

### Connect the Kay:

An Approach to Revitalize Sacramento's K Street Mall

This senior project was presented to the Landscape Architecture Program University of California, Davis
In fulfillment of the requirement for the Degree of Bachelors of Science of Landscape Architecture

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### **ABSTRACT**

This project focuses mainly on transforming the 700 block, between 7th and 8th street, of K Street in Sacramento, California into a thriving entertainment attraction that will help to increase pedestrian activity on K Street Mall by providing an attractive, comfortable, and safe environment. This includes renovating the streetscape as a way to accommodate green infrastructure to beautify the streetscape and to create a sense of place that K Street is desperately seeking. The design provides storm water management and landscaping of underutilized open spaces that include interactive features to attract all age demographics.

## **DEDICATIONS**

My senior project is dedicated to my father, mother, and brother for supporting me and encouraging me to strive to be the best. I will always have a place for you guys in my heart.

### ACKNOWLEDGEMENTS

Thank you professors, professionals, and faculty for your guidance and support. I appreciate your time out of your busy schedules to help me complete this senior project which has been a struggle but definetly a proud accomplishment. This would not have been possible without your help. Thank for everything!

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## I. INTRODUCTION

K Street Mall is part of the urban history of downtown Sacramento dating back to the Gold Rush and the influence of John Sutter's who established Sutter's Fort where it eventually became the city of Sacramento. It was home of many African Americanowned jazz clubs that was once considered the biggest jazz night clubs in Northern California during the 1960's. Downtown Sacramento was not limited to K Street, but this street symbolized Sacramento's urban ambitions; it was the hub of transportation networks, from the days of steam riverboats and electric railroads to the era of national highways (Burg, 2012).

In the 1950's, almost seventy-five percent of the city's revenue came from just this one street. Now, things have changed and the K Street Mall is an example of the many areas of downtown



Figure 1.1: K Street Mall in the 1950's.

Sacramento that are affected by suburban growth, resulting in many vacant bulidings and underutilized streets.

The City of Sacramento has attempted multiple times to find a solution to revitalize K Street Mall as part of an effort to bring life back to its downtown district. K Street Mall has gone through short periods of

success, but it has suffered more due to the persistant underutilization of buildings. In the late 1960's, K Street was completely closed off to automobiles between 7th street and 13th street. K Street Mall was one of the last remaining pedestrian malls in the country, but has recently reopened the street to automobiles and bicyclists. The existing light rail transportation system shares the same lane with the automobiles. The city is making an effort to bring more business and people to the downtown district.

So, why hasn't the City of Sacramento found an answer to revitalize K Street Mall? For a pedestrian mall to be successful, the area must already be surrounded by a critical mass of people to attract people and business to the site. When the design of a pedestrian mall is used as an attempt to revitalize a declining street, lack of sufficient population will only

accelerate that street's decline by further isolating it. By reopening K Street Mall to automobiles, more potential shoppers have access to the mall and more "eyes" on the street will lure more people to businesses on K Street. Despite this effort, there are still many vacant buildings and high levels of unpleasent activity, such as homeless people, bad odors, and litter found all around the street in the area that drives people away from K Street Mall. Looking at case studies of successful pedestrian and transit malls will be used as a guideline for design strategies to improve K Street mall into an attractive, comfortable, and safe environment.

It is important to consider the fact that many pedestrian malls that have thrived are in metropolitan areas that attract many tourists. Although, K Street Mall has many surrounding attractions like Old

Sacramento, Downtown Plaza, Raley Field, Capital Mall, the Convention Center, and the Capital Building, there seems to be a lack of connectivity of these attractions to K Street Mall. It does not help that K Street Mall is situated next to a struggling Downtown Plaza that disconnects K Street Mall to Sacramento's most valuable attractions, the river front of the Sacramento River and Old Sacramento.

Assuming that the new Sacramento King's arena will be built with the renovation of Downtown Plaza, this will provide opportunities for redevelopment and rejuvenation of the K Street Mall and will attract more people and businesses to the site. Sports areanas offer opportunities to catalyze redevelopment, to bring life to a downtown setting by attracting many visitors, and the potential for future businesses to accomodate the increase in population that a sports

arena will bring (Baim, 1994). Enhancing pedestrian activity through various attractions will be important to revitalize K Street Mall.



Figure 1.2: Rendering of the new Sacramento King's arena.

# II. A BRIEF HISTORY OF K STREET MALL



Figure 2.1: View from 8th Street to 7th Street of K Street Mall.

#### WHERE IT ALL STARTED

K Street, along with J Street, was considered one of Sacramento's first main streets. John Sutter was a Swiss pioneer in California known for establishing Sutter's Fort in the location that would eventually become Sacramento. He was associated with the discovery of gold by James W. Marshall during the California Gold Rush.

As Sacramento grew past its Gold Rush origins, it became the second largest city in California. K Street became the city's premier location for department stores, theaters, and hotels (Sacramento Heritage, 2009). Horse-drawn streetcars first ran on K Street in 1870, replaced by electric trolleys in 1891.

K Street became the shopping and entertainment center for Sacramento with new hotels and apartment buildings that housed not only the

local residents but also visitors and tourists from out of town.

K Street also included drugstores, tailor shops, tobacco shops, bookstores, restaurants, and offices. Located in the heart of downtown Sacramento, people could walk to K Street from their neighborhood, or ride the streetcars.



Figure 2.2: K Street Mall during the 1940's.

#### WHAT HAPPENED

As automobiles grew more popular, K Street begin to face trouble as a result of increased traffic and lack of parking. In the 1940's, K Street suffered due to the urban flight to the suburbs. Retail stores, theatres, and shops struggled to maintain its success that eventually resulted the end of the streetcar in 1947.

The traffic in the area became increasingly congested over time. The main highways through Sacramento ended on city streets running through town, every intercity driver added to traffic congestion downtown (Burg, 2012).

By 1960, K Street lost many department stores, restaurants, and movie theaters. These smaller stores were dependent on the customers of the bigger stores that had moved to the suburbs. During this time,

the stores within two block of K Street generated 75.6 percent of the county's total sales tax and by 1965, K Street's share had plummeted to 19.6 percent of total county sales tax (Burg, 2012).

Suburban residents found it easier to get what they need from the nearby large shopping centers



Figure 2.3: K Street Mall during 1960's.

with convenient parking. K Street no longer offered goods that they couldn't get around their suburban areas.

#### LET THE REVITALIZATION BEGIN

In the 1960's, the city of Sacramento attempted to attract the suburban shoppers back to K Street by building Downtown Plaza, K Street Mall, and bringing Interstate 5 directly into downtown Sacramento. The development was part of a series of projects that removed the west end of K Street which include the Labor Market, Chinatown, and Japantown. However, a lot of Sacramento's history still stands on K Street in architectural form.

In 1969, the K Street pedestrian mall project between seventh and thirteenth street was given to A. Teichert & Son. Construction. The mall featured



Figure 2.4: Water feature designed by Garret Eckbo.

landscape architecture and sculptures to represent the California Water Project as his theme. Designed by landscape architect Garret Eckbo, there was high expectations for the pedestrian mall. However, after a short burst of success, visitors once again stopped coming to K Street Mall.

Downtown Plaza was built in 1971 by The Hahn Company as an enclosed plaza mall incorporating the existing Macy's store that was built in 1963. At this time, K Street Mall was still struggling and the establishment of Downtown Plaza attracted more people to the site but was unable to maintain its early success.

This was a common problem of Sacramento's downtown shopping district because of suburban sprawl. The suburban malls were close to suburban residents and provided similar stores.

The pedestrian-only mall was made into a transit mall with the addition of the light rail in 1987 and reopened to automobiles in 2011. Still lacking street parking, drop off zones were created in an attempt to attract visitors back into K Street Mall.

As of recent, the City of Sacramento and a

group of investors are trying to keep the Sacramento King's in town from moving to Seattle. A new sports arena will be built at the current Downtown Plaza location, using approximately fifty percent of the space. Downtown Plaza is currently adjacent to the K Street Mall and has been struggling to maintain its stores. The majority of the retail stores in the plaza are vacant and has greatly affected the liveliness of the K Street Mall. The redevelopment will lead to future business and bring new visitors to the Downtown Plaza that will benefit surrounding neighborhoods, including K Street Mall.

## III. GOALS

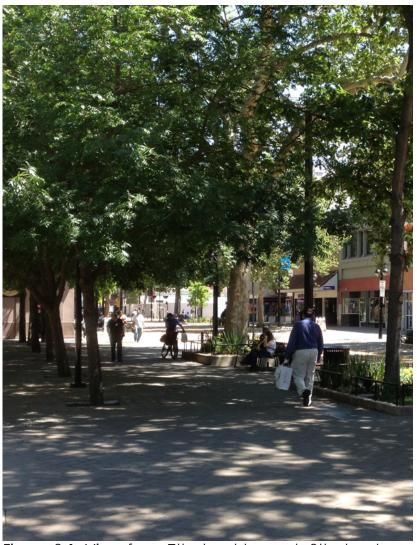


Figure 3.1: View from 7th street towards 8th street.

The goal of this project is to use case studies of successful pedestrian and transit malls and apply the best practices in design to enhance the streetscape of K Street Mall, providing a safe and attractive environment. These improvements will include::

- 1. Enhancing the main entrance way that connects the K Street Mall to the Downtown Plaza.
- 2. Renovating underutilized open spaces.
- 3. Enhancing the streetscape through stormwater management and improving street furniture.

## IV. ENHANCING PEDESTRIAN EXPERIENCE

Enhancing the pedestrian experience can be done by providing a safe and attractive environment in order to make visitors feel comfortable. This includes providing lighting, vegetation, integrating outdoor seating, encouraging desired pedestrian paths, and include attractions and amenities. The site should be inviting, attractive, and safe for all users.

Circulatoin patterns define the spatial experience that pedestrians encounter when walking through an area. It promotes connection and fluidity by providing easy access where people are most desiring to travel. People want to get to their destination without any trouble. When the desired pedestrian paths are not considered, people will tend to avoid the area because it becomes uncomfortable for them.

An important design element is the outdoor



Figure 4.1: Mixed lighting at Third Street Promenade.

seating in front of many restaurants and bars as well as open areas. Outdoor seating allows pedestrians to enjoy good weather, get fresh air, or even spectate people walking by. It allows people to relax and socialize rather than to quickly walk past the stores to get to their destinations.

Trees and vegetation are vital components that help define a space by providing comfort and

aesthetics to a site. The tree canopy can provide shade with vegetation to improve the quality of the streetscape. Vegetation can also be used as a buffer to distinguish the different zones for safety precautions.

Streetscape lighting can beautify a specific location within a community and provide a sense of security. It allows pedestrians to be able to wander without having to worry about areas that are dark and unsafe. Lighting creates an identity to a given site through decorative lighting that attracts visitors. A well lighted streetscape will encourage night time activities and provide visual aesthetics for pedestrians passing by.

Providing attractions allows pedestrians to slow their pace to observe what is going on. It is important to provide attractions that benefit all demographics. In doing so, it creates a cohesive and

diverse community that promotes a safe environment and a sense of place for everyone. Transient attractions such as farmers markets, performers, musicians, and kiosks have been used to attract people.



Figure 4.2: Outdoor cafes on 16th Street Mall.

### V. STORMWATER MANAGEMENT



Figure 5.1: View of the Highline in New York.

Storm water management is a sustainable approach to capture storm water runoff from roofs and streets. This approach relies on vegetated natural systems to slow the storm water runoff process and to filter the water from contaminants and pollutants.

Bio-retention and stormwater planters can be used on K Street Mall to address the issue of

stormwater pollution into the Sacramento waterways. Bio-retention elements can slow the process of storm water runoff before it gets to the street drains. The stormwater can be directed into a bio-retention structure where a tree or other vegetation can uptake the water before slowly being released into the existing storm sewer. These stormwater management systems are not only a sustainable approach but are also aesthetically-pleasing.

The Highline in New York is a good example of storm water management. It sits atop of an old rail road. It has been redesigned and planted as an aerial greenway with a bio-retention system beneath the pavers that collect the storm water. Incorporating stormwater management and quality aesthetic design can greatly enhance K Street Mall's image that will eventually attract many people to the site.

## VI. CASE STUDIES







### 16TH STREET MALL

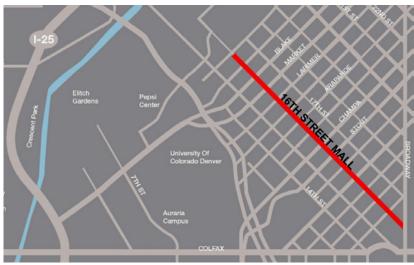


Figure 6.1: Context map

Denver, like many American cities, suffered an economic decline during the 1970s as businesses and residents moved to the suburbs. The city of Denver, the Downtown Denver Partnership, the Downtown Business Improvement District, and the Regional Transportation District established a partnership to address the problem and created the 16th Street Mall in 1982. Before 1982, 16th Street was still

considered the shopping and business destinations with four major department stores along with many office buildings. It was designed by Pei Cobb Freed & Partners, in collaboration with OLIN, an urban design and landscape architecture firm.

but was extended from Market Street to Wynkoop Street in 2001, then extended again to Union Station in 2002, to allow for the connection of the light rail. Currently, 16th Street Mall consists of over 300 retail stores and over 50 restaurants. It is now the main commercial hub for business and tourist attractions. Nearby, there is also Coors Field, Pepsi Center, and the Denver Convention Center to attract visitors to 16th Street Mall.

Today, 16th Street Mall is a mile long transit mall with a central twenty-two foot wide promenade

#### Denver, Colorado

between ten foot wide bus lanes. This area is a pedestrian zone with honey locust trees that provide shade where people sit to read or relax, socialize, or eat. The promenade is also slightly depressed for safety.



Figure 6.2: Customer pavers used to enhance the quality of the street.

Custom pavers were used to design the streetscape of the mall using gray and red colors to create an artistic ground surface. Other design elements include intricate lighting, colorful planters, trash receptacles, benches, and renovated historic buildings to enhance the promenade. The promenade is constantly being used by pedestrians and transit throughout the day and evening.

### THIRD STREET PROMENADE



Figure 6.3: Context map

Third Street Promenade has always been the center of business in Santa Monica. Initially a commercial district, it was made into Santa Monica mall in the 1960s. Three blocks of Third Street were converted into a pedestrian mall that is now considered one of the premier shopping centers of Los Angeles.

During the 1970s, the mall known to be unsafe

and blighted. was in need of a redesign. In 1980, Santa Monica Place was added at the south end of the mall and was originally designed by the famous architect, Frank Gehry. Then, in 1989, the Third Street Development Corporation hired architectural firm Roma Design Group to design the twenty-five year old outdoor Santa Monica Mall into the Third Street Promenade in an effort to revitalize the struggling downtown area and to create a vibrant place for the community and future businesses.

The three block promenade was closed to vehicle traffic to enhance the pedestrian experience. Shop owners were afraid that closing vehicle traffic on the street would destroy their businesses. As a result, they installed removable bollards at each end of the block, in case the pedestrian mall was a failure. However, the promenade was so successful

#### Santa Monica, California

that it eventually became permanently closed off to traffic. It includes more than 70 restaurants and 160 retail stores as well as entertainment venues active throughout the year. There are also attractions nearby that include Palisades Park, Santa Monica Pier, and the beachside of the Pacific Ocean.

Design features include various types of pavers, mixed lighting, outdoor cafes, sculpted water fountains, and two rows of trees along the promenade that provides shaded space for temporary vendors.



Figure 6.4: Entrance way into Third Street Promenade.

### INSIGHT INTO A LIVELY DOWNTOWN



Figure 6.5: Context map

Kirk Westphal, a graduate of the University of Michigan's Master of Urban Planning program, examined what makes a downtown district appealing in a nineteen minute documentary. Although he used Ann Arbor, Michigan as a case study, many people found his research valuable when considering future planning and design of downtown settings.

Westphal conducted interviews with local

residents and visitors and asked them what areas of Ann Arbor they liked. It turns out that people like to be in areas with lots of people, shops, restaurants, and visuals. People preferred areas with highest numbers of establishments packed into them, blocks with narrow stores and narrow buildings.



Figure 6.6: Tourists walking on Main street.

#### Ann Arbor, Michigan

People want visual entertainment as they walk by stores that have large windows where they can look in. In addition to windows, people were drawn to the architectural aspects of the buildings with signs hanging over into the sidewalks. It allowed pedestrians to have a participatory involvement to the downtown setting.

Bright lights, seating, tree canopies, and sidewalk cafes were a few other things that people felt were an important feature of Ann Arbor. The main idea was to slow the pace of pedestrians walking on the streets. By slowing the walking pace of pedestrians, it allows the area to contain a higher capacity in the area that will attract more people.



Figure 6.7: Many outdoor dining along the street.

### COMPARATIVE STUDY

Case Study:	K Street Mall	3rd Street Promenade	16th Street Mall
Retail:	20	90	60
Restaurants:	18	30	35
Bars:	10	6	16
Outdoor Seating:	Low	High	High
Outdoor Dining:	Low	High	High
Vacant Buildings:	High	Low	Low
Lighting:	Medium	High	High
Public Transportation:	Regional Transit Bus	Big Blue Bus	Mallride
Light Rail:	Regional Transit	N/A	Regional Transit
Housing:	Low	Medium	High
Shade Trees:	High	High	High
Attractions:	Old Sacramento, Convention Center, Downtown Plaza, Wrigley Field, Sleep Train Arena	Santa Monica Pier, Pacific Park, Santa Monica Place, Ferry Wheel	Pepsi Center, Colorado Convention Center, Coors Field

Figure 6.8: A comparative study to analyze the elements that K Street Mall lack from other malls.

## VII. SITE CONTEXT



K Street mall is in a location that has everything in its proximity to thrive as a successful commercial hub. It has many attractions nearby such as Old Sacramento, the riverfront of Sacramento River, Capital Mall, Capital Hall, Sutter's Fort, Downtown Plaza, and Raley Field. K Street Mall is situated in the middle of all these attractions, yet visitors and tourists tend to stop once they get to K Street Mall, or in most cases, never know it exists.

There are many green spaces around K Street Mall. Green spaces promote pedestrian activity because it improves the quality of pedestrian life.

Many think that the reason why K Street Mall is struggling is because there is not enough parking to accomodate the visitors. However, you can see from the analysis that the vast majority of available parking currently surrounds K Street Mall. Although, K Street Mall recently reopened the street to automobiles in



**ATTRACTIONS** 



**PARKING** 



PUBLIC TRANSIT

2011, it still offers no on-street parking but three areas for drop off zones. With so many available parking structures around K Street Mall, the unavailability of on-street parking should not be an issue.

Also, K Street Mall is at the core of downtown Sacramento and there are multiple ways to get to the site. The Amtrak station is a five minute walk away and the Sacramento Light Rail transit goes through the heart of K Street Mall. There are also many bus stops in its proximity.

Everything is in place for K Street Mall to thrive as a destination point for locals and tourists, yet, it still continues to struggle.

Figure 7.1: Analysis of the site context around K street

### VIII. SITE ANALYSIS

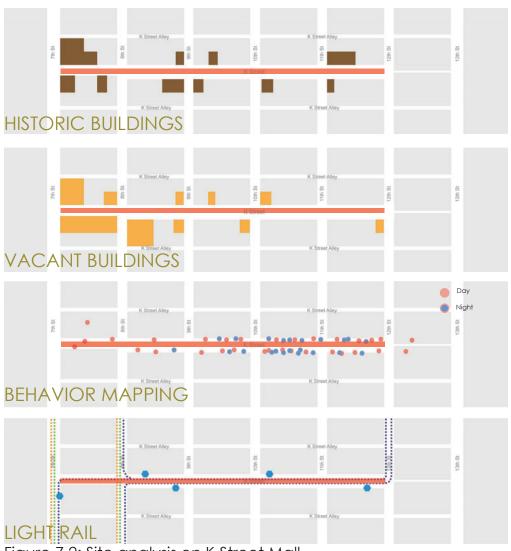


Figure 7.2: Site analysis on K Street Mall.

At a closer look there are many vacant buildings on the K Street Mall due to lack of pedestrian and retail activity. There are many historic buildings that sit on K Street Mall which means that history is a very important part of K Street. I noticed the majority of the people would walk towards to east end of K Street where there are many bars and restaurants that are more established than the west end. The businesses on K Street has currently been doing a lot better but the west end of the mall is in need for improvement with about fifty percent of the buildings vacant. The light rail also runs on K Street Mall as well as automobiles.

### AREA OF FOCUS



Figure 7.3: Site of Intervention.

The site of intervention that I would be focusing on is the 700 block between 7th and 8th street. This area has the highest rate of vacant buildings with pedestrians using this block as a corridor to get to their destinations. The 700 block is top priority when trying to revitalize K Street Mall and a pivotal piece to rejuvenate the street because it is the connection to Downtown Plaza and other important Sacramento attractions, such as Old Sacramento and the riverfront. Assuming that the new Downtown Plaza will be renovated with the Sacramento King's arena to be built there, the 700 block is going to be the catalyst to attract people that are attending events in Downtown Plaza and bring them into the K Street Mall area. This gateway needs to be attractive, safe, and able to provide amenities that people will enjoy. This area needs to be a social gathering space for all demographics as well as muli-functional in terms of attracting different groups of people.



Figure 7.4: Existing layout plan

Currently, there are many trees and vegetative planters situated throughout the block however, there aren't many places to sit aside from a few benches. Out of the five blocks of K Street Mall, this is the only block that has a one-way light rail with automobiles unallowed to enter. There is also a seasonal ice rink located at the center of St. Rose of Lima Park.

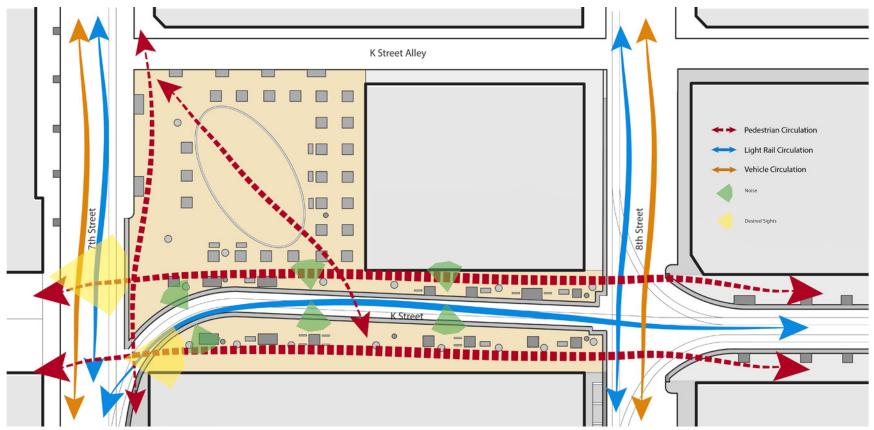


Figure 7.5: Circulation and sensory analysis

Pedestrians use this block as a corridor to get to their destinations, whether to get to bus stops or nearby restaurants at the east end of K Street Mall. There seems to be a lack of sense of place when arriving to K Street Mall. The gateway can definitely be improved to make it more inviting. Also, the light rail can become quite loud and a lot of litter that leaves bad odors on the site.

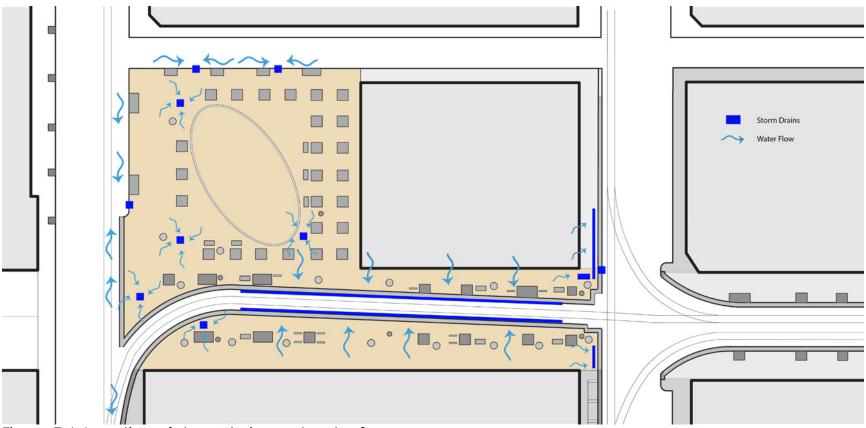


Figure 7.6: Location of storm drains and water flow

K Street Mall is a long continous street of impervious surface with many storm drains situated in different areas. The reason may be in part because of past floods that pushed the city to raise the grade of K Street above flood level. Sacramento originally sat below sea level. There is a long linear storm drain on both sides of the street that collects the majority of the stormwater from K Street Mall, then directs it towards a larger drain system.

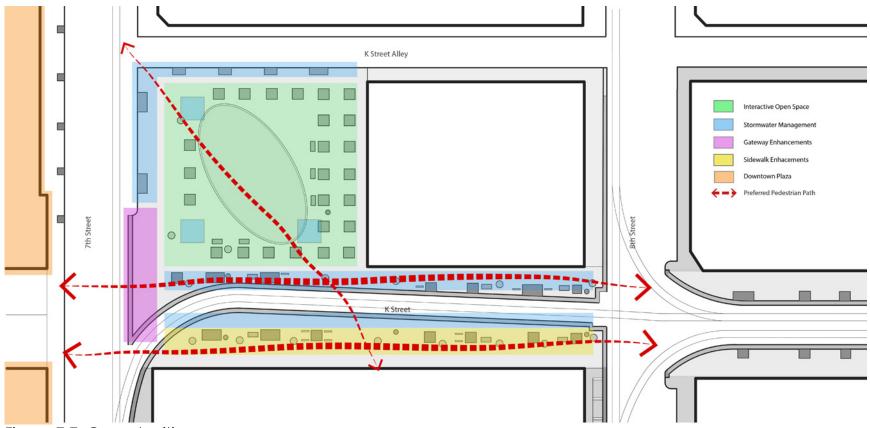


Figure 7.7: Opportunities map

The main opportunities that are most important to focus on is the entrance way that connects K Street Mall to Downtown Plaza and to improve the streetscape. Streetscape improvements can be made by addressing the storm water management issues of the site. Also, it will be important to keep the seasonal ice rink because it hosts more than 15,000 skaters each season that also creates a signature holiday experience for the city.

### PICTURES OF EXISTING LAYOUT







STORM DRAINS (North)



ONE-WAY LIGHT RAIL



ST. ROSE OF LIMA PARK



TREE PLANTINGS



**VEGETATIVE PLANTERS** 



**BIKE RACK** 



**BENCHES** 

### PICTURES OF EXISTING CONDITIONS



**VACANT BUILDINGS** 



**UNDERUTILIZED SPACES** 



**ENTRANCEWAY** 



**CLOGGED STORMDRAIN** 



TRASH



NOISE

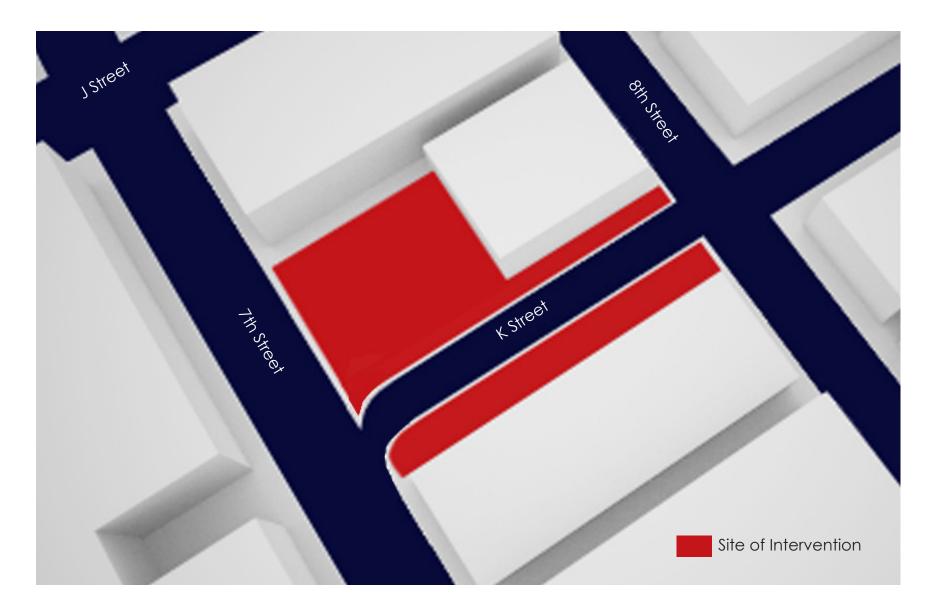


**IMPERVIOUS PAVERS** 



LOW PEDESTRIAN ACTIVITY

# IX. DESIGN



## MASTER PLAN

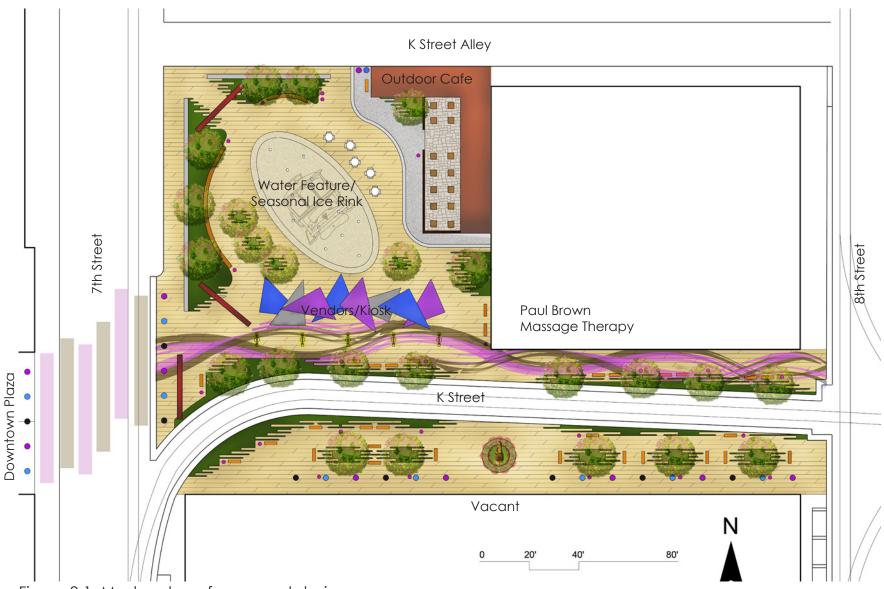


Figure 8.1: Master plan of proposed design

#### **OVERVIEW**

This project focuses on three main goals: improve the streetscape through stormwater management, enhance the gateway entering from Downtown Plaza, and to enhance the pedestrian experience through various attractions.

A sustainable stormwater management system is applied throughout the site to filter the stormwater by removing contaminants and other pollutants before entering the storm drains, and to also slow the rate of discharge of stormwater into Sacramento's waterways.

The renovation to Downtown Plaza with the new Sacramento King's arena to be built there will bring opportunities to surrounding neighborhoods, including K Street Mall . The design includes a theme based on the Sacramento King's team colors; purple and black.

I want to attract the current working class, young adults, and other demographics as well. The new design will aim to provide an attractive, safe, and sustainable site for all users that can be used for socializing or gathering place.

Although, the design is just one block of the five blocks of K Street Mall, I think that this block is pivotal in revitalizing K Street Mall because of its connection to the Downtown Plaza and the riverfront. Sacramento is very unique in its own ways. We need to preserve and inform visitors the history of Sacramento, truly one of the most valuable aspects in revitalizing the image of the City.

### CONCEPT DIAGRAM



Figure 8.2: A concept diagram to show the different elements of the design.

### **DESIGN ELEMENTS**

#### Vegetation



#### Plant Material

- More planting areas
- Use native species and low-maintenance, water tolerant plants

#### Stormwater



#### Permeable

- Pervious pavers
- Gravel
- Permeable concrete

#### Energy



#### Solar

 Photovoltaic panels for lighting

#### Transportation



#### Light Rail

 Vegetated buffers as barriers from passing noise of light rail

#### Sustainability



#### Materials

- Use recycled materials
- Engage local suppliers

## 1

#### Function

- Buffer to define edges of different zones
- Enhance aesthetics and quality of streetscape

## Catchment and Biofiltration

- Stormwater planters
- Bio-retentions
- Capture rainwater and stormwater from canopies, structures, and pavement



#### Energy

- LED lighting
- Auto-off fountains
- Automated irrigation system



#### Pedestrian

- Improved plaza circulation and lines of sight
- Improved wayfinding
- Improved crosswalk visibility



#### Community

- Safe and walkable
- Local businesses as vendors
- Outdoor play and activity

#### **Benefits**

More shade Absorbs and filters stormwater Provides more habitat Reduced heat island effect

#### Benefits

Reduced loads on combined sewer systems

Reduced overflow into river Improved water quality

#### **Benefits**

Decreased costs

Decreased energy demand

Less environmental impact

#### Benefits

Improved circulation connections

Defined areas for the different modes of transportation

#### Benefits

Increased opportunities for local businesses

Less environmental impact

Increased tourism opportunities

#### **PROGRAMMING**

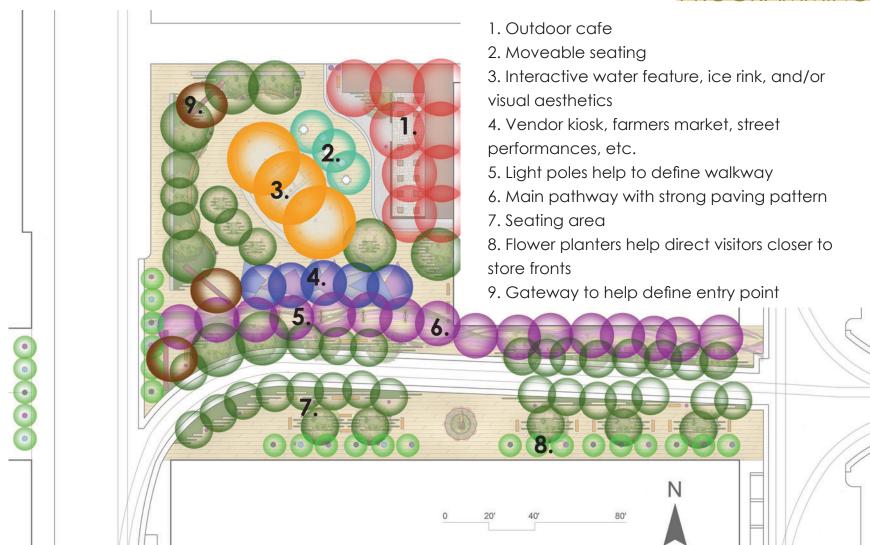


Figure 8.3: The new design will provide various programming features.

## X. STREETSCAPE DESIGN



The design of the streetscape focuses on improving pedestrian experience through visual enhancements such as using strong patterns on the pavement, increased lighting on street furnitures, increased outdoor seating, and providing a gateway to define the entrance of K Street Mall. The site also provides a stormwater management system to capture and slow the stormwater runoff before entering the storm drain.

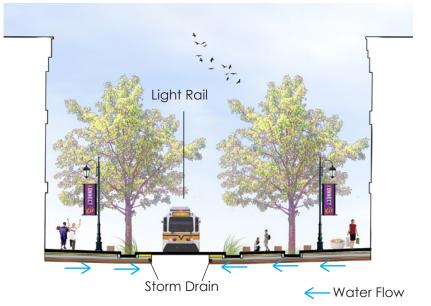
Flower planters were installed to direct the

pedestrians closer to the store fronts as a way to help improve businesses on K Street. There are also flower planters at the entrance to further define the edge of K Street Mall in connection to the Downtown Plaza.

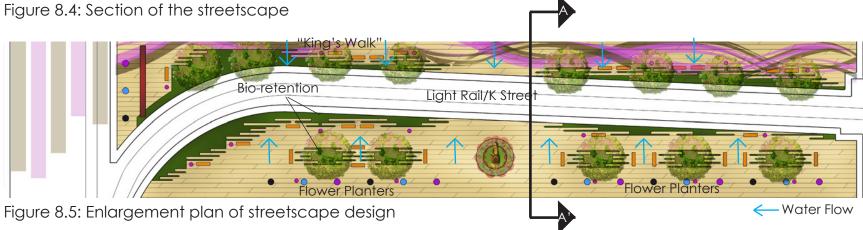
Vegetation along the street was planted to create a buffer from the light rail. These bio-retention areas was built around the existing trees and contain native plants that can tolerate high volumes of water.

K Street Mall currently lacks public spaces where people can sit and relax There are now areas to sit with more benches. The number of benches have increased from only six benches to twenty eight benches. This creates a more comfortable and convenient environment.

The entire site acts as a bio-retention feature with permeable pavers and stormwater planters that collect the stormwater which is then directed



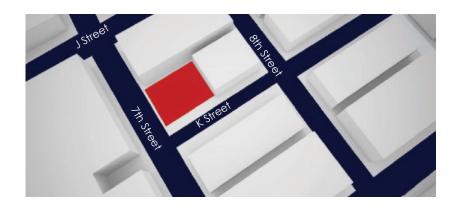
to the existing long and linear storm drains located on both sides of the street. In doing so, this helps filter the stormwater from contaminants and reduce the rate of stormwater before being discharged into Sacramento waterway. Applying a stormwater management system will help address the best management practices as well as beautifying the streetscape into a comfortable and attractive environment.







## XI. PLAZA DESIGN



The main focus for the plaza is to enhance the connection with K Street Mall to the Downtown Plaza. The "King's Walk", a representive theme of the Sacramento King's, was designed to connect the two malls. It includes a strong purple and black pattern to represent the Sacramento King's team color on the pavement as a wayfinding tool. Victorian style light poles were installed to represent the K Street architectural history style and to define the main walkway. Also, an artistic structure was

designed to host various attractions such as farmers market, vendors, kiosks, or live performers. The roof of the artistic structure is also slanted to direct rainfall towards the stormwater planters

The plaza promotes interactions and a place to socialize through various attractions. Attractive features include mixed lighting, an interactive water feature for kids during the day that lights up at night as a visual attraction as well as an ice rink during the winter season. The water feature also includes the design of the historic cable cars on the pavement as remembrance of the history of K Street. It also acts as a visual catchment of passerby to attract them into K Street Mall.

The outdoor cafe was included to have more outdoor seating where people can enjoy the beauty of the open space as well as to increase seating

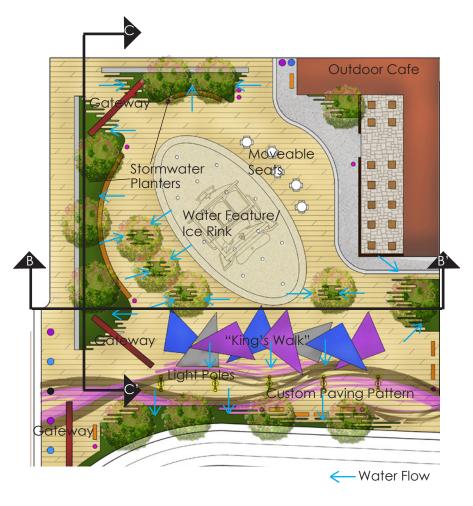


Figure 8.8: Enlargement plan of the plaza.

capacity throughout the site. Moveable outdoor seating are also present to increase the amount of seating.

Although many trees have been removed to create the outdoor cafe, the entire site has been improved to perform stormwater management. Unlike the stormwater management design of the streetscape, the plaza consists of many storm drains at random places. The location of the existing storm drains were used to design the stormwater planters. The storm drains were improved as a overflow drain to capture and retain the stormwater. The stormwater will flow into the overflow drain once the stormwater planters reaches its capacity.

The important aspect of the plaza is to attract all demographics by providing attractions that can be enjoyed by everyone.



Figure 8.9: Section B-B' of the plaza design

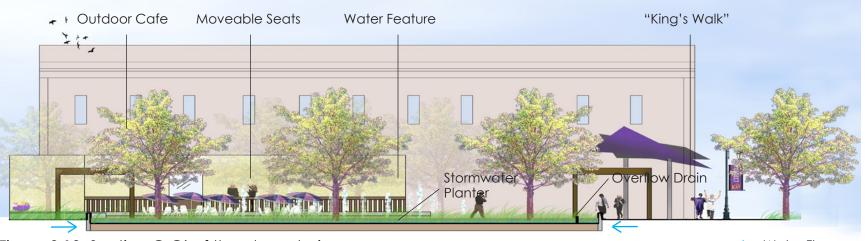


Figure 8.10: Section C-C' of the plaza design



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