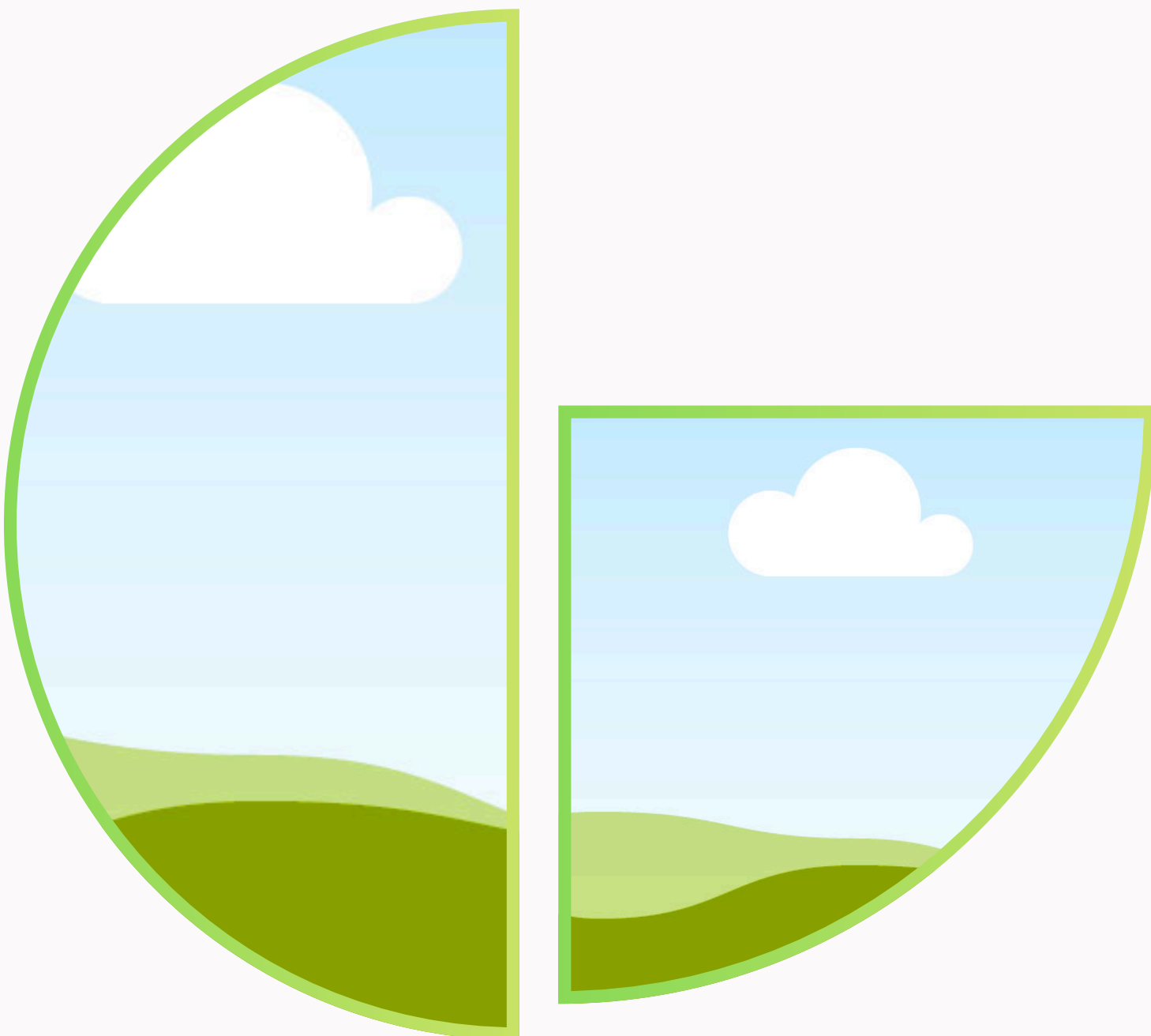


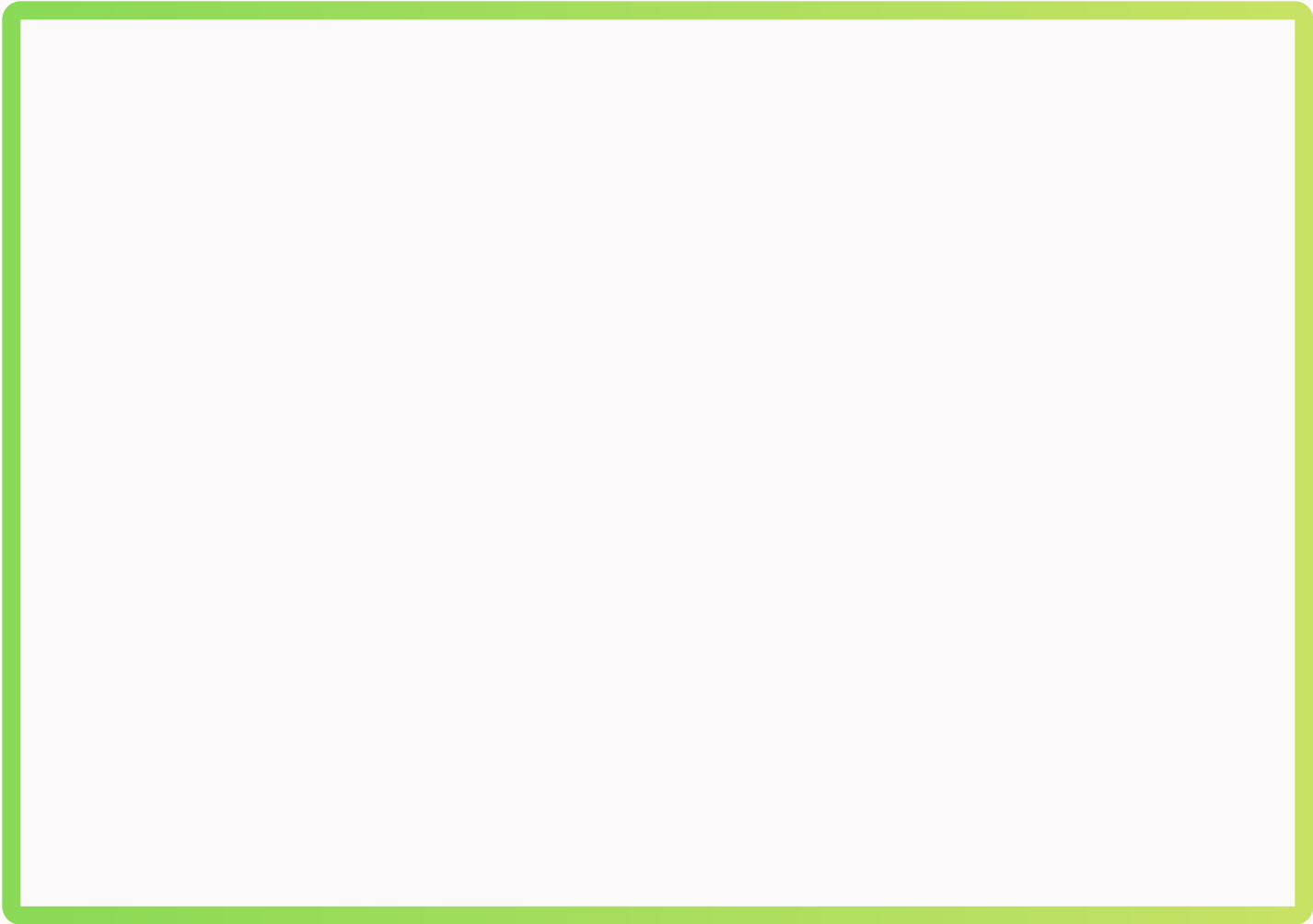


EXPANDING THE SAN MARCOS GREEN ALLEY NETWORK

**Texas State University Sustainability
Studies Graduate Project – Fall 2025**

**A Project in Collaboration with the
City of San Marcos**





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INTRODUCTION

The City of San Marcos has been exploring how to activate its historic alley system to improve livability, water management, and economic development. The City is currently implementing a new design for Kissing Alley and hopes that this project will lay the groundwork for alley improvements throughout the downtown core. To help in this process, Texas State University Sustainability Studies students, under the guidance of Dr. Billy Fields, prepared this report to provide examples of best practices in planning for green alleys from around the world. The goal is to provide workable examples that can help the City of San Marcos envision and plan for improved green alleys that have been successful in other areas.

This document is organized into three sections. The first section examines key planning document helping to guide development of the green alley initiative. This is followed by a series of case studies of local, national, and international locations. Finally, we evaluate key policy issues that can advance green alley planning.

BACKGROUND: SAN MARCOS PLANNING DOCUMENT REVIEW

This section provides an overview of key planning documents related to the green alleys in downtown San Marcos and surveys existing alley conditions to identify key strengths and weaknesses. While recent projects such as the biofiltration improvements on C.M. Allen Parkway and the redesign of Kissing Alley represent building blocks toward a more sustainable downtown, we found that elements of green design can be integrated to improve outcomes. Overall, we recommend building on these important pilot projects and moving towards integration of a broader green infrastructure network that connects alleys to the broader street system.

Background

The San Marcos Green Alley Initiative began in 2015 as a citizen-led partnership to search for opportunities to revitalize the city's network of downtown alleys. The initiative framed alleys as underutilized urban spaces with the potential to deliver ecological, social, and economic benefits. The initiative created a series of best practices examples that showed how existing alleys can be transformed into places that not only increase resilience but also improve the public space for pedestrians and local businesses. The Green Alley Initiative includes strategies such as permeable pavement for stormwater infiltration, bioswales for runoff, and street trees/planting strips for carbon capture. Traffic calming techniques are also a high priority for these alleys, with plans for curb extensions, bike lanes, and parklets. Finally, lighting, murals, and history markers were encouraged to enhance safety and foster a communal environment.

The San Marcos Green Alley Initiative generated city interest, resulting in policy recommendations that have been embedded in city planning documents, such as The Downtown Area Plan, adopted in November 2023, and The Ten-Year Capital Improvements Plan. Implementation of these concepts was jumpstarted in the Ten-Year Capital Improvements Plan. The approved 2025-2034 plan divides the Downtown Alley projects into two phases. Phase one focuses on renovating several alleys between LBJ and Guadalupe from Hopkins to Hutchinson, totaling roughly 900 linear feet. The plan originally listed "Kissing Alley" and "Jacks Alley" as beginning in 2024 and 2025, although these timelines have been pushed back.

The CIP allocates approximately \$1.8 million for Phase One in 2026. Phase two includes reconstruction of the remaining segment of Kissing Alley between Guadalupe and LBJ, from Hutchinson to University Drive, totaling approximately 400 linear feet. Phase two also includes the objectives of the Downtown Master Plan, including traffic crosswalk & signal improvement. Funding for phase two is programmed at \$750,000 in 2029 and \$4.05 million in 2032. The document lists the Tax Increment Reinvestment Zone as a possible fund and green infrastructure as a potential inclusion.

In addition to the Downtown Alley projects, the CIP details improvements along Hopkins Street, Comanche Street, University Drive, and Purgatory Creek. These projects focus on improving utility infrastructure, widening roads, flood mitigation, safety measures, and making more pedestrian accessible trails. All these improvements represent important needs regarding our city system. Only a small portion of the downtown alley system, however, currently has dedicated funding. There is potential to create an integrated green alley network in San Marcos that links, alleys, streets, homes, and businesses together in a new green street system in San Marcos. Connecting the components together will require a new set of plans and funding to advance from the pilot program stage.

EXISTING ALLEYS IN SAN MARCOS

This section provides an overview of the existing alleys using field observations and audit tools provided in class to assess their current conditions. Of the original historic twenty downtown alleys, sixteen still exist today (The San Marcos Green Alley Initiative, 2021). They create a system hidden behind commercial, residential, and retail buildings. These alleys provide an important potential framework for creating resilient, multifunctional spaces that manage stormwater, improve pedestrian flow, and foster a stronger sense of community.

For this project, our team used two evaluation frameworks: the Resilient Streets Audit Tool and the Adaptation Urbanism Audit Tool (Fields and Renne, 2021). The Resilient Streets Audit Tool measures 22 design elements that make a street safe, green, and welcoming. The Adaptation Urbanism Audit Tool is a checklist focused on green/blue infrastructure and Vision Zero/Safe Systems street design components. The Adaptation Urbanism Audit tool (Fields and Renne, 2021) lists specific elements for each component below:

Green/blue street corridor elements

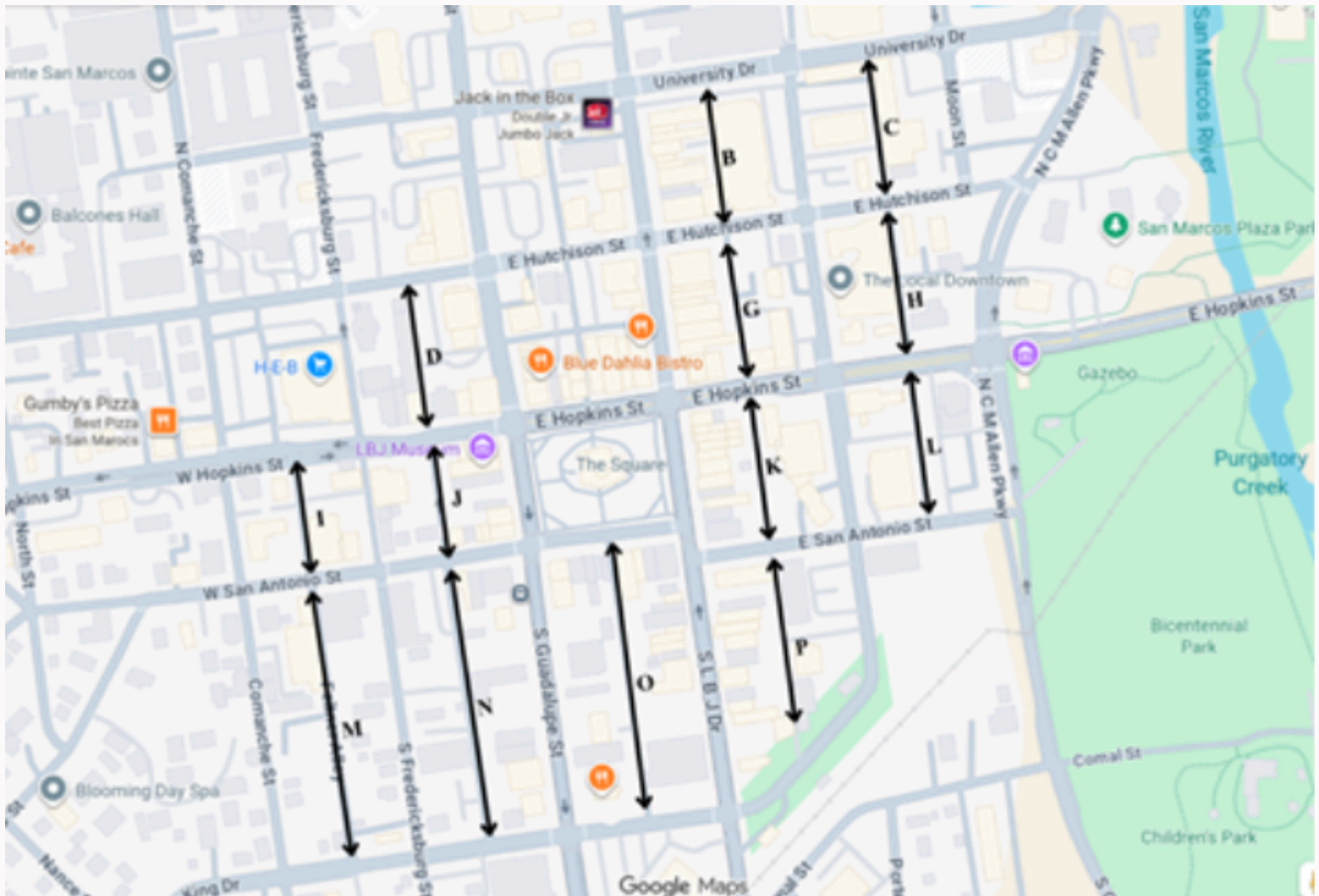
- **Green/blue street corridor elements**
- **Green medians**
- **Street trees**
- **Parks/parklets**
- **Street planter boxes**
- **Bioswales**
- **Permeable pavement**
- **Adjacent canals**
- **Adjacent rivers**
- **Adjacent ponds**
- **Water square**
- **Blue medians**
- **Green/water squares**

Vision Zero/Safe Systems street elements

- **Brick pavement**
- **Traffic calming (speed table, chicanes, etc.)**
- **Sidewalk**
- **Continental cross-walk/Mid-block crossing treatment**
- **Pedestrian street**
- **Cycle track**
- **Bike lane**
- **Advisory bike lane**
- **Protected intersection**
- **Roundabout/Traffic circle**
- **Curb bulb-out**
- **Trail/greenway**

Currently, several downtown alleys feature many of the green infrastructure and placemaking elements outlined in the above tools. There are moderate amounts of greenery and beautiful, vibrant murals that add life to the alleys. The Vision Zero/Safe Systems audit, however, highlighted the lack of safe systems designs that could improve pedestrian and multi-modal connectivity. Through observations, we also found that the alleys are often underutilized and lack lighting, traffic calming at intersections, and clear spaces for pedestrians or cyclists. We found that when people pass through the alleys, they do so rather quickly, rather than pausing to enjoy. The alleys currently lack the necessary elements to transform them into communal spaces where people can pause, connect, and enjoy themselves. Overall, the audit results demonstrate that while the alleys possess strong locational advantages, they are currently underperforming in terms of safety, green/blue infrastructure, and inclusive public spaces.

EXISTING ALLEYS IN SAN MARCOS: GUIDE



This figure serves as a representational guide to help identify the selected alleys and their locations on the downtown San Marcos map. The following section showcases field notes on selected alleys to highlight current conditions.

ALLEY B



Landmarks: IcyRolls, Alvin Ord's, Showdown

- Strength: Beautiful murals and some greenery are present. The alley is actively used as a service corridor for nearby retail.
- Weakness/Threat: The alley feels isolated despite being surrounded by businesses. "No Trespassing" signs make the space feel uninviting, and the old, partially unpaved surface, unmanaged greenery, and scattered dumpsters lower overall comfort and perceived safety.

ALLEY C



Landmarks: Sylvia's Pizza, The Halal Project, KAsian Garden

- **Strength:** Surrounded by retail buildings with visible rainwater drainage, several street trees, and a connection to a small plaza, giving it strong potential as a communal space. The alley also connects the downtown to the Texas State University campus.
- **Weakness/Threat:** The alley feels deserted and unwelcoming, with noticeable litter, warning signs, poor drainage conditions, a lingering odor, and a cracked road surface. Vehicles can move through quickly, creating a safety concern for pedestrians crossing the alley.

ALLEY G



Landmarks: Chimy's, Axis, CRAFThouse Kitchen & Tap

- Strength: Includes a small parklet with seating, murals, and bioswale-like features. Surrounded by commercial and retail buildings, functioning as an entry point for nearby businesses.
- Weakness/Threat: The parklet has no connection with the rest of the alley space. There is little traffic calming, creating potential safety concerns. The alley feels crowded yet disconnected, and lingering odors from nearby dumpsters reduce overall comfort.

ALLEY H



Landmarks: The Local, Wineaux, Shinko88, Sabor Y Vida Mexican Food

- Strength: Peaceful and open space connected to student housing and nearby commercial buildings. Located near bicycle racks and moderate greenery, it has strong potential to function as a street public space like a courtyard.
- Weakness: The space feels empty, with unmanaged greenery and visible dumpsters.

ALLEY I (FELTNER ALLEY)



Landmarks: Tantra, Price Center & Garden, Southwest Training

- Strength: Attractive alley with abundant greenery, murals, calm traffic, and a small sitting area. Surrounded by retail buildings and has strong potential as a vibrant shared space.
- Weakness/Threat: Lighting is uneven, and tactile paving is incomplete, creating safety and accessibility concerns. The greenery is plentiful but unmanaged, which makes the space appear slightly neglected.

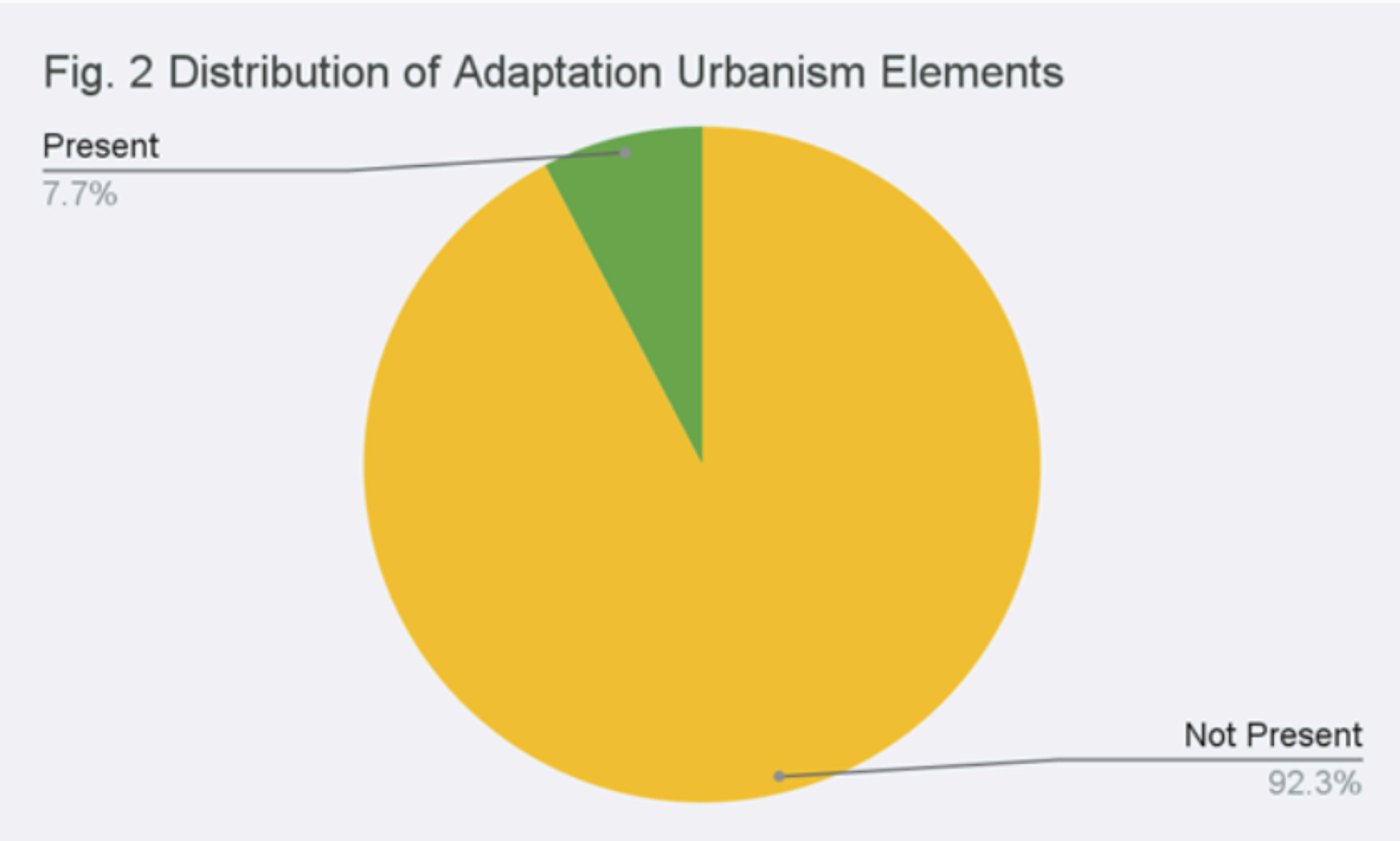
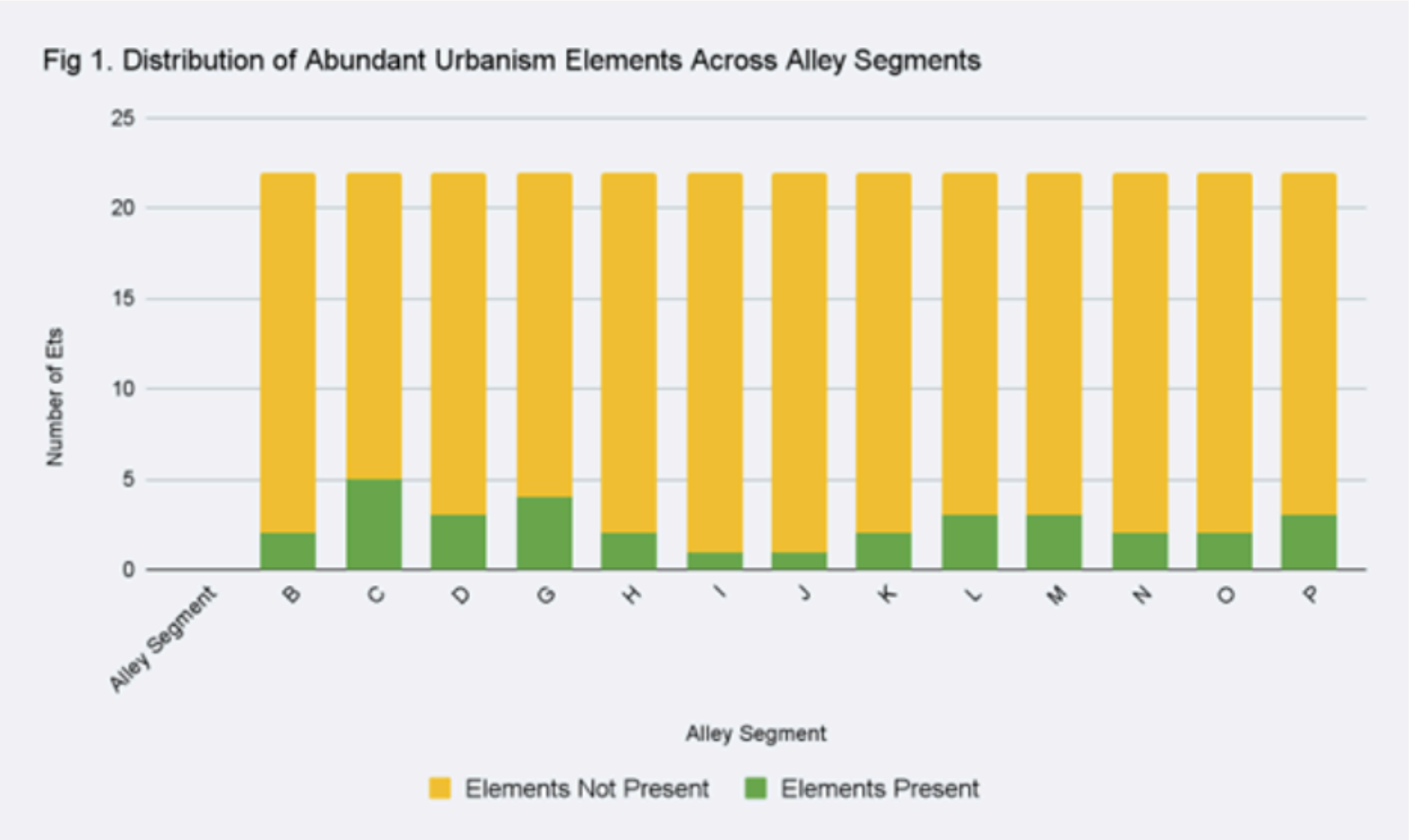
ALLEY P



Landmarks: Rhino Graphics, Railyard Bar & Grill

- Strength: Features multiple murals, is surrounded by retail buildings, and connects to a park at one end, giving it strong potential for activated communal use.
- Weakness/Threat: Presence of several dumpsters, cracked pavement, poor lighting, and incomplete tactile paving creates safety concerns. The alley ends near an overgrown park and an abandoned warehouse, which contributes to an overall unsafe atmosphere.

Figures 1 and 2 were created to showcase the distribution and presence of elements from the audit tool across the various alleys. The results show that most of the green infrastructure and Vision Zero safety elements were not present in the alleys.



GREEN ALLEY DESIGN PRECEDENTS

We reviewed best-practice green alley design examples from Texas, across the United States, and in Europe to identify typologies that could provide inspiration for designs in San Marcos. The following table organizes these design precedents and serves as a reference for the rest of this section.

Typology	Location
Shared Green Street	• Bagby Street, Houston, TX • Old Firehouse East/Seckner Alley in Fort Collins, CO
Greenway Corridor & Bicycle Street	• Mueller Neighborhood, Austin, TX
Pedestrian Street	• Midtown Green Alley, Detroit, MI • Dalzell Alley, Fort Collins, CO • Lower Marsh, Waterloo, London, GB • Dirk Van Hasseltssteeg Alley, Amsterdam, NL • Sint Barberenstraat, Amsterdam, NL
Green Buffered Street / Green Facade Street	• NE Siskiyou St. & NE 35th Ave, Portland, OR • Visschersteeg Utrecht, NL • Hercules Road, Lambeth, London, GB
School Street / Play Street	• Hemony Straat, Amsterdam, NL
Integrated Plaza	• Confluence Park, San Antonio, TX • Alamo Plaza, San Antonio, TX
Water Boulevard / Water Square	• Square 80, Washington, DC

TEXAS DESIGN PRECEDENTS

Texas provides a rich source of best practices examples that may offer valuable insights for integrating green infrastructure and vision zero elements into San Marcos' alleys. Projects such as Bagby Street in Houston, Confluence Park in San Antonio, the Mueller Greenway in Austin, and the Alamo Plaza in San Antonio illustrate a range of strategies for improving stormwater management, safety, and community engagement. The collected examples provide practical approaches to converting underutilized, car-dominant areas into resilient and vibrant places reflective of Texas' cultural richness. These examples are especially important for San Marcos because they address key issues like water and heat management. They show how rain gardens and bioswales can manage runoff before it reaches the San Marcos River. They also show how green corridors can connect fragmented urban spaces, and how historic downtown centers can function as anchors for green infrastructure network.

Design #1



Location: Bagby Street in Houston, Texas

Typology: Shared Green Street

Description: As part of a redevelopment project, Bagby Street was converted from a four-lane one-way thoroughfare to one of Texas' first certified Greenroads.

Resilient Place Benefits:

- Bike lanes were added to improve safety and reduce the number of vehicular crashes
- Sidewalks along the street were widened, enhancing pedestrian mobility and safety. Pedestrian traffic surged by 200% as a result.
- Bioswales and rain gardens capture and filter stormwater, preventing flooding and reducing pollutants in the water supply.
- Landscaping and the addition of trees provides the street with shade and green space to reduce the urban heat island effect, as well as add to aesthetic appeal.

Application Considerations:

- Rain gardens and bioswales could be implemented at the N. Edward Gary and E. Hutchison intersection to extend the existing biofiltration efforts on C.M. Allen Parkway. This would be highly effective at reducing debris pollution, such as trash and asphalt from stormwater runoff before reaching the San Marcos River.

Design #2



Location: Confluence Park, San Antonio Texas, 310 W Mitchell, 78204

Typology: Integrated plaza

Description: This green park was created to implement sustainable practices with unique infrastructure; it has walking pathways that connect the San Antonio River and Mission Ranch and celebrates historic culture.

Resilience Place Benefits:

- It catches and collects the rainfall through a site-wide water catchment system and then releases it into an underground water storage system. (286,000 gallons collected per year)
- San Antonio River Authority educators motivate people to reduce pollution in creeks and rivers through nature-based programming.
- Manage the urban runoff from near neighborhoods before it goes into the San Antonio River.
- Parking lots and pathways are permeable.

Application Considerations:

- This could be applied along the San Marcos River as an outdoor classroom that educates the community about the local ecosystem and historic culture.

Design #3



Location: Mueller Neighborhood, Austin, TX 78723

Typology: Greenway Corridor & Bicycle Street

Description: The Mueller redevelopment in Austin converted a former airport into a mixed-use district centered on walkable and bikeable green corridors. The Southwest Greenway integrates native vegetation, bioswales, and permeable trails that channel stormwater to retention ponds.

Resilient Benefits:

- Stormwater managed through bioswales and native prairie restoration.
- Encourages non-vehicular mobility via continuous green routes.
- Reduces heat island effects through vegetation canopy.

Application:

- Greenway corridors like Mueller's can be adapted to connect fragmented public spaces in downtown San Marcos, improving walkability between alley segments.
- Mueller's bioswale and pond system demonstrates how stormwater can be captured and filtered on-site, a concept transferable to the flood-prone San Marcos alleys.

Design #4



Location: 300 Alamo Plaza, San Antonio, TX 78205

Typology: Integrated Plaza

Description: The Alamo Plaza improvements transformed the streets in front of the Alamo Mission into a more pedestrian-oriented civic space. The redesign incorporated expanded sidewalks, shaded seating areas, permeable surfaces, native landscaping, traffic calming, and pedestrian-priority zones. These upgrades increased safety, reduced heat exposure, and improved the walkability and cultural value of downtown San Antonio.

Resilient Place Benefits:

- Expanded pedestrian areas reduce car dominance and support safe public movement.
- Native landscaping and trees help mitigate urban heat and provide shade for visitors.
- Permeable surfaces reduce runoff and support on-site water infiltration.
- Historic and cultural placemaking increases public space use and community identity.
- Traffic calming and reduced vehicle speeds improve safety in a high-pedestrian district.

Application Considerations:

- This is a useful design precedent for the historic San Marcos Courthouse because its center in the downtown square could function as a connecting point for the green alley network

US DESIGN PRECEDENTS

This section gives real-world examples of green alleys, transformations of neglected service corridors, permeable pavement and small-scale green infrastructure projects that are directly applicable to the conditions observed in Downtown San Marcos. These U.S. examples are relevant because they show practical focus on retrofit strategies, that are realistic for implementing green infrastructure within San Marcos.

Design #1



Location: Midtown Green Alley in Detroit, Michigan

Typology: Pedestrian Street

Description: This project transformed an alley in disuse into a thriving green alley.

Resilient Places Benefits:

- The alley was repaved with rock and soil substrate, covered by lattice pavement and reclaimed bricks. This pervious groundcover increases permeability, thereby improving stormwater drainage.
- The incorporation of native plants minimizes the urban heat island effect and requires minimal maintenance.
- LED lights were installed to improve safety and aesthetics, creating a welcoming environment.
- The green alley promotes walkability, encouraging pedestrian use. This can result in a decrease in carbon emissions by incentivizing walking over carbon-intensive modes of transport.

Application Considerations:

- This project was funded primarily by neighboring business owners and private grants due to a lack of budget in the city. However, since the success of this pilot project, Detroit has allocated significant funding to future green alley opportunities. The success of pilot projects like Kissing Alley is crucial to the success of future green alleys.
- Volunteers also played a key role in the completion of this project. This both promotes community engagement and reduces costs. Volunteer opportunities may be considered for San Marcos' alleys.

Design #2



Location: Square 80 in Washington, DC

Typology: Water Square

Description: This project converted a parking lot for over 30 vehicles into a public plaza designed with green infrastructure to manage stormwater.

Resilient Places Benefits:

- The water square successfully retains 90% of stormwater through stormwater management measures including three cisterns and a rain barrel for capture, runnels directing stormwater into biofiltration planters, pervious pavers, a rain garden, and bioswales.
- Benches and tables were installed as effective placemaking tools, adding to the cultural value of the area.

Application Considerations:

- This was part of a redevelopment project by George Washington University. The space is also designed to be utilized as an outdoor classroom for their sustainable landscape design program. Downtown San Marcos could utilize a water square for similar purposes in partnership with Texas State University. A water square could also be implemented on or near the Texas State campus to connect campus green spaces with the downtown alley network.

Design #3



Location: NE Siskiyou St. & NE 35th Ave, Portland, OR 97212

Typology: Bioswale / Curb Bulb-out

Description: Portland's Bureau of Environmental Services converted a residential block into a "green street" by replacing curb areas with planted bioswales. These landscaped extensions filter stormwater runoff from streets before it reaches the sewer system.

Resilient Place Benefits:

- Manages stormwater at the source, reducing combined sewer overflow.
- Adds greenery, habitat, and aesthetic improvement to residential blocks.
- Demonstrates low-cost retrofits with high ecological impact.

Application Considerations:

- Demonstrates how low-cost materials can be retrofitted into existing street edges which is useful for flood prone narrow alleys in San Marcos and manage runoff without requiring full street reconstruction.
- Shows the value of vegetation zones and engineered soils for improving stormwater infiltration and protecting downstream water quality, especially given proximity to the San Marcos River.

Design #4



Location: Colorado – Dalzell Alley

Typology: Pedestrian Street

Description: The Fort Collins Downtown Development Authority revitalized Dalzell Alley as part of a larger downtown alley enhancement program. The project transformed a neglected service corridor into a pedestrian-friendly urban passage featuring upgraded lighting, landscaping, and improved surfacing. This redesign connects local businesses, improves accessibility, and fosters a more inviting public realm while maintaining service functionality.

Resilient Place Benefits:

- Incorporates decorative lighting and planters that enhance nighttime safety and aesthetics.
- It expands pedestrian circulation and accessibility between the downtown streets, improving mobility.
- Provides greenery and shade through planters and trees that reduce urban heat and soften the built environment.
- Encourages local business involvement, with restaurants and cafés now activating the alley frontage.
- Demonstrates small-scale urban greening and placemaking through tactical retrofitting.

Application Considerations for San Marcos

- Although not a full “green alley” in the full stormwater infrastructure sense, Dalzell Alley’s approach shows how alleys can become social and ecological assets. It provides a strong model for integrating placemaking, mobility, and urban greening within existing downtown fabric.
- The lighting and pavement design that were adapted for functional service use and the safety of pedestrians could be applied to the existing alleys in San Marcos.
- DDA utilized design strategies that could accommodate a constrained urban context such as San Marcos, in close coordination with local business owners.

Design #5



Location: Old Firehouse East/Seckner Alley in Fort Collins, CO

Typology: Shared Green Street

Description: This is another alley completed by the Fort Collins Downtown Development Authority to beautify and activate Old Town's alleys. Completed in 2018, this retrofit converted service alleys into vibrant shared corridors prioritizing pedestrian safety and walkability.

Resilient Place Benefits:

- Improved lighting makes the area feel safe and welcoming, even at night.
- Seating fosters placemaking and social cohesion.
- Pedestrian pavers improve permeability, boosting stormwater infrastructure.
- A 3D interactive mural is featured at the end of the alley, adding an element of art and play to the area.
- Plants bordering the alley add visual appeal as well as temperature moderation.

Application Considerations:

- This alley makes use of pots for vegetation, which makes sense to protect the plants against freezes in the more frigid Colorado winters. However, in San Marcos, it may make more sense to implement in-ground landscaping, especially to mitigate stormwater runoff.
- These alleys still allow for vehicular access for trash service, maintenance, and deliveries. However, priority is granted to pedestrians and non-motorized vehicles, mostly through traffic calming.

INTERNATIONAL DESIGN PRECEDENTS

The international design precedents included in this section are the result of a two-week field study conducted in Summer 2025 in London, UK and Amsterdam, NL by a student research team from Texas State University and the University of Westminster. Through this partnership, students worked directly with the JUST Streets team in London to analyze Vision Zero initiatives across multiple boroughs, including the School Streets program at St. Mark's Primary School in Lambeth, and conducted on-site observations of green alleys, shared-streets, and human-centered urban design in Amsterdam and Utrecht. The purpose of this international study was to use real-world observations that could be meaningfully adapted to the local context of San Marcos, Texas. Marcos.

Design #1



Location: Hemony Straat, Amsterdam, NL

Typology: School street/play street

Description: The street is split into 2 parts with one side being a playground space that is separated from the slow, traffic-calmed street by a fence and shrubs.

Resilient place benefits:

- Undulating speed bumps slow cyclists and cars ("School" is also written on the street to designate the area)
- Low speed limits and traffic-calming help to slow speeds throughout the entire day and not just during school hours
- The green shrubbery acts as a type of media between the playground and traffic-calmed street segment
- Brick pavers communicate slow speeds and could be made permeable as well
- Green shrubbery and street trees provide shade and mitigate heat

Application Considerations:

- This could be applied in a modified form for connections to the university and in other areas of San Marcos with primary and secondary schools.

Design #2



Location: Dirk Van Hasseltssteeg Alley, Amsterdam, NL

Typology: Pedestrian Street

Description: This is a residential alleyway that connects to main streets on either side.

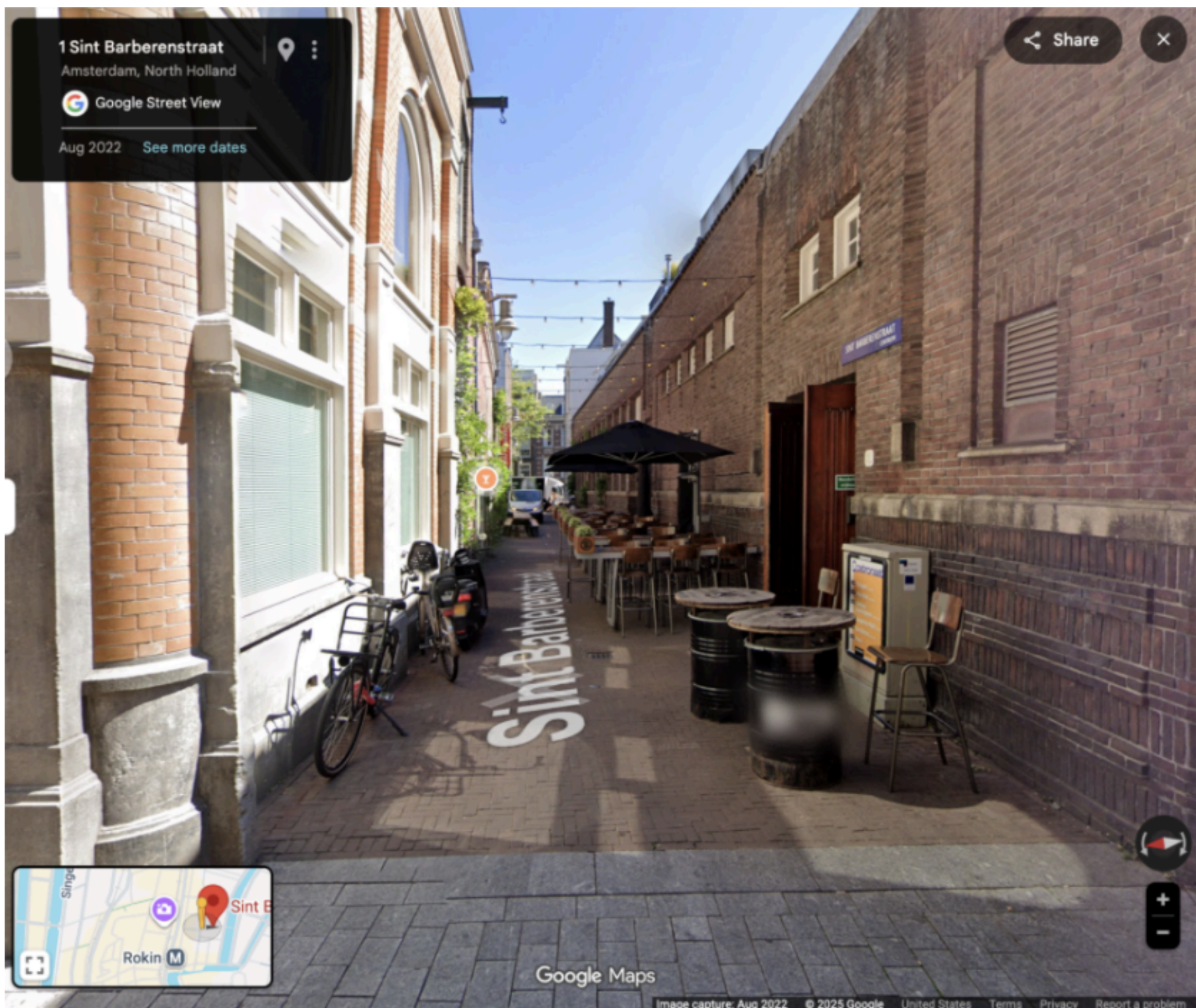
Resilient Place Benefits:

- A green vine canopy provides shade and visual appeal to foster a welcoming walking environment.
- Plants line both sides of the alley to collect water during rain events.
- Pedestrian and cycle access activates the residential area
-

Application Considerations:

- This could be applied to the alleyways in by student housing complexes like The Local and The Parlor, improving safety and accessibility.
- Pedestrian and cycle access can increase economic development for surrounding areas by increasing foot traffic through the alley. This is especially beneficial for San Marcos' local businesses.

Design #3



Location: Sint Barberenstraat, Amsterdam, NL

Typology: Pedestrian Street

Description: This pedestrian alleyway in central Amsterdam swaps between a shared street for mobility and a lively social space with retractable tables.

Resilient Place Benefits:

- The brick pavement slows bikes and vehicles, and hanging lights improves the feeling of safety during late hours.
- The folding tables attached to the walls of the adjacent pub accommodated the nightlife on the alleyway, while retaining mobility purposes during the daytime and slow hours.

Application Considerations:

- This is applicable for the vibrant night life of the San Marcos square, allowing for local bars to accommodate to the changing influx of customers during the day and night.

Design #4



Typology: Green Buffered Street

Description: This street was transformed with a closed-off traffic filter end, bioswales, and sidewalk extensions that replaced parking spots with community gardens and social space.

Resilient Place Benefits:

- A continuous street tree row and/or planted buffers reduce heat through shading and thereby increase comfort along the paths for walking and biking during hot seasons.
- Vegetated strips collect and filter stormwater, reducing runoff and improving local drainage capacity during rain events.
- The separated spaces dedicated to pedestrians and bicyclists by planted buffers create better mobility and promote active transportation, thereby supporting a healthier public realm.

Application Considerations:

- In Downtown San Marcos, this can enhance walkability through safety and adding green infrastructure to reduce heat stress and creates a more pleasant environment in which to live or visit.
- Improvement in pedestrian and cycle infrastructure can lead to increased footfall, with the street becoming a more attractive place for people to stay, shop, and explore, benefiting proximal businesses.

POTENTIAL APPLICATIONS

The existing alleys surveyed under this study reveal a thread of recurring issues: lack of cooling features, trash accumulation, lack of lighting and safety elements, asphalt coverage, and underutilized potential. The biofiltration improvements on C.M. Allen Parkway and the redesign of Kissing Alley are the starting point for our proposed applications to integrate green design in Downtown San Marcos. This proposal is intended to address the issues unveiled by this study, as well as to increase the social, economic, and environmental benefits of green design by working toward connectivity throughout San Marcos.

Upon review of international design precedents, local design precedents, and analysis of potential application of green design in San Marcos, the following suggestions are recommended to improve the city's mobility, urban resilience, and connectivity:

A) N. Edward Gary Street and East Hutchison Street Intersection

This section of downtown has high potential, due to the current investment in cultural murals, the number of underutilized alleys, proximity to the city's public park, the San Marcos River, and highly trafficked streets. We propose constructing a green traffic circle with a rain garden in the center at the N. Edward Gary Street and East Hutchison Street intersection. This location is suitable for green design as it extends from the previous biofiltration projects on C.M. Allen Parkway and provides a continuation of the green design and improved connectivity. This intersection also sits near Texas State shuttle stops, businesses, student housing, and public park access, resulting in high pedestrian and cyclist movement. Traffic circles are proven to be successful in managing vehicles and enhancing safety for pedestrians and cyclists. This allows for a more multi-modal Downtown, appealing to the needs of San Marcos residents and Texas State University students. The rain garden in the center serves the purpose of enhancing the landscape, while simultaneously providing biofiltration benefits that recharge groundwater.

An instance where this traffic circle design has been successfully implemented is at Rio Vista Park by Ivar's River Pub. The traffic circle has improved this section of the city by providing stormwater benefits, urban cooling, and habitat, and demonstrates that these systems work well in San Marcos. The precedents that influenced this design example increase our confidence that this capital improvement will benefit the community if installed at this location.

The image below shows a screenshot of Google Maps where the proposed site is located within San Marcos.



B) Re-design the Paired Alleys off E. Hutchison (Alleys C and H)

Additionally, to build on this design and further improve the area, we suggest re-designing the two alleys (alleys C and H) that run parallel to E. Hutchison Street. This would mirror what is being done in Kissing Alley. We recommend enhancing alleys C and H by installing permeable pavement, green walls, bioswale strips, and a trash-management strategy to help improve litter buildup (noted specifically at these two alleys). These alleys are prime candidates for improvement as they are wider than typical “service-used” alleys in Downtown San Marcos and are already partially shaded. These alleys sit near Downtown’s active cultural and commercial areas, yet they remain underutilized, uninviting, and prone to litter accumulation. They also sit near the San Marcos River, providing reason to be responsible for managing the trash and runoff in this location.

The environmental and urban design benefits of permeable pavement include reduced runoff, filtration, cooling, and cleaner, more walkable surfaces. This is beneficial as Alley C is located beside Sylvia’s Pizza, and would benefit from having a more attractive space for customers, as well as users of the plaza adjacent to Alley C. The restaurant even includes a seating space that faces this alley. If transformed, Alley C could be a safe and walkable space for visitors and shoppers.

Another way we can improve these alleys is by including green walls. Green walls are an addition that increases attractiveness while providing shade and cooling benefits. They add visual interest and biodiversity in tight urban spaces. As shown in international design precedents, green walls can transform urban spaces and require very little maintenance and cost for installation. Additionally, during analysis of this site, gutter runoff was observed directly over hot asphalt. This runoff carries trash, oil, and debris towards the river. Introducing bioswales or raised planter boxes would capture and treat some of this runoff. It would also enhance the visual look of the alley. Given proximity to the river, it would be beneficial to conduct a trash management study that evaluates the trash generation in these alleys, both located near residential and commercial spaces. Managing the trash in these alleys not only protects the river but also elevates the spaces, allowing them to be more functional for public use in daily life.

The image below shows a screenshot from Google Maps of Alley H, one of the two alleys we propose re-designing because of this study.



CONCLUSION

This document provides an overview of the potential to extend the green alley network in San Marcos. The students of the Sustainability Seminar Fall 2025 cohort produced this report to evaluate existing conditions and point to promising opportunities to create safer, greener, more economically productive streets for the City of San Marcos. We appreciate the background support and insights of the City planning team and hope that our report offers options to consider as the City moves forward with further planning for downtown streets.

WORKS CITED

Bagby Street (2022). Greenrise Technologies. <https://greenrise.com/projects/bagby-street/>

City of San Antonio. (n.d.). *Alamo Plaza improvements*. City of San Antonio. <https://www.sanantonio.gov/CCDO/AlamoPlaza>.

Georgetown Climate Center. (n.d.). *Portland, Oregon: NE Siskiyou Green Street project report*. Adaptation Clearinghouse. <https://www.adaptationclearinghouse.org/resources/portland-oregon-ne-siskiyou-green-street-project-report.html>

Piper, M. (2021). *Green Alley Spring 16*. Green Garage. Retrieved from <https://greengaragedetroit.com/sustainability/green-alley-spring-16-1/>

San Antonio River Authority. (n.d.). *Confluence Park*. Retrieved November 2, 2025, from <https://www.sariverauthority.org/parks-trails/confluence-park/>

Simpson, Sarah & Arceneaux P.E., Elizabeth & Navarro, Aspen. (2021). *The San Marcos Green Alley Initiative: A Framework + Toolkit for Resilient, Green Infrastructure in Downtown San Marcos, TX*.

Studio39. (2010). *GW Square 80*. Retrieved from <https://www.studio39.com/project/gw-square-80/>.