An Inclusive Civic Gathering Place in Davis:
Connecting Community Input, City Goals, and Design at the E Street Plaza

By

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# Table of Contents

**CHAPTER 1: Introduction** .................................................................................................................. 1

Positionality - Relating Self to the Research .......................................................................................... 2

Research Method ..................................................................................................................................... 5

Literature Review: Community Development and Urban Planning ....................................................... 9

**CHAPTER 2: Analysis in Context** ........................................................................................................ 23

Situating the Project ............................................................................................................................... 23

Participation in the Downtown Specific Plan Process ............................................................................ 24

Comparing Alternative Locations ......................................................................................................... 33

E St. Plaza – Site Analysis and Existing Conditions ............................................................................. 37

Analysis regarding Sustainability ........................................................................................................... 56

Analysis regarding Inclusivity ................................................................................................................ 70

Analysis of Davis’ Identity .................................................................................................................... 79

**CHAPTER 3: Design Strategies, Recommendations, and Final Design** ........................................ 91

Sustainability Strategies ......................................................................................................................... 92

Inclusivity strategies ............................................................................................................................... 103

Identity Strategies .................................................................................................................................. 107

Final Design – The Davis HUB .............................................................................................................. 112

Recommendations to the City of Davis .................................................................................................. 125
ABSTRACT

This design research delivers a design and recommendations to meet the community's vision and goals of an inclusive civic gathering space in the heart of downtown Davis, California. This work was intended to inform the City of Davis Downtown Davis Specific Plan (Specific Plan), and the subsequent form-based code. The City's central objective of the Specific Plan and form-based codes was to improve the economic and social viability downtown by providing a predictable development process for landowners and bordering neighborhoods.

The Davis community indicated strong support for the development of a civic gathering space at the E Street Plaza, therefore it is the focus of this design research. My knowledge of community development and engagement, landscape architecture, environmental design, and transportation practices guided this research and findings. The design objective applies the community vision, values, and aspirations for a communal gathering space by establishing these goals:

1. **Sustainability** pilot demonstration an intensity to attract visitors.
2. **Inclusivity** modeled as public space planning and design for people of all ages and abilities.
3. **Identify** Davis as a progressive, health conscious, intellectual city.

Analysis confirmed that the centrally located E Street Plaza and the adjoining building forms, spaces, and streetscape create an ideal form to hold a gathering space. The property is city-owned, highly visible, has a people catchment, and is accessible by multiple travel modes. This location possesses an exceptional opportunity to exhibit progressive energy technology
and sustainability techniques, demonstrate commitment to fully integrated inclusivity, and to validate Davis’ overall identity.

Sustainability is exhibited through these essential features:

1. Pilot and model the newest energy collection systems.
2. Deliver a low-stress streetscape for all travel modes and allocating space for next-generation transportation.
3. Prohibit commercial waste storage on civic property to induce waste reduction and improve pedestrian facilities.

Inclusivity is delivered through these key strategies:

1. Apply a Universal Design framework from the planning to implementation phase.
2. Prohibit privately-owned seating, provide open seating and other shared amenities like restrooms.
3. Integrate interactive sculpture and playful elements throughout the space to include people of all ages and abilities, from families to the experienced generation.

To distinguish Davis’ identity, one that honors and rejuvenates the story of Davis, the design aesthetic focused on the following elements:

1. Historic geography, by exhibiting a ground plane of the oldest recorded map.
2. Portray Davis’ achievements in bicycling transportation through design.
3. Community reflection through structures that are mirrored underneath, to see at once one’s own reflection as well as the community in which they belong.

The final recommendations revealed through this design research could help establish specifications for Downtown sustainability infrastructures, design process, and conceivable techniques to communicate Davis’ identity. I expect these findings to open conversation about designing a gathering space and further refining the community vision for such a space.
CHAPTER 1: Introduction

My design research project comprises a site in Davis, California at the E Street Plaza (as it was built in 1999), the adjoining parking lot, and the bordering streets. Logistically speaking, the E Street Plaza area meets many basic requirements like being centrally located with a people catchment and possessing the ideal size and form for civic gatherings. Politically speaking, the community and the appointed representatives on the Downtown Plan Advisory Committee, support this site becoming a civic gathering space to attract visitors to the heart of Davis. My thesis research seeks to answer the question: How could a design of the E Street Plaza area in downtown Davis, California create an inclusive civic gathering space that reflects Davis’ identity and vision to sustainably progressively respond to climate change?

My concerns about downtown Davis (Downtown) first emerged from being a mother. During the years 2006-2012, I was a new mom with crawling and toddling babies; I felt isolated at home while caring for my small people. I was desperate for social interaction with adults and needed a place that suited both my needs and those of my little ones. I could “schedule” a playdate at someone’s home, but that limits relations to those invited. My desire was to be Downtown with more organic interactions for both myself and my littles, clean houses being unnecessary. Because Downtown civic spaces did not offer this, especially on days with inclement weather, we spent many rainy days at privately owned businesses like a baby retail store and a centrally located corporate bookstore. In these places we had protection from the weather, people to interact with, and most importantly, safe clean bathrooms reachable with very short notice. However, these locations came with the expectation of spending money.
Both places have since closed, further limiting opportunities for current families with young children to hang out downtown.

Fast forward a few years, now a mom with pre-teen children, I have different concerns about their presence downtown, primarily their ability to safely bike or walk to and around downtown. Every year around August, I begin alerting them of all the new students coming to town who have never lived in a town with so many walkers and bikers. I coach them about how the cars and other bikers will often not follow the rules, nor notice them, especially during this time of year as they become acquainted with the local transportation culture. These hazardous conditions do not provide a suitable environment to include kids and families, thus limiting patronage and viability of downtown.

**Positionality - Relating Self to the Research**

My experience in life, as a mother, a UC Davis student, being a longtime Davis resident, and my professional experiences influence the methodology for this research project. I am sensitive to vulnerable and underrepresented populations after having grown up quite poor. My experience as a mom influences my inclusive design strategies that invite all generations to participate, including families. My experience as a bicyclist in Davis for 20 years lead to concerns about my children’s safety and therefore shape my transportation design strategies. My education level and professional experiences also add to my worldview because as an environmentalist, I value sustainability both during implementation and in its ability to provide a demonstration space for research pilot projects on new sustainable technologies. As an air pollution specialist at the California Air Resources Board and as a researcher for Yolo County
Waste Management, I recognize that it is critical to our future that we reduce carbon emissions from vehicle trips, solid waste, and other sources.

The City of Davis’ Downtown Davis Specific Plan (Specific Plan) outreach process formed a Downtown Plan Advisory Committee (DPAC), appointed by the Davis City Council (Council) in November 2017. This committee’s function is to provide individual input and group recommendations to the City Planning Commission and City Council, and to broaden community outreach efforts. The DPAC has 19 members, some of whom represent specific neighborhoods or interests. My formal research on downtown Davis began when I was appointed to the DPAC by City Council member, Lucas Frerichs to represent the community at large and subsequently being elected as Vice Chair. Although I sincerely attempt to represent the community at large, consensus on specific topics is difficult within the entire community. I recognize that as a member, my opinions may hold more weight than the average citizen and that the process has also had an influence on my viewpoints.

The DPAC is meant to play a significant role in forming the vision of downtown, and the new Specific Plan and hence, it informs my design research. As Vice Chair on this committee for two years I have had a unique vantage point to observe the new Specific Plan process and the entities that assert their influence. I could quickly ascertain ideas that the community at large did or did not support, as well as the representatives from Business and Development sectors. I acknowledge that my position has likely had an influence on my research, creating biases in the research question, methods, findings, and recommendations.

When I completed my bachelor’s degree at UC Davis in 1997, Downtown was much different. Shopping locally is a core value of mine, so I have frequented downtown businesses
for more than 20 years. I’ve watched the E Street Plaza space go from being all parking to adding a small plaza. I’ve seen the Downtown change from the primary retail location of Davis, to a place that primarily offers eateries and other service-oriented businesses. I’ve been here to see the UCD student enrollment increase by 15,000, bringing with them additional staff and faculty. In 1997, Downtown served the smaller student population well. Students patronized the local eateries and met up at the 2 or 3 small, undiscerning bars. However, as the population and retail economy have changed, the general form and shape of downtown has changed very little.

My life experiences, or lack thereof, and my demographic and personal inclinations influence this research. As a long-time resident with an environmental and architectural background, I’ve spent years thinking about the function and design of Downtown and E Street Plaza. Now, as a master’s student studying community development, transportation, landscape architecture, and environmental design, my ideas have expanded and been influenced by my classes, research, and my role as a teaching assistant. Interactions with other students have also informed my current views about Downtown.

I recognize too that although I have studied this area for years, my understanding of this space is limited. As white woman currently in her 40’s, without disabilities, who is part of the dominant demographic, I cannot fully grasp the experiences of the older generations, men, or people that are in the minority demographics of our population, including people of color, those living in Davis with very low incomes, nor people with disabilities.
Research Method

My site analysis spanned over several years and includes more than 30 site visits in which I document the quantity and quality of behaviors and uses. While observing, I saw near collisions between pedestrians, cyclist, people with mobility assistance devices, and vehicles. The conclusions I’ve reached are influenced by my limited experience and limited time to observe. They are also based in context, meaning they apply for this site and may not hold true for another site.

John Creswell defines widely accepted approaches to research for academia. In several versions of his work, with varying co-authors, he describes qualitative research in terms of words and open-ended questions (Creswell, 2017, 3) often pursuing ‘why?’ to generate data. He describes quantitative research in terms of numbers and closed-ended questions that reveal cause and effect. Mixed method uses both qualitative and quantitative. Furthermore, he provides four frameworks or worldviews, that shape the research and may be applied to the method of choice: (post)positivist, constructivist, transformative, and pragmatic. Creswell describes postpositivism as one that is focused on cause and effect and empirical observation. Constructivism uses individual, subjective responses to situations and seeks to understand the social experience. The transformative worldview recognizes how politics play a role in social oppression, seeking to collaboratively produce action that will transform lives, especially of those not typically represented. Pragmatism tends to be real-world oriented and seeks to derive knowledge from a problem and find solutions using any method that works. (Creswell, 2017)
Landscape architectural design research methods, the related inquiries, and other question-driven projects involving design have not been well-established or defined in academia. Sanda Lenzholder, Ingrid Duchhart, and Jusuck Koh propose a framework for landscape architecture research that is based on Creswell, asserting that it can improve interdisciplinary communication tools. I support this view because I find that images and drawings effectively communicate ideas, without direct knowledge of other disciplines. This research team shows landscape architecture research is valid and rigorous by describing and grouping the types of knowledge sought. Based on this, they found three types of landscape architectural design research: research for design (to inform the design), research-on-design (queries on finished designs), and research by design/research as design/research through design (active practice of designing). The term they use to describe the latter research is “Research through designing” (RTD). RTD addresses socio-cultural issues, asks questions to generate something new, and is embedded in context. (Lenzholder, 2013)

My primary method is qualitative; however, some quantitative analysis was also performed. Transformative worldview guides my research since the purpose is to influence City policy that will ultimately change Downtown. I use the constructivist RTD methodology to determine how a design can meet the aspirations of the Davis community. While researching, I have applied my research question to every element of the design and in turn, the designing process has influenced my recommendations for the design. Limitations of this methodology include my personal biases, my personal aesthetics, and my limited experience with design and design processes.
I used several methods to collect data for this research. I studied many public
documents about Downtown. Through behavior mapping at the E Street Plaza site I recorded
counts of people using various travel modes, I kept qualitative notes of my observations, and
photographed the Site to document use, amenities and behavior. To better understand why
people were present and what they were doing or how they were using the space, I performed
qualitative interviews of several people including city staff, firefighters, parking engineers, and
small business owners. These collection methods are limited due to my limited time at the site,
my skillset, and my ability to read and comprehend all documents. They are further limited by
the people I chose to interview who also have a subjective, limited, personal, experience-based
opinion.

Photography played an important role in my ideation and site analysis process. I
documented at least 3000 images of the Site and related sites over the last two years. These
images are of the physical site, amenities, and human behavior. During this time, I also used
travel opportunities to study other plazas, town squares, streetscapes, and downtowns. The
travel images I’ve taken were also to document the site, amenities, construction, and behaviors
that could apply to Davis. These images provide inspiration for my ideas, validate the size
spaces that work or don’t. Photography also allowed me to analyze changes to the Site, such as
several businesses turning over or remodeling and a new and expanded trash building added to
the E Street parking lot. I’ve been able to record just how much double parking occurs and by
whom. I also photographed people using a wheelchair or a walker having difficulty in getting to
and navigating the plaza space. I acknowledge these methods are inherently biased as I chose
the day and times to record the information and this information may not be comprehensive
because my time was limited. I also chose when and how to photograph a scene and its
postprocessing. I returned several times to record specific images to make them more explicit
for this paper, such as alleyway conditions and Davis logos.

As Vice Chair of DPAC, I used the participant observation method within the Specific
Plan process as I interacted with people in the community and DPAC while collecting data.
(Jorgensen, 2015) I have taken detailed notes at the 18 DPAC meetings over the last two years. I
have also attended several days of two separate participatory design workshops, as well as
several pop-up outreach events, and other public forums. I summarized the DPAC opinions for a
letter to the Council to be included with the Draft Downtown Davis Specific Plan release. In this
process, I analyzed the meeting minutes, my notes and other relevant documents such as the
existing conditions report. These qualitative methods are inherently biased because my
personal involvement and skill level affect the interviews, observations, and data collection.

The all-encompassing limitation goes back to my positionality discussion. The methods
employed, skilled accessed, and data interpretation to name a few parts of the process, is all
based on my personal experiences and my positionality. The data collected from individuals is
also based on their view of the world. In combination, all these limitations mean that I am only
able to generate a partial understanding of the research (Myers, 2010). I want to recognize
that my design is but one of many possibilities, however the recommendations derived from
this research are applicable for the City of Davis and could be used for any design.
Literature Review: Community Development and Urban Planning

Here I present an academic exploration of the theories and concepts that have an influence over the design of a civic gathering space. The ideas of community, successful urban squares, inclusivity, and accessible design are all relevant to this paper.

First and foremost, as a Community Development student, and because this project is focused on community gathering, I must discuss the term “community”. This term can have a multitude of definitions and an accepted definition is still being debated in academic circles. In the planning and development world the term is often used to invoke an emotional feeling of connectedness. For this research paper, community refers to the place-based community of Davis. This includes residents, workers and frequent visitors of Davis.

When this research paper uses “community” in combination with “gathering” it means a physical place that offers the opposite of isolation, rather it offers a place to connect with friends and strangers and provide a sense of belonging among citizens (Block, 2009). Peter Block summarized it with this, “to transform the isolation and self-interest within our communities into connectedness and caring for the whole” (Block, 2009). It is a place of community well-being, where people can form high quality relationships and cohesion among its citizens (Putnam, 2000).

To describe the intent of the community gathering space, I also call on Ray Oldenburg who writes about the concept of community and established the theory of a third place (Oldenburg, 2001). Oldenburg describes the first place as home, the second as work, and the third place as one that allows public social interaction without the need to spend money (Oldenburg, 2001). Subsequent to his theory, others have suggested that coffee shops, where
money exchange is expected, can also serve as a third place, (Rosenbaum, 2007) however it is limited to particular social groups with adequate financial means.

To ensure basic sustainability practices for the plaza, opportunities for travel to and from must be considered. When people use active travel to get to their recurrent destinations, their carbon footprint is reduced and their health is improved (Higgins, 2005). A civic space can promote sustainability simply by being centrally located among other common destinations and providing complete streets, see figure 1. According to Smart Growth America, a “Complete Streets” approach “integrates people and place in the planning, design, construction, operation, and maintenance of our transportation networks. This helps to ensure streets are safe for people of all ages and abilities, balance the needs of different modes, and support local land uses, economies, cultures, and natural environments” (Smart Growth America).

Handy and her collegial researchers have concluded that when accessibility is used as a basis for planning, vehicle trips are reduced (Handy, 1997) (Handy, 2001) (Salon, 2012), and...
consequently greenhouse gas emissions and carbon footprint are minimized. Dr. Susan Handy has generated a considerable amount of research to show that transportation accessibility is a function of proximity and connectivity. (Handy, 1996) Accessibility can be thought of as the ability to get what one needs. Proximity means how close one is to their need/destination. Connectivity describes how direct the route and the amount of energy expended to get to that need. Poor connectivity would be if one must walk to the bus, take the bus to a train, and walk again to get to school.

To reduce greenhouse gas emissions and live a healthier, more active lifestyle, it is important that people have good transportation accessibility, meaning they live near where they work, attend school, and other prevalent destinations and that the connections between these destinations are not complicated or time consuming.

The shorter the distance between frequently visited destinations, and the easier it is to get between them, the more likely a person is to use non-single occupancy vehicular means of transportation such as walking, cycling, or transit. (Brown, 2016) (Freeman, 2013) (Handy, 2001) When the connections between these destinations are short enough to be walkable, the more opportunity people will have to use active modes of transportation (Handy, 2002). Travel distances to and from a new gathering space and its location are important sustainability factors.

Civic urban squares function by allowing people to gather for some purpose or no purpose at all. A square is often called the front porch, living room, or the door to civic engagement for a city. Squares host economic exchanges, social encounters, and/or public assemblies (Gatjie, 2010) (Lang, 2017). Some squares lean more heavily toward one or two of...
these roles. Successfully utilized and appreciated public spaces such as Pearl Street in Boulder Colorado, another college town, focus on retail. Historic squares such as the Piazza Della Rotonda, in Rome, which holds the Pantheon, presently serves visitors from around the globe as a place to gather and be without fear of moving vehicles (Gatjie, 2010), to come see historic sites, but, no longer serve as a place to rest, play, nor gather for civic discourse.

Urban squares can vary in size and shape, they may be fully paved with a hard surface or in combination with trees and vegetation (Lang, 2017). Squares have historically formed in places where important roads converged as exemplified by Old Town Square in Prague where 13 roads meet (Gatjie, 2010), or the Zocalo in Mexico that was used as a ceremonial space. It is still seen in modern cities like Cambridge, Massachusetts which holds the infamous Harvard Square. A “catchment of people” contributes to a successful urban square (Lang, 2017), in other words a place that already draws people within proximity, such as a civic building or popular places to dine. A square that is repeatedly well-used and well-loved, requires an appropriate social and physical context (Lang, 2017). In other words, a town square would not likely succeed if it is surrounded by warehouses or parking lots.

Squares are usually publicly owned, but private spaces and public-private spaces have been created for similar purposes, such as Millennium Park in Chicago. Urban squares are not only found in large cities like Boston, Chicago, and San Francisco, they are also found in college towns such as San Luis Obispo California, Boulder Colorado, Corvallis Oregon and Davis. Urban spaces occur between buildings, occupying the volume between the masses; they may or may not be squares or any particular geometric shape. The size of a square may vary but if it
becomes too large, say above 500 feet in any direction, it loses a sense of enclosure and becomes more of a park, recreational space, (Gatjie, 2010) or a district.

To explore what makes gathering spaces successful, I consider several descriptions of downtowns, public places, and town squares. Starting with Jane Jacobs, a writer who left an enduring influence on urban studies by advocating for community-based planning and maintaining lively, diverse streets. In her book, The Death and Life of Great American Cities, she described the two characteristics that make downtowns special: “Individuality (drawn from the district’s particular history and natural resources) and people (attracted to the place by its centrality and clustered activities)” (Jacobs, 1958). She went on to say that the liveliest downtowns have activity in “two shifts” of pedestrians, meaning during the day and the night. For example, the business and shopping crowd during the day and the entertainment crowd at night.

William Holly Whyte, a pioneer in urban studies whose film and study called “The Social Life of Small Urban Spaces” provides the essential foundations for successful gathering spaces (1979). He viewed success as a space that facilitates civic engagement and community interaction. His study found 5 key factors, the most important being sittable space, without the ability to sit and enjoy a space, people are likely to pass by or through it without lingering. Other important factors he identified are tree canopies, water features, sculptures, and food vendors. Beyond these elements he concluded that:

“What attracts people most, it would appear, is other people.” William H. Whyte

Robert Gatjie defines a successful urban square as having three qualities. The first quality, utility, meaning it serves a purpose such as commerce or public assembly. The second
quality, *integrity*, meaning the space is held by and integrated with surrounding buildings, meaning it fits in context. The last quality is *delight*, meaning people are pleased with the space and appreciate the beauty and historical value, feel its energy, and they want to participate in its life by coming to visit and staying a while (Gatje, 2010).

Another perspective of the square considers children and their role. Claire Freeman and Paul Tranter say in their book, *Children and their urban environment: Changing worlds*, that “The square is more than a paved plaza with seats: it has social meanings that influence social inclusion and exclusion; it has written and unwritten rules on its use, and these change over time, even between daytime and evening use” (Freeman, 2012).

Henry Shaftoe wrote the book, *Convivial Urban Space* about public space and he is often quoted with his description of a gathering space:

Places where people can be ‘social and festive’ are the essence of urbanity. Without such convivial spaces, cities, towns and villages would be mere accretions of buildings with no deliberate opportunities for casual encounters and positive interactions between friends and strangers. . . Without good urban spaces, we are likely to drift into increasingly privatized and polarized society, with all its concomitant problems. (Shaftoe, 2008, 5)

The experience of an urban square can be perceived using all our senses and the ambiance of the place provides these experiences. (Lang, 2017) Important factors to consider beyond visual stimulation are sunlight and other illumination mechanisms, sounds, smells, and texture. Authors Wei Yang and Jian Kang, who research sound in public squares found that soundscape is an essential quality in an urban square and can trigger feelings of pleasure or
annoyance (Yang, 2005). “The preferences of soundscape elements are proved to influence people’s choice of using an urban square” (Yang, 2005, p. 76). Yang and Kang’s research found that nature sounds are generally more preferred and that the sound need not be loud. Moreover, they found that the sound of water with a dynamic, inconsistent sound level can attract more visitors, consistent water sounds are ignored with time. (Yang)

Public palates effect how public space functions, how it is designed and redesigned, and therefore how it is regulated. Today, middle-aged, high social status people do not tend to use squares unless they are located in high status areas, however, most square development is targeting this population rather than also serving lower-economic groups. (Lang, 2017). These higher social classes use private spaces that serve food and drinks and do not allow their children to interact in public squares (Lang, 2017). This separation of classes is a detriment to our democratic ideals that require civic discourse and engagement.

Another example of regulations that had a lasting impact is the auto-centric planning that began in the 1950’s. When car ownership skyrocketed, it triggered the focus of public space design to revolve around automobiles. Just as it was thought that no home should be without a garage, planners reinforced the notion that no commercial building or shopping district should be without plenty of parking spaces, especially the day after Thanksgiving. That day has historically been the largest single day that people go shopping and therefore minimum commercial parking requirements were based on the needs for that day, even though most of these parking spaces are not used throughout the year.

This auto-centric planning rationale was at the expense of lower classes that didn’t own automobiles and required sidewalks and transit options. During these auto-centric years the
City of Davis made way for a parking lot and commercial businesses by acquiring and demolishing homes. As cities made way for and required parking, homes got further away from businesses and frequented destinations. People without cars found active transportation much more difficult.

Equitability and diversity are important considerations when planning public space (Shi, 2016). Although diversity is a cultural construct that groups people by age, ability, race, gender, religion, and other things, a diverse community that includes people of all ages and abilities and exhibits cultural pluralism is necessary to promote civic discourse, social interactions, and to prevent isolation between groups which leads to apathy rather than caring for all citizens. Exclusion from public space with respect to diversity is a direct expression of privilege. (Lynch, 1984) Vitality is a measure of human health and health of vulnerable groups is crucial to environmental justice (Lynch, 1984). In this study, vitality refers to human health and includes sensory and social health. In her well-read and oft cited book, “Design for Diversity”, Emily Talen says that “diversity is seen as the primary generator of urban vitality because it increases interactions among multiple urban components” (Talen, 2012, p. 35)

Cultural pluralism frequently sits in conflict with the business community that is focused on stimulating economic growth (Lees, 2003). Downtown businesses typically pursue employment and retail as a means of achieving vitality. However, they should also seek residents because the density of people residing near businesses directly influences the economic growth of downtowns. (Jacobs, 1961) This idea still holds true today, more than 50 years later. It is exemplified in Downtown, which has been courting businesses for many years to bring in tax dollars for the City budget. However, Downtown accommodates very few
residents. Compact cities that provide housing within walking distance of people’s needs, offer ample social, ecological and economic benefits (Wheeler, 2013).

Civic gathering spaces, such as a square are regulated to some extent at many government levels, from national to local. Regulations grew out of the need to plan for disasters such as fire. As the planning profession arose during the early 19th century, it provided safety codes, separated land uses, and made rules for acceptable building standards (Ford, 2000). Today the categories that State and federal laws regulate include natural resource protection, air quality, transportation, and water. Local government regulations cover land use planning, building codes, transportation, water runoff, sewer and other infrastructure (Fulton, 2012).

Rules and regulations over public space has continued to expand and evolve with public impulse, regulating everything from street width to benches, justifying the rules as necessary for property value protection (Ford, 2000). Today, legislated standards, rules, and regulations are justified as a means of liability protection. However, these rules have historically and continue to, result in segregation of people in differing classes, races, abilities, and socioeconomic status. This notion of protecting the city from liability results in excluding teens, young children, people with limited budgets, as well as the experienced generation. Groups of people such as those experiencing homelessness, skateboarders, or children are often not included in civic space development and are often explicitly excluded from these spaces by regulations or by design (Lang, 2017) (Flutsy, 2000).

In Larry Ford’s book, The Spaces between Buildings, he describes local governments as seeing the glass half empty when it comes to public space (Ford, 2000). With roots from the
Victorian era, Ford acknowledges the pessimistic attitude that planners, engineers, and other have about public space design because they wish to keep people “safe” (Ford, 2000). However, this safety argument results in the separation of people in public spaces as it minimizes interaction between groups. This is exemplified by suburban residential areas that do not provide a mixture of housing types and in the playground systems that are separated from areas where adults, or even children of differing ages spend their time. The experienced generation often get overlooked completely or may have a special facility set aside where they can connect with each other, separate from other generations.

Inclusivity is a primary goal for my design, and it permeates throughout my research. Inclusive design means more than welcoming someone from outside the dominant demographic, it means involving them in the design process and responding to their circumstances in an integrated way so that they are as much a part of the space as anyone.

“When we create a city around the needs of our most vulnerable citizens (children, older adults, the poor, the disabled), we build a city that is great for everyone” (8 80 Cities, 2017, 9).

For a civic space to be inclusive it must go beyond the minimum standards required by law; it must be thoughtful of all generations and cultures of people that intends to serve. The New Urban Agenda document that was created in October 2016 during the United Nations Conference on Housing and Sustainable Urban Development (New Urban Agenda, 2016) in Quito, Ecuador, states that “the spatial organization, accessibility and design of urban space, as well as the infrastructure and the basic services provision, together with development policies, can promote or hinder social cohesion, equality and inclusion” (New Urban Agenda,
2016, 11). Emily Talen says in her book well-respected book, “Design for Diversity” that “At the heart of a diverse community, there should be something that connects people, by providing ‘identity space’” (Talen, 2012, 112). Identity space is a recognizable image, landmark, or symbol of a place that can serve as a spot that brings people together (Baker, 2012).

Inclusive Design integrates people of all generations, abilities, and cultures allowing interaction, rather than separation. This is community building, bringing people together that otherwise might not have contact with each other. During the last 100 years, beginning with the industrial revolution, it is said that women and their children were separated into the suburbs to avoid the industrial filth. However, this coded language was used to justify separating white families from black or brown families and from the lower-class workers that remained in the city. This institutional segregation has influenced not only our built landscape, but, our entire culture.

Civic spaces should be inclusive places for children of all ages, as well as adults. Isolating the experienced generation to “senior centers” and young children to “playgrounds” essentially removes them from our public spheres. Childcare givers in most American cities are typically obliged to drive to specific playground location to keep children “safe”. However, these spaces do not typically include adult needs. Civic space design should provide a balance of generational needs, allowing families the opportunity to participate in downtown areas, without sensing that their children are out of place. As indicated by Building Better Cities in their guide of best practices to engage young citizens and families, “Voices of young children, their parents and caregivers, and pregnant women have been underrepresented in traditional city building
processes and overall civic engagement strategies” (8 80 Cities, 2017, 9). It follows then, that outreach for civic space design should include youth and families.

Movement to and through spaces is the primary barrier that can limit people with mobile disabilities or those with hearing or sight impairment. Infrastructure accessibility laws are meant to allow all citizens, including those with a disability to enjoy the same ability to “to participate in the mainstream of American life” (Introduction to the ADA). These laws are known as the Americans with Disabilities Act. This equal opportunity act was signed into Federal law in 1990 and updated in 2010 (Introduction to the ADA) Having a disability is not just a category of the population, it is a fact of life. It is important to understand that a disability can affect anyone directly or indirectly and it could be temporary or long lasting. For example, when people age, their caretakers will find themselves needing to accompany someone by pushing a wheelchair or walking alongside someone that cannot climb stairs or walk long distances. When a person breaks their foot or acquires some other physical challenge, they experience having a disability and they also have a need for accessible inclusion.

The ADA codes are a minimum requirement, but Universal Design goes beyond the minimum accessibility standards and uses an inclusive approach during the planning and design phases when changes are easily made to ensure accessible elements are beautiful and fully integrated. Universal Design is defined as “design that's usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.” (Mace) The overall design should not only be pleasing, but functional for all people, including those using wheelchairs or other disability assisting equipment. Universal Design seeks to avoid segregation of people with disabilities, providing for all users equally, for instance allowing a person using a
wheelchair to enter the same door as people without, rather than a segregated door around
the side of the building or requiring a staff person with a key to provide assistance or to lift a
wheelchair, which can be demoralizing.

According to the National Center on Health, Physical Activity and Disability (NCHPAD),
inclusion means to “transform communities based on social justice principles in which all
community members:

- Are presumed competent;
- Are recruited and welcomed as valued members of their community;
- Fully participate and learn with their peers; and
- Experience reciprocal social relationships.” (Definition of Inclusion)

Authentic Universal design integrates accessibility during the design process, including
multiple people with differing disabilities such as visual, hearing, or mobility in the outreach and
design process. Planners, architects, and engineers have a practice of appending their designs
to meet the ADA code requirements, without consultation from people with disabilities,
therefore limiting more inclusive design options. For example, when a business requires stairs
to reach the entrance, the designer can include a ramp as an architectural design feature to be
used by all or, one that meets minimum codes of ADA by using accessible ramp off to the side,
out of the usual path of pedestrian flow.

I attended a webinar hosted by “America Walks” on October 29, 2019 called
"Addressing Ableism in Your Built Environment". This presentation included a panel of four
people with disabilities that presented some of the daily challenges they face in the built
environment like participating in their children’s lives. Karin Korb quoted a friend with a
disability who said, “If we can’t get there, we can’t participate.” Vincent Robinson said that he
experiences anxiety as he plans his day around the possibility of arriving to new spaces that
may have highly inconvenient "accessible routes" that technically meet the ADA code
requirements. He told us how he faces challenges like having to "wait for a person with the
[elevator or door] key" to gain access into spaces. Wendy Lu highlighted that people with
disabilities should be involved in the process of creating accessibility. "So, the more actual
disabled people are involved, the more successful a project will be. And it's better for business
as well!" (Addressing Ableism).

Reflecting on these various views and elements needed for successful gathering spaces
and squares, I have created the following list of questions to consider when locating and
designing a civic gathering space.

1. Does it have potential of commerce/economic exchanges?
2. Does it have potential for civic assembly?
3. Can its development be community led?
4. Is it centrally located with a people catchment?
5. Does it have good transportation accessibility?
6. Is it a suitable context for a civic gathering space (does it fit into its surroundings)?
7. Is it a space where people participate without the need to spend money?
8. Can it serve two shifts of people – day and night?
9. Can it serve a diverse set of people, ranging in age and cultures?
10. Is it enclosed between buildings and no more than 500 feet in any direction?
11. Does it or could it express local identity?
12. Does it have or offer the potential for social and festive activities to allow for
    interactions between friends and strangers?
13. What sensory experiences are present and are they appropriate for the venue?
CHAPTER 2: Analysis in Context

Situating the Project

The City of Davis, California is located west of Sacramento, across the flood plain of the Sacramento River. It is a college town within an easy commute distance from Sacramento but separated enough that it is not exactly a suburb. Its European roots lay undeniably in agriculture and academia and it is surrounded by agriculture fields. Davis is broadly recognized as a walkable and bike-friendly place, particularly in its downtown. Downtown Davis (Downtown) consists of short blocks lined with large trees and is predominantly 1-2 story buildings, with very few residential units. Downtown is a lively, active area comprised of some retail shops and offices, and many cafés and other eateries. There are a few historic buildings and it hosts many local events.

Since the 1960’s the form of Downtown has changed only marginally, but the great recession, increasing UC Davis population, demographic changes, changing retail environment, and new transportation choices have caused a conspicuous change in how it functions. The Davis City Council (Council) recognized this change and in early 2017, as part of Council goals, they initiated the process of developing a new Specific Plan for Downtown, as adopted in City of Davis Resolution No. 17-002. The overall idea was to identify opportunities to implement form-based codes, clarify and consolidate development policies for the Core Area (Downtown), and serve as a first step to a General Plan Update.

The current Core Area Specific Plan (CASP) was adopted in 1996. This plan is not regulatory but serves as a community vision for policies about Downtown. This plan focused on maintaining the current character of Downtown and limiting growth. Layers of other plans and
guidelines also apply to Downtown development or have been created to address certain aspects of development, including: Downtown Davis Traditional Residential Neighborhood Design Guidelines, Guide to Infill Development, Core Area Strategy, Davis Climate Action and Adaptation Plan, Sign Design Guidelines, and Beyond Platinum Bicycle Action Plan. This list makes it apparent that a new Specific Plan is needed to provide clarity to developers, Downtown property owners, and neighbors.

Under Council directions and objectives, Downtown is undergoing a visioning process to create a new Specific Plan. The first objective was to consider a form-based code approach, meaning the creation of new zoning codes that focus on the built form at human scale, rather than the current codes which are land use and density focused. The codes will regulate changes to both public and private spaces and built forms. The objective of the Specific Plan outreach process is to develop a community-driven vision of that form. Another objective is to provide a basis for infrastructure needs like transportation, stormwater, and utilities, and to provide code clarity to ease development risks. The Council also stated an intention to reach for innovative and creative solutions for Downtown. Furthermore, Council also expressly called for effective community engagement and an advisory committee to help characterize the long-term vision of Downtown.

**Participation in the Downtown Specific Plan Process**

To expand outreach and inform the new Downtown Specific Plan, the City Council adopted City of Davis Resolution No. 17-113 in August of 2017, directing the formation of an advisory committee, at the time referred to as the Core Area Advisory Committee, now known as the Downtown Plan Advisory Committee (DPAC). Members were formally appointed in
November and the first meeting was held in December. At this meeting, I was elected Vice Chair. I’ve served in this capacity since and will continue to until the Draft Specific Plan is adopted in 2020.

Outreach is the first step in creating an inclusive design. Inclusive for this design project means to be accessible to all ages, abilities and cultures. By effectively involving the entire community, the overall vision of Downtown ought to be captured along with the political will to move forward. But what is effective outreach? How will we know if the vision portrayed in the final plan matches that of the community?

Generally, there are at least two transition points where interpretation of community vision could be altered or misunderstood, see figure 2. First, between outreach to people and policy writing (interpretation of outreach) or between the final policy to the design and implementation (see graphic below). The specific plan process that includes DPAC is meant to alleviate the first transition. Clarified codes, once written and adopted seek to alleviate the second transition.

![Flowchart showing transition points between The People, The Policy, and The Design]

**Figure 2** Community Vision can get misinterpreted in at least two areas before the plan is living. The first challenge is correctly interpreting public input and feedback into policy. The second is to appropriately implement the policy and interpret it into a design via specifications and code that results in making reality from these visions.
As the Vice Chair of DPAC, I have been able to participate and observe the outreach processes of developing a new specific plan for Downtown. The process has provided widespread outreach to neighbors, university, high school students, and focus groups. Two improvements identified include providing enhanced visual hierarchy of downtown streets, to give a sense of direction, and a large communal space, to provide for public events and festivals, as well as increased daily pedestrian traffic to support downtown businesses.

The 19 member DPAC was chosen to broadly represent all facets of the community that could be affected by the implementation of the Downtown Specific Plan. The committee consists of ten voting members appointed by the City Council to represent the community at large, two voting members represent downtown businesses (The Davis Chamber of Commerce and Davis Downtown), and three voting members represent adjacent neighborhoods on three sides of Downtown, including Old East Davis Neighborhood Association, Old North Davis Neighborhood Association, and University Avenue/Rice Lane Neighborhood. Three non-voting liaisons represent the following City commissions: Bicycling, Transportation & Street safety Commission, Planning Commission, and Finance & Budget Commission. Lastly, the nineteenth member is a non-voting liaison representing UC Davis Administration. Each neighborhood, Business, and UCD representation position self-selected a person to represent them. Together the DPAC represent Davis’ interests in the downtown specific plan and the formal vision for the future form of Downtown.

Members were selected to reflect wide-ranging categories of interest as shown below. The intent was to be inclusive. One of the goals was to include a person with a disability on the DPAC, as shown in the table below, however, it did not come to fruition. The committee
requested that Bonnie Mintun attend a meeting and present information about the needs of the disabled community. This was immensely helpful information that helped DPAC to understand more about accessibility needs. In the future, when creating a new gathering space, the city should explicitly seek and include people with disabilities to a greater extent in the design and outreach process.

<table>
<thead>
<tr>
<th>Affordable housing advocate</th>
<th>Historic resources advocate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect, landscape architect or urban designer</td>
<td>Parks and open space advocate</td>
</tr>
<tr>
<td>Community member or Davis resident</td>
<td>Resident of Core Area or a surrounding traditional</td>
</tr>
<tr>
<td>Core Area business or property owner, or employer</td>
<td>Senior citizen advocate</td>
</tr>
<tr>
<td>Developer, builder, or realtor</td>
<td>Social services provider</td>
</tr>
<tr>
<td>Disabled community representative</td>
<td>UC Davis student</td>
</tr>
<tr>
<td>Environmental advocate</td>
<td>Youth advocate</td>
</tr>
<tr>
<td>Faith-based community representative</td>
<td></td>
</tr>
</tbody>
</table>

As specified by the City Council, DPAC members use their personal experiences in the community when providing insights and preferences, as well as representing their designated group. The three main functions of the committee members are to:

1) Provide comments and feedback on existing plans and documents related to the Specific Plan.

2) Provide recommendations to the Planning Commission and City Council about the new Specific Plan.

... 27 ...
3) Communicate information to other community members, encouraging their participation.

Since its inception, the DPAC has held 18 official meetings, all with a quorum and typically with almost all positions represented. All meetings were public, and the committee was subject to the Brown Act and thus public notices were posted, as required. In May of 2018,

Figure 3 Images of outreach events that I attended showing some of the activities and types of information presented and gathered.
the DPAC formed small subgroups to discuss the specific plan outside of our regular meetings with other members who had similar interests. These groups returned in June to offer a more thoughtful conversation about our aspirations for the plan, helping to form our direction and opinions about the plan.

From the first meeting, DPAC guided public outreach ensuring it was broad-reaching and persistent. We helped with the outreach directly through our contact with community members and the distribution of flyers. Individually, we participated in public outreach events such as the downtown tour, design charettes, pop-up events, brown-bag presentations, and surveys, see figure 3. During these outreach events, we conversed with the community and listened to their ideas and concerns. I also attended relevant meetings of city commissions and city council to give and receive information.

To ensure the committee was well informed about the plan, we heard presentations throughout the process. Consultants and community members came to talk about universal access, historical resources, form-based codes, missing middle housing, transportation, and economic conditions. DPAC formed ad hoc subcommittees to dive into sustainability, affordable housing, guiding principles, and fiscal analysis. Those committees met and reported back their recommendations to the DPAC, furthering our knowledge to shape the plan.

It is important to remember that beyond community members and DPAC, several forces can be expected to influence the overall downtown plan, including the E Street Plaza space. Through conversations with local property owners, business owners, and developers I have learned that they are already speculating on the value of Downtown properties after the passage of this plan. Neighborhoods are already threatening lawsuits if it isn’t created in
according with their neighborhood characteristics. Professional opinions of city staff do not necessarily align with the community or DPAC. UC Davis may or may not align itself with the Downtown plan. There are community factions that do not want to see changes Downtown. Concerns of these groups must be balanced for a successful, inclusive plan.

The specific plan development process that established DPAC was largely effective and has benefited the community as it guided and steered the overall development of the Specific Plan. DPAC has been able to defend the community desires and concerns within the process and as such was a good choice for helping keep the plan within the community realm. However, additional outreach to specific groups of the community may have resulted in a broader view of the visions and aspirations for downtown. It would also have been helpful to arrange activities that were more interactive in discussing and developing the form.

From the letter that Meg Arnold and I wrote as Chair and Vice Chair of DPAC to the City Council, 10/04/19:

In the course of its meetings from December 2017 through October 2019, the DPAC has made several recommendations for and about the development of the Downtown Specific Plan. These are summarized here in no particular order, with the use of bold to identify major topics per bullet point.

- Unanimous support for integrating accessibility through universal design and more, to make accessibility a priority, and distinguishing Davis as such a place.
- Strong support for creating much greater certainty in the building and redevelopment process for the benefit of both neighborhoods and downtown property and business owners.
- Strong support for thoughtful transitions from downtown to residential neighborhoods.
- Strong support for providing the possibility of a taller central core of downtown. The core of downtown is understood to be between E, F, 2nd, and 3rd Streets.
- Strong support for a **larger, more useful urban “center”** in the current E Street Plaza area, to include pedestrian priority
- Strong support for **4-sided architectural features at transitions** like at the railroad tracks along G Street.
- Strong support for proper **step-backs** with height of buildings at transitions like at the railroad tracks along G Street.
- Unanimous support for **adding housing** capacity and options downtown.
- Strong support for providing **affordable housing** downtown.
- Strong support for **maintaining local businesses.**
- Strong support for **innovative parking management**, such as parking maximums, due to predicted future changes in transportation and mobility.
- Opposition to adding a **public parking garage**, also due to predicted future changes in transportation and mobility.
- Strong support for a plan that is **economically viable**, for both the City and for property owners/developers, and therefore more likely to be implementable.
- Strong support to embed **sustainability** as a core attribute and distinguishing feature of the downtown.
- Strong support for using sustainability and food/ag as **economic drivers** downtown.
- Strong support for ensuring that the Plan helps support business opportunities to provide **local jobs**.
- Strong support for not including the **University Ave / Rice Lane** neighborhood in the Downtown Specific Plan.

The Specific Plan process is continuing into 2020 and once implemented, it is intended to be in effect until 2040. As the City reaches out to the community and DPAC to understand its vision and aspirations for the future of Downtown, there is also an opportunity to establish a vision and objectives for a community gathering space.

E Street Plaza (Plaza) is central to the City and the Downtown Core area, where the most activity happens outside of UC Davis. The E Street Plaza and adjacent parking lot are in the core of Downtown and central to the City as a whole. This Plaza is located between F Street to the...
east and E Street to the west and in the middle of the block bound on the north by 3rd Street and the south by 2nd Street. The Plaza is currently used for lingering, rest, and for small events throughout the year, see figure 4. In combination with the bordering parking lot and streets the Plaza Site also hosts large events such as the Davis Tree Lighting and the July 4th Davis Criterium.

Figure 4  The E Street Plaza with the clock fountain, looking East with the parking lot to the right, behind the firetruck that is double parked on the plaza.

The Downtown core has existing multi-modal transportation infrastructure that serves the Site. Digital maps, such as Google Maps, pinpoints the City within half a block of this site. Consequently, when visitors journey to Davis via a digital map system, they will be guided to or
just past this space, making it a conspicuous location to welcome people and establish the City's first impression or identity.

Comparing Alternative Locations

During the Specific Plan outreach, four other downtown sites were suggested by DPAC members, community members, and the consultants including the F Street parking lot, the G Street parking lot, Central Park, and the Train Depot parking lot. Figure 5 shows each site with a circle encompassing an approximately 5-minute walk from center of the site indicated. A 5-minute walking distance is a good measure of how far people are willing to walk to reach a second destination, meaning they are more likely to run errands by pedestrian facilities rather than by vehicle. All these sites offer good alternatives. However, I highlighted businesses on the maps in yellow to show how many commercial sites are present for each location. E Street Plaza prevails in this comparison. Detailed analysis of each site is offered below.

The F Street parking lot seems a likely possibility for a central location. It offers a good tree canopy and is somewhat enclosed, however the businesses that enclose it are dominantly day use only services such as banks. With some minor alterations, the city could provide a mid-block crossing that extends from this parking area through to the new plaza. This space is not incredibly active with pedestrian activity, with very little during the evenings. I observed that in the evening when parking is full at the E Street Plaza parking lot the F Street parking lot has an abundance of open spaces. When the E Street Plaza block is bustling with activity during the evening, the F Street lot block is not. This block does not offer the evening businesses that bring crowds downtown. The F Street lot was proposed for redevelopment years ago, but the
proposal did not have community support. This space offers parking that would serve people well from this perimeter location, just a block away from the E Street Plaza.

The G Street parking lot and surrounding space holds potential for an urban square as it is enclosed by buildings on three sides and it is located near the Train Depot. The area is accessible by motor vehicle traffic on one side only. The street does not currently offer a designated or protected bike lane and biking behind diagonally parked vehicles is dangerous. G Street, and this block in particular, was the original main street in Davisville and still holds historic landmark buildings.

However, the space is smaller than E Street Plaza, and it is limited regarding pedestrian mid-block access points. It is situated further to the east than central downtown. The DPAC and citizens have showed strong support for keeping the activity in the central core of downtown and leaning to the west where UC Davis students have clearer, quicker access.

Figure 5. This image shows the location of all five potential civic space locations. Top to bottom: Central Park, F Street parking lot, E Street Plaza, G Street parking lot, and the Davis Train Station. The circle shown on each is approximately 0.25 miles, or a 5-minute walk. Businesses are shown in light yellow, indicating the number of nearby commercial properties. E Street Plaza is by far encompasses the most Downtown businesses.
Central Park has amenities such as a children’s carousel, flower garden, art, play spaces, an associated building, and a large, permanent canopy for the twice weekly Davis Farmer’s Market. Central Park is well used during the times of Farmer’s Market and for the periodic community event such as the German Brewfest or the Soup’s-On Fundraiser. It has a large size to accommodate large events and playground spaces for children. It also boasts one of our most important treasures, The Hattie Weber Museum of Davis. However, outside of Davis Farmer’s Market hours, the space serves a neighborhood park and is often void of activity, except for the larger, cordoned off space for children. The associated building held a teen center for many years, but, has struggled to remain relevant. It currently holds the Bicycle Hall of Fame. There are a few food services across the street to the east and south, but these businesses and the neighboring buildings do not enclose the space to provide the “mass form” required of a healthy, vibrant downtown square in that they do not enclose the space, but rather are “nearby”. I contend that this space is now and should remain a “park” by landscape architecture definitions, rather than a town square.

The Train Depot parking lot offers a large space, with historical roots of Davis. There has been talk and even formal suggestions that the rail line that goes north/south through town could be turned into a trail that would provide a greenway connection to downtown. However, council members that I have spoken with say that it is much farther in the future than this specific plan will provide for. The space as used today, for train transportation, is not an ideal town square as it is cut off from downtown businesses and it abuts a neighborhood that would not likely appreciate additional noise and parking impacts of large events. Events such as the Criterion bike races could not be held in this location because of the tracks and its distance...
from the race route. More importantly, although this space could serve as a park or a transit center, it would not meet the goals of the City to revitalize downtown as it would not stimulate economic growth for downtown businesses due to its separation.

The descriptions above speak to the qualities of the spaces. To compare these categories along with location, I used criteria based on, the explicit aspirations of the City, community input to the Specific Plan process, and best practice design guidelines for successful urban public squares/plazas (see questions at the end of Chapter 1). Based on the criteria set forth and other features that are difficult to quantify or compare, E Street Plaza and its adjacent parking lot are the most favorable option from the five possibilities. This site meets all the criteria proposed. Hence, the rest of my analysis will focus on this site.

Table 1. Comparing advantages of 5 possible locations for a gathering space.

<table>
<thead>
<tr>
<th>Criteria for locating Downtown Public Gathering space</th>
<th>Central Park</th>
<th>F Street parking lot</th>
<th>E Street Plaza &amp; parking lot</th>
<th>G Street parking lot</th>
<th>Train Depot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property is City owned (for civic assembly and community led project)</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Proximity to the core of downtown Davis</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Historic resources nearby</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Enclosed, less than 500’ sides</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Transportation accessibility</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>People catchment with activity throughout the day and night</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absent of sensory experiences that need to be masked</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Visitor recognition</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Visible and able to establish Davis’ identity</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connection to several cultural spots, such as entertainment</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Hosts local events</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

... 36 ...
E St. Plaza – Site Analysis and Existing Conditions

The E street Plaza and adjacent spaces are owned by the city, therefore would permit civic assembly. This also makes redevelopment of this site achievable because there is no need to buy or exchange property. The Site is accessible for construction and utilities are readily available. Because it is a level site it provides straightforward accessibility and with simple ground coverings, the Site can be easily transformed. Below I analyze existing conditions and amenities.

In early 2018, I took a Landscape Architecture and Environmental Design studio class in which we were assigned to do a site analysis and design of the E Street Plaza area. My teammate, Rasul Madyun and I both separately studied the current uses and behaviors of

Figure 6 This behavior map of the E Street Plaza area, performed with teammate Rasul Madyun, 2/18, exemplifies the underutilization of the E Street Plaza, as most people walk through or past. We also observed a significant number of cars circling the parking lot. The image on the right, shows the abundance of signage we observed in the plaza area indicating that these spaces were not intuitively designed.
people and cars at the plaza and parking lot area. Our combined site analysis showed that people typically walk through or past the E Street Plaza. We also observed that the plaza had an abundance of sandwich board type signs, sometimes multiple for the same business, see figure 6. The presence of these signs indicated poor patronage of the businesses from pedestrians. Discussions with two business owners on the Plaza confirmed the decline in business.

As part of that assignment, I researched the history of the plaza using planning documents and other historical books, maps, and records. I created a visual depiction of this in

**HISTORICAL BORDERS, E STREET PLAZA**

*Figure 7 Historical analysis of E Street Plaza shows that first the Miwok of the Wintun Nation inhabited the area, and much later when Davisville was established by Europeans, this block was all residential properties with homes. After the 1961 Core Area Plan which was auto centric, those homes were torn down to make way for a parking lot. In 1999, the small E Street Plaza was completed in the northwest corner of the lot.*
an historical timeline, see figure 7. This work continued throughout my thesis project. I include
the historical timeline as the start of my research.

My research analysis continued for two years and I found that this Site offers a prime
opportunity to be a destination for people originating either from Davis or the surrounding
region. The location, as I have already established, is in the heart of Downtown Davis. The Site
is easily noticed from all modes of travel, especially from the wider western side on E Street.

I observed the following things about the physical form and context of the Plaza. The
Site has sides less than 500 feet in any direction, even when including the side streets. An
historic resource is entirely visible from the east side of the parking lot. The buildings
surrounding the plaza show deteriorating conditions and need maintenance. As these buildings
need repair, they offer a propitious time to redevelop, adding height and housing. While doing
so, there is an opportunity to strengthen the existing pedestrian facility by creating new
passthroughs to the north and south. See figure 8 for a comparison of the existing pedestrian
facility with one that is potentially strengthened.

There are many eateries present offering dining, bars, desserts, and coffee shops. The
perceived health of the eateries and other businesses is indicated with smiley (or frowning)
faces on the site analysis map, see figures 9 and 10. Discussion with some business owners
attest to these perceptions. My other judgments are based on observing the number of people
that appear to patronize the places. This information of course, is not systematic and is only
based on my personal perception or descriptions by a few business owners.
Figure 8  Google Map of Davis, California showing how the pedestrian facility can be strengthened Downtown. The map highlights the E Street Plaza, historic resources, parking lots, designated bike lanes and pedestrian access routes.
Figure 9  This existing conditions analysis map shows the relative number of pedestrians (pink), bicyclers (blue), and vehicular (grey) traffic. Hazardous locations are marked with orange yield symbols. I observed constricted sidewalks on the buildings next to the Plaza and Parking lot. People primarily passed through E Street Plaza without lingering or visiting the stores. Tree canopy provides shade for the parking lot and part of the plaza. Civic land leased to eateries are noted. I noted the raised curbs in the parking lot that make events hazardous for pedestrians. I observed the overly warm area of the stage, due to facing west and the lack of shade. 65 parking stalls are present, with two accessible parking places that are inadequate. Parking must be paid for between 10 am and 6 pm. The lot was observed to be near capacity at every visit. Sandwich board signs are noted surrounding the plaza.
Figure 10  Site analysis map of the E Street Plaza space, showing size, opportunities, weather, sun pattern, large trees that should be retained, water flow, business types and perceived health of the businesses with smiley faces.

The general area appears somewhat deteriorated and mismatched as the sidewalks and furniture strips are sometimes at differing levels and vegetation does not appear to be cared for or consistent. Trash cans and recycling bins are present in many different styles from plain black squares, to concrete or plastic 3 partitioned bins. Still, trash is seen on the ground at every observation, see figure 12.

Appealing visual aesthetics are important for a community gathering space. Regardless of style, an appealing atmosphere would be clean and kept clean by people who use the space. However, when it is unappealing with a degraded feeling, the opposite is true. Milan Kumar Jana and Tanaya De published an article in the European Scientific Journal saying that:
The term pollution signifies an inclusion of those affecting in a subtle way such as visual pollution. This kind of pollution affects the overall well-being and thus the quality of life of a community, reduces aesthetic appeal, economic health and civic-sense. This may incite a psychological aversion and thus affect mental and physical health of neighbouring residents. (Kumar, 2015)

The current atmosphere of the plaza and parking lot area gives a worn-out feeling. Trash is left on the ground at almost every corner or planter space, even though there is more than an abundance of trash bins within and surrounding the Site. Equipment is in disrepair. Parts of the water fountain along with the tall green decorative lights are rusty and do not operate consistently. Until a recent volunteer cleaning day was held, the immobile benches and the water fountain were also rusty. Signage within and around the Plaza gives the space a disorganized atmosphere. Sandwich boards dominate the Plaza area as they try to attract customers to their services, see figure 11. Commercial signs are in tatters or outdated, see figure 12. Permanent signage directing people to stores is also prevalent throughout the site and is somewhat repetitive. Parking signage is incredibly complicated and difficult to read with a profusion of words required to describe all the rules. There seems to be a parking sign every few feet, sometimes piled on top of one another.
Figure 12 The E Street Plaza feel worn. Trash is on the ground, vegetation areas are neglected, signs dominate the space creating a chaotic feeling, equipment and amenities are deteriorating and unsafe.
The E Street Plaza has a Clock Fountain that, when running in the summer, is well loved by children. However, it does not provide sound as it slides down the smooth surface of a central post. When it was functioning, it became a loved playful art sculpture for kids and adults. A sign is posted on the bench declaring that the water is not potable, seemingly trying to discourage its use, or to “protect” the City from liability, see figure 12. The water was turned off during the drought, it lost its appeal, and the bench surrounding it has deteriorated to the point of creating a safety hazard as sections of it are unstable.

The site is located diagonally across the street from the original, historic Davis City Hall which is designated as an historic landmark, see figure 13. This property is currently being used as a successful restaurant with abundant outdoor seating that wraps around to the west side, providing a view to the plaza space. The present City Hall is about an eight-minute walk away.

The Plaza and the parking lot have a tree canopy that covers much of the area. A few of the trees are quite large and I expect that the Community would not want them removed. However, many of the trees may not be appropriate for the future climate of Davis because
they already appear unhealthy, with dead branches and a wilted appearance. The tree roots are constricted, and water constraints have likely played a role in their condition.

Weather conditions show that the wind travels through the Plaza predominately from the west, northwest in the winter and southwest in the summer. Water runoff is collected in catchment drains in the plaza and I observed many problematic puddles were observed during the winter, presumably due to movement of bricks. The parking lot runoff is collected in linear trench drains located in the driving lanes. Ironically, the pergola area is the one part of the plaza that does not have shade and is therefore warmer than the rest of the plaza, making it uncomfortable on warm and hot days, see figure 14.

The Site does not have amenities like restrooms, water refill stations, skateboard nor scooter racks. Neither the plaza nor the parking lot have bike racks, but there are several racks streetside, between the sidewalk and parked cars where they are often full. Ammenities must also be functional and located so that they can be used. Locating and installing a bike rack may seem simple, but if its misplaced, it is simply useless. See example in figure 15.

Figure 14  The E Street Plaza pergola for performances, photo taken in the morning, trash piled in the space. Afternoon and evening sun make this space very warm to hot.

Figure 15  These bike racks were likely required when the Caldwell Banker building was remodeled. However, their placement, almost hidden, in an alley, on the backside of the building, by the trash, renders them useless.
The absence of a public restroom facility has been problematic. Interviews with business owners say they find human waste next to their buildings when they arrive in the mornings and must allow extra time to clean it up before they open. The City did a study to determine where a restroom could help. And yet, there was controversy because the businesses didn’t want it located near them. However, the City has moved forward and funded a construction project to install a “Portland Loo” style toilet facility on the east side of the parking lot in 2020. This type of facility offers privacy and security at the same time for an outdoor busy area. See image in figure 16.

For a successful civic gathering space, people must not only be able to see the space but be able to get there safely using a variety of travel modes. In its existing condition, active travel can be hazardous Downtown. I observed that very few bicyclers used E Street, likely due to the hazardous conditions. The Existing Conditions map in figure 9 above shows the many hazardous locations that I observed. Mid-block crossings and double-parked, and sometimes triple-parked delivery vehicles as well as parked vehicles on the street prohibit visual sightlines required for safe maneuvering. Delivery vehicles can be particularly hazardous due to their size and activity.

During my research, I documented and photographed some of these hazardous situations both during the day and after dark. During the day delivery trucks seem to be an almost constant presence – double parked on E Street or in/on the plaza. I witnessed a man who uses a walker nearly get hit in the mid-block crossing as a car went around a double-parked vehicle on the east side of the street. See the bottom two left images in figure 17. I have...
also observed people that approach the mid-block crosswalk, hesitate, and continue along the sidewalk to the end-of-block crossing. To me this indicates that people do not feel safe in crossing at this crosswalk. The midblock crosswalk on F Street does not show the same level of hazard, likely because the street is wider and buffered by bicycles lanes which improve the sight lines. Jaywalking, or crossing the street at points without a crosswalk, is also prevalent.

The evenings share similar hazards, compounded by darkness, but nighttime also brings some new elements of risk. The first is circling ridesourcing vehicles; ridesourcing is the term used to describe the type of service offered by Lyft or Uber. While I was compiling the night hazards photographs, I realized that several of the images, taken at different times and some on different nights, were the same vehicle, a Lyft vehicle. As the population of the City, UC Davis, and Downtown increase, I expect the number of these vehicles to increase as well, both during the day, and the evening when people come Downtown for the nightlife.

Another new technology has added additional hazards, digital food orders. I observed both individuals and digital delivery services, such as Door Dash or Uber Eats, double park their cars and go into eateries to get the order, while traffic continued to get clogged up around them, creating a hazardous condition for pedestrians and bicyclers. See figure 18.

E Street needs new policy and perhaps infrastructure that can provide space and time for deliveries. A plaza that prohibits vehicle use on E street will need to provide an alternative means for businesses to receive goods. Some downtowns use a time enforcement for delivery, wherein trucks may come only during certain hours, such as early morning or late evening. Others provide temporary spaces on the street specifically for delivery only. Food pickup and delivery service should also be accommodated with spaces that ensure pedestrian safety.
Figure 17 Here is my photographic documentation of several instances of double-parked cars and delivery vehicles that caused near collisions. The images here represent only a sampling of these occurrences that I witnessed. The top left shows Jump Bikes that are barricaded by a delivery truck. The top right shows that the firefighters park here while grabbing a quick coffee (per an interview). Second row, middle column, when traveling by bicycle, some people feel safer crossing traffic intersections via the crosswalk. Second row, right and third row, middle show a Davis Transit van attempting to unload a passenger that uses a wheelchair as a car squeezes through on the side. The bottom two left images are taken in sequence, documenting a man using a walker crossing mid-block and nearly getting hit by a car that was passing a double-parked car on the east side of the street. Bottom, right image shows the Delivery truck using the crosswalk as a ramp. On average, I recorded that these delivery trucks remained double-parked for 15 minutes.
Figure 18  This is a documentation of the hazards I witnessed after dark.  The top left and bottom left show a double-parked car with pedestrians present. The image at top right shows a double-parked car on E Street Plaza another car backing out of a parking spot, while a third vehicle attempts to pass it. The left, middle image shows bikers that had a near miss with the car the turned in front of them. The right, middle image shows individuals picking up food, double-parked behind another double-parked vehicle, while an emergency response vehicle squeezes through on the side. Bottom right shows a car passing a double-parked car while bicyclers are traveling on the east side of the street.
The adjacent parking lot has 65 parking spaces that include accessible parking, vehicle share parking, and electric vehicle charging. The lot charges for parking from 10 a.m. – 6 p.m. I have observed that it is near capacity throughout most of the day and evening, indicating a need for nearby, long-term parking. This lot offers one of only three locations where a vehicle may be parked for more than 2 hours. The parking lot also provides designated space for commercial trash, recycling, and grease collection, newly rebuilt and expanded in summer 2018, see figure 19.

![Figure 19 Private trash holding space on civic property, specifically in the E Street parking lot. On the left was the original area on the right is the 2018 expanded space.](image)

Within two blocks of the Plaza there are an assortment of thriving businesses including: retail, eateries, coffee shops, banks and other services, as well as entertainment. There are a several eateries, coffee shops and bars that have views into the plaza. Two eateries have outdoor seating on the plaza itself. Many nearby businesses on the blocks surrounding this site are well patronized, creating a bustle of activity around the Plaza. However, only a small percentage of people going by stop will to spend time at the plaza, most walk straight through without stopping.
Seating in the Plaza is limited to immobile black metal benches, except for privately-owned furniture supplied by Baskin Robbins. The benches within the Plaza face away from each other, offering some privacy for intimate conversations or individual activities such as reading a book. However, this pattern limits group gatherings, leaving groups with more than three people needing to stand. The black metal material can make for a very hot seat in the summer sun. Additionally, there are also immobile metal green benches on the sidewalk to the west. In my research observations, I have never witnessed them being used. Anecdotally, I have only occasionally seen them used. Some of these benches face each other, however the distance between provides a distance that is awkward for both a group conversation and for privacy. Some of these benches face trash and recycling bins, also at an uncomfortably close distance, see figure 20. These sidewalk benches are located next to parked cars, with little to no greenery at ground level. In short, they are not very inviting.

A gathering space must provide reasons to visit and reasons to stay. Downtown and particularly the E Street Plaza block already draw people in for nearby dining, coffee, dessert, and entertainment. But current programming is variable and challenging due to barriers like heat, sun, curbs, double parked vehicles, and inclement weather. Regular event programming would keep the space dynamic and alive. To better deliver programming, a stage would offer a new gathering site to hold civic events, performances, and other currently held activities.
The E Street Plaza has a small performance pergola structure with a semi-opaque cover that faces west-southwest. The Site periodically hosts small venue events such as Fire University, see figure 21, children’s entertainment, and small band performances. However, the stage area provides limited shade for events held at midday, afternoon, and early evening. Furthermore, the lack of shade all day and abundance of concrete and brick surfaces means that the space absorbs and retains heat. Daytime and evening performers get overly warm and face the direct sun, making it an unappealing performance spot. It is also an unappealing spot for an audience because the seating in this space is largely immobile and not oriented toward the performance space. A properly oriented performance space with electricity, lights, and sound, as well as some cover from the weather, would encourage use by both audiences and performers more consistently.

Figure 21  Davis’ informal group called Fire University meets on the E Street Plaza each Thursday evening.
Figure 22. Someone "yarn bombed" a couple of trees in the plaza with dragons. Notice two double parked vehicles in the background.

The Site, including the plaza and parking lot, and sometimes the streets, are also used to host large City events like the annual Christmas tree lighting and the Independence Day celebration that includes a long-established Criterium bike race and the historic children's bike parade. During these events parking in the lot is prohibited so that the event may overflow from the E Street Plaza. However, the parking bumpers and the raised curbs around planting spaces, machinery, and signage cause significant tripping hazards and dramatically limit access to people with decreased mobility. See figure 23. Additionally, the lighting quality for evening events is insufficient for safe navigation.

The plaza has some wonderful Davis-specific features, for instance the yarn dragons that appeared last summer, see figure 22. When it was at its prime, the clock water feature is a
Figure 23 This shows some events that happen in and around the E Street Plaza. Top row shows the Davis High School parade. Middle row shows UC Davis Picnic Day Parade. Bottom row shows the Davis parade and tree lighting, the middle photo shows some of the tripping hazards.

beautiful art installation. The brick ground gives a casual, homely feel. The tree canopy gives a sense of enclosure and intimacy.

The E Street Plaza site has great potential to become an important destination for visitors from both local and regional origins. It is accessible by all modes of transportation; it is...
highly visible but enclosed and appropriately sized. The space is active both day and night. The site is bounded on the east and west by well-traveled streets with thriving businesses and on the north and south by buildings also containing commercial businesses. The site is already used for small and large civic events, although regular programming is minimal.

**Analysis regarding Sustainability**

Transportation has the deepest impact on reducing carbon emissions, therefore reducing vehicle miles traveled and facilitating active travel must be a primary sustainability goal. The location of this new plaza, especially after housing is added Downtown, provides direct sustainability by reducing vehicle trips and providing the ability to park once to reach multiple destinations. Beyond location, transportation choices to reach the plaza have a substantial impact on its sustainability. Surveys taken during the specific planning process show that people do not feel safe and comfortable moving about downtown by any mode of transportation, whether it be driving, biking or walking due to the collision potential with other travel modes (City of Davis Virtual Survey, 2018).

According to comments from the community, improving the safety and comfort for all transportation modes is very important, and will likely increase the patronage downtown. Many comments were received by the community and the DPAC members that they avoid going downtown for two key reasons, a recognized high risk of collision and the perceived lack of parking. People will be encouraged to use active travel more often when walkability is improved. Separating active travel modes from vehicle travel will improve the walkability.

Although I have observed high pedestrian usage of the E Street Plaza and its surrounding blocks, the existing pedestrian-only system is fragmented, see the map in Figure 8,
above. Connections can be improved on all sides of the E Street Plaza block via pedestrian alleys and cut-through access to strengthen this system. Two existing pedestrian-only alleyways can lead people to the Site from the west. However, these alleys are not very inviting or pleasant to travel through in their current state. Alleyways store trash bins and/or serve as routes to the trash bins, making them feel unsafe and not clean. See figure 24 for a sample of pedestrian alleys available in Davis. A more complete and safer system would encourage more active travel.

Codes requiring pedestrian passageways in building blocks need to be written into the code and negotiated upon redevelopment. To the north there is a pedestrian path that leads from the F Street Parking lot to 3rd Street, with a code requirement for pedestrian access, this existing path could extend into the E Street Plaza site. These mid-block pedestrian access points would provide additional views into the plaza and would help connect some of the busiest blocks of downtown to the plaza, creating a safer, more pedestrian-friendly space.

Biking routes in Downtown are limited, located in the streets, and somewhat hazardous. Biking, skating, and other types of wheeled travel modes are not allowed on the Downtown sidewalks and instead they are supposed to use the streets. Both F Street (on the east side) and 3rd Street (just north of the site), have delineated, Class II bike lanes that offer a moderate amount of protection. 3rd Street serves as the primary bike route used by residents traveling east and west. Throughout downtown there are many bike racks located in the furniture strip between the walking path and the street. On the busier blocks surrounding E Street Plaza, they are often full, indicating desire to access this location by bike.
Figure 24 Pedestrian alleys in Davis are often unclean and do not feel safe. Others give a sense that they are private spaces.
Jump Bikes is an electric bike sharing company that was recently added to Davis' transportation portfolio. There have been several charging stations placed throughout the city, one of which is located on E Street, across from the parking lot. In my observations, it is often nearly empty, which may indicate high-level utilization and demand to depart from this location, see figure 25.

Bus transportation is offered downtown and can transport people to and from local and regional origins and destinations. The local bus routes are provided by Unitrans, a partnership between the City and UCD. Undergraduate students contribute a fee for Unitrans and in return get free transportation on the bus. However, residents and graduate students must pay to ride. Unitrans has two bus terminals located on UC Davis campus, each serving different routes. All bus transfers happen at these terminals. The closest terminal is the Memorial Union station. However, Unitrans has two bus stops within a block of the Plaza, at E and 3rd Street, see map in figure 26. Additionally, the Yolobus, which serves the Yolo County region, stops 3 blocks away, allowing people to easily access downtown and E Street Plaza. The Yolobus connects to towns and cities in Yolo County like Woodland and West Sacramento,
where many students have been forced to live due to the lack of housing in Davis. Yolobus also provides service to the Sacramento International Airport and can be accessed from the UCD campus, at Memorial Union, is a 12-minute walk away from the Plaza, see figure 26.

The Davis train station that links Davis to the Bay area, Sacramento, and beyond, is located within three blocks. I observed that the parking spaces in the lot next to the station and designated for Amtrak-users-only are typically full during work hours, indicating high usage by commuters. Because the cost of parking in this lot is low, commuters often originate from other cities and use this location as a park and ride. These commuters spend very little time in downtown Davis to shop or play.

Interstate Highway 80 is the primary connection linking the Bay area to Sacramento and on into Nevada, is located only a few blocks away from downtown and E Street Plaza. Visitors coming to Davis for the first time or to patronize downtown businesses are typically routed to the Downtown exit which brings them through the Historic Tunnel under the railroad tracks and onto E Street. These visitors require a place to park their cars. The E Street Parking lot has 65 metered parking stalls that I have observed to be near capacity both day and night.
Figure 26  Google map showing multimodal access to E Street Plaza, from UC Davis Memorial Union Bus Terminal, Interstate 80, and the Davis Amtrak train station. The route shows that it is a 12-minute walk between E Street Plaza and the Unitrans station/UC Davis.

However, in my view, the E Street parking lot is underutilized in that it serves approximately 65 people at a given time. Downtown employees and students are known to use this lot to park for most of the day and it saves moving their vehicle every two hours. For a quick napkin calculation then... if we make some conservative assumptions, first that on average cars are occupied by one person when they arrive. If only half of the lot is used all day, 32 spaces, and the remainder spots change over on average every two hours (33 spots with a
different vehicle every 2 hours during the 10 hours requiring payment = 330 vehicles) + (32 use spaces all day), then this location serves approximately 362 vehicles/people daily. However, this space has the potential to be a community gathering space that could serve the entire community throughout the day and evenings.

The specific plan process has garnered strong support for higher buildings that include housing options surrounding the plaza. Residents in this location would have significant opportunities to work, shop, and play within a 10-minute walk of their residence. These buildings could house a substantial number of people, who would assuredly reduce their vehicle use to get to work or other destinations, thereby reducing overall carbon emissions for Davis.

There are several other ways to reduce vehicle trips and alleviate concerns about parking loss at the E Street parking lot. If the City attracts more visitors and increases housing opportunities downtown, parking mitigation measures must be considered. One option is to add more periphery parking on the edges of Downtown such as a lot or garage near the highway that connects to Downtown with a pedestrian bridge. Another, less expensive option and more immediately available, is to provide employees free parking at the existing and underutilized parking garages. The City’s financial responsibility for providing Unitrans could be bolstered by a small property tax in exchange for allowing free rides to residents. Continuing to add electric bike share and similar options will also help to decrease vehicle trips and thus parking for local people.

Climate change requires Davis to plan for the health of the community in a much warmer environment, one that is predicted to be about 10 F higher by 2100, making the climate...
closer to that of Tucson currently (Kerlin, 2018) (Houlton, 2018). One of the biggest health concerns will be due to the heat-island effects of exposed surfaces, particularly hard ground covering, such as those in the plaza. Hashem Akbari, Melvin Pomerantz, and Haider Taha found that "summer heat islands are created mainly by the lack of vegetation and by the high solar radiation absorptance by urban surfaces" (Akbari, 2001) A heat-island in 90 degrees Fahrenheit can exacerbate smog impacts and require 20% more energy for cooling (Akbari, 2001). Dark, unshaded surfaces retain the most heat; by using light colored or high-albedo materials the heat-island effect can be offset or reversed (Akbari, 2001). The current dark colored brick surface of the plaza is not ideal to prevent heat absorption.

Although it is beautiful and it allows for rainwater infiltration, the brick ground plane of the existing Plaza is functionally inadequate. The current surface primarily consists of tumbled brick pavers with decomposed granite in between which is problematic for people that use wheelchairs, canes, or walkers and is also difficult for people wearing heels. Additionally, when plumbing or other infrastructure must be accessed, it is difficult and reassembling the pavers increases the work required.

The existing trees in the Plaza and parking lot appear to be in deteriorating health, presumably due to water constraints over the last several years and the warming climate. The trees in the Plaza are mostly the same age, meaning they will reach maturity around the same time and will likely die around the same time. If all trees aged out at the same time, it would leave Downtown without shade until new trees are planted and grown.
Besides trees, the current vegetation is scarce and unremarkable. Plant maintenance is sorely lacking. A small square of what was neglected ground, now seems to have been claimed and taken care of by the Yeti Restaurant, and provides the only colorful plants on the plaza, see figure 28. To incorporate and demonstrate sustainability, a new plaza space must retain some large trees and quickly plant new ones to maintain shade sequence needs in the future. Along with trees, the vegetation must be capable of surviving the warming climate of Davis. Native plantings are preferred because they adapt well to the current climate and soil, however, not all of these will withstand a warmer climate with more days over 100 F and fewer cold days. Trees and plants that are non-invasive and can adapt to the change must also be considered.

Both water and water runoff have the potential to be visible, beautiful, and ideally informative too, see figure 27. Water use can be become visible with demonstration pipes, volume meters, or design (Napawan, 2016). Raising awareness of the water life cycle could reinvigorate a community dialog about water conservation. The more understanding the community has about the availability of water and water infrastructure requirements, the more likely...
they will conserve water and eventually support water projects. Currently, there is one drinking fountain in E Street Plaza and one small decorative fountain. Otherwise, there is no evidence of water procurement, volume of use, or disposal. The redevelopment of this area provides an opportune time to make water visible. Currently the City has funding for water treatment-related art, which could prove useful in creating beautiful, visible water infrastructure.

The stormwater runoff is currently collected in drains, then sent via underground pipes to the Toad Hollow stormwater retention basin on 2nd Street, about a mile to the east, see figure 26. The water here is treated biologically with a wetland system. The parking lot drains into two linear trench drains that also flow into pipes and are sent to the same location.

Although the treatment system at Toad Hollow is satisfactory, a new plaza should utilize a more sophisticated method of collecting stormwater on site and use biological filtration, such as bioswales, see figure 29. Instead of collecting water runoff and building large infrastructures to move it to a holding area, bioswales can collect and temporarily store the runoff as it soaks into the ground. By directing water from the site to trees and other bioswale planting areas, the water can be biologically cleansed as it soaks into the ground and simultaneously provides water for the trees and vegetation. Another option for water runoff is to use permeable pavement in parts of the plaza, which also allows rainwater to slowly penetrate the ground and replenish aquifers.
Figure 29 This is an example of a bioswale that receives water runoff from the street. The plants here can cleanse the water as it percolates into the ground.
Figure 30  Touchable, playful, visible water serves many purposes in a civic space, primarily providing a reason to stay.
A civic water feature allows many people to take pleasure in its presence. Although we will have additional water limitations in the future, shared water in a public space is worthwhile for helping create an appealing social atmosphere. A water feature can provide playfulness or calm, depending on the speed and volume of water movement. It can also provide noise distraction from annoying sounds like a highway, for example (Whyte, 1980). Water can also serve as a playful attraction and provide ambient cooling for children and adults, especially on hot days, see figure 30.

Energy consumption will be a critical factor in the future as the climate warms and cooling load demand increases. The energy currently required at the E Street Plaza is primarily for lights such as area lights, decorative lights, and seasonal lights. Occasionally a sound and light system is used for performances. The power is supplied by the City grid. The parking lot uses energy for lights, parking meter, and to supply an electric vehicle charging station. There is a real opportunity to use this Site to use progressive energy harnessing technology, including solar and geothermal district heating.

The plaza must also consider Solid waste when reaching for sustainability. Currently, many downtown businesses deliver their waste and recyclables to a centralized location that is owned and maintained by the City, one of which is in the E Street parking lot. Although this space has recycling containers, a quick look in, will prove that businesses are not taking full advantage of this opportunity. In 2018, the trash holding area in the E Street parking lot was rebuilt and enlarged, see figure 19 above. Not only is this type of structure an eyesore using civic space for private waste, but it is unsanitary, and it allows businesses to deny responsibility for upkeep and their inadequate recycling efforts.
In San Luis Obispo, California I observed a different and successful downtown waste collection system. I was there in 2018, dining at the back of the building, along the river and I noticed that I could not find/smell/hear trash cans being used. So, I interviewed my waiter and he explained that they kept their waste in a special “trash room”, to keep it away from food preparations, as required for sanitary reasons. I probed further and he told me that the downtown trash is collected 7 days/week, for all downtown businesses. The waiter also said that businesses with less waste didn’t always put it out to the curb, but eateries typically would because they didn’t have space to store the waste for more than a day and keep the restaurant sanitary.

San Luis Obispo (SLO) has Development Standards for Solid Waste Services with strict requirements on waste storage. SLO offers commercial (and residential customers) service seven days per week, as needed and scheduled (Schedule). The SLO standards calculate the size and number of commercial bins required based on square footage. The standards go on to require pleasing aesthetics and hidden storage by blending with the building façade (which can be met by keeping it indoors). Furthermore, the SLO standards do not permit trash storage on public property, even the access routes and doors opening to a storage area must be contained within private property. The reasons behind these codes appear to be many, including security provisions from vandals and animals and to keep the area clean and prevent spillage of potentially toxic waste contaminants into the public realm. Contaminants could include mercury from dental offices, FOG (fat, oil, and grease) waste from eateries which could clog water runoff systems. (San Luis Obispo Standards, 2007) Prohibiting private waste on civic property prevents contamination or impairment of bioswales or other water collection systems.
Analysis regarding Inclusivity

Funding civic spaces and improvements has been unpopular with voters in recent years, thus restricting what cities can deliver. Davis has been lucky to have incredible support from taxpayers to build and maintain parks and greenbelts. However, following the end of urban renewal funds the city has had limited financial means for civic projects. To support city services, the City has leased public space on sidewalks and in parking stalls for use by restaurants. This civic leasing practice has been used throughout downtown, for example at Crepeville and Burgers and Brew on the corners of 3rd Street at C Street, see figure 31, as well as the Yeti Restaurant that is currently on the E Street Plaza. These businesses could not

Figure 31 Burgers and Brew, a restaurant at the corner of Third and C Streets uses civic land on the west and the south to operate. The south side enclosure uses a heating and cooling system and has a register and bussing area. This land is leased to the restaurant by the City. This is not the only one, there are other examples of this leasing system Downtown.
operate at their current capacity without using civic property. A new civic plaza has the potential to follow suit.

The community aspiration is primarily for civic gathering, essentially a space that functions as a third place (Oldenburg, 2001) for the whole community to enjoy. If every storefront on the new plaza were to be an eatery, which has been the latest trend downtown, and those eateries where permitted to use the civic plaza, then the majority of the plaza area could be consumed by fenced-off, private spaces that only welcome people patronizing their businesses. Leasing plaza property or otherwise allowing private seating on the plaza only would not only constrain the physical size of the plaza, but, the new plaza could easily become the equivalent of subsidized private property, or otherwise, an outdoor mall that benefits businesses and upper classes over the broad community.

This sort of public-private partnership that offers shopping, restaurants, and civic space has been successful in some cities, for instance, Pearl Street Mall in Boulder, Third Street in Santa Monica (Ginsberg, 2019), and Fourth Street in Berkeley, see figure 32. However, these commerce heavy spaces often rely on tourism to thrive. Most articles that have studied the success of these spaces did so before the retail economy moved online. Boulder is beginning to experience a downturn in its retail market on Pearl Street, including the closure of a major department store that anchors the area (Castle, 2019).

Furthermore, I have experienced each of these retail-focused locations personally and found them quite enjoyable environments, from a tourist perspective. However, they are not generally inclusive environments. Only people of a higher socioeconomic status feel comfortable in these spaces. People with limited financial means or without homes would not
PEAL STREET MALL: BELOVED BOULDER ATTRACTION

By Colorado.com Staff Writers
Updated: July 14, 2020

It’s hard to imagine a visit to the Boulder area that doesn’t include a stop at Pearl Street Mall, the city’s hub for dining, arts, shopping and, of course, people watching.

DOWNTOWN SANTA MONICA/THIRD STREET PROMENADE

anchored by upscale Santa Monica Place, home to more than 80 retailers. With everything from fresh farmers-market produce to designer fashions, it’s a shopper’s nirvana. Likewise, foodies rejoice in the numerous restaurants featuring locally sourced ingredients and craft cocktails. Life begins around each corner with

Fourth Street Berkeley, CA - Visit Berkeley
https://www.visitberkeley.com/maps-neighborhoods-fourth-street
West Berkeley's Fourth Street has wide, leafy sidewalks, specialist, artisanal retail and dining, music in the air, and plenty of on-street retail goods.

Fourth Street Shops - Visit Berkeley
https://www.visitberkeley.com/directory/fourth-street-shops
Fourth Street is a shopping destination with world-class.

Fourth Street, Berkeley — East Bay Neighborhoods Travel...
https://www.sfgate.com/neighborhoods/fourthstreet
Fourth Street is the most popular shopping district in Berkeley, and one of the most original in the Bay Area. — SF Gate.com

Your ultimate guide to Berkeley's Fourth Street shops

“Nov. 12, 2017 / Tucked in West Berkeley, Fourth Street is a little shopping district with great food. After going through some renovations, Fourth Street is now..."

Searches related to 4th street berkeley

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- 4th street berkeley clothing stores
- 4th street berkeley directions
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- 4th street berkeley apple store
- bookstore 4th street berkeley

Figure 32 The two images on the left show that the primary activity at Pearl Street Mall is shopping. Although some small children’s activities are offered with some event programming, the streets are lined with retail stores and restaurants. Top snip taken from Colorado.com, November 20, 2019. Bottom image with permission from Ken Lund. The top right image shows how the City of Santa Monica partnered with business and entertainment venues to provide a shopping, eating, and playing destination, one catering to the wealthy as shown by the highlight. Snip taken from santamonica.com on 11/6/19. The bottom right image shows that a quick google search of Fourth Street results in guides to shopping, as opposed to an inclusive gathering space. Snip taken from Google search 11/6/19.

... 72 ...
feel welcome. Due to the continued opportunity gap that overshadows people of color, they are often the ones with lower incomes, thereby excluding this population as well. The experienced generation that moves slower and more carefully would also not feel welcome, they would feel overwhelmed by the busy energy or feel pressured to purchase things on their typically fixed budgets. Most children are also not included. From personal experience, I know first that children of elementary school age do not enjoy endless shopping, they seek (and need) interaction with their peers and the freedom for kinesthetic input. Children are present in these spaces; however, they are usually hovered over by parents and caregivers to ensure their safety because these spaces are generally not intended for children to play.

The City might be attracted by the idea of a lively atmosphere of cafés lining the plaza, one that is active, brings in tax revenues, and would likely keep people who are experiencing homelessness away from the area. The sales tax and lease revenue generation in combination with this interpretation of a successful space, the City could be enticed to lease ground space on the plaza to every store front facing it. However, to meet the community goal of inclusivity, I do not think this a prudent path.

I was pondering this challenge of public/private space connections during my travel to Boston, when I suddenly recognized that many of their eateries offered private seating that seemed to flow into the public street, fluently connecting these spaces. I continued to observe this phenomenon on my trip and photographed several successful examples, see figure 33.

Although this may seem like a Boston style, when I returned to Davis, I realized that there are several successful examples already present in Downtown. Paesanos on G Street borders both a pedestrian alley and G Street. Café Bernardo on 3rd Street is tucked in under a
second story, providing shade and weather protection for outdoor diners. The University of
Beer, also on 3rd Street, has a patio that is protected from weather and countertop seating that
faces the street for easy interaction with passersby. Orange Court invites the public into its
space with a central courtyard. See figure 34 for more examples.
There are a multitude of ways to implement this design strategy of connecting private to public space without creeping onto civic property. Many are shown in the Boston photographs in figure 33. Businesses can have indoor seating in combination with floor to ceiling windows or doors that look out to the plaza. Another possibility is for property owners to build an outdoor area on their private property, in front of their businesses. A business could also have a small stoop that accommodates more intimate spaces or private greenery.

Figure 34 These images depict Davis businesses that retain their outdoor spaces on their private properties. They created open-air atmospheres by using patios, stoops, building insets, and interior courtyards.

Figure 35 This image shows highly desirable and demanded rooftop dining in Sacramento. (Kimpton Hotels)
As Davis allows upward expansion downtown, especially at the Plaza Site, central courtyards and rooftop dining will become possible, especially if the plaza has developed into a desirable space for people watching. Fully open eateries and rooftop patios such as these are seen in the San Francisco, Sacramento, and many other cities with suitable climates, see figure 35.

The whole notion of a public space is that everyone is allowed and included. But often families, teens, the experienced generation, and minority groups of people are overlooked in the design process or an explicit place is set aside where they are “supposed to” go, such as a playground, skate park or senior center. Public spaces where women and families with young children feel comfortable but are not designed for children only, are also spaces where all generations and people with different abilities also feel comfortable. For example, when a space provides paths that are easily maneuvered with a stroller, people with disabilities or other walking difficulties are also included, and vice versa. When lighting provides safety at a level that women feel comfortable, so do others. By locating restrooms close to the space, which is a necessity for young children and elders, all generations benefit. Programming should be broad reaching to include all ages and cultures to bring people together. Age- and gender-responsive planning will promote safe, accessible civic spaces (New Urban Agenda, 2017).

Indicating inclusivity for public spaces, the 2017 United Nations Conference on Housing and Sustainable Urban Development stated that they envision cities and human settlements that are

“participatory, promote civic engagement, engender a sense of belonging and ownership among all their inhabitants, prioritize safe, inclusive, accessible, green
and quality public spaces that are friendly for families, enhance social and intergenerational interactions, cultural expressions and political participation, as appropriate, and foster social cohesion, inclusion and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations” (New Urban Agenda, 2017, 5).

The urban landscape itself should be used for play. Isamu Noguchi believed that children would find play and exercise through the provision of simple elevation changes in the earth, steps for running, places for jumping and sliding (Larrivee, 2011). From my own experience as a mother, I find this to be true. Placing playful elements within an urban civic space can encourage use and participation by youth rather than act as a deterrent under the coded words of “safety.”

Civic spaces should provide opportunities for children to be a part of society, rather than apart from it, segregated to a playground. When children are not included in a space, parents and other caregivers are also left out. This is a large group to deny participation in a civic space and furthermore a large market sector to exclude from Downtown. Currently, caregivers must go to another location where children are welcome, such as a playground, at which the adults are not fully included. A better approach for a civic gathering space is to provide playful activities for people of all ages and abilities. Elements like curbs or walls that children can use to walk on, a small hill for climbing and running down offer kinesthetic inputs, a touchable water fountain or a dancing water sculpture can all offer play to many ages and abilities. An area with tall, wavy grass offers a tactile experience; a bridge to cross or circular paths can invite children to a game of chase, providing active, playful activities in otherwise seemingly adult spaces.
Providing places for children to be playful within the site design offers inclusivity to families. The play elements must also be beautiful to attract adults and kids alike. For example, interactive art that encourages touching and play can provide a way to include children of all ages. The City of Ghent, in Belgium was labeled a child and youth-friendly city in 2014 (Vision Text, 2015). One of their stated goals is "The realization of art pieces that encourage children to play on them in parks." And to "Achieve and support a child-friendly and accessible cultural offer, with special attention for teenagers and comprehensive urban events" (Vision Text, 2015, 9-10). I think that Davis should strive for these goals to help meet its commitment of inclusion.

Another constraint for people with disabilities is the inadequate accessible parking.

While recording data on uses in and around the plaza, I have witnessed several people

Figure 36 The Davis Community Transit van must double park so that there is enough room to unload a passenger with a wheelchair.
struggling to help a person who uses a wheelchair or walker out of their vehicle due to lack of space. The Davis Community Transit provides additional transportation beyond the regular bus for people with disabilities (Davis Community Transit). The van they use is large and the exit is from behind. While observing behavior at the E Street Plaza, I have witnessed this van double park and park within the Plaza to allow enough space for its passengers to exit, see figure 36.

Analysis of Davis’ Identity

There are “available parking” indicator signs at the entrance to Downtown from the South, most of these point to the east. However, I have observed that most of the vehicular traffic continues onto E Street. This suggests that E street, between 1st – 3rd Streets establishes a newcomer’s first impression of Davis. Therefore, the E Street Plaza affords the opportunity to make a statement about the identity of Davis and welcome people to our downtown.

Downtown Davis has two physical characteristics that distinguish it from other cities, symmetrical arches and bright colors. At the first DPAC meeting, the consultants asked members to photograph features and spaces of downtown that we like or dislike. While on this assignment I
recognized that Davis has recurring circular symmetrical shaped arches. In one form or another, the arch is displayed on businesses and historic homes alike. See image 38. Arches stand out as a noticeable architectural feature, appearing on the oldest existing buildings in Davis as well as the newly refaced and built buildings.

The Davis arch element, as shown on the 1919 Davis Train Station building, see figure 37, originated from Spanish colonialism. Because of these roots, some community members find this aesthetic to be representative of the oppressive European culture that invaded the lands of the native people. I acknowledge and respect this perspective. Davis should seek ways to apply the arch shape more progressively and leave behind the other architectural features that so clearly define the Spanish colonial style such as those shown at the train station.

Arches are exhibited on several of the oldest buildings including the train station, the old Davis High School that now serves as City Hall, the old City Hall at 3rd and F Street, and the landmark building known as the Anderson Bank Building located on the corner of 2nd and G Street. Many other buildings and downtown homes also demonstrate the circular arch element, including modern applications of the half-circle arch that can be seen in the building at the northwest corner of 2nd and F Streets, as well as the recently built Yolo Federal Credit Union which used the rounded arch shape at its entrance in a horizontal style. There is a brightly colored circular bike tunnel at the Davis entrance on Richards Boulevard, running parallel to the vehicular underpass. Even the signage downtown incorporates the circular arch shape, see figure 38.
Figure 38 Symmetrical, circular arches are an identifiable characteristic of Davis and additionally could represent half of a bicycle wheel shape.
Figure 39 Images show the vibrant colors that help define Downtown Davis.
Another feature I observed is that many downtown businesses are painted with bright, vibrant colors. In spring 2019, upper division UC Davis students in the Landscape Architecture and Environmental Design (LDA) 171 class had an assignment to create a design for the E Street Plaza space. I had the pleasure of giving them the historical context of the plaza, putting them to task to find characteristics of downtown to incorporate into their designs. Several examples of their final designs are included in Appendix A. One team found downtown colors as a decidedly Davis. This idea prompted me to take another look.

Upon closer observation, I saw that many downtown businesses are painted with bright colors such as green, yellow, red, and/or orange and much of the artwork is also done with vibrant colors, see figure 39. Several businesses have used colors that stand out against the

Figure 40  My final collage of photographs from Downtown, used to generate the downtown color palette.
common colors. This is exemplified at Orange Court, Pence Gallery, Cultive, and some houses that function as businesses. Consequently, I decided to perform a color analysis of downtown as part of this research. To analyze the colors of Downtown, I took hundreds of photographs of downtown buildings, art, plant life, and streetscapes and then using Photoshop, I created a collage of the colors that I thought embodied our eclectic downtown.

Using my Downtown photo collage, I was able to generate hundreds of palette options by uploading the image to three online tools: Color Mind IO, Coolors, and Color Palette FX. These programs use algorithms to evaluate colors in the image and then create a suitable palette. Each tool allowed me to click through a variety of palettes, choosing to save the ones I liked. When the initial results produced mostly neutral colors even though the bright colors stood out to me, I created a second collage to highlight the non-neutral colors, see figure 40. Using this collage, I produced several palette options. Of course, many palettes were acceptable and pleasing. Figure 41 shows the selections that I chose from each generator to represent Downtown.

Figure 41 I chose these palettes as best representatives of the bright colors Downtown. They were generated by, top to bottom, Color Palette FX, Coolers, and Colormind generated these palettes from the Downtown collage.
I acknowledge that this analytic process is inherently biased because I choose which photographs to take, which ones were placed in the collage, and how prominently the colors were shown in the image. After considering hundreds of color combinations the final selections that are presented in the color palette, were ultimately influenced by my personal judgement.

While photographing Downtown, I realized that there was an apparent trend in colors. As a long-time resident I hold insight about which buildings were more recently repainted and I observed that the buildings most recently refaced have used shades of gray in the paint and awnings. However, the older buildings are shades of almond, bronze, and peach stucco colors. The neutral shades seem to have captured the current trend in color palettes, however this does not represent Davis, rather it is a bland palette that can be used for any town, any place.

When choosing the final palette, characteristic color is an important factor in addition to color trends, see figure 42.

One way a college town can show its distinct character is to convey its university relationship. While performing this color analysis, I noticed that UC Davis colors are noticeably missing Downtown. In the collage image that I created to find the downtown palette, there is only one small hint that these images are connected to the college town of UC
Davis. Around the start of Fall quarter, in September, I observed only one small, unreadable sign about football that welcomed students to Downtown; see figure 43.

With the goal of inclusion, I think that it is important to incorporate the university colors into the downtown palette. I have observed thriving college towns that demonstrate their university pride by using the university colors throughout the city and especially in their downtown. For example, Manhattan, Kansas is a college town similar in size to Davis and
Kansas State University purple is proudly displayed as accents throughout the city and downtown. They have purple trash and recycling trucks, purple trash bins, Buildings are highlighted with purple lights, signs are purple, even shutters on houses are purple, see figure 44. In Cambridge, Massachusetts, the crimson color of Harvard is used throughout Harvard square and can be seen in most every storefront. When choosing the palettes for Downtown, I took into consideration the UC Davis blue and gold colors in addition to the bright colors.

The Davis logo, the high wheel bicycle, can be seen all around Downtown and the City, see figure 45. The highwheel was the first bicycle type available and was used right from the beginning of establishing the town. The City Council adopted the highwheel as its logo as a symbol of Davis’ “dedication promoting bicycling for transportation, recreation and fitness” (Highwheel Bicycle). The highwheel now symbolizes the “community’s commitment to a ‘green’, sustainable and healthy lifestyle” (Highwheel Bicycle).

Davis is known nationally for several bicycle-related firsts and it is an important part of the local culture that should be captured in Davis’ identity. In 1967, it was the first City to implement a bicycle lane on a vehicular street after Norm Woodbury and Maynard Skinner ran for city council with a platform that included supporting bicycle lanes. (First Bicycle Lanes). In 2005, Davis was the first city to reach the Platinum Level award as a Bicycle Friendly Community from the League of American Bicyclists. (First Bicycle Lanes). In 2016 the League of American
Bicyclist awarded not only the City of Davis Platinum level Bicycle Friendly Community, but the University of Davis was also awarded Platinum status as a Bicycle Friendly University, and a Bicycle Friendly Business (McLeod, 2016). Davis also installed the first signal light at the intersection of Sycamore and Russell that allowed a bike-only crossing phase (First Bicycle

Figure 45. The City of Davis logo is placed throughout Downtown, inspiring its use in my design.
Lanes). Davis hosts the annual July 4th Criterium bike race that is attended by nationally known bicycle racers, see figure 46.

![Image of a bicycle race in Davis, CA](image)

*Figure 46 Davis hosts the annual 4th of July Criterium which hosts nationally known racers as well as local riders.*

To summarize this analysis, I created a table to help give a better sense of how well the various elements are provided, either in quantity and/or quality. Table 2 has a heat range varying from 0 to 6, with 6 being the most suitable quantity and quality, where suitable means to be appropriate in context, or to fit in culturally. This table is not compared to the highest, best plaza in the world, rather how it fits in the Davis context, if there is enough of it and if it is well kept. Of course, the ratings are my own judgement based on my experience and my observations. This is not a reproducible conclusion. However, a survey could be performed based on these criteria to conclude if the community feels the same.
Table 2 Existing conditions in or adjacent to the E Street Plaza.

<table>
<thead>
<tr>
<th>Element</th>
<th>Quantity and/or Quality of public provision on a regular basis (based on my own observation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 seating options</td>
<td>0 1 2 3 4 5</td>
</tr>
<tr>
<td>2 movable seating</td>
<td></td>
</tr>
<tr>
<td>3 food nearby</td>
<td></td>
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<tr>
<td>4 water feature</td>
<td></td>
</tr>
<tr>
<td>5 music</td>
<td></td>
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<tr>
<td>6 visually appealing</td>
<td></td>
</tr>
<tr>
<td>7 small programming</td>
<td></td>
</tr>
<tr>
<td>8 large events</td>
<td></td>
</tr>
<tr>
<td>9 art</td>
<td></td>
</tr>
<tr>
<td>10 civic buildings</td>
<td></td>
</tr>
<tr>
<td>11 water hydration station</td>
<td></td>
</tr>
<tr>
<td>12 toilet facility</td>
<td></td>
</tr>
<tr>
<td>13 bike racks</td>
<td></td>
</tr>
<tr>
<td>14 scooter or skateboard racks</td>
<td></td>
</tr>
<tr>
<td>15 safe pedestrian routes</td>
<td></td>
</tr>
<tr>
<td>16 safe cycling routes</td>
<td></td>
</tr>
<tr>
<td>17 safe vehicle routes</td>
<td></td>
</tr>
<tr>
<td>17 safe route for other wheeled modes (skates, skateboard, scooter, etc.)</td>
<td></td>
</tr>
<tr>
<td>19 delivery zones</td>
<td></td>
</tr>
<tr>
<td>20 shared ride waiting area</td>
<td></td>
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<tr>
<td>21 protection from elements</td>
<td></td>
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<tr>
<td>22 performance space</td>
<td></td>
</tr>
<tr>
<td>23 sustainable water runoff</td>
<td></td>
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<tr>
<td>24 tree canopy</td>
<td></td>
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<tr>
<td>25 vegetation</td>
<td></td>
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<tr>
<td>26 maintenance</td>
<td></td>
</tr>
<tr>
<td>27 housing</td>
<td></td>
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<tr>
<td>28 work opportunities</td>
<td></td>
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<tr>
<td>29 parking</td>
<td></td>
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<tr>
<td>30 sustainable waste program</td>
<td></td>
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<tr>
<td>31 inclusivity</td>
<td></td>
</tr>
<tr>
<td>32 accessibility</td>
<td></td>
</tr>
<tr>
<td>33 identity</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 3: Design Strategies, Recommendations, and Final Design

My design goal is to answer the question, how could a design of the E Street Plaza area in downtown Davis, California create an inclusive civic gathering space that reflects Davis’ identity and vision to sustainably progressively respond to climate change? Of course there are likely as many ways to answer this question as there are designers, but in creating this design, I was called to look at these objectives in a deeper way, one that has allowed me to analyze many aspects of the site and its context Downtown. With each iteration and element of my design, I went back to the research question, as it breaks down into components: how can sustainability principles be used or shown? Is it universally accessible and inclusive of the whole community? Does it encourage gathering at varying levels of size and will it attract people to come Downtown? Does it characterize Davis?

Below I offer design solutions and strategies for the E Street Plaza Site. My intention for this Site is that it is remain true to the aspirations of the Davis community as I have derived them from the specific planning process. To apply Community aspirations and meet City goals, I utilize these three major goals to guide my design:

1. Embed **sustainability** in the design sufficiently to create a destination for visitors and become an economic generator – a hub of intellectual capacity.

2. Create an **inclusive** space where participation does not require economic exchange, one that welcomes and embraces everyone in the Community to relax, hang out, meet up, attend events large and small, and engage in civic discourse.

3. Reinforce Davis’ **identity** as a city that is a walkable and bikeable, that values progressive sustainability, holds intellectual expertise, and supports a healthy Community.

... 91 ...
Figure 47 In this design sketch of the Hub, I considered design options for the HUB such as a large energy demonstration.

From my identity analysis presented above, I use three primary design aesthetics to exhibit these goals: bicycling, geographical history, and community reflection. Figure 47 shows my working design for reference in the following sections. Before I present the final design, let’s explore the strategies I used as they have helped me to shape the design.

Sustainability Strategies

Downtown could be revitalized by attracting UC Davis students to live, shop, dine and play here. If the proper design is implemented people would use a new gathering space as landmark to meet up, hang out, attend events, and other cultural pursuits. In the changing face of retail, Downtown cannot depend upon the retail tax income from the days before. However, Downtown could become more economically sustainable if it transforms from a consumer-based economy to a mixed-use neighborhood that accommodates not only retail, but housing too. Jane Jacobs’ theory still holds today; the economic growth of downtowns directly

... 92 ...
correlates to the number residents living in the neighborhood (Jacobs, 1958). Currently there are no residents in the Downtown core. The available infill sites that could add a substantial number of residential units Downtown is limited. However, this site has that possibility. The new plaza could create the heart of Davis and simultaneously catalyze the economy with its location, the latent demand for residential units, and the reinvestment potential of the surrounding buildings.

The rising UC Davis population should be viewed as beneficial to the City and Downtown. By reaching out and embracing the student population, this undeveloped market group could lay a new foundation of economic generation Downtown. The university population has the capacity to participate Downtown in completely new ways. The intellectual knowledge produced at the University can be leveraged to create urban sustainability pilot projects and test studies to advance energy capture or other sustainability initiatives. The addition of live theater, game rooms, recreational activities, and other cultural spots would ensure vitality Downtown as they connect with students and the local population.

Throughout my design process I have asked myself how each element could demonstrate sustainability. Could the element itself use sustainable principles? Could the element provide education about sustainability? What would attract regional visitors to see a sustainability demonstration?
I use five key strategies to address these sustainability questions with an overarching goal of creating an exhibit space for demonstration projects that could attract people from the region. Go big!

1. Complete streets with travel mode separation motivates active travel and reduces vehicle trips.
2. Growing trees sequenced with expected maturity and using high-albedo materials will prevent heat island effects in the future.
3. Bioswales and permeable pavement capture water runoff on site and replenish ground water aquifers.
5. Prohibit private waste on civic property to reduce commercial waste and provide consistent waste receptacles on site to encourage waste reduction.

Active travel must be a priority for Downtown. By creating a safer, more integrated pedestrian-only facilities Davis can promote active lifestyles and simultaneously be include people from all generations and with all abilities. My design eliminates civic waste storage, freeing civic space and providing cleaner pedestrian facilities, in addition to provoking commercial waste reduction and recycling. Cleaner, more inviting alleyways without trash storage will encourage more pedestrian trips within downtown.
An important part of my design ensures safety and comfort for all modes of travel around the Site and provides pedestrian priority at the center and safe separation creates a low-stress travel experience. See figure 48 for two options that I considered for my design.

My final design uses raised pedestrian crosswalks at intersections and key mid-block crossings. Bike lanes elevated to sidewalk level are used on F Street, protecting cyclist from vehicular collisions. The width of the lane permits passing and riding side-by-side, creating a more comfortable way to travel by bicycle. Street textures and narrow unmarked lanes with interruptions like planters slow both vehicular and bicycle traffic near pedestrian zones, acting as a narrowed shared street. Clear, consistent road markings also improve interactions between...
travel modes. By incorporating a loading zone near the plaza, my design encourages shared transportation such as transit, ride share, or ride hailing services. A planting strip on either side of bike lanes provides separation from vehicles and pedestrians, see figure 48.

Although the community is in favor of using the E Street Plaza space to create the “heart of Davis,” parking loss is still a concern. Possible mitigation strategies include periphery parking, perhaps even a garage near I-80, which has some Community support. Added housing and people living downtown will inevitably reduce vehicle trips and reduce Davis’ carbon emissions. Providing car sharing options for Downtown residents will allow them to forgo car ownership and eliminate or reduce their parking needs.

Incentive programs that reduce or eliminate costs of parking for Downtown employees would help make street parking available for visitors. A free Unitrans ride pass for Downtown employees would also incentivize vehicle trip reduction and free parking spaces. Charging for street side parking in heavily demanded areas would encourage employees to use the free options provided and open spaces for people making quick stops Downtown.

Heat islands are problematic at most temperatures, but the effect is compounded when temperatures rise above 90 F causing more smog and heat health related incidents. By the end of this century, Davis is expected to warm 10 F beyond its current temperatures. To mitigate this impact, my design first uses tree shade because they provide a pleasant aesthetic in addition to the necessary shade. Tree shade is most effective at maturity; therefore, I have retained the larger more healthy trees in my design and I assume planting new, native and climate-adaptive trees as soon as possible.

... 96 ...
The colors and materials used in my design have light colors and/or high-albedo materials to reduce heat retention. I assume that the buildings and other south or west facing vertical surfaces have light, high-albedo colors on their façade. Alternatively, or in addition to the color, a shade structure or awning protects the buildings from intense sun.

Plant Life is another important aspect to sustainability. The vegetation must be capable of surviving the warming climate of Davis. My design uses native and/or adaptable plantings. Grasses with a soft texture should be used as a tactile stimulus for children playing in the space, see figure 49. Where possible, the design also uses vegetation that represents Davis, such as pre-contact native plants, hops (the first ag crop grown in the area), fruit and nut trees, and sunflowers.

Considering the orientation, I have placed a green wall on the south of the Site, next to the building. In this space plants can retain water and flourish because they have protection from direct sun. The green wall may or may not be directly attached to the building, see figure 50. Green walls also provide a sense of calm, fresh air, and a pleasing gentle aesthetic in addition to harnessing carbon dioxide. This green wall would help soften the Site and provide a sense of transition from public to private space if the southern buildings convert to include several levels of housing.

Water is at the core of sustainability concerns in California and as such, I employ techniques to capture, conserve, and educate. Water usage by the buildings next to the plaza or...
possibly even for Downtown or the entirety of Davis is displayed through interactive, artistic installations. The Davis water cycle could be used as part of a wastewater treatment art and educational installation, helping people become aware of their water use lifecycle, from faucet to farm (or wetland).

Water systems like runoff should also be visible. Building drainage can be decorative and even fun to watch, see figure 51. My design uses and assumes appropriately sized and designed bioswales for collecting, storing and cleaning water runoff. Water recharge is demonstrated through permeable ground coverings on the plaza and temporary storage in bioswales and tree beds. The excess plaza water drains toward the representational Putah
creek which can then divert the water to adjacent native plantings and bioswales. Permeable pavement is used on E Street and the plaza area allowing rainwater to penetrate the ground. Excess water from E and F Streets are assumed to drain into the planting strips, again using biological cleaning methods.

Water features can make a space feel alive and dynamic or it can provide playfulness or calm, depending on the speed, volume, and fluctuations of the water movement. It can also provide distraction from annoying noises. Water and wastewater could be used as the central concept for an interactive art installation with visible water that uses auditory pieces from the

*Figure 51  Water gutters can be fun! This roof provides protection from the elements and drains into an area for play.*
Davis wastewater treatment wetlands. In my design, water is used at two fountains to offer two different kinds of sound, one that is lively and one that is calm. Additionally, a playful dancing water feature is also used for hot summer days. The water use in these features is justifiable because it is shared and enjoyed by the entire community.

To re-establish Davis as a sustainability leader, and attract people Downtown, I have incorporated a large art installation that also harnesses solar energy. These structures are intended to use cutting edge technology or perhaps offer an experiment to test different technologies. The three circular structures are intended to be sleek, large, and interactive. They can collect energy, power the plaza, and exemplify solar technologies that can power cities beautifully. Energy production would be visible and education by providing interactive energy gauges.

To exemplify emerging solar technology, I assume the use of an experimental road tile placed on bike lanes. The Ray is an organization that has helped fund an experimental pilot by Wattway in Georgia using solar tiles applied to roads (Kelly, 2019). In May 2019, I was lucky enough to hear The Ray’s executive director, Allie Kelly, speak at the Women in Transportation Seminar International Conference in Boston. She spoke about this solar roadway project and talked about its downfalls and its possibilities. One possibility she mentioned was to apply the
solar tiles to bikeways, where their working life would endure longer, see figure 52. I was able to touch one of these tiles, see Allie Kelly holding a prototype in figure 52.

According to their website, “The Ray is a proving ground for the evolving ideas and technologies that will transform the transportation infrastructure of the future” and is “a nonprofit foundation that is looking to make transportation safer and cleaner” (Solar-Paved Highway). It is looking into form partnerships with DOTs and universities across the country to help incorporate the technology into their ecosystems (Patel, 2018). The solar road tiles could be used on the E Street bike paths. This is a perfect example of how Davis could triple-down to be a leader in solar capture technologies, acquire a source of funding for the infrastructure, and serve as an exhibit to attract intellectual exchange on progressive sustainability.

Solid waste is a significant outcome of our unsustainable lifestyles. Davis has a goal to reach carbon neutrality and 75% waste reduction by 2020. Commercial entities are still producing a substantial part of landfill waste. While researching I observed that several trash holding facilities were located on civic property and others used civic property to access their storage, leaving behind a trail of liquid waste that dries onto the sidewalks and pedestrian alleyways.

To clean up these alley and other civic spaces, I propose Davis create a policy that prevents waste storage on civic property and require private/commercial waste be kept on private property. This policy would help Davis recapture functional civic spaces, yield cleaner, more welcoming pedestrian alleyways that encourage active transportation throughout downtown, including connections to the E Street Plaza Site.
This commercial waste on private property policy would almost certainly reduce commercial waste. By requiring businesses to hold their own waste, they would be compelled to find the space on their own property to hold it in a sanitary manner. When commercial square footage is expensive and when recycling and compost collection is less expensive than landfill waste, it follows that businesses would be motivated to forego single use items and instead make reusable items and recycling a priority. These measures would significantly increase sanitary conditions on civic property and induce businesses to minimize waste to save their space.

The city should provide nightly waste removal Downtown to relieve these commercial waste space requirements and to help improve sanitary conditions in Downtown. This solution could be funded by waste reduction initiatives. I propose this novel solution to incentivize Downtown businesses to operate more sustainably. These three steps should be implemented:

1. Remove all city-owned trash containment areas to liberate public land.
2. Require self-storage of private waste on private property and even consider a requirement to keep it indoors.
3. Provide daily Downtown waste removal.

The new communal space at E Street Plaza Site would gain more pedestrian flow from adjacent alleyways if these measures were enacted, creating a more sustainable Downtown. Davis could also integrate "art alleyways" to connect the local art studios by providing clean, desirable, usable spaces.
Inclusivity strategies

The community gathering space envisioned for this research project is a place that has high potential to build social capacity and includes all people in our place-based community. I use the following four key strategies to provide inclusivity in my design.

1. Implement participatory design in the process to deeply engage the Community to retain Davis characteristics.
2. Provide open seating and prohibit segregating the plaza into private patios, allowing people of all socioeconomic demographics to participate.
3. Providing playful elements and programming to include all generations.
4. Apply Universal Design to all plaza elements to create beautiful, functional spaces for all people.

One of the things that people like about our downtown is its quirkiness. Retention of this sentiment was a favored outcome for the community vision. This quirky aura comes from things like yarn bombed trees with dragons, from stores like Newsbeat and Bizzaro World, from colorful restaurants like the Yeti, from weekly Fire University meetings, and from streets lined with bike racks. To ensure that a new design represents our character and our people, the City should extend the outreach in a more meaningful, tangible way that co-creates a design with the Community. The latest participatory design strategies are described in the book Design as Democracy, Techniques for Collective Creativity (de la Peña, 2019)

If Davis’ objective is a communal space, one that is inclusive and allows people to hang out and without spending money, to bring their own lunch and socialize, where the entire community can come together for events, where the experienced generation, students, and families alike can feel comfortable, then it is my recommendation to prohibit businesses from...
using the plaza space for private purposes. Instead private landowners and businesses should be encouraged to offer outdoor or open-air seating on their private property that is adjacent to the public plaza. The sidewalk space by businesses facing both E and F Streets would continue to allow café seating and such uses on civic property.

A policy prohibiting plaza use by private businesses should be included in the Downtown Specific Plan and Form-Based Codes. I recommend counterbalancing this policy with a plaza design that provides moveable seating with tables, where people can bring food from home or anywhere. Various seating types from permanent to movable are included in my design proposal. In this way the seating is available to everyone, patronizing a restaurant or not, providing a third place for the entire community.

The urban landscape itself should be used for play. Playful elements can encourage use and participation by youth rather than act as a deterrent in the coded words of “safety.” When

Figure 54 This type of canopy can represent the small part of the highwheel bike from above and create a playful exhibit or demonstration space underneath. (Tarare 69)

Figure 53 The small wheel of this design could be represented by using a colorful canopy such as the one shown to the left, figure 53.
children are not included, nor are their parents and caregivers. Children must be driven (usually) to another location where children are welcome, such as a playground, at which the adults are not fully included. A better approach is to provide playful activities for people of all ages in civic design. Elements in my design include curbs and walls that children can use to balance on and walk along, a small hill for climbing and running down to offer kinesthetic input. An area with tall, wavy grass offers a tactile experience; a bridge to cross and circular paths can invite children to a game of chase, providing active, playful activities in seemingly adult spaces.

The small wheel of the highwheel bicycle (as seen from above in the design, see figures 53 and 54) could be playful itself with a canopy of color, and it could accommodate a changing exhibit such as the Loop art installations, which would appeal to many ages, see figure 57. Underneath could also be hammocks and swinging nests, see figure 55 or other fun elements that could be used by all ages.

The fountain in my design is a circular shape with double sided bench seating that allows facing toward or away from the sculpture. The east side of the sculpture provides seating for people waiting to be picked up on F Street. The height of the fountain is meant to make it playful

Figure 56 My design includes a reflecting pool and an art sculpture to represent many cultures of Davis.
for children and adults alike, allowing hand play in the water, without getting fully wet. Because the height of the water is also accessible by wheelchair, the touchable water fountain offers play to many ages and abilities.

![Image of a touchable water fountain](image)

*Figure 57* *This image shows several Loop art installations. When the handle is pumped, childhood fairytales come to life. Loop is on tour throughout the U.S. (Loop)*

Inclusivity can also be demonstrated by offering electricity and internet connection. These may seem like a small gesture, but for people with disabilities or limited financial resources, this could be a life changer. My design uses free wi-fi and provides electric charging stations for phones, computer equipment, and other electric devices used to assist people with disabilities, such as electric wheelchairs. Electricity and a sound system are also part of my plaza design. Electric outlets can prevent the need for cords and other trip hazards during special events. A sound system can provide a way to speak to large groups, play music for special occasions, and offer the ability for auditory art installations, or provide a communication mechanism for the blind.
The stage area should also serve a different purposes to keep the space active throughout the day, week, and year. For instance, by programming small events such as poetry reading, plein air painting, community yoga, a spoken word night, and the ongoing venue Fire University. The space could also provide a “soapbox” (a space to stand and be seen and heard) for people wishing to reach out.

**Identity Strategies**

The Davis community has several identities and some community members relate to some more than others. Some of these identities include a hippy town, an intellectual town, a wealthy town, a republic where everyone has a say in the decisions, a bicycling town, a walkable place, a Caucasian town, an environmentally conscious town, an agriculture town, a conservative town, a liberal town and more. And Davis is all that. So, the question becomes, how should Davis “brand” itself, what is distinct about Davis? Based on deep historical research and current undertakings, I chose to focus my design on identifying Davis as a college town, by its geographical human history, and with its recognition as a bicycling community. The following four key strategies address identity in my design:

1. Broadcast UC Davis “blue and gold” to demonstrate a stronger connection between Downtown and the University.
2. Apply the first recorded map of Davis to the ground plane, showing land divisions and representing the pre-contact indigenous peoples (with their input and permission) connecting to Davis’ historical roots.
3. Use the Davis logo and bicycle wheel shape to inspire form and pattern.
4. Integrate all above elements by using community reflection in the present.
First, I want to offer a name for this design that could help reestablish Davis' identity. This name unifies my design goals with my design strategies: The Davis HUB. This name resonates as a hub of activity, civic engagement, and of intellectual resources on sustainability. It also symbolizes the bike theme, which is also an important part of Davis' identity.

To honor downtown Davis’ history and culture and more importantly, to be inclusive of the student population from which the town derives its existence and its livelihood, I intend to prominently display the colors of UC Davis. The UC Davis branding colors as indicated on their website (Marketing Toolbox) are shown in figure 58.

**UC Davis Blue and Gold**

**Print branding colors**

**UC Davis Blue**

PMS 301
CMYK: 100/50/6/0/34

**UC Davis Gold**

PMS 110
CMYK: 0/70/100/15

*Figure 58  These are the colors specified for branding UC Davis.*

Considering these UC Davis colors, and the overall Downtown colors as previously analyzed, my final palette selection for the Site is shown in figure 59. These colors blend well with the trendy gray tones and the bright colors of Downtown.

My underlying design theme uses the historical geography of Davis. The entire geographic element provides the basis for the ground level design and can be recognized from above, see figures 60, 61, and 62. Because we expect up to seven story buildings around the... 108 ...
plaza area, this pattern will be viewed from future residential units. On the ground, at human scale it will be presented in texture of the surfaces and in the vegetation.

I choose first, to distinguish and honor the people who inhabited these lands pre-contact (before Europeans arrived), the Patwin Tribe; although small, the tribal community continues to live on these lands and engage in their traditional tribal values (Our Community) and I think that they should be recognized in this historically rooted design. For my design I acknowledge the tribe by geographically including the original shape of Putah Creek, which is “probably named for the Pooewin (Patwin) village, Puta-to, located in what is now downtown Davis.” (Putah Creek Watershed). The ground surface south of the Putah Creek form, will symbolize the land pre-contact, including native Oak trees which was the source of life for the local Patwin tribe (Parker, 2009). Vegetation options include: the California grape, soaproot, valley oak, interior live oak, grey pine, buckeye and bay trees (Parker, 2009). Sedge, redbud and willow that were found along the creek may be demonstrated in bioswales that use the water runoff from the site. (Parker, 2009) Although I have assumed this is acceptable in my design for research purposes, I want to acknowledge that any actual design of this space would require working with the local tribe to understand how and if they want to be represented in this space.

... 109 ...
To recognize the European influence that first brought European agriculture and then academia to this area, I include a surface representation of the agriculture fields on the north side of the Putah Creek form. Agricultural fields will be represented by delineated rectangular blocks of surface material in differing colors. The railroad tracks that bisect Putah Creek also represent the founding of the University, and therefore the town, see figures 62 and 64. When the Southern Pacific Railroad added a train stop in 1868, Davisville proliferated. Vegetation north of the creek could include some of the first crop varieties grown in the area like Sunflowers, Hops, and along with low-water native or adaptive plantings for the present and future climate.
Davis is known bicycling for internationally. The City has won many awards and recognitions for being a progressive bicycling town, a fact the city is quite proud of and should be because biking is a large part of the culture. Deriving from this cultural identity I exploit bicycling as a major design theme. The circular shapes throughout my design are motivated by the bike wheel. The highwheel is emphasized in the stage area as it depicts a highwheel when

Figure 61  Zooming in on Davisville. This pattern will be used in my final design.

Figure 62  Shows historic map layer on the Site. To the north of the creek, the ground pattern will change to reflect land divisions and agriculture. To the south, it will be a

... 111 ...
Figure 64 During my designing analysis, I concluded that a high wheel bicycle that can be seen from above would identify Davis on maps such as Google Earth. This space forms the stage area, a water fountain, a foot path, and the colorful tent area that can be used for demonstration events.

viewed from above, see Figure 63. Perhaps it appears almost too literal from above, but my intention is for the Davis high wheel bike logo would show up in digital maps such as Google Earth. In this way, Davis could really make its mark and be easily recognized.

Final Design – The Davis HUB

This project started over two years ago. I’ve done many iterations of this space. The first one was with my partner Rasul, Madyun and is shown in figure 65. We recognized the need for a stage, seating and play spaces. We incorporated the map that made it into my working design as well.
During the next iterations I did on my own, I tried to place a structure in the middle of the plaza space that could be used to hold a small sustainability center. However, this proved difficult to provide universal design with this approach, see figure 66.

My final design uses E Street as a shared street with emphasis on pedestrian safety and bicycling use. F Street has a raised bike track that is separated from vehicle traffic and protected from opening doors of parked cars.

This design uses an artistic installation on E Street to welcome visitors to the HUB, see figure 67. This installation serves several purposes. It will show Davis’ identity upon entrance, it provides a fun photo spot, traffic passing through is disrupted causing slower speeds, and it lights the area for safety.
Figure 66  Design sketches in the process of creating the final design.

Figure 67  Evolution of the HUB, a large lighted art installation that welcomes visitors to Davis.
Reflection is a vital element for my design. It is the key that brings all my goals together, sustainability, inclusivity and identity. Sustainability is highlighted in this with large solar panels that harness energy for use at the HUB, provide protection from the weather, and serve as a community reflection piece, see figures 68 and 69. Looking up from underneath, one sees a mirrored surface reflecting self, others, and the history of Davis (as seen on the ground). When a community reflects on its identity, it should include its past, its present, and its future. Reflection is exemplified on the underside of three large state-of-the-art solar panels which represent the future. Looking up from underneath the viewer sees self and others to demonstrate the present community and can simultaneously observe the geographic ground plane representing the past.

In the final design I moved the location of these reflective panels to place them over three distinct areas that reference time periods in Davis. The bottom one is over the space

![Figure 68](image-url) This section sketch shows E Street with a lighted arch in the background, the stage space that doubles as seating all the time, and large solar panels with a reflective surface on the underside.
representing the indigenous land. The left one is over the agriculture land that brought Europeans to the area. And the one on the right is over the city of Davisville, showing its first formal shape that was in fact only the streets of what we now consider Downtown. Inspiration for this concept comes from Rudolf Steiner who said,

The healthy social life is found
When in the mirror of each human being
The whole community finds its reflection
And when in the community
The virtue of each one is living.
-Rudolf Steiner

The idea is that everyone who sees their reflection should know that they are a part of the Davis Community. Further reflection happens at the infinity style water fountain. The southeast side of fountain should have an interactive art piece, something like the one in Figure 70 that was commission by the City of Alexandria and made by SOFTlab. This sculpture, called "Mirror, Mirror" contains lights within that are activated by sound. For Davis' plaza, the idea is to provide a colorful, interactive piece that reflects Davis' many cultures, including LBGTA+. As the sun penetrates the sculpture, it refracts colorful light, creating beautiful patterns that would be reflected and blended in the water pool. It can be lit with varying colors to represent anything, such as UC Davis Colors, Hanukkah, or Breast Cancer support.
Figure 69. These mirrored surfaces, in combination with a funnel shape structures the basis for my solar panel design. (Photo credits: Left: Vieux Port Pavilion; Top right: 'Parc des Vergers de la Plaine; Bottom right: The Serpentine Gallery Pavilion 2009)
Figure 70 This sculpture created by SOFTlab refracts sunlight, producing beautiful, blended patterns. A sculpture such as this could represent the many cultures in Davis. (Mirror Mirror)

Figure 71 The reflecting pool in my design provide contemplation about who we've been, and who we are now, and who is included. The colors of the reflective rainbow could be dynamic to appear any color desired, such as blue and gold.
To better deliver regular programming that invites people Downtown, a stage space is needed. The stage space in my design forms the large wheel of the Highwheel as seen from above. The space is covered with a rain proof cover such as the ones shown in figure 72. The seating in the northern stage area holds about 100 people. The sides are open enough to allow overflow for large events and the northern side view is open as well. The max height above ground of this seating on the north side of the space is about 48”. The south side incorporates

Figure 72 These canopies inspire what I envision to cover the stage area, providing the look of a wheel from above and functionality for performances from below. (Image credits: Left: “Tension Structures.”; Top right and middle: “Metal Tensile Shelter”; Bottom right: “Shade Sails.”)
a background for the stage, storage, and 3 accessible, all gender bathrooms. Playful elements are provided by the stage seating and the stage itself.

Seating is currently limited, by adding movable seating and other amenities to my design, I hope to entice people to stay. Amenities like music and a more prominent water feature would keep them even longer. Drinking fountains and water bottle refill stations, also adding a pet drink station. Consistent, easily identifiable recycling and trash bins should be included. Providing covered space for transit pickup areas and car share waiting may greatly increase the likelihood of shared ridership because people would be protected from the hot sun or cold rain.

Additional elements of play include a hill for running up and tumbling down. The hill will have a rail to ensure it is accessible to most. There is a bridge that traverses the “water” and it is accessible. The half circles at the southern side host bench seating in the shade, a fire pit for winter and evenings, and a space “between” for kids to climb up and through, in and out.

Mobile seating is provided along with mobile tables. Additionally I have included two long, community tables with chairs or stools. These tables offer a place to interact with strangers, to eat, to use a computer, or play a game of cards. For certain occasions they could be used as community dining tables.

Large trees are preserved and many more trees are planted, especially at the southern side of the buildings. A space is left open in the middle for event gatherings such as a market or pop up booths or it could also be used for larger group events.

... 120 ...
Ground plane features are achieved through the use of materials, such as reusing the bricks from the current plaza to represent the railroad tracks. See the section provided in figure 74 for a better understanding of what the site is meant to look like.

This design is one of innumerable ways to achieve the Community aspirations and City goals. The elements included provide one way to design a gathering space that is sustainable, inclusive, and identifies Davis.
Figure 73. Final design, plan view. The Davis HUB has complete streets. The plaza and midblock crossing zones provide pedestrian priority through raised surfaces, relative to vehicular lanes. Loading zones are along the west side of F Street. E Street has a large art piece that welcomes visitors to the HUB from the north and south. Long tables offer shared seating spaces and moveable chairs and tables are also provided. Some large, mature trees are preserved. There is a green wall on the south side of the plaza. Amenities include a firepit, 3 accessible restrooms, storage, a playful hill and bridge, and more. Historical map is shown on the ground plane. Solar structures are mirrored on the underside.
Figure 74 The HUB in section with an attempt at perspective sketches. The HUB sign welcomes visitors from the north and south, provides a photogenic art piece and slows vehicle and bicycle traffic on E Street. The solar structures are mirrored underneath to show the observer their present community that they belong to and a reflection of the historical map representing Davis’ past.
Figure 75 For reference, this image shows the HUB design overlaying an existing satellite image.
Recommendations to the City of Davis

The E Street Plaza site holds enormous capacity to identify Davis as a regional destination. The City can begin to establish design criteria for a gathering space at the E Street Plaza area by incorporating the following measures. These recommendations are intended to inform the Downtown Specific Plan, the visioning process for a new gathering space. These recommendations are also intended to inform a Request for Proposal (RFP) when the City chooses to create a sizable civic gathering space such as this.

To gain community support and therefore community funding, community outreach must be broad, thoughtful, and inclusive. To ensure this happens, the City needs to articulate this in the Downtown Specific Plan.

1. The process for creating a plaza design at the heart of Davis.
   a. One approach is to use participatory design.
   b. Another, less rigorous approach is to form an advisory committee, like DPAC, to inform the Planning Commission and City Council and provide to recommendations for the design.

2. An advisory committee or other public process that leads to a design should reflect all the cultures of Davis, going beyond the measures taken for the specific plan to ensure representation of ableness, people of color, people with lower income, and multiple generations including teens, college students, the experienced generation, and families with young children.
   a. Outreach should include specific community groups, organizations, churches, schools, and other culturally appropriate groups.
   b. Outreach material and events should be translated to Spanish, other languages and include people with disabilities such as sight.
To adapt to climate change and because Davis aspires to be a *sustainability* leader, even using this as an economic generator Downtown, the plaza should meet some essential design and specification criteria. I recommend the following policies and specifications.

3. Promote safe, active travel by strengthening the pedestrian and bicycling network facilities.
   a. Focus transportation funds on active travel when upgrading infrastructure.
   b. Install raised crosswalks and pedestrian-only zones at sidewalk level.
   c. Ensure a pedestrian priority zone at the E Street Plaza and adjoining city-owned areas, including extension into E Street.
   d. Offer free transit and deeply discounted garage passes to Downtown employees.
   e. Require passthroughs in or between the buildings bordering and near the plaza.
   f. Limit or omit vehicular traffic on E Street, except for delivery vehicles only during specified hours.

4. Mitigate a heat island effect.
   a. This could be done with any combination of tree shade, passive solar design, and high-albedo surfaces on the ground plane.
   b. Appropriate vegetation for a warmer environment with limited water resources, including adaptable and native plants and trees.
   c. Install a green roof demonstration that provides shade.

5. Ensure water wise strategies are employed.
   a. Use biological means to clean runoff water.
   b. Allow ground water recharge on site.
   c. Provide a water feature for play.
   d. Make water infrastructure visible where possible.

6. Clean and renewable energy sources should be used to power the plaza and beyond.
a. Provide solar energy collection, geothermal heat, or other progressive technology to harness and/or reduce energy demand.

7. Reduce solid waste
a. Prohibit commercial waste receptacles in civic space to instigate commercial recycling and waste reduction.

b. Require indoor and/or private-property waste storage.

c. Provide daily waste removal Downtown to ensure sanitary conditions.

8. Include a civic sustainability center.

a. To offer interactive education and provide informational services about how to sign up for and implement sustainable initiatives.

b. This space could showcase touring sustainability exhibits.

Davis aspires to be a leader in inclusive community design. The following recommendations will help deliver that.

9. Employ Universal Design in all aspects of the gathering space.

a. Beginning with the process of choosing representatives.

b. Provide electricity for wheelchairs and other devices.

c. Use fewer stairs and incorporate ramps into the design to exhibit beauty.

10. Include all generations, socioeconomic demographics, and cultures in the design outcome.

a. Include children and families by integrating playful elements into the space.

b. Accommodate regular programming for small and large groups that appeal to all cultures and age groups in the community.

c. Allow and permit street performance.

d. Provide a visible connection to UC Davis.

e. Offer free wi-fi and charging stations to encourage participation Downtown by students and others with limited budgets.

f. Engage local tribes to define and create a space of honor showing respect for those tribes that cared for the land for thousands of years.

11. Ensure social equity

... 127 ...
a. Prohibit privately-owned café seating on the plaza, rather encourage internal patios, rooftop patios, and floor to ceiling store fronts opening to the plaza.
b. Provide movable seating and tables for use by everyone.
c. Use long “farmhouse style” tables to encourage interaction.
d. Encourage side street café seating on E and F Streets.

The following recommendations will help both re-establish Davis’ identity as a progressive, sustainable, and active town. These elements should be significant enough to draw visitors with travel origins in Davis as well as the region.

12. Consider UC Davis colors when choosing a palette and encourage Downtown businesses to display blue and gold on a regular basis.
13. Install notable art pieces that demonstrate progressive sustainability techniques and provide interactive opportunities.
   a. Art could demonstrate energy, water wastewater infrastructure systems, solar energy collection, geothermal heating, electricity, or other technology that provides a clean energy.
14. Include photogenic sculpture
   a. To prompt photography and “selfies” to identify Davis to the region and beyond.
   b. Sculpture to play on and around for children of all ages.
   c. Reflect Davis’ bicycling culture.

To meet goals and visions the City of Davis could begin advancing several of the above recommendations at a somewhat smaller scale prior to creating a newly designed civic gathering space.
CHAPTER 4 Conclusion

The Specific Plan process, the vision and codes it creates may transform Downtown Davis. If the City and the community wish to create a gathering space to draw people downtown to live, eat, shop, and work, now is the time to ensure that such a space reflects the community aspirations. Due to the size, location, political will, and other factors, the E Street Plaza Site has the potential to become a successful third place for the entire community to gather individually, in small groups, or larger civic events. To ensure this, city policies and regulations must indicate inclusivity as a priority for the Site.

There are many opportunities for improvement at this Site. A gathering space must provide reasons to visit and reasons to stay. The Plaza in combination with E street offers a chance for Davis to establish its identity and make a statement as newcomers enter Downtown. The high wheel bicycle theme bolsters Davis’ identity as a bicycle friendly town, with deep roots in this transportation mode.

The design proposal and recommendations presented in this paper are intended to inform the Downtown Specific Plan and the Form-based Codes. To create an inclusive gathering space in the heart of downtown Davis that embodies sustainable principles, reestablishes the city identity, and attracts visitors, I urge the City to utilize the recommendations presented above. These recommendations will help fulfill the community vision as revealed during the Downtown Specific Plan process and through my research. If these concepts are articulated in the Downtown Specific plan, the City is more likely to deliver a civic gathering project that meets the community aspirations.

... 129 ...
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... 134 ...


Notations

The opinions and interpretations of data related to the Downtown Davis planning process are my own and do not represent DPAC as a whole.

This research uses people-first language because I am referring to a community rather than a specific person. "People-first language places the emphasis on the person instead of on the disability when discussing most intellectual and developmental disabilities" (Association of University Centers on Disability, AUCD). I have used language to portray people with disabilities, as recommended by the National Youth Leadership Network to describe persons with disabilities (NYLN). I want to acknowledge that some people prefer identity first language, which "emphasizes that the disability plays a role in who the person is, and reinforces disability as a positive cultural identifier" (AUCD).

All photographs are taken by the author unless noted.
Terminology & Acronyms

Community – a place-based community that lives, works, or frequents Davis.

Core Area – as specified by the current planning documents, this is the area extends
approximately east-west from the Southern Pacific Railroad tracks to A street and north-
south between 5th Street and 1st Street, with an extension north along G Street. This
boundary was used to begin planning the new specific plan.

Downtown Core – as specified by the current planning documents, this is the area between
1st/3rd Street and D St./railroad tracks.

DPAC – Davis Downtown Plan Area Committee, appointed by the City Council to advise on the
2040 Specific Plan.

Form-based codes – Zoning codes that primarily focus on the built form, rather than the
allowed uses. This zoning approaches design from a human scale.

Specific Plan – a set of planning documents that focus on a special district, rather than the
General Plan that encompasses the entire City.
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