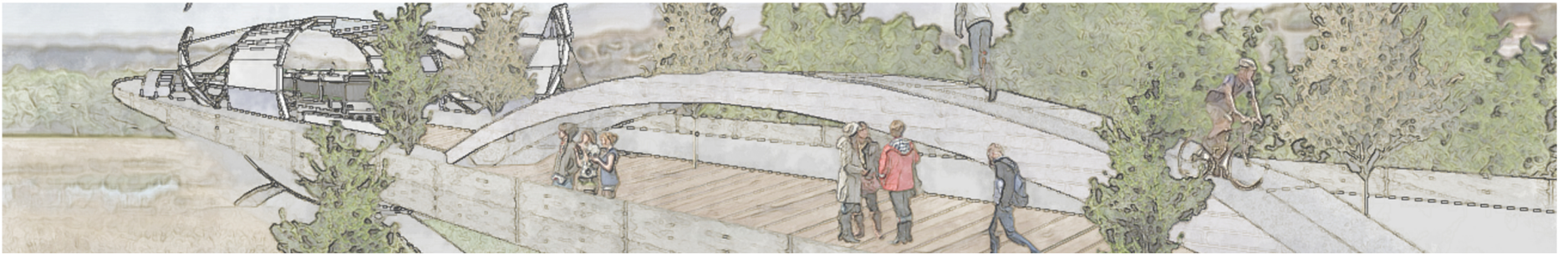


A NEW URBANISM

VISIONS OF THE FUTURE



CHRISTOPHER J BARKER | LANDSCAPE ARCHITECTURE

A NEW URBANISM:

VISIONS FOR THE FUTURE

2011 SENIOR PROJECT

Chris Barker

Presented to the Faculty of the Landscape Architecture Program at the
University of California, Davis

Accepted and Approved by:

Claire Napawan, Senior Project Faculty Advisor

Michael Rios, Committee Member

Brennan Cox, Committee Member

ABSTRACT

Today's society is enamored with the immediate. It seems as if studying the past or preparing for the future is not something important for today's society. However, there are large environmental and social factors that are changing our world that we need to become aware of.

My project focuses on the larger issues of global change that are presently becoming major issues with unavoidable consequences. My site of Potrero Hill in San Francisco California is one area that is predicted to be affected by these global changes.

My goal is to take a new and progressive approach to site design. Instead of looking at the immediate context and situations surrounding my site, I will develop a plan for the site 100 years from now to respond to projected sea level rise. Only by having a vision of the future can we plan for it today.

DEDICATIONS

This project is dedicated to my family who has always been supportive of my choices to follow my dreams. I pray that I may return the love they have given me.

Mom and Dad
Amalia
John
and of course
my love
Rebecca

ACKNOWLEDGMENTS

I would like to acknowledge first and foremost the University of California at Davis for allowing me to pursue my goals in Landscape Architecture and Environmental Design.

Thank you to all my professors who helped guide me through the long 3 year learning process and for giving me the drive to keep pushing myself and discover new and exciting possibilities in the world of landscape architecture.

I would like to offer special thanks to Claire Napawan, Michael Rios and Brennan Cox for their advice through this process and always pushing me beyond what I thought possible.

TABLE OF CONTENTS

Abstract.....	i	Design: research.....	41
Biography.....	ii	Design: conceptual development..	45
Dedications.....	iii	Design: development.....	47
Aknowledgments.....	iv	Design: final.....	51
Table of Contents.....	v	Design: phasing.....	69
List of Figures.....	vi	Conclusions.....	71
Preface.....	vii	Bibliography.....	73
Introduction: issues.....	1		
The Site: context.....	7		
The Site: specific.....	9		
The Site: thoughts.....	13		
The Site: approach.....	15		
The Site: analysis.....	17		
The Site: design methodology...	27		
The Site: opp/constraints.....	29		
Case Studies: ideas.....	33		

LIST OF FIGURES

Figure 1: Remaining Resources.....	4	Figure 13: Gas Works Park Images.....	36
Figure 2: Sea Level Rise.....	6	Figure 14: High Line Images (courtesy	
Figure 3: Coastal Use.....	8	www.thehighline.org).....	38
Figure 4: Context Map (courtesy San Francisco		Figure 15: Walking Distances.....	41
Redevelopment Agency).....	10	Figure 16: Design Developments.....	48
Figure 5: Site Images.....	12	Figure 17: Modes of Transportation.....	50
Figure 6: San Francisco Redevelopment		Figure 18: Final Plan.....	52
Agency Plans (courtesy San Francisco		Figure 19: Site Section.....	53
Redevelopment Agency).....	14	Figure 20: Interstate 280 Section.....	54
Figure 7: Biking Distances.....	18	Figure 21: Wetland Section.....	55
Figure 8: Land Use Distribution.....	22	Figure 22: Promenade Section.....	56
Figure 9: Site Analysis Flow Chart.....	24	Figure 23: Light Rail Perspective.....	58
Figure 10: Interstate 280 Images.....	26	Figure 24: Wetland Walks Perspective.....	60
Figure 11: Renewable Energy Images		Figure 25: Pocket Park Perspective.....	62
(courtesy of www.inhabitat.com, www.		Figure 26: Downtown Perspective.....	64
solar-pannel-reviews.org, www.biofuels.asu.edu).	30	Figure 27: Open Space Perspective.....	66
Figure 12: Light Rail Station (courtesy		Figure 28: Promenade Perspective.....	68
wikipedia.org).....	33		

It is believed that the lifetime goal and work of the landscape architect is to help bring people, the things they build, their communities, their cities - and thus their lives into harmony with the living Earth.

-Barry W. Starke

INTRODUCTION: issues

As of this point in time, more than half of the world's populations live in cities or an urban area, which says a lot about the mindset of today's society. The complex intricacies of social networks and the need to be connected to the immediate present are strong and prevalent in today's society. Cities offer people the opportunity to stay connected to others and to access an array of amenities that are all within close proximity of each other which can create a strong sense of community and interconnectedness.

The built environment of our cities and urban areas tell the tale of how far we as a society have come. Our buildings reach towards the skies to

show how we are always reaching for our dreams, our streets are wide to show that we have the need to be somewhere, and our homes are expansive to show that we have space and that we can sprawl at our leisure.

The green spaces that we have allocated for ourselves within this complex matrix of concrete and chaos seem to be an attempt at some level of creating a peaceful place to relax for a while within the business of the city. Many times these green spaces are an after-thought, a way to fill an empty lot, or at the very best some historic site that must remain as open space. Our built environment is a testimony to ourselves and how much we have developed, where we want to be, and where we are headed.

Even with all of this urban development and growth, we still can appreciate the natural and the free as much as we do the built and structured. According to the National Park Service, over the last 30 years there has been a steady increase in the

amount of visitations to national parks each year from 205 million in 1979, to 281 million visitors in 2010. This seems like a picture that begins to show how our interest in nature is increasing, but there is a strong disconnect in the image we see and the way it is painted.

There is a strong distinction between where we as a society work and where we relax. While most urban areas do have parks and open space, these areas are small and limiting and do not allow for that feeling of "getting away from it all". The natural and the built environments are separated not just physically but ideologically as well. This can be attributed to poor planning and design as well as an inability to foresee the consequences of our actions.

Although we have accomplished great things in our society and are at a point of being able to know what happens around us almost instantaneously, we have become disconnected with our past and our future. By serving ourselves through

the built environment we have been doing a disservice to the natural environment and there is a growing body of evidence that suggests we need to begin looking at how to plan for the future starting today.

The current trends of instant travel, instant information and instant results have in some ways stymied our ability to plan and look ahead into the future and see how actions of today will affect decisions of tomorrow. Along with our increase in demands for information and instant results, there has also been an increase on the demands of our resources as well.

The ability to travel by car and plane to anywhere at any time is an incredible achievement that allows for the growth of society in ways never imagined before. The world has become smaller as more and more places that used to take weeks to get to become accessible in less than a few hours. The innovations and inventions for travel such as the train, car, plane, and even boat have allowed for

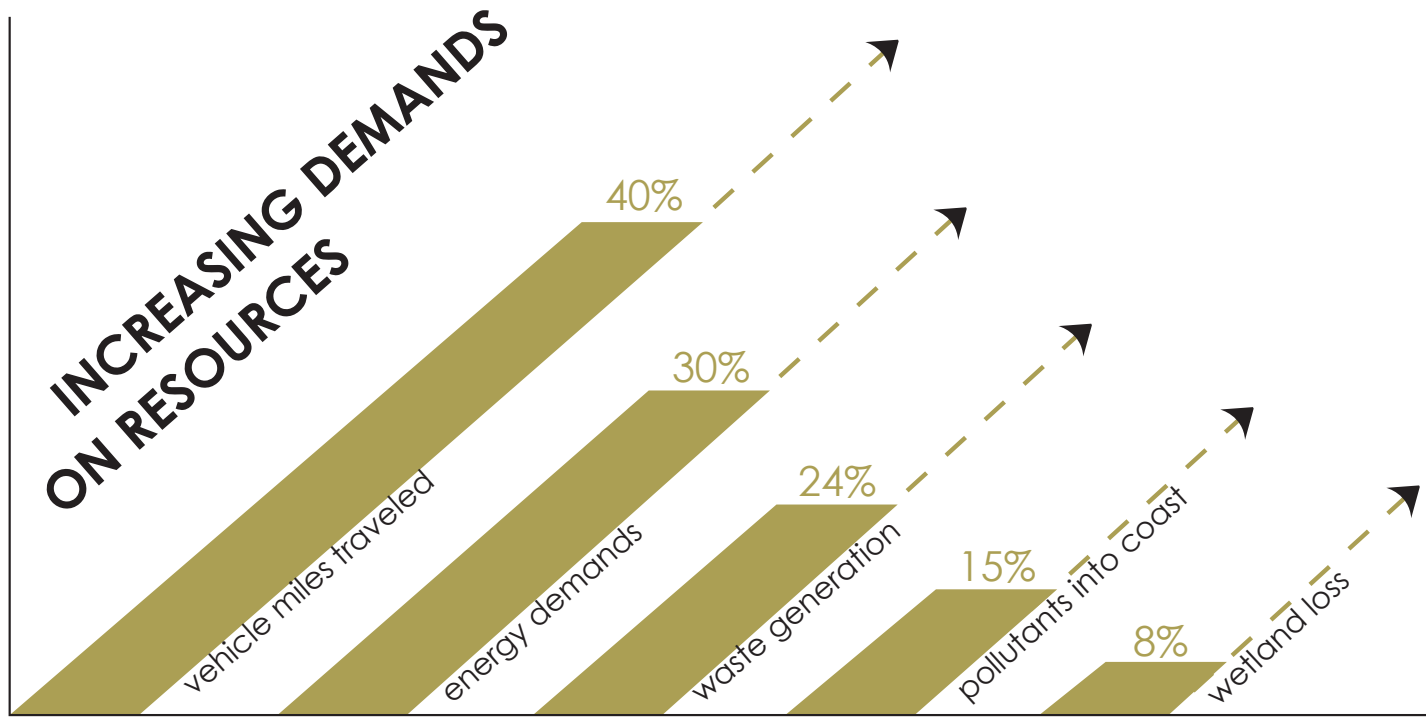
long distances to become more easily traversed. This has led to an increase in the amount of traveling that is done by people every year to further and further destinations. According to the Environmental Protection Agency (EPA), projected vehicle miles traveled (VMT) by individuals over the next 20 years will increase by as much as forty percent. This can be seen to put an equal amount of demand on the resources needed for travel such as fossil fuels like oil and gas.

In our current society, technology is the new industry and there is a constant demand for the newest and the best. Technology has allowed for instant communication and the exchange of information and ideas regardless of distance. This has also put an increased demand on the energy that fuels these technologies. The estimated increase on energy needs predicted by the EPA is that of forty percent over the next 20 years. This also puts an increased demand on our current energy resources of coal, oil and gas. Technology is also helping us

to travel more efficiently but at the same time is developing so fast that almost instant results are expected. This can be seen to have instant effects on the environment and our natural resources that we are depending on.

The demands being put on our resources are more than can be sustained and our current resources for fuel and energy will soon run out. Our three most prevalently used fuels; coal, oil and natural gas, are all projected to run out within the next 150 years at the current rates of consumption. The production of such transports and technologies produce an increase in waste as well. By 2030, solid waste generation will be up by as much as 24%. The use of fuels will also generate an increase in pollutants that will cause stress on the environment.

Greenhouse gas (GHG) emissions are a result of fossil fuel being burned for energy and fuel production. The main chemical in these GHG's is carbon dioxide (CO₂). As burning of these fossil fuels increases due to the rising demand for transportat-



REMAINING RESOURCES

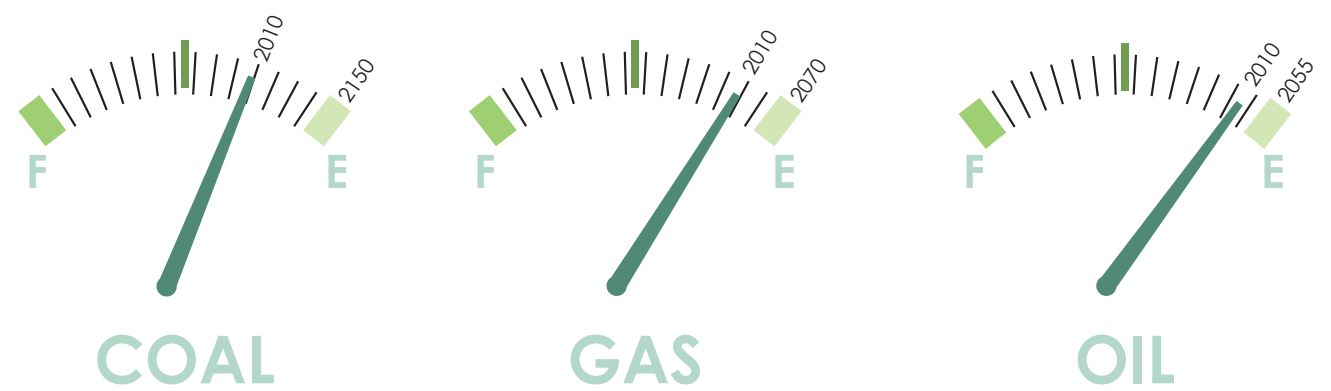


Figure 1: This graphic shows the stark contrast between our projected needs for resources and how much is remaining.

tion and energy, there will be a corresponding rise in GHG emissions.

Over the past 150 years there has been an alarming increase in the amount of GHG emissions by production and burning of fossil fuels. Since the beginning of the Industrial Revolution, the pollutants being put into the atmosphere have been increasing like never before. The total amount of carbon emissions has gone from almost none before 1850 to 9 million pounds of carbon put into the atmosphere by the year 2000. This major influx of pollutants into the environment can be seen to have an equally major impact on the environments condition.

The most widely known issue with the increase in GHG's is that of the steady increase in the Earth's temperature over time. Earth's temperature has always fluctuated over time. According to NASA's climate change studies, in the last 650,000 years, there have been seven glacial stages that have advanced and retreated. Throughout this time, carbon levels have never gone above 300 parts

per million in the atmosphere, until the 1950's, and it is averaged to be right above 380 parts per million as of today. As our demand for resources rises, so to do the effects on the environment.

The increasing demands on the environment can be seen in a multitude of signs. The warming effects of the GHG's on the Earth have caused a chain reaction that leads right back to us. The temperature of the planet has slowly been warming since the 1880's with the warmest years being within the last 20 years. Due to this warming trend, NASA has found that the Greenland and Antarctic ice sheets have decreased in mass by about 50 and 36 cubic miles of ice respectively between 2002 and 2005. The melting of these ice sheets has caused a corresponding rise in the sea level. In the last century, there was about a 6.7 inch rise in global sea level. However, within the last ten years, that rate was nearly doubled.

The fact that there has been a steady rise in global temperatures as well as a rise in sea levels

leads to the idea that at the current rate of energy and fuel production and consumption, these issues will continue to rise. The United States Geologic Survey (USGS) predicts that by the end of this century,

sea level will have risen at a most by 5 feet. This is a big issue especially for many cities and communities that are built along coast lines.

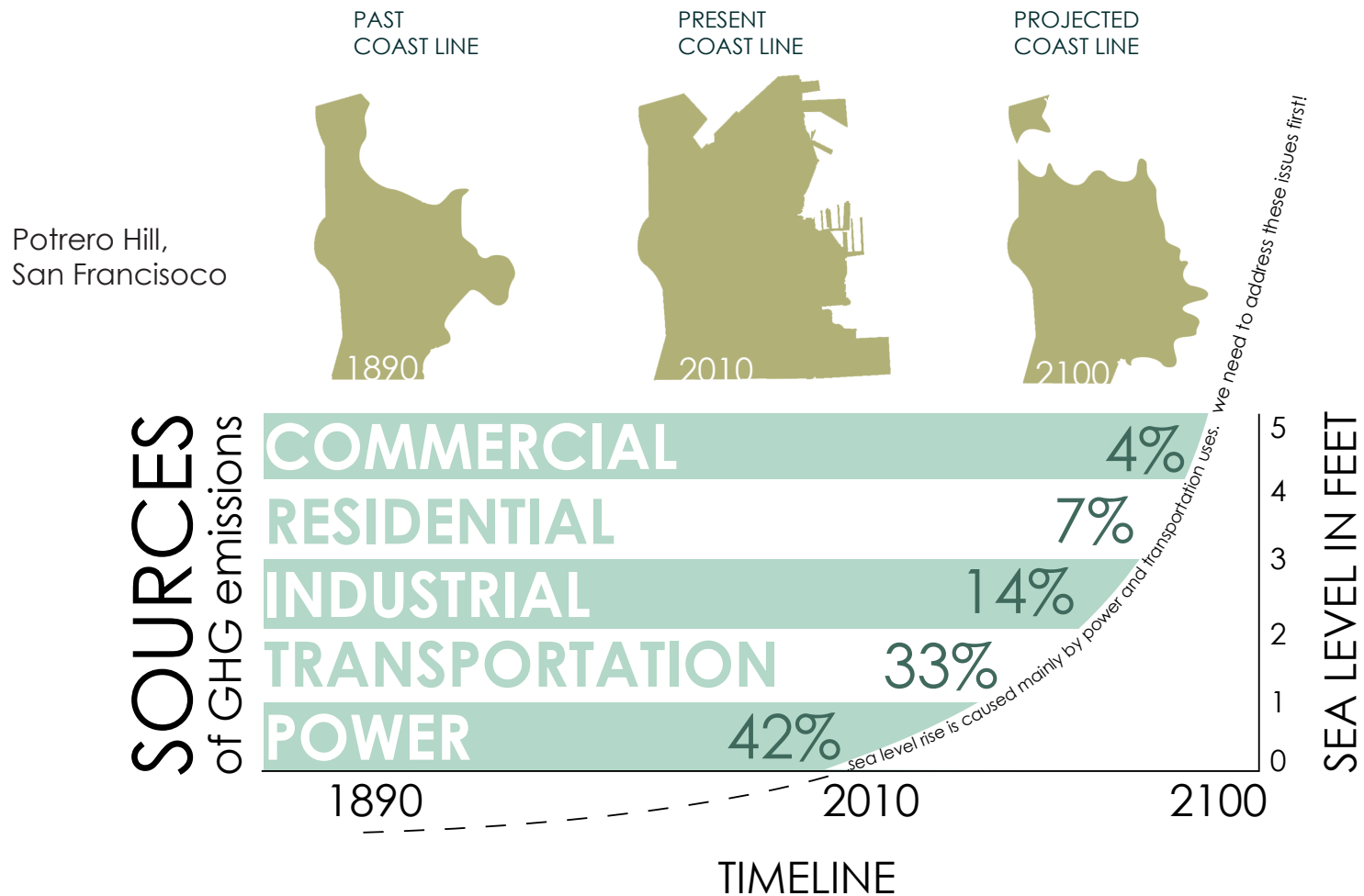


Figure 2: This graphic illustrates that the main causes of sea level rise can be attributed to an increase in carbon emissions.

THE SITE: context

San Francisco, the city by the Bay, is one of the many coastal cities that are projected to be impacted by global sea level rise. San Francisco is a city defined by its coastal experiences and known for its memorable landmarks. It is also known for the progressive mindset of its citizens and its importance in environmental awareness. The coastal experience of the city can be traced back to its historical roots as a trading port and destination for westward travelers. Around the same time as the start of the Industrial Revolution, San Francisco was already growing from 1000 residents in 1848 to over 25,000 in 1849, the height of the gold rush. Entrepreneurs eager to strike quick riches began opening

up shops including banks, clothing and food stores. The coastal opportunities that San Francisco had, made it a successful city as it is surrounded by water on three sides. Each coast has its own unique identity that helps give San Francisco a multitude of personalities as well as possibilities. The existing coasts of the city are each different and represent a different time in the cities development. They also correspond to the context with which they are surrounded.

The west coast of the city is facing the Pacific Ocean, and has many beaches and beach-front properties that give this side a quiet and calm identity. It is also home to the famous Golden Gate Park and Sunset District. The west coast of the city is defined by these open and residentially focused communities. As the coast moves up and towards the northern end of the city, the Presidio and Golden Gate Bridge dominate the landscape, offering new and different destination points for visitors and residents alike.

Moving eastward along the coast line, a more commercial side of the city begins to take shape with the additions of Pier 39 and all of the cruise ships docking in this area, ready to take tourists and international travelers to new and exciting destinations. South of this area on the eastern coast of the city, the downtown emerges from the landscape,

soaring high with buildings of glass and concrete. This is the new hub of life for the city where the majority of trade and commerce takes place. This is an important area because here, the Bay Bridge connects the city to the rest of the Bay Area and where most of the traffic ebbs and flows.

COASTAL CONDITIONS



Figure 3: An illustration of the different coastal uses by the city of San Francisco. Potential for new development is on the east coast.

THE SITE: specific

Two miles south of the downtown area lies a much different district than previously seen. This area, known as the Potrero Hill neighborhood, has a much more diluted sense of identity. Established in 1835 by a land grant given to Don Francisco de Haro, Potrero Hill has become a divided neighborhood with two distinct identities. To the west, situated on a hill overlooking the bay as well as downtown is the residential community. Here sit original Victorian homes in tight clusters with wide streets that cut a clean grid over the landscape. Single family homes with young children define the general demographics of this historic neighborhood.

On the west side of the site bordering the

coast line of the bay sits the industrial sector of the city. Known more commonly as the Dogpatch District, this area is defined by its large warehouse buildings, abandoned ship yards and scattered restaurants, apartments and pocket parks. These ship yards were once an important component to the life of the city as ships were the main source of trade and commerce for the city in its past. Today, as this type of industry is not so prevalent, the ship yards have become abandoned, scattered in use, and lost in identity and purpose.

The original shoreline of this area, before it was established as an industrial ship yard, was that of coastal marsh and wetland. Rivers flowed in from the bay and traversed the landscape enhancing and enriching the local ecosystems. As the area became built up by those who moved in, the wetlands were filled in and covered up. The coastline was permanently changed to what it is today, a stark difference from what it used to be. The loss of these wetlands devastated the area and

THE SITE SPECIFIC: Potrero Hill

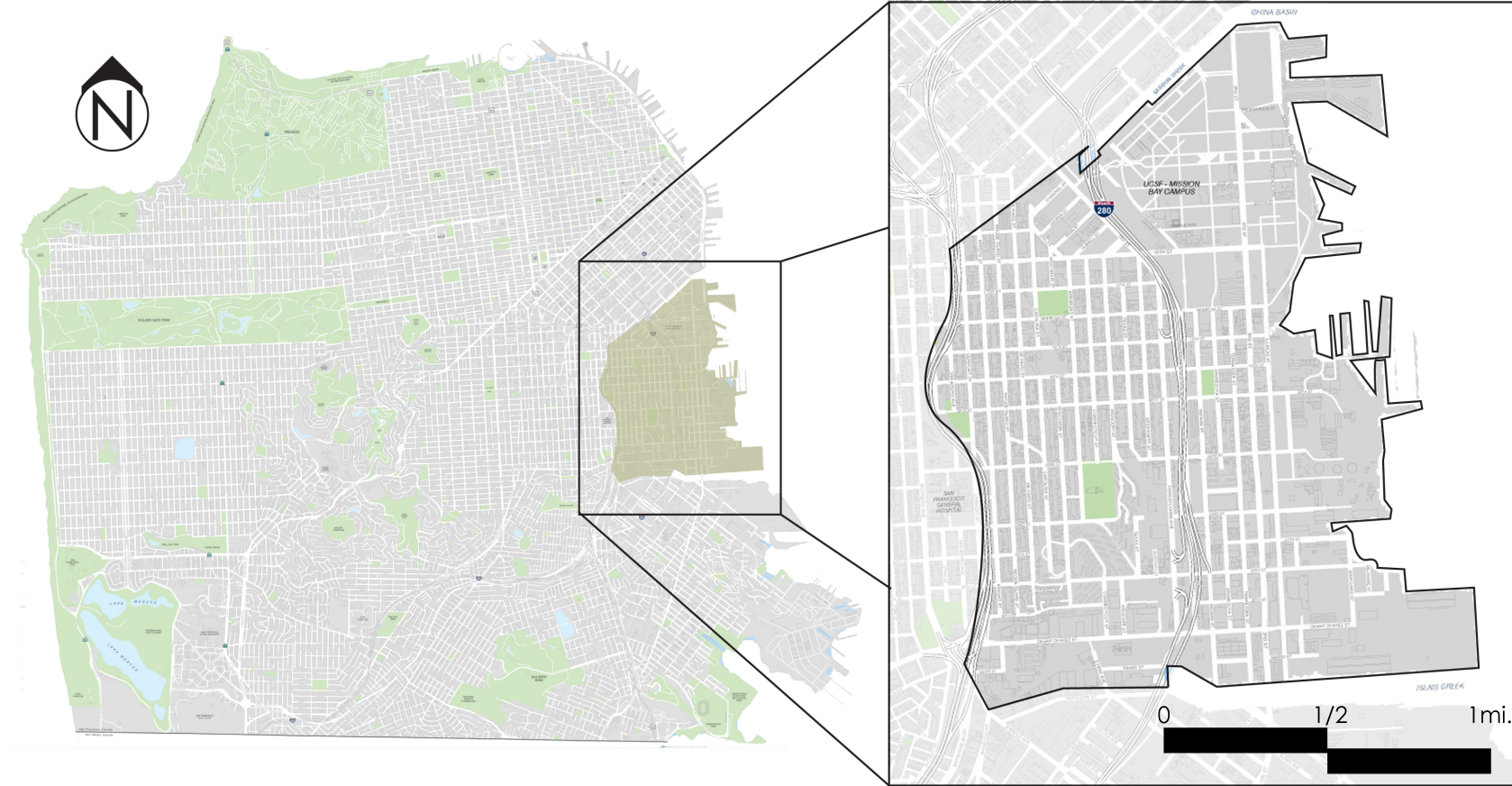


Figure 4: Context map showing location of the project site in relation to the rest of the city.

changed the natural ecosystems from lush and vibrant to almost non-existent. It is important to note that the reestablishment of this coastal ecosystem that has been covered up would be something of utmost necessity during the redevelopment of this area. These two distinct sides of the site are divided harshly by California Interstate 280.

Interstate 280 was established to the Interstate Highway System in 1955 as a direct connection between San Francisco and San Jose. As it sits now, 40 feet above the ground, it cuts the two areas of the site in half from north to south. The freeway is used mainly by those who are moving through the area and those that work in the industrial Dogpatch area. There are two main overpasses on the northern side and a few underpasses to the south side of the site, although the need to cross over is little to none.

Most residents of the area commute an average of 20 to 30 minutes to work outside of the area which is on par with the average of the city itself.

This equates to about a 15 to 20 mile commute outside the city. Workers for the industrial area come in around 7 to 8 am and leave around 5pm during the weekdays. The industrial buildings are slowly turning into disrepair and are occupied by businesses that do not need or share the same uses as the original intents of the buildings.

The streets here are wide and can accommodate large trucks and semi-trailers. The main vehicular street that is used is 3rd street which connects this area to the downtown and is also shared by the MUNI train. This is a main corridor that is bordered by small shops, some mixed use buildings, and large industrial warehouses. The functional aspects of these buildings are fading fast and a new use for this area must be decided upon.



Figure 5: Images of the site showing the different types of landscapes that are offered here. Many are in disrepair.

THE SITE: thoughts

The city has some plans to renovate some existing buildings that are rundown and a few vacant lots that are in wanting of new programming and use. However, a full remodel and repurposing of the area is not in consideration by the city. The San Francisco Redevelopment Agency has plans for surrounding neighborhoods, but interestingly enough nothing for the Potrero Hill and Dog-patch areas. The city seems to be missing a prime opportunity to develop an area that has new potential to add to the exciting coast line that makes up and gives San Francisco its unique identity.

This site has the potential to serve as a new gateway to the city with a revitalized ship and boat

yard and new residential, commercial, and mixed use structures that can give new life to this area. The new identity of the site must, however, offer something new to the urban fabric of the city and as well offer something for the environment.

The past designs and developments of areas along shorelines such as this one have been to meet the needs of the immediate social and physical contexts of the site. In the case of Potrero Hill, its social context was the need for trade and commerce which was facilitated by the physical context of the bay and ocean fronts. At the time, developing the shoreline into ship yards was a calculated move to allow for continuation of income and outcome of the cities goods and services. As the change and development of the way goods and services were produced, the ship yards soon became irrelevant. Technology and tourism has become the new industry for the city, leaving the ports and reconstructed shoreline to sit and slowly degenerate.

Due to this shift in the way San Francisco has

developed over time, it is important to understand how to approach the redesign of this area and create a place that is both functional for the people who live and work in the city, those that visit, and the ecosystems that live in the area. Looking at the current plans by the city, it is apparent that this di-

verse and historically important neighborhood is not being looked at in a way that will accommodate the current and future needs of the city.

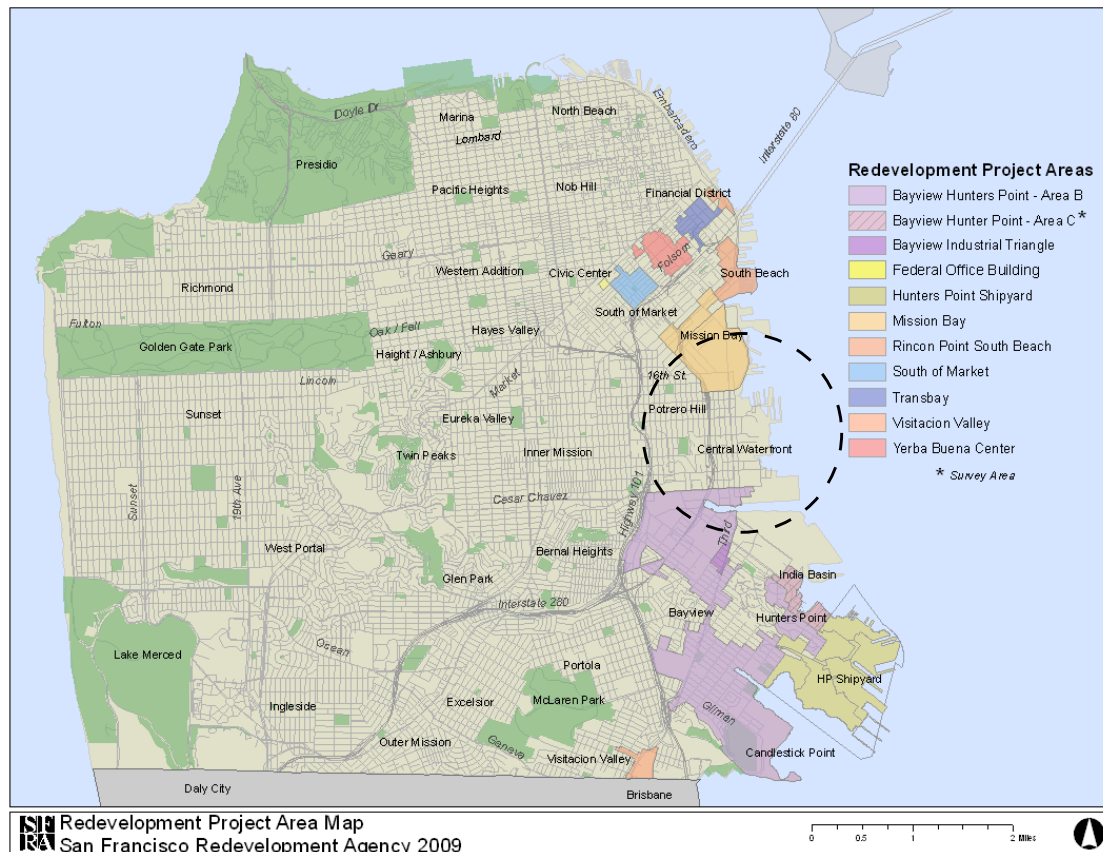


Figure 6: Map of the San Francisco Redevelopment Agency's plans on where to develop. My chosen site is not listed in the plan.

THE SITE: approach

My proposal for the redesign and revitalization of this diverse and dynamic site that bridges the old with the new, built to the natural, and private with the professional is to design with the future in mind. Whereas past development dealt with current needs and issues of the area, my approach is to look at how the site conditions will be by the end of the current century and base my decisions on those projected outcomes. That way, the design will grow and progress over time through a series of phases and will be completed and implemented by the turn of the century and be ready to accommodate the predicted situations instead of needing to be changed again and again as is the current

plight of the site.

I will be taking into account certain unchangeable “variables” that are based on two broad spectrums. The first is that of the environmental. As was discussed earlier, the current trends of energy and transportation uses are steadily increasing as well as generated wastes and GHG’s. The projected sea level rise of 5 feet by the USGS is the main environmental factor that will be taken into account. As the site is close to sea level, much of the existing industrial area will soon be submerged. This must be addressed first and foremost if the new design and development is to hold over the next 100 years and beyond.

The second broad spectrum that will be taken into account is that of the social. Cultural behaviors and paradigms are constantly shifting and changing based on environmental circumstances. The current trends of sustainability and environmentally friendly design are in response to the changes in the environment. This has just recently taken off

in the past 10 to 15 years and is slowly becoming more and more prevalent in today's social mindset. Projecting how and what society as a whole will envision as sustainable and environmentally friendly is also critical to how the design develops over time.

These two broad spectrums of the environmental and the social will be the basis for my analysis, case studies, preliminary and final designs, and conclusions on how to deal with this site and the design and development for other sites as well.

THE SITE: analysis

CONTEXT

Potrero Hill is a diverse and complex site with multiple “personas” existing in a 2 square mile piece of land. The surrounding land uses are as diverse as the site itself. To the north of the site is the main downtown which acts as the central hub for the life of the city. Most visitors enter the city over the Bay Bridge which feeds directly into the main grid of the city. It is important for the site to be connected to this hub of commerce and activity. As of right now, most people who are visiting the city do not have a need to go to Potrero Hill unless they need a place to park their vehicle. Many people park along the streets on the weekends in the Dogpatch area and walk to the Giants games at the stadium located at

the southern end of downtown.

To the west of the site is the very diverse and very popular Mission District which has many culinary and cultural attractions for those visiting the city. The scale of this area is more for those that live in the area. Streets are one to two lanes and there are many small alley ways that one can get lost in. This vibrant patch of urban fabric must be readily accessible from the site either through walking, biking, or public or private transport.

To the south of the site is the Bayview district. This area is similar to the residential side of Potrero Hill. There are many single family homes surrounded by schools and pocket parks. There are glimpses of industrial businesses that border the northern edge of the site where it connects back into the Dogpatch area. This area is where the Bay Trail bike path ends as it enters the industrial area. It will be important to connect this feature through the site and to the downtown area.

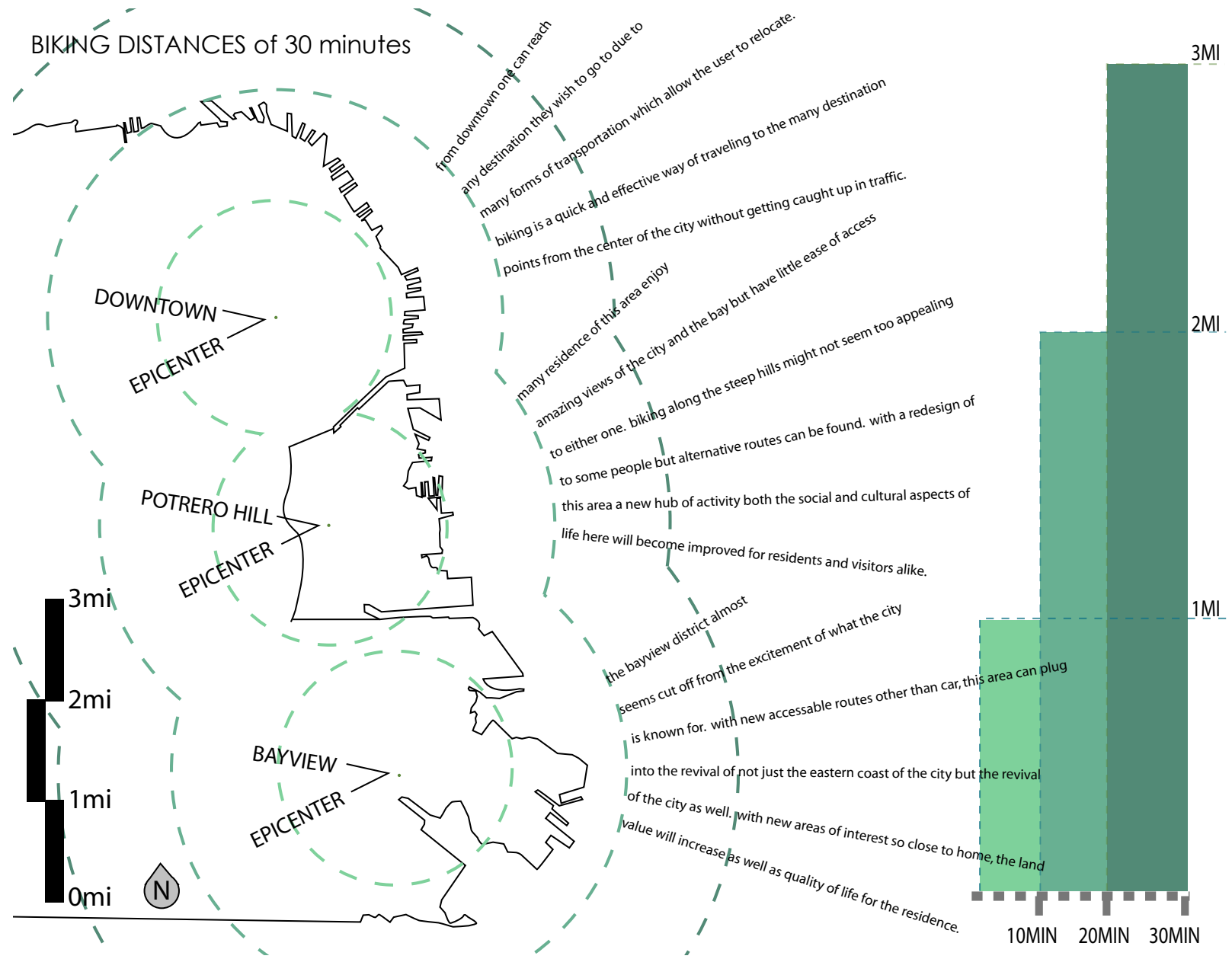


Figure 7: Graphic illustrating close proximity of context to chosen site by mode of bicycle.

ENVIRONMENTAL

The environmental aspects of the site are important to take into consideration as they will be the key ingredients for how the design of the site takes place. Most of the site is flat from the shoreline up to 280. On the western side of the inter-state the land rises high to form the hill where the residential neighborhood resides. This hill is critical in giving the site its unique characteristics and stunning views from the top of the bay and downtown.

The location of the site right next to the bay allows for quite a steady average wind speed throughout the year. Speeds range from 6 to 10 mph annually with stronger gusts felt in the spring and summer times. Being in a Mediterranean cli-

mate allows for higher than US average sunny days ranging from 50% to 100% and an annual average of 75% sunny days. Although there are foggy mornings that the city is known for, there are far fewer cloudy days here than sunny days with most of the overcast days occurring during the winter months.

The moderate temperature promotes outdoor activity as the annual average is between 50 and 60 degrees Fahrenheit. Due to this mild range of weather throughout the year, it can be safely assumed that outdoor activities should be promoted in the new design as well as possible renewable forms of transportation and energy generation.

The built aspects of the environmental inventory speak to the clear differences in use of space in and around the site. On the eastern side of 280 along the shore, large empty buildings take up massive amounts of square feet along the ground and their lots are even bigger. Many of these buildings will be or are out of commission. Wide roads accommodate wide vehicles such as delivery trucks

and public buses. There are train tracks that run underneath 280 that are used for transportation of goods across the country.

Moving to the western side of 280 where the residents of the site live, the grid of streets becomes tighter and the houses follow suit. Historic Victorians are packed together to allow for maximum density on site and all have some green space in their back lots. Although the site is on a hill, the grid stays strong throughout and allows for steep streets and drive-ways that challenge visitors and residents alike. It will be important to keep this grid and feel of historic San Francisco in the new design of the site.

SOCIAL

The social landscape of this site, in terms of use and user is quite clearly defined by the built environment that we can see. The large buildings and lots along the shoreline are clear manifestations of the once important need for ship yards, manufacturing and processing plants and commercial buildings. There are not many places for small groups of people to gather and hang out besides the scattered restaurants and pubs that dot the area. It is apparent that more housing is required due to the new mixed use buildings and small condo that are beginning to dot the area. The residential area is slowly impeding on the old framework of the industrial site creating a tension between use of space

and user.

Most average residents of the area leave for work around 7 to 8am and travel a distance of 20 minutes by car alone. This is in step with the city-wide average and shows a clear use of the space in flux by users during the day. The neighborhood is left by its residents during the weekdays and filled by industrial site workers. The inverse is true for times in the later parts of the evening and weekends as well.

The current zoning codes of the site clearly show how the land is divided up between uses as well as the disproportionate massing of land distribution. It will be important in the redesign to accommodate for increase in population for the site as well as creating a more even distribution of zoning to mix the uses of space.

FRAMEWORK

The sites immediate uses are that of the people who work in the industrial area during the day and the residents who occupy the space in the evening as well as weekends. The balance of use as of right now is cut clearly down the middle of the site, divided by Interstate 280. Natural features such as park and open space are a distant afterthought on the existing landscape. The wetlands that once existed are no more and the coastline that frames the site is contrasted sharply by the tall buildings and smoke stacks. There is little in terms of the natural besides the bay waters and the hill that the site is built upon. It will be important to take into account the integration of natural features and correct the

imbalance of the natural and the built.

Currently the site is focused mainly on its inhabitants and workers. There are little to no features that call for anyone to visit the area or stay for anything longer than a few hours. The new vision of the site needs to function not just as a connection between sites but offer new destinations for those visiting. Integration of the natural and built in a new and exciting way will lend the site to become a more dynamic and appealing destination for residents and visitors alike.

SITE ANALYSIS FLOW CHART

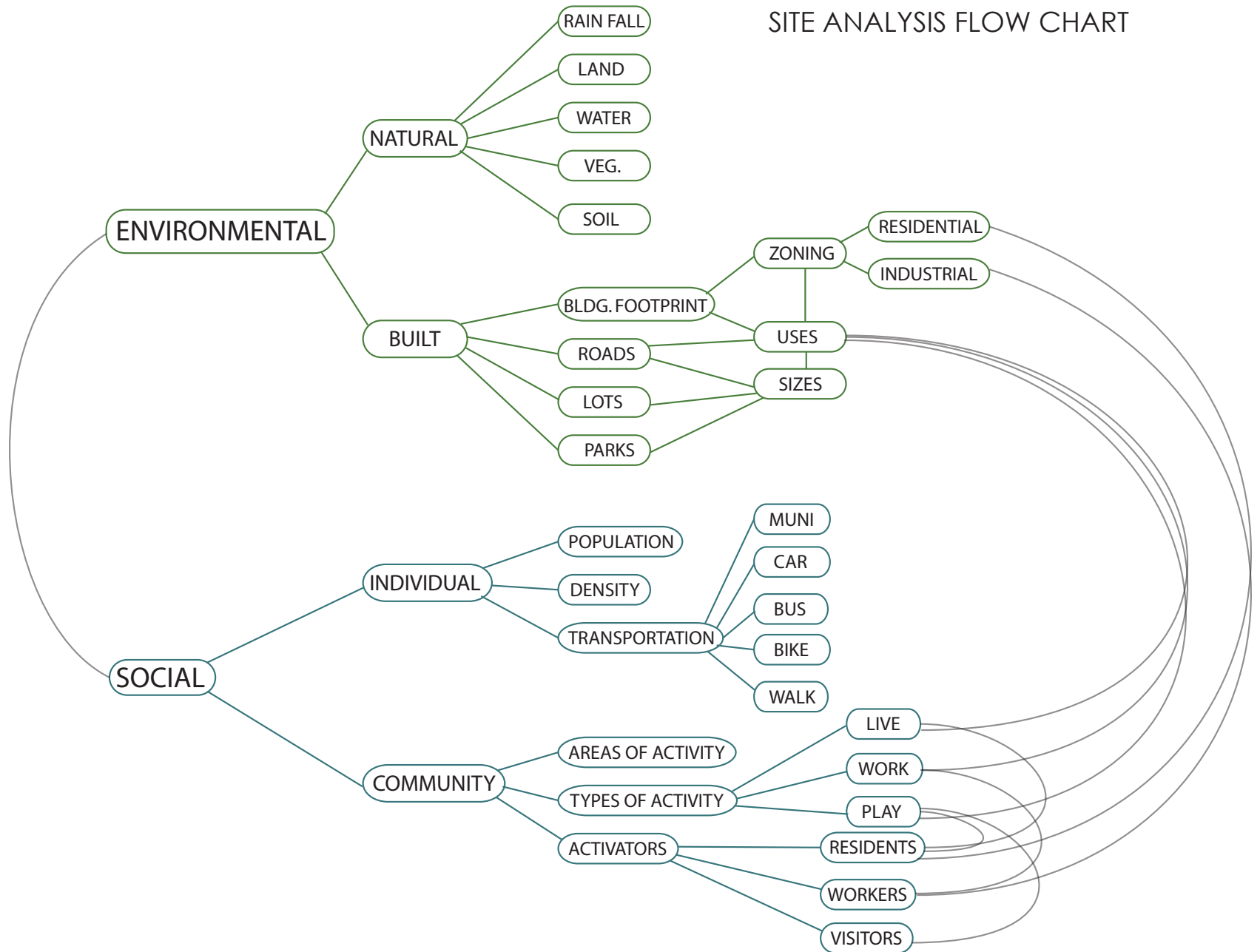


Figure 9: The interconnectedness of the environmental and social factors can be seen here.

I-280

Interstate 280 was established in 1955, long after Potrero Hill was formed and inhabited. Like a giant concrete river, it winds its way through the landscape elevated more than 40 feet off the ground. It travels in a north/south direction with 3 to 4 lanes of traffic on either side spanning to over 120 feet wide at some points. The freeway sits right underneath the lowest homes on the hill, and just above the rooftops of those large warehouse buildings to the east. Underneath the freeway sits a mix of abandoned lots, roads, train tracks, and retaining walls. It is a social and physiological barrier of the site, while at the same time offering itself as an element that has potential to change over time in

terms of function and use.

Since Interstate 280 has such an important tie to the development of transportation in the past, it would behoove us to keep it as the main backbone of the site, in terms of movement of people. However, it will be crucial to take into account the change in ways that society thinks of transportation and how to repurpose the freeway to match this new social paradigm.



Figure 10: Images of Interstate 280 and how it has come to dominate the current landscape.

THE SITE: design methodology

As was discussed in the beginning of this project, there is an undeniable connection between our actions as a society and the effects we have on the environment. The idea of working with the natural environment as a guide for design and development decisions will be the core concept behind my proposals for the site. I will factor in the previously stated unchangeable variables that must be taken into account if a successful design is to hold true over time. These variables of environmental change as well as social change must work in conjunction with each other in order to create a harmonious and holistic living environment.

In considering the environmental aspects of

the site such as the natural and the built, there must be a clear relationship between the two, in terms of how they function and interact with one another. Much of the existing natural features (while there aren't many) will be enhanced and brought to light. The fact that the shore line will soon be changed, due to sea level rise, will be a main contributing factor to this aspect of the design. Conversely, since there is such an overall lack of natural features on the site, it is imperative to bring back these natural elements, so that there is once again a balanced relationship between them (the natural and the built). Since the site is so built-up at the present time with industrial features, it will be important to give the area a new identity by either getting rid of or repurposing these industrial landmarks. However, it will also be crucial to keep and repurpose any existing infrastructure or built structures that are unique to the site and can remain as call-backs to an earlier time. It would also limit the waste produced by demolition and keep the use of new building mate-

rials to a minimum.

The idea of repurposing and responding to the natural and built environs is an example of the progressive social paradigm that will be developing over time. The uses of the spaces now are scattered and disjointed. It will be an important goal to give the site a new purpose in a multitude of fashions. The primary and most important use of the space will be for residential inhabitation. It will be critical to harmonize a growing population with a static amount of land. After this goal is achieved, a more public realm of social interaction must be incorporated onto the site. This will allow for the movement of goods and services through the site as well as income and interest for the site.

The overall integration of these environmental and social factors is what will make this project successful in the long run. Current models of site analysis and design typically take into account just the existing conditions that exist in the present moment. However, if the goal is to create a site that

will respond to and be ready for a changing world (especially in such a dramatic time as ours), analysis of the site cannot only be looked at in the present time. One must look towards the future, design with the changes in mind, and work backwards to allow for the decisions that are made now to work for the projected outcomes of the future. This is the approach that I will be taking for my design process. I will analyze the existing conditions as well as projected situations (environmental and social) of the site in order to create a plan that will, by the end of this century, be ready to accommodate the changes that will occur. The design will be phased over the course of the next 100 years.

THE SITE: opportunities & constraints

Before any design decisions can be made, we must first look at what opportunities as well as constraints exist on the site that might guide the design process one way or another. It is important to consider any aspects of the site that will either aid or impede any decisions that are to be made.

The biggest issue to take into account here is that of the 5 foot rise in sea level that is projected to take place over the next 100 years. This can be seen as both a constraint and an opportunity. Thinking of it in terms of a hindrance, much of the existing shoreline will change and be covered up by water, which will in turn lead to a loss of “usable land”. By usable land I mean ground that can be

developed on for use by people to build homes, schools, businesses and so on. However, in order to see this issue as an opportunity, we must look at it in a new light. While the use of land for social development might seem like a loss, it is actually an opportunity to implement and reestablish a once thriving coastal ecosystem. Due to a lack in the natural environment on the site right now, this rise in sea level can be a major driving force for the rehabilitation of a coastal wetland and marsh area. The balance between the natural and the built will be regained through this one important decision.

Although this is a great opportunity to gain back some natural features and habitats, it does create a problem for how and where to place new housing and commercial areas. It will be important to have the placement of these developments in accordance with where the wetlands and marsh areas are and have a harmonious integration of the two.

Another environmental opportunity that



Figure 11: Possibilities for alternative and renewable forms of energy and fuel. (Wind, solar, and aglae)

presents itself in a built form is that of Interstate 280. Although it is a dominating feature on the landscape and is in use by vehicular travel right now, it offers some unique options for use in the future. Since I-280 is elevated off the ground, it is in no way threatened by the rising sea levels 100 years from now or beyond. It can still be used as a way for people to move through the area unimpeded by any changes environmental or otherwise. This freeway presents itself as a prime target for repurposing in the years to come. With some careful thought and planning, the re-envisioning of this structure will play a crucial role in the overall design.

As was discussed earlier, the temperate climate of the area offers an opportunity to develop more environmentally friendly modes of transportation and power production. The many days of sunlight and constant wind lend themselves to being used for renewable sources of energy in the form of solar photovoltaic cells and wind turbines. This will be discussed later in the design section.

This focus on the outdoor elements and ability to harness their power lends the site to becoming more centered on not just human use but how the sites natural features are incorporated into the overall plan. We cannot however, overlook the importance of the user in this analysis, and there are many opportunities that present themselves in the form of environmentally focused thinking that will create opportunities for the site. As society seems to become more and more environmentally aware, it is important that this growing frame of mind is addressed in the way the site will be used.

Alternate forms of transportation and power production are two major topics that need to be addressed and cared for in this project. It will not just be the need to reuse and repurpose existing infrastructure or the need to find more efficient ways to travel and produce energy, but it will be the wanting of these new and progressive ideas to take root and grow. The involvement of both the environment and social aspects of the site together can

help insure the best outcome for both sides.

This new community will become accessible not just by car alone, but by walking, biking, boating and even light rail public transit. The close proximity of this site to other more developed communities allows these alternative modes of transportation to dominate the market. Of course, the new design of the area will need to take these modes of transportation into account and create the ability for them to be functional as well as fun. There are existing bike paths and walks along the coast line that seem to get lost on the existing site due to its current uses. The Bay Trail system will be one such feature to plug into and reestablish in the area (as well as readjust) to help promote non-vehicular modes of transportation. The current train tracks for the MUNI and cargo trains will be a key source of inspiration to create a new and more accessible light rail system.

As these larger opportunities and constraints will help to form the possibilities of the sites uses, ideas

and precedents will also be looked at as sources of inspiration.

CASE STUDIES: ideas

Each of the following three case studies will deal with an important issue in the design of the site. The three topics that need to be addressed will be the issue of (1) circulation and transportation, (2) redesign with and around industrial structures and (3) repurposing and improving existing infrastructure.

1. Transit Oriented Development

The concept of a transit oriented development (TOD), according to the Center for Transit-Oriented Development, is that a community design or development is to create, “attractive, walkable, sustainable communities that allow residents to have housing and transportation choices”. This key concept will be the back-bone for how the site

functions and plugs into the existing framework to the rest of the city. Connections need to be made to existing walking and biking trails and the light rail system needs to access all the important destinations of the site.

Another important feature of TOD is that of how land use is situated around the transit stations and how density is dispersed around these transit hubs. Typically, most hubs have a surrounding area anywhere from $\frac{1}{4}$ to $\frac{1}{2}$ a mile of dense commercial and mixed use buildings. This allows for the transit hubs to be assessable by walking or biking within just a few minutes from different destinations. Personal vehicle travel will not be necessary since these other modes of transportation are quick and convenient. Land use around these TOD hubs should be set up as more compact housing in order to promote a more walkable community. As was stated previously about the time and distance people travel right now who live in Potrero Hill, a 20 to 30 minute commute by car to work can be turned into a 10 to



Figure 12: Light rail stations allow for quick transport of people from destination to destination.

15 minute walk.

Through the implementation of transit oriented development, the sites new features can start to be placed on the map. All commercial and mixed use areas will centralize around a main hub of transportation. Residential communities will also be incorporated into the design as surrounding context for residents, old and new. The emphasis on non-vehicular transportation such as walking and biking, and more efficient public modes of transit such as a light rail system will help to foster a sense of community amongst the people who visit, work, and live there as well as with the surrounding natural environment.

2. Gas Works Park

Located in Seattle Washington, this 19acre park is the site of the old Seattle Gas Light Company. It was decommissioned in 1956 and was deemed public park space just a few years later in 1962. It contains old remnant structures of the gasification plant and pipes that give the site its unique

characteristics.

All the structures within the site have been made safe to climb on and to interact with. This offers not just sense of exploration for those who are visiting but can be educational as well. The park was designed by landscape architect Richard Haag. One of his goals for this industrial site redesign was to let the space become a “people’s place”. This was an important goal since the previous uses of the site created a mostly uninhabitable space. Everything that was once off limits is now accessible in one way or another, either through interacting with or even just getting close to these seldom seen structures.

One of the main features on the site is the giant earth mound with a sundial on top. The interesting fact about the mound is that it was artificially made with the rubble of the old foundations of some of the buildings. It was then covered with top soil and is now the main gathering area for visitors to the park. This is another great example of how to



Figure 13: Gas Works Park in Seattle Washington offers a new experience to an old site.

repurpose old and unused structures on site and to keep the use of new materials down.

What seems to be important about this project in relation to Potrero Hill is that there are similar structures dotted throughout the landscape, that are either lying in ruin or slowly being decommissioned. Instead of a reaction to these structures as things that will blight the newly envisioned landscape, they can be features that tell the tale of what used to exist on the site. They can become icons of the site and allow for unique experiences that can be found nowhere else in the city.

3. High Line Park

Situated in the heart of Manhattan in New York City, the High Line park is a perfect example of repurposing and reusing old city infrastructure. Historically, it was a train line that was used to ship freight trains to and through the city. The tracks were originally on the ground, but so many accidents occurred that in the 1930's they elevated the rails off the ground, thus creating the High Line.

It was functional until 1980 and was decommissioned by the city. It lay in want and wait for almost two decades, until it was discovered by a group of people who wanted to save it from destruction by the city. They formed a group known as Friends of the High Line, who rallied to save the elevated tracks from disappearing forever. As was part of their mission, they wanted to repurpose the tracks and create an elevated park above the busy streets of Manhattan. They held a competition and the winning design was picked. The winning design was by the landscape architect studio of James Corner Field Operations and architects Diller Scofidio+Renfro.

The current design of the High Line exists as a combination of environmental features as well as social ones. The main goal of the park was to reuse the existing infrastructure of the city and offer a new way for people to interact with their surroundings. An elevated park that weaves through buildings and above busy intersections is what visitors



Figure 14: Possibilities for alternative and renewable forms of energy and fuel. (Wind, solar, and algae)

experience when they enter the High Line. What is really unique about this project is how it physically separates users from the busy vehicle-centric streets but at the same time lets them experience their surroundings in a whole new light. The users move at their own pace, and are able to take in their surrounds in the same way. Special moments are created through either seating areas or viewing areas that take in unique scenes of the city. If pedestrians were walking on the streets below, there would be no opportunity to have these experiences.

This park talks to the redesign of my site most specifically for what to do with Interstate 280. An elevated park that allows pedestrians to move freely above cars, stop lights and intersections is exactly what can aid the idea of creating a more vehicle free design. The view from 280 out to the bay cannot be fully enjoyed while driving at 60 mph. However, if one was to walk or bike at a fraction of that speed, then sights, smells and sounds of the area become a feature of the site itself.

DESIGN: research

The ideas and concepts gained from the case studies have helped to build up general ideas on how to deal with such a multifaceted site. There are many issues to consider. Those of the previously mentioned broad social and environmental factors as well as the more specific design decisions that will influence the sites final look, feel, and experience. To help gain a stronger concept of how the site should function regarding these issues, research of other landscape architects and designers must be taken into account. The main ideas and broad brushstrokes of the design will in the end be mine and will incorporate the ideas of the research that I have conducted. Since I have done site analysis

and the opportunities and constraints with the two main issues of the environmental and the social, it should be to reason that the design should be approached in the same way.

The most important factor in any site is its location and context. Potrero Hill and the industrial Dogpatch areas are in close proximity to more vibrant hubs of life in the city. It is imperative that a strong connection to these sites is established with the rest of the urban fabric. This can be done by strengthening existing connections and creating new opportunities where none exist now. Repurposing I-280 will allow for this connection to be strengthened, at least in a north/south direction. Access to the waterfront by the residents on the hill is right now cut off by the industrial area. Waterfront redevelopment is an important feature to take advantage of, especially in a city such as San Francisco. According to the book *Waterfronts in Post-Industrial Cities* by Richard Marshall, he states that, "it is within these present difficulties that a space has opened

WALKING DISTANCES of 30 minutes

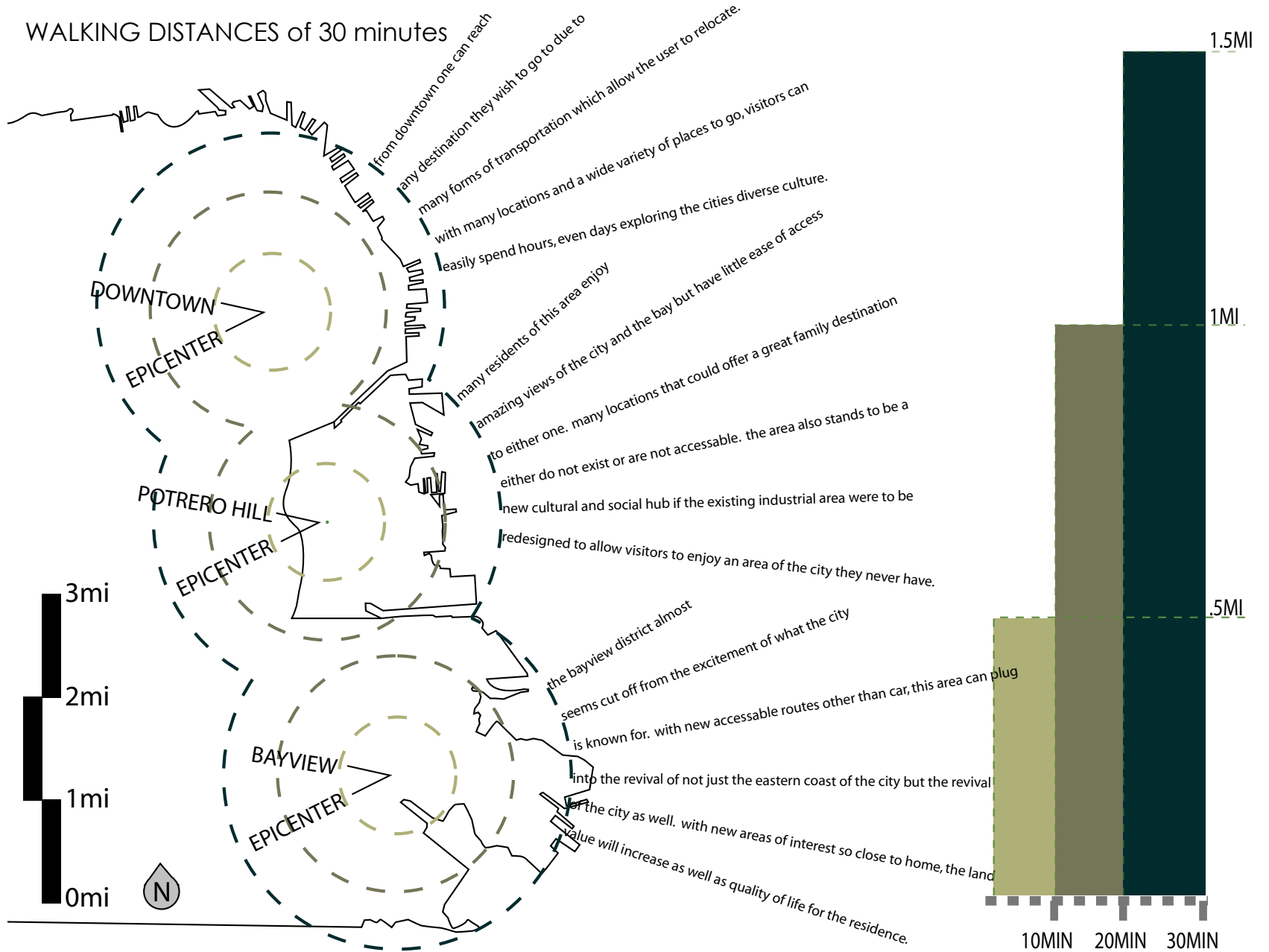


Figure 15: Graphic displaying walkable distances to surrounding context.

up in the city which allows expression of hope for urban vitality. The urban water-front provides us with this space”(3). The shoreline of the site is prime for redevelopment and ready for a new and exciting identity. By creating the waterfront area as a destination point for residents and visitors alike, the space becomes much more dynamic and culturally relevant. It will also enhance the cities coastal image.

In keeping with the idea of enhancing the sites identity, many of the existing smoke stacks, brick and mortar buildings, and ship yard cranes should be maintained and repurposed. The importance of these features is that without them, the city would never have become established. They were at one point an important part of the survival and growth of the city. Alan Berger states in his book *Drosscapes* that cities themselves are a result of industrialization. He goes on to state that we should, “design to resist planned continuity” and use those differences as, “motivation for the architectural project”(34).

The flexibility of the site and its dynamic characteristics keep it from becoming dry and monotonous. As Marshall states in his book, “complexity is quality that distinguishes the more complete”(42).

The revitalization of this once prominent shoreline will be made possible by one major contributing factor that is the basis for this design. The projected sea level rise will expand the water front access inland and allow for a whole new lifestyle to grow in this area. The areas that are to be covered by the end of the century will become the native habitat made up of mainly riparian, marsh, and wetland communities. This issue does create a conflict of interest in bridging the areas of the coastal shoreline activities with the commercial and residential communities near the freeway. This area of wetlands could be seen as a constraint on activities, but not in this case.

I am proposing a new programmable area that spans this expanse of wetlands which will be functional in terms of traversing them as well as of-

fering a new way to interact and learn about them. These constructed “wetland walks” will allow visitors to move above these marsh lands without interfering with the ecosystems and will offer moments of interaction. Large steps for seating will sink down into the wetlands letting the visitors come into close contact with the natural features.

The rise in sea level will also offer problems to the sites susceptibility to flooding during heavy rainy seasons. Many cities have used a system of levees to hold back intruding waters. These levees seem to be working fine for most cities, but there have been serious consequences when these systems fail. The most recent example of this can be referenced to Hurricane Katrina and its effects on the city of New Orleans. Their levee system failed due to the structures being weak and old in addition to them handling more water than they were originally designed for.

DESIGN: conceptual development

Just as the two broad categories of the environmental and social guided the analysis and study of the site, so too must they guide the design concepts that are to be developed. However, these two factions are still too broad to aid in the development of specific design decisions. I propose a two-fold paradigm of thinking to help with this conceptual development stage.

Movement to and through the site has been a major focus so far in this project. Equally important is the experiential moments that can be created. A combination of movements with moments can be translated throughout the site to create unique and exciting designs for both the natural and built

environs. This concept will become the backbone in how and where features throughout the site will be placed, ranging in scale from benches to buildings and parks to promenades. It will be important in looking at the different ways movements can be worked with moments to keep interest in the spaces.

There is a strong focus on edge conditions. By this I mean how the edges of different areas are changing and evolving over time. The shoreline, where the residential and industrial areas are, and the sites surrounding context are all different edge conditions that will be changing. Their current identities are based on harsh and definite boundaries either due to environmental or social factors. The new concept for the site should encompass an approach that, in some ways, blurs the lines between these areas. It needs to foster a sense of cohesiveness between uses and users.

One way to integrate different edge conditions is to understand what the two have in common and what direction they need to head in. For

example, in regards to the existing grid of the Potrero Hill area, it is important to maintain a sense of this as it flows into the newly redesigned industrial area. The grid informs formality and movement. However, as this layout approaches the new and informal coast line, a change must take place. The strong and rigid existing urban fabric of the grid needs to unravel and unwind into a more natural and free-flowing concept. The programming of these spaces as they gradient across the landscape should follow suit as well.

As was mentioned at the beginning of the project, there is usually a distinct difference between where people work and where they live. In order to create a more dynamic and interwoven site, the uses and zonings of the area must blend beyond what is normally done. A smooth gradient from commercial to mixed use, to residential, to open space, and to natural space must exist in order to promote a greater sense of interconnectedness. In keeping with the new concept of move-

ments and moments, the grid (and the unraveling of it) are conducive of movement and the surrounding context creates the unique moments.

DESIGN: development

In order to create a feasible design for this large scale site, I am focusing my efforts on a few key factors that will influence how the rest of the site is used. A careful crafting of developmental strategies that correspond to the broader issues of the environment and the social will be needed in order to ensure that all aspects of the sites needs are met.

Transportation will be the first issue addressed. As was previously mentioned, Interstate 280 offers itself as a prime site for reuse. By shutting down the North-bound lane, (which spans over 60 feet), and turning it into an elevated walkway and light rail transit, new and exciting possibilities open up. There

will be three main stops along the section of 280 that cuts through the site. At each of these three stops there will be main destinations that lend the users to access different aspects of the site, whether it be the wetlands, the commercial area, or the research area. These stops will also be within short walking distance of each other as to ensure that any non-vehicular mode of transportation will be viable to move through the site.

Movement through the site will be designated by the type of transportation to allow for maximum use of the necessary materials and right-of-ways. For example, the majority of vehicular movement will be segregated to the commercial area near and around 280. Roads will be wide enough for two-lane traffic and the grid pattern will be retained to allow for the quickest and easiest movement of people. The next level down, bike traffic, will be focused more in and around the residential community and weave through the soon-to-be greenways. Easy access to homes and local shopping will be

DESIGN DEVELOPMENTS POTENTIAL

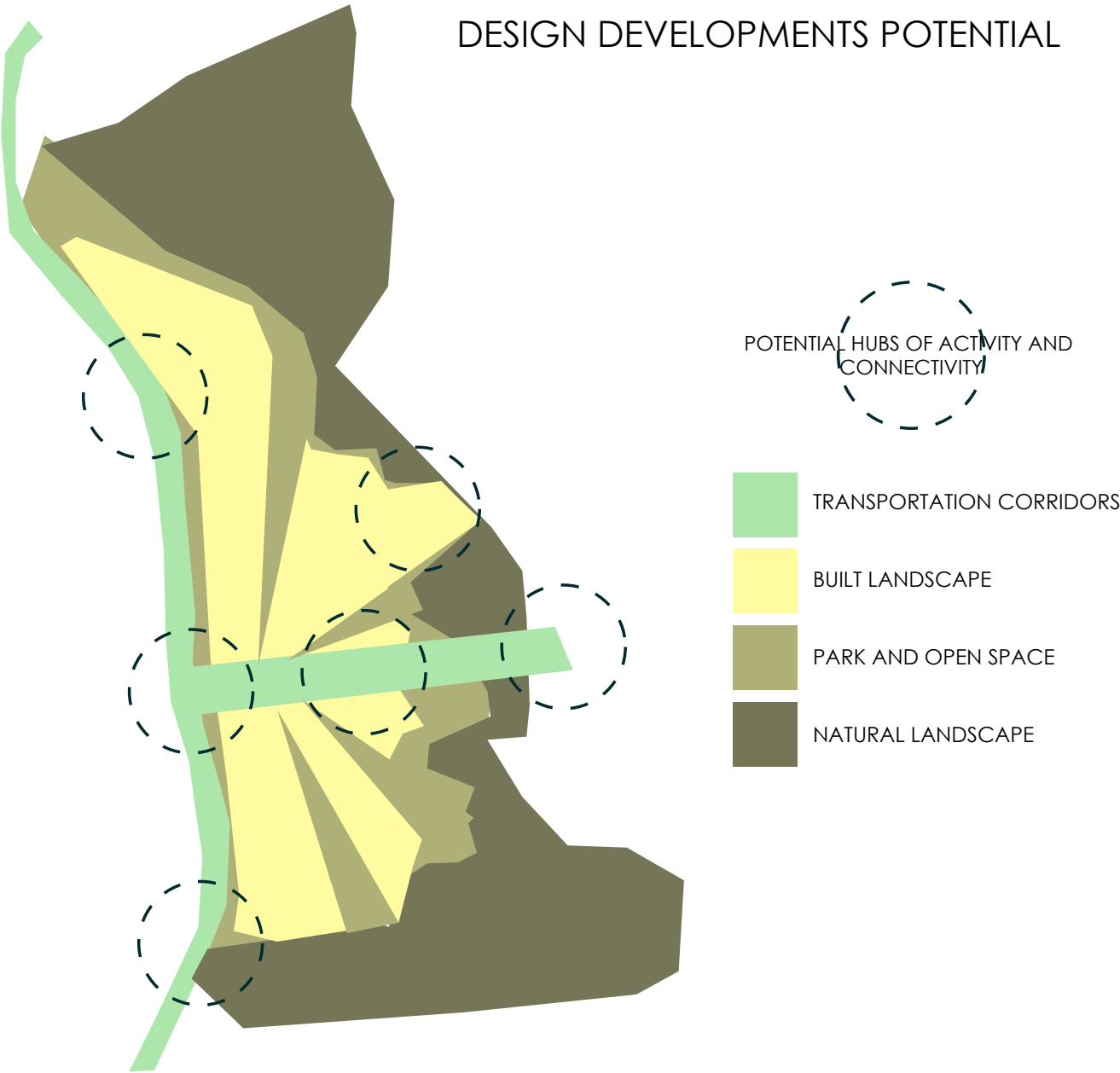


Figure 16: Image displays potential areas for specific design possibilities.

the guiding points for these new bike paths.

The main “promoted” mode of transportation will be that of walking. Most all of the sites main locations and destinations will be accessible by just a few minutes’ walk in any direction. Residents will be located in and around small community pocket parks and will have clear access to all the sites amenities and attractions. The ability to walk through the site will offer users a new way to experience the site, as most people now drive past it while going over 60 mph. Residential areas will have smaller and narrower streets that will curve and twist, to dissuade people who are driving, to stray from the organized grid.

The meshing of the different modes of transportation with destinations is another important topic to address. Since there will be a gradating feature in terms of building use across the site, it is important to have a correlation between type of transportation chosen with type of destination reached. Along the grid is where most of the com-

mercial and business buildings will be located. At the center of this area will be one of the light rail stations. In the middle of the whole site, heading in an East/West direction will be the main greenway or mall.

This long pedestrian walkway will be a mix of urban, small town, and open spaces that will reflect their surrounding environs. In between all the large commercial buildings will be the urban plaza section. It will mimic a traditional urban open space and feature lunch and snack areas, a green roof structure as well as plenty of space for people to come and hang out during their lunch breaks. Moving through the urban plaza, visitors will come across a much more human scale area known as the “downtown” of the mall. Small single and double story buildings will line brick-clad walks where workers and residents can buy groceries, shop for treats, or just grab a coffee at the local bakery. Moving past this area is the open space section. Here, a vast open field for large outdoor activities opens up to views of the

bay and shoreline promenade. The end of the mall is designed to connect the land with the water. A boating dock awaits travelers at this end of the site, where private boats can drop anchor and weary

sailors can come ashore. It is important to retain and even re-inspire the once prominent shipping culture.

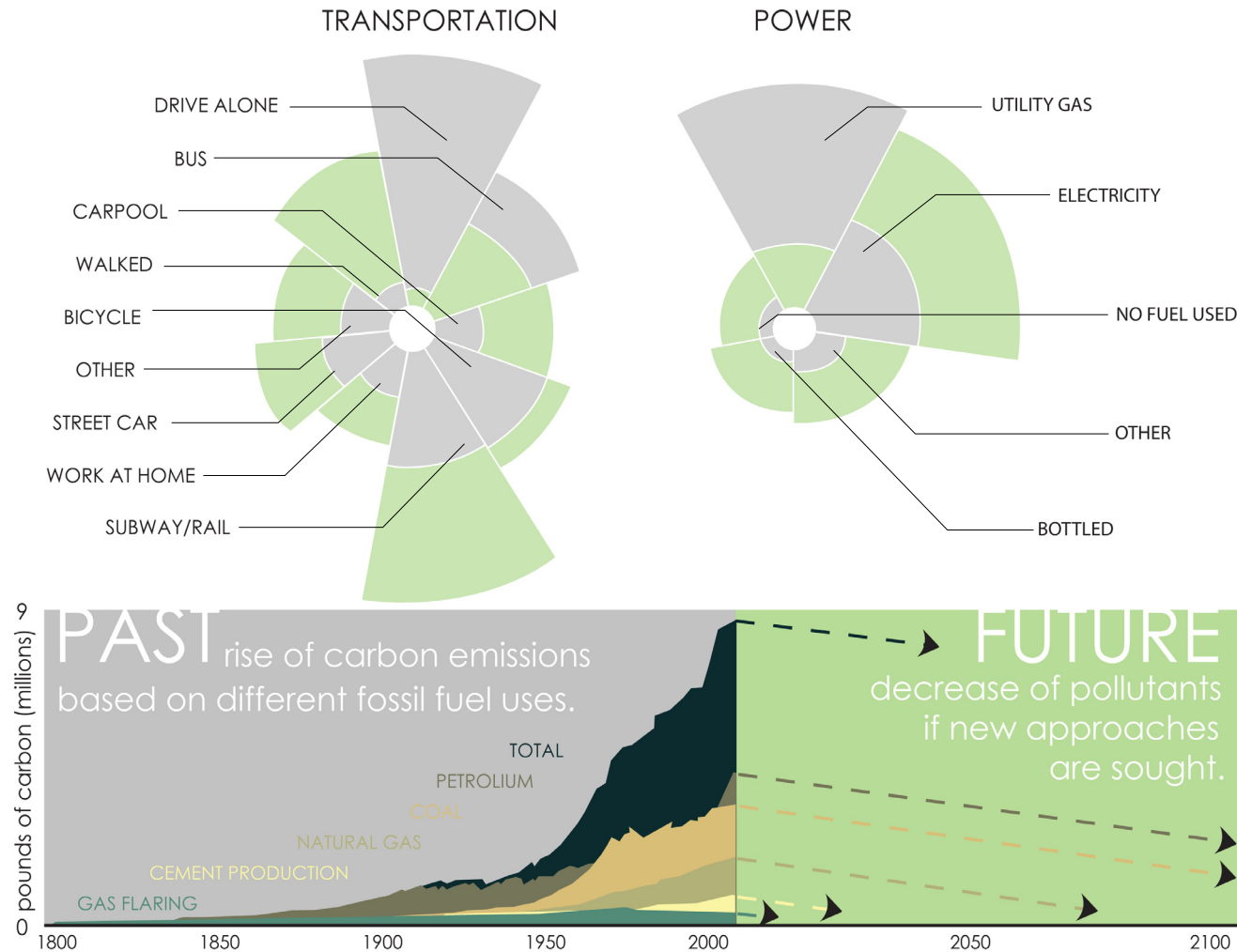
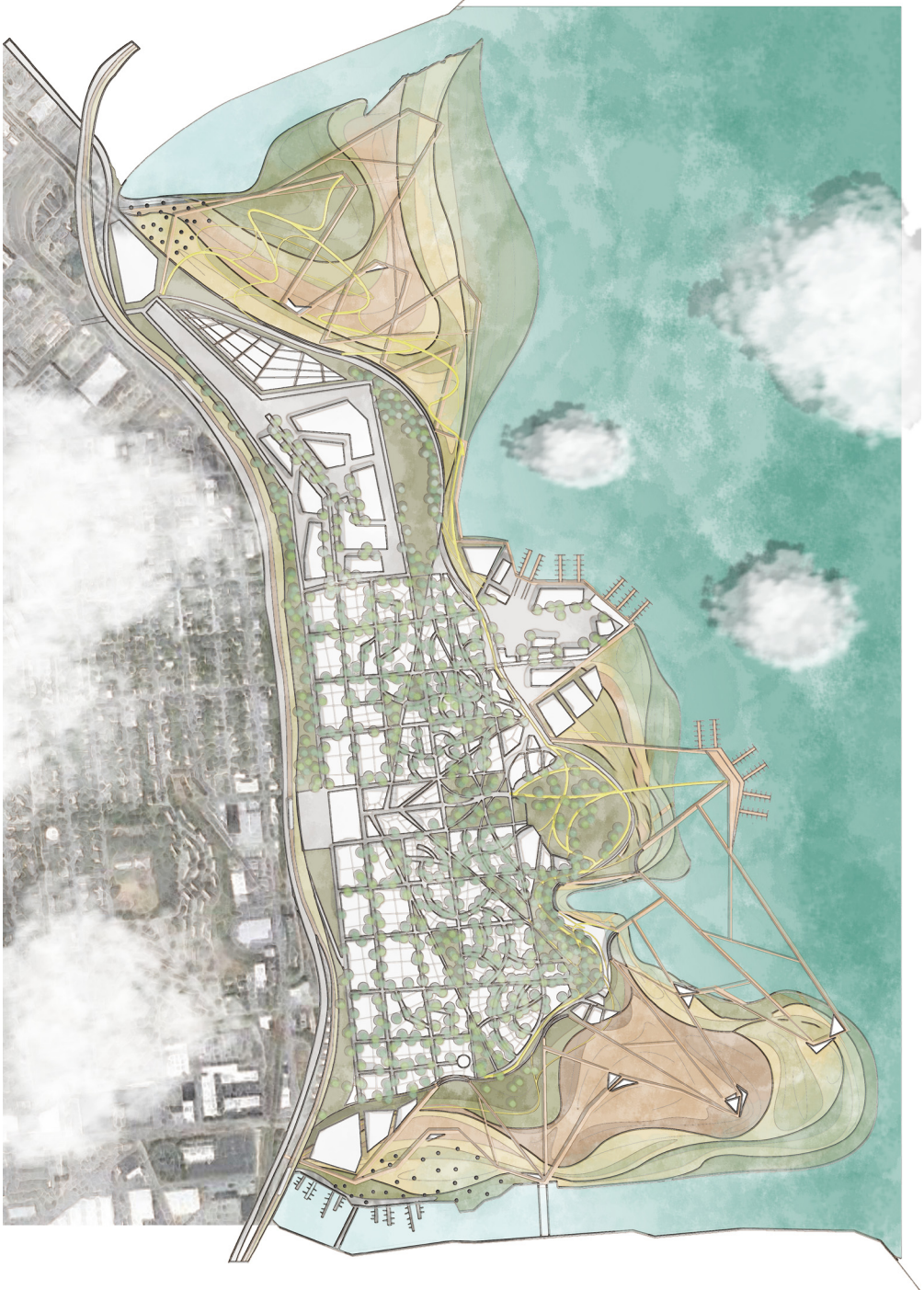


Figure 17: Diagram illustrating how the sites new designs will address the rising GHG emissions.

DESIGN: final

Based upon facts discussed at the beginning of this project as well as the recent arguments for design decisions, the possibility to create and design a final master plan for the site is able to come about. Although it may never be possible to fully predict a sites future conditions, (especially 100 years from now), making decisions based on projected environmental and social conditions can help to develop a vision of the future.

This section will be based heavily on images and the descriptions of them to help convey the final design.



ENVIRONMENTAL areas deal with the factors of water runoff, filtration and detention as well as ecological systems of marsh and wetland flora and fauna.

SOCIAL areas are defined by use and user but allow for a smooth transition between each area and work with the environmental features.

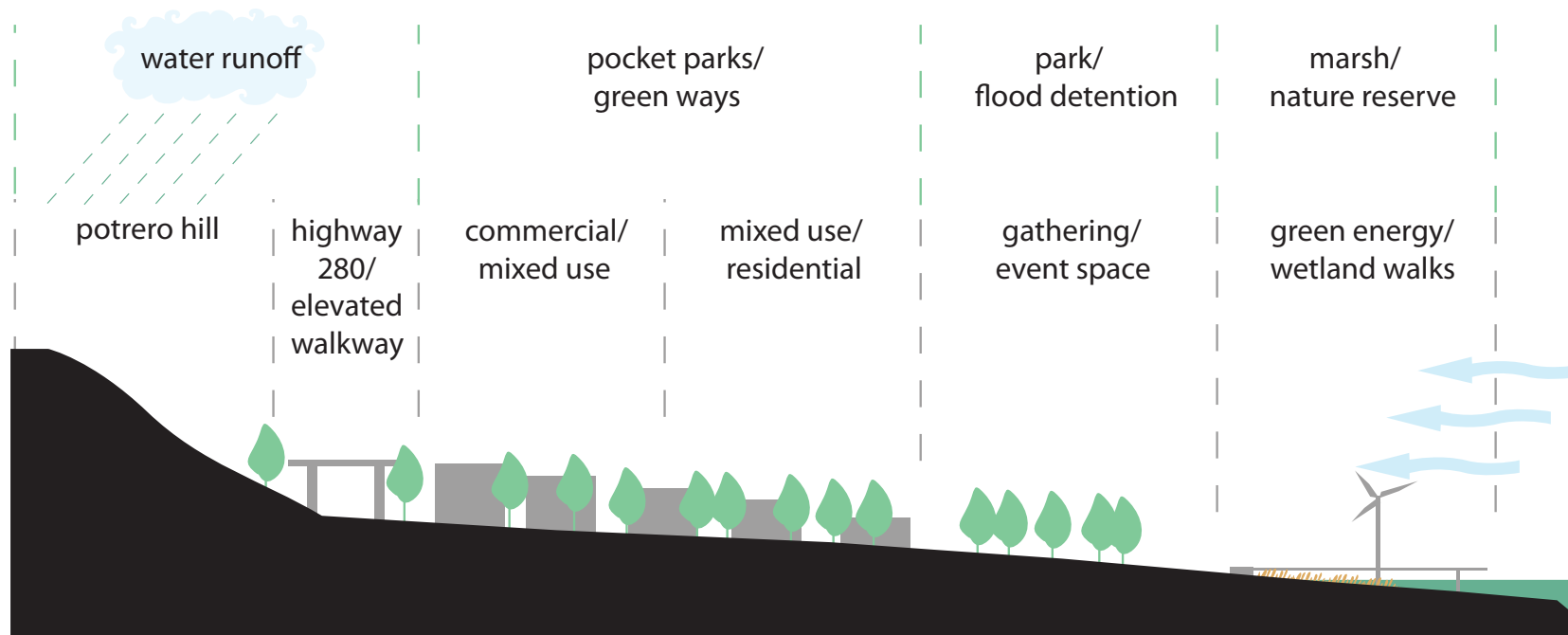


Figure 19: Site section displaying overall features of the site going from East to West.

280 becomes a shared-use structure for vehicular, rail, and pedestrian movement. The elevation allows for uninterrupted travel in an North/South direction on the structure and in an East/West direction underneath.

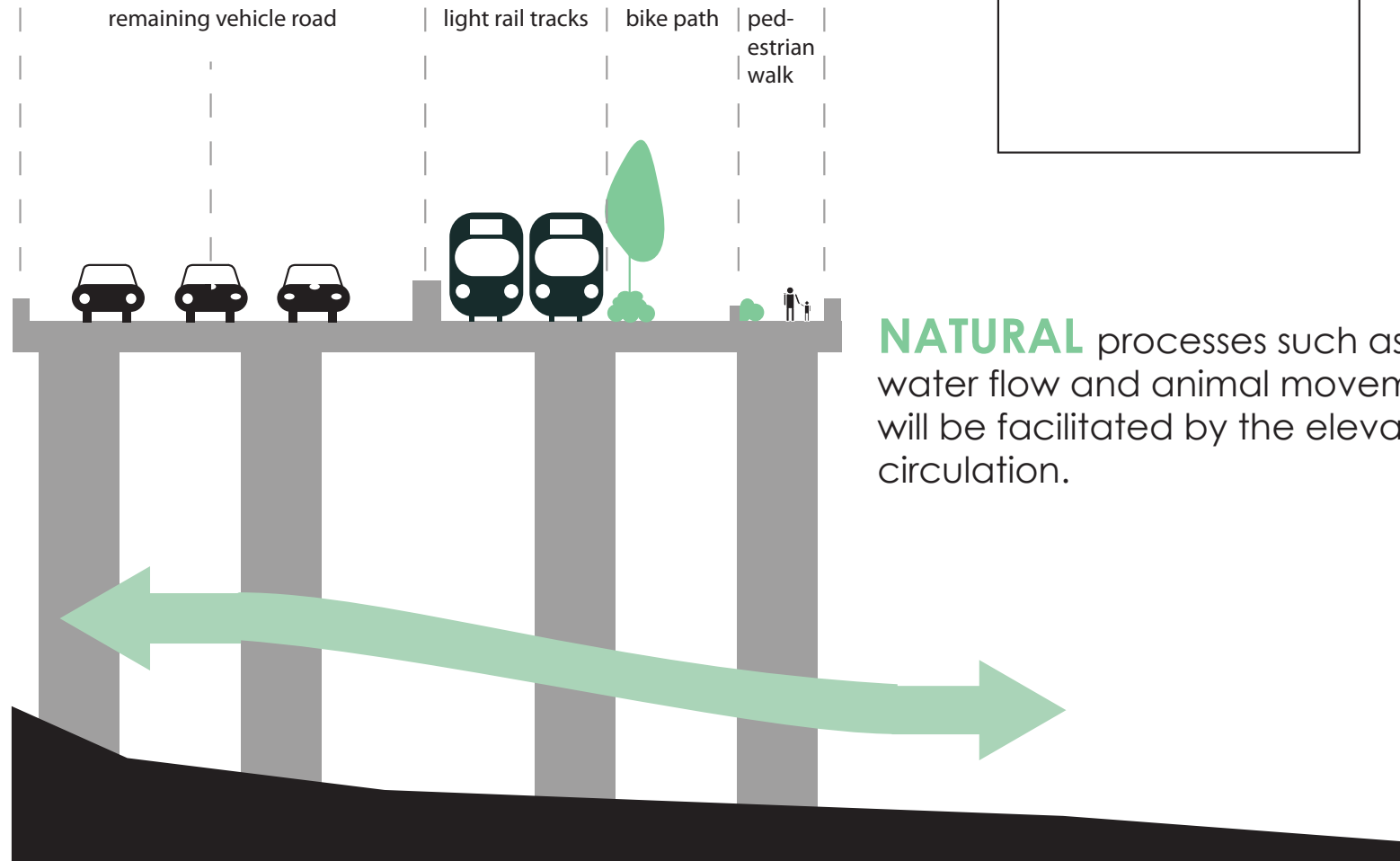


Figure 20: Section of the new Interstate 280 and the division of uses.

ENVIRONMENTAL flows of the tide and water shed are complimented by the constructed wetlands that allow for wildlife to flourish without interruption.

SOCIAL movement is aided by the elevated wetland walks that allow for observation and education about natural systems of the existing coast line.

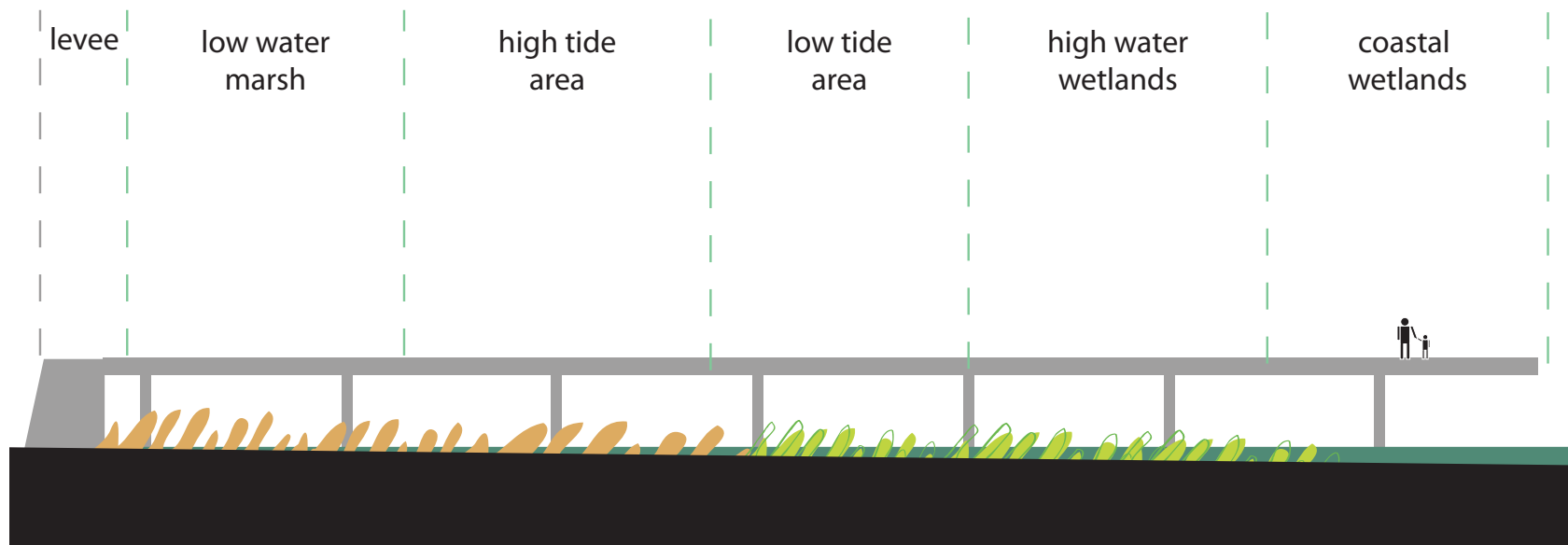


Figure 21: Section cut of the wetland walks as they interact with the surrounding ecosystems.

ENVIRONMENTAL features such as the bay and wetlands meet at this juncture and allow for the movement and function ecological functions.

SOCIAL features such as boating docks and a bayside promenade allow for interaction and movement of people and programs in a new way.

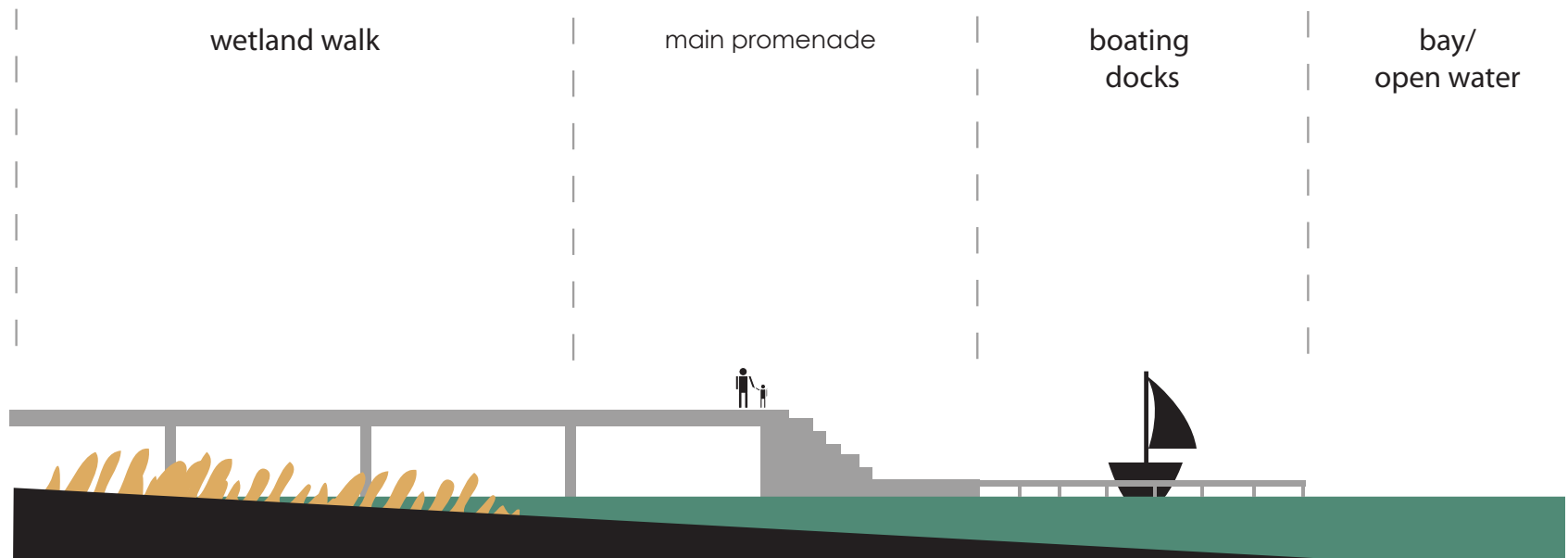
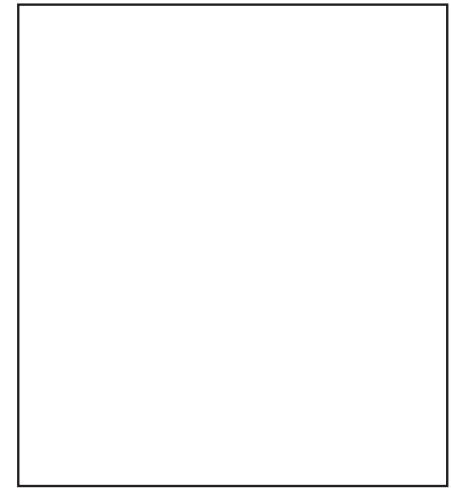


Figure 22: Section cut of the wetland walk and bay side promenade.

LIGHT RAIL STATIONS

The light rail station exists alongside a biking and walking path elevated 40 feet off the ground. Here, the wetland walk connects up with the existing grid and infrastructure to allow for ease of movement to other destinations. Tall trees provide a noise barrier from the traffic zipping by on the other side, while at the same time offering a unique experience to walk amongst the tree tops. The design of the station is meant to inspire movement and new ideas of how to use old objects. The wings provide shade for the passengers who are waiting, but at the same time use photovoltaic cells to capture the sun's energy and use it to power the lights and display boards. A unique integration of the built and the natural come together at this point and remind us of what this project is all about.



Figure 23: Perspective of light rail station and 280.

WETLAND WALKS

Elevated more than 10 feet of the ground, these walkways offer a chance for users to experience nature in new ways. As the thriving ecosystems move in and out of the coastal wetlands, people can traverse these walks for purposes of education and entertainment. Small structures in the bends of the walkways can be used as educational centers while the steps that dip into the landscape offer opportunity for a closer meeting with nature. This is an important feature of the site as it begins to blur the lines of how the built and the natural have interacted in the past.



Figure 24: Perspective of the elevated wetland walks.

POCKET PARKS

These parks that create a green "chain" through the grid of the streets offers green spaces for residents and visitors alike. The parks create a buffer zone between the commercial and mixed use zones as they begin to transition into the residential. Residents living here will always have some open space to access and use for playing and gathering. As they will be hidden from view of the more public areas, they will more serve those who use them on a daily basis. They also will offer relief from using sidewalks along busy streets as modes of walking and biking paths. In terms of ecosystem services, water from rain runoff will flow through these areas towards the wetlands and will be filtered out as the water runs past the vegetation.



Figure 25: Perspective of a community pocket park

THE DOWNTOWN

The main shopping area for the sites residents and visitors will be the small scale downtown. The goal here will be to create a more historic-feeling experience which calls back to a time before high buildings with cold facades. The small downtown shops will offer quality goods and services and amenities such as bakeries, boutiques, coffee shops and so on. No vehicles will be allowed in this area. Foot traffic will be the only kind that will be found on site. Young and old alike will mix and mingle in this escape from the big and bold moves of the surrounding landscape. It will definitely become a prime destination for all those who visit.



Figure 26: Perspective of the downtown shopping area.

OPEN SPACE

The large and expansive open space that greets users as they head towards the bay offers many opportunities for large events and a multitude of programs. Community gatherings will dot the landscape and large outdoor activities will be the main focus of this space. Weary travelers can take rest underneath a large tree or two and take in the cool bay breezes. A moment of relaxation and reflection will refresh those who are out and about in this useful and beautiful open landscape.



Figure 27: Perspective of open space and expansive park.

BAY SIDE PROMENADE

The terminus of this long and varied mall that has spanned the site from Interstate 280 till now is the Bay Side Promenade. It is a refreshing final destination where two worlds of land and water meet in harmony. The large open space gradients into marsh and wetland which then retreats into the bay allowing small personal boats to dock on the piers. A new coastal destination has been created that can bridge the gap between the natural and the built as well as the old and the new. This shoreline destination offers the perfect end to a journey through many different landscapes and experiences ranging from elevated bike paths and light rail tracks to wetland walks, small downtowns and expansive open spaces.

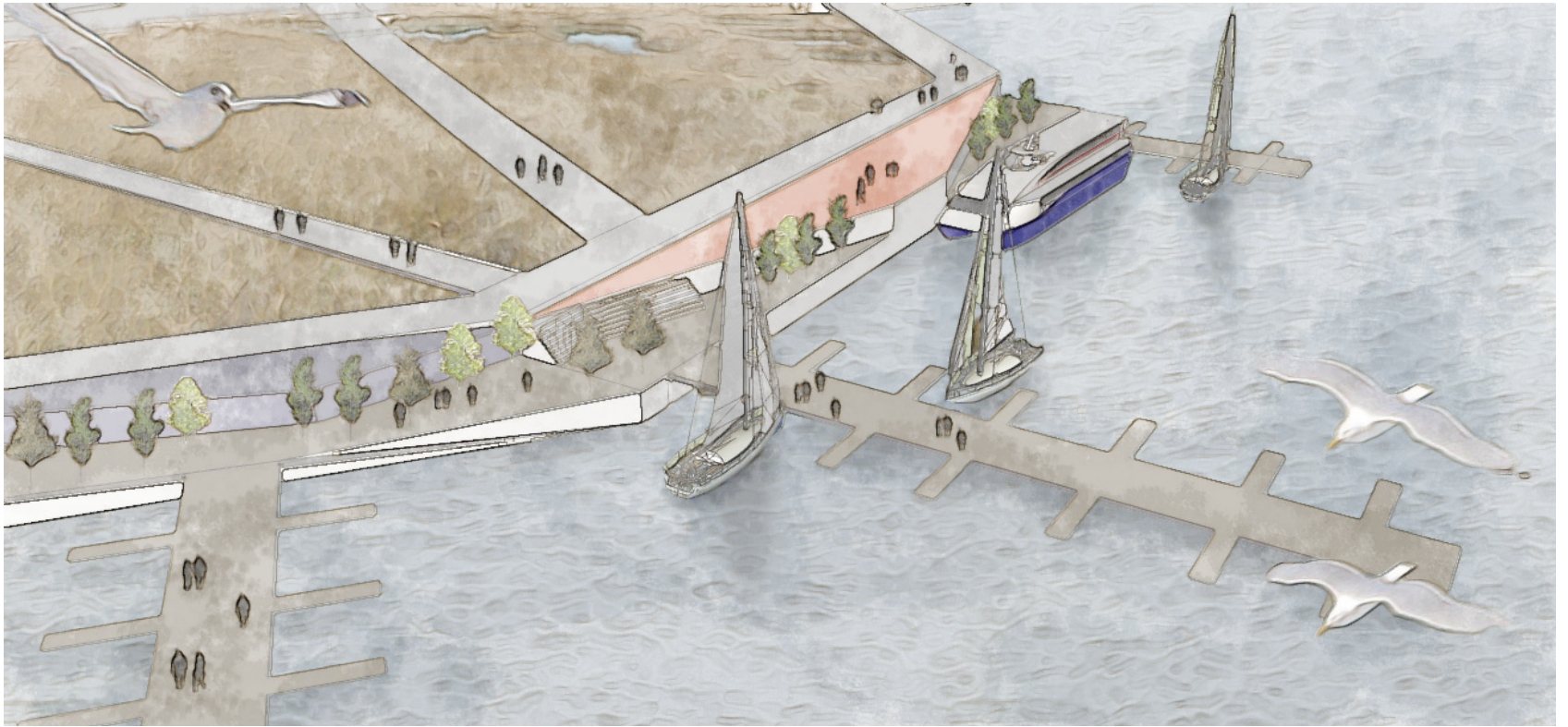


Figure 28: Perspective of bay side promenade and docks.

DESIGN: phasing

It is only possible to approach this overall site design with an optimistic attitude if it can be envisioned as a feasible project. The key to this is the implementation of phases that span the rest of this century, and perhaps, beyond. The following three phases are based upon ideas of how the site, and the design, will grow and develop based upon each subsequent phase.

Phase I

Phase One is to be implemented within the next 10 to 15 years. It will address the pressing need to make the site more accessible to the surrounding

context. As was discussed earlier, the downtown city center, cultural Mission District and residential Bayview areas will need to be able to access the site without the need of personal vehicles. The biggest move will be to shut down the North-bound lane of traffic on Interstate 280 and begin establishing the light rail that is to be the backbone of the site.

Phase II

Phase Two will be projected to begin around the middle of the century, 2050 or so. After the light rail and alternative transportation is established, the complete dismantlement of unusable features that were once part of the industrial area, must be disposed of. This will open up the landscape to begin its transformation into a natural ecosystem of marsh and wetland areas. This will allow the development of natural systems on site and by the end of the century, the final phase will be carried out.

Phase Three

Once the native planting areas are healthy and functioning, it will be easy to build and develop around these established landscapes. The final piece of the project will be the incorporation of social elements that will ensure the welfare and well-being of the site and its integrity. Of course, constant development will be occurring on site throughout the century, however it is important to have goals and benchmarks to measure the rate of growth in progress of the site.

If all three phases are met and carried out with attention and care, then smaller issues and details can be easily taken care of and the site will soon become more than a vision of the future, but a reality of today.

CONCLUSIONS

The issues of today's environmental and social relations is a complex mix of imbalances and impartial attitudes. The goal of this project was to address a global issue on a neighborhood levels. While these two scales can seemingly be disjointed in many areas, the fact of the matter is that there is a connection between the biggest issues that the world faces and the biggest issues an individual faces. Starting with a social paradigm change in the way our environment is treated is the driving force behind long-term change. However, it is important not to get too caught up in the issues of the present. An ability to look towards our future is as important for us as it is for the environment. Although no one

can truly predict what the future holds, the mindset of thinking beyond the present moment is a healthy practice that must begin to take root if society and the environment are to heal the wounds that have been created by our oversight of present issues and inability to look towards the future.

THANK YOU

Berger, Alan. *Drosscape: Wasting Land in Urban America*. New York: Princeton Architectural, 2006. Print.

California Highways: Everything You Ever Wanted To Know About Numbered Highways in California. Web. 5 Apr. 2011. <<http://ca-highways.org>>.

Canniffe, Eamonn. *Urban Ethic*. London: Routledge, 2006. Print.

Corner, James, and Alex S. MacLean. *Taking Measures across the American Landscape*. New Haven: Yale UP, 1996. Print.

The High Line. Web. 21 Mar. 2011. <<http://www.thehighline.org>>.

Meyer, Han. *City and Port: Urban Planning as a Cultural Venture in London, Barcelona, New York, and Rotterdam : Changing Relations between Public Urban Space and Large-scale Infrastructure*. Utrecht: International, 1999. Print.

Oakland Museum of California. Web. 22 Apr. 2011. <<http://museumca.org>>.

"San Francisco, California (CA) Profile: Population, Maps, Real Estate, Averages, Homes, Statistics, Relocation, Travel, Jobs, Hospitals, Schools, Crime, Moving, Houses, News, Sex Offenders." *Stats about All US Cities - Real Estate, Relocation Info, House Prices, Home Value Estimator, Recent Sales, Cost of Living, Crime, Race, Income, Photos, Education, Maps, Weather, Houses, Schools, Neighborhoods, and More*. Web. 10 June 2011. <<http://www.city-data.com/city/San-Francisco-California.html>>.

San Francisco Planning Department : Home. Web. 10 June 2011. <<http://www.sf-planning.org>>.

"Seattle Parks and Recreation Home Page." *Seattle.gov Home Page - The Official Web Site for the City of Seattle, Washington*. Web. 20 Mar. 2011. <<http://www.seattle.gov/parks>>.

SFBCDC - San Francisco Bay Conservation and Development Commission. Web. 10 June 2011. <<http://www.bcdc.ca.gov>>.

Simonds, John Ormsbee., and Barry W. Starke. *Landscape Architecture: a Manual of Environmental Planning and Design*. New York: McGraw-Hill, 2006. Print.

Torre, L. Azzo. *Waterfront Development*. New York: Van Nostrand Reinhold, 1989. Print.

Transit Oriented Development. Web. 7 Mar. 2011. <<http://www.transitorienteddevelopment.org>>.

US Environmental Protection Agency. Web. 10 June 2011. <<http://www.epa.gov>>.

Welcome to the USGS - U.S. Geological Survey. Web. 10 June 2011. <<http://www.usgs.gov>>.

