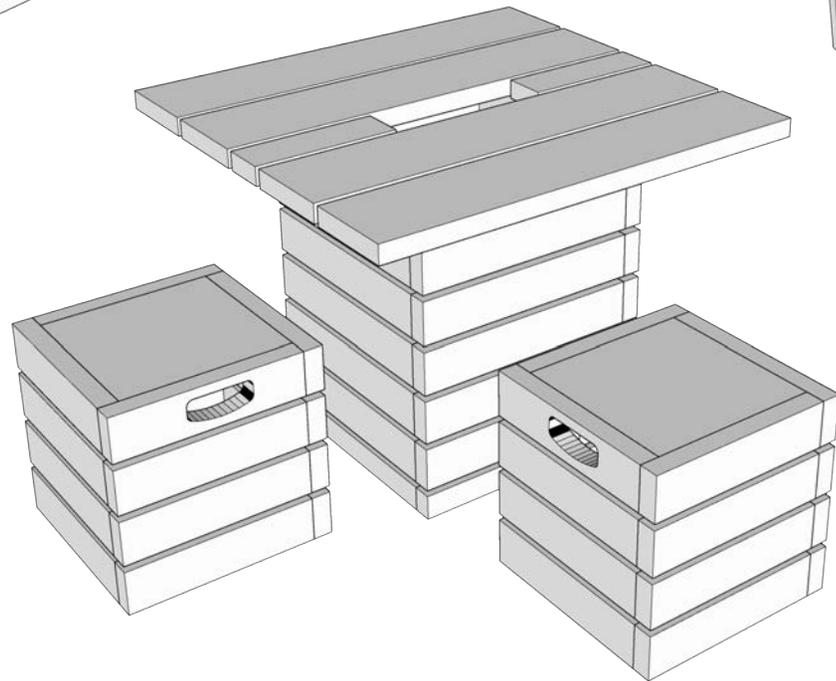
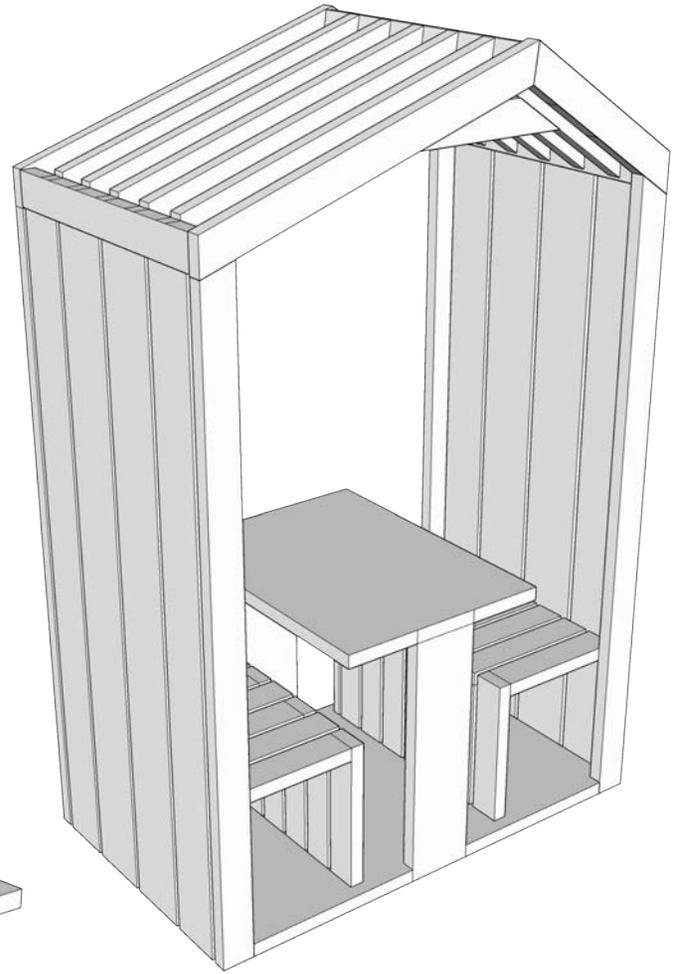
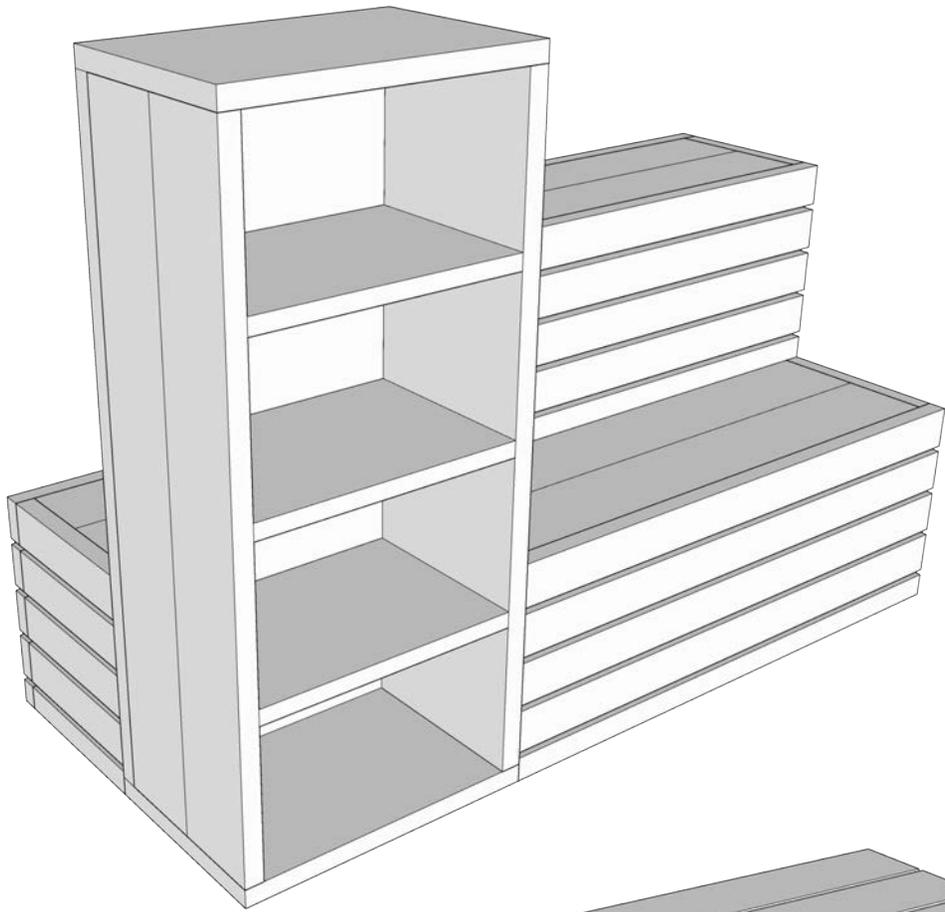
The “planting” area of the park is a series of mulched in plants. It’s a temporary landscape of a different kind; a type of pop-up nursery. Plants would be left in containers and B&B with mulch piled around to increase stability and help with moisture retention. Plants could be strategically grouped to enhance educational value, design, or story telling.

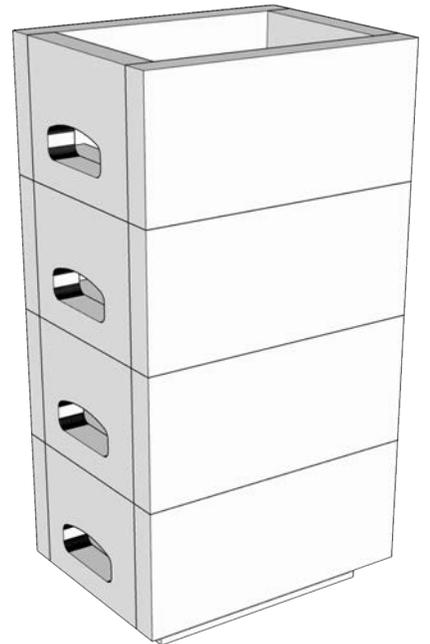
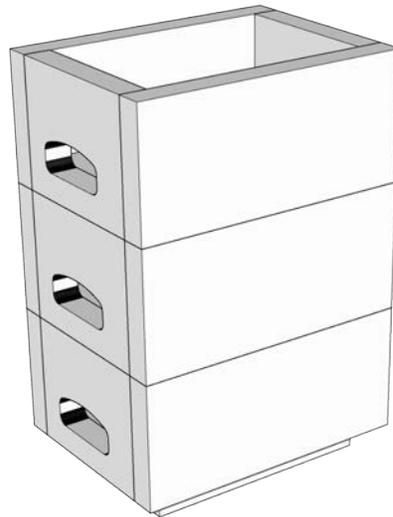
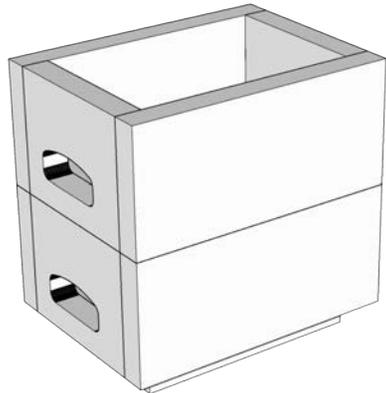
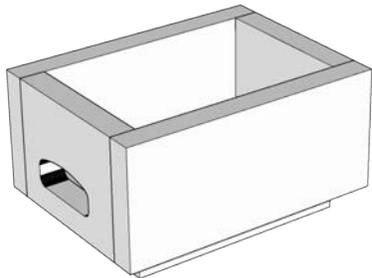
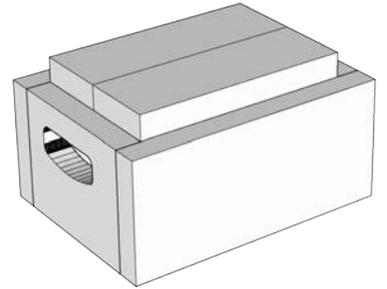
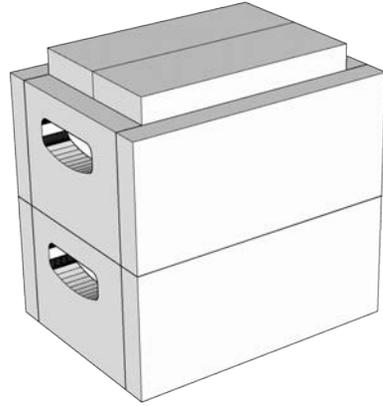
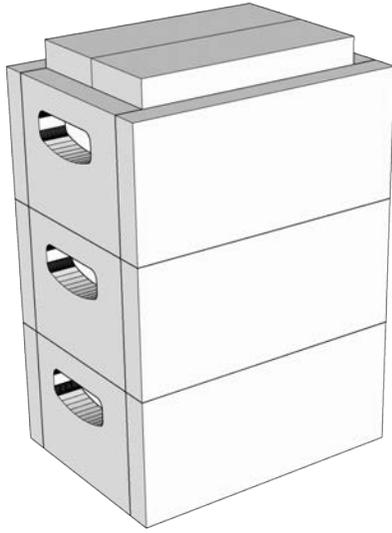
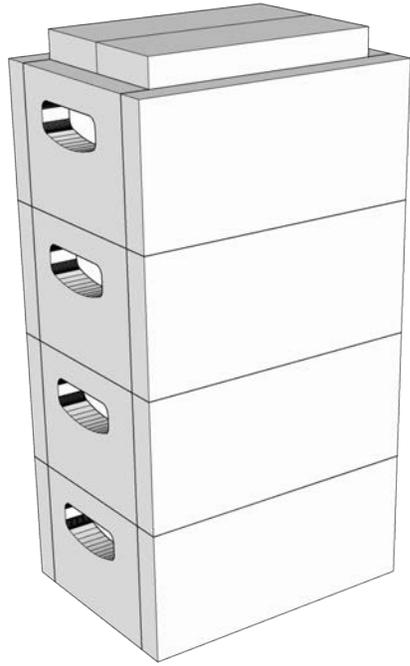


Site Furniture

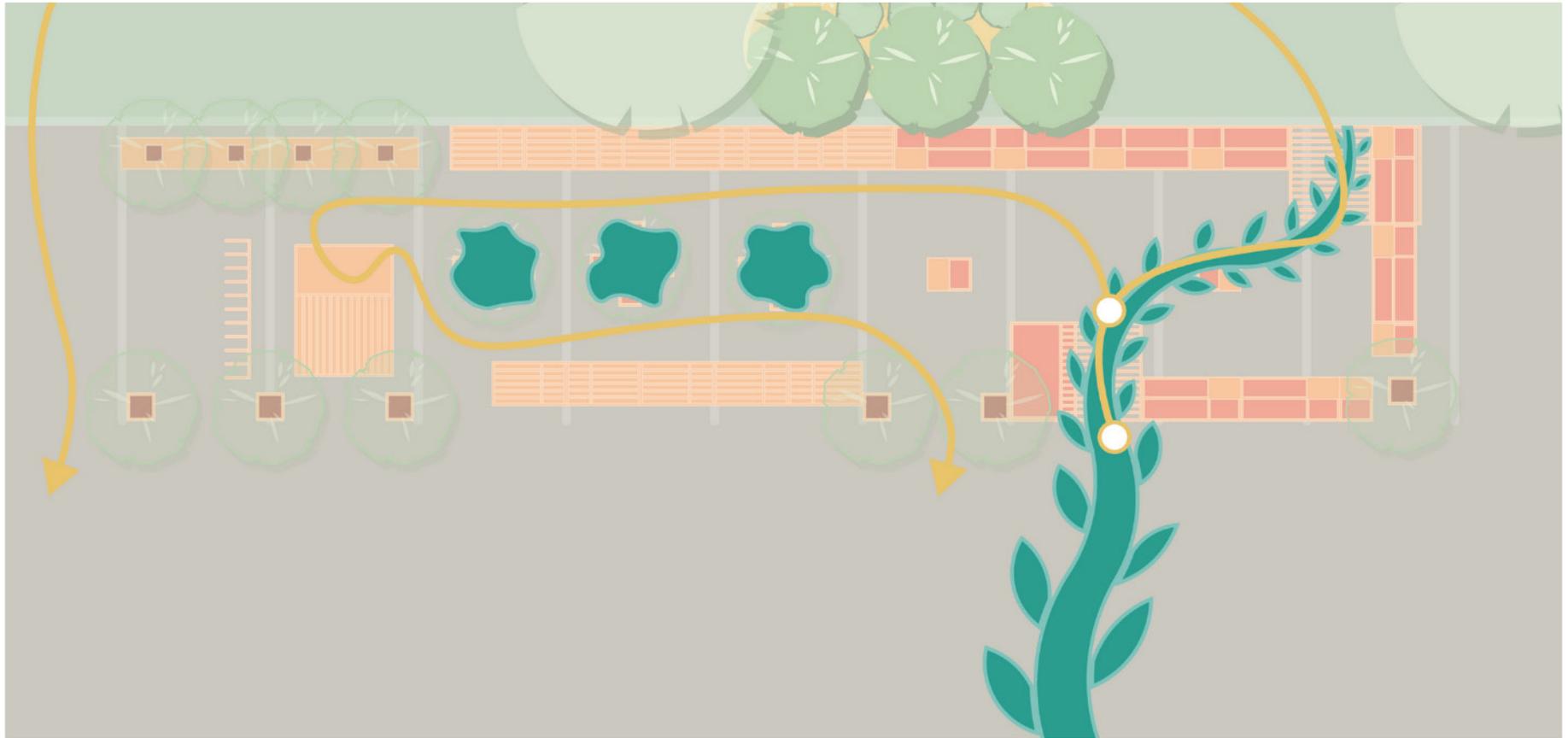


MOVEABLE ☀️ **STACKABLE** ☀️ **INTERCHANGEABLE** ☀️ **REPEATABLE**





Performance Analysis



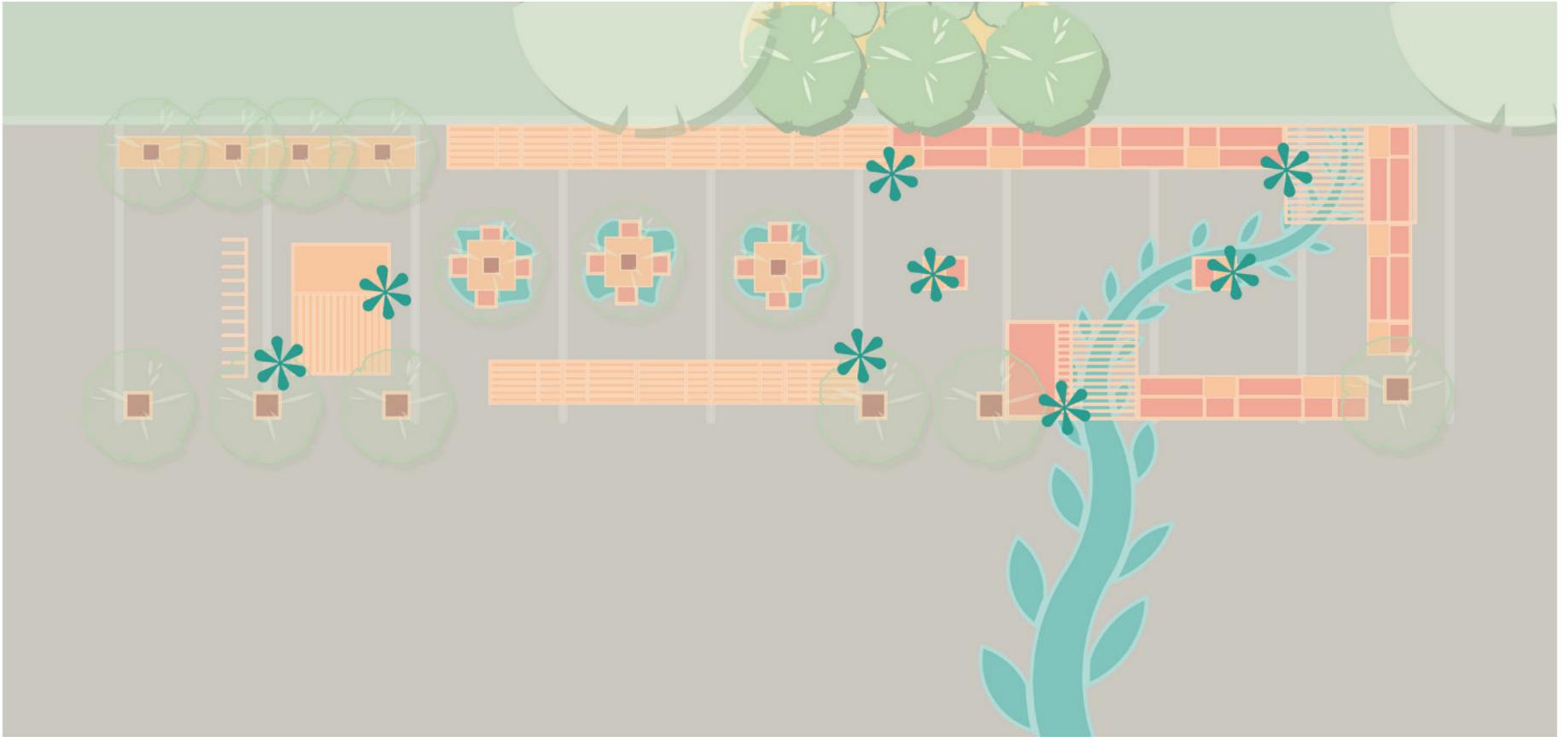
● Circulation

● 5ft Spacing

● Vegetation

● Signage

● Seating



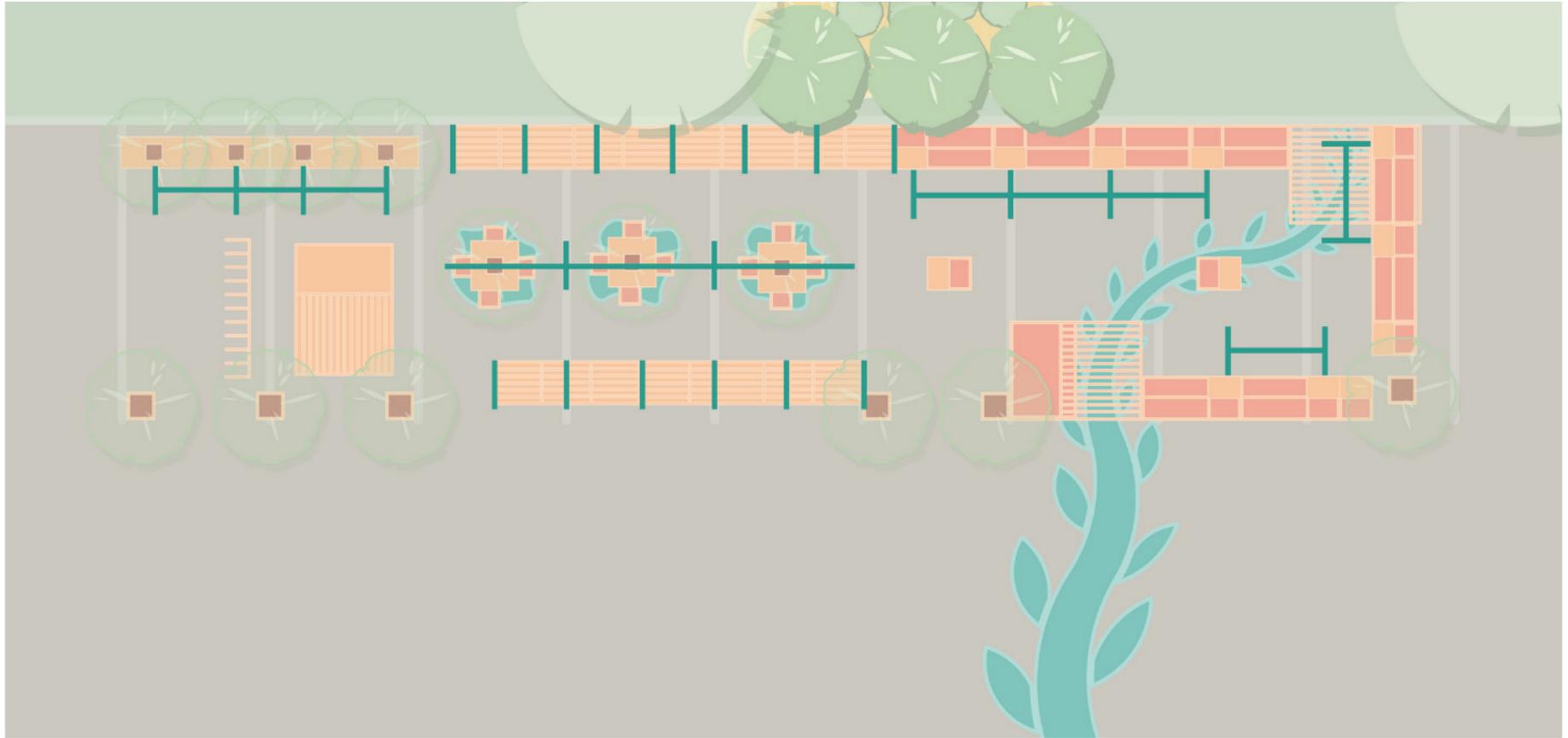
 Circulation

 5ft Spacing

 Vegetation

 Signage

 Seating



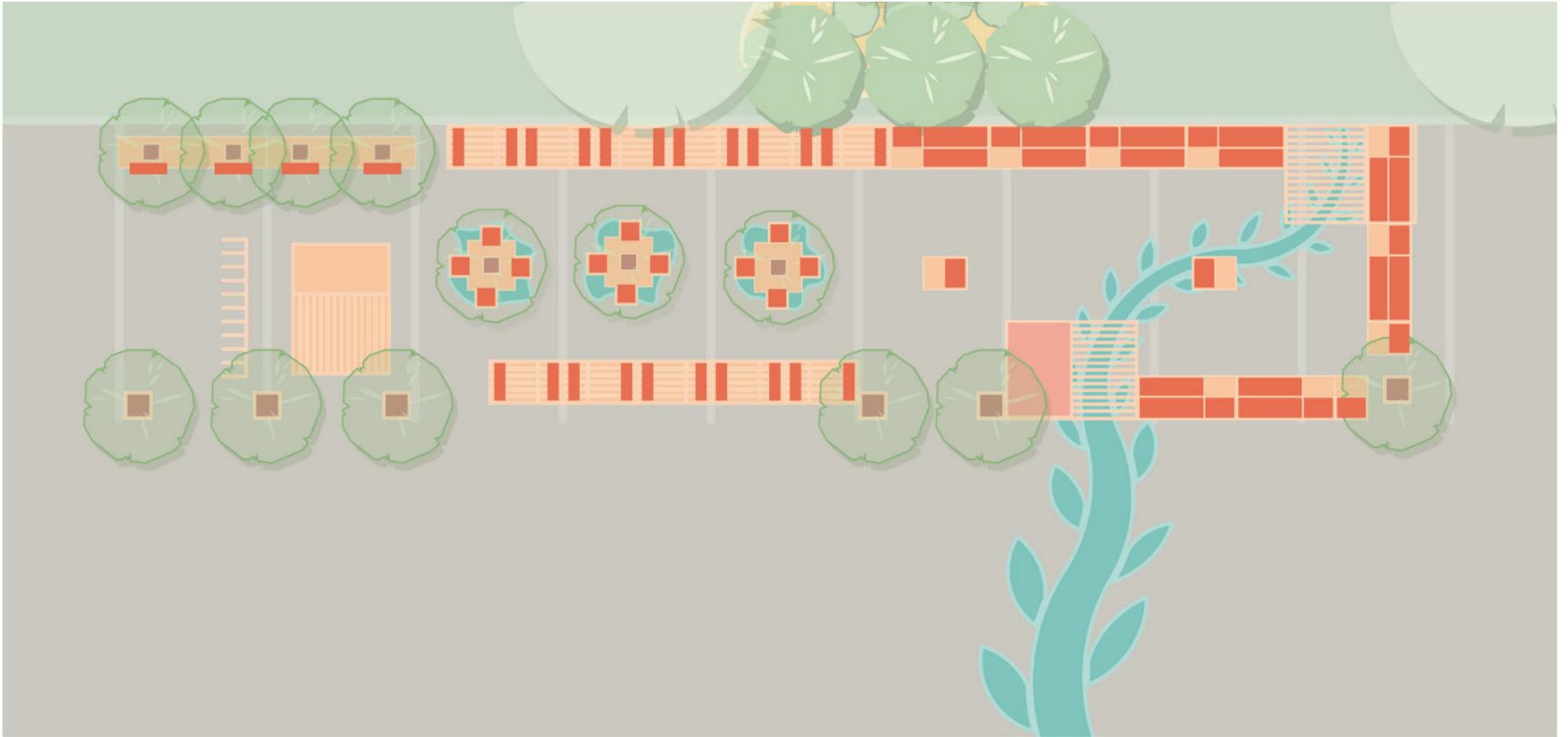
● Circulation

● 5ft Spacing

● Vegetation

● Signage

● Seating



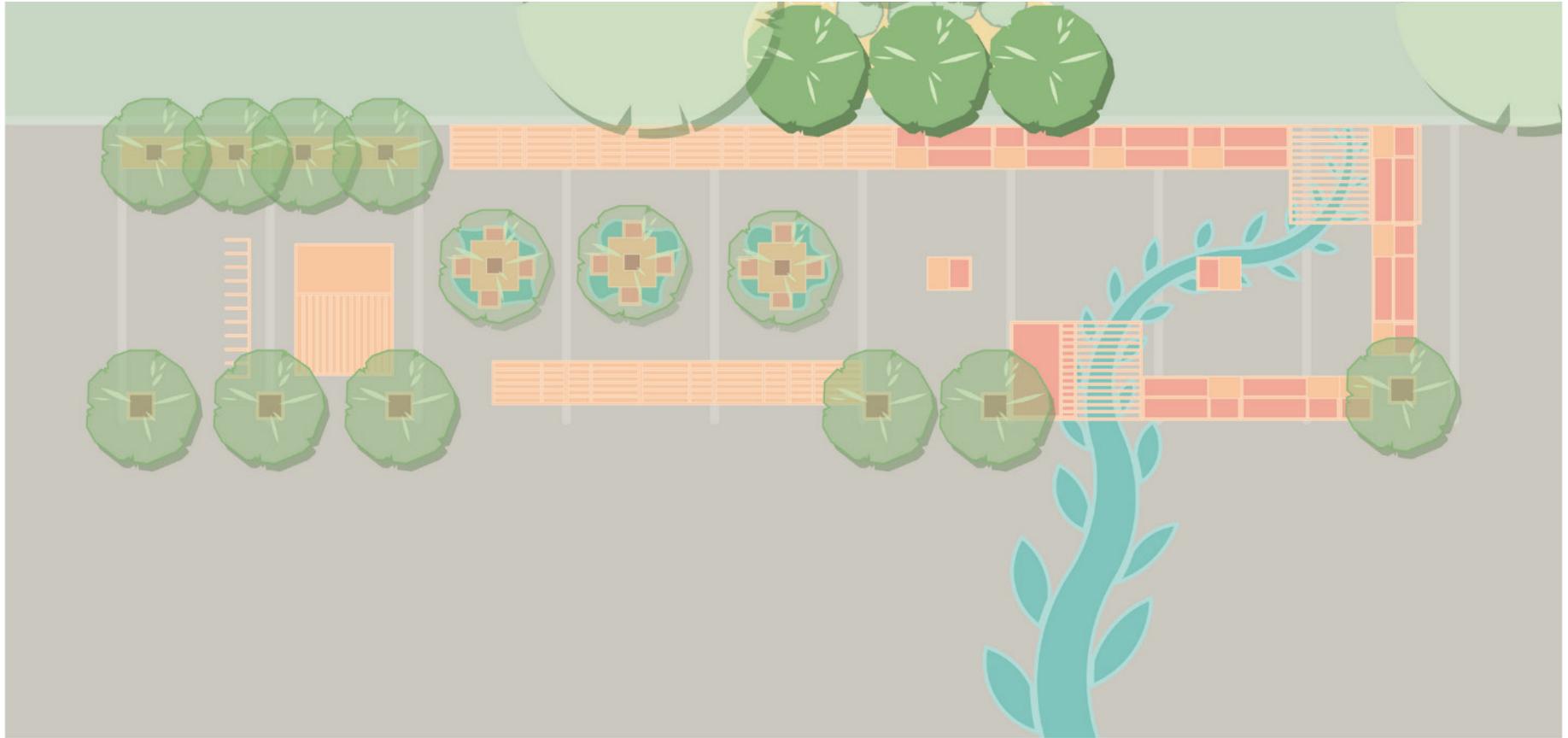
 Circulation

 5ft Spacing

 Vegetation

 Signage

 Seating



 Circulation

 5ft Spacing

 Vegetation

 Signage

 Seating



Conclusion

I want to conclude by saying that we don't need to wait for a disaster to take advantage of public spaces. Small, fast, and even temporary interventions multiplied over time and many cities can create a change and grow a culture that requests more permanent spaces.

There are a lot of big issues that have come to rise within the past year and I started working on this topic because I felt a demanding urge to help people, but I didn't know how I could help. What skills I had to offer. Working on this design was an outlet. The mindset of *act now, with what you can, lighter, faster, greener, cheaper*, is going to stick with me.

Appendix

- A Timeline of COVID_19 Developments in 2020. American Journal of Managed Care. <https://www.ajmc.com/view/physicians-risk-assessment-in-patients-with-pah-often-varies-from-objective-measures>
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- Streets for Pandemic Response and Recovery. (2020). NACTO.
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Additional Links

CDC Social Distancing Page

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>

Article from NPR about companies switching to permanently working from home

<https://www.npr.org/2020/06/22/870029658/get-a-comfortable-chair-permanent-work-from-home-is-coming>

46% of the US workforce is working full time from home <https://news.stanford.edu/2020/06/29/snapshot-new-working-home-economy/>

Parking lots not even full on black Friday.

<https://www.bloomberg.com/news/articles/2018-11-27/why-parking-lots-are-not-full-even-on-black-friday>

ND smart restart guidelines <https://ndresponse.gov/covid-19-resources/covid-19-business-and-employer-resources/nd-smart-restart/nd-smart-restart-protocols>

Parking Day One Pager.

<https://www.asla.org/uploadedFiles/CMS/Events/ParkingDay%202020%20One%20Pager.pdf>

World Landscape Architecture (WLA) Competition. <https://worldlandscapearchitect.com/shortlist-announced-for-the-reimagining-the-spaces-in-between-ideas-competition/#.X1o2IC2ZNOI>

Outdoor classrooms in Colorado. <https://www.hcn.org/articles/education-colorado-public-schools-turn-to-outdoor-instruction-during-covid-19>

Challenges of social distancing in Hong Kong with limited space. <https://www.bbc.com/worklife/article/20200831-hong-kong-public-space-problem-social-distance>

Chicago's outdoor dining during COVID competition. https://www.openideo.com/challenge-briefs/chicago-winter-dining-challenge?utm_source=partners&utm_medium=press-release&utm_campaign=chicago-winter-dining

Parking Day Manual. https://www.asla.org/uploadedFiles/CMS/Events/Parking_Day_Manual_Consecutive.pdf

A brief history of Parking Day <https://www.bloomberg.com/news/articles/2017-09-15/a-brief-history-of-park-ing-day>

New York Plaza Program <https://www1.nyc.gov/html/dot/html/pedestrians/nyc-plaza-program.shtml>

Tactical Urbanism <http://tacticalurbanismguide.com/about/>

The project for public spaces <https://www.pps.org/article/the-recovery-will-happen-in-public-space>
<https://www.pps.org/article/the-story-of-congress-square-park-how-a-derelict-plaza-got-a-new-identity-downtown>

Groundplay. San Francisco. <https://groundplaysf.org/projects/san-jose-guerrero-park/#tab4>

Carona Plaza <https://nacto.org/case-study/nyc-plaza-program-and-corona-plaza-new-york-ny/>

Studio Experience

2nd Year | 2017-18

LA 271 | Fall 2017 | Introduction to Landscape Architecture | Prof. Kathleen Pepple
Tea House | Moorhead, MN
Urban Farm | Fargo, ND

LA 272 | Spring 2018 | Parks and Open Spaces | Prof. Dominic Fischer
20 Below Alley | Fargo, ND
Wolseley Park | Winnipeg, MB
Viking Ship Park | Moorhead, MN

3rd Year | 2018-19

LA 371 | Site Planning & Design | Fall 2018 | Mr. Jason Kost
Mid American Steel Waterfront and Performance Area | Fargo, ND
324 Broadway Plaza | Fargo, ND

LA 372 | Community Planning & Design | Spring 2019 | Prof. Anna-Maria Vissilia
Le Notre Design Competition | Zagreb, Croatia
Olive Community Park | Amfissa, Greece
Minto Pocket Park | Minto, ND
Velva Town Square | Velva, ND

4th Year | 2019-2020

LA 471 | Urban Design | Fall 2019 | Prof. Dominic Fischer
Lower East Side Manhattan Neighborhood Master Plan | New York, NY
Moorhead Mall Re-envisioning | Moorhead, ND

LA 472 | Remediation and Planting Design Research | Spring 2020 | Mr. Jason Kost
Estes Park Downtown Core Master Plan | Estes Park, CO
Estes Park Streetscape Design and Details | Estes Park, CO

5th Year | 2020

LA 771 | Performance Based Design | Fall 2020 | Prof. Matthew Kirkwood
North Country Trail Spur | Western ND
Low Impact Residential Development Strategies | West Fargo, ND



Thank You