

REIMAGINE



BRODIE LANE

CASE FOR ACTION

STUDY AREA OVERVIEW

INTRODUCTION

Brodie Lane is a major vehicular thoroughfare that travels through the City of Sunset Valley from the origin of the road at US-290/SH 71 southwest to Ben Garza Lane/Oakdale Drive, where it continues through the City of Austin and terminates at N Farm to Market 1626 in. Reimagine Brodie Lane focuses on the road as it travels through the City of Sunset Valley to Ben Garza Ln/Oakdale Dr. The goal of this project is to set forth a vision for the future of the street as a dynamic, multimodal corridor that supports economic vitality and establishes a sense of place within the City of Sunset Valley.

Study Area

As it travels through Sunset Valley, Brodie Lane is a four-lane 40mph road with two 12'-14' travel lanes in either direction, typically with a landscape median or turn lane between the two directions of travel. While the study area is only

about 1 mile in length, it spans a diverse mix of land uses, including a high density of retail and food and beverage at the northern end of the road, natural areas, creeks, and trailheads, and single family residential neighborhoods at the southern end of the study area. Brodie Lane will also become a part of the region's Violet Crown trail by connecting two sections of the trail - one just northeast of US-290/SH 71 and the other at the western end of Home Depot Boulevard. One of the major challenges the corridor faces is the lack of safe, multimodal facilities, especially anticipating increased bicyclist and pedestrian traffic from the Violet Crown trail. While the corridor does have sidewalks on both the west and east side of the street, they are only 6' wide, and are primarily aligned directly alongside the road, making walking uncomfortable. The absence of bike lanes also presents safety concerns.

3 Minute Drive

5 Minute Bike Ride

23 Minute Walk

1 Mile

Over 19,000 visitors by car per day

22 Bars & Restaurants

55 Stores & Services



Residential

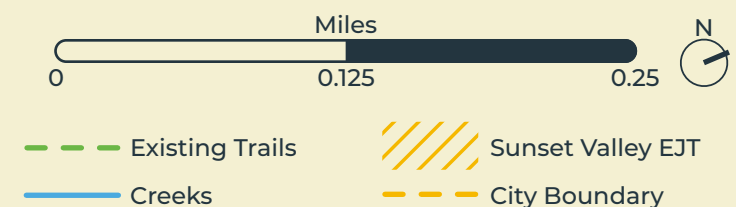
The residential areas along Brodie through Sunset Valley are quite rural. There is an apartment complex outside of City boundaries.

Natural

Williamson and Upper Cougar Creeks primarily define the natural areas along Brodie Lane, offering alternative pedestrian routes.

Commercial

Three shopping centers define the north half of this corridor. There are a variety of shops, services, restaurants, and bars.



NEIGHBORHOOD CONTEXT

The land use surrounding the corridor is primarily commercial, open space, and residential. The retail areas are defined by big-box stores with some food and beverage. There are three trailheads that lead into the City of Sunset Valley's trail systems along the corridor, and two trailheads for the Violet Crown trail just outside of the study area. While the corridor is primarily under the jurisdiction of the City of Sunset Valley, the bridge that spans Williamson Creek is owned by Travis County. In the southern portion of the study area, parts of the western half of the road are under the jurisdiction of the City of Austin.



Legend

- - - CITY OF SUNSET VALLEY BOUNDARY
- TRAILS
- SIDEWALKS
- - - VIOLET CROWN TRAIL ALIGNMENT
- ➔ PEDESTRIAN RETAIL ENTRANCES
- ✕ LACK OF PEDESTRIAN RETAIL ENTRANCES

CORRIDOR EXPERIENCE



CHANNEL LOOKS HARSH & GATHERS DEBRIS

OPPORTUNITY TO CREATE STORMWATER SWALE

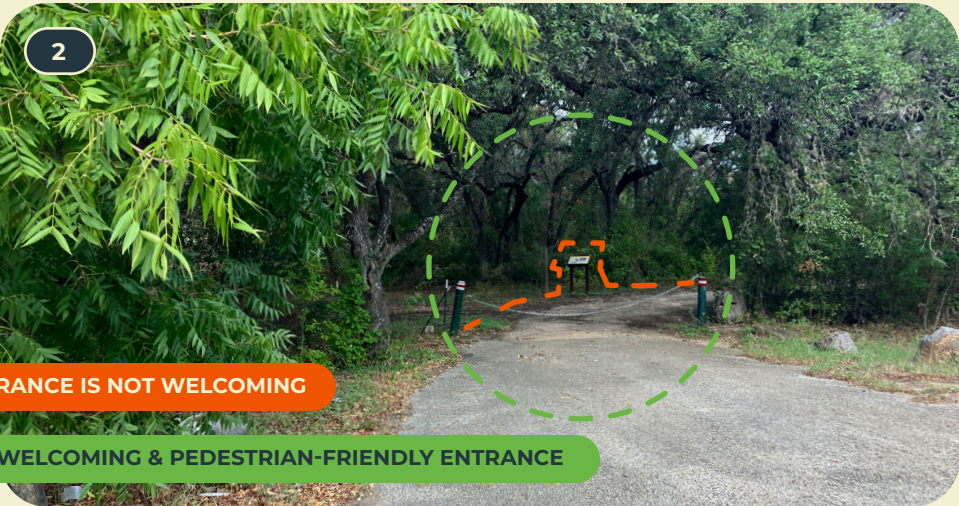
SIDEWALK IS NARROW

MOVE SIDEWALK OFF THE ROAD



SIDEWALK IS NARROW & CLOSE TO THE STREET

OPPORTUNITY TO BRING PATH DOWN TO OPEN SPACE



TRAIL ENTRANCE IS NOT WELCOMING

CREATE A WELCOMING & PEDESTRIAN-FRIENDLY ENTRANCE



CROSSWALK ARE NOT WELL-DEFINED

PRIORITIZE PEDESTRIAN EXPERIENCE & SAFETY

OPPORTUNITY FOR PUBLIC ART



CORRIDOR EXPERIENCE



MATURE TREES OFFER SHADE

PEDESTRIAN PATHS ARE NOT ACCESSIBLE & ARE UNAPPEALING

OPPORTUNITY TO CREATE WELCOMING & ACCESSIBLE PATHS TO SHOPS



RIGHT TURNING LANE IS A CONSISTENT SAFETY HAZARD

OPPORTUNITY TO RAISE CROSSWALK, ADD STOP SIGN



SPACE TO ADD BIKE LANES

PATHWAY IS OFF THE STREET

GOOD MATURE TREES FOR SHADE

OPPORTUNITY TO MAKE GATHERING SPACE



OPPORTUNITY FOR PUBLIC ART, LIGHTING, BRANDING

UNDERPASS IS BLAND & HAS A LOT OF UNDERUTILIZED SPACE

OPPORTUNITY TO PRIORITIZE PEDESTRIAN EXPERIENCE



Existing Trails City Boundary Creeks



NIGHTTIME VULNERABILITY ANALYSIS

LIGHTING OBJECTIVES

The significance of the quality of the public environment's experience at night is as crucial as its importance in daylight, playing a pivotal role in the success of Brodie Lane lighting design concept. In the absence of high-quality lighting, urban spaces can become confusing and disorienting, losing the subtleties of material textures and colors and creating an unwelcoming atmosphere. Therefore, a comprehensive understanding of space dimensions, moods, atmospheres, textures, and colors is imperative at night, ensuring not only visibility but also the enjoyment of the surroundings.

The approach to external lighting design primarily focuses on enhancing the overall experience for both space users and visitors. This is achieved by seamlessly integrating light with the diverse streetscape, landscape, and architectural elements.

The guiding principles of the lighting design philosophy encompass key objectives: Identity, Safety, Environment, and Typology of Spaces.

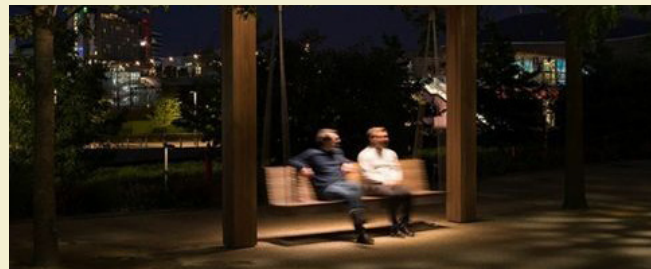
The following sections provide a detailed exploration of these core objectives, offering an elaborate illustration of how they are envisioned to be achieved within the development's various areas and opportunities.

Identity



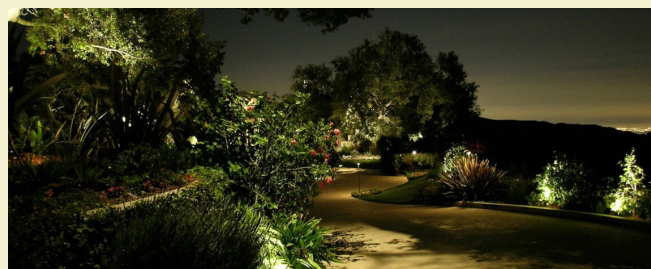
Creating a distinct character of the city.

Safety



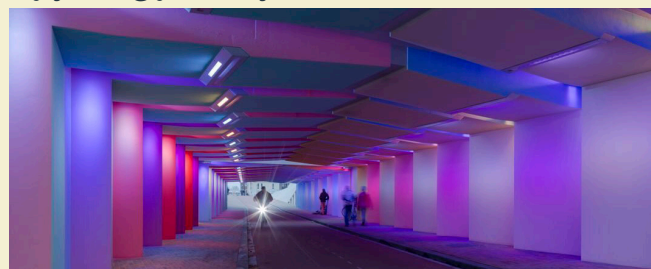
Offering a feeling of security.

Environment



Minimizing light pollution and preserving nighttime species.

Typology of Spaces



Offering proper lighting solutions for underpasses, trails, tree canopies, etc...

PEOPLE What We Heard



NIGHTTIME VULNERABILITY ANALYSIS

OVERVIEW

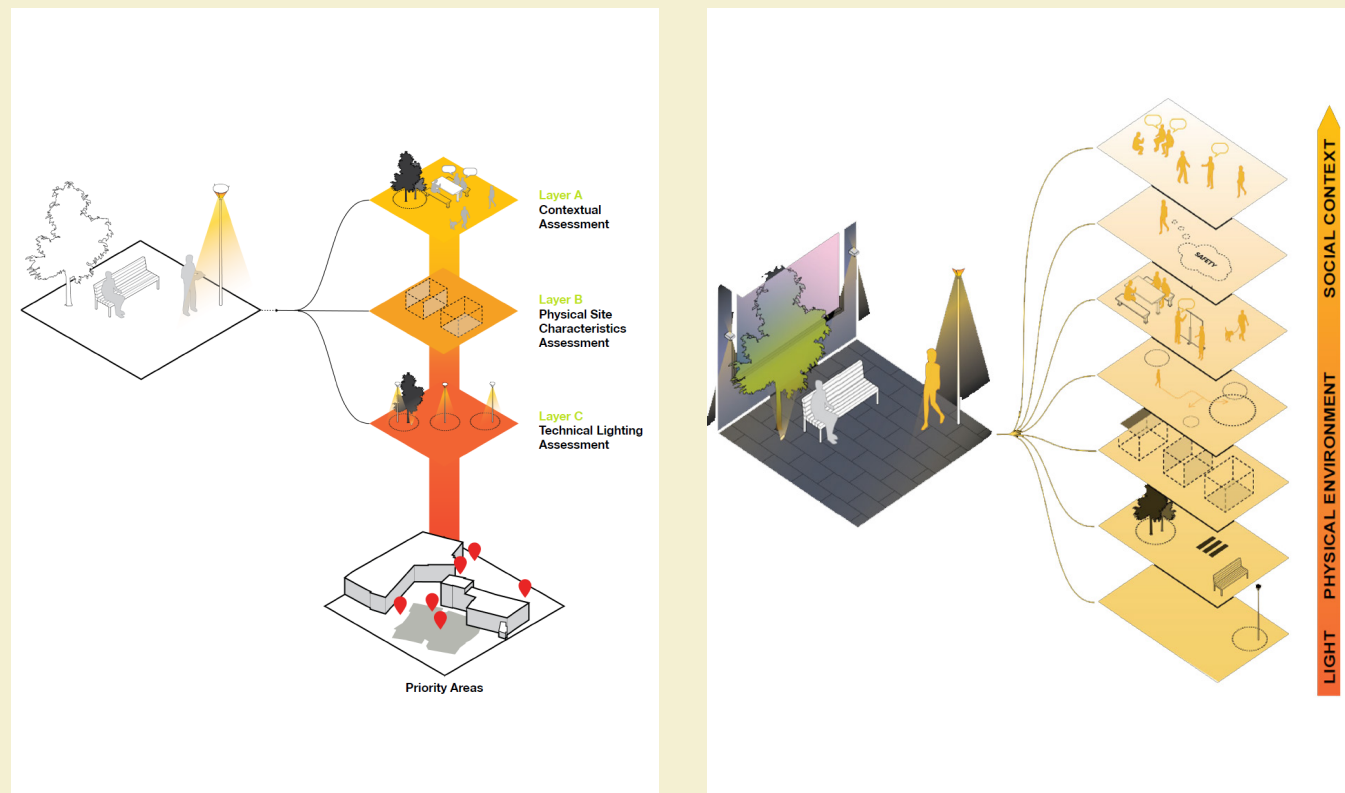
The NVA process evaluates potential vulnerabilities by analyzing both qualitative and quantitative measurements, considering user nighttime experiences, the built environment, and technical lighting.

Its objective is to furnish site owners and operators with essential information to engage with pedestrian safety and equal access in low-light conditions. By identifying lighting vulnerabilities, assessing associated risks, and implementing mitigation strategies, the NVA aims to enhance public safety.

To do this, the NVA process has been divided into two parts consisting of three assessment components:

- Site Context
- Physical Site Characteristics
- Technical Lighting Assessment

The ultimate goal is to present a coherent, evidence-based decision-making rationale for prioritizing areas discussed in stakeholder workshops and guiding design considerations.

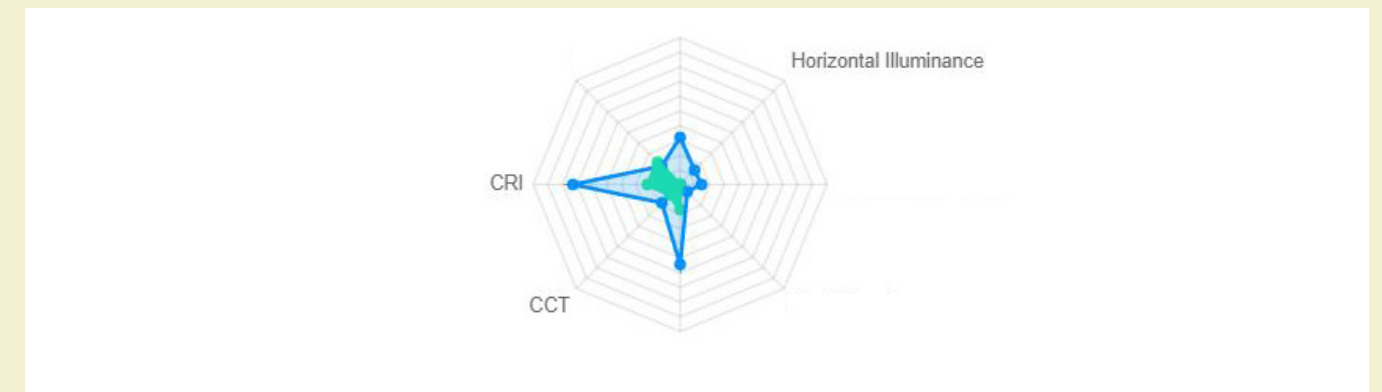


CONTEXT

Site Analysis

The surveyed locations have been entered into the Arup Lighting NVA tool, facilitating a detailed examination of each site's context and features. This tool generates a spider diagram and an overall vulnerability score for each site that can be used to compare the sites across Brodie Lane.

An illustration and additional clarification of the analysis are provided below.



Site Spider Diagram Example

The radar plot for each site can be compared to an established baseline representing variables crucial for the desired atmospheric outcome in design. Overlaying on-site data onto the baseline helps identify any deviations, guiding specific design decisions for that site. While this analysis section is quantitative, the vulnerability score is analyzed qualitatively.

CONTEXT

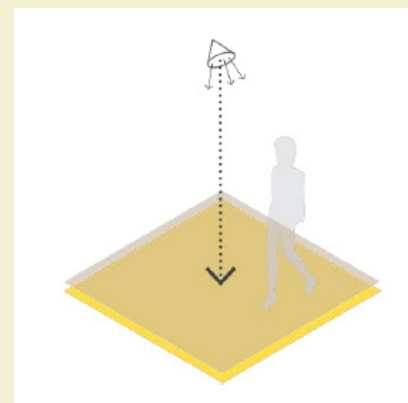
Measurements

During this assessment, we also observed and document ambient effects generated by street lighting, landscape lighting, building lighting, storefront lighting, existing pedestrian lighting, vehicular wayfinding lighting, banner pole lighting, and high-mast or under-bridge highway lighting. These are discussed later in this report.

These light measurements provide tangible information that is used to better understand the existing night time condition.

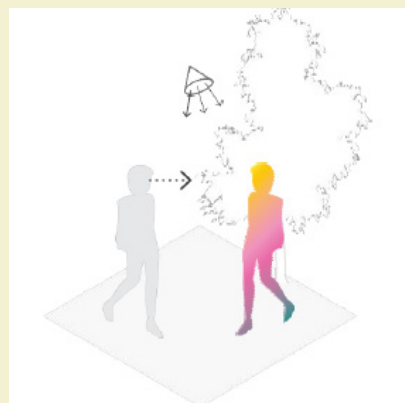
Across the site the horizontal light levels were measured using a calibrated Mintolta T-10.

The recorded technical elements aim to offer a comprehensive insight into the human experience of nighttime illumination, providing a qualitative overview of various locations. To gather this data, a variety of tools such as an illuminance meter, spectrometer, and a camera with High Dynamic Range (HDR) capabilities are utilized.



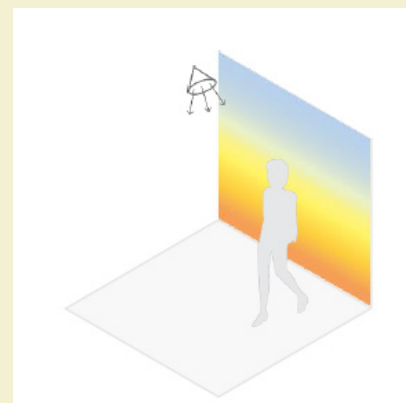
Horizontal Illuminance

The amount of light that falls onto a horizontal surface, measured in foot candles.



Color Rendering

The capacity of a light source to accurately reproduce and show the colors of an object.



Color Temperature

The measure of a light's color. It is measured in Kelvin (K).



Illuminance Meter



Spectrometer



Insta360

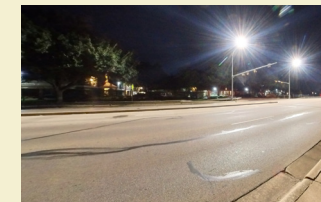
VISUAL ANALYSIS

Urban Conditions

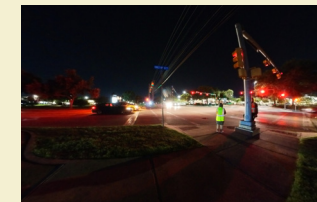
The initial layer of the site assessment involves visually examining the urban elements present in the subject site. This analysis enables a comprehension of the existing physical characteristics and site conditions that impact perceptions of nighttime safety, as illustrated by the icon key. The images highlight specific points of interest and recurring themes observed throughout the subject site in its streetscape analysis.

● Existing light pole

● Existing street light



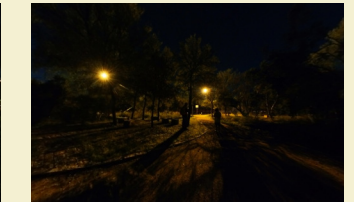
Trail Entrance Lovegrass Ln: Disjointed transition between road and trail access.



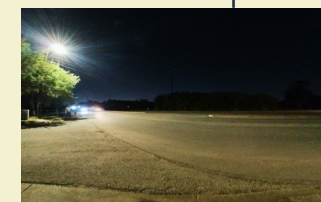
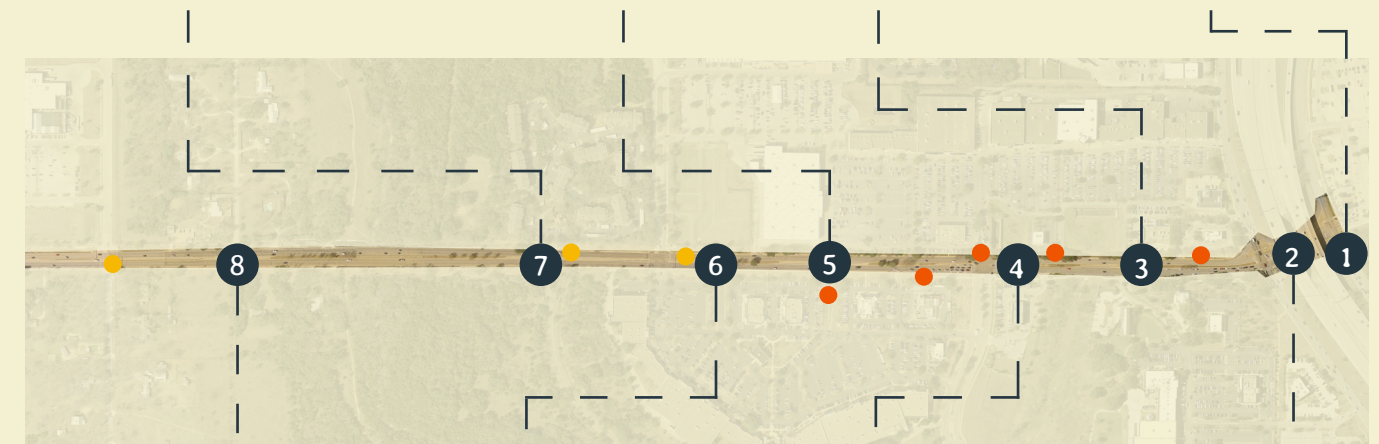
5601 Mall Entrance: High pedestrian-vehicular conflict.



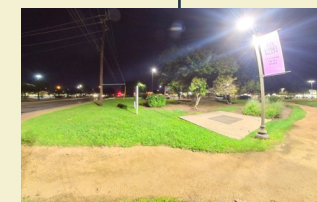
Under trees: Glary headlights from the street. Limited pedestrian-friendly features.



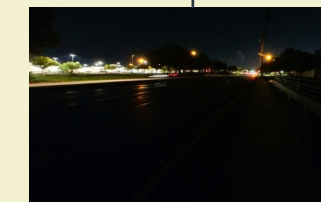
Violet Crown Trail Access: Absence of signage. Unwelcoming and inaccessible.



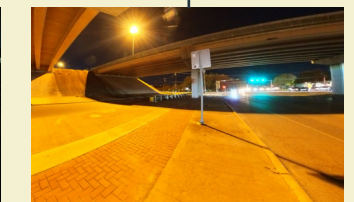
Nomadic Outpost Entrance: Absence of signage. Dark entrance to the street mall.



5603 ADA Entrance: Lack of cohesion with surrounding areas.



Creek Crossing: The absence of artistic elements allows for scenic views of the creek.

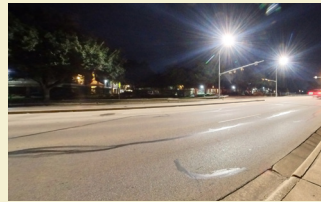


290 Underpass: Lack of artistic elements such as public art or murals.

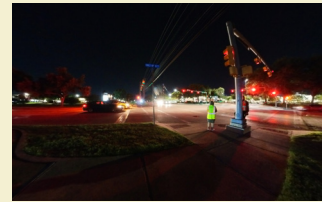
VISUAL ANALYSIS

Lighting Conditions

The second layer of site assessment involves visually examining the lighting conditions at the specified location. We observed and analyzed the existing lighting situation to gain a comprehensive understanding of the current lighting infrastructure. The images highlight specific points of interest and recurring themes in the streetscape of the subject site.



Trail Entrance Lovegrass Ln: High contrasts between road and trail entrance.



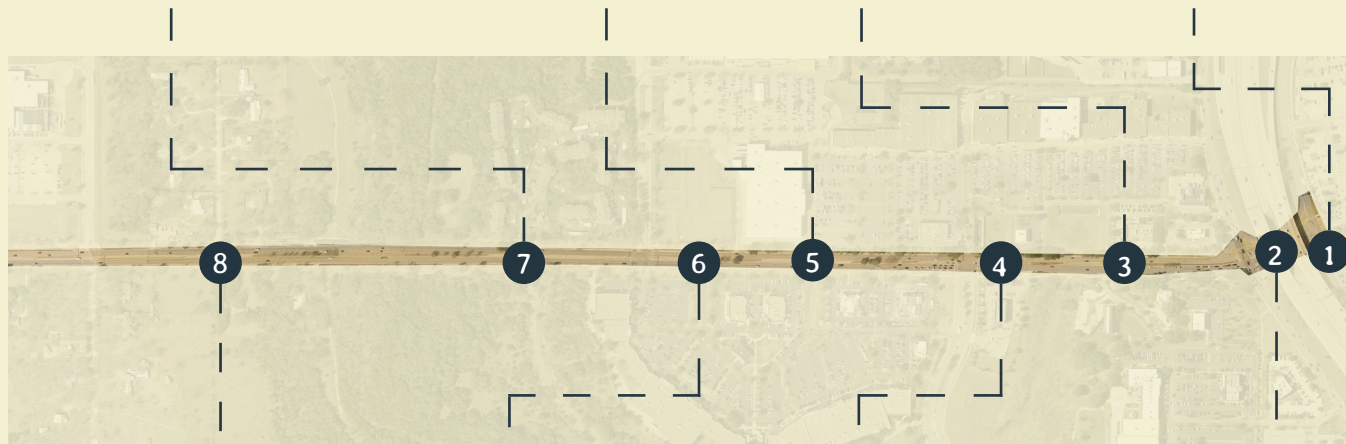
5601 Mall Entrance: Intense glare from street lights and the mall storefront.



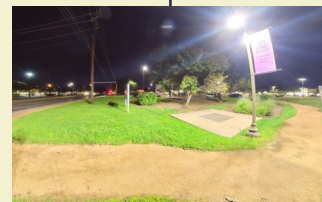
Under trees: High contrasts between dark and bright. Potential for tree pendants.



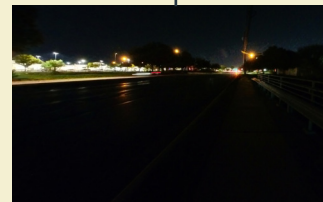
Violet Crown Trail Access: Poorly lit paths, unpleasant nighttime walking experience.



Nomadic Outpost Entrance: Uneven light levels. Possibility of lighting the entrance.



5603 ADA Entrance: Overly lit area. Possibility of adjusting excessive lighting.



Creek Crossing: Dark environment, Possibility of enhancing trail visibility beneath the bridge.



290 Underpass: Sufficient walkway illumination. Possibility of installing artistic lighting.

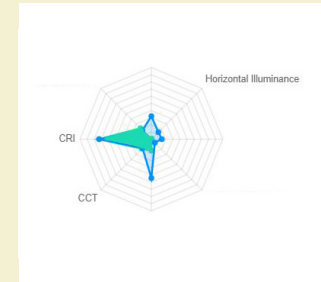
TECHNICAL ANALYSIS

Lighting Conditions

The technical lighting assessment diagrams present the comprehensive lighting overview of the designated laneways for lighting improvements. These visuals illustrate the values or 'profile' of the current technical lighting conditions observed on-site (depicted in green). This is superimposed with the baseline profile, representing the optimal perception of safety through lighting (depicted in blue). The baseline profile is derived from Arup's research, which integrates both qualitative and quantitative data to determine the necessary technical lighting standards.



Trail Entrance Lovegrass Ln



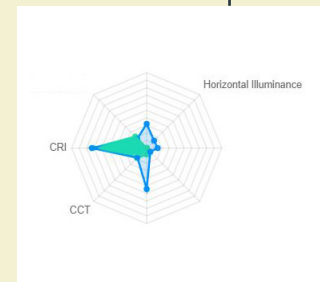
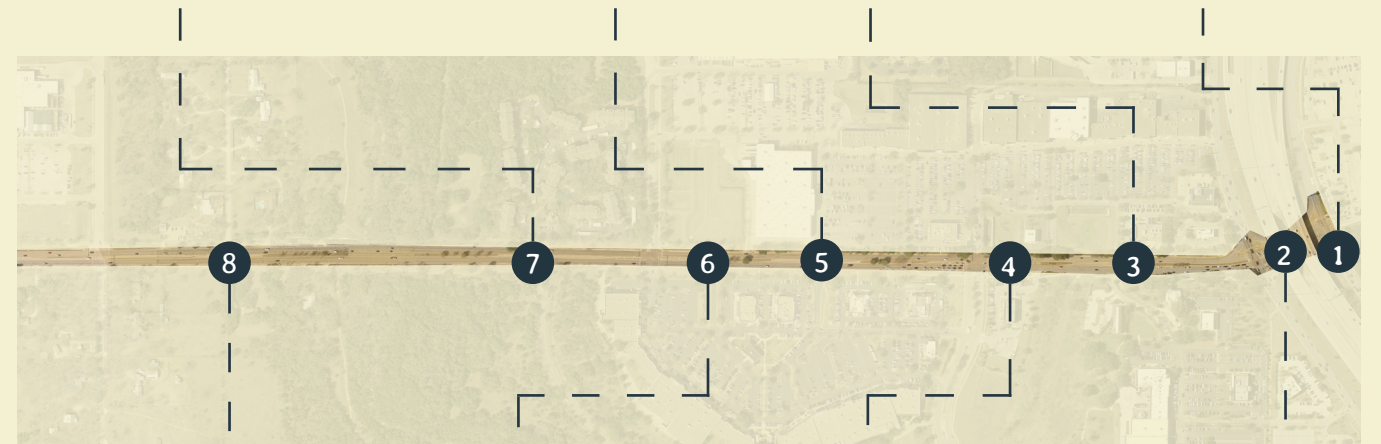
5601 Mall Entrance



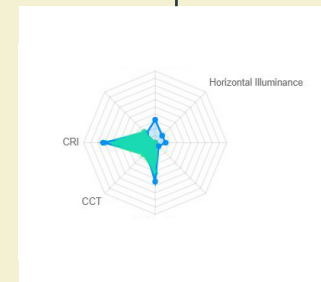
Under trees



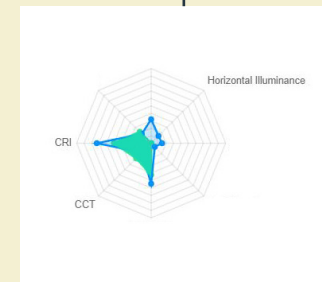
Violet Crown Trail Access



Nomadic Outpost Entrance



5603 ADA Entrance



Creek Crossing



290 Underpass

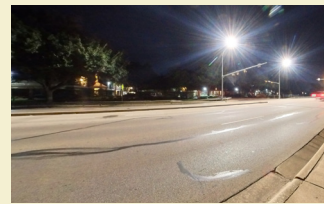
PRIORITY AREAS

Lighting

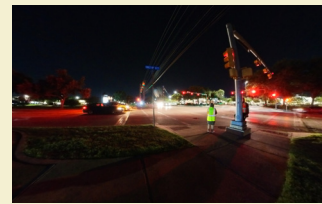
The site assessment's second layer involves visually analyzing lighting conditions. Current lighting conditions were examined to understand the existing infrastructure, with images highlighting specific points of interest and common themes in the streetscape.

Vulnerability Level

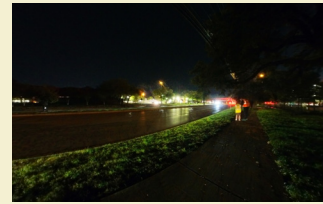
- Low
- Medium
- High



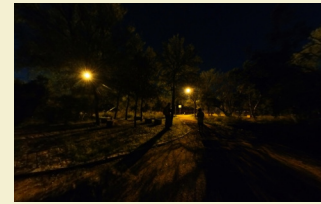
Trail Entrance Lovegrass Ln



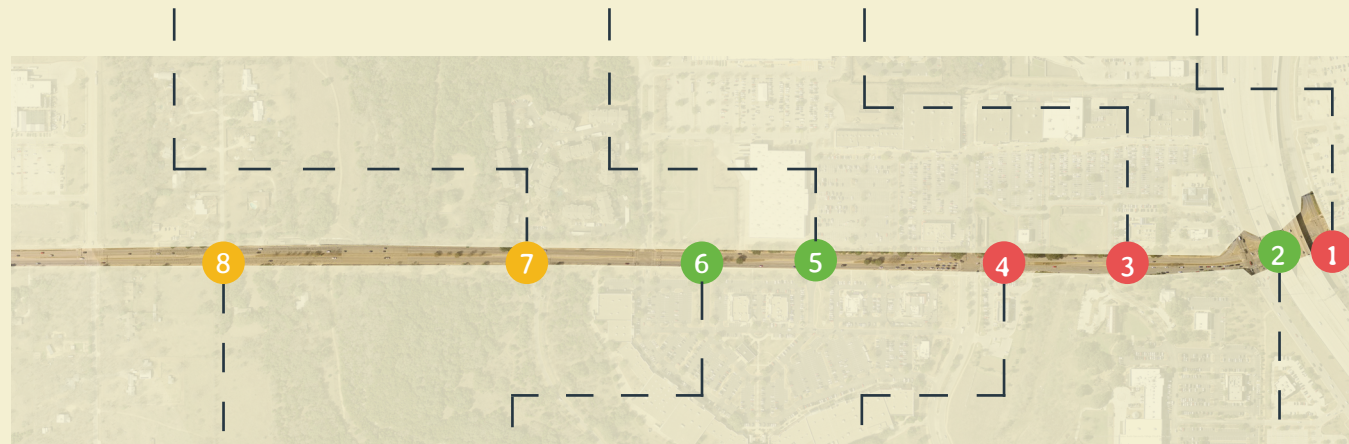
5601 Mall Entrance



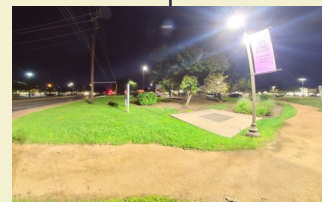
Under trees



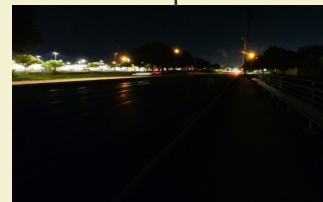
Violet Crown Trail Access



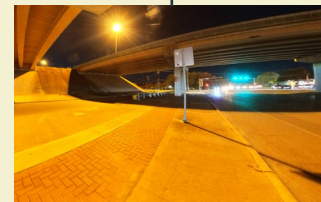
Nomadic Outpost Entrance



5603 ADA Entrance



Creek Crossing



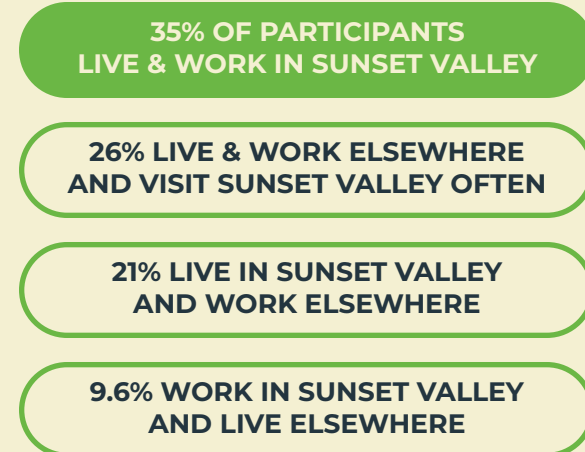
290 Underpass.

WHAT WE HEARD

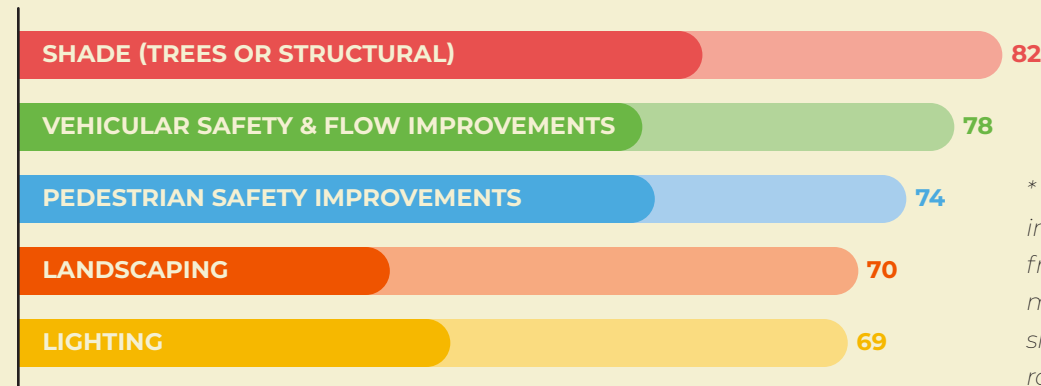
ONLINE SURVEY

Round one of community engagement was held from October 18th to November 8th, and included an online survey and an interactive map. There were 115 community members that participated in the online survey and the interactive map received 69 posts by 20 individuals.

Who Participated? (115 Respondents)



Top 5 Most Desirable* Improvements (113 Respondents)



* Participants rated 12 improvements on a scale from 1 to 5, where 5 was the most desirable. This graph shows the total number of ratings 4 and 5.

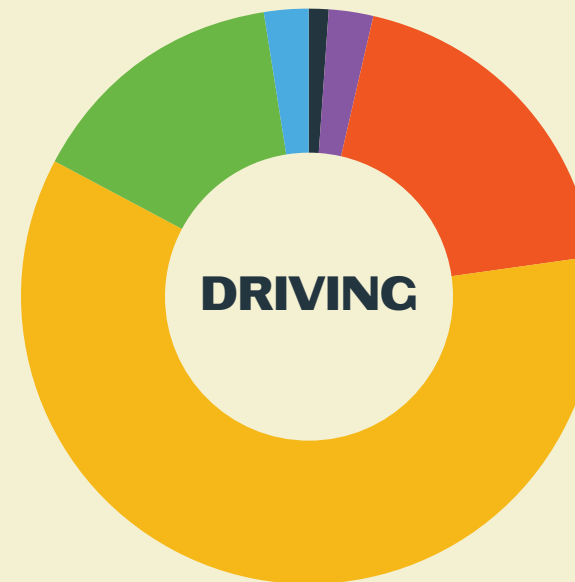
Goals for Brodie Lane (115 Respondents)

- AS A KEY CONNECTION FOR THE FUTURE VIOLET CROWN TRAIL, BRODIE LANE IMPROVEMENTS SHOULD PRIORITIZE SAFETY AND COMFORT FOR PEDESTRIANS AND BICYCLISTS.
- AS A GATEWAY TO SUNSET VALLEY, BRODIE LANE IMPROVEMENTS SHOULD PRIORITIZE AESTHETIC IMPROVEMENTS SUCH AS PUBLIC ART, SHADE, & LANDSCAPING.
- AS AN IMPORTANT COMMERCIAL CORRIDOR, BRODIE LANE IMPROVEMENTS SHOULD PRIORITIZE ECONOMIC DEVELOPMENT AND HELPING BUSINESSES THRIVE.
- AS AN IMPORTANT CORRIDOR FOR COMMUTERS, BRODIE LANE IMPROVEMENTS SHOULD PRIORITIZE IMPROVING VEHICULAR TRAFFIC FLOW.

How would you rank your experience _____ on Brodie? (115 Respondents)

Experience Rating Categories

- VERY PLEASANT
- PLEASANT
- NEUTRAL
- UNPLEASANT
- VERY UNPLEASANT
- N/A - RESPONDANT DOES NOT DRIVE/WALK/BIKE ON BRODIE

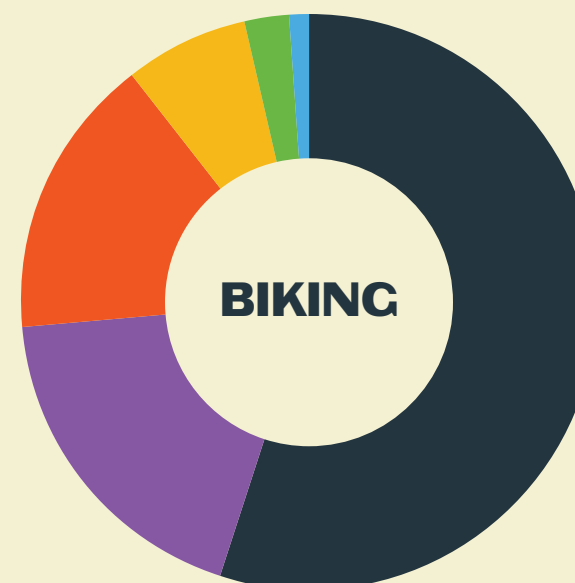


60% OF RESPONDENTS HAVE A NEUTRAL EXPERIENCE DRIVING ON BRODIE LANE.

60% OF RESPONDENTS DRIVE ON BRODIE LANE AT LEAST ONCE PER DAY.

42% OF RESPONDENTS HAVE AN UNPLEASANT OR VERY UNPLEASANT EXPERIENCE WALKING ON BRODIE LANE.

21.7% WALK ON BRODIE LANE AT LEAST ONCE PER WEEK; 34.8% AT LEAST ONCE A MONTH.



34% OF RESPONDENTS HAVE AN UNPLEASANT OR VERY UNPLEASANT EXPERIENCE BIKING ON BRODIE LANE.

20% OF RESPONDENTS BIKE ON BRODIE LANE AT LEAST ONCE A MONTH.

WHAT WE HEARD

The results of the virtual map are highlighted here. Commenters focused on safety issues, especially in regards to bicyclist and pedestrian safety.

"WE NEED MORE PEDESTRIAN AND CYCLIST-ORIENTED EAST-WEST CONNECTIONS. ROUNDABOUTS AND OTHER PHYSICAL INFRASTRUCTURE TO CALM TRAFFIC."



5 community members would like to see a connection between trails near Williamson Creek.

"THE PEDESTRIAN USER EXPERIENCE IS PRETTY AWFUL IN THIS AREA. [THEY] ARE SQUEEZED BETWEEN AN OPEN CONCRETE DRAINAGE DITCH HANDRAIL AND THE GUARDRAIL FOR A HIGH SPEED, HIGH TRAFFIC ROADWAY."

6 community members suggested separating bikes and pedestrians from cars along the entire corridor.
 "I WOULD LOVE TO MAKE BRODIE LANE A PLACE WHERE PEOPLE LOVE TO WALK OR RIDE THEIR BIKES RATHER THAN A PLACE TO AVOID."

"ANOTHER UNSAFE INTERSECTION FOR PEDESTRIANS AND DRIVERS. LOW ENOUGH TRAFFIC THAT A ROUNDABOUT WOULD BE BENEFICIAL."

Left turning lane from Brodie to Ernest Robles Way creates a lot of congestion.

This entrance to Marketfair is narrow, steep, and lacks pedestrian access.

Several community members suggested adding public art or artistic lighting (branding) to the median to welcome visitors to the City of Sunset Valley.

"NO ADA CROSSING ON THIS SIDE [WEST] OF BRODIE."

"THIS SLIP LANE IS VERY DANGEROUS... CARS TURNING RIGHT ONTO [THE SERVICE RD] NEVER STOP."



PROJECT GOALS

The following Project Goals were developed as a result of the existing conditions analysis and the first round of community engagement. They are in no particular order.



CREATE A COMPLETE AND SAFE STREET THAT BALANCES THE NEEDS OF VEHICULAR, BICYCLE, PEDESTRIAN, AND VIOLET CROWN TRAIL USERS.



ESTABLISH A SENSE OF PLACE ALONG BRODIE LANE AS IT PASSES THROUGH SUNSET VALLEY THROUGH PUBLIC ART, LANDSCAPE, AND OTHER AESTHETIC IMPROVEMENTS.



INCORPORATE STREETScape ELEMENTS THAT HELP SUNSET VALLEY'S BUSINESSES THRIVE AND ENSURE THE CONTINUED ECONOMIC VITALITY OF THE CORRIDOR.



HIGHLIGHT CONNECTIONS TO THE CITY'S TRAILS AND PARKS, RETAILERS, RESTAURANTS, AND OTHER DESTINATIONS THROUGH A WAYFINDING AND SIGNAGE PROGRAM.



INCORPORATE LIGHTING THAT ENHANCES SAFETY AND THE ATTRACTIVENESS OF THE CORRIDOR WHILE MINIMIZING LIGHT POLLUTION.



ADD MORE TREES TO PROVIDE SHADE AND A COOLING EFFECT ALONG THE CORRIDOR IN ADDITION TO GREEN STORMWATER INFRASTRUCTURE.