



# From Nothing to Something

**Repurpose and Restoration of Abandoned Railroads**





**Elaine Palacios**  
**UC Davis**

**Landascape Architecture**  
**Senior Thesis**

**2013**





Presented to the faculty of the Landscape Architecture Department of the University of California, Davis, in partial fulfillment of the requirements for the Degree of Bachelor of Science in Landscape Architecture.

Accepted and Approved by

---

Stephen Wheeler, Senior Project Faculty Advisor

---

Jennifer de Graaf, Committee Member

---

Brett Milligan, Committee Member

---

Michael Rios, Committee Member





# TABLE OF CONTENT

**Signature Page**

**Table of Content**

**List of Illustrations**

**Abstract**

**Acknowledgements**

**Section One:** Introduction

**Section Two:** Background

**Section Three:** Project Description

**Section Four:** Current Conditions

**Section Five:** Case Studies

**Section Six:** Design Ideas

**Section Seven:** Final Design



# LIST OF ILLUSTRATIONS

Figure 1: Rails, pg 4, [http://static6.depositphotos.com/1059667/587/i/950/depositphotos\\_5872623-Texture-of-railway-tracks-on-gravel.jpg](http://static6.depositphotos.com/1059667/587/i/950/depositphotos_5872623-Texture-of-railway-tracks-on-gravel.jpg)  
Figure 2: Alameda Theater, pg 17, <http://pp2.walk.sc/full/production/51093.jpg>  
Figure 3: California, pg 20, E. Palacios  
Figure 4: Island of Alameda, pg 20, E. Palacios  
Figure 5: Site, pg 21, E. Palacios  
Figure 6: Alameda main area of trains, pg 23, <http://picture.abandonedrails.com/19h22pvl.jpg>  
Figure 7: Rails and Nature, pg 29, [http://3.bp.blogspot.com/-qHCi3HqcVCE/UXrRjvRt\\_DI/AAAAAAACU8/TDjDZoWswbQ/s1600/IMG\\_1031.JPG](http://3.bp.blogspot.com/-qHCi3HqcVCE/UXrRjvRt_DI/AAAAAAACU8/TDjDZoWswbQ/s1600/IMG_1031.JPG)  
Figure 8: Picture of site, pg 33, E. Palacios  
Figure 9: Street graphic, pg 34, E. Palacios  
Figure 10: Zoing graphic, pg 35, E. Palacios  
Figure 11: Census graphic, pg 37, E. Palacios  
Figure 12: Surrounding businesses graphic, pg 38, E. Palacios  
Figure 13: Available transportation graphic, pg 39, E. Palacios  
Figure 14: Circulation graphic, pg 40, E. Palacios  
Figure 15: Opportunities graphic, pg 41, E. Palacios  
Figure 16: Consratints graphic, pg 42, E. Palacios  
Figure 17: Promenade Plantee, pg 45, <http://www.afar.com/highlights/la-promenade-plantee>  
Figure 18: Shelby Greenline, pg 49, <http://greatermemphisgreenline.org/>  
Figure 19: Shelby Greenline, pg 49, <http://greatermemphisgreenline.org/>  
Figure 20: Midtown Greenway, pg 50, <http://www.flickr.com/photos/mspdude>  
Figure 21: Midtown Greenway, pg 50, <http://www.flickr.com/photos/mspdude>  
Figure 22: Reading Viaduct, pg 53, <http://readingviaduct.org/>  
Figure 23: Reading Viaduct, pg 53, <http://readingviaduct.org/>  
Figure 24: Promenade Plantee, pg 54, <http://www.afar.com/highlights/la-promenade-plantee>  
Figure 25: Promenade Plantee, pg 54, <http://www.afar.com/highlights/la-promenade-plantee>  
Figure 26: NY High Line, pg 57, [http://farm4.staticflickr.com/3412/3248351149\\_c86e848342\\_b.jpg](http://farm4.staticflickr.com/3412/3248351149_c86e848342_b.jpg)  
Figure 27: Seeding Hand, pg 67, <http://seedfreedom.in/wp-content/uploads/2012/10/seedling.jpg>  
Figure 28: Master Plan, pg 71, E. Palacios  
Figure 29: Master Plan, Detail A, pg 72, E. Palacios  
Figure 30: Master Plan, Detail B, pg 73, E. Palacios  
Figure 31: Path heading to the east side of the site. Demonstrate sculpture rails and ecological restoration, pg 77, E. Palacios  
Figure 32: Southwest side of the site. View of existing street and the area behind the stage, pg 78, E. Palacios  
Figure 33: Transiiton from east to west area. Again, demonstrating sculpture rails and also showing comminuty garden area, pg 79, E. Palacios





# ABSTRACT

With advancements in transportation methods, traditional forms of transportation, such as trains, have been forgotten or are not being used to their full capacity. The city of Alameda, California, once a hot spot for trains, is now a place where many abandoned rails are found throughout the island. Many to this day, are still abandoned and no real purpose has been designated to them.

For my Senior Project, I will research the history of the island of Alameda to get a good grasp of what Alameda needs and wants. Furthermore, I will research how places in the United States and around the world have responded to abandoned rail lines and how successful or unsuccessful they are. In addition, I will choose a section of the rails in Alameda to repurpose and restore, while looking at how the current users use and interact with the area.





# ACKNOWLEDGEMENTS

I want to thank my committee members:

Jennifer de Graaf, Brett Milligan, and Michael Rios for being there and offering support and being a valuable resources.

THANKS!!

# SECTION ONE: INTRODUCTION



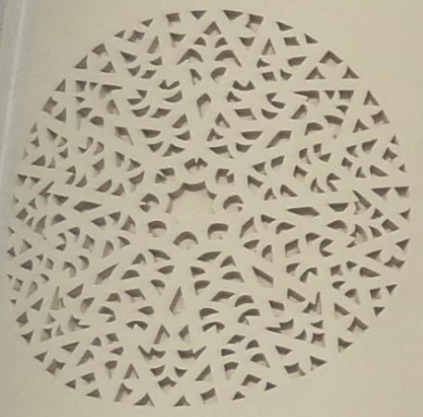
THE CORKAGE MON  
AND TUES  
FOR I VICOLO PIZZA WED

ALAMEDA WINE CO

OLYMPUS HAS FALLEN  
SPRING BREAKERS  
BURT WONDERSTONE

ALAMEDA THEATRE  
THE CROODS  
VERTIGO MARCH 26 AND 27

A  
L  
A  
M  
E  
D  
A



With the rising trend in acting and being sustainable, more and more people are willing to repurpose and restore various sites throughout various cities. Many urban hotspots, like San Francisco, Chicago, Pennsylvania, etc, once were cities that had bustling train culture, but now are ghosts of what once was.

In recent times, the idea of “Rails to Trails” is a growing idea and method. The idea of “Rails to Trails” is when old abandoned train tracks are transformed to trails that the surrounding community had access to.

To further this idea, “Jeff Ciabotti at the Rails-to-Trails Conservancy, in Washington,

explained the term “railbaking”...Railbanking is one of the ways that [one] can create a trail on an old rail line (Hammond & David, 2011).

My goal with this project is to find an abandoned rail line and transform it for the multitude of benefits that this has to offer. When looking, I didn’t need to go far, because the Bay Area is enveloped in train lines and lines that were once used.

The next phase was to pick a place in the Bay Area that had potential. Places like San Francisco and San Jose, are places that already have a lot of attention. I wanted a place that was a “diamond in the ruff” and that’s when I came upon Alameda.



# SITE



Figure 3

The island of Alameda is located in California, within the Bay Area.



Figure 4

Within the island of Alameda, the site of my project is found Northeast of the island.

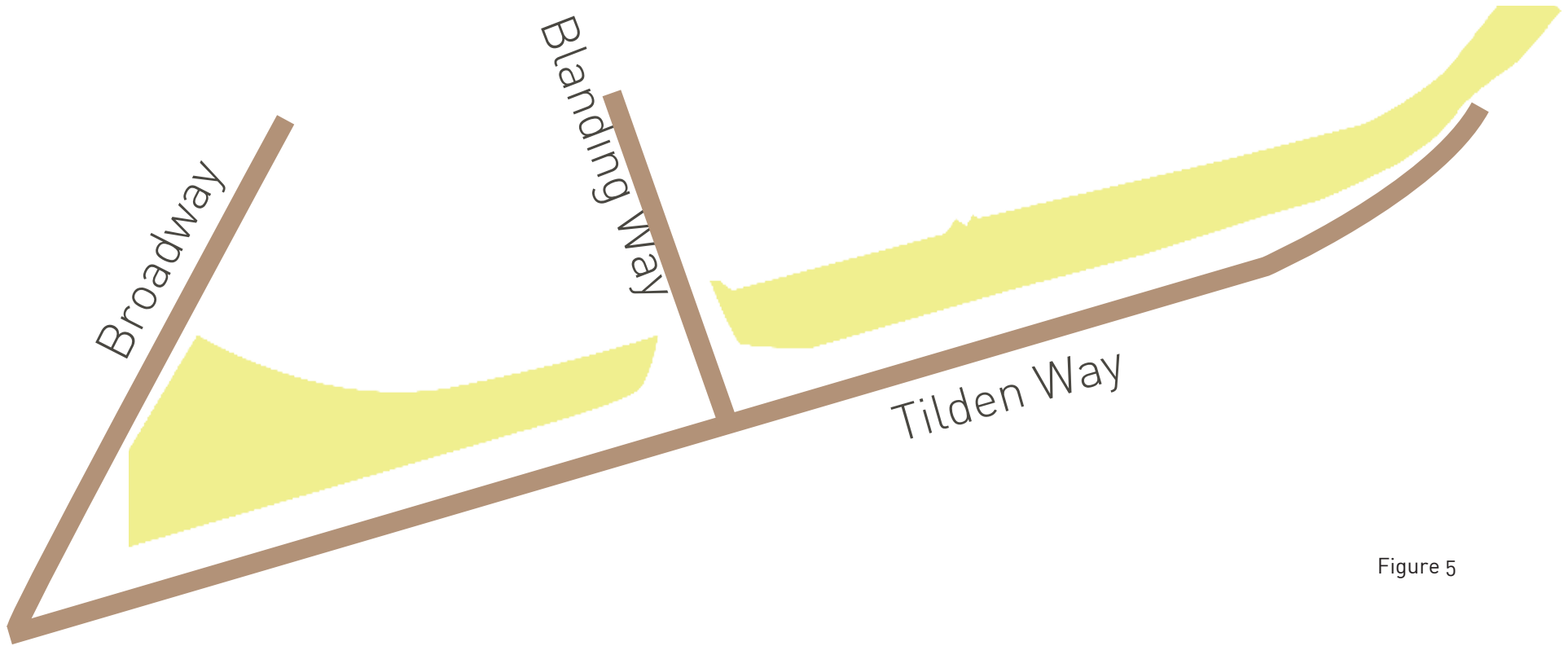
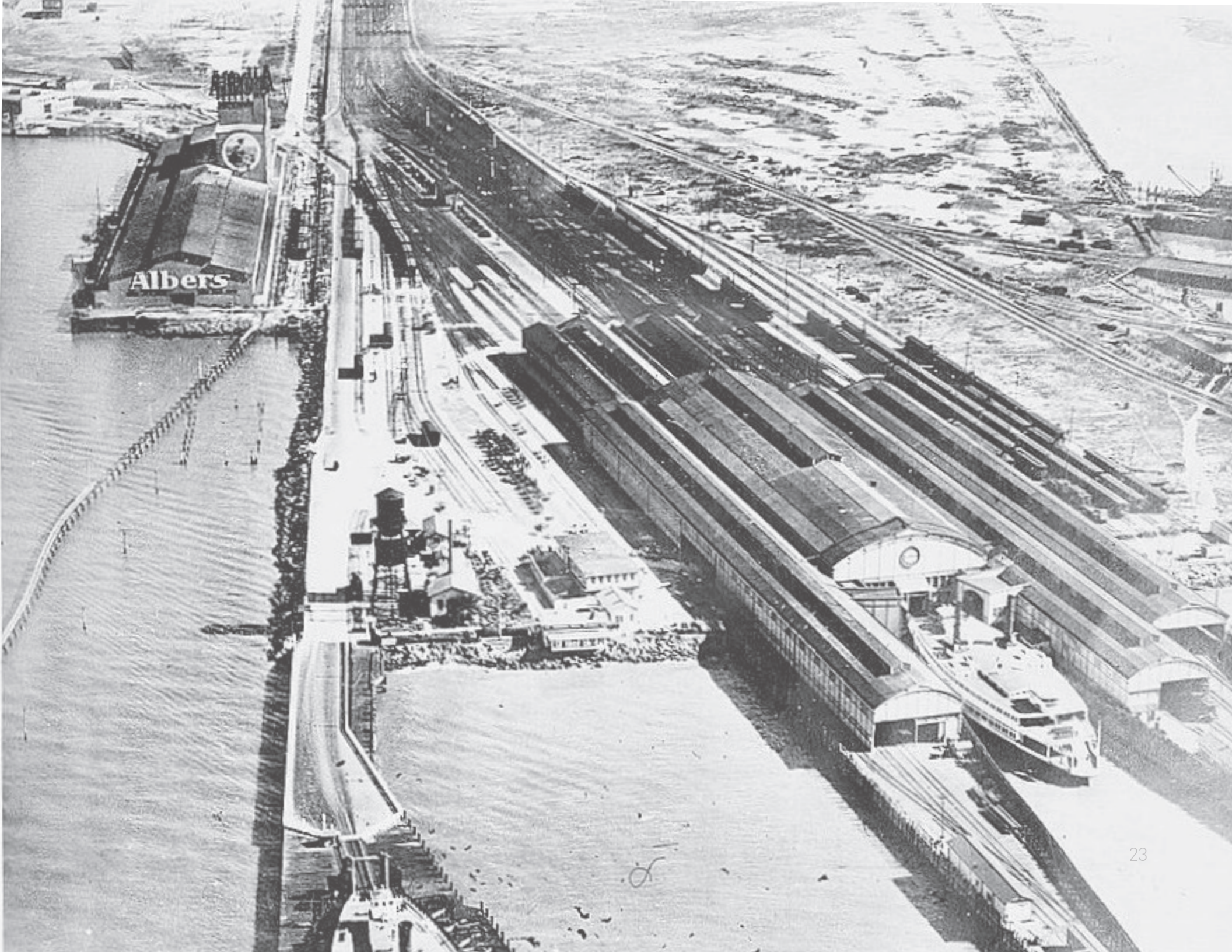


Figure 5

The site is made of two sections. The left is the area where trains would load and unload their products.

This area consist of train lines only. In addition, this area is exposed to a waterfront and has a view to the Fruitvale Bridge.

## SECTION TWO: **BACKGROUND**



Across the bay from San Francisco, the island of Alameda is an island that is known for its Naval Air Station and Victorian architecture. What many do not know is that Alameda once was a busy railroad town.

Alameda, once a hot spot for trains, now is a place where unused railroads exist. The Fruitvale railroad bridge carried its final freight train in 1998. The last passenger train took its last riders in 1942. Furthermore, ferries have not departed the Alameda Mole since 1939, although the 1991 Loma Prieta earthquake created a modest attempt to restore the ferry service to the East Bay.

For nearly 75 years, Alameda was a tight mesh of railroad tracks that carried passengers to ferry boats going to San Francisco and over bridges to Oakland.

The only sign of what once was are the limited amount of train tracks, which are largely abandoned. Some of the lines that remain are located in Blanding Way and Clement Avenues, where part of the freight-carrying Alameda Belt Line was located.

The less fortunate tracks, which have been completely abandoned, are located along the width of Lincoln Avenue, the long curve of Tilden Way, the corner where Encinal and Central Avenue intersect, Marshall Avenue's reverse "Z" connections of Lincoln and Pacific Avenues and the diagonal segments of Eighth Street and Constitution Way.



Alameda became integrated into the rail system in 1864. Alameda consisted of an oak and marsh ecosystem, with three distinct settlements: Woodstock in the west, San Antonio Creek, and “Old” Alameda centered on Encinal Avenue and High Street.

In 1874, with the help of Oakland, the Act of Congress, and the Army Corps of Engineers, began the construction of the tidal canal. After 28 years, it connected the basin to San Leandro Bay and turned Alameda from a peninsula into an island.

By the end of 1864, the trains of its first railroad, the San Francisco and Alameda, ran easterly from Woodstock and reached a station built in the area of what is now known as Pearl Street and Fernside Avenue.

Within five years, Alameda became the first tidewater terminal of the first transcontinental railroad.

Alameda was not the intended end of track for the Central Pacific, which initially built eastward from Sacramento in a race with the oncoming Union Pacific for land and money that finally ended at Promontory Point in Utah.

Oakland was where the grand plan took the railroad. Alameda, however, was in the right place at the time when, after the rails met on May 10, 1869, the Central Pacific began its rush from Sacramento to a saltwater port.

On September 6 1869, Alameda briefly became the Pacific anchor of the Transcontinental Railroad. When the Central Pacific finally reached Oakland's newly built pier on November 8, 1869, all transcontinental trains were immediately diverted there and Alameda's service was reduced to local trains to and from Hayward.

The Alameda Mole (built in 1903) served until the Bay Bridge replaced the ferryboats.

By 1911, 88 weekday trains passed daily through Park Street North Station on the Lincoln Line, 69 through the Park Street South Station on the Encinal Line, and 70 between the Alameda Mole and Fourteenth and Franklin Streets. (19) December 18, 1911 was the last day of suburban steam service in Alameda (Ute & Singer 2007).



**SECTION THREE:**

# **PROJECT DESCRIPTION**







As the economy progressively becomes better, areas in the Bay Area of California are investing in updating their city layout and infrastructure. In addition, many cities are becoming more connected with their community and are striving to satisfy community needs and promoting a healthier life style. One city that is currently in the very beginning stages of this progress is the city of Alameda. Alameda is an island that is located west of San Francisco and South of Oakland. The city of Alameda has a lot of history, but has reached a point where they find themselves stuck in the past and has developed many abandoned spaces.

Currently, the city of Alameda is in search of many things. Some of these include a community garden; provide a space for education and opportunity for partnership with local schools, public workshops, and much more. Alameda has great potential and many opportunities and for my Senior Project, I would like to satisfy many of these needs. In the best circumstances, I would love to have the whole island as my project, but realistically, this is not possible. The Senior Project has a time frame of 3 months, and as a result, my goal is to focus on some aspects of the island that I believe can be implemented almost immediately and would provide the most benefit to the surrounding community.

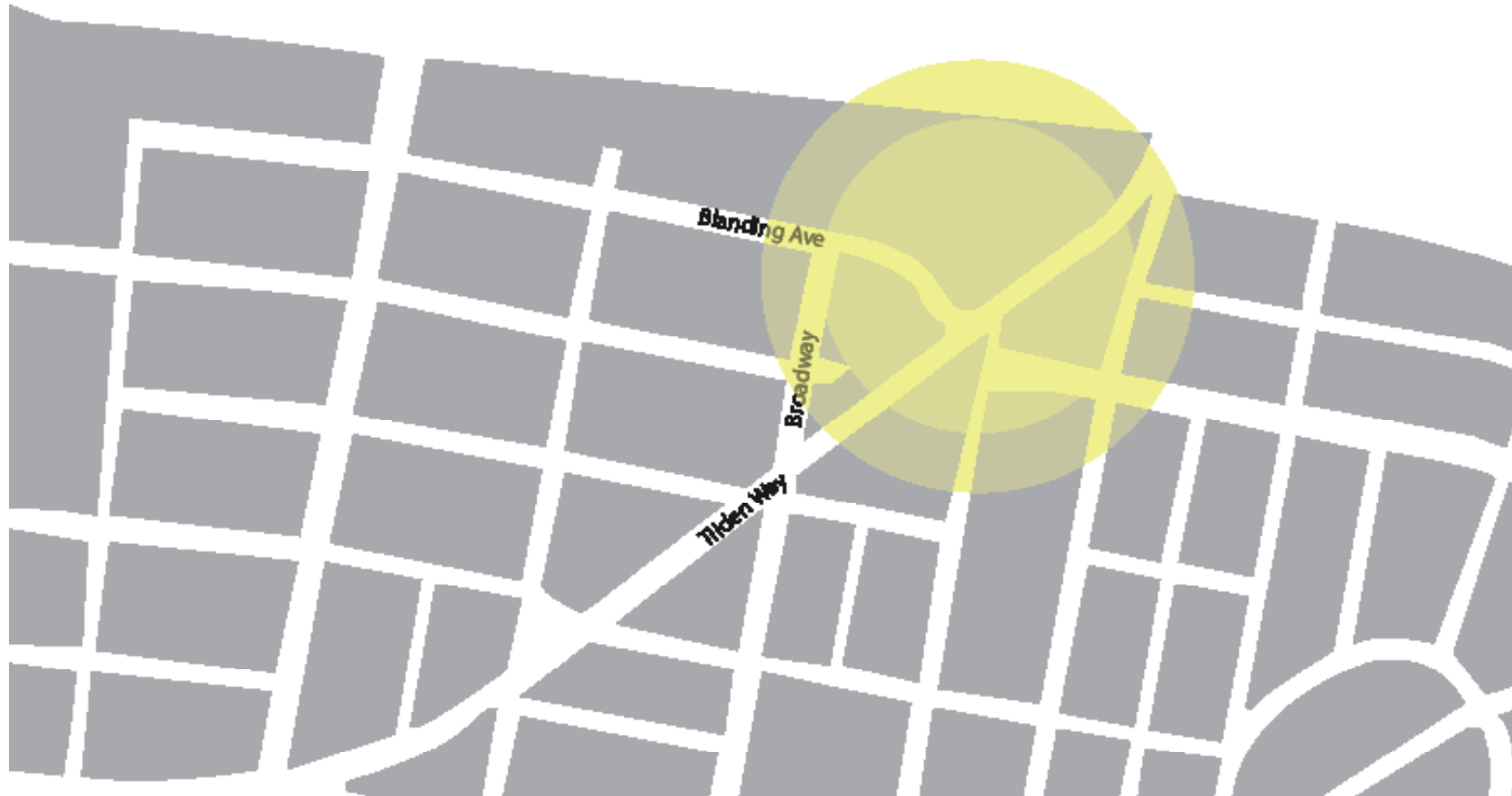
**SECTION FOUR:**

# **CURRENT CONDITIONS**

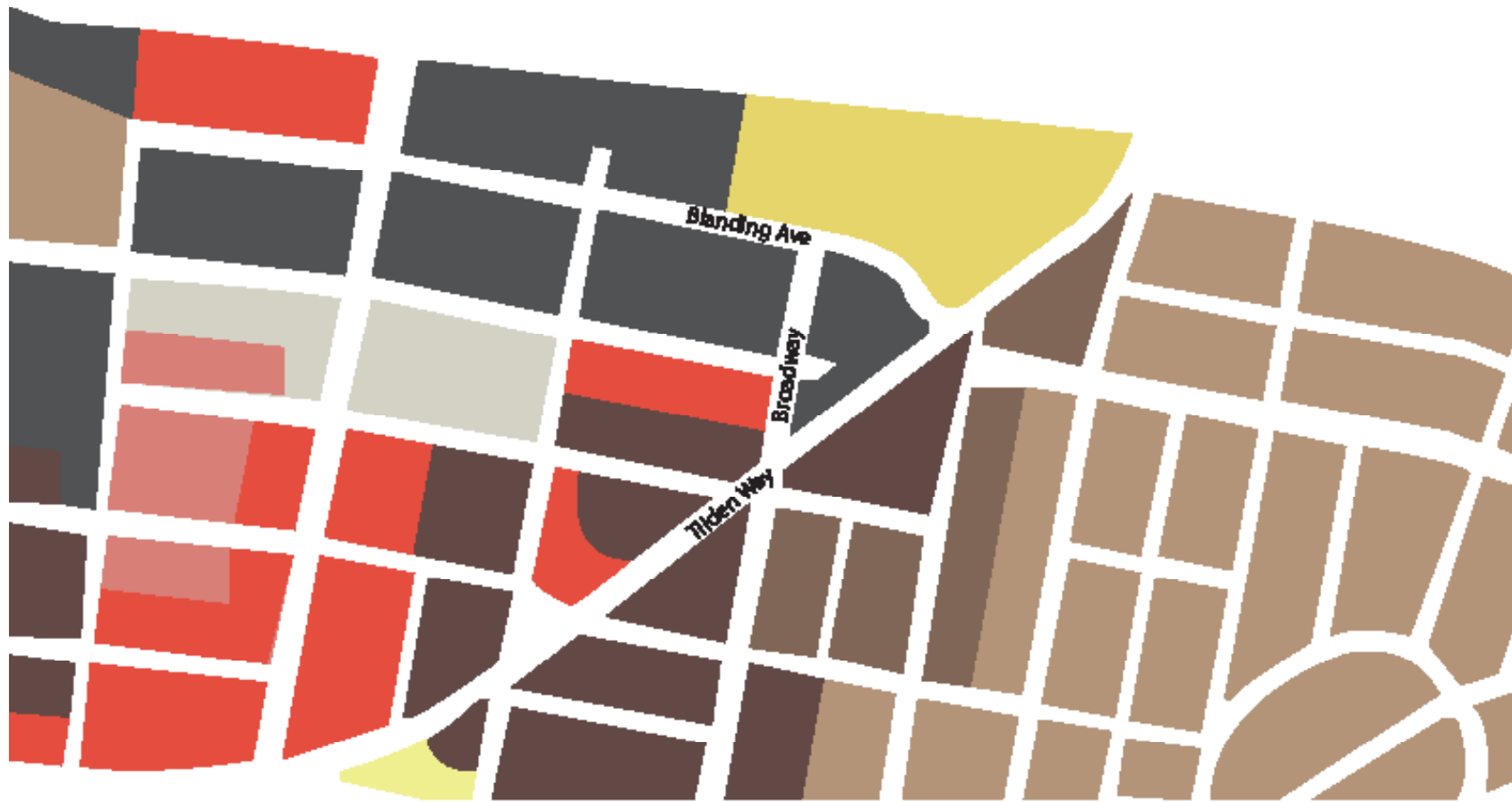




## Site and Zoning Map:



This is an image of the site and its surrounding area.



This image demonstrates the zones that are located around the site. As you can see, one side is mainly residential and the other is split between commercial and industrial.

## **Conclusion of Zoning Map:**

Based on the zoning map, some assumptions of the users surrounding the site can be made. Furthermore, based on various visits to the site, one can say that the users typically surrounding the site are:

**-Habitants of the residential areas around the site**

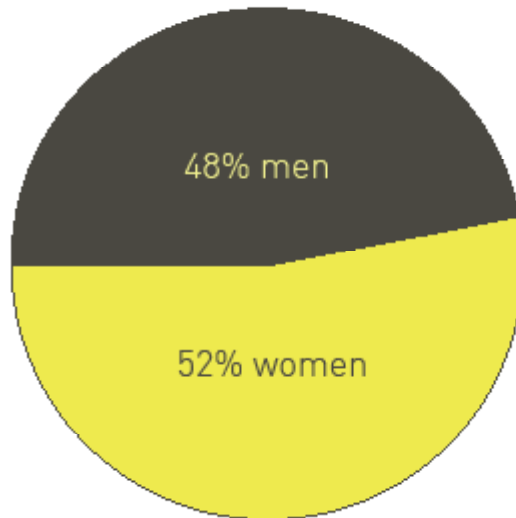
**-Employees from the surrounding commercial areas**

**-People who are visiting Alameda**

# Alameda Census:

72,259

Total people in Alameda



65%

are between 18 - 64 years old

## Housing:



52.1% 47.9%

of these...

27.2

Percent

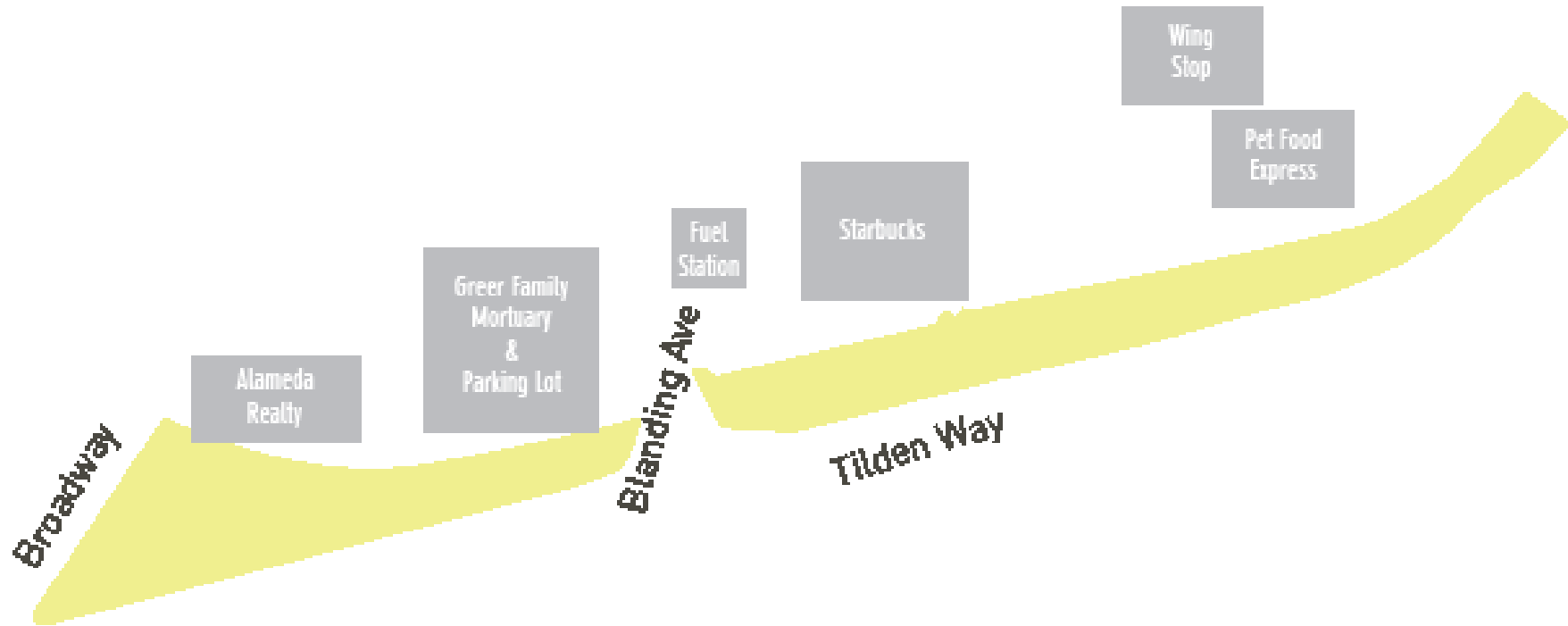
have a bachelors

15

Percent

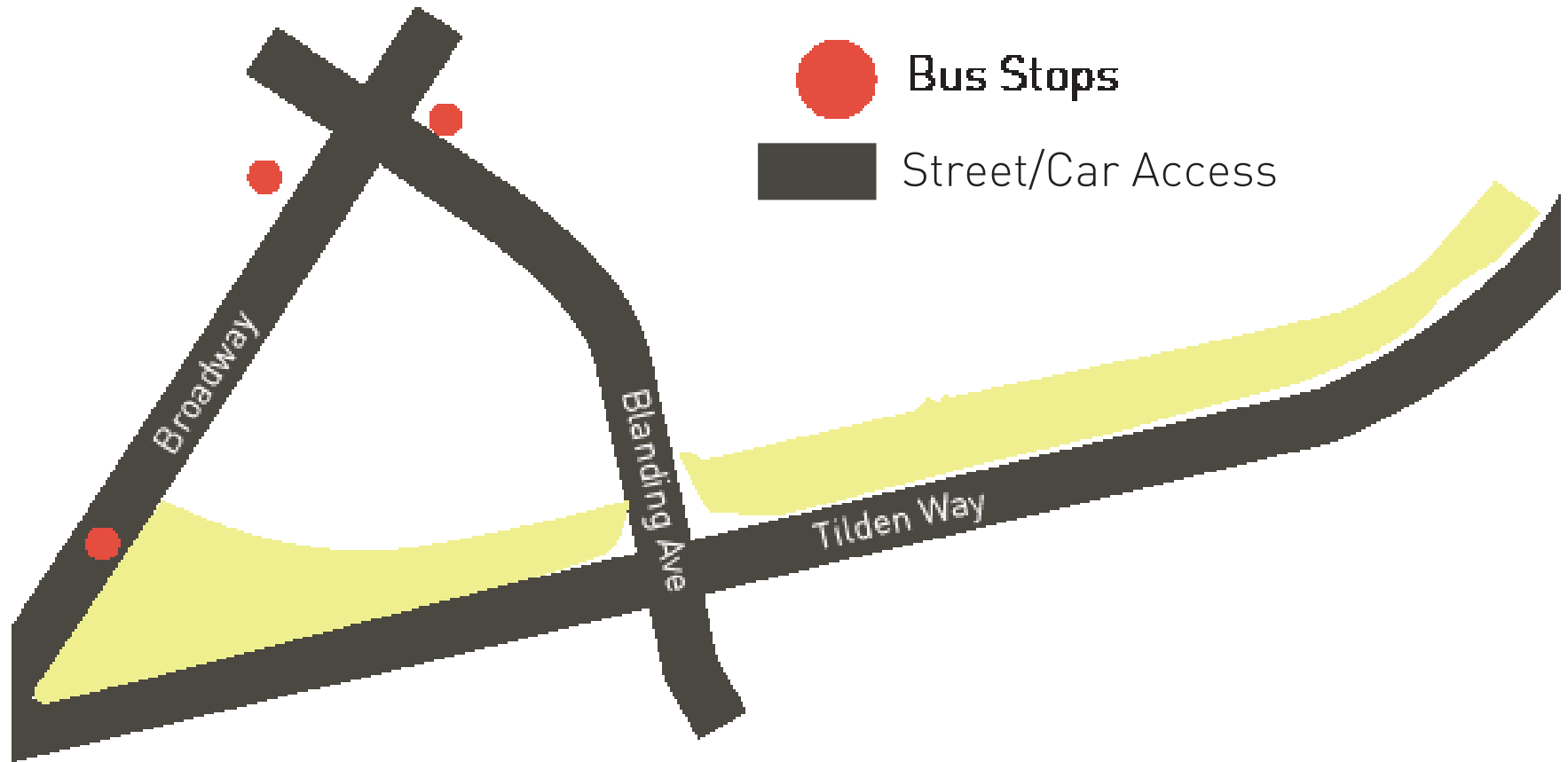
have a graduate or professional degree

## Surrounding Businesses:



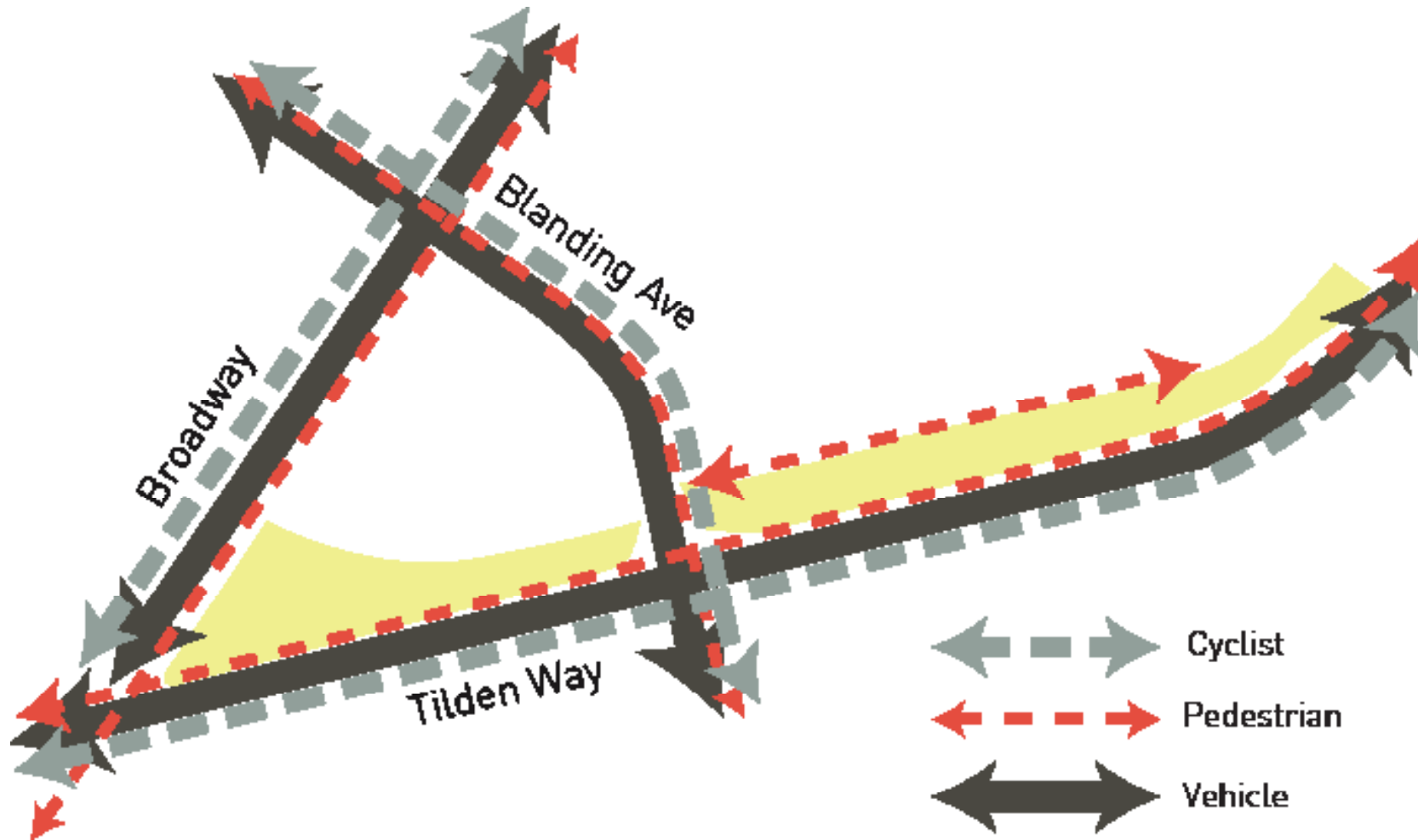
The site is a strip of land that divides a commercial area and residential. To the north, all the businesses are located. South, a residential area is found.

## Transportation:



Very close to the site are three bus stops. Furthermore, the site has multiple access points to streets.

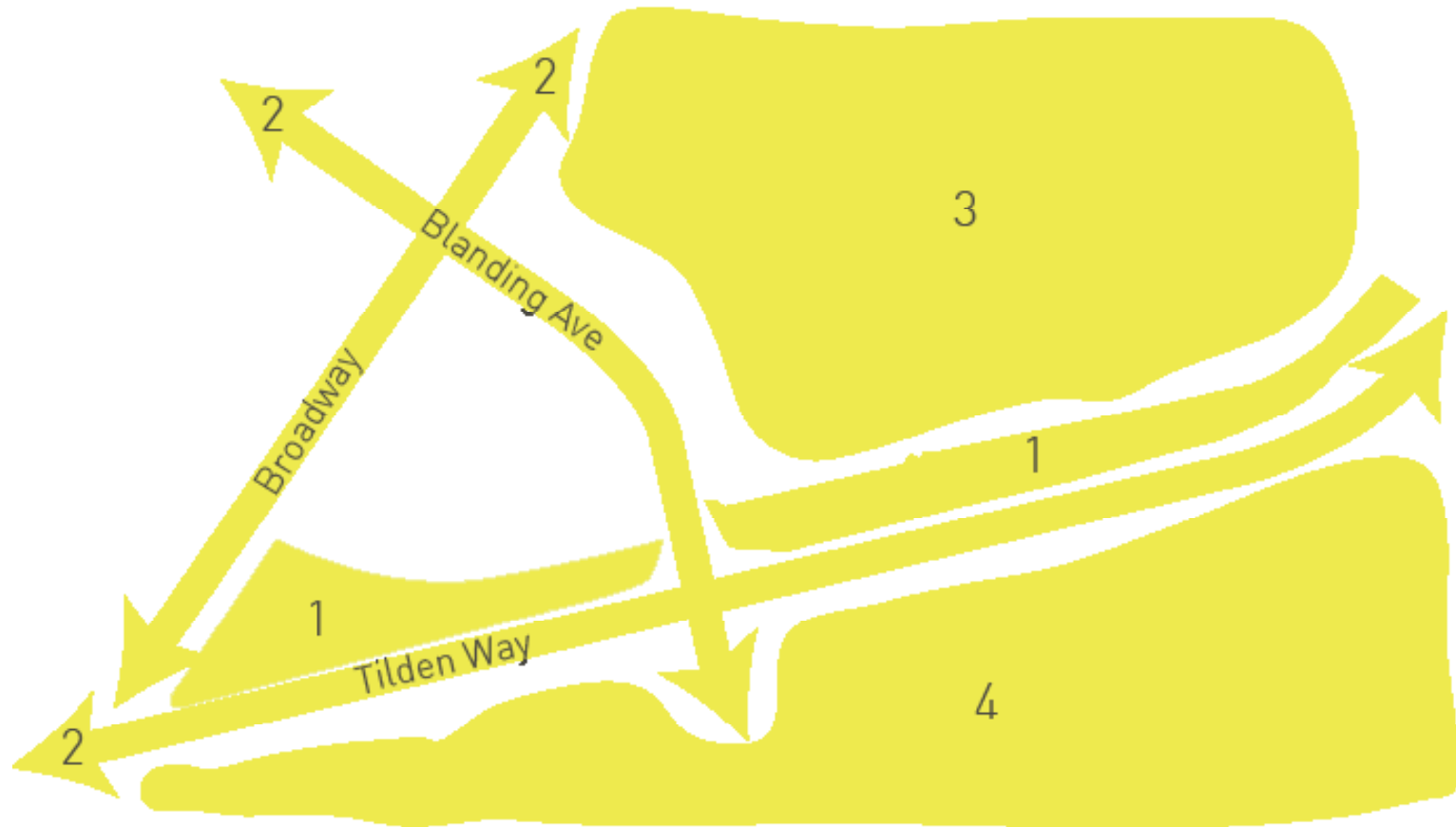
## Circulation:



The three main types of circulation as found at the site. This can predict good exposure to the site.



## Opportunities:



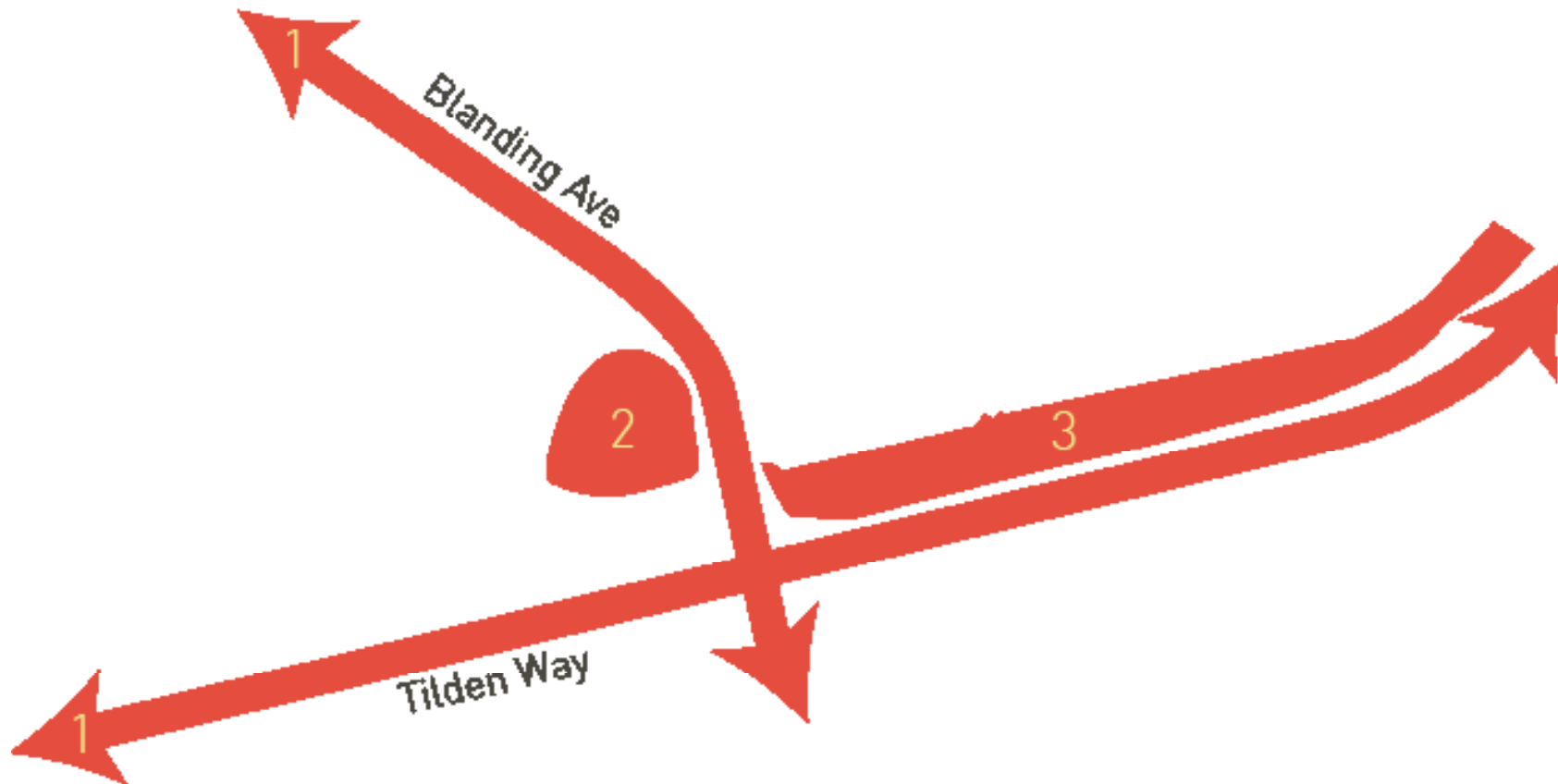
1. This is the site and the area is empty, in exception of the loading platform. In addition, a natural meadow has been developing.

2. These are heavily used streets. Gives the site great visibility.

3. This is where a popular shopping area is. Great for visibility and because of their parking lot, this can be used when visiting the site.

4. This is a residential area. Easy access to the site from the residential area.

## Constraints:



1. These streets are heavily used. This means that this can be Unfriendly to pedestrians.
2. This is a mortuary. It can be unappealing to visitors of the site.
3. This area is extremely abandoned and is covered in trash and invasive plant species.



**SECTION FIVE:**

# **CASE STUDIES**





For an successful design of the site, various examples of abandoned rails converted into open green spaces have been reviewed. Here are some examples that are successful and relate the most to the site.

# Shelby Farms Greenline:

## Memphis, Tennessee.

(Also known as Memphis Greenline and Broad Street Connector)

The Greater Memphis Greenline Inc (GMGI) is an organization of local leaders on a mission to develop a world-class network of trails, parks, and greenways. The group's first assignment is the Shelby Farms Greenline. The Shelby Farms Greenline (built in 2010) is a 6.7-mile trail that goes through one of the country's largest urban parks. Shelby has many goals, these are to create community gardens, create economic development, and have public and private partnership. In regards to community gardens, from 1929 to 1964, Shelby Farms served as a working farm for prisoners of the Shelby County Jail. As homage to this, there is a large strip of gardening areas near the trail. A primary motivator for creating the Greenline is economic development.

The idea behind this Greenline was that it would rise property value, attract businesses, generate tourism, and contribute to the increasing worker productivity. In addition, the group estimates that trees along the Greenline will provide a \$6 million annually in environmental health benefits. I believe that the goals that they had for this project can be adopted for Alameda, because these are benefits that help any situation. Furthermore, some of the activities found here are desired in Alameda and the successes of Shelby can be transferred to Alameda (<http://greatermemphisgreenline.org>).



# Shelby Farms Park Master Plan



Photo: Vera's Garden



# Midtown Greenway:

## Minneapolis, Minnesota

This is a 5.5 mile trail that goes alongside a former railroad corridor owned by a regional authority. Some of its key aspects are that this is a trail that provides connections between the suburbs, the trail (nature), and the business area of town. Furthermore, This trial provides economic development by encouraging new development and this draws more people in. In addition, this is an attractive amenity for those who live and work nearby. This trail also has community gardens, and this started in 2002 when a group of area gardeners saw the potential for gardening along the newly-opened greenway on a weedy patch across from Vera's Café. This is now known as Vera's Garden. Furthermore, there is art and events hosted along the trail.

The Greenway provides a temporary, permanent and performance art spaces. This helped with their issues of graffiti. The aspect of this project that is very applicable to Alameda is the development created around the marketplace area. Seeing the successes of Midtown Greenway, this are actions that can be easily translated to Alameda (<http://midtowngreenway.org>).

# The Reading Viaduct:

## Philadelphia, Pennsylvania

(Also known as Viaduct Greene)

The Reading Viaduct Project is dedicated to the preservation and remediation of The Reading Viaduct as a public open green space for the residents of and visitors of the Greater Philadelphia area. Adaptive reuse of the viaduct, in conjunction with the ongoing investments and renovation in the surrounding neighborhoods, will both preserve and rejuvenate the former industrial heart of the city. This area runs through 10 blocks of Callowhill and Chinatown North. As a reclaimed public space, the Reading Viaduct will bring together economically and culturally diverse communities, generate economic development, and provide a catalyst for the redevelopment of this area of Northern Philadelphia.

Overall, this is a great project, but what attracted me the most to this was that it stimulated redevelopment. By using some aspects of this project, I could also stimulate redevelopment (which Alameda needs a lot of) in the city of Alameda (<http://viaductgreene.org>).





# Promenade Plantée:

## Paris, France

(Also known as Coulée verte)

This is known as the most innovating green space in Paris, the elevated Promenade Plantée was built on top of an old Vincennes Railway, that operated from 1859 to 1969. This greenway is a narrow 2.9 miles long.

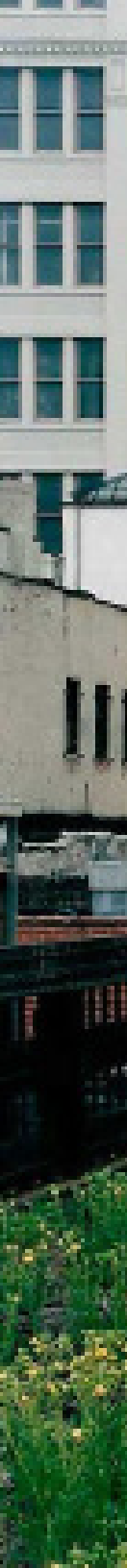
This green space is available to pedestrians, cyclists, and in-line skates. There is access to the elevated section by way of a staircase and there is usually at least one per city block. Underneath the park at the street level is the Viaduc des Arts, which runs along av Daumesnil. (lonelyplanet.com).

In addition, there are shops located in the arches of the former elevated railway viaduct, with the parking beng supported atop the viaduct.

When the greenway intersects the Jardin de Reuilly and desends to ground level, the greewnway becomes small and then follows the old railine heading east (<http://www.afar.com/highlights/la-promenade-plantee>).

**SECTION SIX:**

# **DESIGN IDEAS**









When planning and/or designing for the site, many ideas come to mind. The whole island of Alameda has great potential in various aspects and this site has great potential too. Based on all the information gathered and demonstrated in the previous sections a few key ideas come to mind and goals have been established for this site.

## Goals:

Overall, I want this site to inspire the surrounding community and visitors to be sustainable. The main idea is to demonstrate a good example of repurpose and restoration. There are various examples of this around the U.S and the world, but what makes this project unique that this project will be heavily based on urban agriculture and community involvement.

### **Overall Goals:**

- Create a space that is welcoming to the surrounding community
- Create programs that heavily involve the community, to invoke a sense of ownership and community takes care of itself
- Have various opportunities for various activities
- Promote sustainable practices in a subtle methods
- Create a space that is low maintenance, low cost, low water
- And, overall, create a space that can be constantly evolving, growing, and adapting to the surrounding community.

# Ideas:

## Educational Institutions:

One program that I want to promote in this site is to educational programs. By this, I mean, I want to involve local schools to learn and participate at the site. Education administered in classrooms is productive, but providing a space where schools can come and enhance their curriculums is even better.

## Here are some facts about teaching outdoors:

**Children with ADHD function better in the woods than in built settings.**

-childrenandnature.org

**Positively affect child physical, social, interpersonal, and aesthetic development**

-dnr.state.mn.us

**Improve test scores, attendance, attitudes toward learning**

-dnr.state.mn.us

**Allow children who learn differently from others to become leaders and shine**

-dnr.state.mn.us

**Improve child health**

-dnr.state.mn.us

**Help ELL learners learn new vocabulary**

-dnr.state.mn.us

## Community Gardens:

Based on meeting with some Alameda residents and professionals, the demand for community gardens in Alameda is very high. Currently, there is a 4 year+ waitlist to be able to participate in the single community available to the Alameda residents.

### What is a community garden?

Based on the Alameda Urban Farm and Garden Plan (2012), a community garden is described as a smaller-scale urban agriculture (often serving a neighborhood) where individuals and families grow food primarily for personal consumption or donation. Furthermore, there are many benefits, which include:

- Promoting and creating a sustainable city
- Promoting and creating a vital and engaged communities
- Healthier people

## Permaculture Food Forest:

To continue the idea of community gardens and promoting urban agriculture, an idea that I want to promote is edible forests, or better known as food forests.

### What is a food forest?

A permaculture forest garden mimics the architecture and beneficial relationships of a natural forest. Food forests are not 'natural', but are designed and managed ecosystems that are very rich in biodiversity and productivity (<http://www.permaculture.org/>).

At our farm, the food forests are designed to meet several goals:

- To produce food
- To produce forage for beneficial insects, pollinators, chickens and song birds
- To create wildlife habitat
- To nurture for our bodies through herbal teas and concoctions
- To create beauty and sense of well being

## **Ecological Restoration:**

Because of Alameda strong effort in expanding industrially, a lot of Alameda's rich ecology has been lost throughout the years. In recent years, many efforts have been made, which include areas of natural preservation.

Even though these efforts are great, much more can be done. Through my project, I want to promote local ecological restoration. A great portion of the Bay Area, is covered in invasive specie, of which all are not good. Through my design I want to create pockets of California Native plants.





# SECTION SEVEN: **FINAL DESIGN**





When designing for this site, many things came to mind. But to promote the essence of the site, the topics of the Design Ideas were used and a few more ideas were added.



# Master Plan:

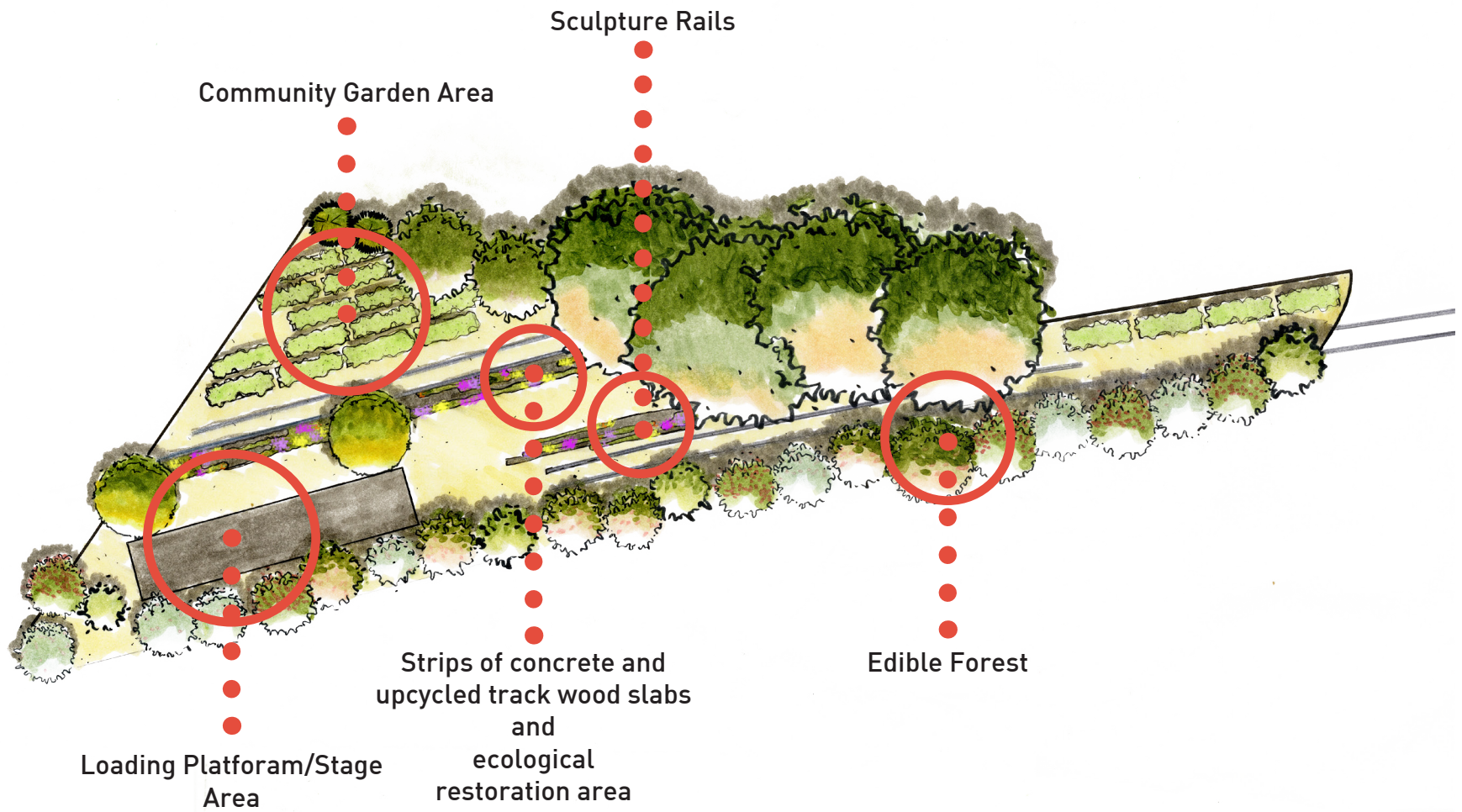


Detail A

Detail B

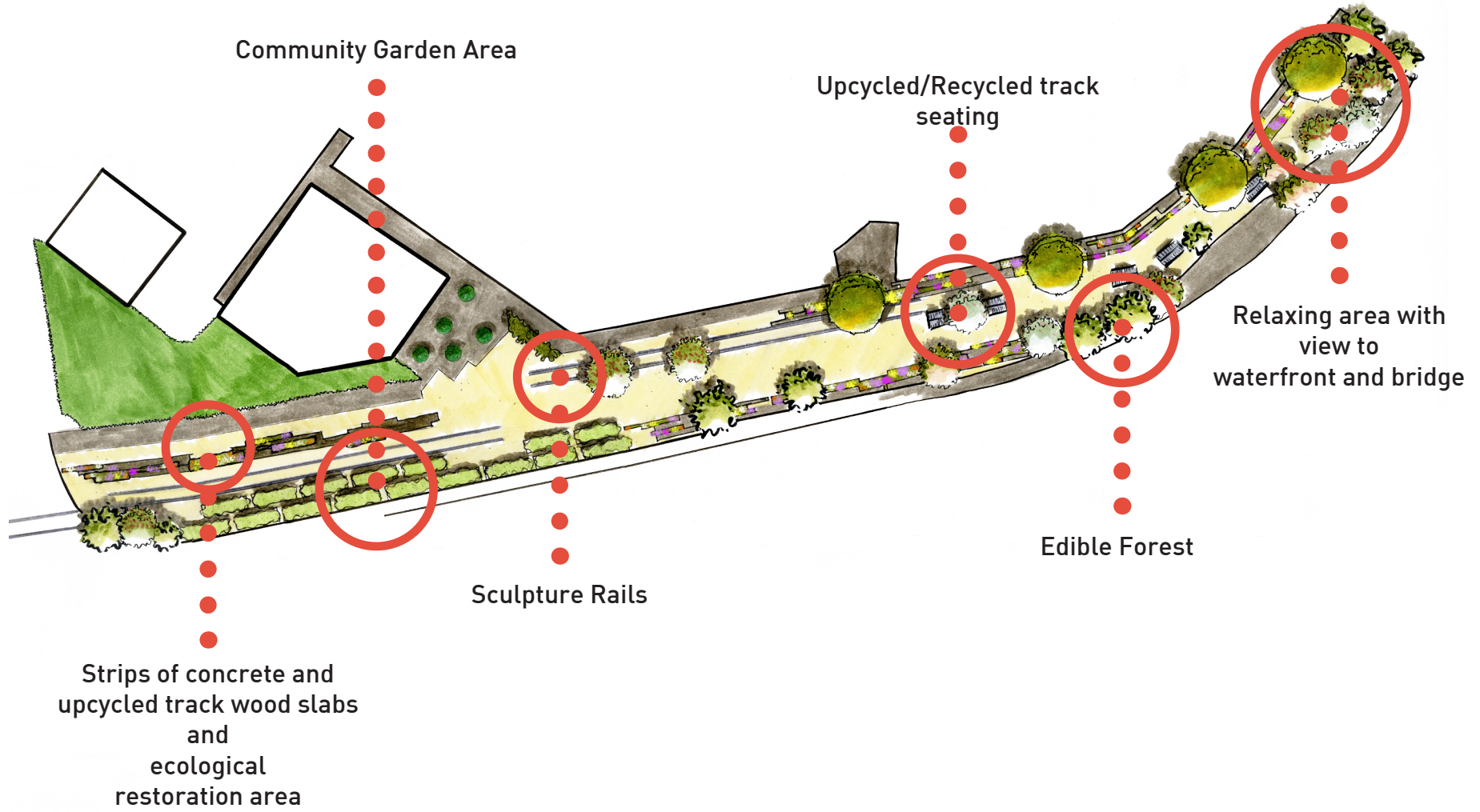
This is the master plan for my design. This will be split in two for better understanding.

# Detail A:





# Detail B:



When doing research of the site, what really spoke to me were the rails. That was a part of history that I really wanted to show and really promote. This part of history may be common knowledge for some of the residents of Alameda, but I want this to be known to all. Promotion of the rails was done by creating sculptural rails that mainly run over the old existing rails. This is to promote the idea and history of them. Another form of promoting the rails was the design of the seating. These are mainly made of repurposed or upcycled part of the tracks.

Furthermore, strips of concrete and planter beds were integrated to invoke the idea of movement. These are seen throughout the site. In addition, within these strips are pockets of space dedicated to ecological restoration. The plants visioned to be here are only California Natives and plants native to Alameda.

Another feature in this design are the community garden areas. These are distributed among the site. This is would be installed to satisfy the current need for garden space. Also, to further push the idea of urban agriculture, an edible forest is planned.

This is a feature that can be available to community garden members. In addition, for possible excess of fruit production, a relationship with local organizations, such as Village Harvest in San Jose, can pick the fruit and donate to local residents in need, for example homeless shelters and soup kitchens. Also, I want to maintain the idea of being local, this mean, in regards to the edible forest, that all trees and such will need to be a native to Alameda. During my research, this proves to be a very diverse list of fruits and vegetables.

The loading platform, now transformed to a space for a variety a gatherings, is another feature of this design. Following the idea of upcycling, recycling, and repurposing. The once used loading platform can now perform as a stage for the local community or anything that may come to mind.

Towards the end of the east side of the site (near the existing waterfront and Fruitvale Bridge), will be a relaxing area. This is an open area with many seating opportunities, for the community to be able to sit and enjoy the environment that has been created for them.

Overall, I do want to promote and educate sustainability in passive manor. As a result, various discrete (but visible) signage system will be implemented throughout the site to educate those who are interested. In additon, this system will cover some topics of history that are intersting and relevant to the site.

The specifics of this signage system have not been developed and will not be in this project.

Another aspect of this design that designed, but cannot be shown is the idea of evolution. This site has a simple design to encourage the community to get involved and let the site evolve with the community. In addition, letting the community take care creates ownership, which can lead to a successful communtiy area.

In summation, the goals of this design are:

- Create a space that is welcoming to the surrounding community
- Create programs that heavily involve the community, to invoke a sense of ownership and community takes care of itself
- Have various opportunities for various activities
- Promote sustainable practices in a subtle methods
- Create a space that is low maintencance, low cost, low water
- And, overall, create a space that can be constantly evolving, growing, and adapting to the surrounding community.

Figure 31: Path heading to the east side of the site. Demonstrate sculpture rails and ecological restoration.

# Perspectives:





Figure 32: Southwest side of the site. View of existing street and the area behind the stage.



Figure #: Transition from east to west area. Again, demonstrating sculpture rails and also showing community garden area





## References:

- Alameda Urban Farm and Garden Plan, May 30, 2013. <http://www.planningcenter.com/projects/2012/11/alameda-urban-farm-and-garden-plan/>
- AFAR, May 30, 2013. <http://www.afar.com/highlights/la-promenade-planted>
- Children & Nature Network. Children & Nature Network (C&NN). 14 June 2013.
- City of Alameda. Visual History. May 30, 2013. <http://alamedaca.gov/alameda-visual-history>
- Friends of Lafitte Corridor. May 30, 2013. <http://folc-nola.org/2011/08/examples-of-trails-greenways-pathways-in-urban-areas/>
- Minnesota Department of Natural Resources. May 30, 2013. <http://dnr.state.mn.us/index.html>
- Greater Memphis Greenline, May 30, 2013. <http://greatermemphisgreenline.org/>
- Hammond, R., & David, J. (2011). High line: The inside story of new york cit'ys park in the sky. (1 ed.). New York: FSG Originals.
- Michigan, Department of Transportation, May 30, 2013. [http://www.michigan.gov/documents/2006\\_Railroad\\_Typicals\\_Plans\\_147844\\_7.pdf](http://www.michigan.gov/documents/2006_Railroad_Typicals_Plans_147844_7.pdf)
- Midtown Greenway Coalition, May 30, 2013. <http://midtowngreenway.org/>
- Permaculture Insitute. <http://www.permaculture.org/nm/index.php/site/Permaculture-Food-Forest/>
- The Reading Viaduct, May 30, 2013. <http://readingviaduct.org/>
- Ute, G., & Singer, B. (2007). Alameda by rail. Arcadia Publishing.