umlauf

UMLAUF Historic Preservation, Expansion, and Unification Plan

CITY OF AUSTIN
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AUSTIN PARKS & RECREATION
Cultural Places, Natural Spaces

Letter from the Director of PARD

City of Austin
Austin Parks and Recreation Department
200 South Lamar Boulevard, Austin, Texas 78704

April 4, 2024

To Whom It May Concern:

Alongside green spaces and recreational facilities, the Parks and Recreation Department is proud to oversee The Museums and Cultural Programs Division for the City of Austin. Museums and cultural centers provide safe and inclusive spaces that allow people to explore creativity and identity through art, history and the many cultures found here Austin and throughout the world. They promote civic engagement through festivals, performances, exhibitions, social practice, camps, workshops and classes for communities across Austin. The UMLAUF Sculpture Garden + Museum is a shining example of a cultural mainstay within the capital city, and the Parks and Recreation Department is proud to hold partnership with the organization as they continue to provide an outlet for community members to explore creatively.

In 1985, sculptor Charles Umlauf and his wife, Angeline, gifted their hilltop historic homestead (2 acres) on Barton Boulevard, along with their extensive sculpture collection, to the City of Austin, thus creating the UMLAUF Sculpture Garden + Museum (UMLAUF) non-profit organization. The property was granted to the City upon the passing of both Charles (1910-1994) and Angeline Umlauf (1915-2012), and in 1991, the current UMLAUF Sculpture Garden + Museum (6 acres) opened on a site adjacent to the Umlauf homestead.

The UMLAUF, in alignment with its mission to provide educational and cultural experiences to the public, seeks to finally unite the historic homestead with the 1991 sculpture garden and the southern natural zone, creating a fully accessible 8-acre community green space. The Historic Preservation, Expansion and Unification Plan envisions full public access to the entire eight-acre site, while integrating the currently natural and inaccessible southern section of the site. This unification enhances the UMLAUF's offerings while contributing to the City's cultural and natural spaces. Additionally, it is through this unification and expansion that the UMLAUF will continue to provide diverse and equitable experiences for all of Austin, while preserving Charles Umlauf's legacy and uniting the community with art and nature.

I, Kimberly McNeeley, Director of The Austin Parks and Recreation Department, am proud to offer my full support for The UMLAUF Historic Preservation, Expansion and Unification Plan. This plan will provide tremendous benefit to the City of Austin and will continue to allow the UMLAUF Sculpture Garden + Museum to cultivate curiosity, community, and connection through nature, contemporary artists, and the work of Charles Umlauf.

Sincerely,

Kimberly A. McNeeley, M. Ed., CPRP, Director
Austin Parks and Recreation Department

The City of Austin is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request.

Letter from the UMLAUF

It has been a tremendous honor to partner with Page and their team on this Historic Preservation, Expansion, and Unification (HPEU) Plan, a critical step toward realizing Charles and Angeline Umlauf's gift to the City of Austin. Their original 1985 gift was conveyed upon their passing, but recognizing its significance, the community, under the direction of Roberta Crenshaw, came together to open the current garden and museum on adjacent land in 1991. As Austin has grown exponentially over the decades, the imperative to fulfill the original gift and share the entire historic green space with a wider, more diverse public, has also grown.

The UMLAUF Board and Staff were moved by the compelling and detailed proposals submitted by ten firms after releasing the RFP in 2023. Ultimately, Page stood out not only for their extraordinarily skilled and integrated team, but for understanding that a revitalized UMLAUF could address some of the myriad challenges facing one of the most rapidly growing cities in the U.S. Not only is Page an esteemed international firm embedded in Austin's culture for 100 years, their Principal and Design Director, Lawrence Speck, designed the 1991 award-winning UMLAUF gallery and terrace.

This project could not have happened without the support of countless UMLAUF staff, board members, City of Austin staff, volunteers, stakeholders, and community members. In addition to those listed on the following page, we would like to thank the people and companies who graciously provided their services and experience throughout the HPEU Plan process. They include Survey Works, who completed an arduous topographical and tree survey; City of Austin Urban Forestry, who provided guidance when considering our precious trees on the lower property; Keith Babberney and Jason Traweek of the City of Austin Development Services Department Urban Forestry, who completed a tree assessment for the lower property, and Scott George of Austin Beautiful Trees, who completed a tree assessment for the upper property —two projects vital to realizing the HPEU Plan; Horizon Environmental Services who provided an environmental resources inventory; former longtime Board Member Keith Pool who has been instrumental to the process; Luis Puron of the Rockport Art Center; and Mary Hager of Winstead Attorneys. Special thanks to the UMLAUF's former director and long-time champion, Nelie Plourde; and Aan Coleman, who won a landscape architecture award for designing the garden, and has been dedicated to the UMLAUF from the very beginning.

Throughout, we've benefitted from the experience of City of Austin employees, including Ellen Colfax, Kimberly McNeeley, Kimberly McKnight, and Sarah Talkington. For nearly twenty years, Laura Esparza of PARD has ably guided and advised the UMLAUF.

Last, but certainly not least, we owe an enormous debt of gratitude to Page. The team they assembled understands the necessity of a plan that serves the entire community and has guided the UMLAUF through this process with grace and expertise. We are beyond grateful for all they have put into the HPEU Plan, and the thoroughness and care they provided throughout. Thank you to Lawrence Speck, Ginny Chilton, Melissa Gutiérrez Soto, Ryan Losch, Leland Ulmer, Leah van der Sanden, and so many more. The UMLAUF could not have imagined a better partnership.

This HPEU Plan has been a long time in the making, and the result of an effort from so many invaluable partners. We look forward to taking the next steps toward realizing this vision so we can provide unrivaled art and nature experiences for the entire community.

UMLAUF Staff

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A special thank you to the many community members who participated in the planning process and contributed to the UMLAUF HPEU Plan.

Land Acknowledgment

We respectfully acknowledge that the land on which the UMLAUF exists is the traditional and ancestral homelands of the Tonkawa, the Apache, the Ysleta del Sur Pueblo, the Lipan Apache Tribe, the Texas Band of Yaqui Indians, the Coahuitlecan and all other tribes not explicitly stated. Additionally, we would like to acknowledge and pay respects to the Alabama-Coushatta Tribe of Texas, the Kickapoo Tribe of Texas, Carrizo & Comecrudo, Tigua Pueblo, Caddo, Comanche, Kiowa, Wichita, Chickasaw, Waco nations, and all the American Indian and Indigenous Peoples and communities who have been or have become a part of these lands and territories in Texas, on Turtle Island, the ancestral name for what now is called North America. Not all indigenous peoples listed claim Texas as ancestral lands, as many were forcibly relocated to Texas from their ancestral homelands.

Today, various indigenous peoples from all over the globe visit Austin or call it home. We are grateful to be able to connect with arts and nature in this natural oasis. We wish to recognize and respect Indigenous Peoples as the original stewards of the land we reside on today, known as Austin, Texas.

Preface

The UMLAUF Historic Preservation, Expansion, and Unification (HPEU) Plan presents a long-range vision for the development and improvement of the sculpture garden and museum.

The UMLAUF is a non-profit organization that was initiated in 1985 when Charles and Angeline Umlauf gifted their hilltop historic homestead on Barton Boulevard and their extensive sculpture collection. Today, the UMLAUF Sculpture Garden + Museum operates in partnership with the City of Austin Parks and Recreation Department. The site is owned by the City of Austin and is ground leased to the UMLAUF for 100 years with conditional use as a museum.

The UMLAUF provides educational and cultural experiences that encourage the understanding and appreciation of the intersection of nature, sculpture, and the arts. The UMLAUF is primarily funded by donations, visitation fees, and by hosting events in its lush garden setting. It also receives some funding from the City of Austin; as of 2023, about 17% of operational costs were funded by the City.

The plan envisions a future sculpture garden and museum deeply rooted in the site's historical and ecological context, enriching the cultural fabric of the city and offering diverse and equitable experiences for the entire Austin community. The goal is to become one beautiful, approachable, and accessible venue with a wide number of programmatic offerings to support the community and position the UMLAUF as a top destination in Austin.

As its name implies, the plan's goals include Historic Preservation, Expansion, and Unification. Informed by extensive site analysis and community engagement, it proposes a set of strategies to support the UMLAUF's vision. These strategies aim to preserve Umlauf's legacy, broaden the UMLAUF's audience, and address community and site-specific needs. The plan carefully navigates the expansion and positioning of the arts in the city, all while upholding environmental stewardship and creating a welcoming space that seamlessly connects Austin's community with art and nature in serene harmony.

Historic Preservation

The plan safeguards the site's history, honoring Charles Umlauf's enduring legacy and its profound connection to the city's ecology and cultural essence. Preserving and expanding access to the artist's home and studio, the plan aligns with the UMLAUF's mission to provide educational experiences fostering an understanding and appreciation of the arts.

Expansion

Expansion in the plan goes beyond physical space—it extends the arts and the UMLAUF's offerings to broader and more diverse audiences. The plan aims to create suitable spaces for exhibiting an expanded permanent collection, broadening opportunities for rotating local exhibitions, hosting diverse community activities, and enriching the overall program to extend the museum's reach and cultural impact. The HPEU Plan goals align with the City of Austin Parks and Recreation Department's goal of "ensuring and preserving equitable access to parks, trails, open space, and recreational opportunities."

Unification

Furthermore, the plan envisions full public access to the entire eight-acre site, linking Charles Umlauf's home and studio with the existing museum and sculpture garden, while integrating the currently natural and inaccessible southern section of the site. This unification not only enhances the UMLAUF's offerings but also contributes to the overall experience and offerings of the cultural scene in the city.

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Glossary

In the report, various acronyms will be used to reference different organizations. Please refer to the list on this page. Additionally, general clarifications for certain terms used throughout the report are included in this glossary. Please refer to the Sustainability Glossary, in the Sustainability + Resilience chapter, for more definitions.

Definitions:

Active travel, active mobility: refers to journeys made by modes of transport that are fully or partially people-powered, for example: walking, wheeling, cycling (including e-bikes), and scooting.

Biophilia: a human tendency to seek connections to nature. In design, biophilia is used to create connections to nature such that the human experience is more enjoyable.

Impervious Cover: water resistant ground cover such as concrete, asphalt, brick, stone, etc.

Pervious Cover: ground cover where water can penetrate into the soil such as soil, rock, grass, etc.

Walking/wheeling: it is used together to refer to the action of moving at a pedestrian's pace, whether someone is standing or sitting, walking/wheeling unaided or using any kind of aid to mobility.

Acronyms:

City of Austin Departments

COA: City of Austin

PARD: Parks and Recreation Department

TPW : Transportation and Public Works Department

WPD: Watershed Protection Department

Other Organizations

AARC: Asian American Resource Center

BCNA: Bouldin Creek Neighborhood Association

MACC: Emma S. Barrientos Mexican American Cultural Center

SOS: Save Our Springs Alliance

TCA: The Contemporary Austin

ZBG: Zilker Botanical Garden

01

Executive Summary

Why a Plan?
Who is the UMLAUF HPEU Plan for?
Guiding Principles + Plan Objectives
Illustrative Plan
Site Concept

Why a Plan?

The UMLAUF, in alignment with its mission, seeks to unite the 1985 historic homestead, a gift to the City of Austin from Charles and Angeline Umlauf, with the 1991 sculpture garden and the southern natural zone, creating a fully accessible 8-acre community space. The HPEU Plan serves as a comprehensive guide envisioning a future sculpture garden and museum that provides diverse and equitable experiences for all of Austin, while preserving Charles Umlauf's legacy and uniting the community with art and nature. This document proposes strategic measures in planning, architecture, landscape, and historic preservation to realize the UMLAUF's goal of preservation, expansion, and unification.

Due to the partnership between the UMLAUF and the City of Austin Parks and Recreation Department, this plan becomes a vital tool for communicating the UMLAUF's goal of enriching the museum and garden experience for the City of Austin. Additionally, it aligns with PARD's commitment to ensuring equitable access to parks, trails, open spaces, and recreational opportunities within the community.

Who is the UMLAUF HPEU Plan for?

The UMLAUF HPEU Plan is an inclusive vision that considers a broad spectrum of users, including those interested in experiencing arts and ecology, exploring the sculpture-making process, learning new skills, spending time in nature, meditating, exercising, or engaging in community activities. One of the primary objectives of the HPEU plan is to broaden the UMLAUF's programmatic interior and exterior spaces to engage a broader audience. This expansion will enable the UMLAUF to host a broader range of art exhibitions and offer multiple programming opportunities simultaneously. With the goal of expanding the museum's reach and programmatic offerings to a wider and more diverse audience, the plan emphasizes accessibility for all, ensuring the entire site is open and enjoyable for Austin's residents and visitors. The proposed strategies aim to facilitate more community events, diverse arts and environmental programs, and various events catering to Austin's community interests—concerts, performances, health and wellness activities, and many others. The plan proposes integrating spatial and design strategies with other equity-focused programs aimed at engaging communities lacking cultural assets and green spaces in their neighborhoods. The UMLAUF envisions a welcoming space for people of all ages and interests to connect with arts, nature, and Charles Umlauf's artistic legacy.

Guiding Principles

The planning process is guided by harmonizing three principles: Sustainability + Resilience, Legacy, and Community. Recognizing the site's environmental challenges, sustainability and resilience are introduced as core principles, steering the plan's decision-making. Community envisions an accessible and unified site, expanding the UMLAUF's reach, and fostering deep connections with Austin's community. Legacy seeks not only to preserve the historic zone, but also to amplify Charles Umlauf's artistic heritage, offering art education opportunities for all. The plan honors Umlauf's legacy by expanding the museum's reach through new and diverse programs, all while addressing environmental concerns affecting the sculpture garden and its surroundings. Carefully devised strategies, detailed on the subsequent page, will interlace these principles, ensuring a harmonious integration that preserves the UMLAUF's essence while guiding it into a sustainable and community-oriented future.

Plan Objectives

Ranging from unifying the site to advancing arts education, the plan objectives serve as a guide for informed decision-making throughout the planning and design process. Each objective encapsulates targeted strategies, ensuring a cohesive approach to the UMLAUF's vision.

Site unification
Incorporating the adjacent land that includes the home of Angeline and Charles Umlauf, their private sculpture garden, and the artist's studio into the site's experience. Seamlessly unifying the three main areas of the site, creating an accessible site-wide experience.

Historic preservation
Preserving the Umlaufs' home, studio, and sculpture garden. Sharing the story of Charles Umlauf and the Umlauf family with the community through an interpretive experience.

Sustainability + environmental rehabilitation
Managing energy and water responsibly, addressing site issues, and respecting the city's environment while safeguarding the ecology and biodiversity of the site.

Community connection
Implementing community-driven planning and creating spaces that foster a welcoming and inclusive experience for everyone in the city to enjoy while connecting with art and nature.

Arts education expansion
Infusing the site with learning and exploration opportunities, making the whole site a learning experience.

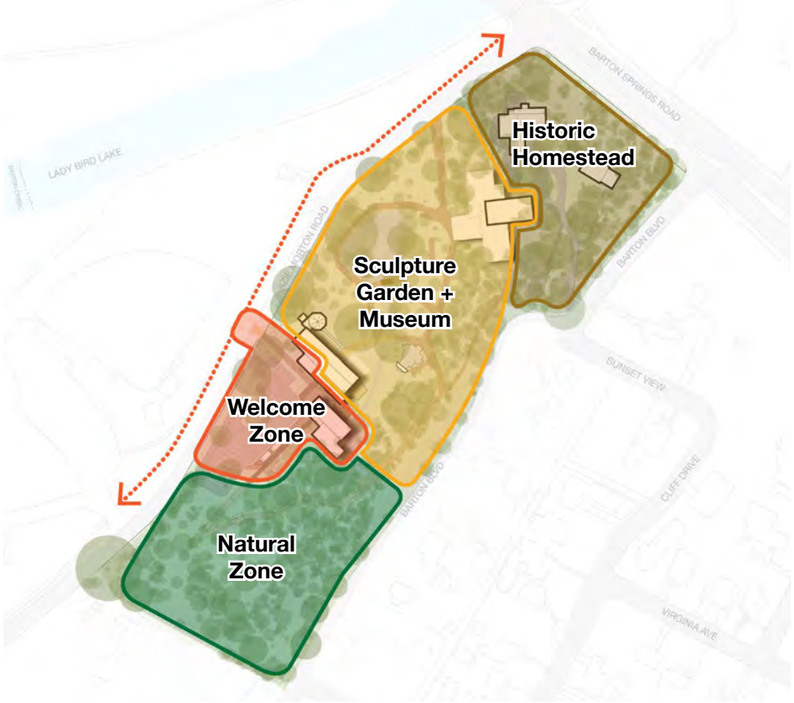
Illustrative Plan

The UMLAUF HPEU Plan is the product of a collaborative planning process that brought together members of the community, technical experts, community representatives in arts, education, environmental, and neighborhood matters, and the UMLAUF staff and affiliates, resulting in a vision that reflects the community's priorities and ideals, as well as responsibility toward the site's and city's ecological and social fabrics.

The plan carefully connects the currently inaccessible areas of the site with the museum and sculpture garden, prioritizing the user experience and connection with the site from the moment of arrival. The plan aims to create a seamless and accessible site-wide experience, offering both indoor and outdoor spaces for diverse programming. The plan suggest improvements to accommodate large gatherings, workshops, art classes, expanded exhibition opportunities, and a more diverse set of programs and events. Respecting existing structures and the ecosystem, the plan ensures a harmonious integration of new and existing structures, all while maintaining the UMLAUF's unique legacy and sense of exploration.

Site concept

The UMLAUF HPEU Plan strategically links the four main site areas through two key connectors, ensuring adequate programming and enhancing accessibility. The activation of the site's edges creates a more welcoming arrival and overall experience around the site.



Zones

Four main zones, each possessing distinct characters and functions, seamlessly blend into one another for a cohesive and harmonious integration.

Connectors

The gateway and treehouse serve as connectors, increasing accessibility and linking previously inaccessible areas. Simultaneously, they accommodate essential museum operations and offer expanded spaces for events, education, and exhibitions.

Active Edges

Strategic interventions along the site edges foster openness to the community, crafting friendlier and subtler boundaries with improved visual connections and an enhanced entry experience.

02

Introduction

History of the UMLAUF
Charles Umlauf
The UMLAUF's Vision
Current Programs
UMLAUF HPEU Plan Vision
Historic Preservation
Expansion
Site Unification
Environmental Considerations
Guiding Principles
Plan Objectives
Planning Process

History of the UMLAUF

The UMLAUF Sculpture Garden + Museum represents so much that is quintessentially Austin: superb art casually set in a shady garden of native Texas plants, a natural oasis near Barton Springs and only blocks from the heart of an urban capital city.

Originally containing small ponds used by soldiers to practice fly casting during the late 1930s and 1940s, these four acres were then forgotten for the next four decades, lost under dewberry vines and illicit dumping.

In 1944, American sculptor Charles and his wife Angeline Umlauf purchased a carriage house that became their home at the top of a hill overlooking Barton Springs Road. In 1985, they gifted their home, property, his art studio and 168 sculptures to the City of Austin for public enjoyment and education. In 1991, the site was transformed into a sculpture garden to showcase over 50 bronze and stone sculptures given to the City of Austin. Landscape architect Aan Coleman designed the garden and the internationally recognized architect Lawrence Speck designed the UMLAUF's gallery and terrace that opened in 1991. The Roberta Crenshaw learning center was added to the site in 2001.

Currently, the Garden, with its waterfall and streams muffling the sounds of traffic, offers visitors a peaceful oasis in one of the fastest growing cities in the country.

> *“The UMLAUF provides educational and cultural experiences that encourage the understanding and appreciation of the intersection of nature, sculpture, and the arts.”*

Charles Umlauf

Charles Julius Umlauf (1910-1994) was the sixth of eight children born to French and German immigrant parents on a farm outside South Haven, Michigan. When he was eight, the family moved to Chicago where Umlauf's fourth grade teacher recognized his talents and helped him earn summer scholarships at the Art Institute of Chicago. Working under master sculptors Lorado Taft and Albin Polasek, Umlauf gained competence in a wide array of media. In 1937, Umlauf married fellow Art Institute student Angeline "Angie" Allen. The couple moved to Austin in 1941 when Umlauf became a Life Drawing and Sculpture professor at the University of Texas' Art Department. He taught at UT for 40 years, retiring as Professor Emeritus in 1981.

Umlauf's sculptures range from haunting expressionism, to detailed neoclassical realism, to lyrical abstraction. His materials are equally diverse: exotic woods, terra cotta or cast stone in his early work, rich bronzes and alabasters and luminous marbles in his prime. With equal facility, Umlauf sculpted family groupings, whimsical animals, religious and mythological figures, and sensuous nudes.

Umlauf won numerous prestigious awards, including a Guggenheim Fellowship and a Ford Foundation Grant. He was honored in 1985 by the Houston Art League as "Texas Artist of the Year" and in 1993 by the City of San Antonio as "Alcalde." Public collections and museums across the United States own his work, including the Smithsonian Institution in Washington, D.C. and the Metropolitan Museum of Art in New York City. In Texas, there are more Umlauf sculptures in public locations than there are works by any other single sculptor.

> *"The UMLAUF's vision is to become the epicenter of Austin's cultural arts scene and of experiential activities available to our community."*

The UMLAUF's Vision

Since its founding over 30 years ago, the UMLAUF has been committed to arts education in one of the most picturesque settings in Austin. As our collection and grounds have grown, so have our ambitions. The goal is to become one beautiful, approachable and accessible venue with a number of programmatic offerings to support the UMLAUF as a top destination in Austin.

The UMLAUF will become the arts destination in Austin to learn, discover and reflect. Our vision is to make the entire eight-acres accessible and available to the public, connecting Charles Umlauf's artist studio, the Umlauf family home and property to the existing museum and sculpture garden. We seek to make improvements to the grounds, expand access to the permanent collection, and broaden our ability for rotating exhibitions and community activities.

As a culturally rich arts destination, the UMLAUF envisions using its expanded collection and facilities to increase awareness of Charles Umlauf's impact and influence as an artist, educator and philanthropist, and to honor the Umlauf family's gift to the community by providing experiences that include art in nature, immersive exhibitions and educational opportunities, health and wellness programs, a venue for gatherings and events, and a peaceful breathing space within the heart of an urban capital city.

Current Programs

The UMLAUF hosts a wide range of programs for adults, children, and families. With rotating exhibitions of art by Charles Umlauf and both major 21st century and community artists, as well as other offerings such as art talks, camps, wellness activities, markets, and storytime, these programs forge strong community connections, opening the space to all of Austin. Some events such as Family Day, are admission-free and provide the entire community an opportunity to explore the sculpture garden and connect with local vendors and art. One of the plan's objectives is to broaden the possibilities for hosting a variety of indoor and outdoor programs, ensuring that the UMLAUF can provide an even wider range of programs and events for the Austin community.

Current programs / events:

- Family Day
- Sculpture Garden Storytime
- UMLAUF After Dark
- Insights Artist Talks
- Health + Wellness
- Shaping Space
- Design Shine installations in the garden
- Straw Fest
- Garden Party
- Summer Camp
- Free monthly docent-guided tours with admission
- Rotating exhibitions in the gallery and garden

“ The UMLAUF will become the arts destination in Austin to learn, discover, and reflect.”

UMLAUF HPEU Plan Vision

The UMLAUF Historic Preservation, Expansion, and Unification Plan aims to unify Charles and Angeline Umlauf's original 1985 gift to the City with the 1991 sculpture garden in order to create a fully accessible 8-acre site for the community.

The plan is intended to improve access to and expand the use of the UMLAUF's sculpture garden, museum, and grounds, while preserving and incorporating an adjacent site that includes the home of Angeline and Charles Umlauf, their private sculpture garden, and the artist's studio. The plan will also address the environmental issues affecting the site and its surroundings. The UMLAUF is located adjacent to Barton Creek, near the Barton Hills and Zilker neighborhoods, and it has been affected by the same environmental and water concerns of the area, such as storm water runoff and surface pollutants.

Historic Preservation

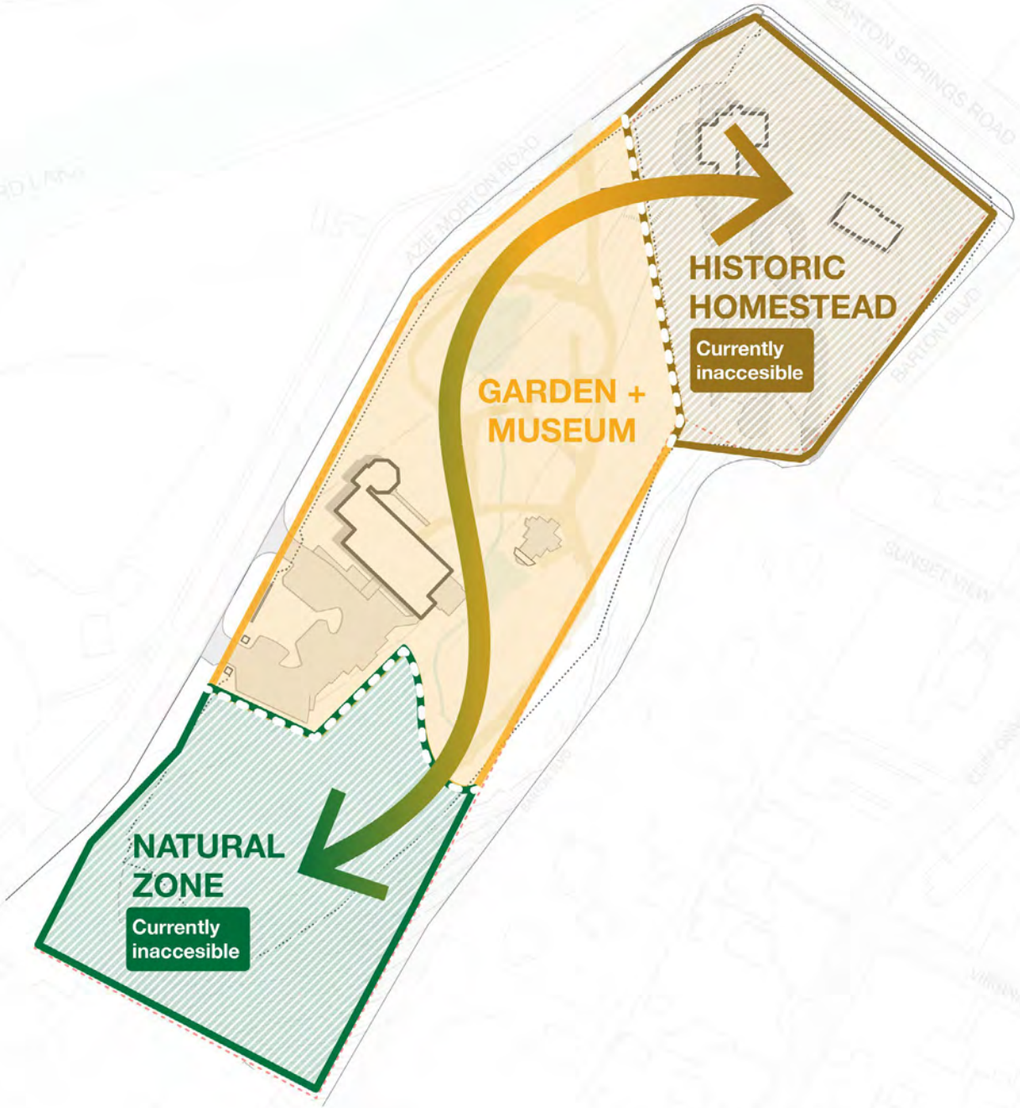
The plan includes the preservation of Charles and Angeline Umlauf's residence—an iconic carriage house atop the hill along Barton Springs Road. In 1985, the Umlaufs generously donated their property, which they had acquired in 1944, along with their home, art studio, and a collection of 168 sculptures to the City of Austin for public enjoyment and education. Preservation strategies focus on transforming this historic space into an educational haven, providing insights into an artist's life and sculptural process. Additionally, the plan is dedicated to enhancing accessibility, ensuring this part of the site becomes a welcoming and informative destination for all. By safeguarding this cultural gem, the UMLAUF seeks to create a dynamic environment for learning, appreciation, and connection with the Umlaufs' artistic legacy.

Expansion

The UMLAUF HPEU Plan focuses on expanding usable indoor and outdoor space for events, education, and exhibitions, aiming to broaden the UMLAUF's programmatic offerings and exhibitions of community art. By providing more areas for free admission visits, the plan seeks to extend its reach to even more diverse audiences. Essential to achieving the UMLAUF's mission of creating an accessible and diverse space, the plan emphasizes the need for ample space to host private and public events, along with indoor and outdoor educational spaces suitable for all age groups. Furthermore, considering exhibition spaces that meet the necessary standards will enable the UMLAUF to broaden its displayed collection and feature a greater number of local, national, and international exhibitions. This not only provides the public with increased opportunities to engage with art but also encourages repeat visits to the museum throughout the year for schools, families, tourists, and other community members and groups. This expansion strategy is crucial for transforming the UMLAUF into an inclusive and vibrant cultural hub for everyone in the community.

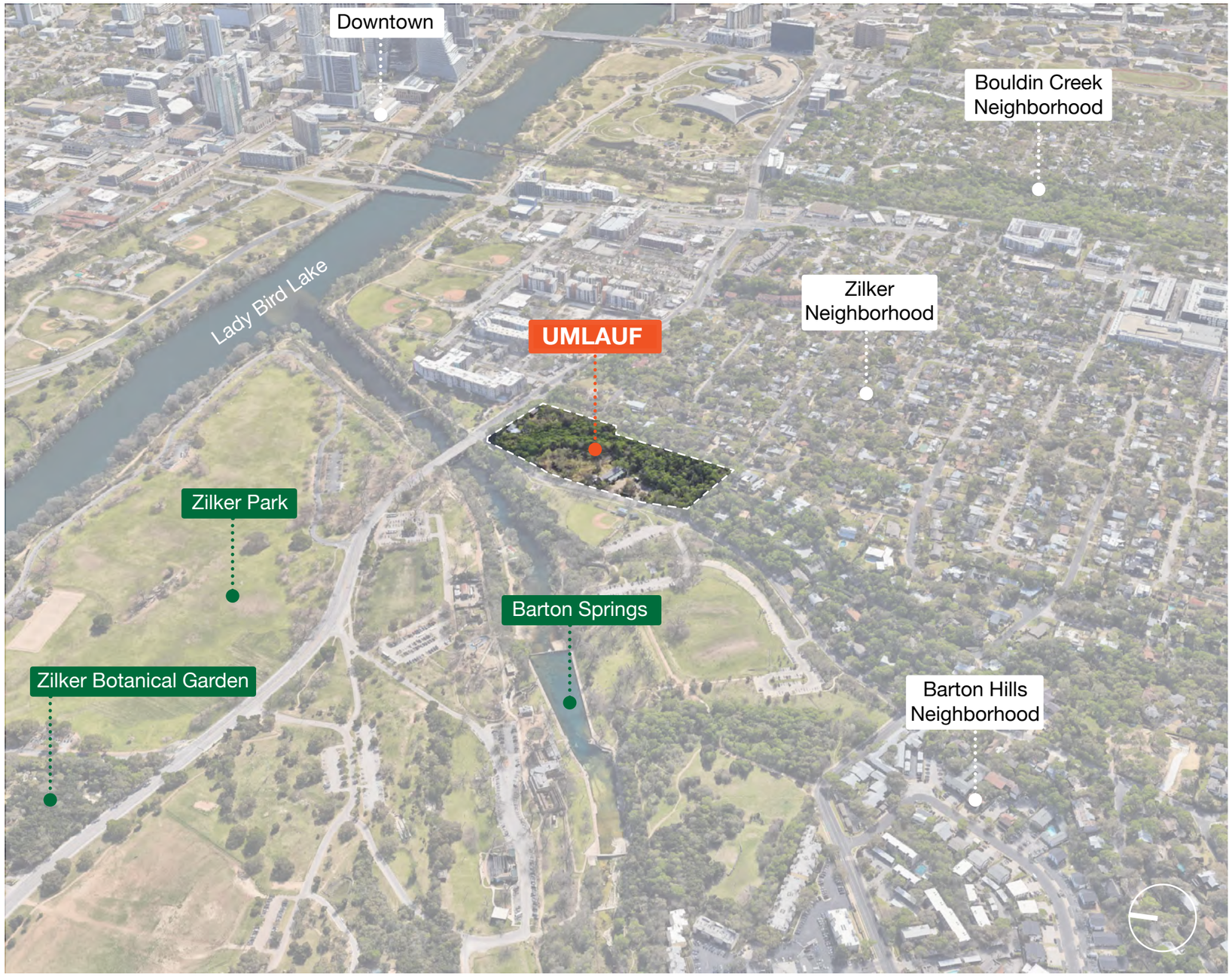
Site Unification

The plan’s goal is to seamlessly unify the three main zones of the site, two of which are currently inaccessible to the public. Emphasizing sustainability and resilience, the plan is committed to preserving and honoring Umlauf’s legacy, the history of the site, and safeguarding its cultural significance. Furthermore, the project aims to create openness to the community, fostering inclusivity and engagement. By weaving together these elements, the plan envisions a connected, sustainable, and inclusive project.



Environmental Considerations

Nestled within Austin's green network alongside Barton Springs, Zilker Park, and Lady Bird Lake, the UMLAUF's sculpture garden site connects Austin's residents with nature. However, this location exposes the garden to the environmental challenges prevalent in the area. Notably, stormwater runoff from uphill developments poses a shared concern. Acknowledging this, the plan underscores the importance of addressing and mitigating such issues. By implementing sustainable practices and innovative stormwater management strategies, the plan aims not only to preserve its natural surroundings but also to contribute positively to the broader environmental health of Austin, ensuring that this cultural gem remains intertwined with the city's ecological resilience.



Guiding Principles

These principles guide the planning process, harmonizing Sustainability + Resilience, Legacy, and Community. Recognizing the site's environmental challenges, Sustainability + Resilience are introduced as core principles, steering the plan's decision-making. Community envisions an accessible and unified site, expanding the UMLAUF's reach, and fostering deep connections with Austin's community. Legacy seeks not only to preserve the historic zone, but to also amplify Charles Umlauf's artistic heritage, offering art education opportunities for all. The plan honors Umlauf's legacy by expanding the museum's reach through new and diverse programs, all while addressing environmental concerns affecting both the sculpture garden and its surroundings. Carefully devised strategies, detailed on the subsequent page, will interlace these principles, ensuring a harmonious integration that preserves the UMLAUF's essence while guiding it into a sustainable and community-oriented future.

Plan Objectives

Aligned with the Guiding Principles, the plan objectives group a series of main strategies. Ranging from unifying the site to advancing arts education, these objectives serve as a guide for informed decision-making throughout the planning and design process. Each objective encapsulates targeted strategies, ensuring a cohesive approach to the UMLAUF's vision.

Site unification

Incorporating the adjacent land that includes the home of Angeline and Charles Umlauf, their private sculpture garden, and the artist's studio to the site's experience. Seamlessly unifying the three main areas of the site, creating an accessible site-wide experience.

Historic preservation

Preserving the Historic Homestead, comprising Umlaufs' home, studio, and private sculpture garden. Sharing the story of Charles Umlauf and the Umlauf family with the community through an interpretive experience.

Sustainability + environmental rehabilitation

Managing energy and water responsibly, addressing site issues, and respecting the city's environment while safeguarding the ecology and biodiversity of the site.

Community connection

Implementing community-driven planning, and creating spaces that foster a welcoming experience for everyone in the city to enjoy while connecting with art and nature.

Arts education expansion

Infusing the site with learning and exploration opportunities, making the whole site a learning experience.

Planning Process

The planning process matches two main timelines: planning and design, and community engagement. Please refer to the Community Engagement section for more details about the stakeholder engagement sessions.

Discovery

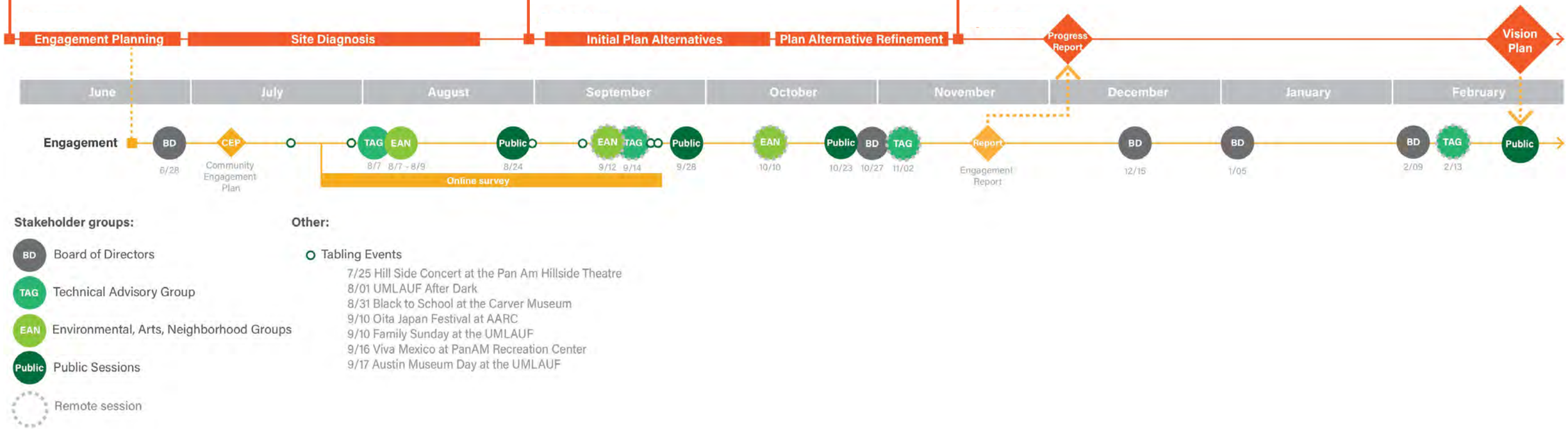
The Discovery Phase of the plan involved detailed analysis of the physical conditions of the UMLAUF's site, and initial community engagement efforts, including an online survey. This process provided a comprehensive understanding of the site constraints and opportunities, as well the community's and the UMLAUF's staff priorities and values.

Exploration

The Exploration Phase builds off the information collected in the previous phase to test multiple plan scenarios to accommodate the required program and priorities. Alternatives were reviewed with the community, board of directors, technical advisory group, and focus groups, and were refined to determine a preferred alternative.

Synthesis

The Synthesis Phase combines analysis and decisions made in the prior phases to develop a strategy for plan implementation. The planning process, guidelines, and implementation strategies are documented in a final report.



03

Community Engagement

Community Engagement Tools
Community Engagement Plan
Public Sessions
Work Sessions
Technical Advisory Group
Community Events
Survey
Community's Priorities

Community Engagement Tools

TAG sessions

The Technical Advisory Group is comprised of a group of technical experts from the City of Austin that provide their insights, skills, guidance, and expertise. The TAG guided the planning group with their policy, community, and technical knowledge on topics around water management, transit, historic preservation, sustainability, and other topics.

Work sessions

The work sessions, or focus groups, were attended by three groups of community stakeholders on topics of relevant matter for the UMLAUF's plan: Neighborhood, Arts + Education, and Environment. The working groups provided thoughtful feedback from their first-hand experience and community knowledge.

Public Sessions

Public sessions were integral to the planning process, gathering members of Austin's community for discussions about their priorities and concerns around the project. Community members actively participated, offering valuable feedback on initial concepts, fostering a collaborative and inclusive approach to the plan's development.

Community Events

Tabling at community events facilitated engagement, created connections with the community, increased survey participation and broadened outreach for the UMLAUF. This approach not only increased awareness of the plan but also introduced the sculpture garden to community members previously unfamiliar with it.

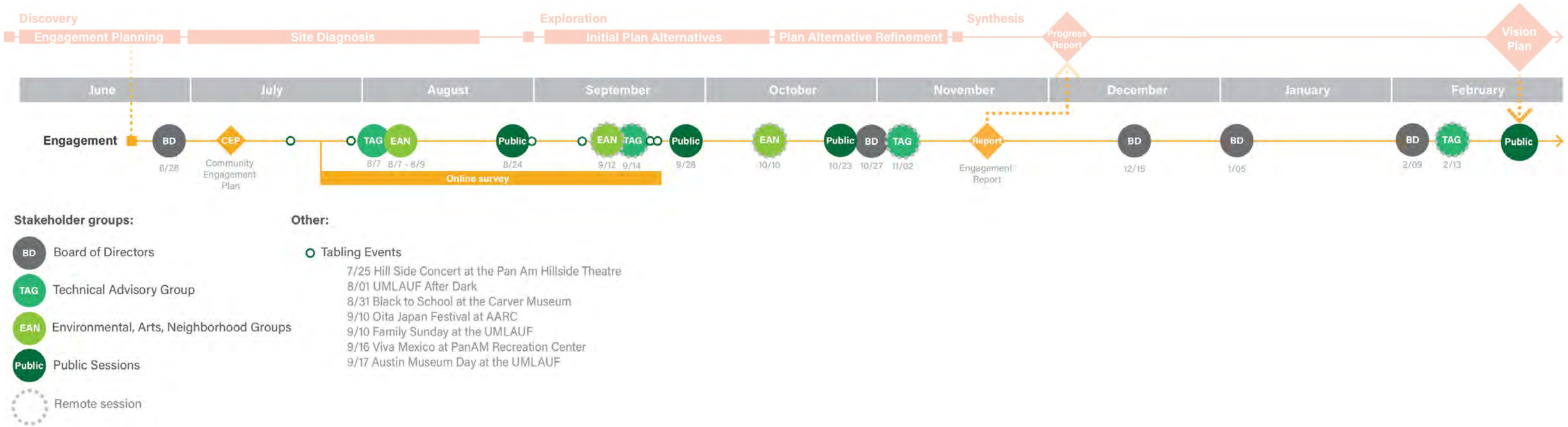
Online Survey

Over 600 complete responses were gathered through an online survey, drawing feedback from both new and existing community members, enriching the plan's insights with a diverse range of perspectives.

Online Presence: UMLAUF Sculpture Garden + Museum website, City of Austin PARD website, City of Austin PARD newsletter

Community Engagement Plan

The plan conducted three rounds of community engagement during the discovery and exploration phases. Each round comprised a TAG session, an environment-arts-neighborhood a work session, and a public meeting. The first round introduced the site and gathered initial ideas and concerns. The second round sought feedback on plan alternatives, and the third gathered input on refined plan ideas. An online survey and tabling at a series of community events were also part of the community engagement process. This comprehensive approach ensured collaborative decision-making and enhanced the overall development process. The final plan will be shared with the community in an additional public session.



Public session 1: card game

Public Session

Round 1

36

attendees

Location: UMLAUF
Date: September 28, 2023

Format:
In-person session
1. Home and studio tour
2. Project introduction
3. Card game
4. Card game summary

Attendees:
Full list included in appendix

The card game serves as a prioritization exercise, encouraging community members to engage in conversations and select their top priorities for the plan, fostering inclusive decision-making.

Public Session

Round 1

Card game:

The card game serves as a prioritization exercise, with a deck symbolizing plan needs identified by the UMLAUF, technical advisory group, community focus groups, and initial site analysis. Comprised of a deck of 32 cards, addressing topics like accessibility, sustainability, arts + education, historic preservation, community, mobility, and operations, each card is assigned a score correlating to estimated investment (5 to 40 points). Three blank cards were also provided per team to invite new ideas to be shared. Teams negotiated and discussed, striving to reach 400 points, fostering collaborative decision-making and aiming for diverse perspectives to contribute to the project's priorities. The full deck of cards is shown to the right. The top 11 cards that were prioritized among the teams are highlighted and were considered to build the community's priorities that guided the planning process.

Blank card

+ 3 blank cards

Re-wilding	✓ Neighborhood Stormwater Runoff Through the Sculpture Garden	Paths and Viewing Platforms	Space for Environmental Education	Neighborhood Stormwater Runoff to Barton Creek	Natural Terracing	Irrigation System	Outdoor Infrastructure for Ecology, Nature, and Wildlife Programs
Increased Vegetation	Lighting in Garden	✓ Indoor Space for Child and Teen Education	Living Space for Artists in Residence	Outdoor Spaces for Art-Making	✓ Expanded Exhibition Space for Permanent Collection	Exhibitions About Umlauf's Life and Process	Indoor Space for Rotating Exhibitions of Local and Contemporary Art
✓ Expanded Garden Exhibit Space	Enhancements of Existing Garden Exhibit Space	New Dedicated Spaces for Outdoor Public Events	Dedicated Spaces for Private Events	Food Concessions and Coffee Stands	✓ Make the Gallery ADA Accessible	✓ Make the Sculpture Garden ADA Accessible	✓ Make the Home, Studio and Private Garden Accessible
✓ Preservation of Umlauf's Home	✓ Preservation of Umlauf's Studio	✓ Preservation of Angie's Garden	Increased On-site Parking	Shuttle from Off-site Parking and Nearby Places	✓ Enhanced Crosswalks and Sidewalk Access	Additional admin and office space for expanded staff	Purpose-built storage space for art collection

The cards sparked insightful conversations about the needs of the UMLAUF and the community among the attendees.

Public Session

Round 2

16

attendees

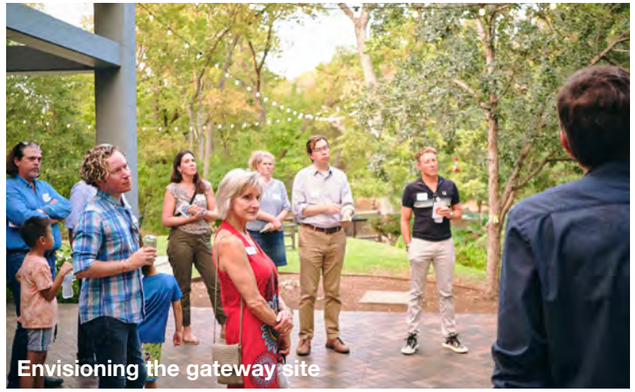
Location: UMLAUF
Date: August 24, 2023

Format:
In-person session
1. Presentation of community engagement feedback and design options
2. Role play and site exploration of the two proposed sites
3. Team sharing and open discussion

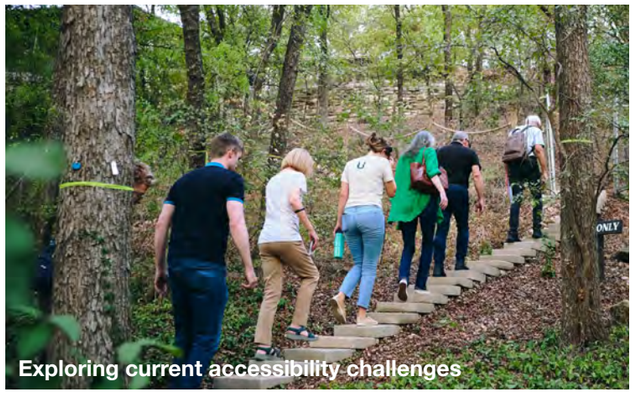
Attendees:
Full list included in appendix

Exploration walk

Visiting the treehouse site



Envisioning the gateway site



Exploring current accessibility challenges

Update on plan explorations

Attendees were encouraged to explore the two site alternatives beyond their individual viewpoints, considering how other users would experience it.

Public Session

Round 2

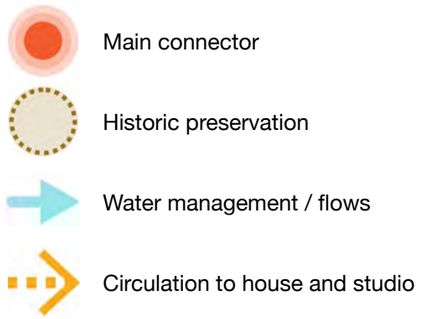
During the second public meeting, attendees were presented with two accessibility scenarios: treehouse and gateway. These scenarios responded to the community's priorities that were shared during the first round of engagement efforts. The treehouse suggested a connection in the north area of the site, linking the sculpture garden trail to the historic zone with an elevator. The gateway strategy proposed an accessible connection at the arrival area, connecting to the house and studio through a natural and interpretive promenade along the site's eastern side. Both options would host necessary programmatic elements for events and education. These early explorations, crucial in making the higher area of the site accessible, evolved into the current plan based on feedback from the public, technical experts, community representatives, and UMLAUF staff.

Treehouse exploration

1. Historic preservation of home, studio, and garden
2. Main connection point

Gateway exploration

1. Historic preservation of home, studio, and garden
2. Main connection point



Public Session

Round 2

In the second public meeting attendees were presented with both scenarios, followed by a site walk to both sites. The attendees were given a card that represented a user (see below) and were encouraged to imagine how that user would experience the site. Participants envisioned and discussed challenges and opportunities, fostering an interactive exploration of both scenarios. The received feedback carefully informed the evolution of the plan.

A wheelchair user visiting the sculpture garden

A dad and kids having outdoor time

A 7-year-old kid going to summer arts camp

A bride/groom on their wedding day at the UMLAUF

An arts college student looking to learn more about sculpture

A garden party attendee (or vendor)

Community's feedback:

Treehouse

- Fosters a beneficial connection between arts education and the house and studio.
- It creates a concentration of activity around the house and studio, which could be positive.
- The connection from the parking lot to the treehouse elevator (for events, vendors, deliveries), might be too long.
- Concerns of relying too much on elevator to get to the hill. Would like to see other ways to explore the site.
- Would need ADA parking on top level, not only on the big parking lot on Azie Morton.

General

- Overall accessibility concerns, would like it to be an experience throughout the site, and not concentrated in one single location.
- Must consider the elevator's capacity for multiple wheelchairs, vendors, and sculptures.
- Must preserve the site's sense of discovery and exploration.
- Explore interpretation, wayfinding and education strategies.
- Improve lighting, consider the garden experience at night, while being respectful of other species.

Gateway

- It created a positive connection to the waterfall, with maximized views and sounds of nature.
- Creates an opportunity to re-consider the pedestrian access, connection to the building from the current entry.
- It brings all the accessibility to the front of the site, instead of it being a journey. Would like see more explorations on accessibility around the site.
- It can be a long walk to get to the House and Studio from the gateway scenario.
- More sculptures along the pathway to the house and studio would be crucial for enhancing the experience and interpretation.

Public Session

Round 3

25

attendees

Location: UMLAUF
Date: October 23, 2023

Format:
In-person session
1. Presentation of refined plan and design guidelines
2. Guided discussion
3. Open Q&A
4. Presentation of next steps

Attendees:
Full list included in appendix

Participants responded to a refined plan and design guidelines during an open discussion, contributing with insightful perspectives for shaping the project in the synthesis phase.

Public Session

Round 3

In the final public session, attendees were presented a refined plan, seamlessly merging elements from the gateway and treehouse explorations. This responsive integration addresses feedback to distribute accessibility efforts across the site, and preserving the site's exploratory essence. The refined exploration aligns with current programmatic needs, expanding art and education spaces for the community and accommodating museum operations and storage. This holistic approach ensures the project serves diverse needs, including dynamic and inclusive spaces for exhibitions and community events, and expanding the arts and environmental education opportunities across the whole site. The refined scenario unifies the UMLAUF's site, activating pivotal locations: the gateway, enhancing the arrival experience and providing options for free exploration, and the treehouse, linking the historic area with the museum garden, and housing education and event spaces. This refined version carefully evolved into the current plan considering the feedback received from the public, technical experts, community representatives, and UMLAUF staff and Board of Directors.

Refined Plan

1. Historic preservation of home, studio, and garden
2. Treehouse, connecting the garden with the historic zone
3. Gateway, connecting with the promenade
4. Natural zone trail
5. Parking extension

The Community's Feedback:

- Prioritize natural lighting with wildlife impact in mind.
- Incorporate water sounds into the experience.
- Address UMLAUF's parking, it should meet the needs of the community.
- The planning process itself is educational on itself, it could be part of the educational program.
- Identify all the vegetation species on site and include them in the learning experience.
- Landscape and sculpture maps could be included in the user's experience.
- Introduce accessible trails in the wild area.
- Guarantee the integration of buildings with the natural landscape, demonstrating utmost respect for ecosystems.
- The treehouse looks like a part of the exploration experience and not the main element. The green roof minimizes the impact, it looks very accessible.
- It is crucial to tackle water concerns, including both on-site issues and the water leaving the site.
- The treehouse would benefit from having program in the mid-levels.
- The goal should be to create a great building that is "invisible."

Work Sessions

Round 1

3
sessions

9
attendees

Format: In-person
1. Project introduction
2. Site walk
3. Discussion

Attendees:
Arts + education
Marie Ortiz (MACC)
Rosa Fry (Preservation Austin)
Tony Vo (AARC)
Matthew Gaston (ZBG)
Danny Orendorff (TCA)

Environmental
Bill Bunch (SOS)
Cynthia Klemmer (ZBG/PARD)
Holly Hawk (ZBG)

Neighborhood
Ingrid Weigand (BCNA)

Arts + education

Diversity and Inclusion:
- Focus on diversity and opportunities to showcase different cultures.
- Consider spaces for hosting teen/youth internships and programs.

Community:
- Include concessions and coffee stands without admission, open to the community.
- Users need spaces in the garden to cool-off in summer days.
- Think of a food program, not only for garden visitors, but for everyone around.

Other programming:
- Dedicated spaces for private events are needed, it will avoid interrupting public and education programs.
- Consider more and diverse outdoor programming, and appropriate outdoor spaces to host it.
- An art residency with outdoor art-making opportunities could be integrated.
- The UMLAUF will need more space for office and storage once the spaces are restored.
- Improved accessibility from the parking across the street is crucial.

Neighborhood

Environmental
- Consider re-wilding and ecological restoration of the site.
- It is important to include ecological education in the program and planning process.
- Avoid concrete, think of this space as an oasis.
- The wilder you go with landscape, the better.

Mobility
- A shuttle for the arts and nature could alleviate parking needs and mobility issues.
- Full-site accessibility would be great.

Environmental

Environmental
- Consider natural terracing for water management.
- Think of re-wilding strategies to tackle urban heat islands.
- Create a wildlife corridor, consider biodiversity.
- Create new paths, trails, and viewing platforms around the site.
- Prioritize storm water management.

Work Sessions

Round 2

1
session

8
attendees

Date: September 12, 2023

Format: Remote
1. Project introduction
2. Discussion

Attendees:
Cynthia Klemmer (ZBG/PARD)
Jack Nokes (Neighborhood)
Katie Robillard (Austin Parks Foundation)
Matthew Gaston (ZBG)
Rosa Fry (Preservation Austin)
Marie Ortiz (MACC)
Ingrid Weigand (BCNA)
Danny Orendorff (TCA)

Content

During the second workshop, attendees were presented the first design explorations (treehouse and gateway). During this phase, the design team was exploring two potential sites. During the discussion, attendees were asked about concerns and opportunities for both sites.

Feedback

- The southern end of the site is unimproved. Ideally, this would be an opportunity for wilding (not re-wilding since it is kind of already there with almost no invasive species).
- A wildlife corridor could have a viewing deck, birding programs etc. if it is kept as a natural space with minimal access.
- Consider a hybrid option that includes both potential sites working together.
- Almost need both options (treehouse and gateway), a walk to the home and studio from the gateway site sounds lovely even if its strenuous.

Round 3

1
session

4
attendees

Date: October 10, 2023

Format: Remote
1. Project introduction
3. Discussion

Attendees:
Bill Bunch (SOS)
Rosa Fry (Preservation Austin)
Marie Ortiz (MACC)
Matthew Gaston (ZBG)

Content

Workshop 3 was a virtual session using Miro as a tool to collect feedback and guide participants through the revised plan suggestions, facilitating an interactive and collaborative online engagement experience.

Feedback

- Consider making improvements to the Azie Morton crossing.
- Accessibility improvements will still be needed in the garden: grading, surface improvements.
- Appreciation for the low-impact parking solution and goal of net neutral impervious cover.
- Consider the interpretive experience - showing how Charles Umlauf lived and worked.
- There is a challenge for Historic Preservation, there is a risk with higher visitation and potentially uncontrolled exposure.
- Make sure to maintain the site's sense of discovery.
- Consider a cafe for the gateway, and take advantage of the nice views in that spot.
- A portion of the site should be open to the public, even if not during regular museum hours.
- Water runoff should be managed in a way that integrates an engineered solution with the needs of the site.

Technical Advisory Group

3
sessions

11
members

TAG members:
Laura Esparza, PARD
Christine Chute Canul, PARD
Ellen Colfax, PARD
Greg Montes, PARD Planning
John Middleton, WPD
Juan Bustillos, PARD
Justin Good, TPW
Kimberly McKnight, PARD
Melissa Alvarado, COA Heritage Tourism
Leslie Lilly, WPD
Paulinda Lanham, TPW
Steven Linett, PARD

Formats:
Meeting 1: on-site, site exploration
Meetings 2 + 3: virtual sessions

The planning team convened with the TAG group three times, seeking technical insights and subject-matter expertise related to the site and its context.

Presence at Community Events

The UMLAUF actively engaged in community events, discussing the project with community members and promoting the online survey to ensure ample and diverse feedback for the comprehensive development of the plan.

Hillside Concert

Date: July 25, 2023
Location: Pan Am Hillside Theatre

UMLAUF After Dark

Date: August 1, 2023
Location: UMLAUF Sculpture Garden + Museum

Black to School: Block Party

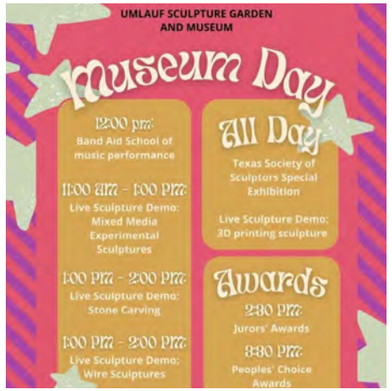
Date: August 31, 2023
Location: George Washington Carver Museum, organized by Joyous Tutoring

Oita Japan Fest

Date: September 9, 2023
Location: Asian American Resource Center

Viva México

Date: September 16, 2023
Location: Pan Am Hillside Theatre

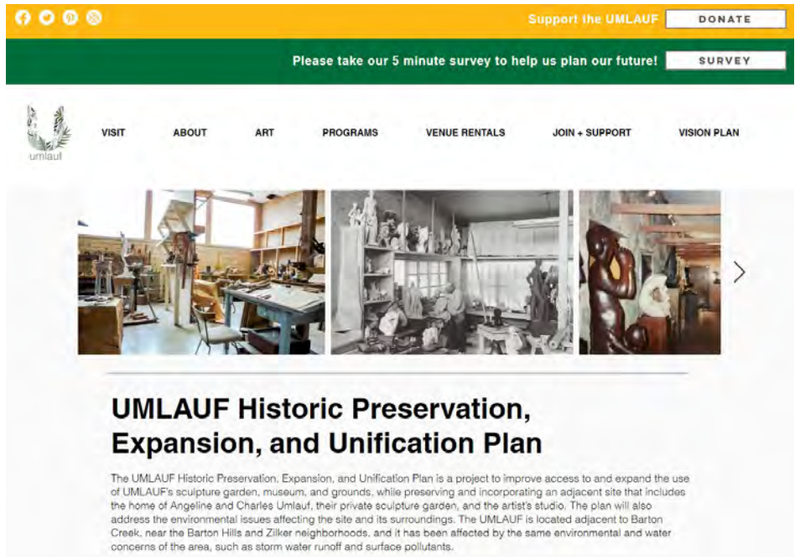


Austin Museum Day

Date: September 17, 2023
Location: UMLAUF Sculpture Garden + Museum

Survey

The online survey served as a comprehensive tool to collect ample and diverse feedback from the community. With approximately 20 questions, it featured two versions: one for those who have visited the UMLAUF Sculpture Garden + Museum and another one for those who hadn't. The survey questions covered key plan areas such as historic preservation, water management, sustainability, arts and education, and community and private events. Through rankings, multiple-choice, and open-ended questions, community feedback was analyzed and categorized to identify the community's priorities. The version for community members that have not visited the UMLAUF aimed to identify obstacles faced and opportunities to make the UMLAUF more appealing and accessible to Austin's diverse public, contributing to a more inclusive and informed plan. The survey additionally served as a means to introduce community members unfamiliar with the sculpture garden to the UMLAUF's mission, programs, and upcoming public events.



umlauf

UMLAUF Historic Preservation, Expansion, and Unification Plan

Project Introduction:

The **UMLAUF Historic Preservation, Expansion, and Unification Plan** is a project to improve access to and expand the use of UMLAUF's sculpture garden, museum, and grounds, while preserving and incorporating an adjacent site that includes the home of Angeline and Charles Umlauf, their private sculpture garden, and the artist's studio. The plan will also address the environmental issues affecting the site and its surroundings. The UMLAUF is located adjacent to Barton Creek, near the Barton Hills and Zilker neighborhoods, and it has been affected by the same environmental and water concerns of the area, such as storm water runoff and surface pollutants. **The feedback collected from this survey will be used to inform the planning process for UMLAUF's Historic Preservation, Expansion, and Unification. All your answers will remain anonymous. Thank you for your time and valuable feedback.**

Estimated time 6-8 minutes.

7. **The UMLAUF is looking to solve a major water pollution problem. How familiar are you with the environmental concerns of the site**, such as storm water discharge concentration and poor water quality caused by upstream development? 0

- ◯ Not at all familiar
- ◯ Not so familiar
- ◯ Somewhat familiar
- ◯ Very familiar

8. In 1985, Charles and Angeline Umlauf gifted their home, property, and his art studio for public enjoyment and education. The house and studio are currently on the property but have no public access (see photos below). **How do you think the artist's historic home and studio could better serve the community?** (Please select all that apply)

Survey

Results

634

completed surveys*

500 have visited

134 have not visited

Participation window:
July 24, 2023 to
September 21, 2023

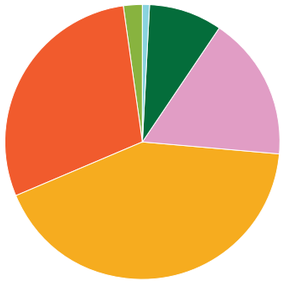
*A total of 740 surveys were received, of which 106 only answered to the first question of “Have you visited the UMLAUF Museum + Sculpture Garden?”

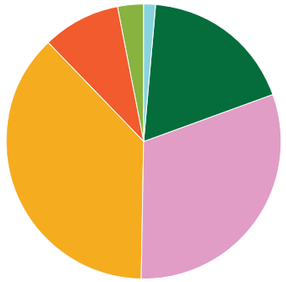
Demographics

Have visited the UMLAUF

Have not visited the UMLAUF

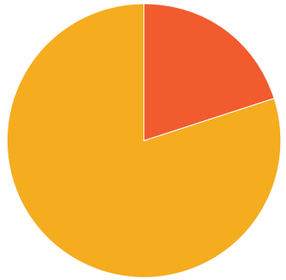
Age:

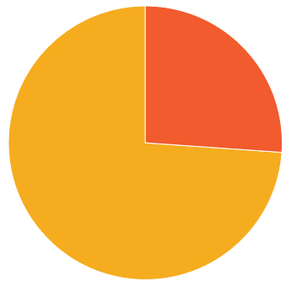




- 60+
- 35 to 59
- 25 to 34
- 19 to 24
- Under 18
- Prefer not to answer

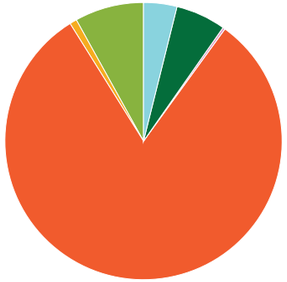
Ethnicity:

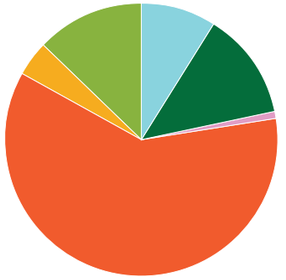




- Hispanic or Latino
- Non-Hispanic or Latino

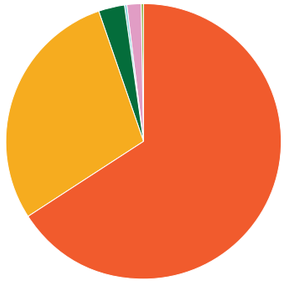
Race:

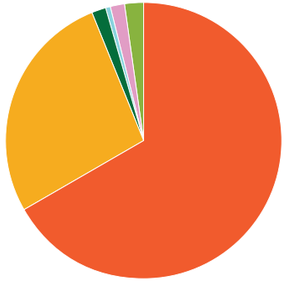




- White
- American Indian or Alaska Native
- Native Hawaiian or Pacific Islander
- Asian
- Black
- Other

Gender:





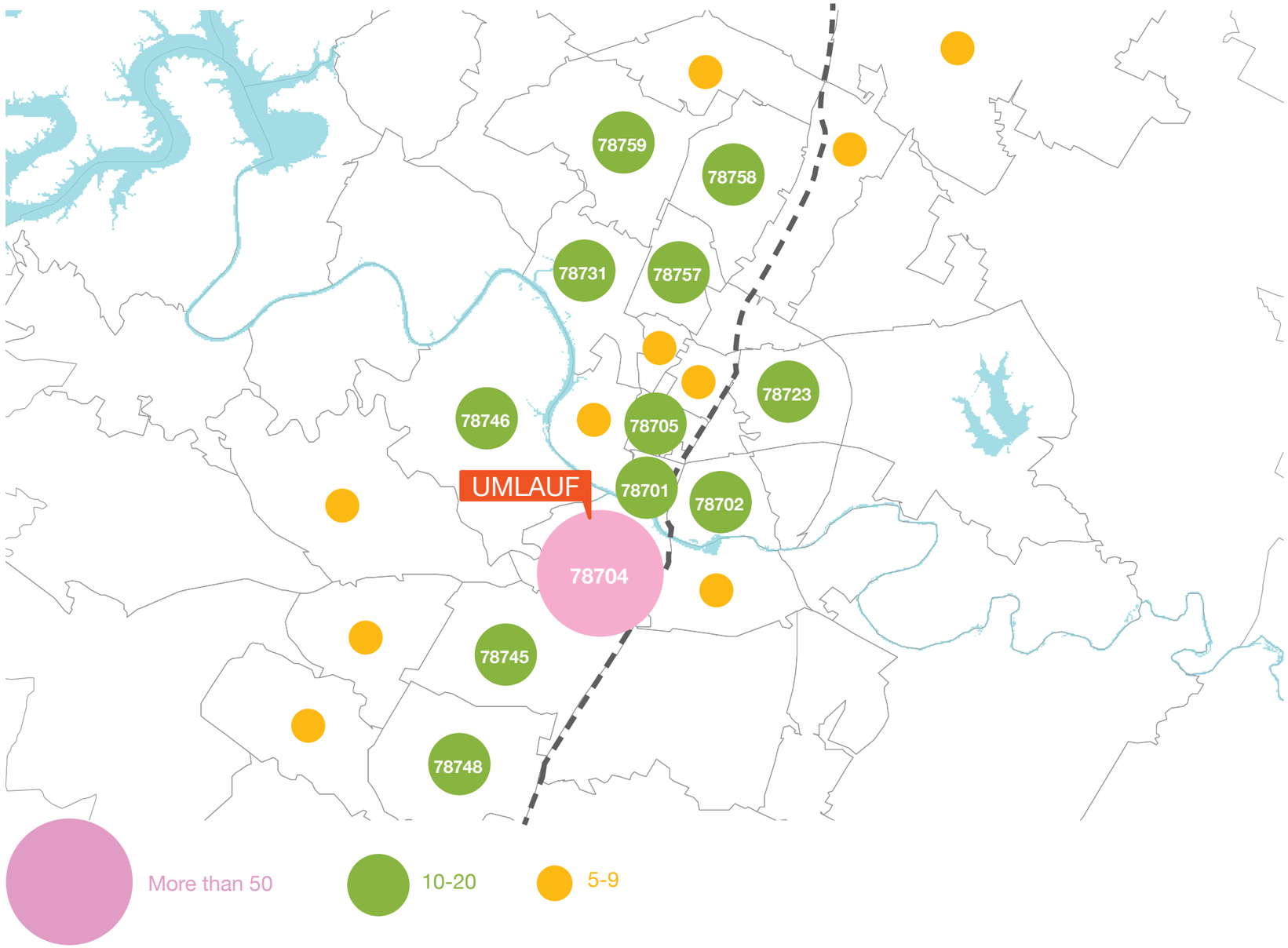
- Female
- Male
- Non-binary
- Transgender
- Prefer not to answer
- Other

Survey

Results

Zip Code

The survey received a significant number of submissions from the 78704 zip code, which includes neighborhoods such as Barton Hills, Travis Heights, Zilker, and Bouldin Creek, all adjacent to the UMLAUF. However, while we observe good distribution across the city, there is a lower participation from the eastern area. Efforts were made to engage with neighborhoods east of I-35, including partnering with local organizations, participating in community events, and displaying posters in local shops to increase visibility. To enhance awareness of the UMLAUF in eastern neighborhoods, the plan recommends implementing marketing and program strategies targeting East Austin communities, with a special focus on highlighting opportunities for free admission. A continuous engagement plan to solicit feedback on programming and accessibility will pave the way for more equitable and inclusive offerings. This approach will enable a wider segment of the Austin population to access and enjoy all that the UMLAUF has to offer.

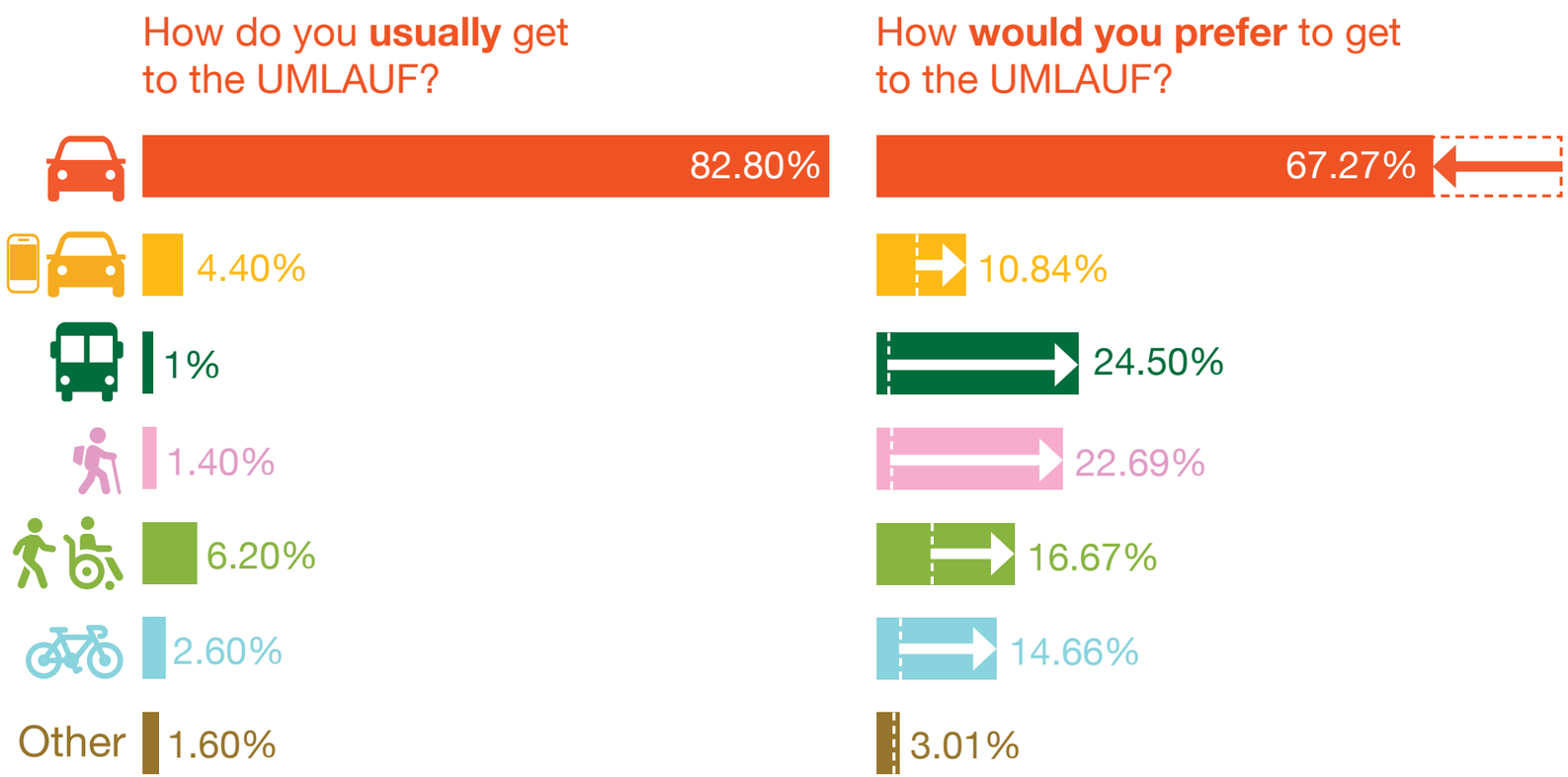


Survey

Results

Mobility + Transit

The survey inquired about survey-taker's current and preferred modes of transportation to the UMLAUF. The preference for personal car travel decreased by 15.53%, while the inclination towards public transit grew by 23.5%. "Using the Lady Bird Trail" also saw a notable increase of 21.29%. Despite these shifts, personal car usage remained the most favored option, suggesting factors like limited connectivity from people's homes to the UMLAUF or the convenience of private vehicles. While respondents expressed a desire for alternative transportation, the continued popularity of personal cars underscores the need to address existing barriers to accessing the site and mobility preferences in the planning process. The increase in options such as public transit, biking, and using the trail, reveal an opportunity to improve active mobility connections to the site and consider different modes of arrival to the sculpture garden.



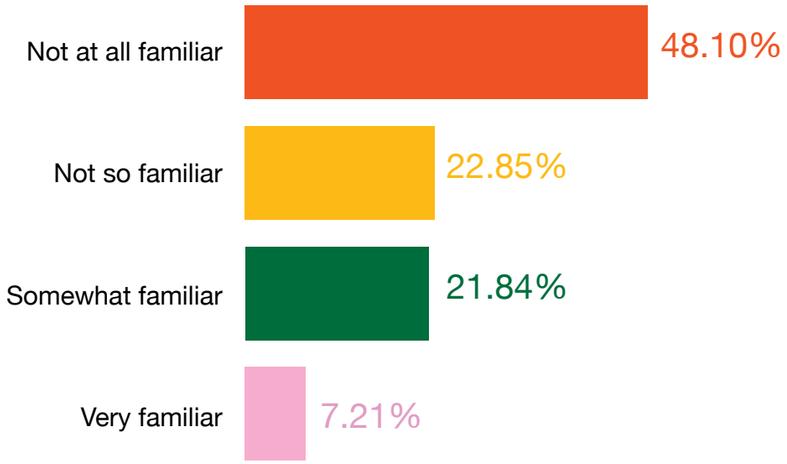
Survey
Results

Environmental

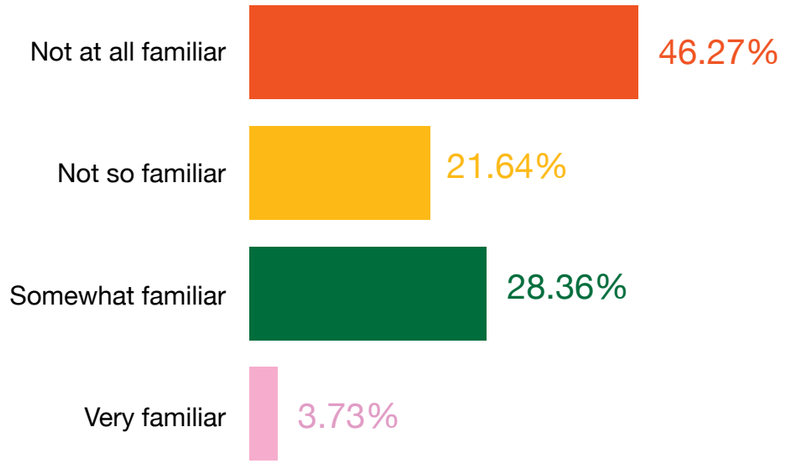
The survey aimed to gauge community awareness of historical environmental issues impacting the UMLAUF, specifically storm water runoff and water pollution. Nearly 50% from both surveyed groups indicated they were not familiar with these concerns. This highlights an opportunity for environmental education within the plan and underscores the need to incorporate these critical site issues in engagement efforts, ensuring a well-informed community and fostering a deeper understanding of the environmental context surrounding the UMLAUF.

The UMLAUF is looking to solve a major water pollution problem. How familiar are you with the environmental concerns of the site, such as storm water discharge concentration and poor water quality caused by upstream development?

Have visited the UMLAUF:



Have not visited the UMLAUF:



Survey

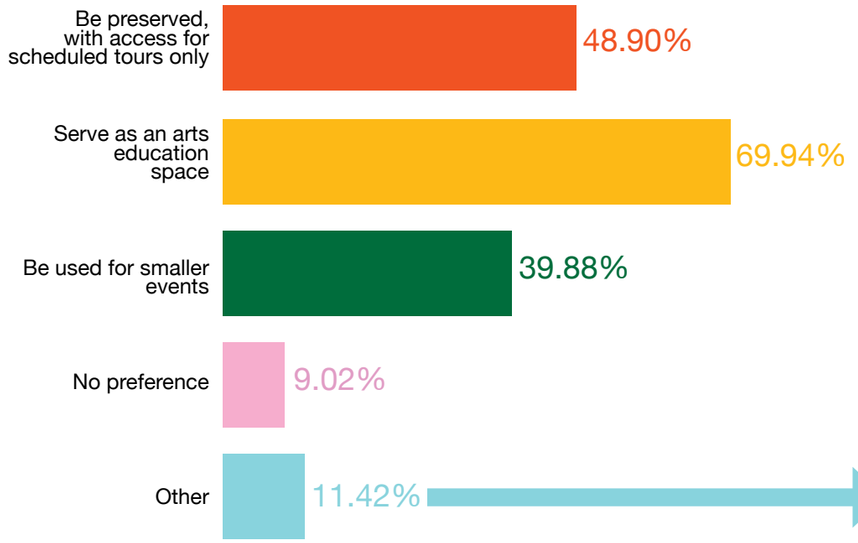
Results

Historic Preservation

The survey also served an educational role, offering insight into historic preservation. Accompanied by photos, a brief overview of the current state of the home and studio preceded a question seeking community preferences about the spaces' programming. Nearly 70% expressed a desire for the space to function in arts education, while 48% also prioritized preservation with access for scheduled tours. Additional suggestions included research and art residency use, and broadening access from private to public tours. The full list of recommendations is available in the report's appendix.

Photos of the home and studio included in the survey

In 1985, Charles and Angeline Umlauf gifted their home, property, and art studio for public enjoyment and education. The house and studio are currently on the property but have no public access (see photos below). How do you think the artist's historic home and studio could better serve the community? (Please select all that apply)



Other:

- Use for scholars' research, and artist residency award
- I would love it if somehow the grounds could be included in a self guided walking tour of the rest of the Umlauf gardens
- Make accessibility part of the museum/garden experience
- Virtual/video tour shown online and in main gallery
- Historic preservation and teaching about sculpture is most important
- Art school
- Be a precedent of ecology and environmental superiority
- Conduct art shows for local artists to show their works
- Certain number of free events and times/dates free community rentals
- Display vintage pieces of furniture and phones, etc.
- Be a space for pubic tours also
- I would imagine art lessons would honor his legacy
- Preserve some parts that show process, but open up more to work in his space

Find full list of comments in appendix

Survey

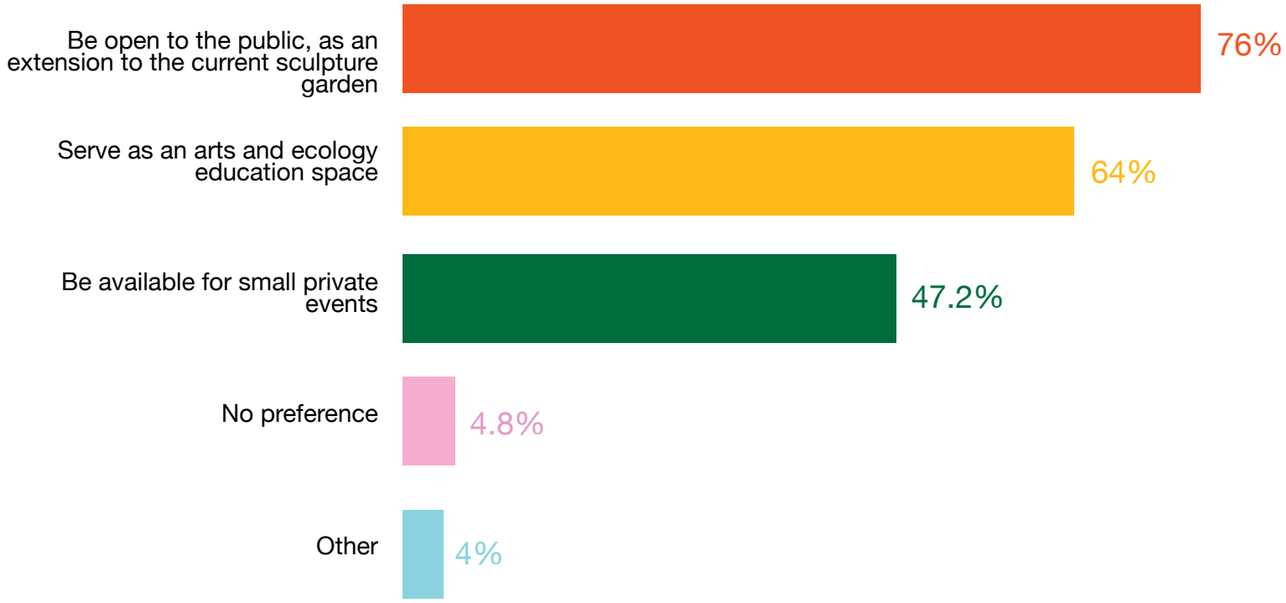
Results

Historic Preservation

Building on the Historic Preservation topic, the survey inquired about the community's preference for the private sculpture garden surrounding the home and studio. A majority (76%) favored it becoming publicly accessible as an extension to the existing sculpture garden, followed by it serving as a space for arts and ecology education.

Photos of the private sculpture garden included in the survey

The artist's home and studio are surrounded by an ample private garden (see photos below). How do you think the garden could better serve the community? (Please select all that apply)

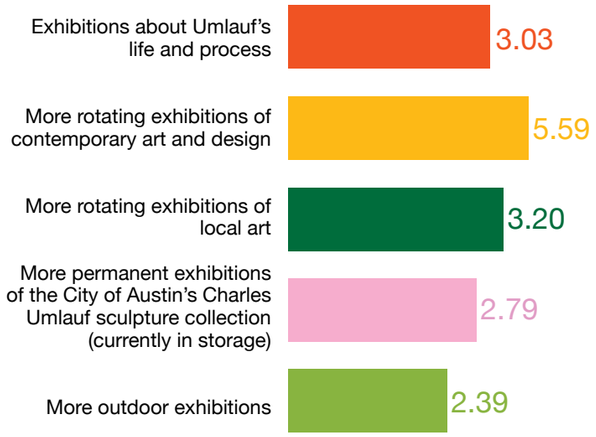


Survey
Results

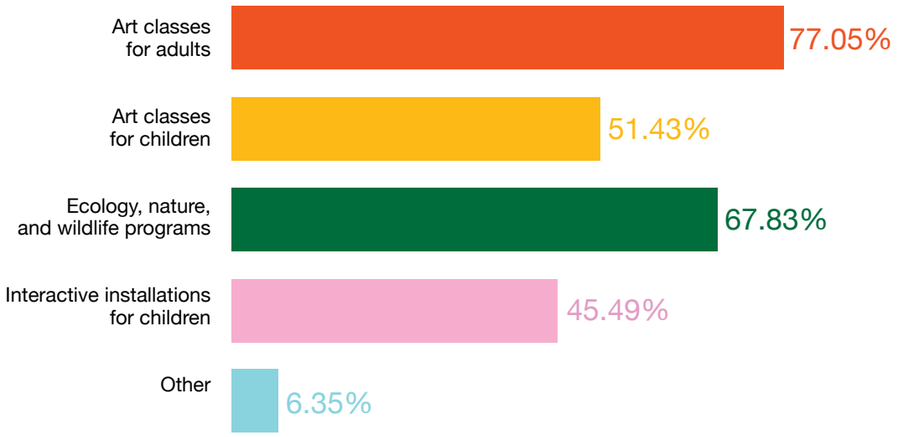
Programming

The survey also included questions regarding arts and education programming. For art exhibitions, “More rotating exhibitions of contemporary art and design” was ranked the highest. The plan will consider enhanced and accessible exhibition spaces to provide more options for the public to return to the UMLAUF. Regarding education, “Art classes for adults” were preferred by 77% of respondents, followed by “Ecology, nature, and wildlife programs” chosen by 67.83%. The plan will consider these preferences by proposing spaces for arts and environmental education, both indoors and outdoors, to enrich the UMLAUF’s programmatic offerings.

What additional arts exhibitions would you like to see at the UMLAUF?
Please rank in order of personal relevance



What additional education opportunities would you like to see at the UMLAUF?
Please select all that apply



Other:

- Umlauf’s drawings on display
- Nature journaling and en plein air classes/groups
- Programming for blind/disabled persons
- More rotation. We’d love to bring our students more but the feedback we get is they’ve already seen it multiple times already
- Would like to ensure that children’s classes are accessible to families with limited financial resources
- Multicultural exhibits and programming
- Have a meditation space and programs like yoga classes and dance lessons
- Art classes for senior citizens
- Zoology classes
- A focus on sculpture or fine art
- Permanent exhibit explaining Umlauf’s life

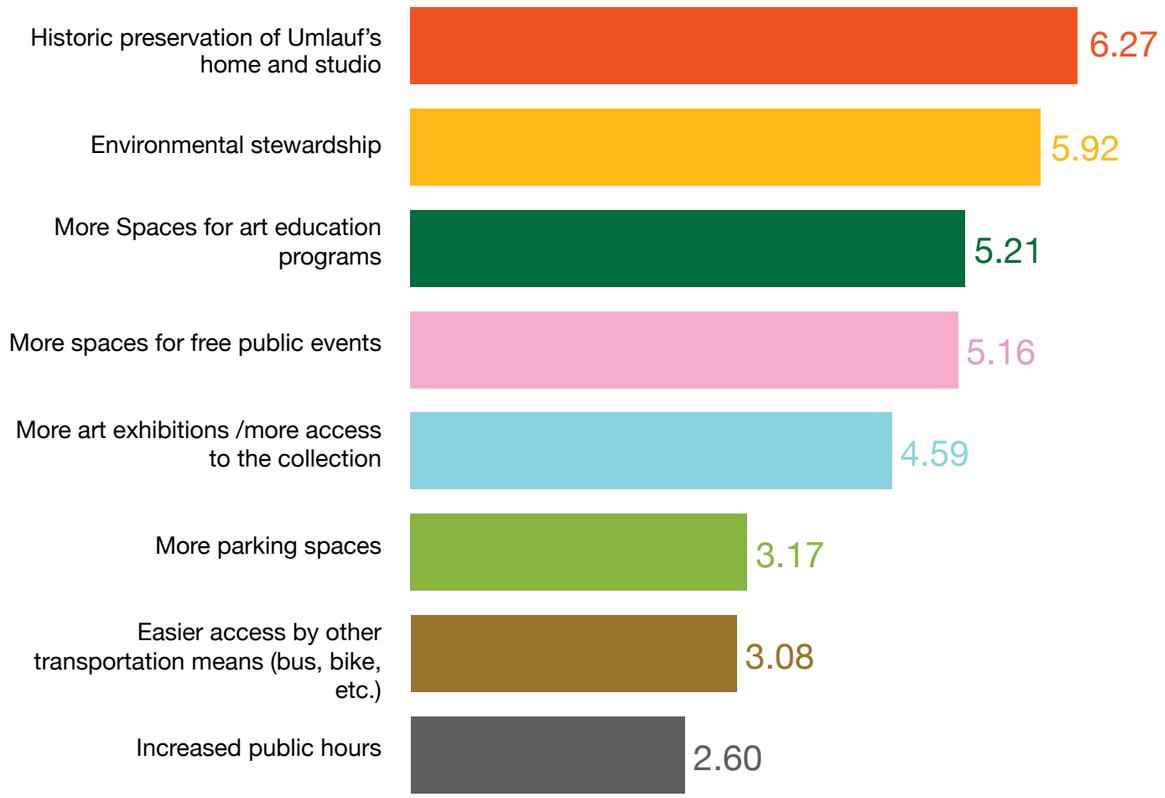
Find full list of comments in appendix

Survey
Results

Priorities

A ranking exercise followed the introduction to different project areas in previous questions. “Historic preservation of Umlauf’s home and studio” was ranked as top priority, closely followed by “environmental stewardship.” Notably, “more parking spaces” ranked low (sixth of eight options), despite the preference for private vehicle that was expressed in prior mobility questions. This insight guides the plan towards prioritizing preservation, sustainability, education, and public access, while underscoring the importance of balancing transportation options for different needs.

As the UMLAUF envisions their future, what is more important to you? Please rank in order of personal relevance.

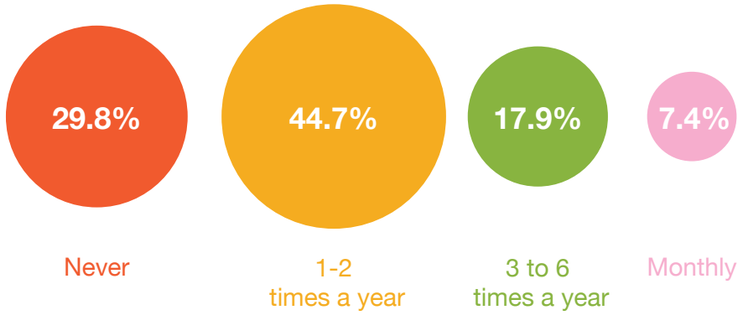


Survey
Results

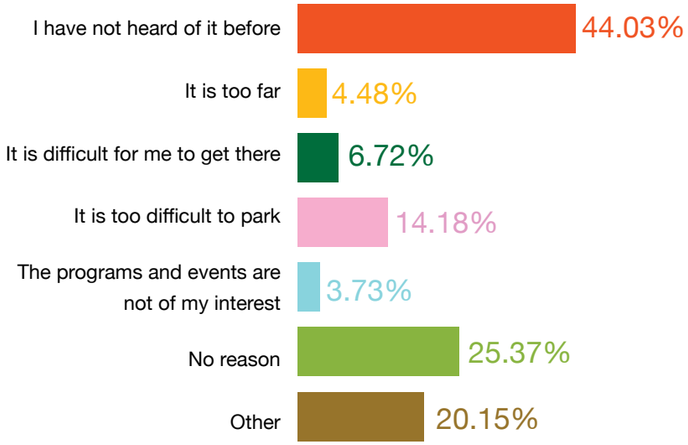
Have not visited the UMLAUF

To ensure a diverse range of perspectives, the survey extended questions to those who have not yet visited the UMLAUF. More than 60% of respondents indicated that they visit other museums in the city at least 1 or 2 times a year, while nearly 30% reported never visiting museums. The primary reason cited for not visiting the UMLAUF was a lack of awareness. The plan will address this by boosting visibility through improved site edges, connections, and spaces for diverse programming to attract a broader audience. Those who haven't visited expressed openness to doing so with increased awareness of museum activities, more public events, and improved parking availability, highlighting the importance of free admission opportunities, extended hours, and kid-friendly programs.

How often do you visit other museums in Austin?



I have not visited UMLAUF because:



What would help you to consider visiting the UMLAUF?

1. Awareness
Increase advertising, reach out to schools and other institutions

2. More events
More diverse and inclusive activities

3. Parking
More and free parking options

4. Free admission
Free events and free admission days

5. Hours
Extended hours. Night programs, and early hours for kids

6. Programs for kids
More events and other options for small children

Find full list of comments in appendix

Survey

Results

Is there anything else you would like to share about the UMLAUF?

The survey concluded with an open question, providing respondents an opportunity to expand on their feedback or include topics that were not considered in the set of questions. The 95 received comments were categorized into common topics. Affordability emerged as the predominant theme, with a desire for more free and affordable programming. Accessibility, diverse programming, and maintaining the garden's intimate scale and experience were also key topics. This valuable feedback informs the project's focus on creating additional spaces for community events, enhancing the welcoming arrival experience, and strengthening spatial connections with the community. It also guides the plan to preserve and enrich the intimate and relaxing ambiance of the garden, ensuring alignment with community preferences.

Main topics:

1. Increase affordability
2. More accessible to the community, more inclusive
3. More diverse programming
4. Maintain its intimate and relaxing experience
5. More about Charles Umlauf
6. Increase awareness of the UMLAUF
7. More rotating and local art
8. Prioritize educational and interpretive experience
9. More parking and/or public transit connections
10. Offer a gift shop and souvenirs
11. Provide food options

Community's Priorities

The community's priorities, gathered from public sessions and surveys, were encapsulated into nine key plan strategies. Encompassing historic preservation, accessibility, sustainability, arts and education, community, and mobility, these priorities steered the planning and design process. Subject-matter experts on the team, specializing in accessibility, sustainability, energy, water management, historic preservation, and landscape, actively supported the decision-making process to align the plan with these community's priorities.

Community's Priorities

Within the report, community voices will be represented in dialogue boxes, featuring feedback from the survey. The feedback will be color-coded according to plan topics as shown below. This approach ensures the community's diverse perspectives and opinions are considered through the process, enhancing the transparency and accessibility of the feedback gathered through the community engagement process.

Historic Preservation

Accessibility

Sustainability

Art + Education

Community

Mobility

"...when I first saw it, it was hard to tell if it was private property or not. It didn't look super welcoming until I looked it up and saw it was a museum."

"Such a beautiful space that can be used for many more exhibits from local artists along with the beautiful Umlauf sculptures."

"Accessibility for all spaces at UMLAUF is needed. Extend the current sculpture trails seamlessly to a new path getting up to the house and studio on the hill."

04

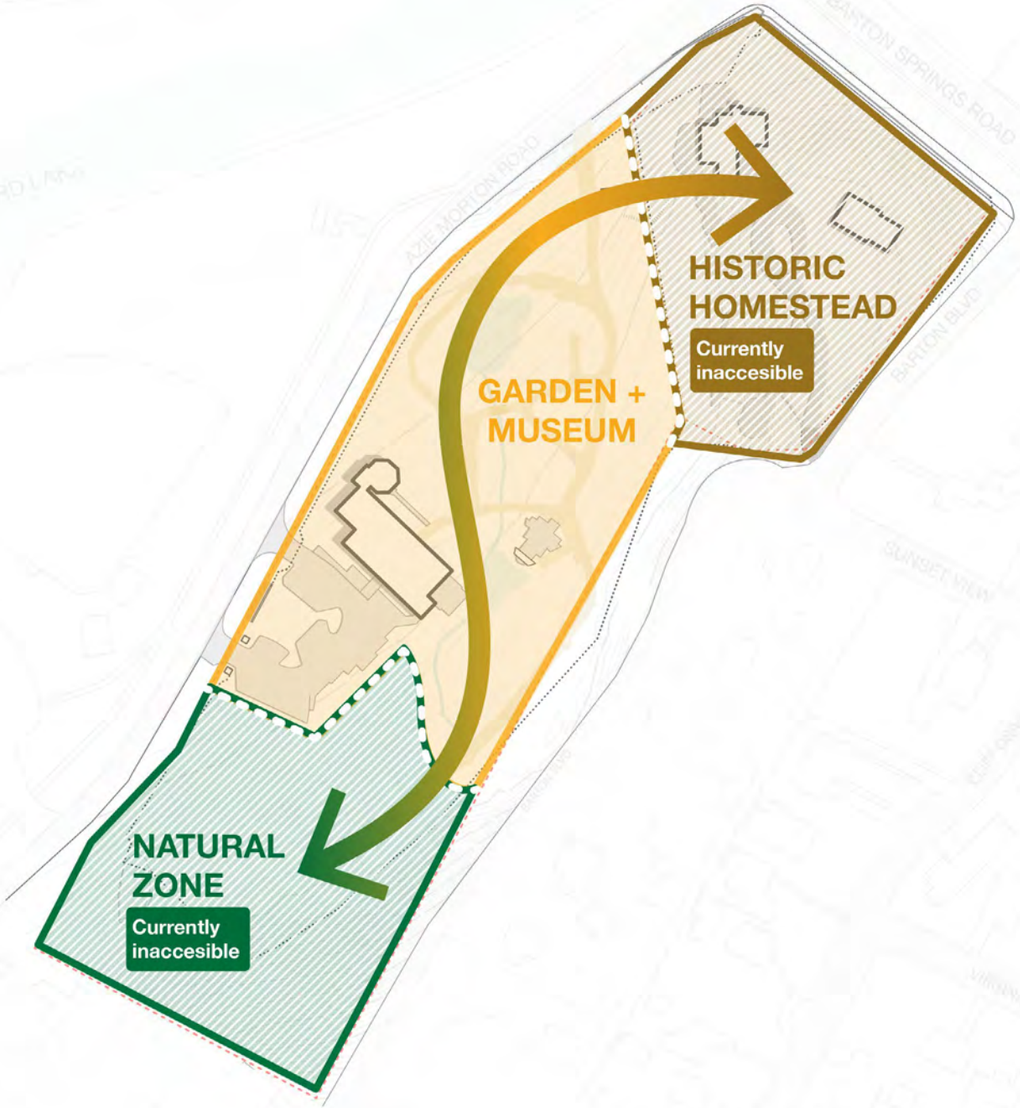
Site Analysis

Main Zones
Mobility + Transit
Cultural Assets
Watershed, Watershed Management
Aquifer Recharge Zone
FEMA Floodzones
COA Fully Developed Floodplains
Erosion + Waterway Setbacks
Other Environmental Features
Drainage
Zoning
Impervious Cover
Overlays

Circulation
Site Access
UMLAUF Signage
Edge Study
Existing Buildings
Outdoor Spaces + Landscape Features
Slope Analysis
Trees
Accessibility + ADA Compliance
Views
Site Constraints

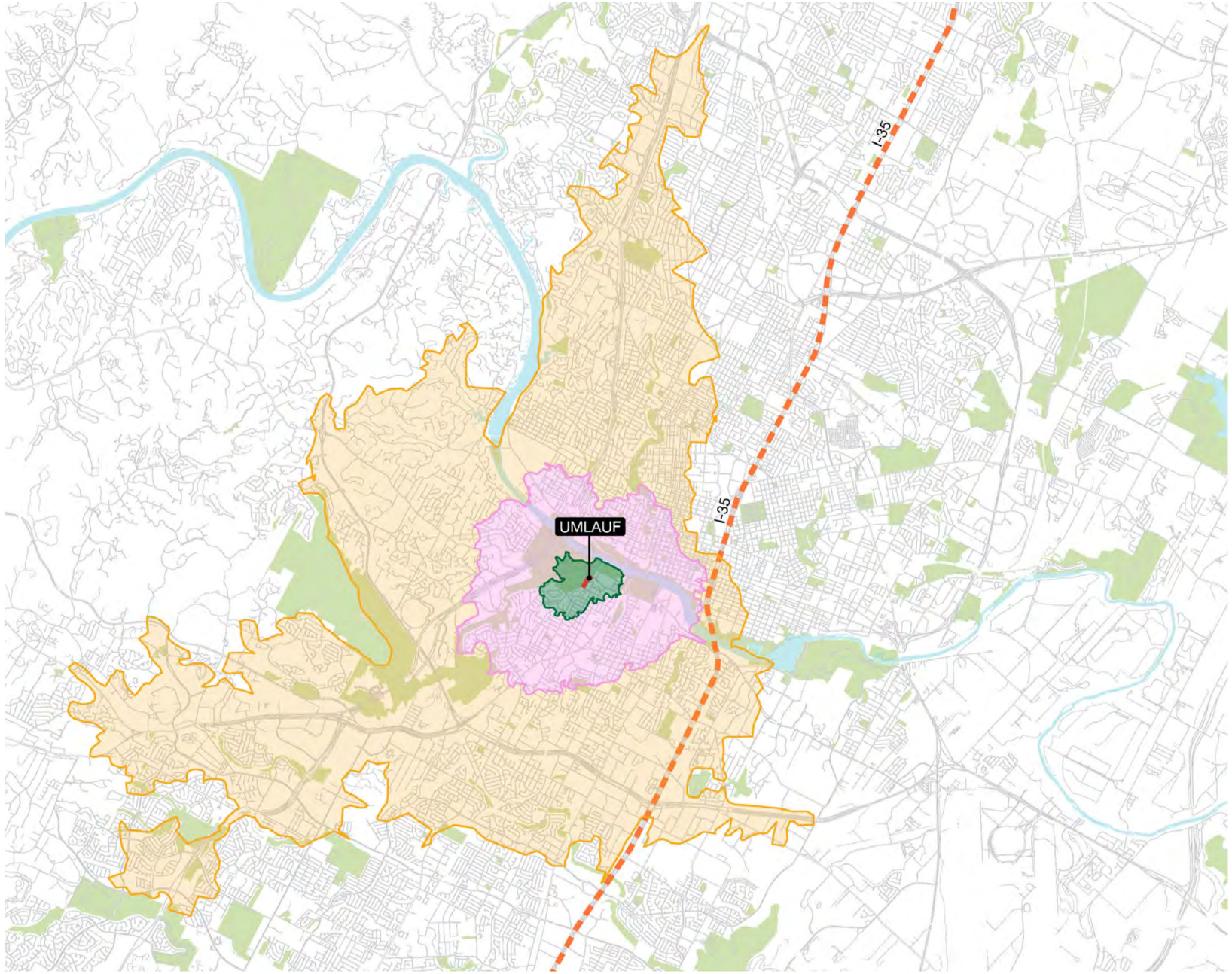
Main Zones

The UMLAUF's site currently comprises three zones: the garden + museum, the historic homestead, and the southern natural zone, both currently inaccessible to the public. The garden + museum zone, in yellow, currently accommodates all the UMLAUF programs, while the historic homestead area poses accessibility challenges, making it a restricted zone, for exclusive use of the UMLAUF's staff. The southern natural zone, currently not hosting any program or structures, is integral to the UMLAUF site. Unifying these areas is a primary plan goal, ensuring the site's maximum potential for public enjoyment while upholding the ecological richness and diversity of the whole site.



Mobility + Transit

The UMLAUF is in a unique location, situated within natural surroundings and in close proximity to significant cultural institutions. To support the expansion objective of the plan, a commute-time study was conducted, delineating 15-minute travel time zones by walking, biking, and driving. The analysis revealed a lack of connectivity towards the east side of the city, even for vehicular transportation. This finding suggests the necessity for the introduction of mobility initiatives aimed at broadening audience reach across various zip codes. Such measures would support the expansion objectives and promote equitable access to the UMLAUF grounds.



15-minute walk

15-minute bike

15-minute drive

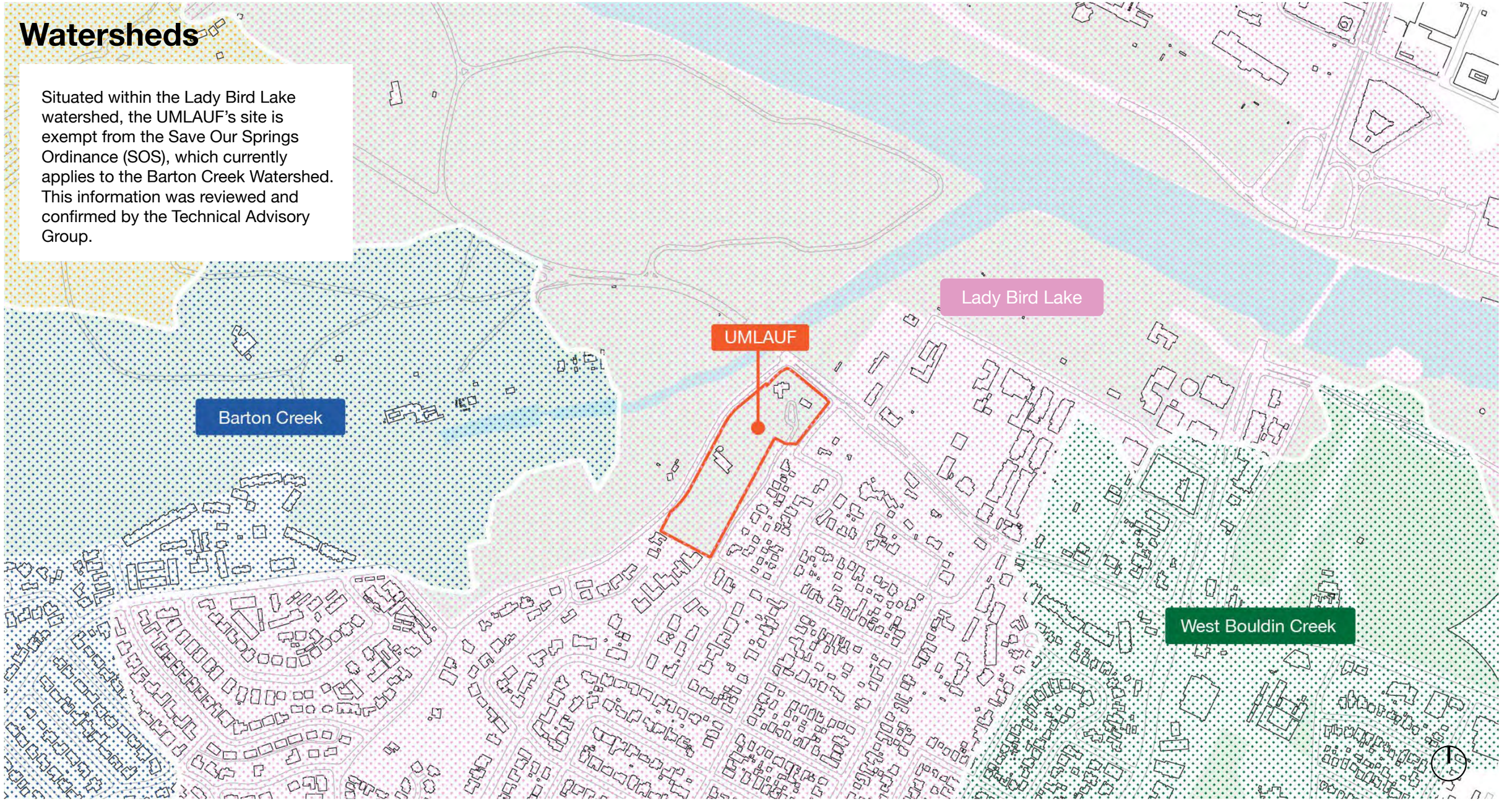
Cultural Assets

Situated south of Lady Bird Lake, the UMLAUF is integral to a network of relevant cultural institutions in Austin, contributing to the city's vibrant and diverse cultural landscape.

1. Zilker Botanical Garden
2. Zilker Hillside Theatre
3. UMLAUF Sculpture Garden + Museum
4. ZACH Theatre
5. Dougherty Arts Center
6. The Long Center for the Performing Arts

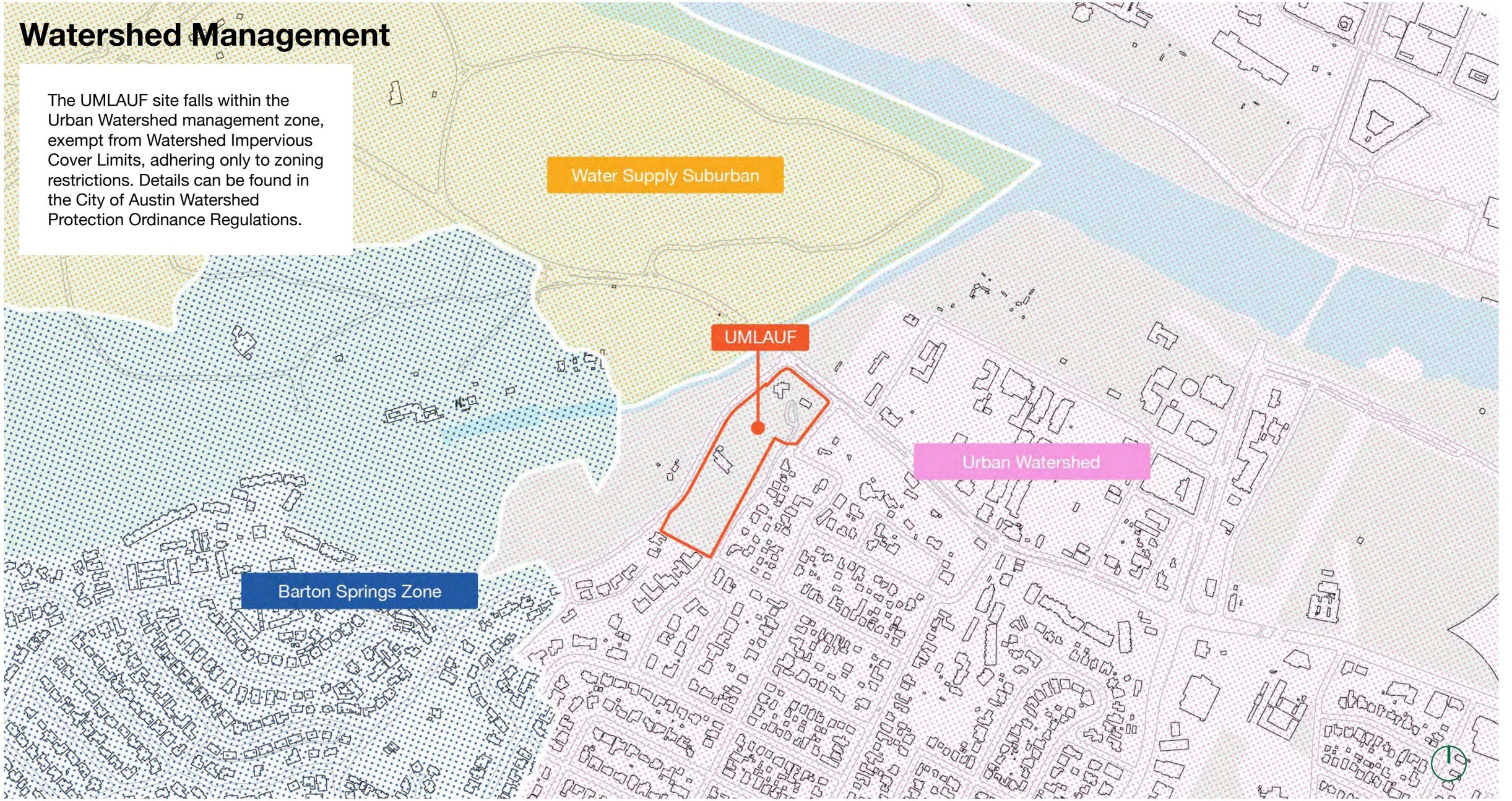
Watersheds

Situated within the Lady Bird Lake watershed, the UMLAUF's site is exempt from the Save Our Springs Ordinance (SOS), which currently applies to the Barton Creek Watershed. This information was reviewed and confirmed by the Technical Advisory Group.



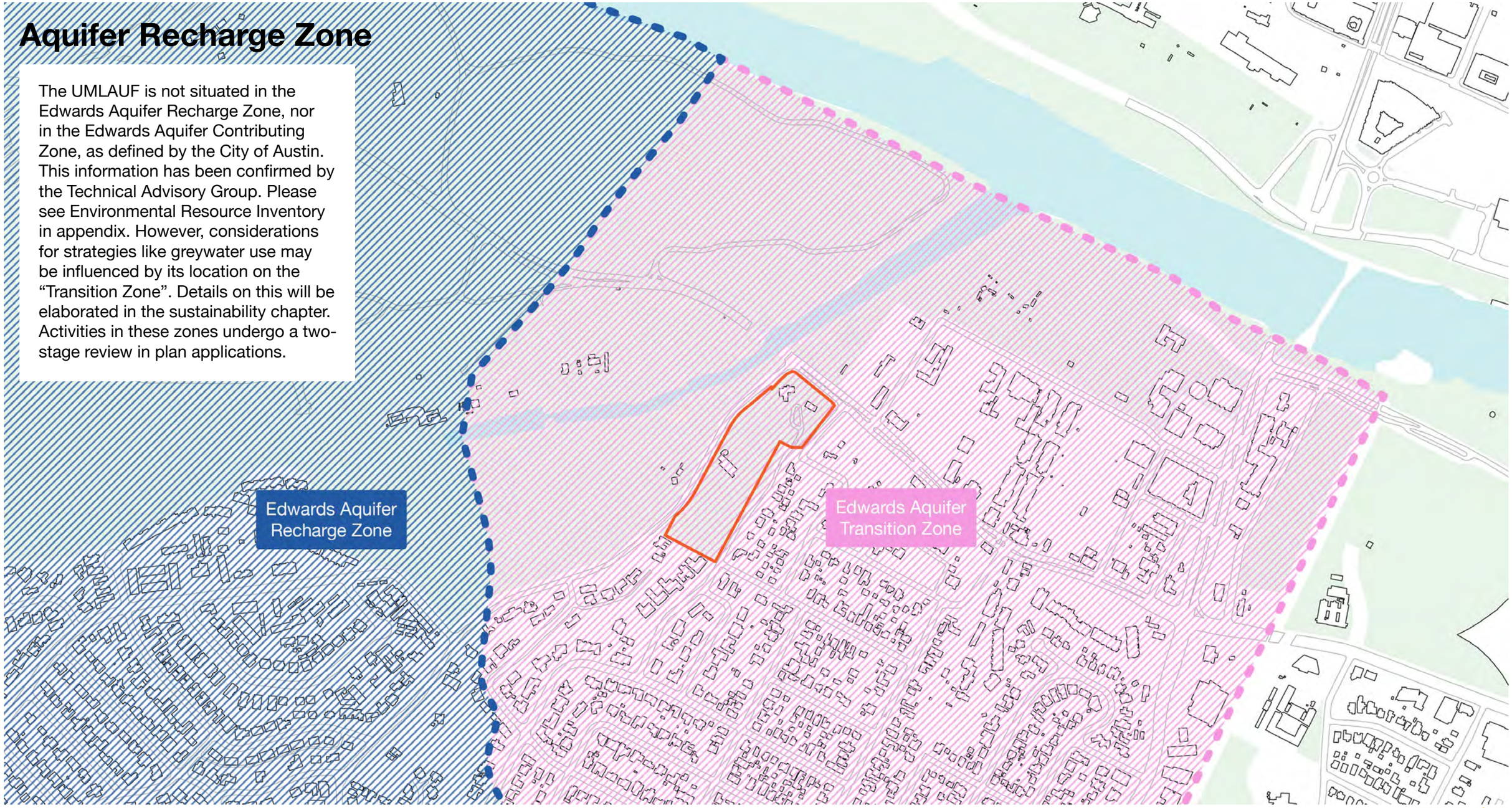
Watershed Management

The UMLAUF site falls within the Urban Watershed management zone, exempt from Watershed Impervious Cover Limits, adhering only to zoning restrictions. Details can be found in the City of Austin Watershed Protection Ordinance Regulations.



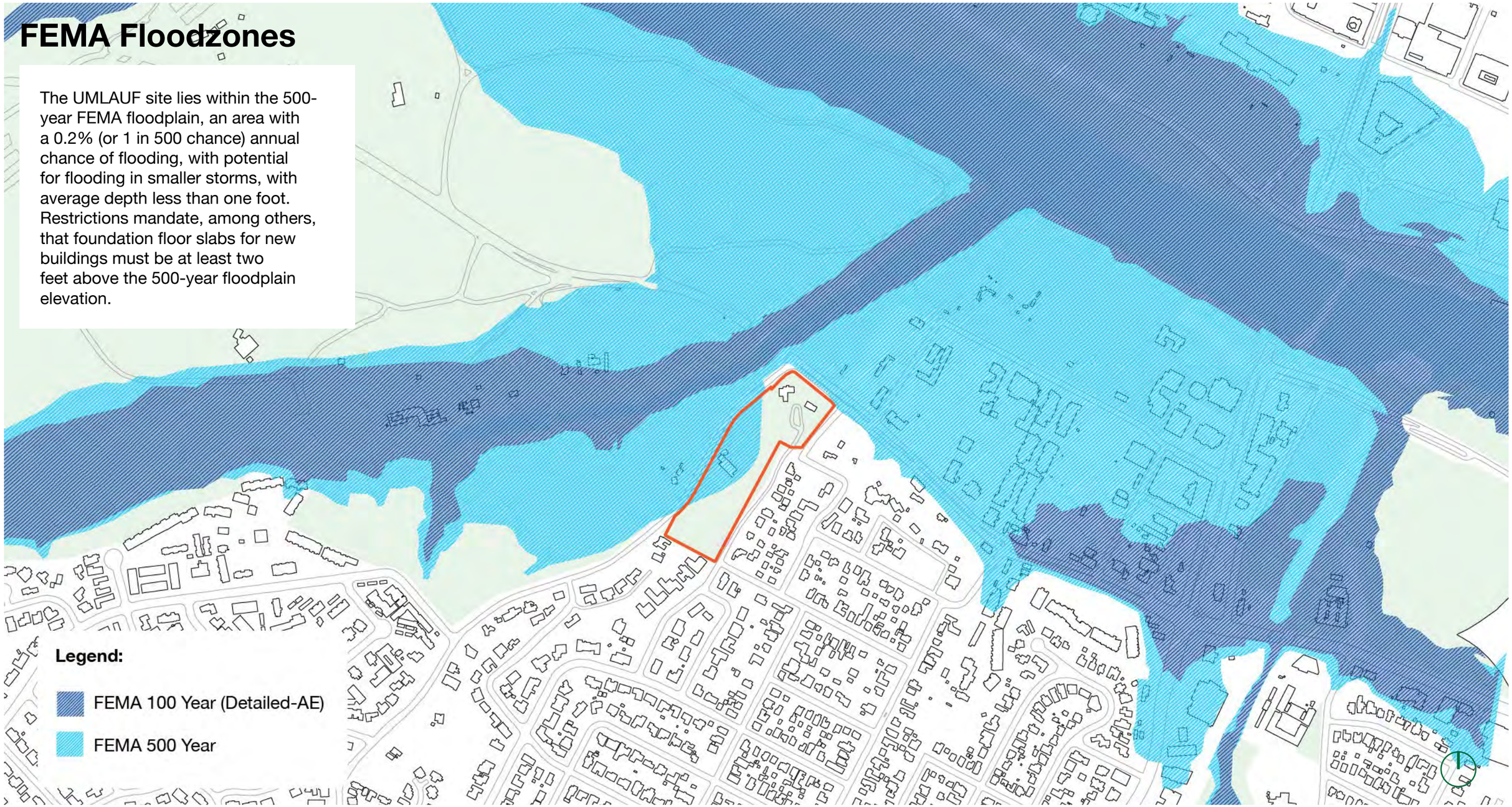
Aquifer Recharge Zone

The UMLAUF is not situated in the Edwards Aquifer Recharge Zone, nor in the Edwards Aquifer Contributing Zone, as defined by the City of Austin. This information has been confirmed by the Technical Advisory Group. Please see Environmental Resource Inventory in appendix. However, considerations for strategies like greywater use may be influenced by its location on the “Transition Zone”. Details on this will be elaborated in the sustainability chapter. Activities in these zones undergo a two-stage review in plan applications.



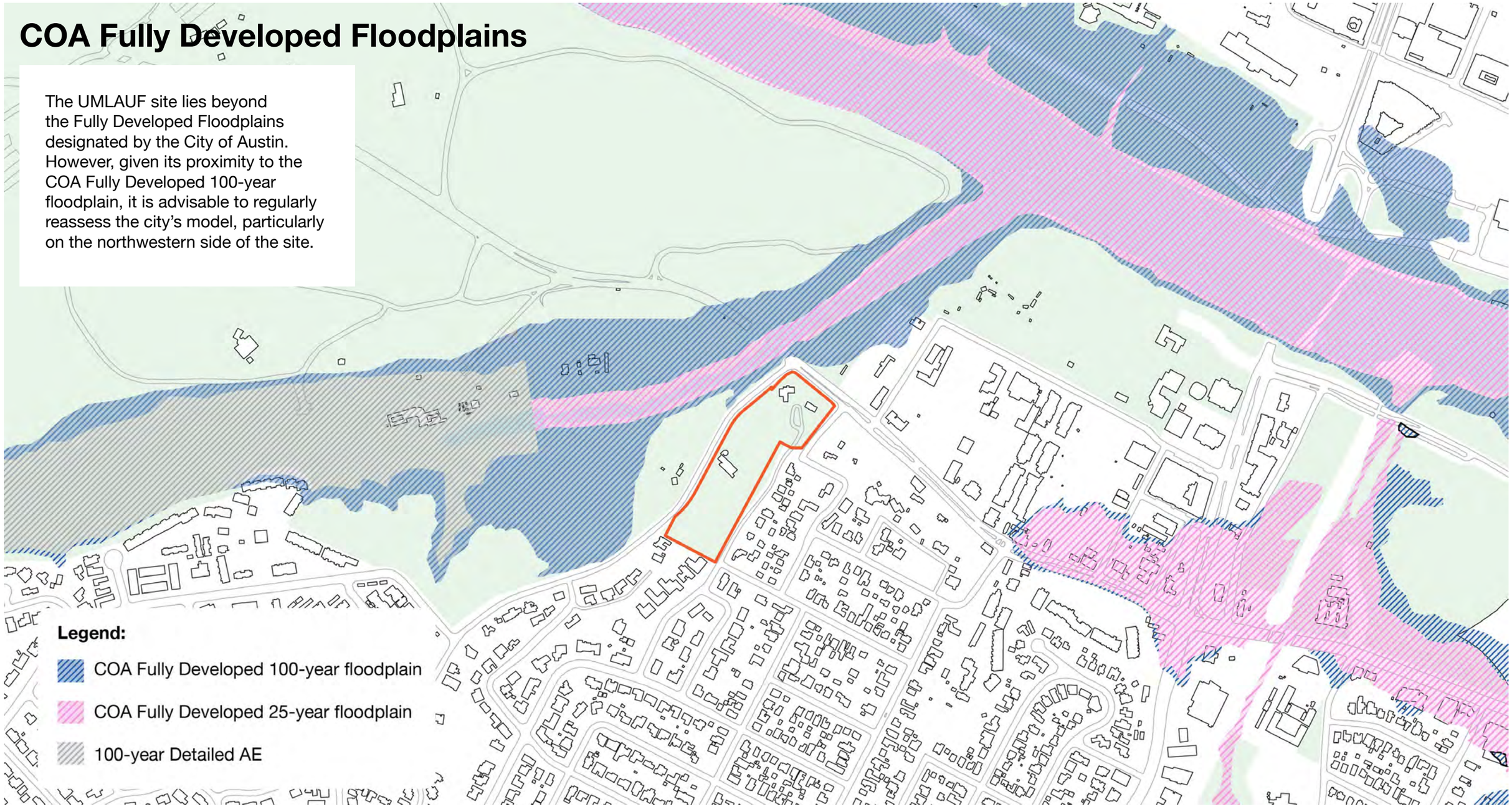
FEMA Floodzones

The UMLAUF site lies within the 500-year FEMA floodplain, an area with a 0.2% (or 1 in 500 chance) annual chance of flooding, with potential for flooding in smaller storms, with average depth less than one foot. Restrictions mandate, among others, that foundation floor slabs for new buildings must be at least two feet above the 500-year floodplain elevation.



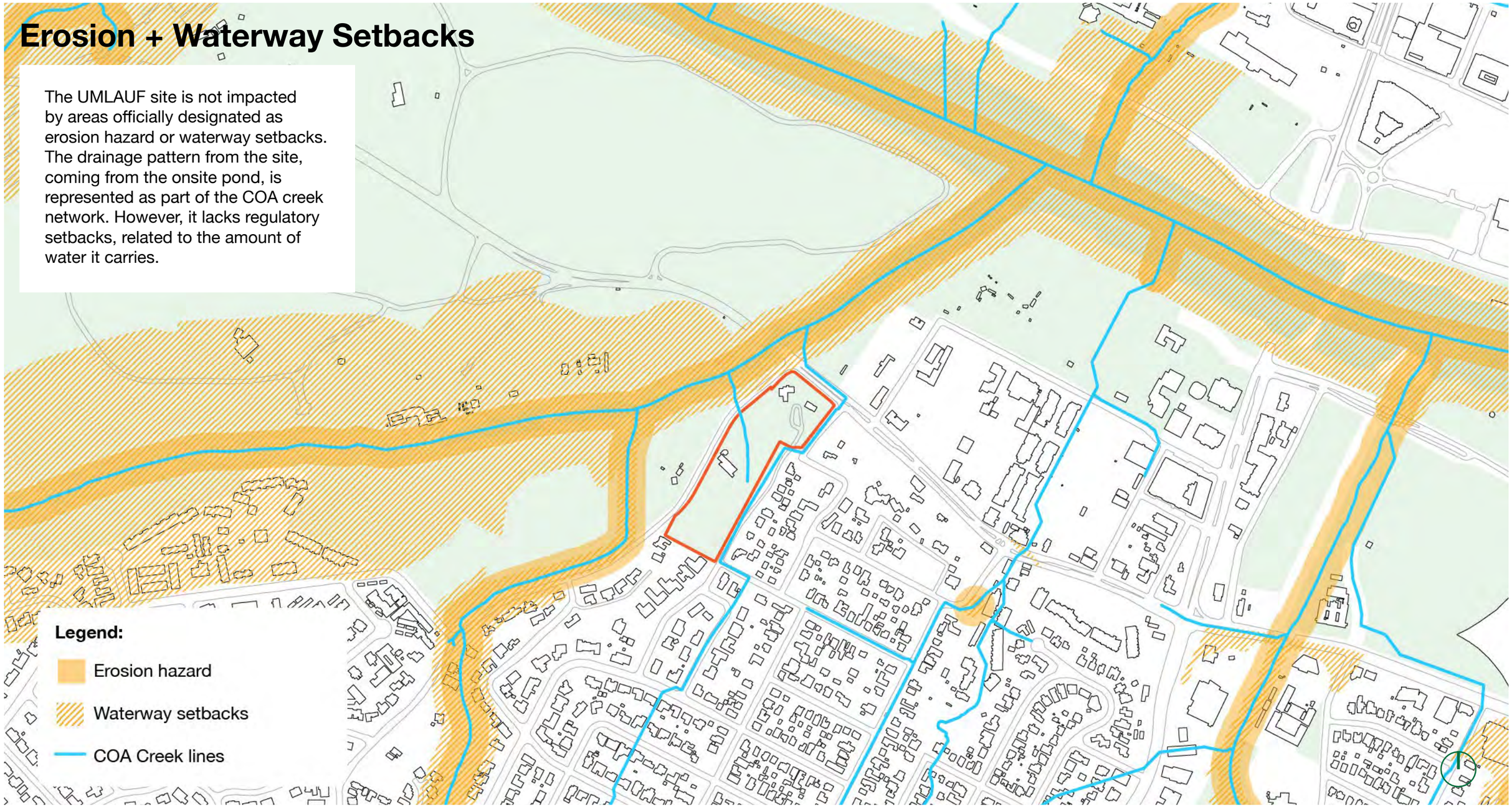
COA Fully Developed Floodplains

The UMLAUF site lies beyond the Fully Developed Floodplains designated by the City of Austin. However, given its proximity to the COA Fully Developed 100-year floodplain, it is advisable to regularly reassess the city's model, particularly on the northwestern side of the site.



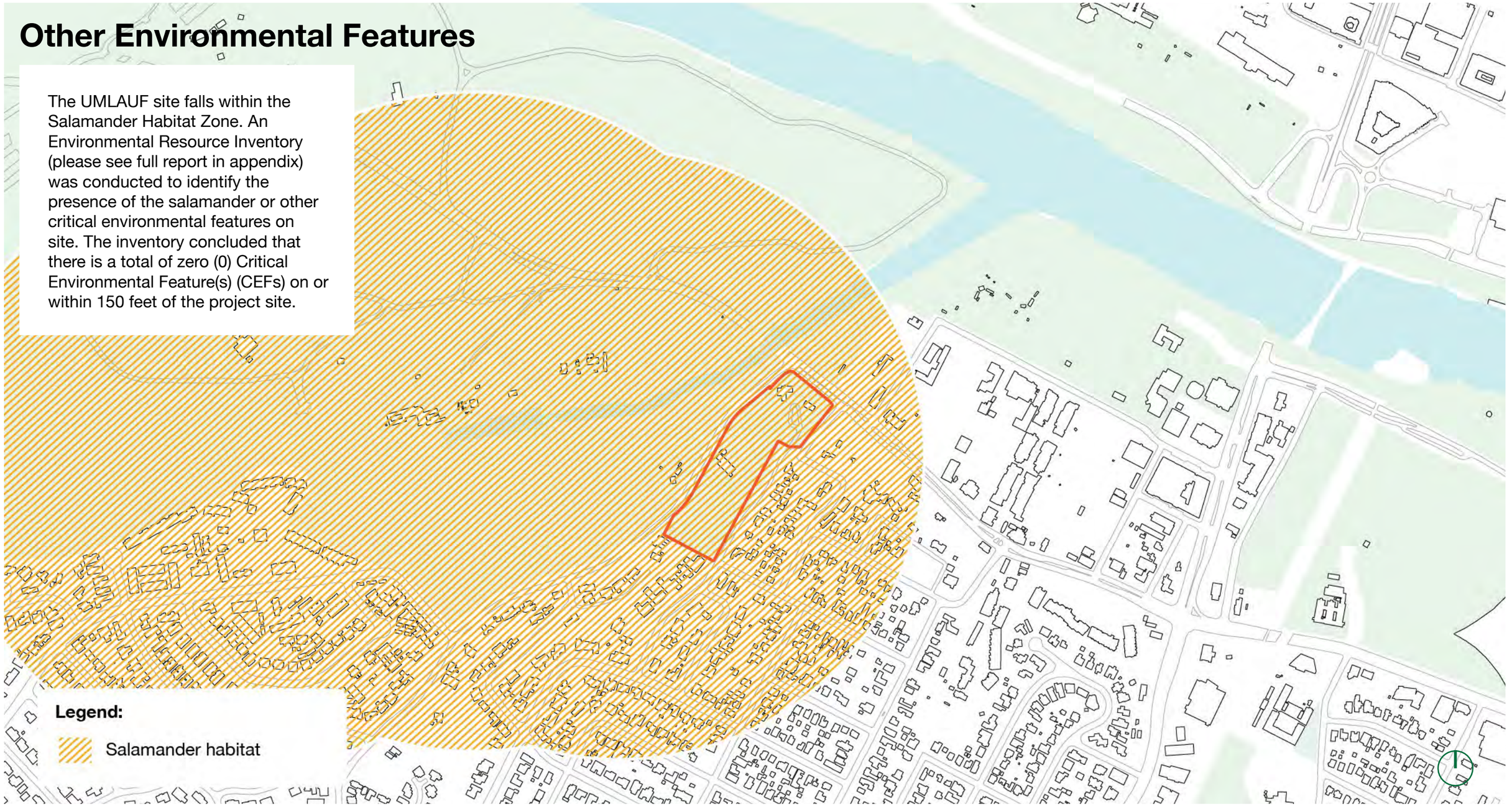
Erosion + Waterway Setbacks

The UMLAUF site is not impacted by areas officially designated as erosion hazard or waterway setbacks. The drainage pattern from the site, coming from the onsite pond, is represented as part of the COA creek network. However, it lacks regulatory setbacks, related to the amount of water it carries.



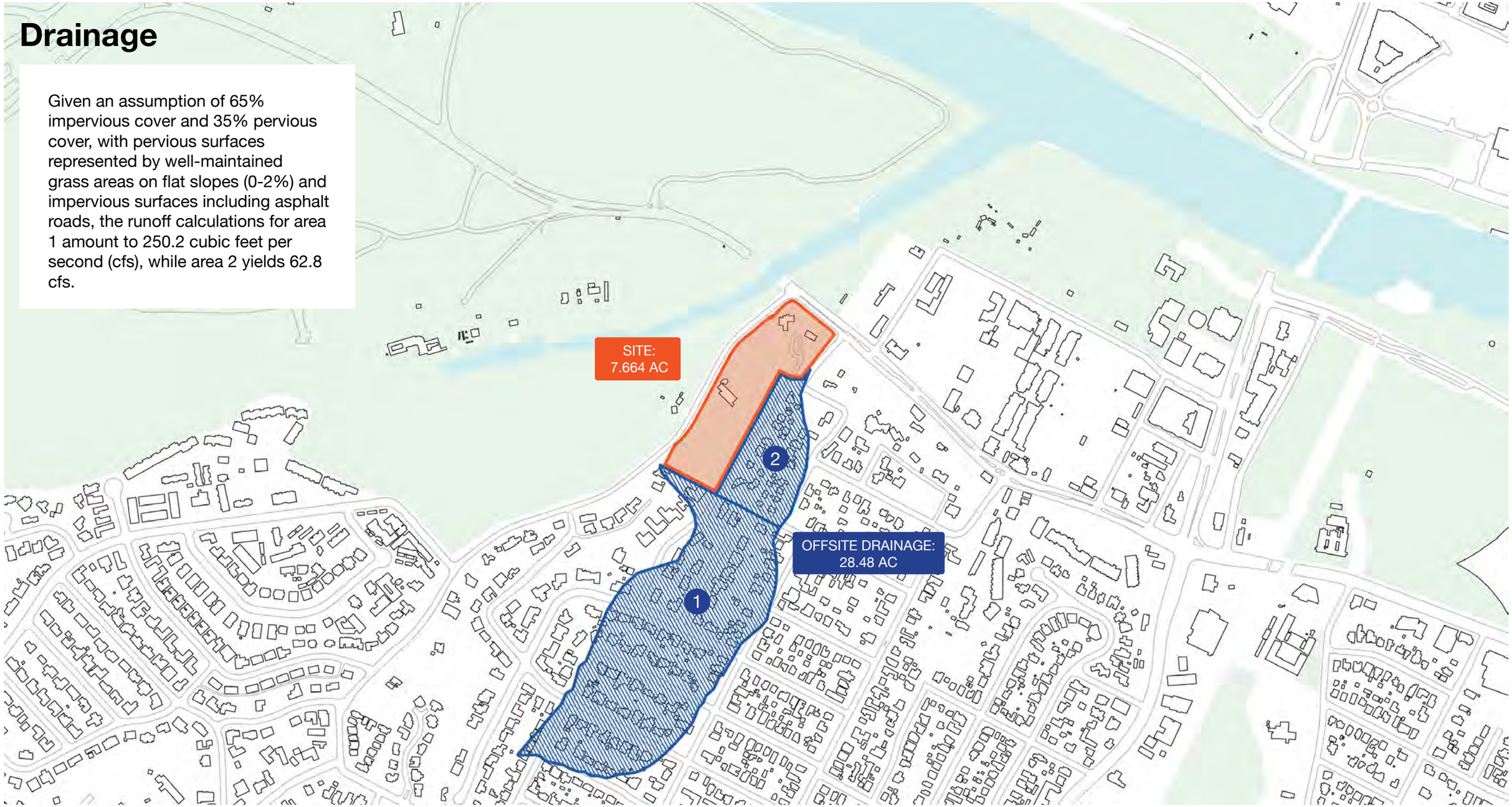
Other Environmental Features

The UMLAUF site falls within the Salamander Habitat Zone. An Environmental Resource Inventory (please see full report in appendix) was conducted to identify the presence of the salamander or other critical environmental features on site. The inventory concluded that there is a total of zero (0) Critical Environmental Feature(s) (CEFs) on or within 150 feet of the project site.



Drainage

Given an assumption of 65% impervious cover and 35% pervious cover, with pervious surfaces represented by well-maintained grass areas on flat slopes (0-2%) and impervious surfaces including asphalt roads, the runoff calculations for area 1 amount to 250.2 cubic feet per second (cfs), while area 2 yields 62.8 cfs.



Zoning

The UMLAUF site is comprised of two properties: Lot 1 (605 AZIE MORTON RD), and Lot 2 (506 BARTON BLVD). Lot 1 is zoned SF-3, while Lot 2 has a portion zoned as SF-3 and the area along Barton Springs Road zoned as CS. See descriptions below.

SF-3 Family Residence
The Family Residence district is intended for moderate density single-family residential use, with a minimum lot size of 5,750 square feet.

CS General Commercial Services
General Commercial Services district is primarily designated for commercial and industrial activities of a service nature, characterized by traffic service requirement that are typically incompatible with residential environments.

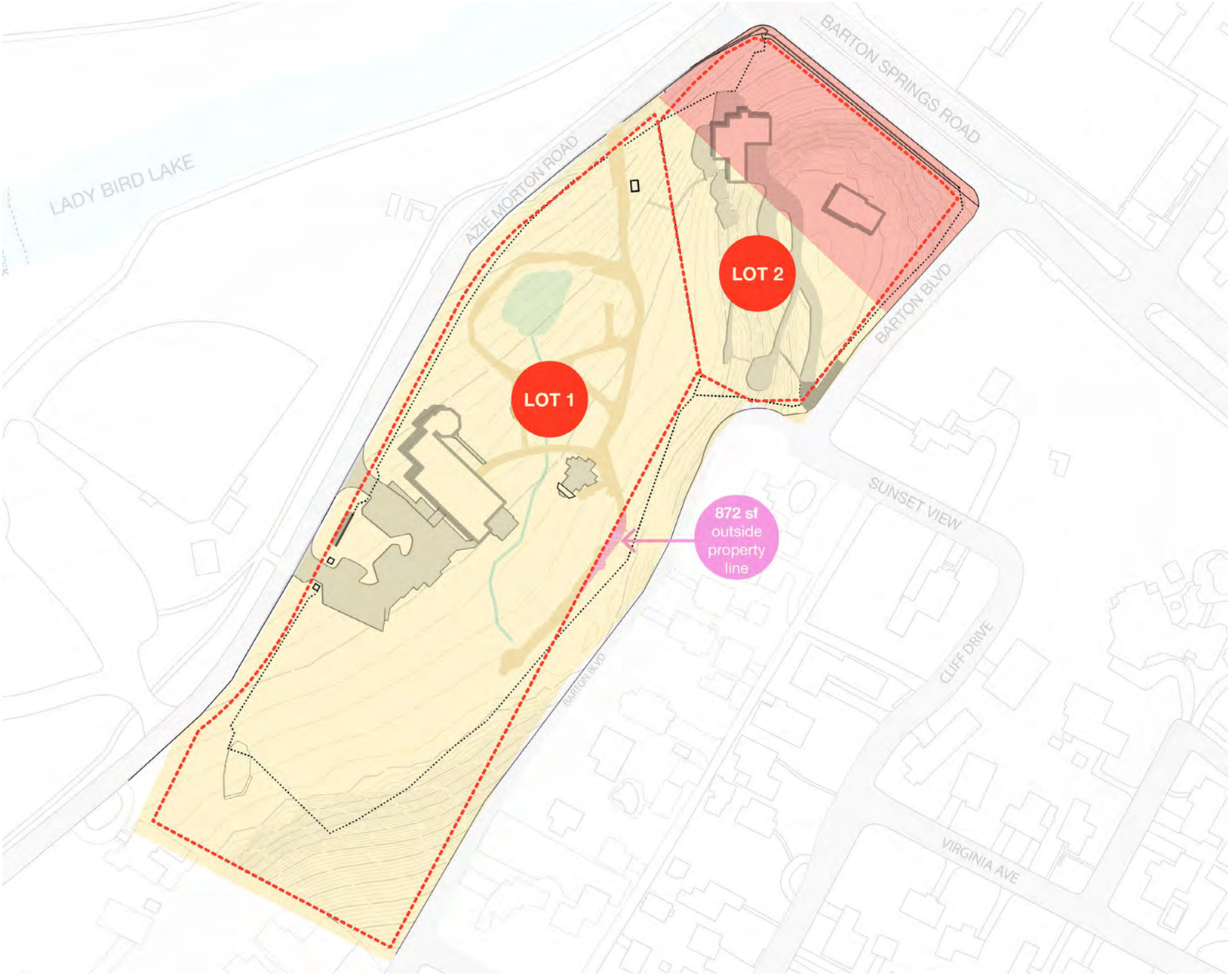
In both zones, community recreation and cultural services are permitted or conditional uses.

Impervious Cover

The UMLAUF site's lots are subject to impervious cover requirements dictated by their respective zones. Lot 1 currently exhibits 18% impervious cover, whereas Lot 2, encompassing the area of the historic homestead, boasts 21% impervious cover. Lot 1 has a maximum allowable coverage of 45%, while Lot 2's impervious cover allowance ranges from 45% to 95%, contingent upon the specific zone designation. Please refer to the detailed descriptions provided below for further clarification.

Lot 1 (5.437 ac)
Zone: SF-3
Maximum Impervious Cover allowed: 45%
Current Impervious Cover: 18%

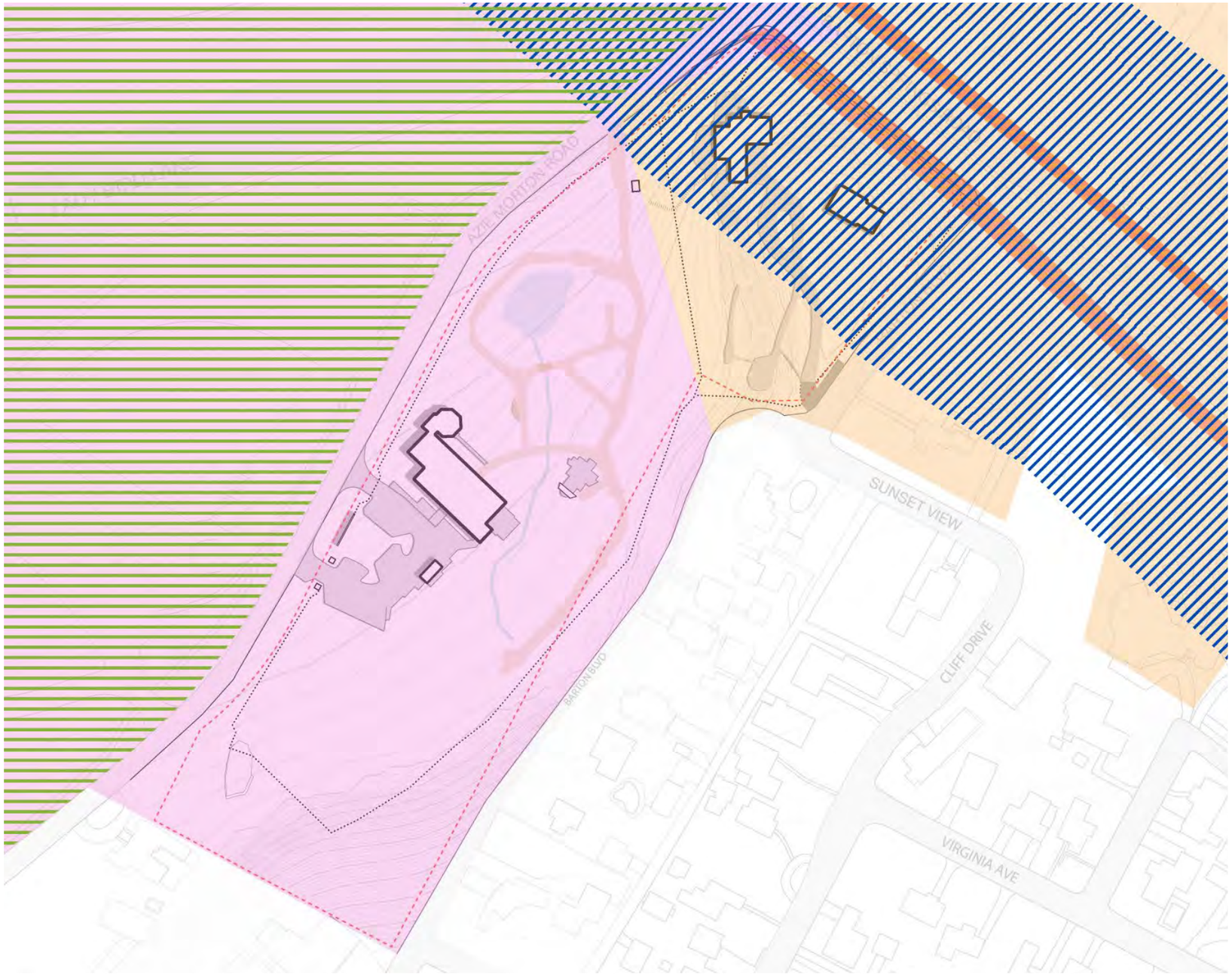
Lot 2 (1.928 ac)
Zone: SF3/C
Maximum Impervious Cover allowed in SF3 zone: 45%
Maximum Impervious Cover allowed in C zone: 95%
Current Impervious Cover: 21%



Overlays

The UMLAUF site is included in two waterfront overlays, which prohibits uses that are not related to the UMLAUF's program. The scenic Roadways Overlay suggests that, where possible, scenic vistas from the roadways should be preserved.

Residential Design Standards: LDC/25-2-Subchapter F
Scenic Roadways Overlay: BARTON SPRINGS ROAD
Waterfront Setbacks Overlay Waterfront Overlay: BUTLER SHORES, ZILKER PARK



- Scenic Roadways Overlay: Barton Springs Rd
- Wildland Urban Interface
- Waterfront Overlay: Zilker Park
- Waterfront Overlay: Butler Shores
- Required waterfront setback

Circulation

The UMLAUF's existing parking capacity is a modest 20 spaces with the entrance and exit on Azie Morton Road. Parking is supplemented by adjacent lots across the street for overflow. Currently, the site's access primarily favors vehicles, neglecting alternative mobility options. Additionally, two gated entries exist, with Azie Morton Road's entry serving heavy deliveries and trash pickup, while the Barton Blvd entry, closer to the home and studio, is used by staff. The limited parking infrastructure and distribution of entries underscore the need for a comprehensive approach to enhance accessibility, accommodate diverse transportation methods, and optimize operational functionality within the UMLAUF site.

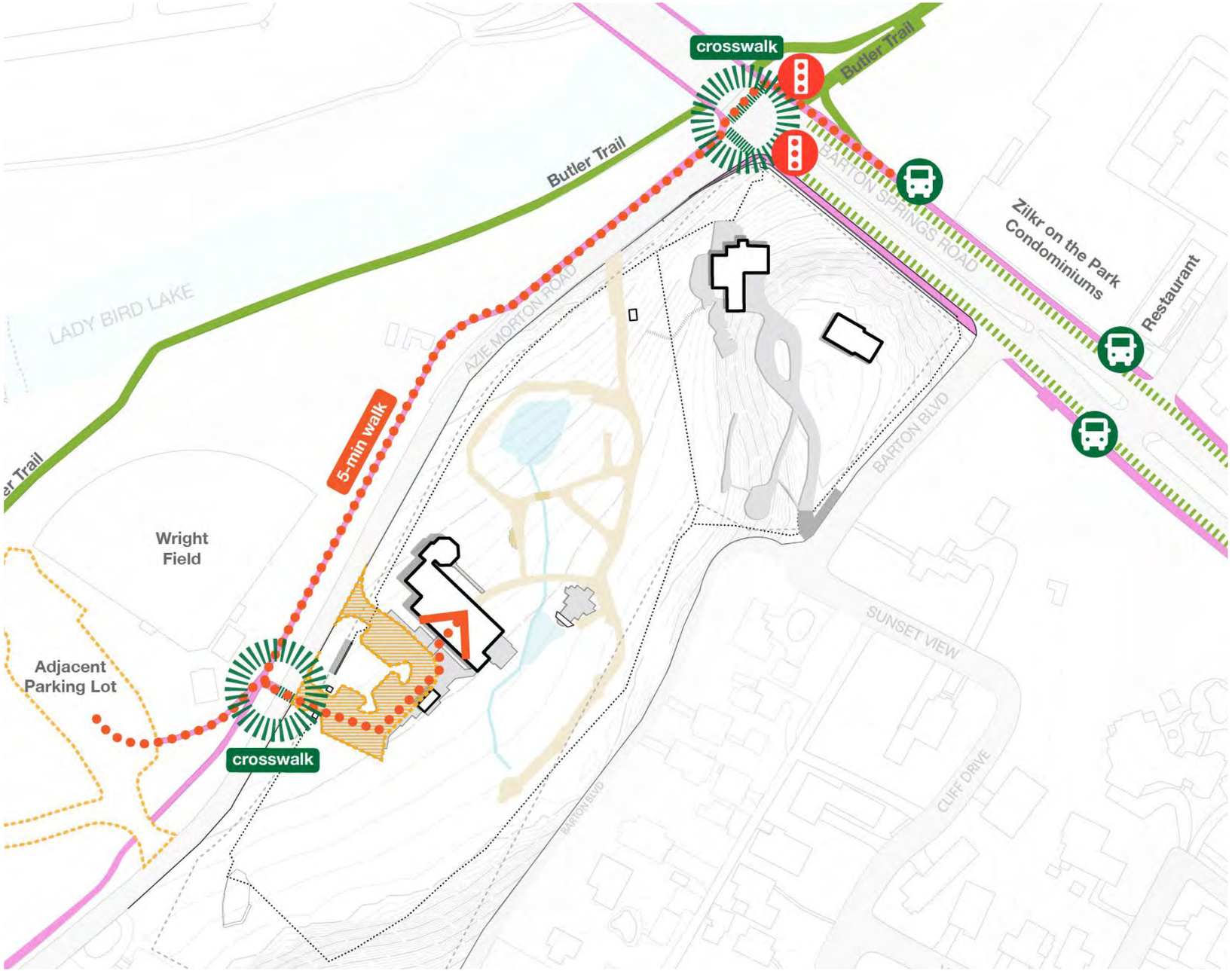
Vehicular access

Vehicular exit

Street direction

Site Access

The current UMLAUF access point prioritizes private vehicles, posing challenges for users arriving from adjacent parking lots, the bus stop, or the city network. When arriving by walking/wheeling, users must navigate around the parking lot to reach the museum, with the crosswalk connecting directly to vehicular access, compromising safety. Additionally, the ADA Accessibility Assessment found the ADA assigned parking and access to the gallery non-compliant, please see page 88 for more information. To foster a more welcoming experience, it is vital to improve the connection to the Ann and Roy Butler Hike-and-Bike Trail and relocate the crosswalk. Wayfinding strategies could enhance these connections, seamlessly integrating the UMLAUF site into the city's green network, promoting accessibility, safety, and a more inclusive and enjoyable experience for visitors from various modes of transportation.

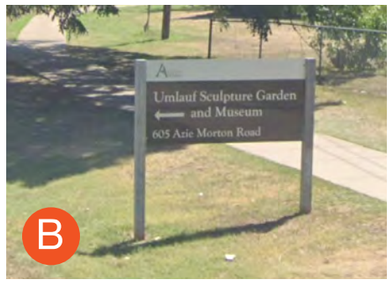


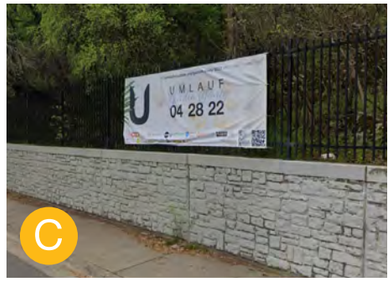
- Sidewalk
- Trail
- Unprotected bike lane
- Walking route
- Crosswalk
- Bus stop
- Traffic light

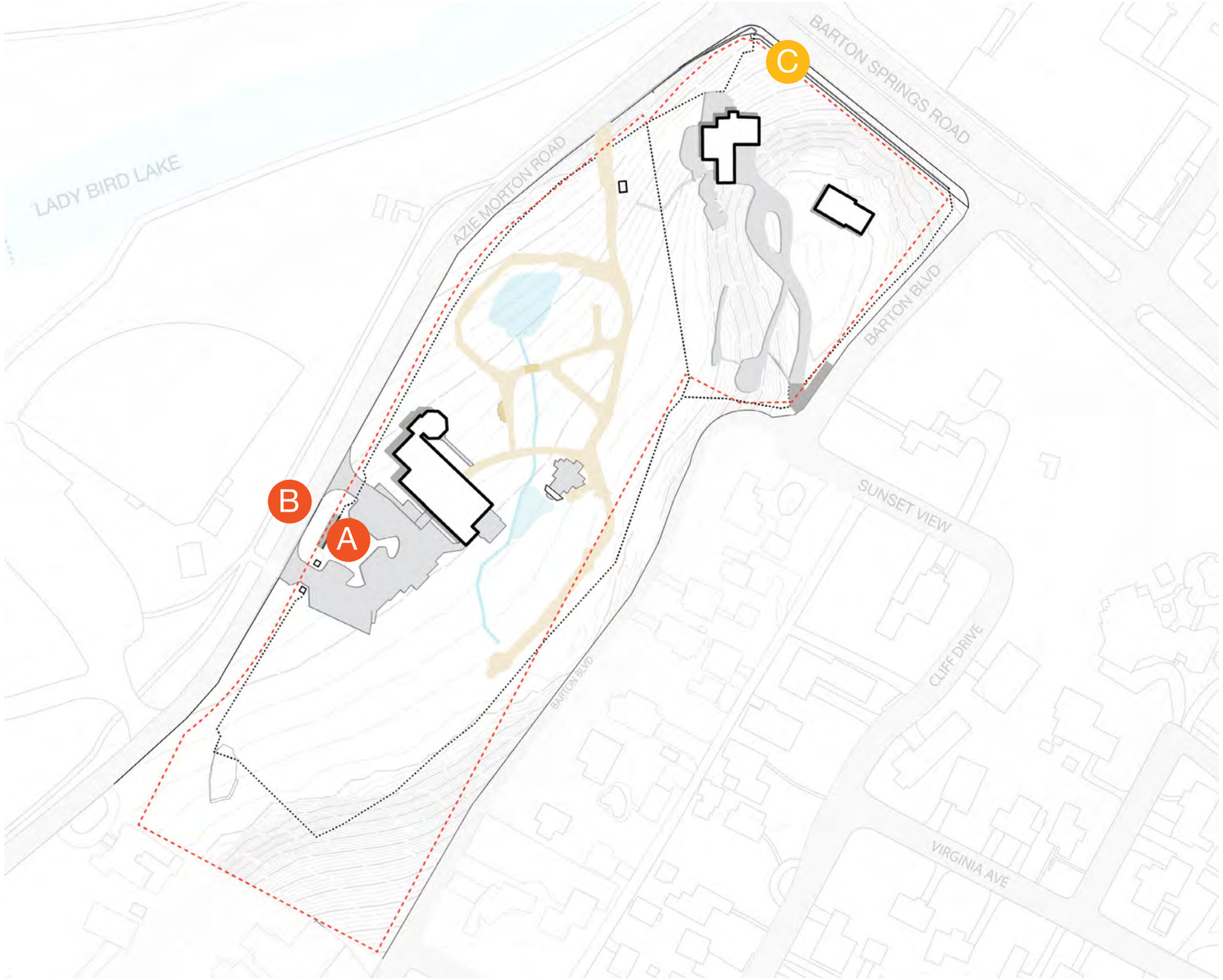
UMLAUF HPEU PLAN

UMLAUF Signage

Enhancements to signage around the UMLAUF could significantly elevate the welcoming experience and draw in more visitors. Currently, only two permanent signs are situated along Azie Morton Road, with one serving as the primary entrance and the other positioned across the road to guide drivers. Additionally, temporary canvas signs are placed along Barton Springs Blvd to announce forthcoming events and exhibitions. Expanding and refining the signage network could greatly enhance visibility and attract a broader audience to the UMLAUF. Please see the Edge Study on the following page.



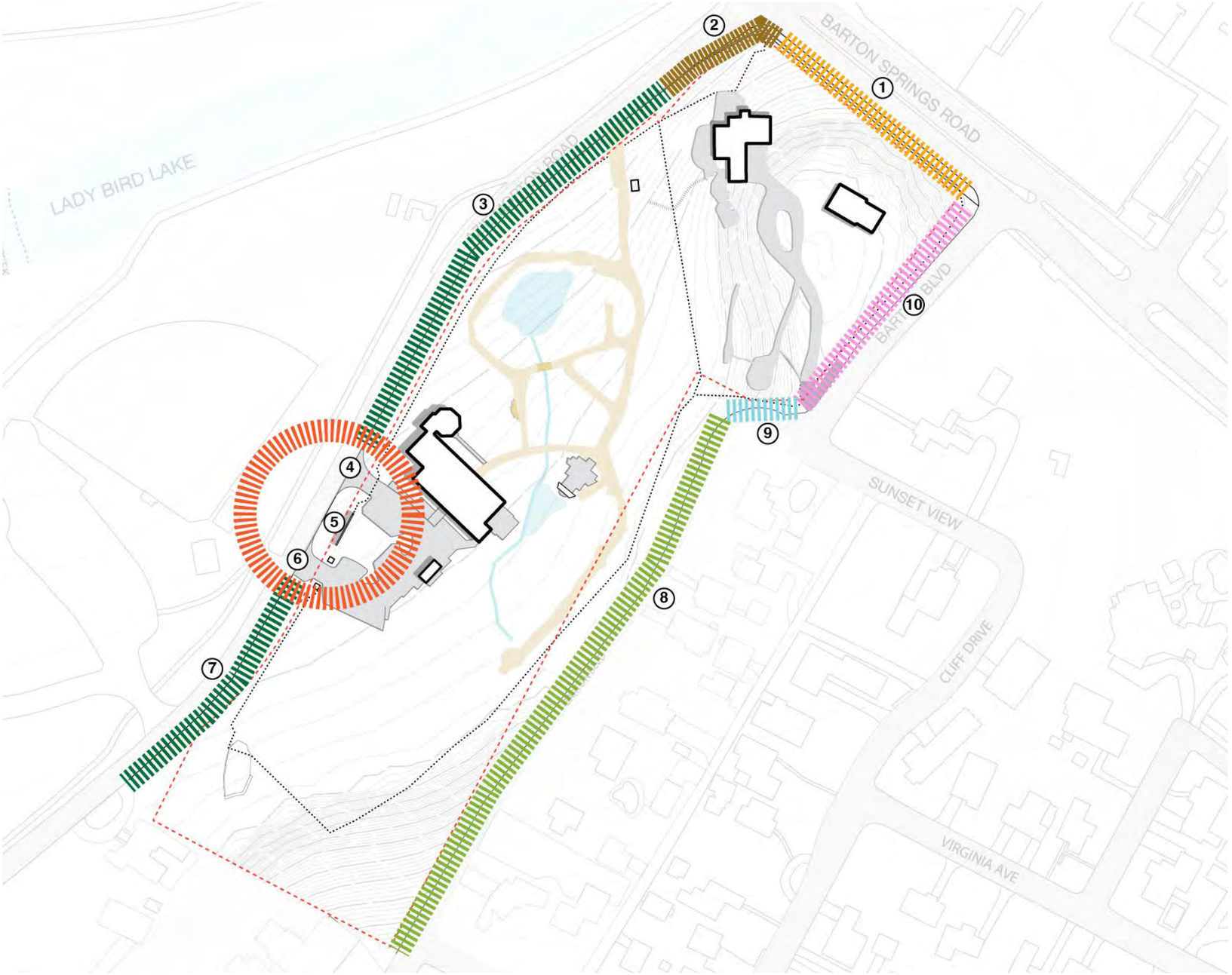




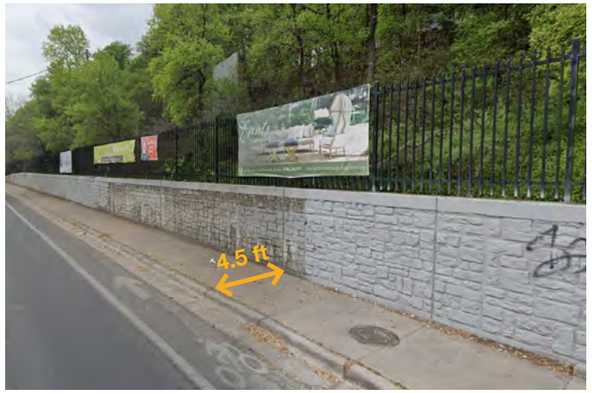
UMLAUF HPEU PLAN

Edge Study

Currently, the site edges disconnect the UMLAUF site from its surroundings. Enhancing the immediate context to the city and neighborhood is possible through thoughtful and effective edge treatments. Edge zone 2 is especially crucial, as it features a retaining wall that requires maintenance and a sidewalk that abruptly ends at the corner which presents navigational challenges. The following page includes images and concise descriptions of each of the eight identified edge conditions for further insight.



Edge Study



① Barton Springs Road

The Barton Springs Road side creates a monotonous pedestrian experience. Public feedback indicates a challenge in recognizing the museum behind the wall.

② Azie Morton Rd / Barton Springs Rd

The corner's retaining wall exhibits dangerous and neglected conditions. Another type of treatment could enhance the public's experience.

③ Azie Morton

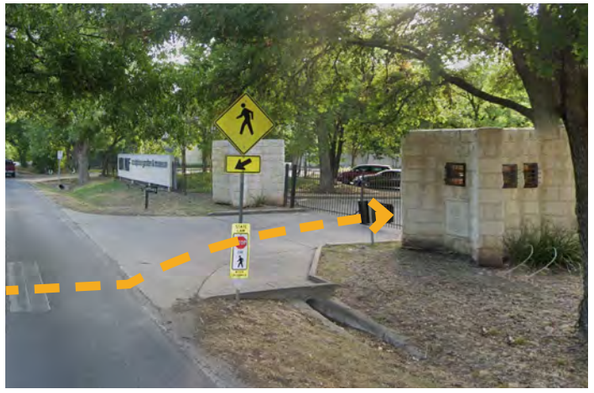
Along Azie Morton Rd, a fence defines the site, providing visibility into the garden but also exposing garden visitors to the road's noise and views.

④ Vehicular exit

The vehicular exit is currently used also by walking/ wheeling users.

⑤ Signage

The UMLAUF signage in Azie Morton Road marks the site's entry



⑥ Vehicular access

The vehicular access is connected to the crosswalk, it is also used by walking/wheeling users to access the site

⑦ Azie Morton Rd

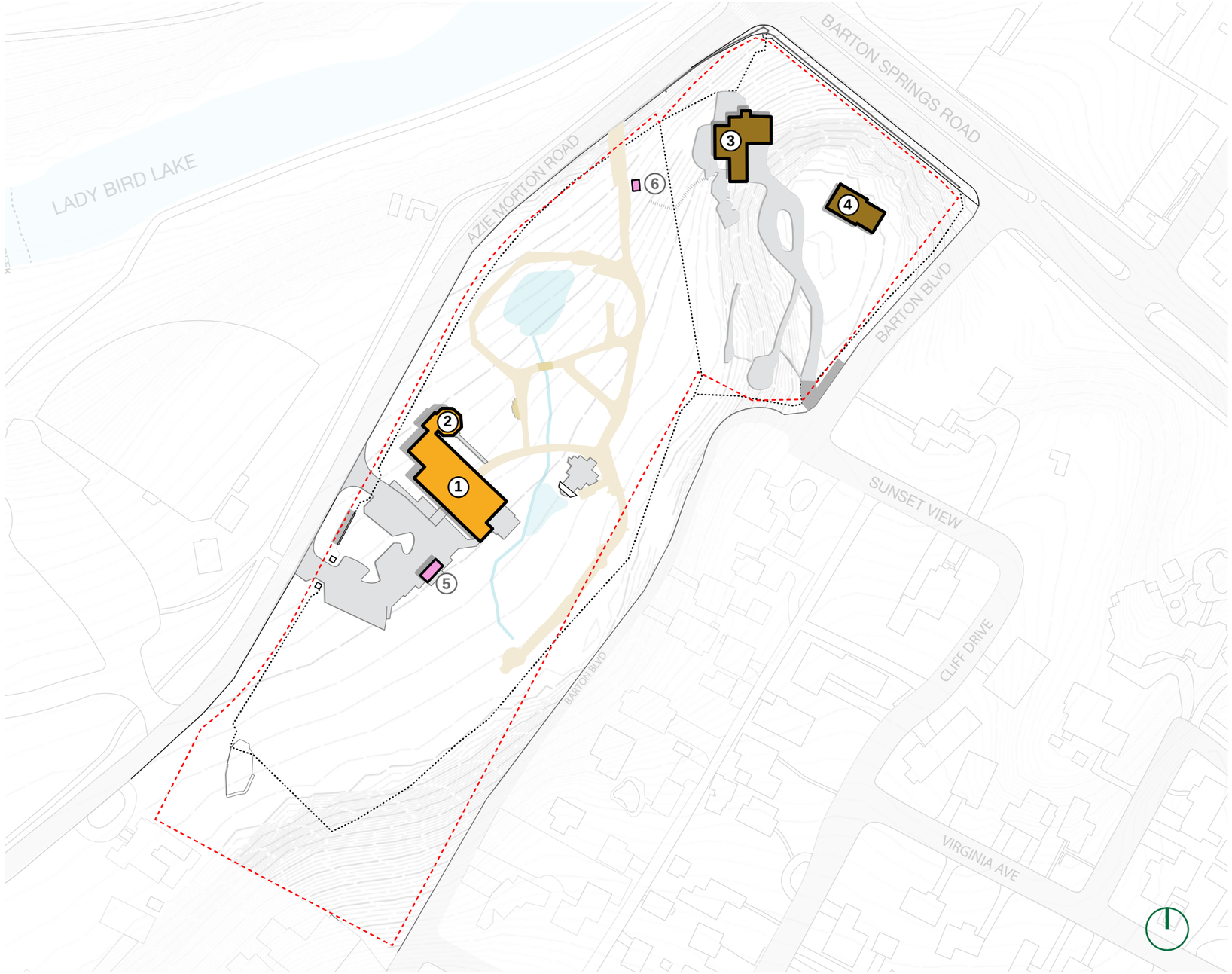
A more natural edge is seen on the southern part of the site along Azie Morton, where a fence covered by vegetation defines the site's limits.

⑧ Barton Blvd

There is no immediate fence or physical division along Barton Blvd, as the fence is located down the slope. This road is commonly used by the neighborhood as a promenade.

Existing Buildings

Currently, the UMLAUF's primary program spaces are the gallery, terrace, and Crenshaw building, complemented by the sculpture garden and Pitts Pavilion for outdoor events. The historic homestead is inaccessible to the public. Temporary structures fulfill programmatic needs, however, the home has been currently used as office space and storage due to space constraints. Other temporary structures are serving as offices, operational spaces, and storage. The plan acknowledges and integrates the architectural character of the gallery, Crenshaw, and historic homestead in its design guidelines, ensuring a cohesive and harmonious aesthetic that respects the legacy and uniqueness of each structure within the UMLAUF site.



① Museum Gallery + Terrace
② Roberta Crenshaw Building
③ Umlauf Home
④ Umlauf Studio
⑤ Art Pavilion (temporary structure)
⑥ Shed (temporary structure)

Existing Buildings

① Museum Gallery + Terrace

<u>Accessible to the public</u>

Year built: 1991

Current uses:
- Museum gallery
- Lobby + ticketing area
- Admin + operations
- Terrace for open events
- Restrooms
- Storage

② Roberta Crenshaw Building

<u>Accessible to the public</u>

Year built: 2001

Current uses:
- Meeting room
- Educational programs
- Private restroom

③ Umlauf Home

<u>Currently inaccessible to the public</u>

Year built: Late 1920's, purchased by the Umlauf's in 1944

Current uses:
- Admin + operations (in some rooms)
- Storage

④ Umlauf Studio

<u>Currently inaccessible to the public</u>

Year built: 1950

Current uses:
- Storage

⑤ Art Pavilion (temporary)

<u>Currently inaccessible to the public</u>

Year added: 2018

Current uses:
- Admin + operations

Outdoor Spaces + Landscape Features

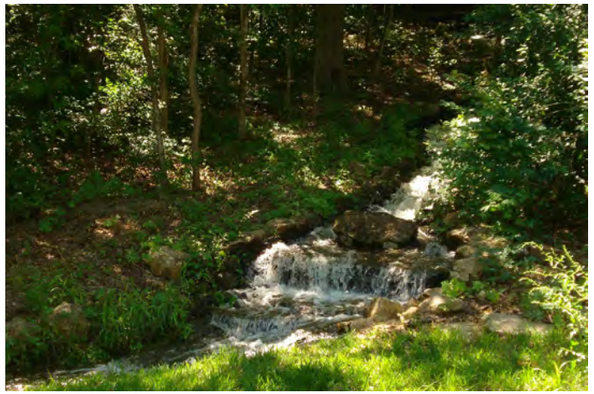
The community's feedback highlights a strong preference for the UMLAUF's outdoor spaces. These areas, including outdoor structures and landscape features, significantly enhance the exploration of the sculpture garden, supporting diverse programs like weddings, public events, and outdoor workshops. Each outdoor space possesses a distinct character that harmoniously blends with the site landscape and contributes to a unique and immersive experience. The site's water features —an ornamental pond (with pump and lined) and an ornamental waterfall— enhance the outdoor experience and provide thermal comfort in hot weather. However, these water features are currently supplied by potable water. The plan includes sustainability recommendations to switch the supply to non-potable water, aligning sustainability goals with the community's desire for a nature-centric setting within the UMLAUF site. See more in the Sustainability + Reslience chapter.

1. Gallery terrace
2. Waterfall/channel (ornamental)
3. Promenade
4. Upper pond (ornamental)
5. Pitts Pavilion
6. Upper Bridge
7. Lower Bridge
8. Pond (ornamental)

UMLAUF HPEU PLAN

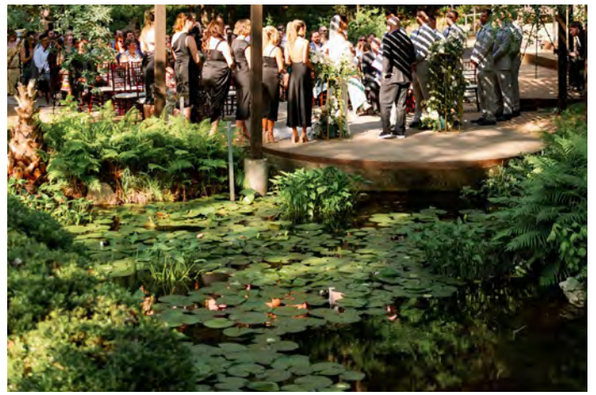
Outdoor Spaces + Landscape Features

① Gallery Terrace



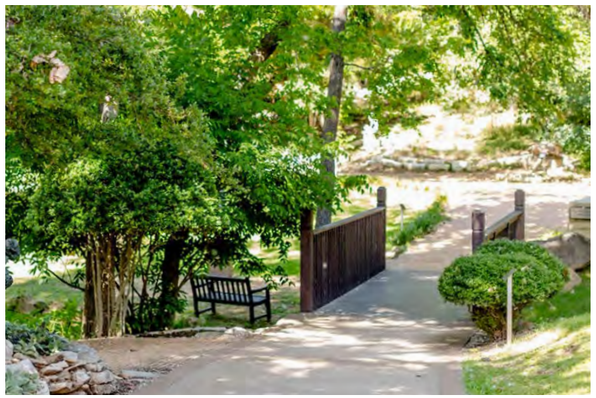
② Waterfall (ornamental)

③ Promenade



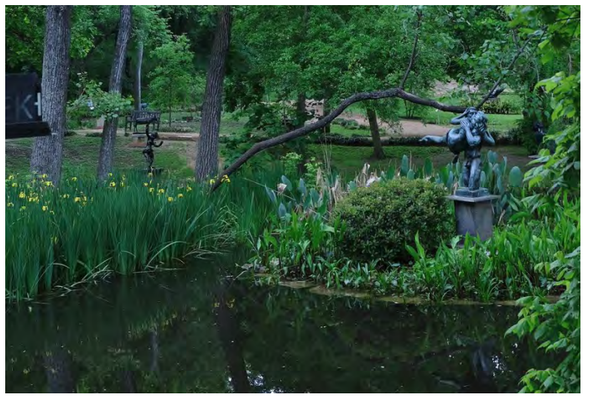
④ Upper Pond (ornamental)

⑤ Pitts Pavilion



⑥ Upper Bridge

⑦ Lower Bridge



⑧ Pond (ornamental)

Slope Analysis

The UMLAUF site grapples with challenging topography, featuring slopes ranging from 15 to 60% and smaller areas exceeding 60%. Highly sloped zones, primarily along the boundaries and the historic site near Barton Blvd, pose significant intervention challenges. An extensive orange zone (15 to 60%) creates accessibility hurdles, dividing the historic area from the sculpture garden. This challenges linking the garden with the home and studio. To ensure full accessibility, an accessibility assessment will guide proposed interventions in the plan, guaranteeing compliance and fostering a site design that accommodates diverse mobility needs across the site.

15-60% slope

60% slope or higher

UMLAUF HPEU PLAN

Trees

Over 1,500 trees populate the UMLAUF site, including 17 heritage trees and 25 protected trees. Protected trees, with a diameter exceeding 19 inches, and heritage trees, with a diameter surpassing 24 inches, will be safeguarded and considered in the plan's interventions. Please refer to the landscape chapter for a comprehensive overview of additional strategies aimed at preserving and enhancing the rich natural diversity within the UMLAUF site.

Protected tree (diameter > 19")

Heritage tree (diameter > 24")

Other trees

UMLAUF HPEU PLAN

Accessibility + ADA Compliance

Providing an equitable experience for mobility and visually impaired patrons is important to the UMLAUF and its mission to serve the public. The site has a number of barriers to accessibility. The map shows currently non-compliant routes, including the designated accessible parking, and currently non-compliant spaces, such as the bathrooms, water fountain, kitchen, information counter, Umlauf's home, and the lack of connection to the studio.

A compliant bathroom is currently situated between the museum gallery and the Crenshaw Building, accessible via the gallery. However, accessing the bathroom during events, when the museum is closed, involves a non-compliant pathway. For more detail, please refer to the full ADA Accessibility Assessment, included in the appendix.

These are priority issues to address in future improvements on the site. The approach to the site along the public right of way will need to be improved to provide an accessible route to the site. The accessible parking will need to be brought up to current Texas Architectural Barriers Standards. The museum toilet rooms will require extensive modifications to provide accessible clearances. The garden pathways do not meet slope and cross-slope limitations and will need to be brought up to state code. The proposed new facility will provide access to the upper portion of the site via elevator, providing a navigable route up the 45' tall escarpment and the home and studio.

Current non-compliant routes

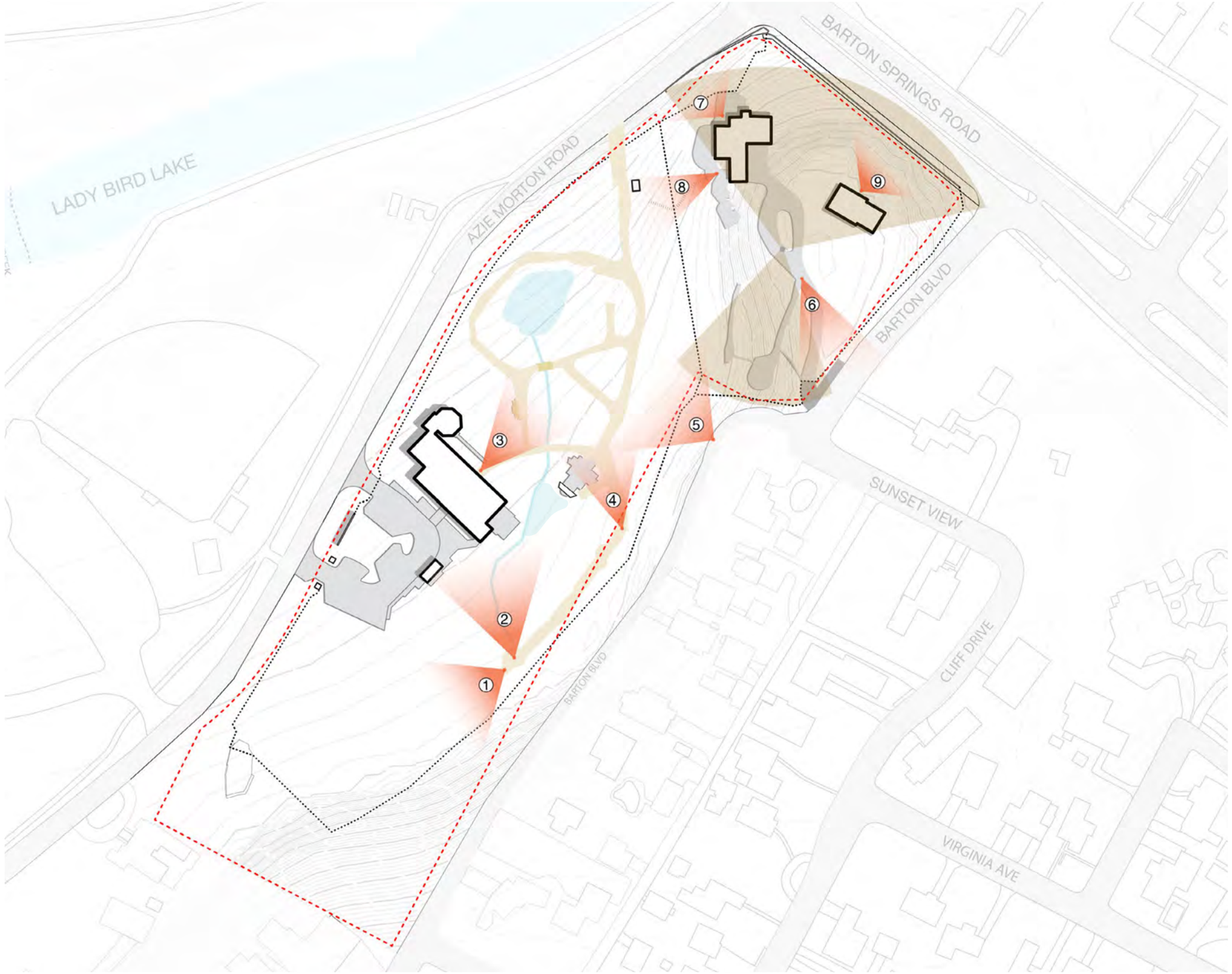
Current non-compliant spaces

Current compliant bathroom

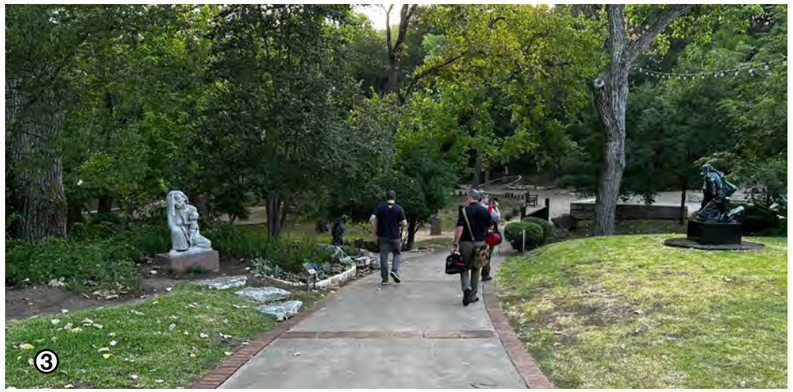
UMLAUF HPEU PLAN

Views

The UMLAUF site's diverse topography offers striking viewpoints, particularly from elevated areas, providing captivating vistas of the city or serene natural landscapes. Designated in brown, crucial view areas must be preserved without prominent interruptions to fully appreciate the historic district and ensure an uninterrupted visual experience across the historic homestead.



Views



Site Constraints

The map illustrates an overlay of site constraints, highlighting the intricate nature of the site. Incorporating factors such as protected and heritage trees, sloped terrain, and FEMA flood zones, it becomes evident that the design must be responsive to these elements.

- **FEMA 100 Year (Detailed-AE)**
- **FEMA 500 Year**
- **15-60% slope**
- **60% slope or higher**
- **Protected tree (diameter > 19”)**
- **Heritage tree (diameter > 24”)**

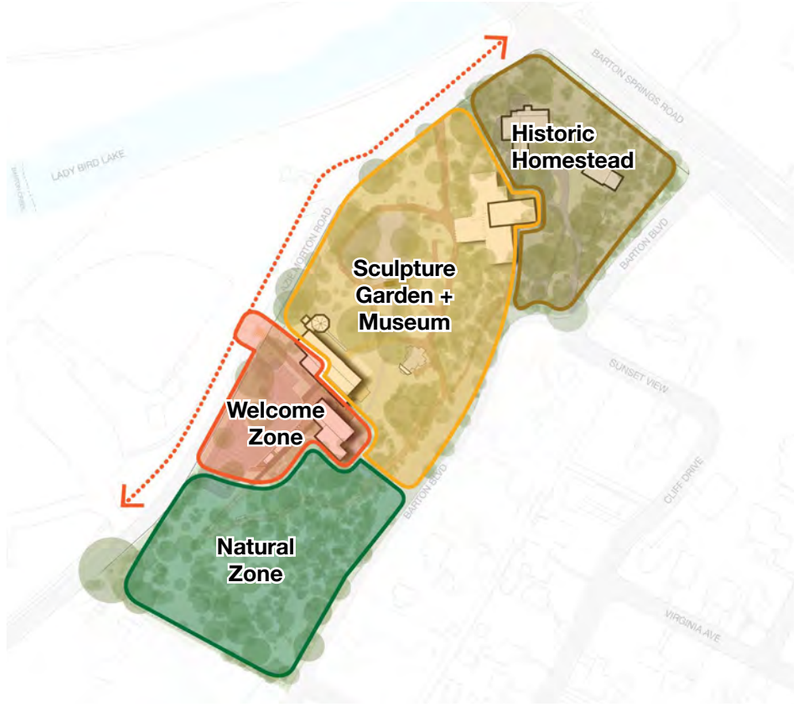
05

HPEU Plan

Vision
Illustrative Plan
Proposed Circulation
Program
Proposed Areas
Historic Preservation
Landscape Strategies

Site Concept

The UMLAUF HPEU Plan strategically links the four main site areas through two key interventions, ensuring adequate programming and enhancing accessibility. The activation of the site's edges creates a more welcoming arrival and overall experience around the site.



Zones

The welcome zone is introduced as the fourth main area, each zone possesses distinct characteristics and functions, seamlessly blending into one another for a cohesive and harmonious integration.

Connectors

The gateway and treehouse serve as connectors, enhancing accessibility and linking previously inaccessible areas. Simultaneously, they accommodate essential museum operations and offer expanded spaces for events, education, and exhibitions.

Active Edges

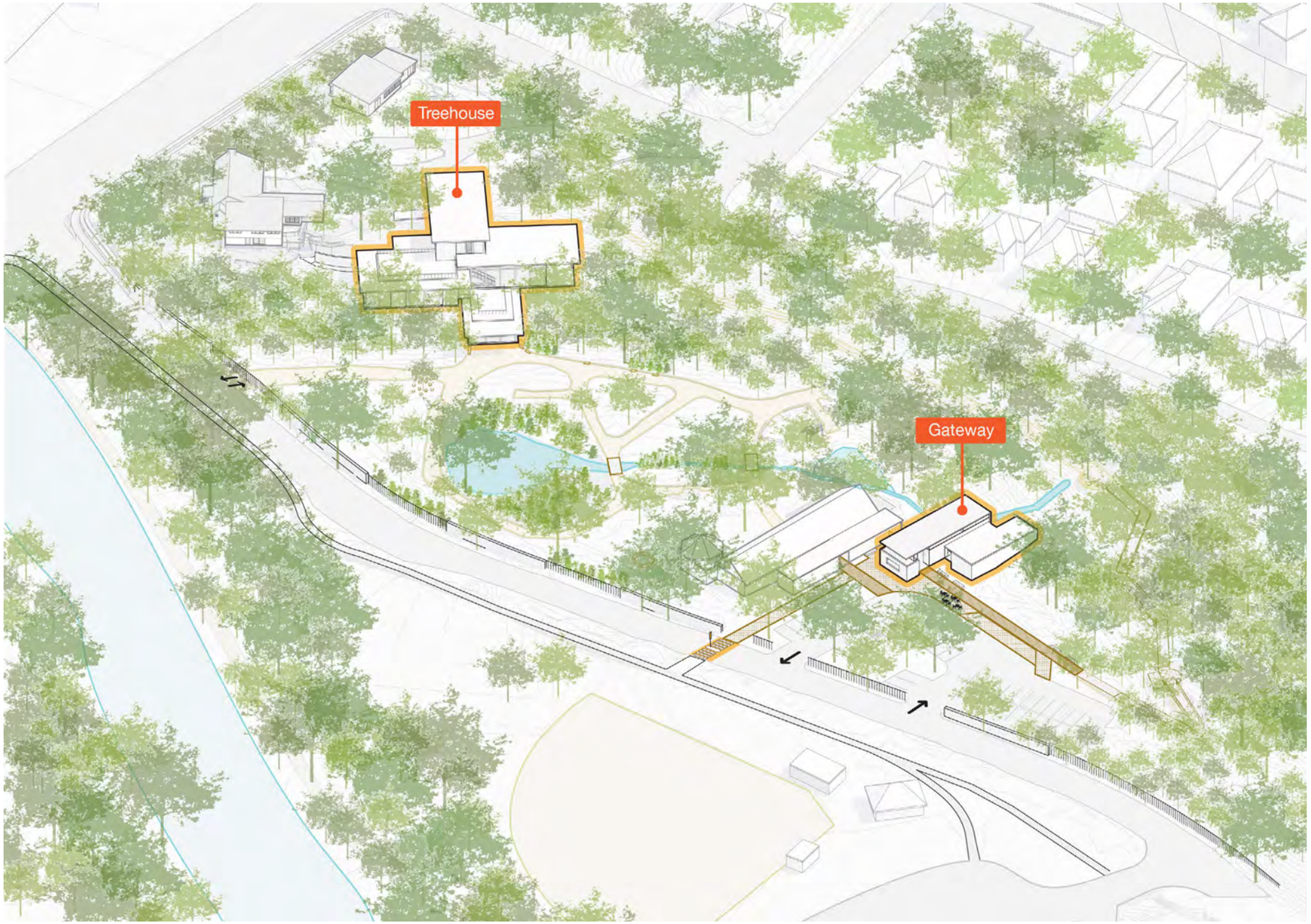
Strategic interventions along the site edges foster openness to the community, crafting friendlier and subtler boundaries with improved visual connections and an enhanced entry experience.

Illustrative Plan

The UMLAUF HPEU Plan carefully connects the currently inaccessible areas of the site with the museum and sculpture garden, prioritizing the user experience and improving the connection with the site from the moment of arrival. The plan aims for a seamless and accessible site-wide experience, offering both indoor and outdoor spaces for a range of programming. The plan suggest interventions that could accommodate large gatherings, workshops, art classes, and expanded exhibition opportunities, to offer programs to a wider and more diverse audience. Respecting existing structures and ecosystems, new buildings aim to coexist with the site, ensuring a harmonious integration while maintaining the UMLAUF's unique legacy and sense of exploration.

New Connectors

The plan suggests incorporating two primary connectors: the gateway and the treehouse. The treehouse facilitates access to the historic homestead situated atop the hill. On the other hand, the gateway serves as a welcoming point for visitors, connecting educational programs with the creek behind the existing terrace, and directing users towards the natural zone.

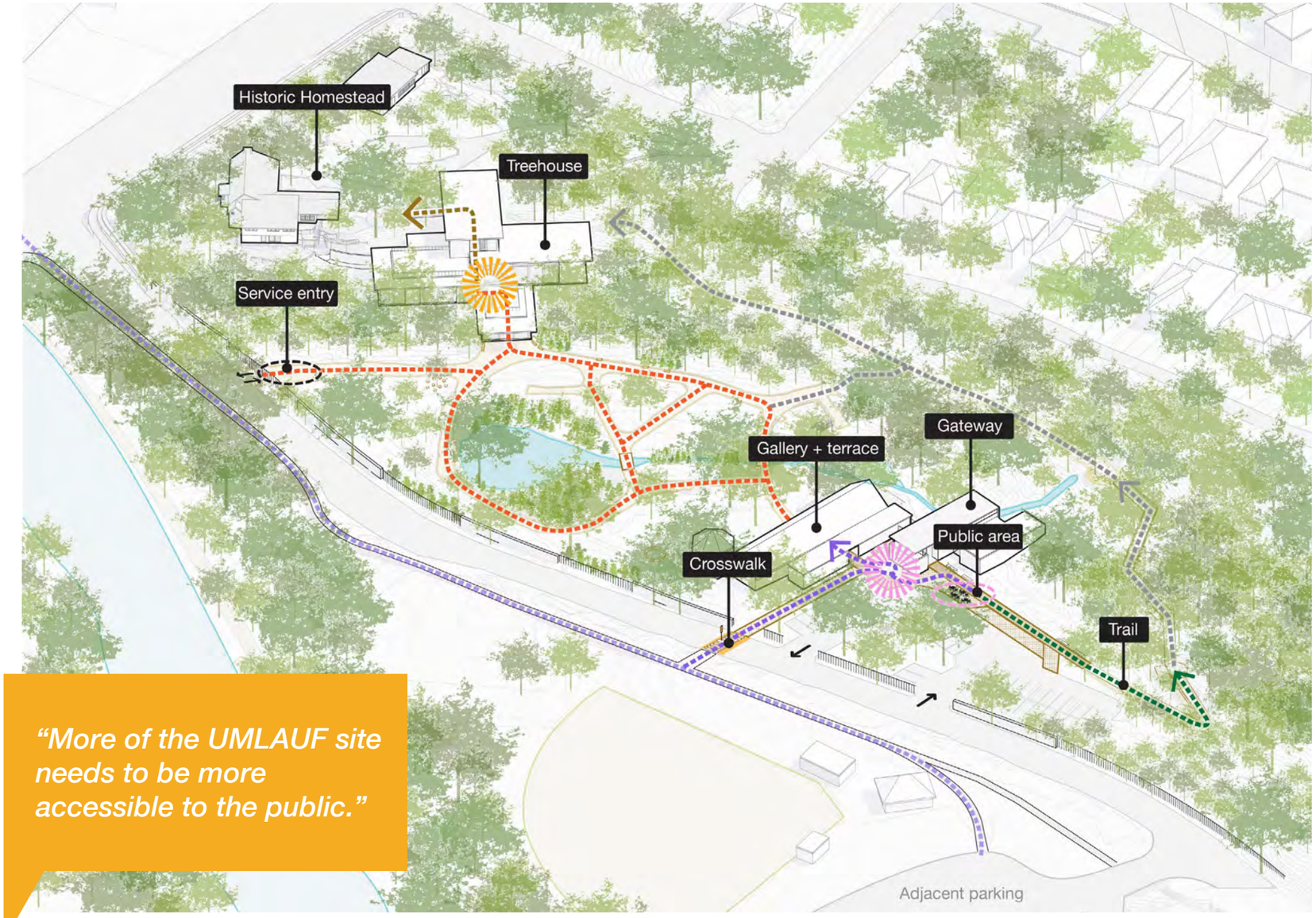


Proposed Circulation

The proposed circulation plan prioritizes accessibility, enhancing the site experience through the gateway and treehouse. Starting at the welcome zone, an upgraded entry provides a seamless beginning for visitors. A new crosswalk directs visitors to the gateway and gallery area, where a welcoming plaza offers choices: visitors can explore the gateway, which houses a new ticketing area, lobby, and gift shop, or they can access the public area, free of admission, featuring zones for food trucks and vendors, as well as an accessible trail or boardwalk through the natural zone.

The sculpture garden retains its wild and exploratory atmosphere while connecting to the treehouse, which serves as a focal point for exhibitions and events. Acting as an accessibility hub, the treehouse connects to the historic homestead via an elevator. For vehicular circulation, parking is expanded with separate access and exit points. The existing service entry is retained and improved, expanded to accommodate firetruck access and serving as an alternative for ADA accessibility and vendor drop-off, with a few temporary parking spots near the treehouse.

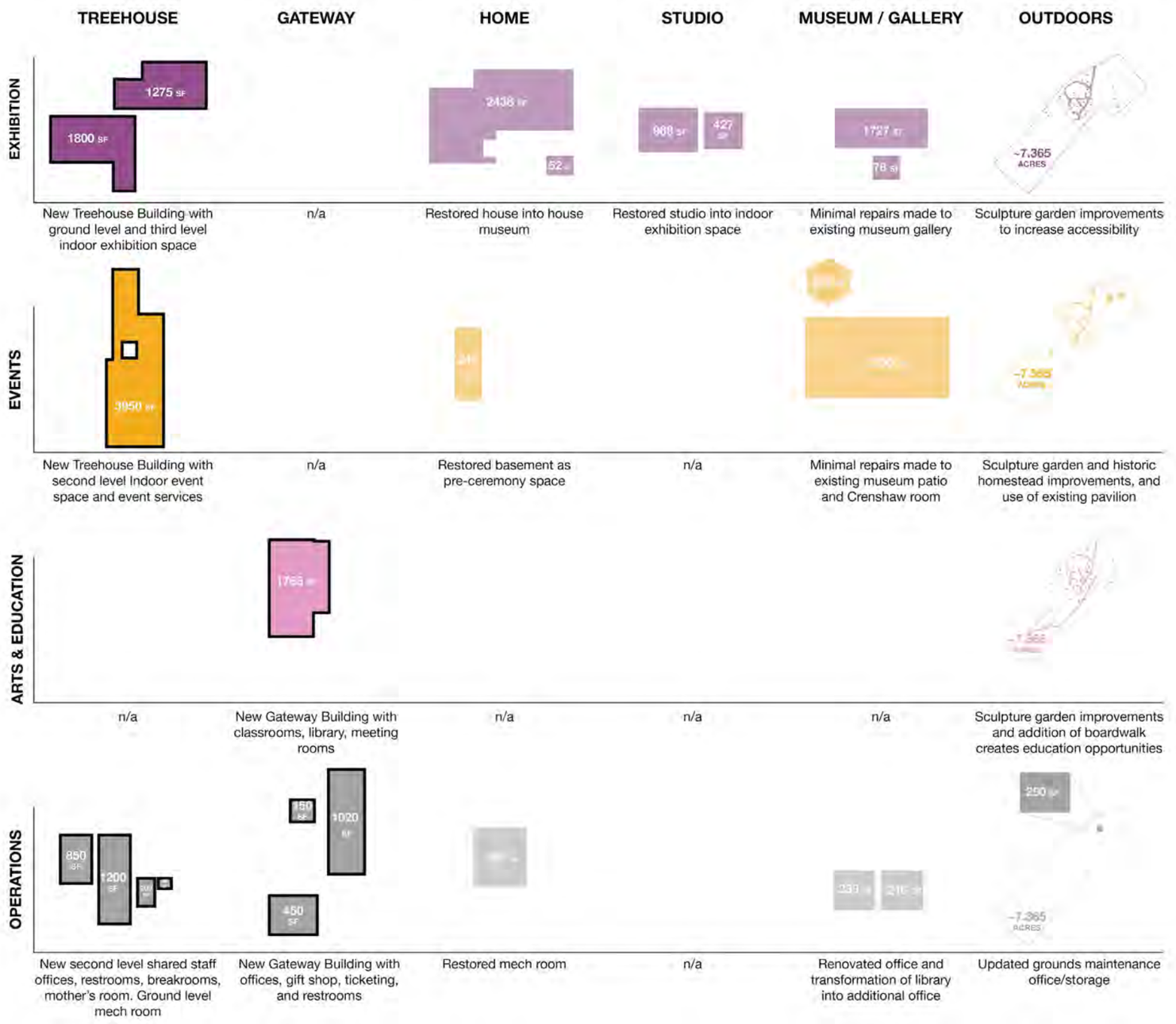
This specific access point and segment of the garden path must adhere to ADA accessibility standards and be user-friendly for catering services and other vendors. Further studies on efficiency and firetruck access are recommended to ensure optimal functionality.



“More of the UMLAUF site needs to be more accessible to the public.”

Program

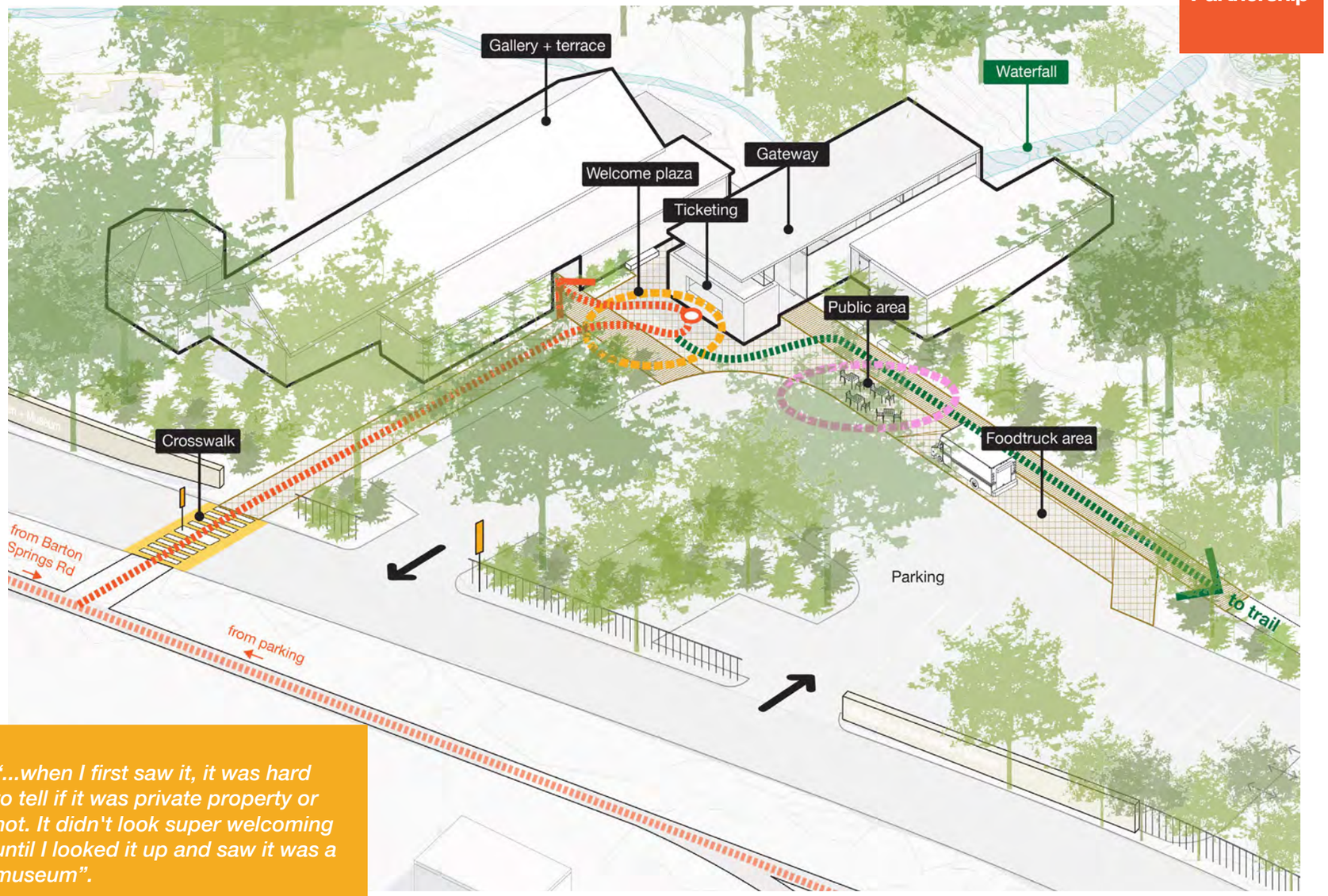
As a result of public work sessions and programming workshops, the following programmatic needs and sizes were developed. These numbers account for current space uses at the UMLAUF, while also creating additional space to expand on the usable hours of the museum and sculpture garden. In an effort to increase accessibility of the UMLAUF to the public, a combination of indoor and outdoor spaces are added, which also allow for flexibility in growth. These spaces are seamlessly aligned with the current program, while being intentional about where the extra square footage is integrated into the landscape. By mapping out the current versus needed spatial requirements, these amounts serve as a guiding tool, and demonstrate how the HPEU plan augments and optimizes the current program square footage to accommodate the museum's evolving needs and aspirations, all while prioritizing sustainability/resilience, legacy, and community.



Welcome Zone

Opportunity for City Partnership

The Welcome Zone introduces a new cluster designed to foster openness, promote community connections, and create a more inviting arrival experience. A relocated crosswalk provides direct access to the public area, eliminating the need to circumvent the parking lot. Users, greeted by entry sculptures, reach the “entry plaza,” a decision-making point and welcoming space for group gatherings, vehicle waiting, or starting tours. An open seating public space, and foodtruck and vendor area, strengthens community ties and broadens culinary options in the vicinity of the gateway. Additionally, a connection to an accessible trail facilitates exploration of the UMLAUF’s natural surroundings in the enhanced natural zone through an interpretive boardwalk, offering scenic viewpoints and a richer connection with the site’s nature.



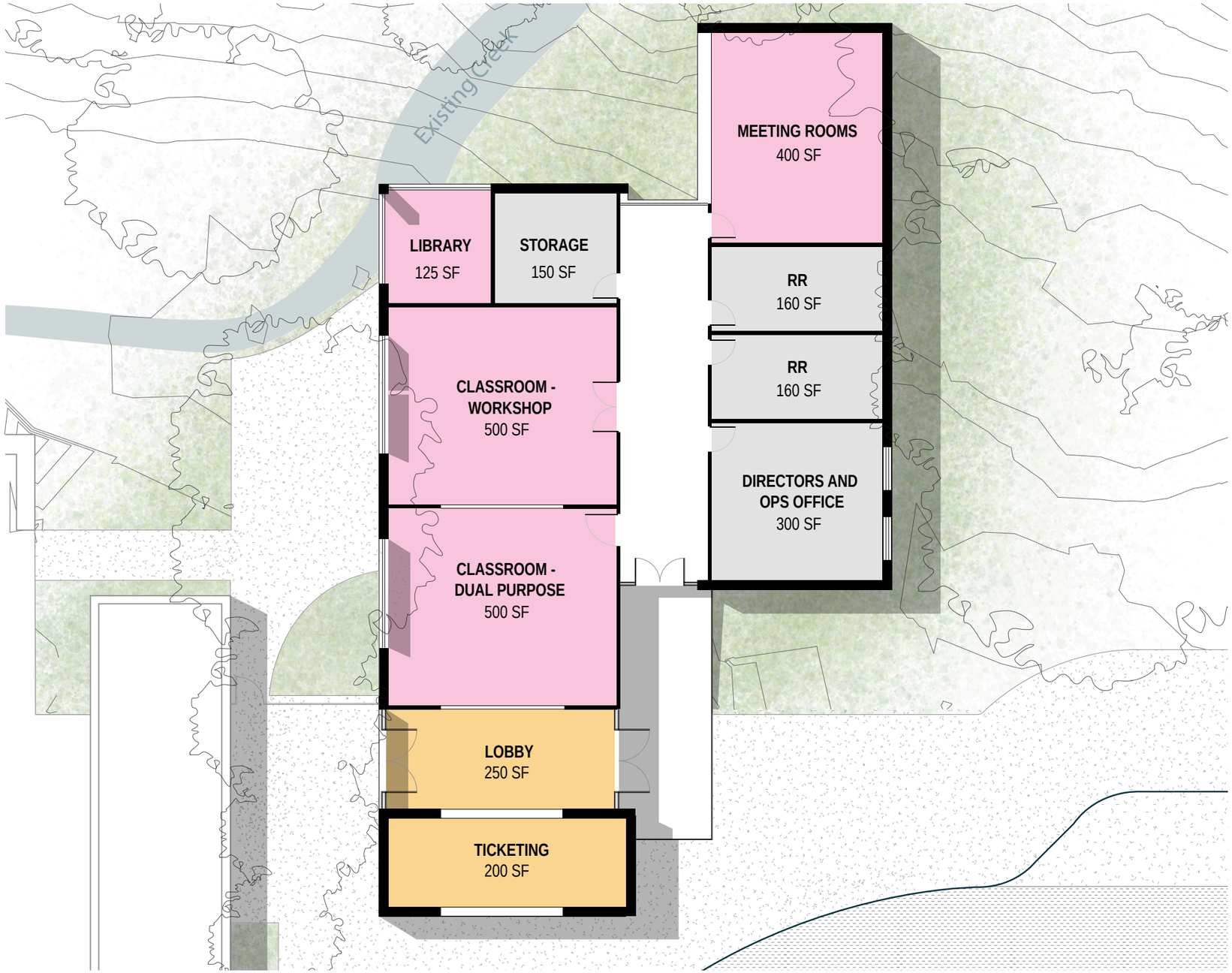
“...when I first saw it, it was hard to tell if it was private property or not. It didn't look super welcoming until I looked it up and saw it was a museum”.

Welcome Zone

Gateway

The gateway serves two primary functions: enhancing the arrival experience and accommodating education and operations programs. It seamlessly integrates with the existing building typology, elevating the arrival experience for visitors. The gateway, along with its adjacent exterior spaces, serves as a focal point for decision-making and congregation, where visitors gather before proceeding to the gallery and sculpture garden to the north or the public area and natural zone to the south. Additionally, it features a new, easily accessible ticketing area where visitors can seek information and obtain site maps conveniently, contributing to a more user-friendly experience. The gateway is located close to the stream, representing not only the site's natural elements but also functioning as an educational tool. From this unique vantage point, visitors gain insights into the ecological dynamics of the site, underscoring the intrinsic connection between art and nature.

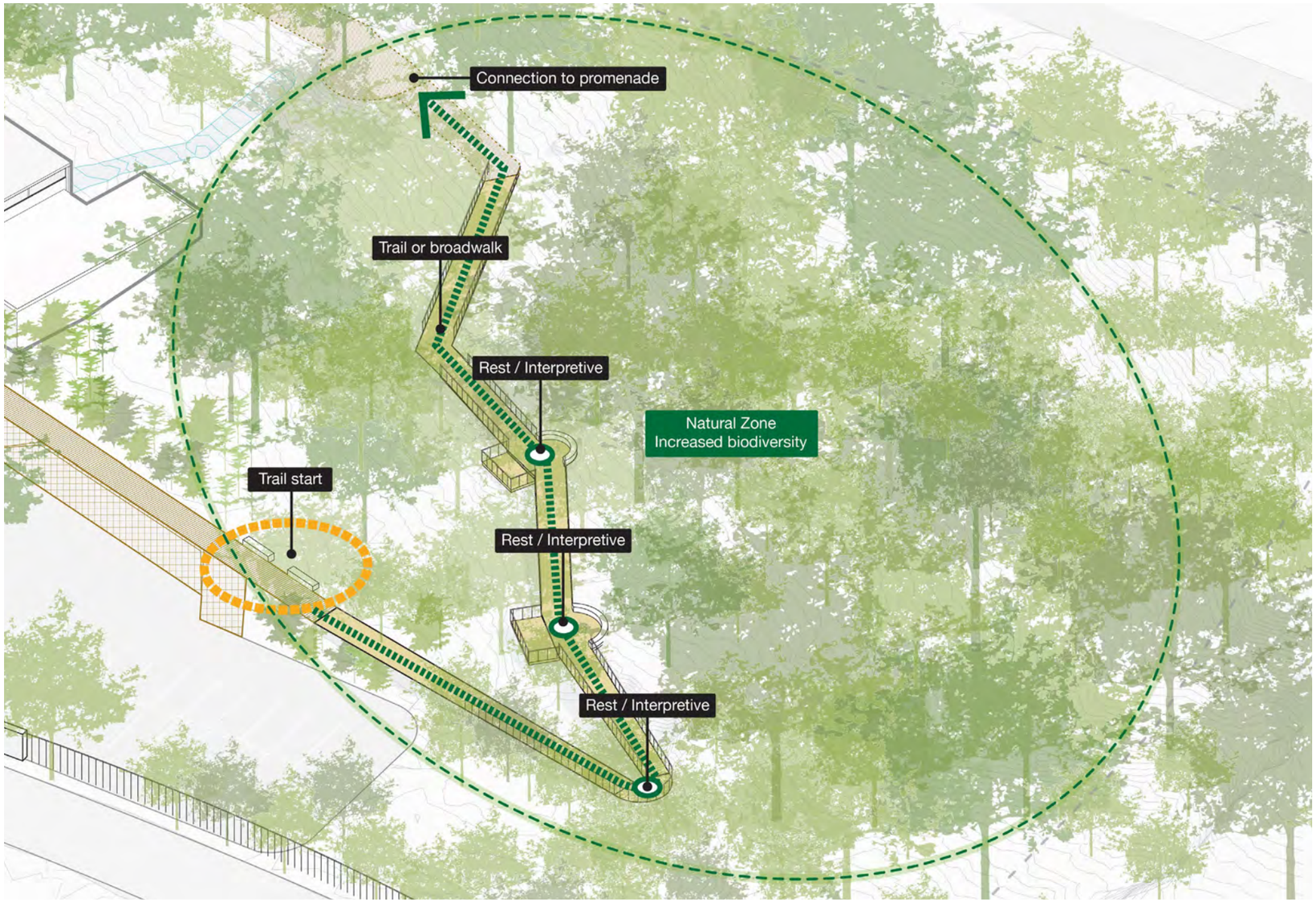
"It would be nice to have tickets to keep as souvenirs."



“ I immediately was drawn to that waterfall, as if this was the only place around that was still able to provide the wonderful ways of Mother Nature.”

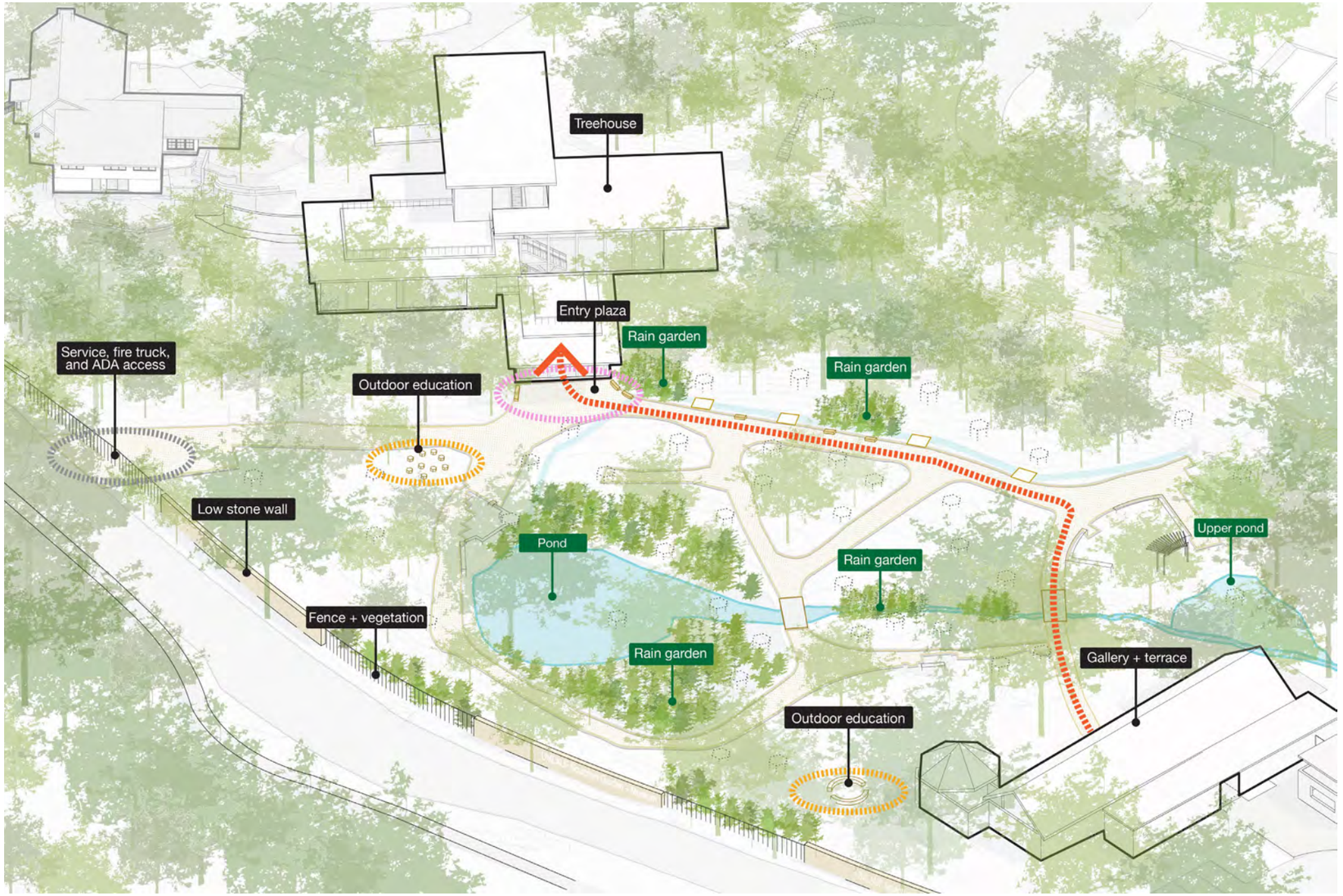
Natural Zone

The existing southern natural zone of the site will undergo enhancement through landscape strategies (refer to the Landscape chapter). A new exploration boardwalk, accessible to the community, will provide an immersive experience connecting users with nature. This boardwalk serves as an educational platform, offering insights into Umlauf's legacy and the site's ecology, while also providing a scenic vantage point for users to enjoy the views within the UMLAUF site. The plan suggests conducting additional studies to ensure the complete accessibility of the experience, as well as offering free admission to the natural zone. To facilitate this, the implementation of an operable gate at the junction of the boardwalk and the promenade is recommended to manage access. This gate could remain open during days of free admission or special events to allow visitors to fully explore the site.



Garden + Museum

The sculpture garden will retain its exploratory essence with subtle enhancements prioritizing site accessibility. Preserving the garden's intimate appeal, a denser landscape buffer will mitigate noise from Azie Morton, enhancing user experience. Strategically positioned openings will provide glimpses of the garden to the exterior, ensuring privacy and focused sensory engagement on the interior of the site. The sculpture garden path will also connect to the treehouse, which will link the sculpture garden area with the historic zone of the site. Further improvements to the pond will bolster biodiversity, enhance water management, and create an enriched pond experience for users. Refer to the landscape chapter for a comprehensive overview of these enhancements.

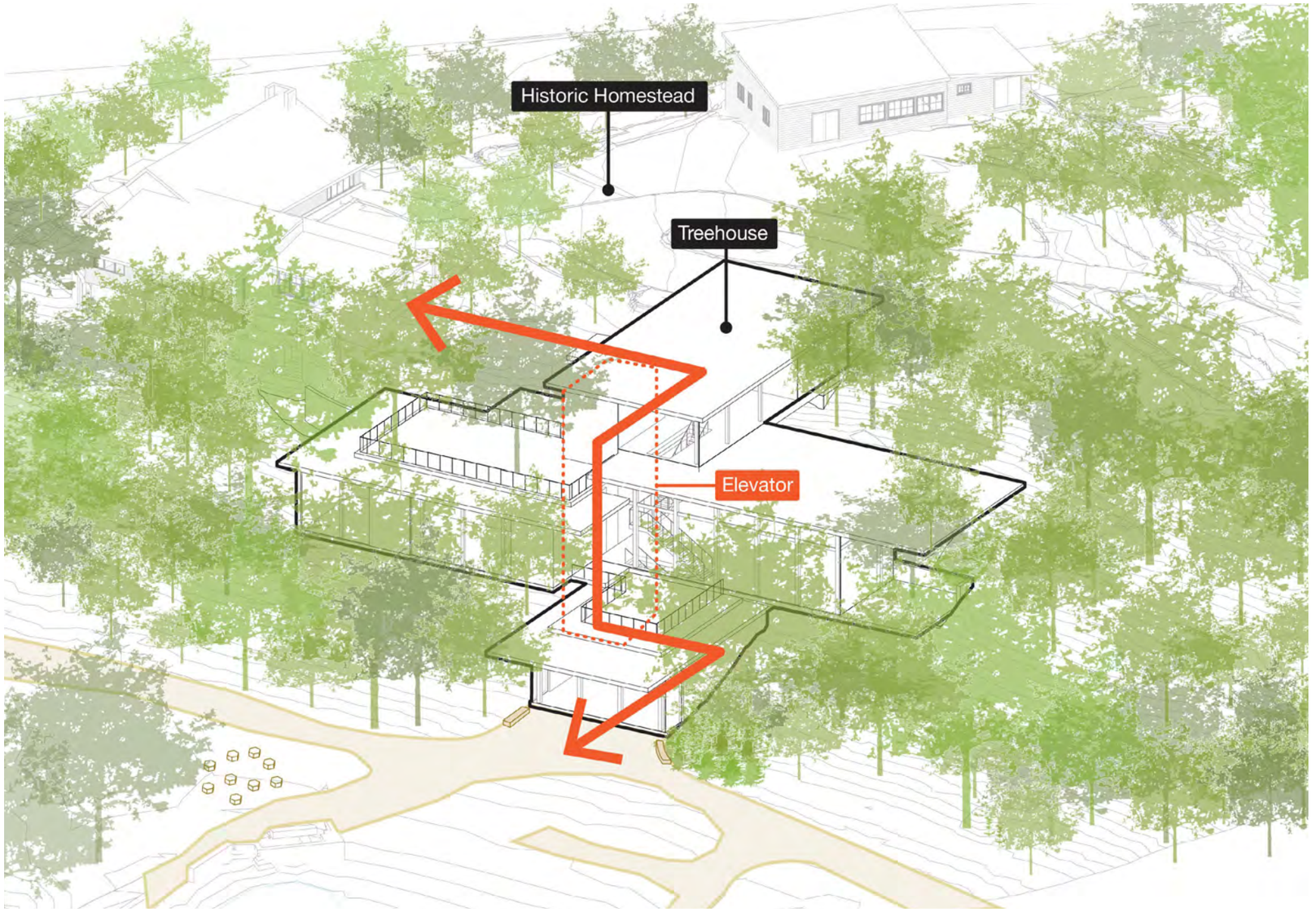


Treehouse

Accessibility

The plan suggests the strategic location of the treehouse, a new connector between the sculpture garden and the historic homestead. Functioning as an extension of the sculpture garden, the treehouse serves multiple purposes. At its base level, it hosts art exhibitions, seamlessly integrating artistic expression with the surrounding natural landscape. Visitors are then guided through a vertical transition up the hill, facilitated by a suggested elevator, providing accessibility to all.

Due to the abundant tree coverage, the treehouse will blend subtly into the canopy, with only the ground floor level protruding to warmly welcome garden visitors. Standing three levels high, the treehouse strategically aligns with the historic homestead atop the hill. The middle level accommodates operational facilities and an event space, while the top level serves as an exhibition space, seamlessly connecting visitors with the house and studio

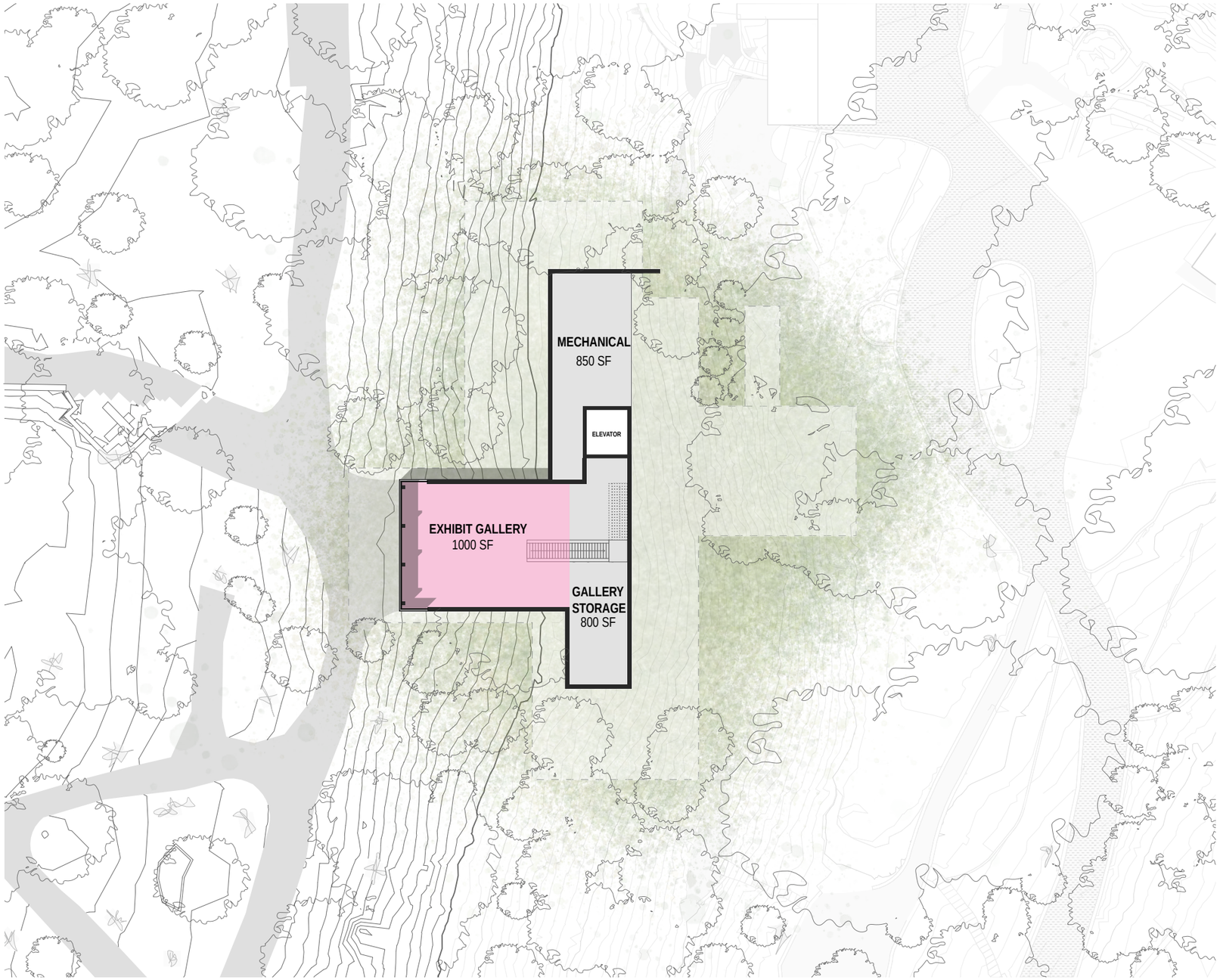


Treehouse

Level 01

The treehouse's lowest level acts as a seamless transition from the garden to the adjoining indoor gallery space, effortlessly integrating with the landscape. Extending the garden into an indoor setting it accommodates dynamic rotating exhibits. Moreover, this extension broadens the sense of discovery within the garden, inviting visitors to continue their exploration. The seamless flow between indoor and outdoor spaces amplifies the narrative, enriching the overall experience and encouraging deeper engagement with art amid the immersive garden environment. It also allows for the necessary storage and utility spaces, ensuring operational functionality. This addition will allow the UMLAUF to have more rotating exhibitions and showcase the work of other local artists.

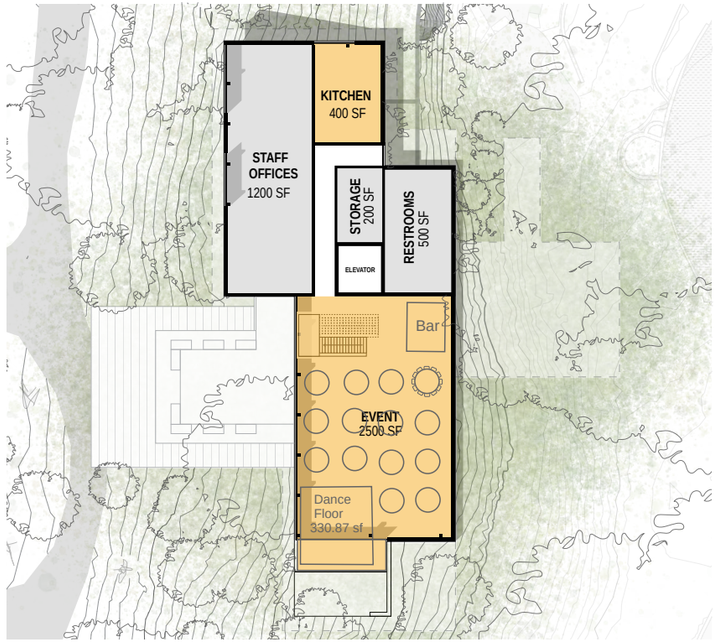
"More rotation. We'd love to bring our students more but the feedback we get is that they've already seen it multiple times already."



Treehouse

Level 02

Extending from the circulation core, the space opens up in two directions, distinctly catering to both public and private functions. A 2,500 sf event space offers a dynamic atmosphere for diverse gatherings but also provides an unobstructed view of the garden landscape, creating an inviting backdrop. Positioned in the heart of the hill, it allows guests to wander amidst the trees, adding a unique charm to the setting. On the opposite side, the private, operational zones ensure efficient staff access, enabling seamless event coordination and museum maintenance without disrupting the tranquil setting adjacent. This level serves as a vibrant connecting hub between planes, connecting visitors to the sprawling garden views and offering an engaging space for various activities.

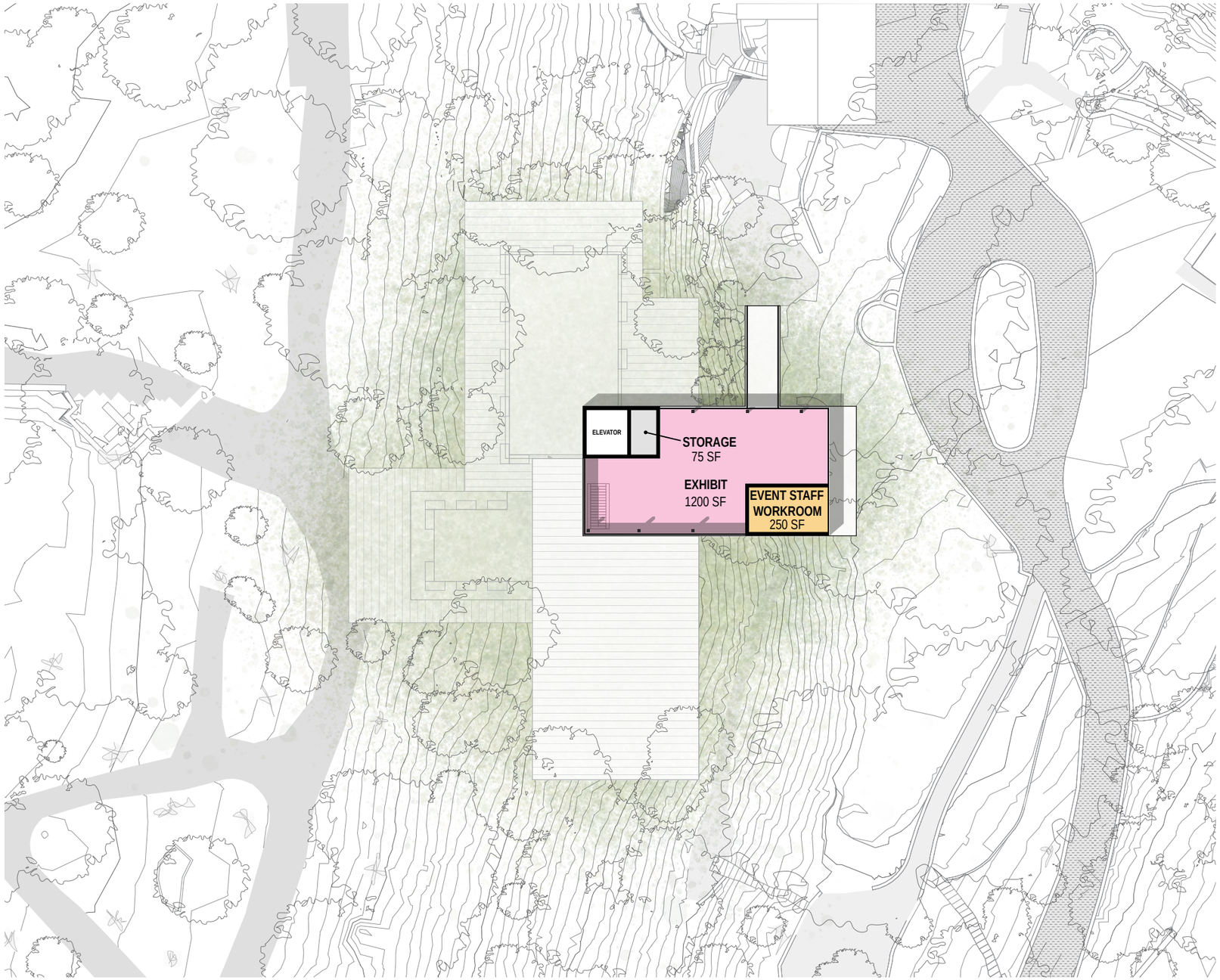


UMLAUF HPEU PLAN

Treehouse

Level 03

At its highest level, the treehouse creates a connection to the historic homestead by integrating a transitional space, crafted to serve as an entry point into Charles Umlauf's story. This level unfolds as an immersive narrative opportunity, creating a passage into the artist's life and creative odyssey. This space is flexible and can be imagined as a dedicated archive space, a house museum entry, a sculptural display, etc. It serves as an enriching platform, providing visitors with an opportunity to intimately engage with Umlauf's narrative, encouraging a deeper understanding of his processes and the life of an artist.



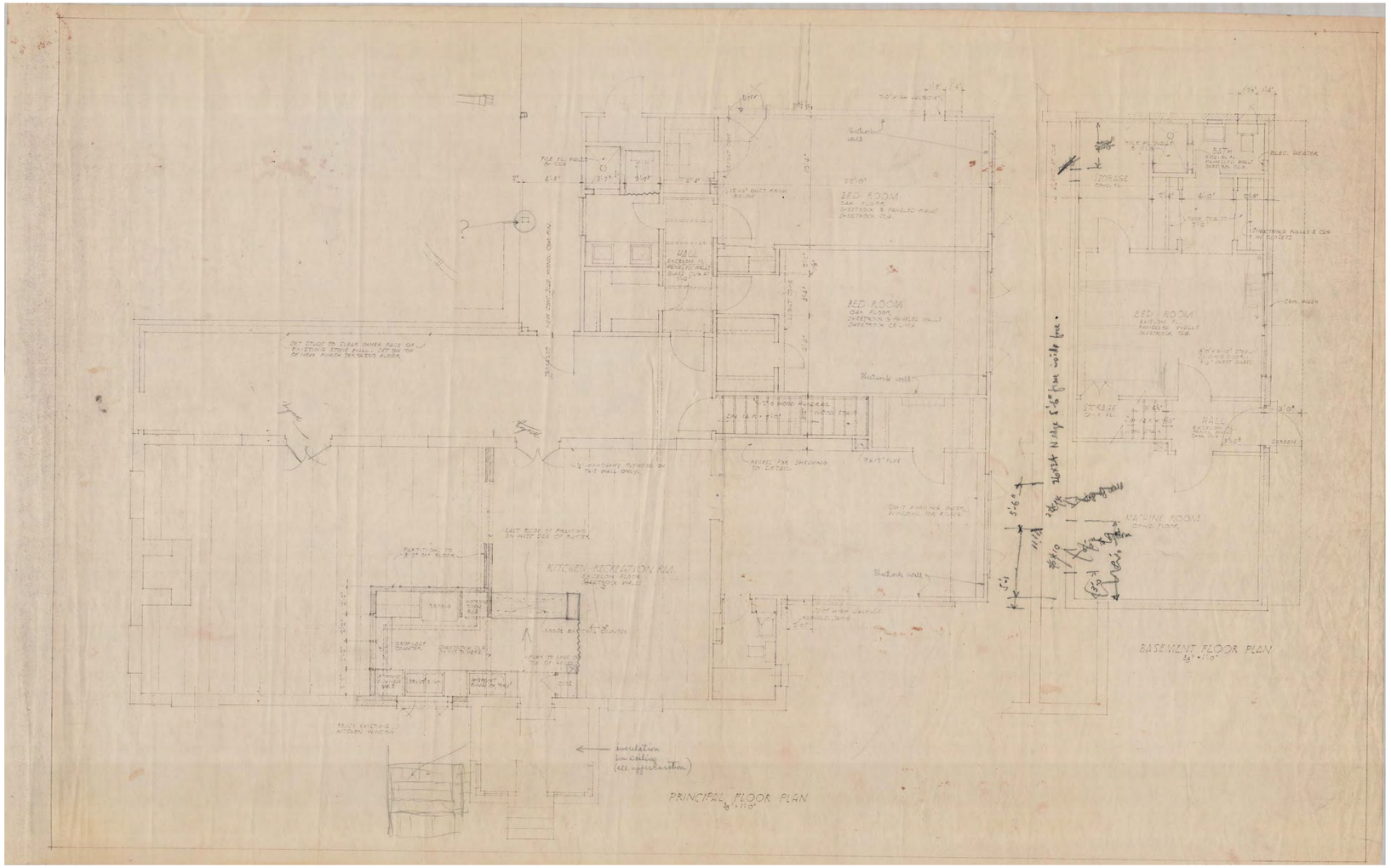
05.1
Historic Preservation

Historic Preservation

Introduction

This assessment is based on visual observations conducted during a field investigation on July 28, 2023, a review of original architectural drawings by Jessen, Jessen, Millhouse & Greeven dated April 24, 1956, and a review of the National Register of Historic Places Registration Form (NPS Form 10-900) prepared by Hutson Gallagher, Inc. and Katie Robinson Edwards, UMLAUF Sculpture Garden + Museum Executive Director and Curator, dated July 30, 2022. The purpose of this assessment report is to document the existing conditions of the home, studio, and garden and to make general recommendations for the restoration of the same, considering programmatic needs and following the guidelines set forth in the **Secretary of the Interior's Standards for the Treatment of Historic Properties.**

Charles and Angie Umlauf purchased their home in 1944. The original structure dates to the late 1920s, and was a one-story, gable-roof structure with limestone walls, a wood-framed pier-and-beam floors and wood roof structure. In 1950, Charles built a studio approximately 100 feet to the east of the house. The studio is a single-story, shed roof structure with slab-on-grade foundation, wood framed walls with wood siding and wood framed roof. In 1956, the Umlauf's engaged Jessen, Jessen, Millhouse & Greeven to design an addition to enlarge the house. The addition built upon the original stone structure, creating an L-shaped plan with three bedrooms on the main level and a lower level with an additional bedroom, bathroom, and mechanical room. The renovation produced a minimalist aesthetic typical of mid-century, modern design.



UMLAUF HPEU PLAN

Secretary of the Interior's Standards

Preservation

The Secretary of the Interior's Standards for the Treatment of Historic Properties is the professional standard for the preservation of historic buildings, structures, sites, objects, and districts, established by the Secretary of the Interior under the National Historic Preservation Act. The Standards develop four treatments for addressing historic properties: **preservation, restoration, rehabilitation, and reconstruction**. The Standards include Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. These Guidelines contain baseline consistencies with specific direction for each treatment approach.

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property as it has evolved over time. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project. However, new exterior additions are not within the scope of this treatment. **The Standards for Preservation require retention of the greatest amount of historic fabric along with the building's historic form.**

Standards for Preservation:

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spac and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.

2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Source: U.S. Department of the Interior, National Park Service, Technical Preservation Services, "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring Reconstructing Historic Buildings (2017)"

Secretary of the Interior's Standards

Restoration

Restoration is defined by the Secretary of the Interior's Standards for the Treatment of Historic Properties as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project. **The Restoration Standards allow for the depiction of a building at a particular time in its history by preserving materials, features, finishes, and spaces from its period of significance and removing those from other periods.**

Standards for Restoration

1. A property will be used as it was historically or be given a new use that interprets the property and its restoration period.

2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.

3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.

4. Materials, features, spaces and finishes that characterize other historical periods will be documented prior to their alteration or removal.

5. Distinctive materials, features, finishes and, construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.

6. Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.

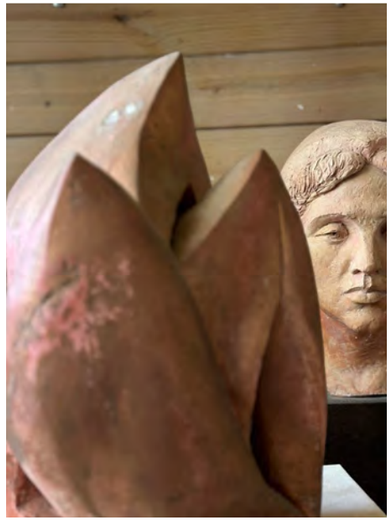
7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.

8. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

9. Archaeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

10. Designs that were never executed historically will not be constructed.

Source: U.S. Department of the Interior, National Park Service, Technical Preservation Services, "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (2017)"



Secretary of the Interior's Standards

Rehabilitation

Rehabilitation is defined by the Secretary of the Interior's Standards for the Treatment of Historic Properties as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. **The Rehabilitation Standards acknowledge the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character building's historic form.**

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

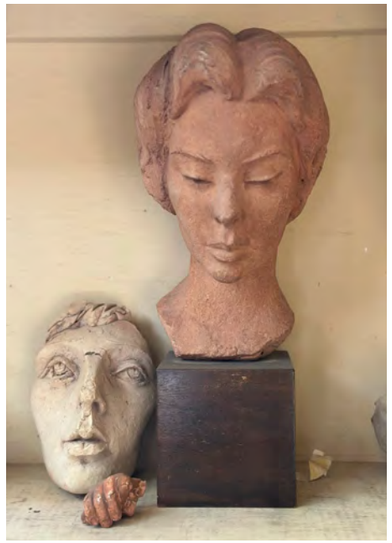
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Source: U.S. Department of the Interior, National Park Service, Technical Preservation Services, "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (2017)"



Secretary of the Interior's Standards

Reconstruction

Reconstruction is defined by the Secretary of the Interior's Standards as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. **The Reconstruction Standards establish a limited framework for recreating a vanished or non-surviving building with new materials, primarily for interpretive purposes.**

Standards for Reconstruction

1. Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture and such reconstruction is essential to the public understanding of the property.

2. Reconstruction of a landscape, building, structure or object in its historic location will be preceded by a thorough archaeological investigation to identify and evaluate those features and artifacts which are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.

3. Reconstruction will include measures to preserve any remaining historic materials, features, and spatial relationships.

4. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color, and texture.

5. A reconstruction will be clearly identified as a contemporary re-creation.

6. Designs that were never executed historically will not be constructed.

Note: Reconstruction is not proposed as an approach for treating the historic Umlauf home, studio, or garden. This information is provided as reference only as a component of the secretary of the interior's standards.

Source: U.S. Department of the Interior, National Park Service, Technical Preservation Services, "The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (2017)"

Preservation Zones

Home: Exterior Approach

Foundations – monitor movement with benchmarks

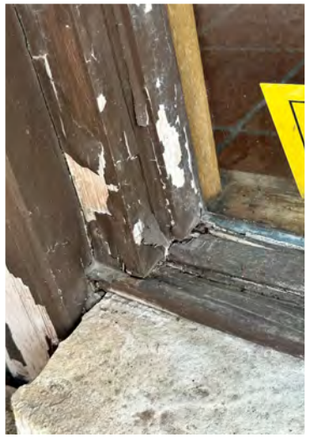
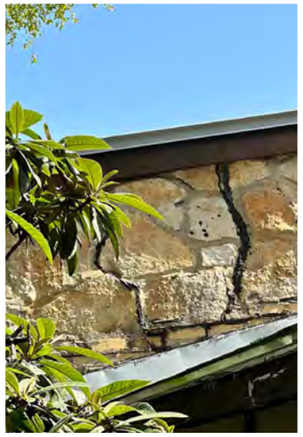
Stone masonry walls – test mortar, remove patches, repoint with compatible mortar

Wood siding and trim – remove vinyl siding, repair and replace damaged siding and trim, repair wood brackets, test for paint color, paint

Windows – abate asbestos glazing compounds, restore per Secretary of Interior's Standard, consider interior storm windows for thermal and sound control

Doors – restore per Secretary of Interior's Standards, modify thresholds for ADA access

Roof – inspect roof deck for water damage, re-roof if needed (evidence of gravel ballast on site to be confirmed with further investigation)

Studio: Exterior Approach

Foundations – monitor movement with benchmarks

Wood siding and trim – repair and replace damaged siding and trim, repair wood brackets, test for paint color, paint

Windows – abate asbestos glazing compounds, restore per Secretary of Interior's Standard, consider interior storm windows for thermal and sound control

Doors – restore per Secretary of Interior's Standards, modify thresholds for ADA access

Roof – inspect roof deck for water damage, re-roof if needed

Home: Interior Approach

Preservation + Restoration

Foundations – monitor movement with benchmarks

Flooring – abate asbestos, remove non-original flooring, restore original, new flooring per drawings

Gypsum Board Walls – test for paint color, abate asbestos, replace gypsum wall board, paint

Gypsum Board Ceilings - test for paint color, abate asbestos, inspect roof framing for water damage, replace gypsum ceilings, paint

Wood Panel Walls – repair and refinish

Interior Millwork – repair and refinish

Interior Doors – restore per Secretary of Interior's Standards, modify thresholds for ADA access

Studio: Interior Approach

Preservation + Restoration

Foundations – monitor movement with benchmarks

Flooring – abate asbestos, remove non-original flooring, restore original, new flooring per drawings

Gypsum Board Walls – test for paint color, abate asbestos, replace gypsum wall board, paint

Gypsum Board Ceilings - test for paint color, abate asbestos, inspect roof framing for water damage, replace gypsum ceilings, paint

Wood Panel Walls – repair and refinish

Interior Millwork – repair and refinish

Interior Doors – restore per Secretary of Interior's Standards, modify thresholds for ADA access

05.2
Landscape

Landscape Zones

The UMLAUF is valued by visitors as a quiet place to enjoy art and nature. A rich and diverse tree canopy provides an audible and visual buffer from the surrounding urban setting. These canopies are also home to many bird species including song birds, hawks, and owls. The waterfall, creek, and overhead canopy provide a unique and intimate setting for the sculptures and encourages visitors to pause, relax, and reflect on the artist's message. The proposed landscapes will maintain and enhance this art in nature experience.

Three main zones will be represented in the landscape: historic homestead, garden + museum, and natural zone.

The historic homestead will complement the surrounding neighborhood with lawn space and border planting to define spaces for gatherings and events, buffer planting to screen views from surrounding properties, and direct lines of sight to Angie's garden and downtown. The garden + museum zone will maintain existing natural aesthetic and utilize a signature plant pallet to diversify species, enhance visual interest, and manage water on site. The natural zone will increase plant diversity to provide food sources for wildlife, capture and reduce water runoff, provide educational opportunities.

- Historic Homestead
- Garden + Museum, Water Management
- Edge Treatment
- Natural Area
- Planting Strategies

UMLAUF HPEU PLAN

Landscape Zones

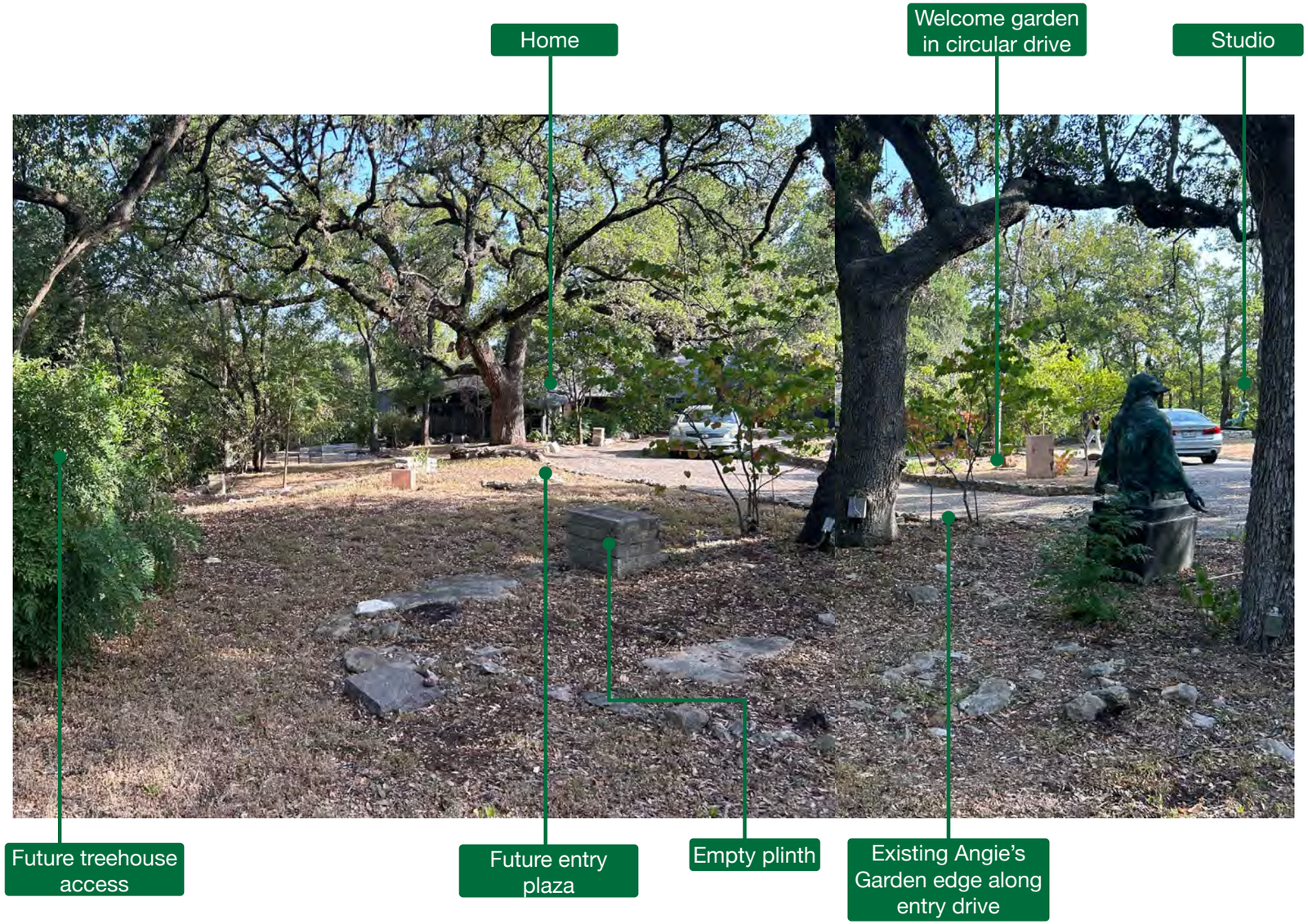
Historic Homestead

The design concept for the historic homestead landscape zone prioritizes a formal layout, integrating open lawns, strategically positioned to serve as inviting gathering spaces. Emphasizing cohesion and continuity, this area seamlessly incorporates planting beds that artfully connect visitors to the life and works of Charles Umlauf.

The landscape along Barton Boulevard will maintain existing retaining walls that are reminiscent of the artists time living in the neighborhood with new diversified planting, or designed plant community, to provide a visual cue of entrance to this special place. The added layers of planting provide additional screening to buffer views to surrounding properties.

Vehicular circulation should be limited to deliveries, staff parking, and accessible parking for events. The existing entry from Barton Boulevard will remain in its current location to maintain required distance from intersections for queuing vehicles into the site.

Large trees define areas and create a ceiling for potential event spaces around the treehouse, home, and studio.



Landscape Zones

Historic Homestead

Existing retaining walls facing Barton Blvd.

Drive from Barton Blvd.

Angie's garden entrance to be enhanced with hardscape elements that are part of a site wide vocabulary

Proposed garden edge with rehabilitated low wall and buffer plantings to create visitor's sense of discovery

Welcome garden to include enhanced planting and signage

Existing retaining walls facing Barton Boulevard to be enhanced with a designed plant community.

Suburban lot prior to designed plant community installation

Same lot after 2 years growth

Example of designed plant community on a suburban lot from "Planting in a Post-Wild World" by Thomas Rainer and Claudia West. Diversified species that flower and fruit throughout the year display varied textures which provide visual and physical buffer that is aesthetically pleasing.

UMLAUF HPEU PLAN

Landscape Zones

Historic Homestead

Angie's Garden, the original sculpture garden situated adjacent to the entry drive, could benefit from the creation of a formal garden entry. This could be achieved through the addition of plantings, low walls, or other hardscape elements, serving to announce visitors' arrival while safeguarding the area from vehicular access. Charles Umlauf collaborated with local quarries to fashion plinths for sculptures in this garden, which should now undergo renovation. Additionally, new plinths may be designed to accommodate future sculpture additions, maintaining consistency with the site's overall hardscape aesthetic.

Event spaces for small outdoor gatherings are located near the entrances of existing and proposed structures. A grant-funded renovation of the retaining wall adjacent to the carport on the southern end of the home could provide an elevated vantage point overlooking the garden below, and creating a space for events. Another smaller event space located between the studio and the circular drive, featuring a lawn bordered by hardscape elements, could serve as an area for seating or temporary exhibits.

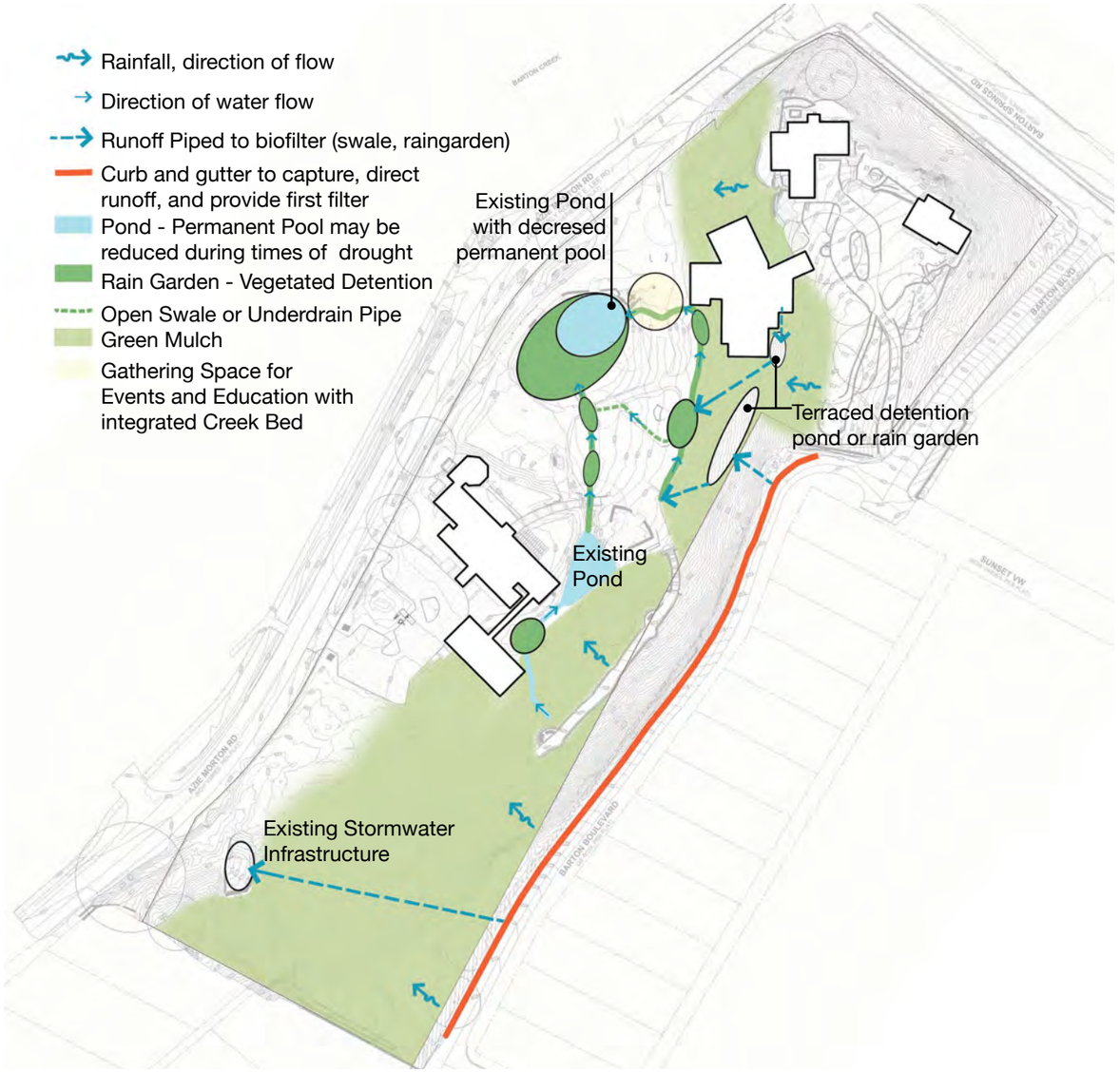
An intimate stone patio nestled between the home and studio boasts a fountain and planter, offering stunning views of downtown. Rehabilitation of this space is recommended, including updates to walking surfaces, utility lines, pond and plant beds, and the addition of a new railing or wall to ensure safety. Moreover, the plan suggests conducting a detailed analysis of fire truck maneuverability and parking options for the upper driveway if vehicular access is desired at this level (see initial vehicle tracking exhibit in appendix).

Landscape Zones

Sculpture Garden + Museum, Water Management

Steep slopes surround the garden which creates a dramatic, beautiful backdrop for Umlauf's sculptures. Rain fall is intercepted by the extensive tree canopy, but limited ground plantings and the shear volume of water flowing on to the site erodes soils, damages existing walkways in the garden, and floods the sculptures, which may damage existing plinths and footings.

Several strategies are recommended to address excess water running on to and through the site including detention ponds at the top of slopes, green mulch or multi-layered planting on slopes, swales and rain gardens at the bottom of slopes to direct water to key locations, and improvements to the existing pond for additional detention capacity.



Landscape Zones

Sculpture Garden + Museum, Water Management

Water may be diverted from entering the site with the addition of a curb and gutter along Barton Boulevard, which is currently outside the property boundaries of the site. At the top of the slope within the property boundary, detention ponds with retaining walls located on the downhill side will capture and filter runoff from the road and the adjacent neighborhood for decreased erosion and trail damage while improving the quality of water that enters the garden.

A primary planting strategy for the entire site will increase the diversity of plant species and add layers of planting. There are three levels of planting, including groundcovers, mid-level, and tree canopy.

Groundcover, plants and vines that hug the ground, creates a green mulch that protects roots through extreme temperatures, holds moisture in the soil, intercepts or slows rain from falling on soil, captures water in the root system to be released through evapotranspiration, filters nutrients and toxins to improve water quality, provides food and nesting material for wildlife, and provides color and texture to arouse visitor's interest and enjoyment of the gardens.

Mid-level planting includes shrubs and perennials that add texture and color at eye level and may provide backgrounds for sculptures located along the slope. These plants also capture water and provide shelter and food for wildlife.

EXISTING CONDITIONS
with ground cover and trees

PROPOSED DIVERSIFIED LANDSCAPE
with enhanced ground cover, shrubs, and mid-level planting

Landscape Zones

Sculpture Garden + Museum, Water Management

Trails may be edged by swales to capture water running from the existing slope and direct water to the pond. Think of swales as shallow, lineal depressions that create a trail system for water, nutrients, leaves, and other debris to travel and collect at key locations. These collection areas can be used as educational opportunities to see what flows downhill, monitor water quality, and collect seeds, leaves, and other natural objects that may be used for inspiration in sketches, sculpture, poems, and other art forms.

Swales may be vegetated as a bioswale, resemble creek beds with rock bottoms, or incorporate a combination of rock and planting. Natural edges are typical for the site but formal edges may be appropriate for some exhibits or near proposed buildings to connect the interior and exterior spaces. For linear walkways, plants may be encouraged to grow over the path to soften the edges.

Swales may be enlarged in areas to create rain gardens that slow down water flow through the site and hold additional volume of water to reduce the amount of water entering the pond during rain events. Rain gardens provide additional filtration for improved water quality and also allow water to infiltrate into the ground for increased water volumes to local aquifers.

Created in Midjourney by Asakura Robinson

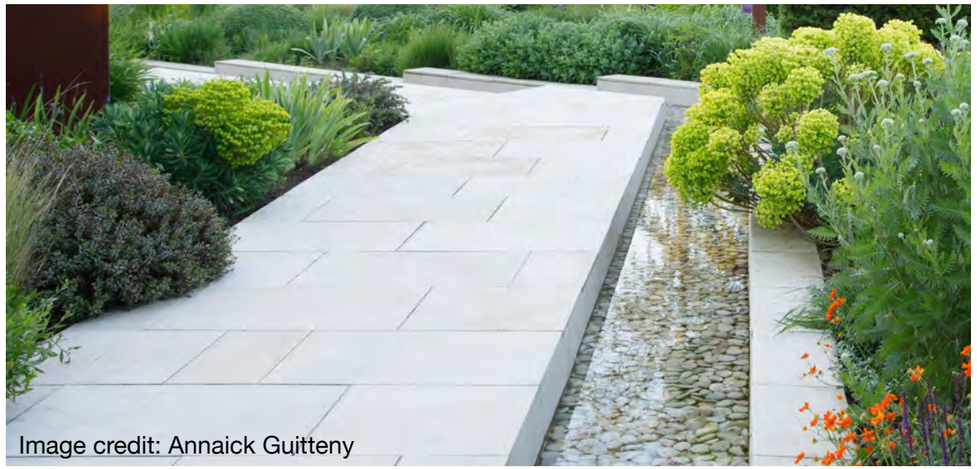
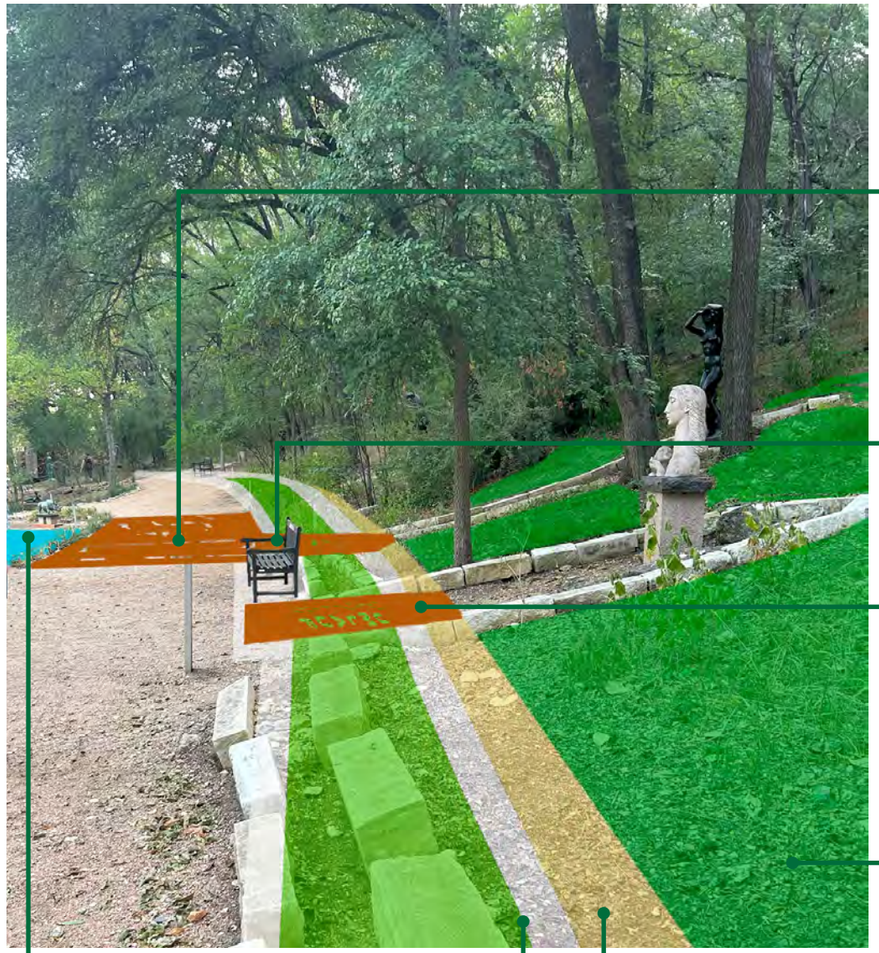


Image credit: Annaick Guitteny

Landscape Zones

Sculpture Garden + Museum, Water Management



Swale expanded under the trail provides additional water storage and may overflow to pond

Seating or observation areas integrated and defined by swale edge

Metal grates over the swale provide access to sculptures and may be customized to include interpretive information or graphics

Planting acts as green mulch for water interception

Rain garden along trail provides environmental education opportunity

Gravel Bed

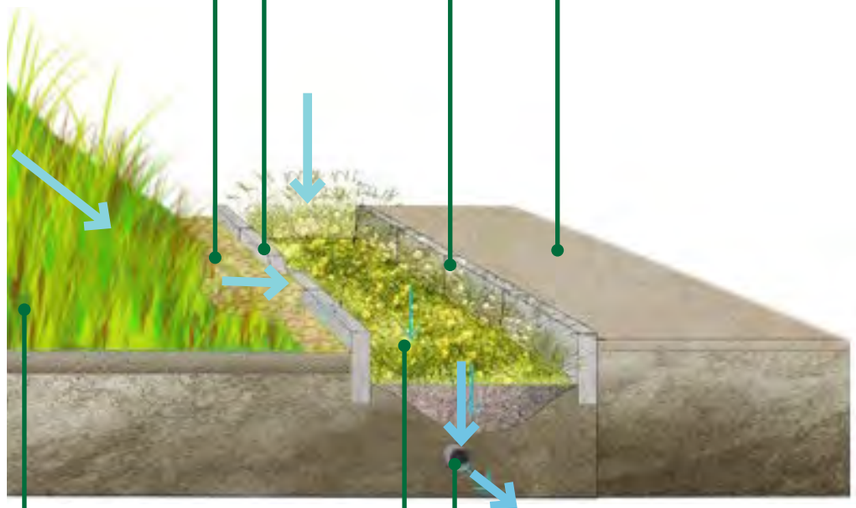
Continuous cut limestone or rough finish concrete curb

Cut limestone or rough finish concrete curb with cut outs or weep holes at specified locations to allow water through to bioswale

Continuous cut limestone or rough finish concrete curb

Gravel bed to slow water flow and capture large debris

Stabilized decomposed granite walkway



Existing slope with designed community planting

Perforated pipe drains to existing pond

Vegetated bioswale to filter water, and create a garden edge

Landscape Zones

Edge Treatment

Art and nature are Umlauf's gift to Austin's community. The plan recommends treating the site's edges to create a more welcoming experience for visitors, make the UMLAUF more visible, and enhance the experience for people walking/wheeling around the site. The walking, wheeling, and vehicular entry will be well defined and visible, while the sculptures in the welcome zone will provide a glimpse of Umlauf's work and begin the visitors interpretive experience.

To soften the appearance of the edge along Azie Morton Road, the plan proposes a new wall with a garden aesthetic. Made of metallic fence and a lower stone wall with pockets of planting that frame views into the garden. This new edge may also frame temporary banners for events and exhibitions.

Site identification and walking/wheeling improvements at the intersection of Azie Morton Road and Barton Springs Road may be accomplished by replacing the existing retaining walls and relocating them further away from the curb. Dividing the retaining wall into lower and upper tiers with planting bed between will create a formal edge at pedestrian scale. The UMLAUF logo and permanent banner space that is built into the wall will also welcome all who cross through this intersection.

Low stone or concrete wall with decorative fence embedded to allow views into garden from Azie Morton Road. Solid portions of wall used for permanent banner space welcomes visitors to the museum and garden with information about programming and exhibits.

Image credit: www.fencingsouthflorida.com/

Landscape Zones

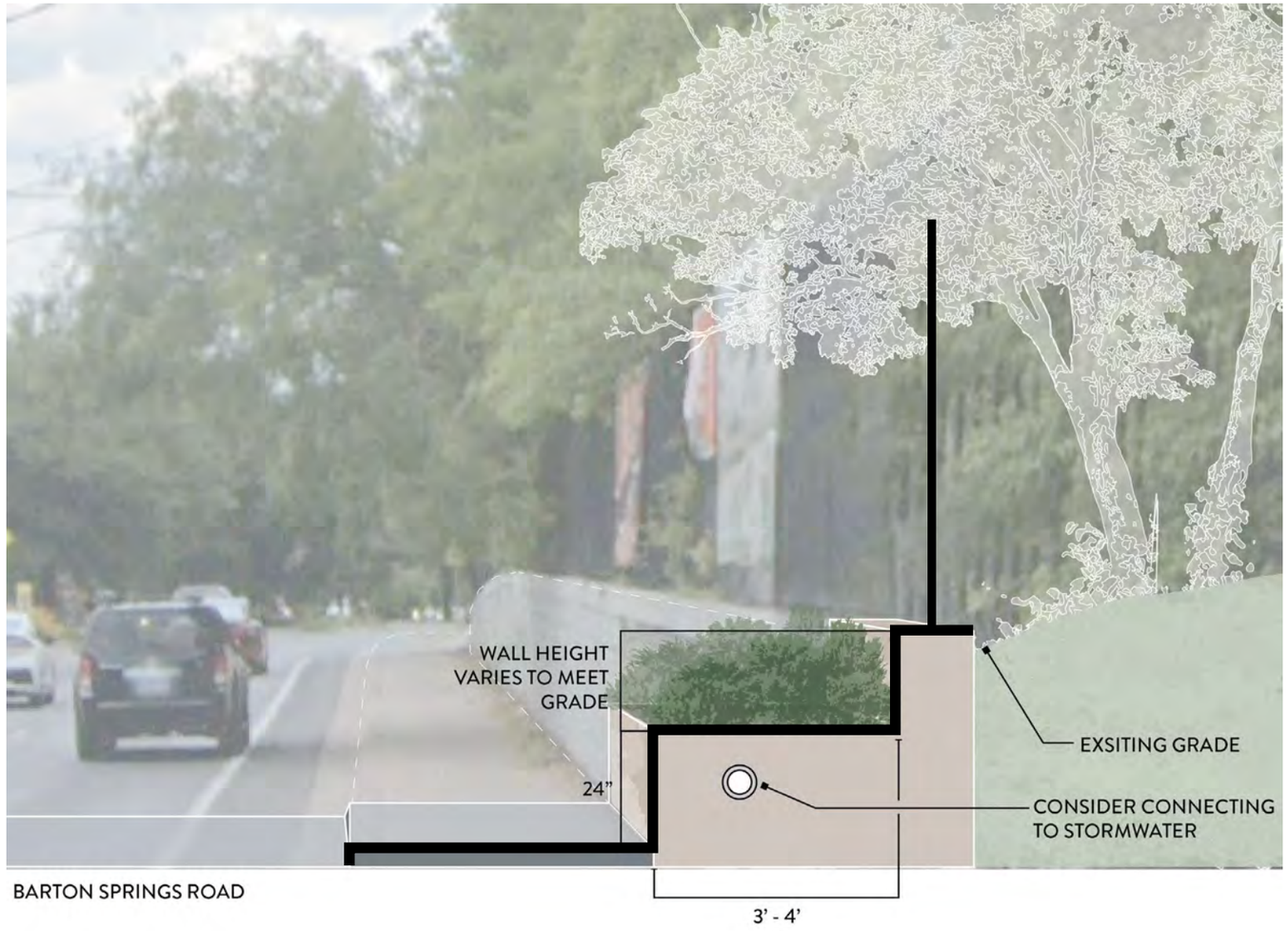
Edge Treatment

Relocate existing fence to top of slope to create a clean green edge

Relocate retaining wall to allow accessible pedestrian access around existing poles

Permanent banner space welcomes visitors to the museum and garden with information about programming and exhibits

Plant bed softens the wall material and leads pedestrians toward the entry with aromatic and showy planting



Landscape Zones

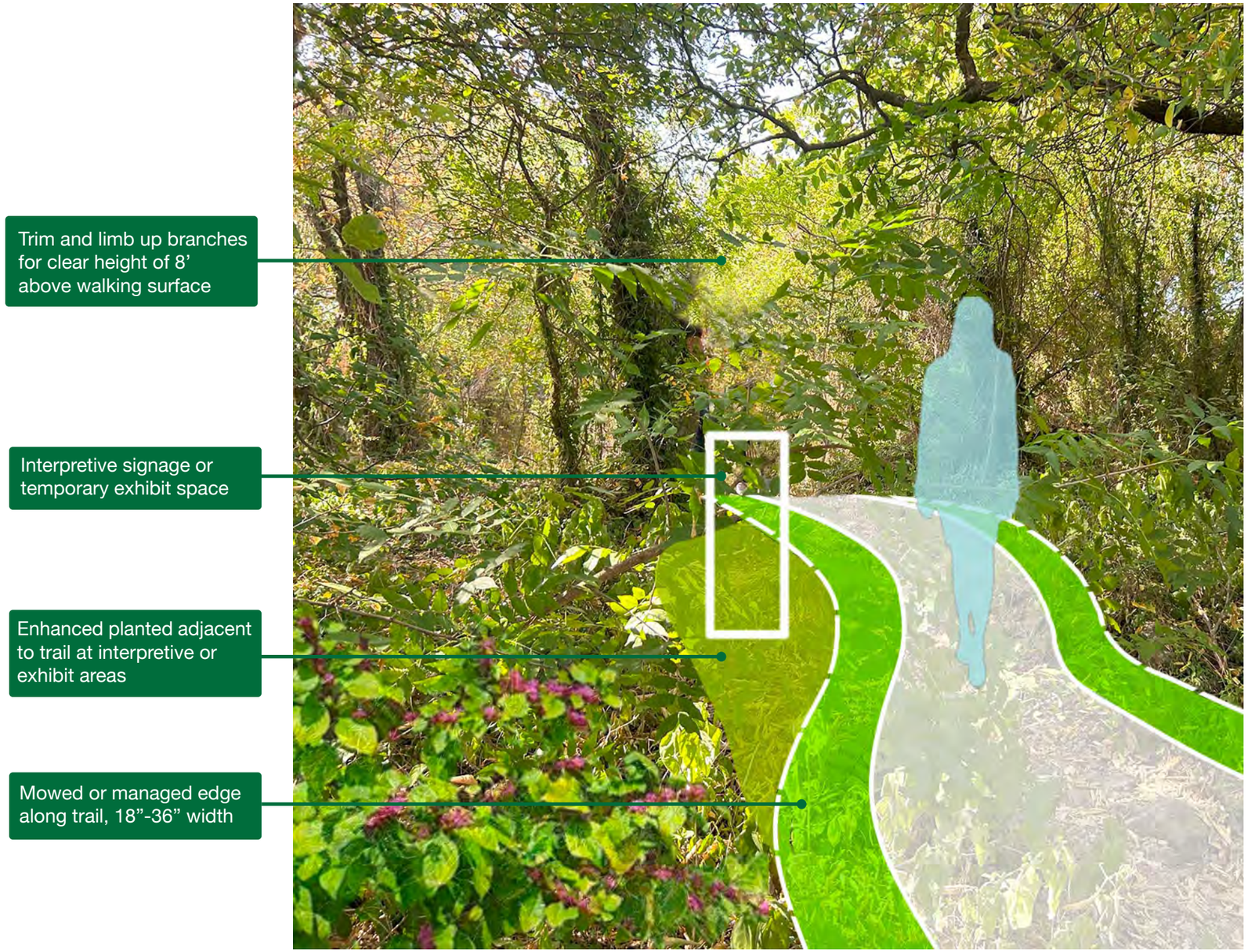
Natural Area

The natural area will increase plant diversity to provide food sources for wildlife, capture and reduce water runoff, and offer educational opportunities. The trail or boardwalk will guide visitors through the natural area which may feature temporary exhibits and interpretive signs for outdoor learning.

The UMLAUF's site is a green oasis within an urban area. However, native plant ecosystems have been disrupted by surrounding development over time. To optimize the landscape's performance in water management, habitat provision, and visual appeal, the selected plant community will comprise both native species and those well-adapted to the local environment. Given the prevalent tree canopy shading much of the site, the proposed plants will primarily thrive in shade conditions.

Diversifying plants in the natural zone will offer various benefits, including:

- Providing habitat, food and shelter for wildlife
- Creating visual interest with colorful flowers, a variety of leaf textures, and fruit bearing plants
- Slowing the water run-off and capturing rainfall in the leaf structure
- Increasing water infiltration through root absorption
- Cleansing soil and water toxins by plant uptake
- Providing environmental education by showcasing plants used by people throughout history

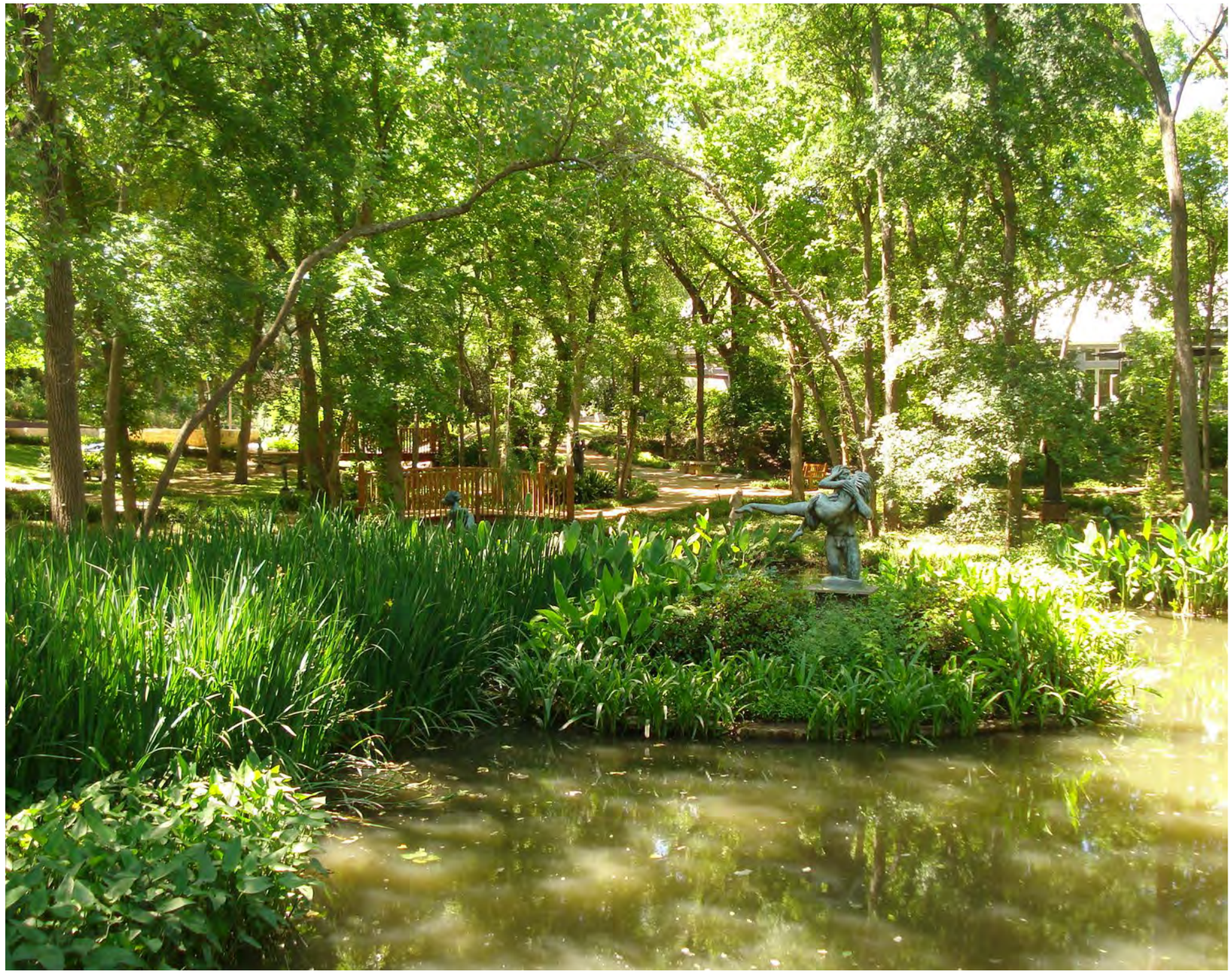


Ecology + Biodiversity

The UMLAUF site is intricately connected to Austin's broader ecosystem, its ecology and biodiversity ebb and flow into the surrounding sites. It also represents a site of natural respite for Austin residents, providing moments of tranquility and joy as they immerse themselves in the garden.

In an effort to preserve the ecological balance and biodiversity of the area, the landscape efforts are primarily focused on three key objectives: removing invasive species, revitalizing mid-level vegetation, and enhancing plant diversity onsite. By undertaking these initiatives, the plan aims to uphold the integrity of the ecosystem and honor the diverse array of plant life that once thrived on this land before the establishment of site boundaries.

"What a beautiful place. I am a native Austinite who believes in the importance of nature, community, public education and art for all. I hope we can continue to nurture this place and all of our other parks and art facilities with the unified goal of environmental stewardship, community, inclusivity, and art."



Green Mulch, Groundcovers

Recommendations

Achillea millefolium (Yarrow): pollinator plant, historic medicinal and cultural use, soil remediation

Ipomopsis rubra (Standing Cypress): pollinator plant

*Lobelia cardinalis (*Cardinal Flower): pollinator plant, historic medicinal and cultural use

Andropogon ternarius (Splitbeard Bluestem): nesting material, pollinator plant, soil remediation

Bouteloua curtipendula (Sideoats Grama): nesting material and food/seeds, soil remediation

Calyptocarpus vialis (Horseherb): pollinator plant

Monarda fistulosa (Wild Bee Balm): pollinator plant, historic medicinal and cultural use

Rivina humilis (Pigeonberry): wildlife food

Echinacea purpurea (Purple Coneflower): pollinator plant, historic medicinal and cultural use, soil remediator

Chasmanthium latifolium (Inland Sea Oats): pollinator plant, nesting material and food/seeds

Elymus canadensis (Prairie Wildrye): pollinator plant, habitat food

Viola Ordorata (Sweet Violet): historic medicinal and cultural use

Mid-Level Planting

Recommendations

The landscape character of the UMLAUF is intricately linked to a canopy of mature oak and heritage trees, which provide essential ecosystem services to visitors and a diverse array of species year-round. However, there is room for improvement in the existing landscape's spatial and temporal hierarchy. Introducing shrubs, mid-level, and ground-level plants can transform visitor interactions with the garden while also bolstering biodiversity, controlling erosion, and defining spatial boundaries. For instance, incorporating plant species with seasonal variations can offer dynamic experiences throughout the year. Additionally, remediation of certain areas presents opportunities for re-vegetation using native and diverse alternatives, further enriching the site's ecological diversity.

"Identify all the vegetation species on site and include them in the learning experience."

Sambucus nigra (Elderberry): pollinator plant, habitat and culinary food, historic medicinal and cultural use

*Capsicum annuum (*Chile Pequin*)*: habitat and culinary food, historic medicinal and cultural use

Callicarpa americana (American beautyberry): habitat and culinary food, pollinator plant, historic medicinal and cultural use

Crataegus opaca (Mayhaw)*:* pollinator plant, historic medicinal and cultural use

Malpighia glabra (Barbados Cherry): habitat food, pollinator plant

Symphoricarpos orbiculatus (Coralberry)*:* habitat food, nesting habitat

06

Design Guidelines

Review and compliance
Architectural character
Guidelines

Review and Compliance

The UMLAUF HPEU Plan's design guidelines aim to establish a framework that connects the site's historical and natural elements with the wider community, expanding the existing offerings. The subsequent sections present guiding principles to prioritize future development for successful interventions. These principles do not offer fixed solutions but encourage flexibility and creativity, aligning with diverse project needs, functions, and budget constraints.

As each design challenge lacks a one-size-fits-all solution, these guidelines necessitate careful consideration during the design phase. They require expertise in design disciplines and a deep understanding of the unique context of the UMLAUF. It's advisable for the Board to engage professionals in architecture or landscape architecture, either by involving them in the committee or seeking their advisory role during the design phases. Their input will be vital for reviewing compliance with these guidelines and ensuring thoughtful design implementation.

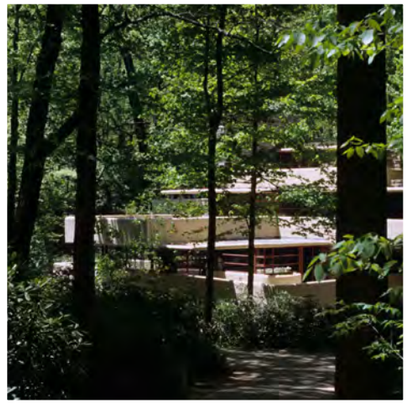
Architectural Character

This UMLAUF HPEU Plan aims to create architecture that coincides with the goals of the UMLAUF, while reaching their desires for growth, and complimenting the existing structures and site. The architectural character of new buildings should harmonize with the original aesthetics of the house and studio, creating a seamless integration that pays homage to their design legacy. It's essential that these new structures complement the surrounding landscape, respecting its natural features while adhering to the established design guidelines. By echoing the design language and principles of the original architecture, the new buildings will not only honor the historical significance but also contribute to the overall visual coherence of the site. This approach ensures a unified aesthetic that respects the heritage of the space while embracing contemporary design sensibilities.

Design Guidelines

Design guidelines are a set of principles or standards that offer direction and recommendations for creating and developing spaces or structures. They encompass various aspects of design, including architectural aesthetics, functionality, sustainability, and context within the environment. These guidelines serve as a framework to ensure consistency, quality, and coherence in design outcomes.

The following are used as a reference and framework during the planning and design phase of the HPEU Plan. They aid in maintaining a cohesive vision, ensuring that design decisions align with project goals, community feedback, and the intended user experience.



Harmonize

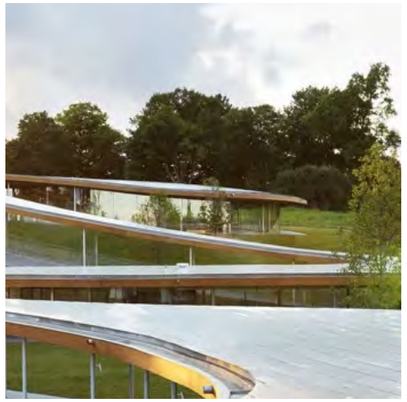
Attunement of form to natural and historic resources. Careful placement of elements to blend in

Synergize

Leverage environmental opportunities for high performance design and landscape

Materiality

Use of natural materials



Topography

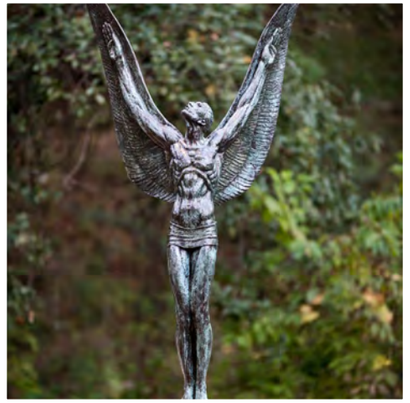
Working with contour to enhance access, views, and discovery

Views

Locate important program spaces to optimize view sheds

Transparency

Fully glazed volumes provide views out and also dissolve the building into the trees and sky



Interpretive

Architectural opportunity to frame educational experience

Biophilia

Holistic, healthful building, environmentally beneficial to occupants and ecosystems

Harmonize

Harmony is a quality of architecture that seeks to blend into and support the effects already present in a place, and often in a delicate balance. Harmony doesn't only imply the superficial imitation of appearances. That is camouflage. Harmony is adding something new into a place that augments and preserves it simultaneously and creates a whole greater than the sum of its parts. Harmony is the chord that must be struck for an intervention into the UMLAUF Sculpture Garden + Museum.

This historic place contains a rich history of sights, sounds, and experiences set in motion by the Umlauf family in which the new treehouse and gateway buildings must formally posture itself as the supporting character. On the wooded hillside the treehouse employs a dark, oxidized metal cladding to recreate the shadows and texture of ground covered by leaf litter. The matte texture avoids reflective distraction in favor of dappled light below foliage, providing minimal intrusion to the visual field of visitors enjoying the artworks and gardens. This attunement of every surface and material selection and form was similarly considered in detail and informs all of the architectural guiding principles, which is the function of harmony.

Synergize

The intervention should establish synergies with the environment, existing land use, architectural character, and local community. A primary opportunity of this site is to enhance the filtration of water bound for Barton Springs and Town Lake. The swales and contouring of new elements will serve to intercept water and direct it to biofiltration water features, and riparian areas. This holistic approach integrates the entire site into the hydrological system of its surroundings, enhancing its environmental synergy.

In addition to water management, careful consideration is given to the placement of key features such as the treehouse and gateway. These elements are strategically positioned at points of transition, direction change, and reorientation within the site. For instance, the treehouse location is meticulously aligned with the topography to seamlessly accommodate an elevator between the garden and hilltop levels. This approach not only enhances accessibility but also creates opportunities for implementing geo-thermal systems, thereby improving energy efficiency.

Furthermore, the treatment of the garden's edge along Azie Morton involves the creation of selective apertures, involving visitors in a new entry sequence. The revitalized welcome zone, incorporating amenities like a visitors' library and potential space for a food truck or other revenue-generating ventures, aims to integrate the UMLAUF with the surrounding neighborhood and the broader city. This area serves as a platform for collaboration with local businesses and extends the experience to those walking/wheeling around the site.

Materiality

The choice of materials for new buildings should seamlessly integrate with the relaxed, natural ambiance that defines the UMLAUF's unique character. Reflecting the historical significance of the site's homestead, the materiality at UMLAUF draws inspiration from mid-century vernacular architecture, rooted in American Arts and Crafts traditions like the bungalow. This design ethos is evident in the existing museum and gallery structures, which are crafted from wood and employ traditional techniques tailored to local environmental and cultural conditions.

The proposed new construction must uphold the architectural legacy established by the house, studio, and pavilion, prioritizing openness to prevailing breezes and providing ample shelter from sunlight and occasional rain. Cross-laminated timber (CLT) emerges as a central element of the design strategy, allowing for innovative interpretations of stick-built shelters. By utilizing CLT as the primary structural material, rather than a veneer treatment, the design evokes the image of a treehouse while offering both aesthetic and sustainable benefits. The warm, inviting nature of wood can be expressed in various design elements, including column spacing, beam spans, and the exploration of expansive canopy cantilevers. Moreover, CLT's renewable and carbon-capturing properties align with the project's commitment to sustainability, as detailed in the sustainability chapter.

To complement the timber elements and harmonize with the site's natural surroundings, weathering steel (corten) and transparent, bird-safe glazing are recommended as additional primary materials for new constructions. The transparent glazing will facilitate the expansion of functional, environmentally controlled spaces, accommodating a range of flexible programs while maintaining visual connectivity with the site's landscape.

Topography

Topography is a defining characteristic of Austin. Situated at the edge of the prairie and start of the Hill Country, Austin inherited the special rewards and challenges of occupying a limestone escarpment. The dramatic topography introduces protected pockets of nature into the urban grid, cherished by locals. Situated at the southwest edge of Zilker Park, the UMLAUF site occupies a pivotal boundary that offers an opportunity to forge stronger connections between the neighborhood, park, and broader city communities.

A primary objective of the plan is to honor and embrace the site's topography while simultaneously creating an accessible route that seamlessly integrates the entire site, enriching its natural and cultural offerings. Careful consideration of the grade change is essential, with a strategic approach that embraces the land's inherent character to inform architectural interventions. This approach not only prioritizes sustainability by minimizing disruption to the natural environment, but also endeavors to craft spaces that harmonize with the site's distinct identity, fostering a deeper sense of connection between the built environment and its surroundings. Implementation of landscape strategies on the steepest slopes will bolster stormwater management efforts and enhance hill stability.

Views

The unique and striking elevations and topography of the UMLAUF site offer an exceptional opportunity to craft immersive experiences that showcase the beauty of nature and its surroundings. Intentional integration of architectural elements into the landscape will serve to accentuate and celebrate these breathtaking views, harmonizing the built environment with the site's remarkable natural contours.

Careful consideration of the building's orientation, placement of windows, and architectural features will play a pivotal role in framing the beauty of the UMLAUF's surroundings. Prioritizing the health and well-being of occupants, the design should maximize natural light exposure and provide views of the outdoor landscape, with the goal of reducing feelings of confinement, enhancing overall wellness, and mitigating stress levels. By strategically incorporating moments of openness and scenic vistas, the design can cultivate special experiences that foster a deep connection between users and the natural environment, as well as the art within it.

Transparency

Transparency in architectural design embodies a concept that aims to dissolve physical barriers, enabling occupants to seamlessly transition between spaces, thus fostering a feeling of openness and interconnectedness. By welcoming natural light and providing unobstructed views, transparency creates an expansive, unified atmosphere that blurs the distinction between indoor and outdoor environments.

The plan recommends the strategic utilization of transparency to convey a sense of lightness and to maximize programmatic opportunities while preserving the site's natural ambiance. This could be achieved through the strategic incorporation of glass, open layouts, and design elements that establish visual connections between the interior and exterior surroundings. It is imperative to employ transparency responsibly, taking into account considerations such as visual and thermal comfort, as well as the implementation of bird-safe glass to safeguard the local ecosystem.

Interpretive

The location and design of new elements in the plan present an opportunity to craft an immersive educational narrative that aligns with the programs it supports, weaving together Charles Umlauf's life with the world of art and its processes. This design concept envisions spaces capable of hosting elements inspired by Umlauf's artistic journey, spotlighting pivotal moments in his life and the evolution of his creations. These moments are seamlessly integrated into the explorative journey of the site, inviting visitors to embark on a discoverable path through the garden.

The architectural narrative must extend beyond biography. It should include spaces dedicated to understanding art processes, techniques, and inspirations. Through strategically positioned exhibits, interactive displays, and educational zones adjacent to the existing museum gallery, visitors can engage in a curated exploration of artistry. The design strategy should not only provide insights into Umlauf's legacy but also act as a gateway to appreciate diverse art forms, fostering a deeper understanding and connection to the creative world and its creators.

Additionally, the plan advocates for the incorporation of interpretation and education into outdoor and natural spaces. By integrating the water management strategy, promoting native species, and enhancing accessibility of natural trails, these elements become integral to the overall interpretive story. As the most recent addition to the UMLAUF's timeline, the improvements made to the site that enhance accessibility and awareness are embraced as part of its evolving history.

Biophilia

Biophilia is the innate human tendency to seek connections with nature and other forms of life. By incorporating biophilic elements, such as plants, natural light, water, and materials derived from nature, architectural spaces can evoke a sense of harmony with the natural world. This concept holds particular importance in the implementation of the plan at the UMLAUF due to the site's inherent natural character. Examples of biophilic design elements include green spaces, living walls, abundant natural light, and opportunities for views of nature.

The plan recommends the adoption of biophilic strategies to enhance visitors' well-being, productivity, and overall satisfaction, thereby enriching the art viewing experience and highlighting the unique essence of the UMLAUF. Moreover, these elements can contribute to energy efficiency and sustainability by maximizing the use of natural light and ventilation, thus reducing dependence on artificial lighting and heating systems.

Leveraging existing site elements and integrating additional biophilic design features will create spaces that seamlessly blend with the natural environment and promote a deeper connection with nature for all who visit the UMLAUF.

07

Sustainability + Resilience

Health
Energy
Carbon
Ecology
Water
Resilience
Sustainability Strategies

Sustainability goals are woven into the very fabric of UMLAUF's guiding principles and priorities.

Sustainability Commitment

Quality Assurance

While the City mandates a certain baseline of sustainability, the UMLAUF aims to surpass these requirements by adopting a holistic approach to site improvement. This commitment encompasses every stage of the process, from planning and financing to designing, constructing, managing, renovating, operating, maintaining, and decommissioning buildings.

At the forefront of the site's objectives is the enhancement of landscape and stormwater management to bolster resilience during both droughts and floods. Following this, the priority is restoring the existing historic site, which involves weatherization, replacing components of the mechanical, electrical, and plumbing (MEP) systems, and eliminating hazardous materials that pose potential health risks. Lastly, the site seeks to incorporate spaces that serve the local community, fostering gatherings and promoting healthy lifestyles.

Dedicated to impact-forward design, the plan suggests to integrate additional non-traditional sustainability-related scopes into the project. These may include roles such as building performance consultants, enclosure consultants, commissioning officers, certification leads, rainwater subcontractors, solar subcontractors, geo-exchange systems installers, and more.

Certifications

The Austin Green Building Policy mandates that all City-owned public-private partnerships must meet a minimum **3-star AEGB or LEED Silver rating**, ensuring adherence to sustainable practices in building construction. Furthermore, projects exceeding $2 million in construction costs are obligated to acquire **SITES certified rating**, which prioritizes both human and environmental well-being through its principles. Whereas certifications like AEGB and LEED focus on the building, SITES focuses on everything on your site except the building (with a few exceptions). These three certifications have certain alignments and synergies which are to be considered when making a final rating decision.

In demonstrating their dedication as conscientious stewards of the environment, the UMLAUF plans to start the design process with a goal-setting exercise to explore options of achieving an exceptional 5-star AEGB rating and/or LEED Platinum certification, as well as SITES Platinum. In the pre-schematic design discussion, the UMLAUF will explore other certifications such as WELL building standard compliance and PHIUS certification.

Impact Categories

The plan encompasses six primary impact categories to ensure that sustainability and resilience strategies are approached comprehensively, addressing key aspects crucial for cities and buildings to have a responsible and positive impact on their communities and the environment.

Health

Improve occupant health and well-being by incorporating design elements that prioritize thermal and visual comfort, employing biophilic concepts, and implementing measures to enhance indoor air quality.

Energy

Reach net zero annual energy by incorporating energy reduction strategies, solar panels, and a geoexchange heating + cooling system.

Carbon

Reduce carbon emissions by 50% from baseline through carbon conscious material selection, and planting carbon sequestering ecology.

Ecology

Enhance ecology and biodiversity by introducing a diverse middle layer of shrubs and forbes, enriching the environment and providing additional vegetation for animals.

Water

Minimize water feature and irrigation water consumption and use stormwater and rainwater exclusively for outdoor irrigation.

Resilience

Establish an effective water management strategy for both routine rain events and extreme 500-year flood events using bioswales, increases in pond capacity, rain gardens stone path edges, and other relevant measures.

07.1
Health

Health

Introduction

At the heart of the UMLAUF's design ethos lies a commitment to people and place. Human-centric design necessitates an understanding of the community's demographics and their specific needs, as detailed in previous sections of this report. This section shifts focus to human health and well-being within the space, particularly examining the impact of light, heat, and air quality on overall health and well-being.

Recognizing the profound influence of physical and social environments on well-being, parks like the UMLAUF play an essential role in nurturing health-conscious communities. These communal spaces serve as vital hubs for social interaction, addressing prevalent health concerns such as depression and loneliness by fostering connections among community members.

These verdant sanctuaries seamlessly blend nature with urban landscapes, offering solace, reducing stress, and augmenting mental and physical health through exposure to natural sunlight. Sunlight exposure intricately regulates the body's circadian rhythm, energy levels, and hormone releases, while the ecological setting provides both direct medicinal benefits and soothes nervous system responses.

By meticulously considering air quality, thermal comfort, and visual well-being, both the UMLAUF's indoor and outdoor spaces will harmoniously integrate sustainability with the well-being of its visitors, cultivating an environment where individuals thrive both physically and mentally.

People

Demographics

Part of the UMLAUF's vision is to honor the Umlauf family's contribution to the Austin community by offering experiences that integrate art with nature, health and wellness programs, and a peaceful breathing space within the heart of the urban capital city. The site's special location not only offers a space to connect with nature, it also provides access to an outdoor oasis infused with art, which can contribute to both mental and physical well-being. To support equitable access to these experiences for all members of the community, particularly underserved and marginalized groups, the plan recommends the implementation of supporting operational and programming strategies to enhance accessibility to the site and programs.

Historically, health risks have correlated with factors such as the physical environment, education, race, ethnicity, and income. However, data from the Environmental Protection Agency's (EPA) Building Environmental Justice (EJ) Tool, indicates that the UMLAUF's immediate vicinity is primarily populated by affluent white individuals with better health indicators than the city's average (please refer to the comparison on the right for further details). This underscores the importance of ensuring the plan's real impact on community health.

The table on the right compares demographic data from some of Austin's wealthiest, poorest (excluding university blocks), and median neighborhoods. Implementing accessibility strategies targeting underserved communities could allow the UMLAUF to have a more positive impact. By doing so, more people could benefit from the physical and mental health benefits that spending time at a site like the UMLAUF's can provide.

Demographics

Scenic Dr. near Colorado River in Tarrytown (zip code 78703)	Local 1/4 mile radius of the UMLAUF and majority visitor population (zip code 78704)	City of Austin Demographics from US Census Bureau	Block at corner of 12th St & Airport (zip code 78702)
Population Density **1,957** people/sq mile	Population Density **5,689** people/sq mile	Population Density **3,271** people/sq mile	Population Density **7,145** people/sq mile
People of Color **3%**	People of Color **11%**	People of Color **36.8%**	People of Color **91%**
Per Capita Income **$189,050**	Per Capita Income **$101,672**	Per Capita Income **$86,556**	Per Capita Income **$17,755**
Lack of Health Insurence **1%**	Lack of Health Insurence **1%**	Lack of Health Insurence (Under 65) **13.9%**	Lack of Health Insurence **14%**
Persons with Disability **5%**	Persons with Disability **2.5%**	Disability Under Age 65 **7.2%**	Persons with Disability **8.5%**
Life Expectancy **84 yrs**	Life Expectancy **81 yrs**	Life Expectancy **82 yrs**	Life Expectancy **72 yrs**

People

Demographics

To promote greater equity in access to the UMLAUF, strategies aimed at making the site accessible to areas of the city with higher health risk factors and limited access to quality green spaces and cultural institutions like museums. This initiative aims to extend the benefits of the site's tranquil environment to health and wellness programs offered by the UMLAUF. Recommendations include after school art engagement along with shuttle services from underserved areas for free of admission visits.

Embracing such initiatives would support the UMLAUF's vision of expansion and inclusion, while serving as a beacon of health and cultural enrichment for a wider community.

Below are a series of recommended strategies aimed at expanding the audience who can benefit from visiting the UMLAUF. It is suggested to collaborate with existing community organizations to support and implement this vision. A comprehensive operations plan becomes essential in the later stages of planning to guarantee that both existing and new spaces are use in an equitable manner.

The UMLAUF has already implemented programs to enhance accessibility and inclusion, including Touch Tours, which allow visitors to interact with sculptures, Family Day programs catering to all ages, and UMLAUF After Dark events offering museum visits after regular hours. Building upon these efforts, the plan recommends further equity strategies to ensure the site is accessible and inclusive for all individuals, with an intentional focus on engaging marginalized groups.

Accessibility

1. Fully ADA accessible museum and garden experience
2. Site edge treatments for maximum visibility and a more welcoming arrival

Inclusion

3. Universal design principles
4. Increase awareness of the current free Touch Tours
5. Bilingual educational signage
6. Children-friendly programs
7. Recognition of historical and site context as well representation of diverse cultures and artistic practices
8. Water filling stations
9. Outdoor resting stations (benches in shaded areas)

Equity

10. Free admission opportunities
11. After-hours access opportunities
12. Busing/shuttle initiatives
13. After-school engagement programs
14. Underserved communities art education program
15. School art field trips

"I found peace at UMLAUF when I visited. Going there helped me through a tough spot."

The UMLAUF currently houses the largest collection of touchable bronze sculptures in Texas. The Touch Tours offer unique opportunities for the visually impaired and other kinesthetic learners to formally engage with the subject matter and materials employed by Charles Umlauf.

Place

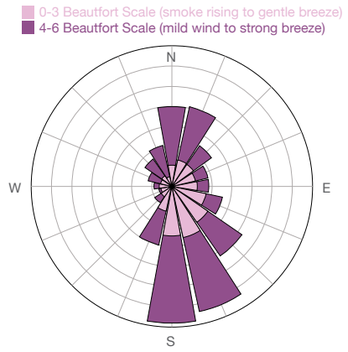
City of Austin

Various resources such as Klimaat, Climate Check, Colombia's Natural Hazard's Index, and the Environmental Protection Agency's (EPA) Building Environmental Justice (EJ) Tool, provide valuable insights into our local climate and inform strategies for designing for visual and thermal comfort. On the right, you'll find some basic climate metrics, and at the bottom, the site is situated within the local climate for further analysis.

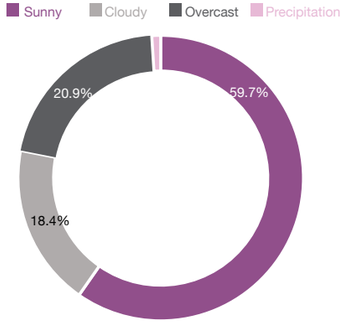
Austin experiences mild variations of typical heat and air quality challenges, yet it still grapples with issues such as extreme heat, drought, and flooding, particularly exacerbated by the urban heat island effect. Within this urban landscape, the UMLAUF functions as a green sanctuary, tempering city temperatures through a micro-climate fostered by biodiversity and water features, providing much-needed relief. Designing comfortable environments not only eases strain on the body's thermal regulation but also enhances visual comfort.

Throughout the following pages, strategies will be presented to uphold occupant thermal and visual comfort and ensure good indoor and outdoor air quality. The Austin population grapples with air quality challenges, including those posed by COVID, allergies, and other harmful particles affecting human health. Air quality tends to spike during peak traffic times and settles down at night, presenting dynamic challenges that must be addressed.

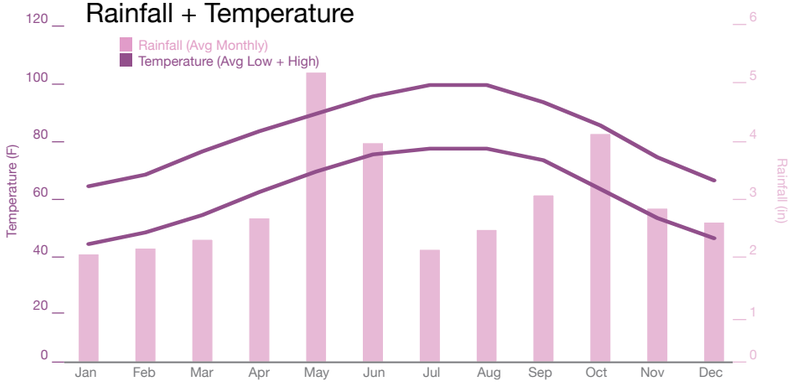
Wind Rose



Weather Characteristics

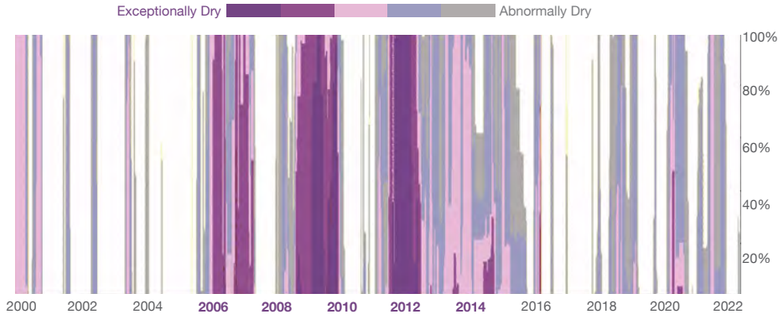


Rainfall + Temperature

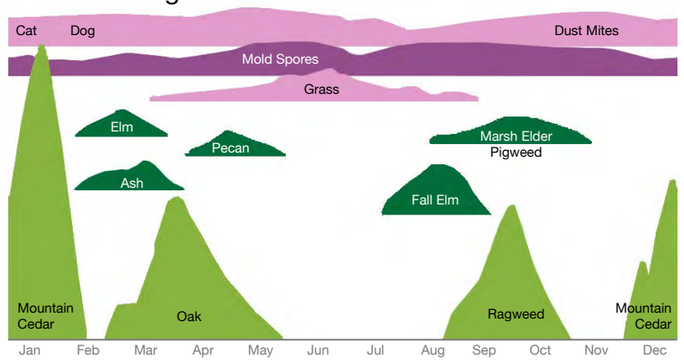


Drought Risk

Weekly percentage of Austin-Travis Lakes Watershed Experiencing Drought, 2000-2022



Austin Allergies



Asthma

8%

Percent of population

Haphzardous Waste Proximity

.74 **facility count/km**

compared to US avg of 1.9

Particulate Matter

9.66 µg/m³

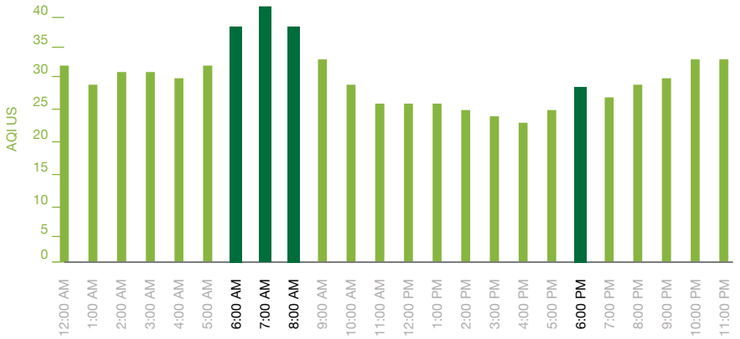
compared to US avg of 8.08

Ozone

62.7 ppb

compared to 61.6 US average

Austin Air Quality Index



People-centric Design

All Gender, All Age, All Occupants
Health, Accessibility, Inclusion

The aim of the plan is to establish a space that is welcoming and physically accessible to people of all ages and transportation modes, inclusive of all genders, and promotes healthy practices for every visitor. This involves incorporating principles of Universal Design Guidelines and strategies from the WELL certification. Specific measures, such as installing additional water and bottle filling stations, cooling spray areas, bike racks, and electric vehicle (EV) parking spots, as well as including a lactation room, bi-lingual signage, and all-gender restrooms with showers, are essential for fostering a more inclusive and healthy environment on the site. Please see some of this recommendations on the map to the right.

Visual and Thermal Comfort + Biophilia

Architectural Design Strategies

Designing and maintaining spaces that prioritize thermal and visual comfort is fundamental for enhancing the quality of life for their users. The plan suggests that additional studies on daylighting, energy efficiency, and related subjects is imperative to achieve a balanced integration of daylighting, glare control, thermal comfort, and biophilic design elements. Design strategies such as thoughtful orientation, window-to-wall ratios, window specifications, shading techniques, meticulous enclosure detailing, air barrier continuity + testing, natural ventilation systems, and iterative thermal and visual modeling can all contribute to optimizing design outcomes. Please find below some recommendations and explanations of these critical health metrics.

Biophilic design

Biophilic design principles can significantly contribute to stress reduction, enhance creativity and mental clarity, improve overall well-being, and facilitate healing processes. Incorporating elements that establish connections with nature, such as visual and auditory stimuli, dynamic and diffuse lighting, specific structural materials, and creating spaces of refuge and mystery, can all contribute to this effect.

The plan suggests biophilic strategies such as maximizing natural views and incorporating materials reminiscent of the outdoors. Dappled lighting, natural auditory cues like the babbling brook, and the sensation of seclusion within a forested area creates thoughtful experiential moments.

Visual comfort

Visual Comfort plays a pivotal role in occupant satisfaction and performance. Natural light has been associated with improved mood, energy levels, physical health, productivity, and learning. Moreover, proper lighting conditions influence circadian rhythms, impacting sleep patterns and hormone releases.

The primary recommendation is to iterate with the massing and orientation of the suggested structures and spaces, and analyze various dynamics of the space to achieve healthy conditions, which are attained when occupants are not subjected to glare or underlit conditions during hours of operation in key areas. Additionally, art selection will contribute significantly to the overall lighting experience.

Thermal comfort

Maintaining optimal thermal conditions is equally critical for occupant well-being. By ensuring a comfortable temperature range, discomfort, fatigue, and stress can be minimized while promoting physical and mental health. Additionally, creating sustainable and energy-efficient thermal environments is essential for overall building efficiency.

The plan recommends to conduct mean radiant temperature, CFD (Computational Fluid Dynamics), and operational temperature studies to assess thermal comfort at the UMLAUF to achieve the recommended envelope-to-floor ratio of 1.53. Mechanical controls and passive design strategies can significantly impact thermal comfort.

The plan suggests the use of natural materials such as mass timber and wood finishes, as well as implementing experiential nature, such as maximizing the dappled light of trees, outdoor smells, and nature sounds through design.

Indoor Air Quality

Mechanical Systems and Material Strategies

Ensuring optimal indoor air quality is crucial for occupant well-being. Poor air quality, including high CO2 levels, toxins, biological growth, and airborne diseases, can lead to Sick Building Syndrome. Emissions associated with PM 2.5, ozone, and toxins contain various compounds posing health risks, such as reduced lung function, cancer, and neurological damage. A proactive, multi-faceted approach is essential, as outlined in the provided strategies.

The plan recommends the following strategies for enhancing indoor air quality:

1. Providing adequate ventilation, bathroom and kitchen exhaust systems, and code-compliant filtration for existing buildings.

2. Conducting blower door tests and improving to 3 air changes per hour (ACH) for existing buildings and 0.06 ACH for new buildings.

3. Implementing MERV 16 air filtration for new buildings, capable of trapping 99.97% of air particles sized 0.3 microns. Selecting materials with low volatile organic compounds (VOCs), using Red List free materials, and opting for materials with Health Product Declarations (HPDs) to promote healthier indoor environments.

4. Using walk-off mats and vestibules, adopting green cleaning practices, and implementing Integrated Pest Management strategies, among other measures.

5. Monitoring indoor air quality in both new and existing buildings to engage the public and ensure indoor health standards are met.

Filtration
A MERV 16 or HEPA equivalent filter

Low Duct Leakage
Perform Duct Leakage testing periodically during construction to ensure air tight ducts

Red List Materials
Red List chemicals and elements are known to pose serious human health risks

Walk-off Mats + Vestibule
Walk-off mats and vestibules prevent outdoor air and particles from contaminating indoor air quality

Fresh Air
Fresh air ensures that high levels of CO2 do not build up in the space and toxins get flushed out

Building Air Tightness
Perform Blow Door Testing periodically through construction to ensure the enclosure is air tight

Low VOC Materials
Volatile organic compounds (VOCs) mix with air pollutants and UV light to make ozone, a human health toxin

Green Cleaning Products
Use non-toxic cleaning products. Use EPA Safer Choice label

Dehumidification
In a climate like Austin, dehumidification is paramount to comfort and moisture control

Building Flush Out
Do several days of a whole building ventilation before occupancy

Air Quality Monitoring
Post occupancy metrics show real-time data on air quality

Integrated Pest Management
Certain plants act as pest repellents

07.2
Energy

Energy

Introduction

The UMLAUF's primary energy objective is to achieve **Net Zero Annual Energy**, meaning the site generates as much renewable energy as it consumes over a year. The strategy involves initially reducing annual energy usage and then offsetting the remaining consumption by leveraging geo-exchange for heating and cooling while maximizing on-site energy production with solar panels.

The careful selection of energy sources is critical, considering that non-renewable options such as coal, natural gas, and propane significantly contribute to air pollution and global warming. Each unit of energy used on-site translates to three units of energy used at the source at coal or propane plants due to losses during conversion and transmission. The UMLAUF has committed to a fully electrified site, eliminating gas, diesel, or propane appliances and systems and providing EV transportation with chargers on-site and places for bikes and human-powered transportation. Despite remaining connected to the grid with a diverse energy portfolio, the UMLAUF is actively reducing its energy consumption and deploying on-site renewables to minimize its environmental footprint. This multifaceted approach underscores the UMLAUF's conscientious efforts to balance operational needs with environmental stewardship.

Energy Balance

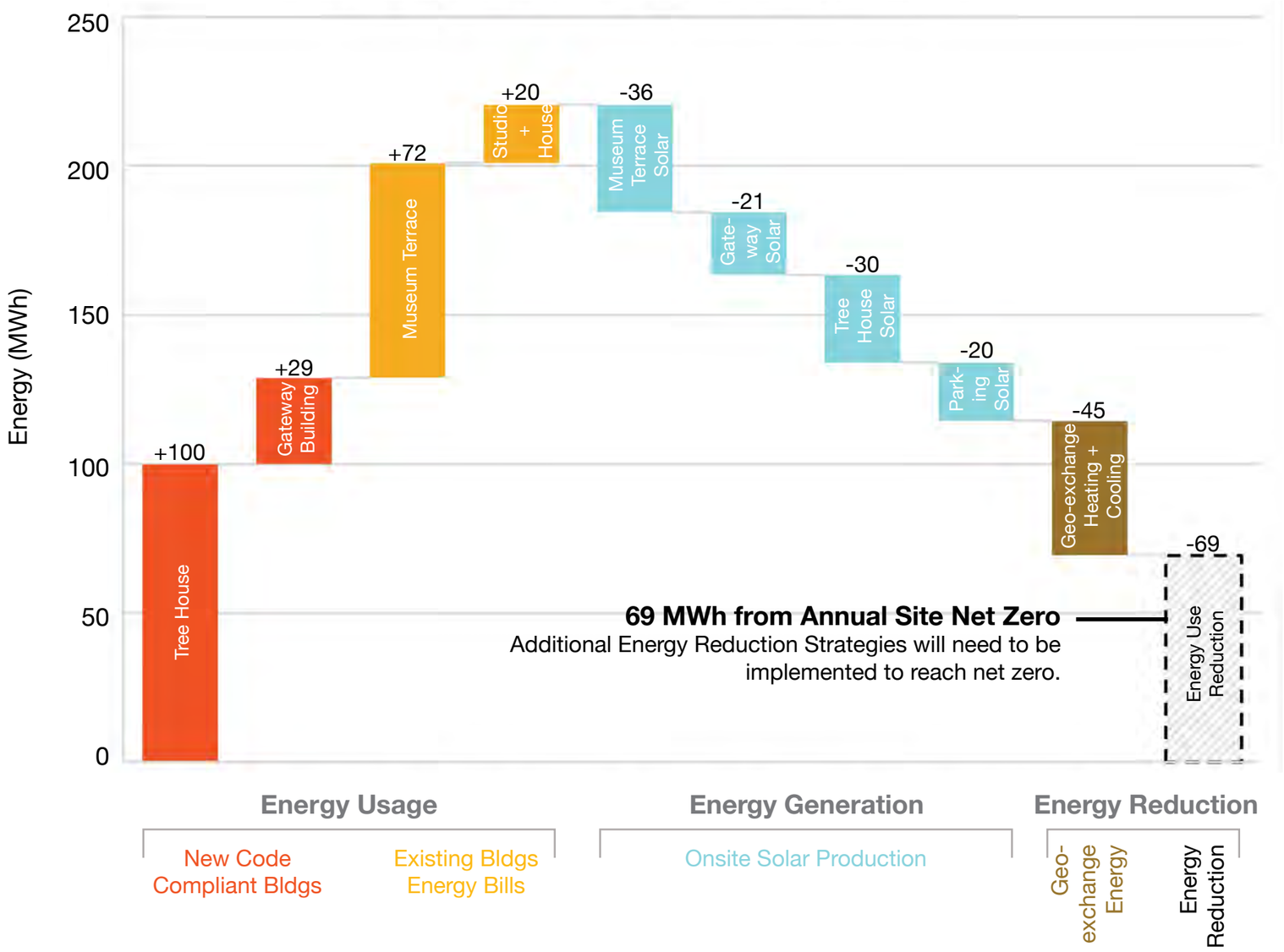
Annual Energy Balance

The existing buildings consume 221 MWh per year of energy, which is more energy than 18 homes in Texas. Renewable energy generation from photovoltaic (PV) systems can offset 50% of the total annual energy use. Using geo-exchange wells and ground source heat pumps, an additional 10-20% energy consumption can be reduced. To bridge the remaining gap to net zero, existing meter data should be collected with energy audits to evaluate the most effective energy conservation strategies. A comprehensive building performance analysis is recommended to asses aspects such as building orientation, the window-to-wall ratio, the implementation of high performance enclosure, heat pump systems, decoupled ventilation with sensible HVAC systems, and the use of energy-efficient appliances. Integrating these solutions will reduce energy consumption and allow for the PV and geo-exchange systems to offset a larger percentage of the annual energy consumption.

Solutions should first be applied to the new buildings to make them as energy efficient as possible. Followed by the Museum Gallery + Terrace, which is currently the highest energy consumer of the existing buildings. Lastly, the historic home and studio should be addressed carefully to retain historic context, while modernizing systems for the future. The improvements will be balanced with the budget of the project to find the most cost-effective solutions.

Annual Net Energy Usage

Implementing energy production strategies — such as solar, geothermal, and additional reduction tactics — compensates for the energy consumption of new and existing buildings to reach net annual zero



Energy Use/Generation/Thermal

Energy Use, Solar Energy Production, Geo-exchange

The location and quantity of solar panels are impacted by site limitations, including existing and historic trees, shaded roofs, and utility provisions. Although historic building funding requirements restrict solar placement, all other buildings are recommended to be fit for solar panels and others are recommended to be solar ready. Implementing solar canopy over parking will make further strides towards reaching net zero annual energy.

Additionally, incorporating a geothermal heat pump system - which replaces traditional HVAC systems by harnessing the earth's relatively stable temperature to regulate buildings' heating and cooling - can further improve energy efficiency. A geo-exchange loop under the southern parking area can potentially cover the entire heating and cooling needs of the gateway and museum gallery. An additional geoexchange system near the northern parking lot in well or loop form could possibly provide heating and cooling to the treehouse. If the capacity of the goethermal system does not completely meet the needs of the historic buildings, the plan recommends using air source heat pumps.

Thinking ahead, as energy has an operational carbon impact, the plan recommends exploring hydronic systems to reduce the carbon footprint of the refrigerant. And think through radiant heating as a more efficient form of heating the space.

Energy Usage
- New Building Energy Usage
- Existing Building Energy Usage

Energy Production
- Solar Energy
- Geo-Exchange

Options for the geo-exchange system include several form factors such as deep wells, multiple loops, or shallow piping indicated above

UMLAUF HPEU PLAN

Energy Reduction Strategies

The UMLAUF's building operations currently demand more energy than what can be generated on-site. The recommended energy conservation strategies outlined below aim to further reduce operational energy usage to achieve the target of net-zero emissions.

For existing buildings such as the Museum Gallery + Terrace and Historic Homestead, implementing circuit-level monitoring or conducting a building energy audit will provide valuable insights into current energy usage patterns. By implementing appropriate strategies based on these findings, the goal is to reduce energy consumption.

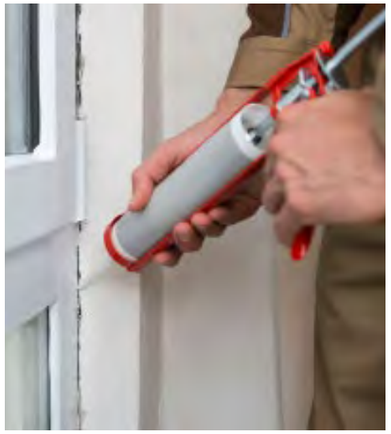
To diminish energy usage in new constructions by 50%, consideration towards factors like building orientation, shading, and enclosure will effectively curtail HVAC system energy consumption, reducing upfront equipment costs and long-term energy bills.

The plan also recommends additional energy-saving measures, such as enrolling the UMLAUF in a demand management program, which can contribute towards achieving an AEGB 3-star rating.

The provided recommendations are derived from the Passive House Institute US (PHIUS), representing the gold standard for energy reduction strategies.

Design Strategies
Orientation, compact footprint, window-to-wall ratio, overhangs, tree shading, blinds, cross ventilation, tree buffers from wind, stack effect, and more are some of the biggest impact categories for energy usage. Early phase energy modeling could provide data-driven feedback and benchmarking

Thermal Performance
Solar heat gain, low-e coating, thermally broken windows, no thermal bridging, high insulation, light roof membrane



Air Tight Enclosure
Building air tightness, airtight ductwork

Electrify Building Equipment
Heat, stoves, cars, and other typically gas appliances will be electric only

Heat Pump Systems
Air Source Heat Pump systems are typically 3x more efficient than electric or gas systems

Energy Efficient Appliances
Picking energy efficient appliances with Energy Star certification reduces energy usage

Measuring Usage
Real-time circuit-level energy monitoring creates owner opportunities for energy conservation

Join Demand Management Program
During peak power draws, opt into reducing thermostat settings

07.3
Carbon

Carbon

Introduction

As a significant cultural landmark in Austin, the UMLAUF has a critical role to play in raising awareness of environmental issues. Leading by example, the following recommendations aim to reduce operational carbon emissions by 50%. Various factors contribute to the overall carbon footprint, as defined below. The term CO2e, used in the following section, represents the global warming potential of greenhouse gases standardized in units of CO2. For perspective, offsetting a single ton of CO2e requires planting 31-46 trees that photosynthesize for a year.

Key Terms:

Embodied Carbon: Total greenhouse gas emissions associated with the entire life cycle of a building or product, including extraction, manufacturing, transportation, and construction phases. This calculation includes CO2 equivalents of greenhouse gas emissions released from refrigerant leakage.

Operational Carbon: Ongoing carbon emissions resulting from building operational energy consumption.

Sequestered Carbon: Carbon dioxide captured and stored, often through sustainable practices such as afforestation or the use of carbon-absorbing materials.

Onsite Carbon Offset: Carbon emissions offset by replacing grid energy with on-site renewables or by reducing energy usage with energy reduction strategies

Carbon Synthesis

Carbon Balance over 30 Years

Goal: Achieve carbon neutrality by 2030, balancing annual operational emissions with onsite carbon offsets.

The plan suggests small footprints, minimizing energy usage, integrating on-site renewable energy sources, careful material selection, and reforesting areas of the site, to decrease the site's carbon emissions. To the right is a projection of the carbon released into the atmosphere over 30 years, given that the City of Austin reaches their goal of decarbonizing their grid by 2040.

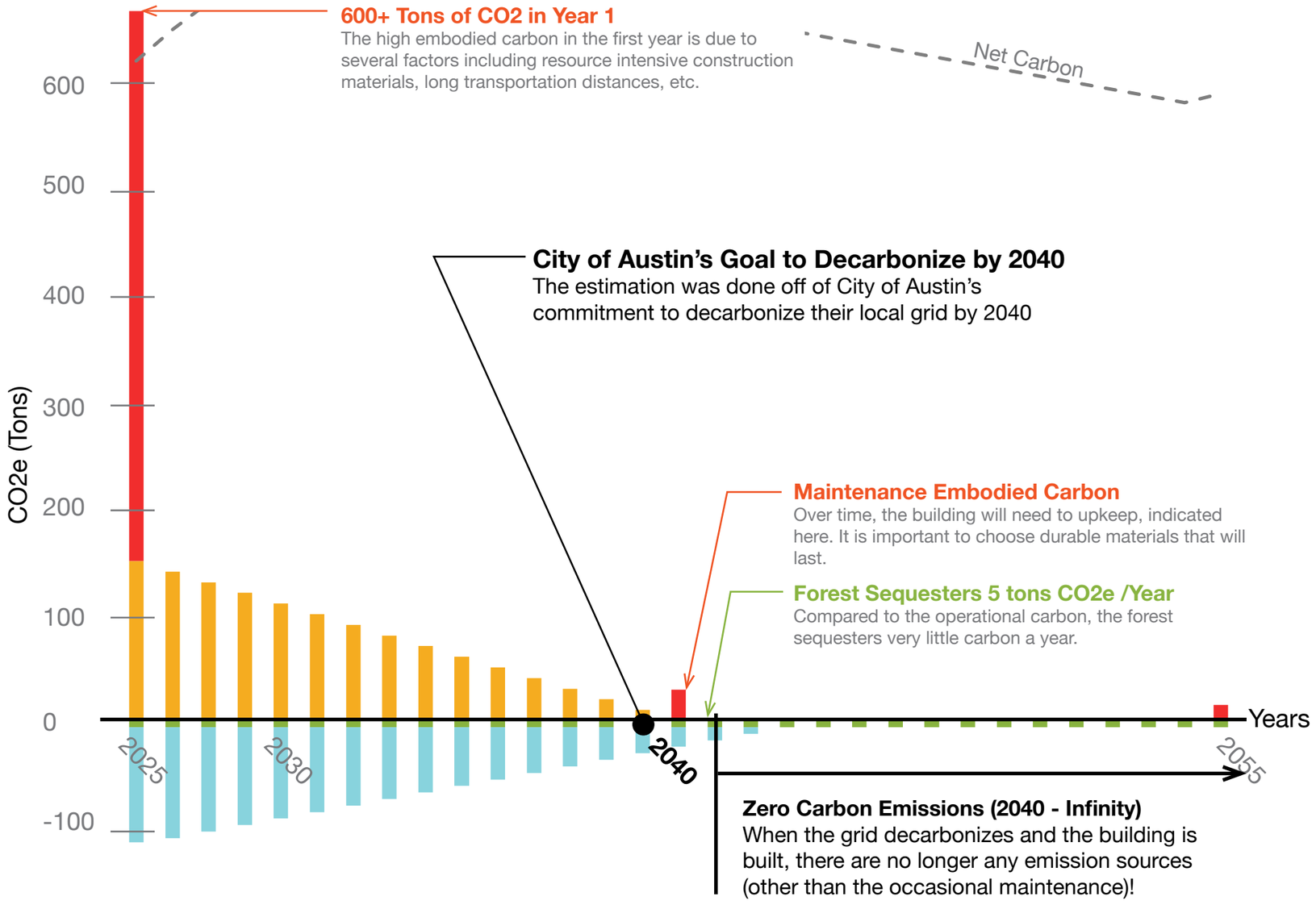
This analysis combines the impacts of:

Embodied Carbon: Materials
Operational Carbon: Energy Usage
Carbon Sequestration: Landscape
Offset Carbon: Renewable Energy

An early estimate was compiled using a combination of CBECs data, CARE Tool, City of Austin's Carbon/kWh estimate, Cambium, and Helioscope. Transportation to and from the site was not considered, but refrigerants were factored into the estimate.

UMLAUF Carbon Balance over 30 Years

Embodied carbon far surpasses other carbon emitters on day 1. The sites trees sequester a minute portion compared to the emitted carbon. Producing energy onsite decreases the total carbon emissions tremendously.



Carbon Emissions Breakdown

Whole Site over 30 Years

Since embodied carbon accounts for a significant portion of emissions over a 30-year period, it is essential to dissect the information, using OneClick Tally Carbon Designer.

95% Reduction in Carbon from Reuse Using existing structures results in a remarkable 95% reduction in embodied carbon, determined through analysis conducted with the CARE Tool.

Enclosure Incorporating strategies such as bio-based insulation, wood studs, CLT interiors, and others can potentially decrease the embodied carbon impact of the enclosure by over 50%.

Refrigerants Refrigerant leakage was factored into the analysis, constituting 25% of the total project's embodied carbon for new construction and 50% for existing structures, based on estimates provided by LMN Architects.

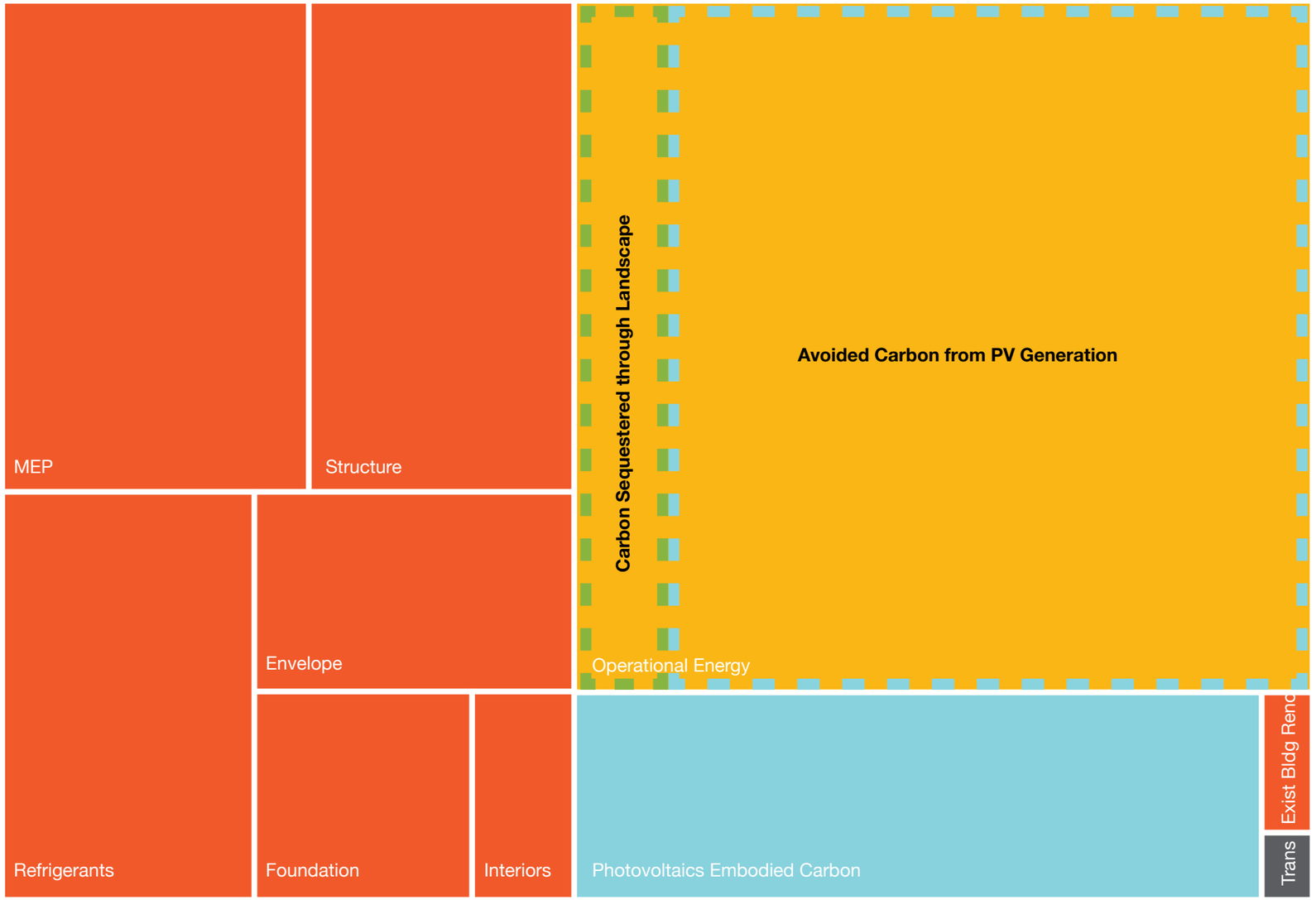
Transportation: The emissions from transportation were considered, accounting for 100 people visiting the site daily, driving a total of 6 miles, at an emission rate of 400 grams CO2e/ mile.

Site vs Source Energy: While not explicitly outlined here, energy generated by onsite solar panels reduces transmission losses and additional losses associated with burning fuel. It's noted that the power plant requires 3 kWh of energy to deliver 1 kWh of energy to the home.

This initial analysis serves as a foundation but needs to be supplemented with a detailed whole-building life cycle analysis that can be refined as the project progresses.

Site Embodied Carbon Breakdown over 30 Years

The biggest carbon emitters on site are operational energy, structure, interiors, then MEP systems, envelope, and refrigerants. The landscape barely offsets carbon.



Carbon Emissions and Drawdown

Overall Site Plan

In pursuit of sustainable and eco-conscious design, the plan recommends measures aimed at minimizing carbon emissions. Central to those efforts are reducing impervious cover as sitework and concrete structure are some of the largest contributors towards embodied carbon emissions. As the project iterates, the plan recommends building with wood structure above ground and creating a small footprint.

Although the majority of the embodied carbon impact will occur on the reduction side, sequestration from vegetation restoration can draw down carbon out of the atmosphere every year.

The synergistic interplay between material choices and site vegetation underscores the plan's commitment to sustainability and low-carbon initiatives.

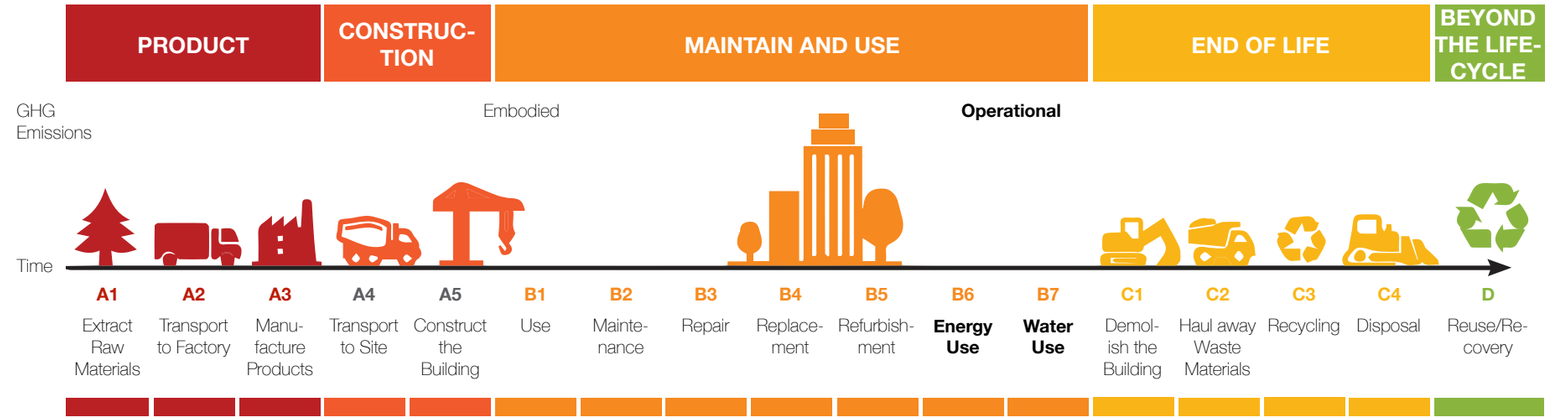
Carbon Emissions Reduction

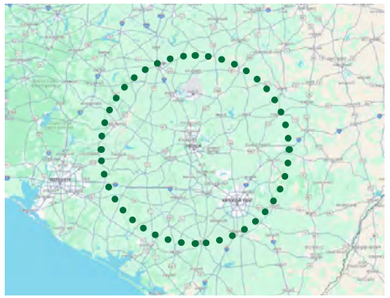
Materials Strategy

Embodied carbon calculations use a set time span to measure the GHG emissions released into the atmosphere in equivalent CO2 from manufacturing, construction, transportation, maintenance, and end of life disposal, as shown in the graphic to the right.

As a general note, transportation has one of the highest impacts on material embodied carbon. Asking manufacturers for Environmental Protection Declarations (EPDs) pushes the industry forward by encouraging transparency. And wherever available, the plan recommends choosing materials with high recycled content (either by up-cycling or down-cycling) products at their end of life.

Starting with the higher impact categories, such as structure, enclosure, and interiors choosing materials with low carbon emissions during manufacturing and end of life plans reduces emissions. Where available the UMLAUF is committed to using resources like Mindful Materials and Forest Stewardship Council (FSC) to provide resources for low-carbon, labor justice, and healthier materials.





Local Materials
Choose materials within a 100 mile radius

CLT (structure)
Wood has a lower embodied carbon than other structural materials

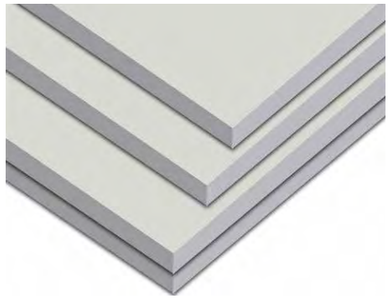
Wood Fiber, Cellulose, HEMP, Cork, Hay Bail Wall (Insulation)
Low embodied carbon insulations

Concrete (Foundation)
Use High Fly Ash Concrete

Wood Framed (Windows)
Wood frames are less carbon intensive than aluminum frames

Metals (Flashing, Strapping)
Using metal over peel-and-stick flashings will last longer

Hardwood Flooring
Wood floorings are less carbon intensive than vinyl



Recycled/Reclaimed Materials
Look for materials with recycled content

Quality Assurance

Resources + Commissioning

The plan recommends engaging a commissioning agent to verify that project goals have been successfully achieved during the construction phase. The industry has developed a range of labels and certifications that offer assurance regarding the sustainability and equity of materials. Relying on these external sustainability product labels, vetting organizations, and other reputable resources will enhance the quality and confidence in the products selected for this project. This proactive approach ensures accountability and alignment with sustainability objectives throughout the project life cycle.

07.4
Ecology

Ecology

Introduction

The UMLAUF serves as a sanctuary for both Austin residents and the diverse plant and animal life that call it home. Dedicated to the flourishing of local flora and fauna, the site supports a dynamic ecosystem that extends beyond its borders. Situated within Austin's Barton Springs watershed, and Edwards Aquifer Transition Zone, the UMLAUF plays a vital role in the city's green corridor, underscoring the importance of responsible land stewardship for wildlife conservation.

Regarding ecology, the plan complies with Austin's regulations, recommending that any invasive species are diligently removed from the site, while measures are taken to safeguard historic trees. Further restoration of the landscape includes the strategic planting of native, diverse mid-level shrubs, and forbs.

The ecological benefits of such practices extend far beyond environmental preservation. By incorporating permaculture, drought-resistant native plants, the site remains resilient throughout the seasons without placing undue strain on natural resources. These plants actively sequester CO2, mitigating the impacts of global warming, and contribute to air purification. Furthermore, the roots of trees and plants play a crucial role in filtering stormwater runoff and preventing soil erosion. Each plant species fulfills a unique role within the ecosystem, from nitrogen-fixing to repelling pests and providing medicinal benefits. Moreover, the introduction of diverse plant species attracts pollinators and other threatened wildlife, enriching the site's biodiversity.

For further insights and details on landscaping strategies, please refer to the dedicated landscape section in the report.

07.5
Water

Water

Introduction

Austin relies on the lower Colorado River for its primary drinking water, while San Antonio draws from the Edwards Aquifer. Water absorbed into the UMLAUF site replenishes both sources. By actively engaging water conservation efforts, the UMLAUF can contribute to the preservation of these invaluable resources. Strategies such as implementing bioswales, rain gardens, and minimizing impervious cover are employed to slow the flow of water, facilitating absorption into these bodies of water. Shallow rock beds and plant ecology further enhance the site's ability to filter runoff, removing toxins or pesticides that may be washed onto the property.

Currently, the pond and irrigation use city water. The plan recommends **targeting 100% of irrigation and the water feature to be supplied by non-potable sources.** This involves a combination of strategies to decrease water consumption and exploring other water sources like rainwater and greywater. By reducing reliance on potable water, the UMLAUF cuts its environmental impact.

Key Terms:

Potable: Water that has been treated to meet safety standards for human consumption, as defined by the EPA and local regulations.
Non-Potable: Water not suitable for human consumption, which includes greywater and reclaimed water.
Greywater: Wastewater generated from activities like bathing and washing that is relatively clean and can be reused for non-potable purposes.
Purple Pipe: The City of Austin's reclaimed water pipe system, which supplies non-potable water for various uses.
Blackwater: Contaminated wastewater containing sewage and other pollutants.

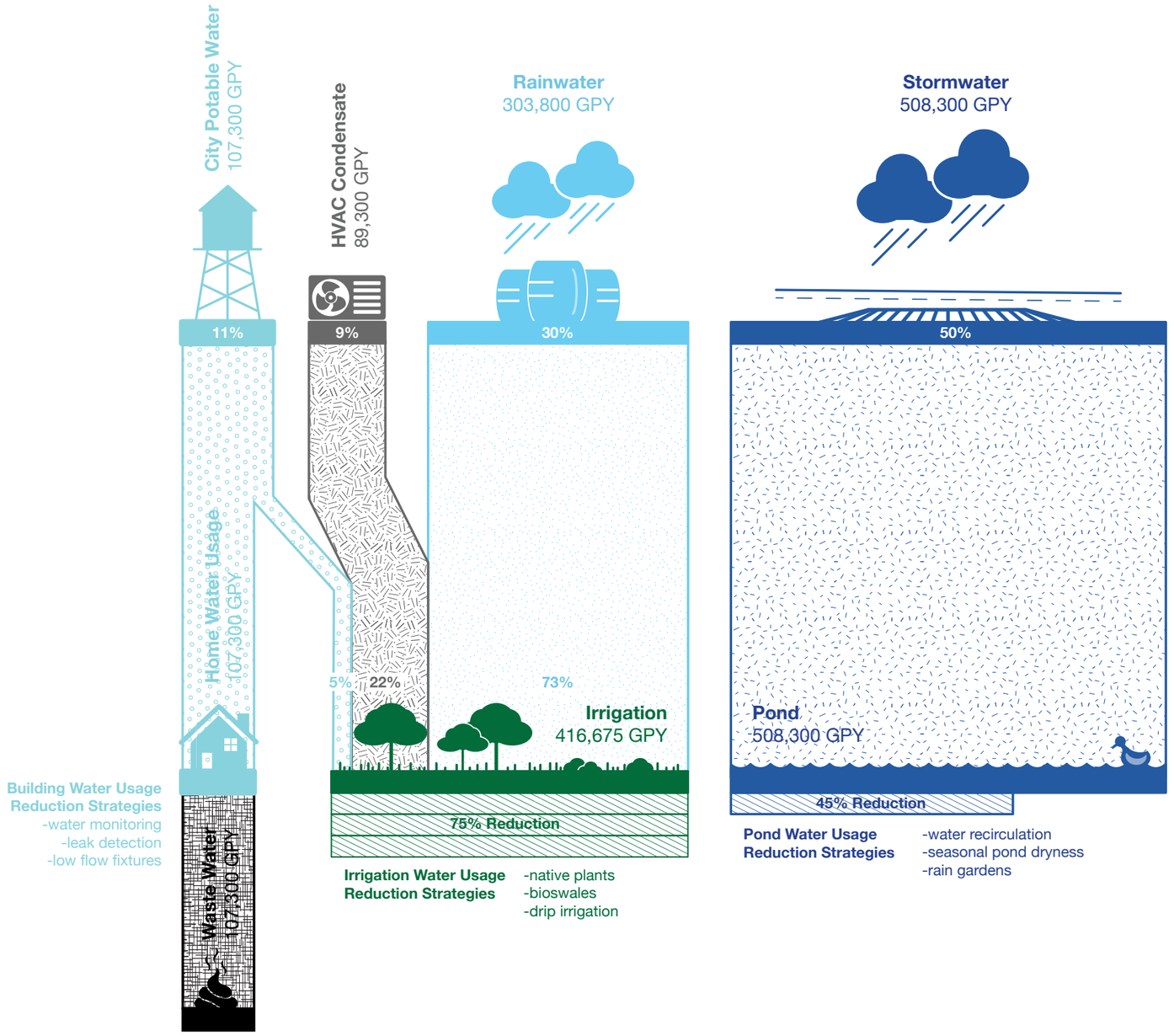
Water Synthesis

Water Catchment, Use, and Reuse

With a 45% reduction in pond consumption and a 75% decrease in landscape usage, the outdoor water demands at the site would significantly decline. Instead of relying on potable water, the plan recommends prioritizing sustainability by using stormwater, capturing rainwater, and using greywater (HVAC condensate) for irrigation. Despite these efforts, there remains a shortfall of 5,365 gallons annually. While the plan recommends targeting 100% of outdoor water supplied by non-potable sources, at least 5% or more may still need to come from city potable water.

Given that the project is confirmed to be in the Edwards Aquifer Transition Zone for TCEQ, but not in the Edwards Aquifer Transition Zone for the City of Austin (as these two entities use different maps to define the boundaries of the Aquifer), the project must abide by TCEQ guidelines but is exempt from City of Austin guidelines regulating construction on top of the Edwards Aquifer. TCEQ concerns itself with ensuring no toxic chemical tanks or petroleum tanks are located onsite which does not apply to this project. TCEQ allows greywater and condensate irrigation of sites above the Edwards Aquifer Transition Zone. To use greywater for toilets or irrigation, the water needs to be filtered and test at certain regulations. Although not considered in the current calculations or plan, it is recommended to explore on-site greywater use for toilets and irrigation. **Depending on the next version of AEGB, new construction may be required to dual-plumb fixtures.** Verify regulations with future Austin Water Forward and AEGB standards.

Further discussions and feasibility studies are required to connect to the existing purple pipe system located 1.11 miles from the site if desired. This could be a huge opportunity for keeping the water feature running year-round without potable water use.



Water Use/Collection/Reuse

Water Use, Rainwater Collection, and Greywater

Opportunity for City Partnership

The plan selected required irrigated areas which were picked out because of necessary upkeep required to allow the site to thrive for community events.

Placeholders have been indicated for one to two 15,000 gallon tanks at each new structure. Explore rainwater filtration for potable water, water feature refill, and irrigation uses. Certain considerations related to use will impact sizing, cost, filtration and other equipment, maintenance, and more.

The lower, upper, and water feature are to remain in the existing locations with adjustments to decrease potable water use for the water feature and irrigation.

The greywater from the condensate are implied in the structures indicated. The plan recommends to explore dual-plumbing and purple pipe connection. And the purple pipe system ends off the extents of the map, 1.11 miles away.

Water Usage
- Water Feature
- Irrigation

Water Sources
- Rainwater (tanks)
- Rainwater (underground tank)
- HVAC Condensate
- Purple Pipe

Distance to City Purple Pipe Line

UMLAUF HPEU PLAN

Water Use Reduction

Strategies

The majority of total on-site water is allocated to irrigation, keeping the creek running, and the pond full for visitors. A substantial reduction in water consumption can be achieved by targeting these two sources. Implementing measure like removing invasive species, replacing the evasives with natives, introducing drip irrigation, and converting the water feature to a seasonal operation is projected to reduce pond usage by 45% and irrigation usage by 75%.

Efforts to curtail water usage play a crucial role in resource preservation. Given that irrigation and the water feature account for the majority of water consumption on site, key conservation strategies involve the implementation of landscape practices. These include recirculating water in the feature, incorporating bioswales, cultivating native plants, and adopting drip irrigation.

Rain Gardens and Bioswales

Bioswales and rain gardens reduce run-off by 25%. They also retain water to seep into plant roots and groundwater and slow water down to reduce erosion. Filter beds also filter out contaminants.

Native Plants

Native plants require 75-80% less water than non-native plants. Native, drought-resistant plants significantly reduce irrigation water usage and decrease annual replanting.

Drip Irrigation

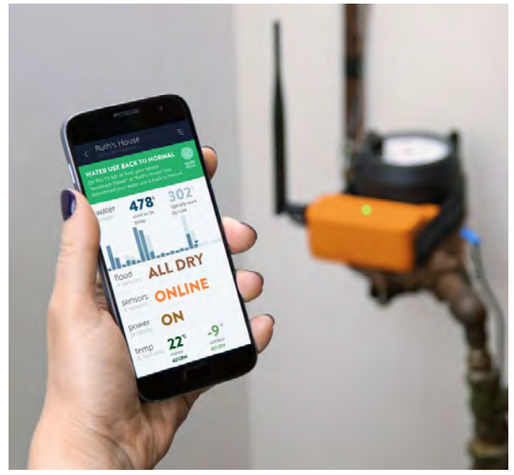
Drip irrigation is 90% efficient, while sprinklers are only 65-75% efficient in watering plant life. Drip irrigation reduces evapotranspiration and ensures the water goes directly to the plants.

Seasonal Water Feature

Rather than replenishing the water feature year-round, using rainfall events to provide the water will reduce the water usage.

Low-flow Fixtures

Use the WaterSense label created by the Environmental Protection Agency to choose low-flow fixtures.



Water Metering

Leak detection, circuit-level water metering, and remote shut-off will reduce usage.

07.6
Resilience

Resilience

Introduction

Resilience encompasses varied aspects across different scenarios, including durability over time, energy and water availability during extreme events, and more. Specifically for the UMLAUF site, we are focusing on resilience through the lens of stormwater management.

Erosion control is a pressing concern, and implementing diverse landscaping strategies can play a pivotal role in mitigating the effects of water erosion. Planting a variety of shrubs and plants serve as a natural defense mechanism, as their root systems stabilize the soil and prevent it from being washed away by rainfall or runoff. Designing stepped terracing, especially on sloped areas, not only breaks the flow of water but also increases the capacity of water retention in a storm or flood event.

Amplified by unpredictable weather patterns, Austin also grapples with more frequent droughts and floods. Compounded with the UMLAUF's location in the 500-year flood zone — meaning once every 500 years the site is expected to experience a flooding event — resilience measures are becoming all the more pressing. However, with climate change, these floods happen more frequently than predicted. In preparation for the City of Austin denoted 500 year flood-line, UMLAUF is planning for floating floodgates and additional volume of water capacity in the existing pond. Conversely, droughts are longer and hotter. Planting native, drought-resistant species will play a big role in improving site resilience in extreme weathers.

Stormwater Management

Typical Year

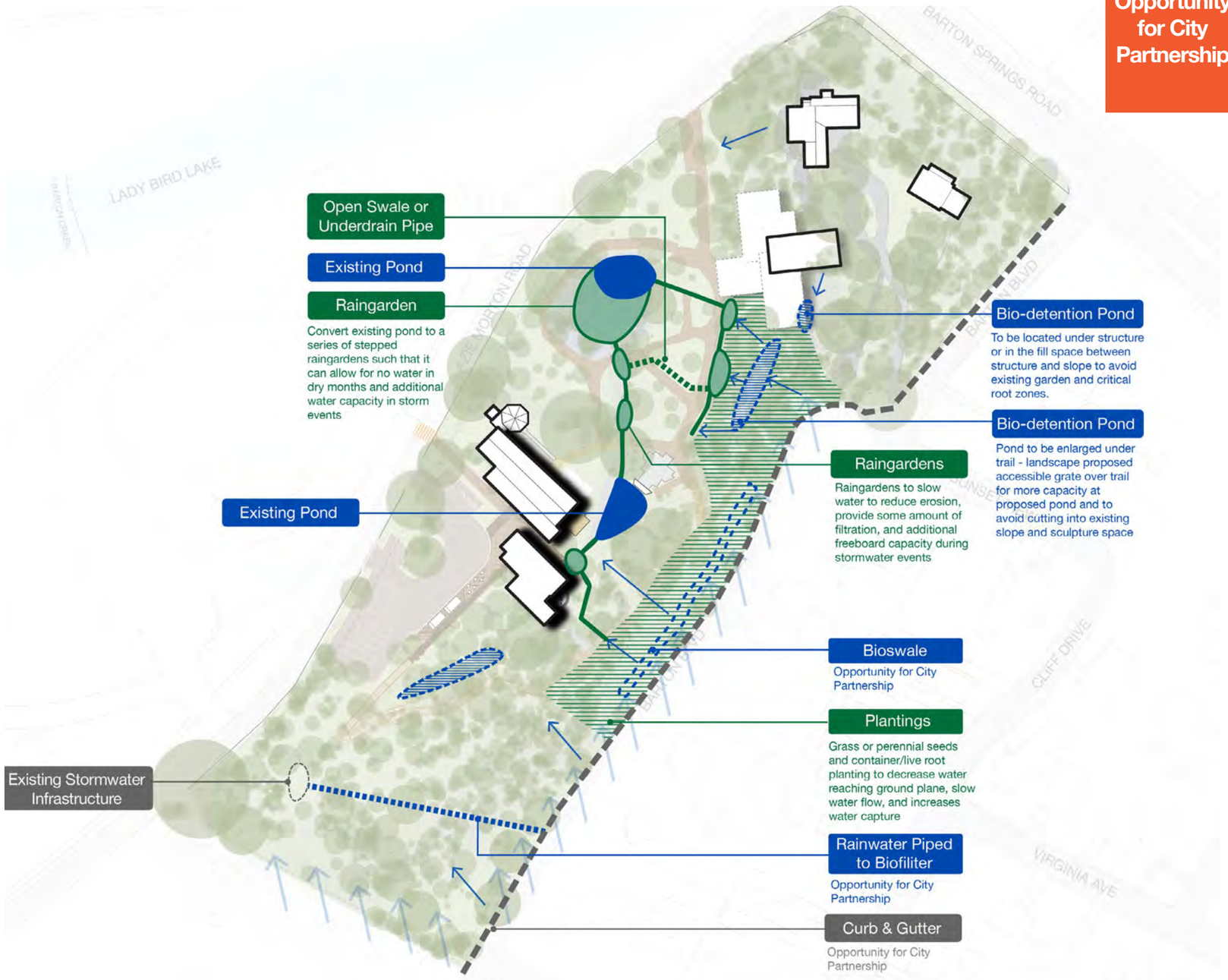
As water from the surrounding acres of land washes down through the UMLAUF site every rain event, the site experiences extreme stormwater issues include erosion and potential flooding.

Drainage from adjacent properties and neighborhoods are adding a significant amount of stormwater flow that impacts the overall site stormwater. 62.8 cfs of stormwater flows across the site without any type of stormwater controls. There is another 250.2 cfs from the adjacent neighborhood that is channeled through an earthen swale, without erosion control, along the banks. This flows into the concrete pond that slows the water and releases it at a controlled rate through a bar grate before flowing down-hill into the sunken gardens in Zilker Park. The predominant stormwater mitigation strategy (to be coordinated with the City) will include a bioswale or bio-detention pond and curb and gutter at the eastern edge of the site to mitigate stormwater coming from the neighborhood and Barton Blvd. This feature captures upstream drainage and release it downstream to the site/waterfall which would help mitigate erosion issues.

The second most significant stormwater management strategy is a series of bio-detention ponds and raingardens which are to hold extra water capacity during storm events. Landscape recommends all proposed ponds to be bio-detention as retention ponds require make-up water which can be from cistern or potable water sources. During droughts retention would require potable source. The bio-detention ponds, capture basins, and rain gardens are located to avoid existing garden features, critical root zones (CRZs), and sculptures.

Options for enlarging raingardens or ponds under trails, grates, decking, and more has been explored to avoid increasing impervious cover to manage stormwater and cutting into existing slope, expand stormwater capacity, slow water to reduce erosion, and clean water to reduce toxic runoff.

Opportunity for City Partnership



Flood Management

500 Year FEMA Flood

Opportunity for City Partnership

The UMLAUF sits within the FEMA 500 year flood zone, meaning there is a 0.2% annual chance that a flood event could have a depth of less than 1 foot. The site could be flooded up to approximately the 468 ft contour (indicated with the light blue line). However, the City of Austin recognizes that each year the weather patterns have been more erratic, and sites need to provision for these events.

Given that the footprints overlap with the 500 year flood zone, all new construction is to be 1' above the 500 year storm line or the 468th foot contour, so the buildings have been raised where necessary. For existing buildings below that 500 yr + 1' contour, the flooding will be mitigated by constructing flood walls (retaining walls to direct water) along the perimeter to the elevation. The project plans to construct passive flood protection at all doors (i.e. floating flood gates).

The pond will play a key role in mitigating flooding waters. It is to be enlarged with added walls to increase retention capacity. The UMLAUF will need to coordinate with the city to determine downstream off-site improvements for flow downhill to the western street. Additional bio-detention ponds, raingardens, and more are to be sized for storage or freeboard during a 500 year flood event.

07.7
Sitewide Strategies

Summary of Sustainability Goals

Health

Improve occupant health and well-being

- Provide a minimum of MERV 16 air filter with exhaust, dehumidification, and ventilation
- Design for 80% Useful Daylight Illuminance (UDI) without glare and less than 5 degrees Operational Temperature stratification
- Select healthy materials by choosing those with low volatile organic compounds (VOCs), Red List free materials, and Health Product Declarations (HPDs)
- Provide acoustic noise/ vibration control from street traffic and design for amplified sound/music

Energy

Achieve annual net zero energy

- All electric site (no natural gas)
- Place renewables on each available structure and provisions for a solar ready roof on all other structures
- Heat/cool new buildings with ground source heat pumps. Retrofit existing buildings with ground source heat pumps or air source heat pumps
- Reduce existing building energy usage by 25% and bring new building energy use 40% below code minimum
- Target 30% window to wall ratio

Carbon

Reduce carbon emissions by 50%

- Achieve carbon neutrality by 2030 (balancing annual operational and onsite carbon offsets)
- Track embodied carbon, aiming to reduce by 50%
- Select products with Environmental Product Declarations (EPDs)
- Separate construction waste into streams and divert 50% of waste by weight
- Source all materials from a 500 mile radius
- Place EV chargers and provide ease of walkability and public transportation access to site

Ecology

Replenish middle layer of ecology with regenerative species to create plant diversity.

- Remove invasive species
- Replant native species
- Create layers and diversity of foliage
- Use strategies to reduce erosion
- Support local fauna and protect endangered species

Water

Target 100% of irrigation and water feature to be supplied by non-potable sources

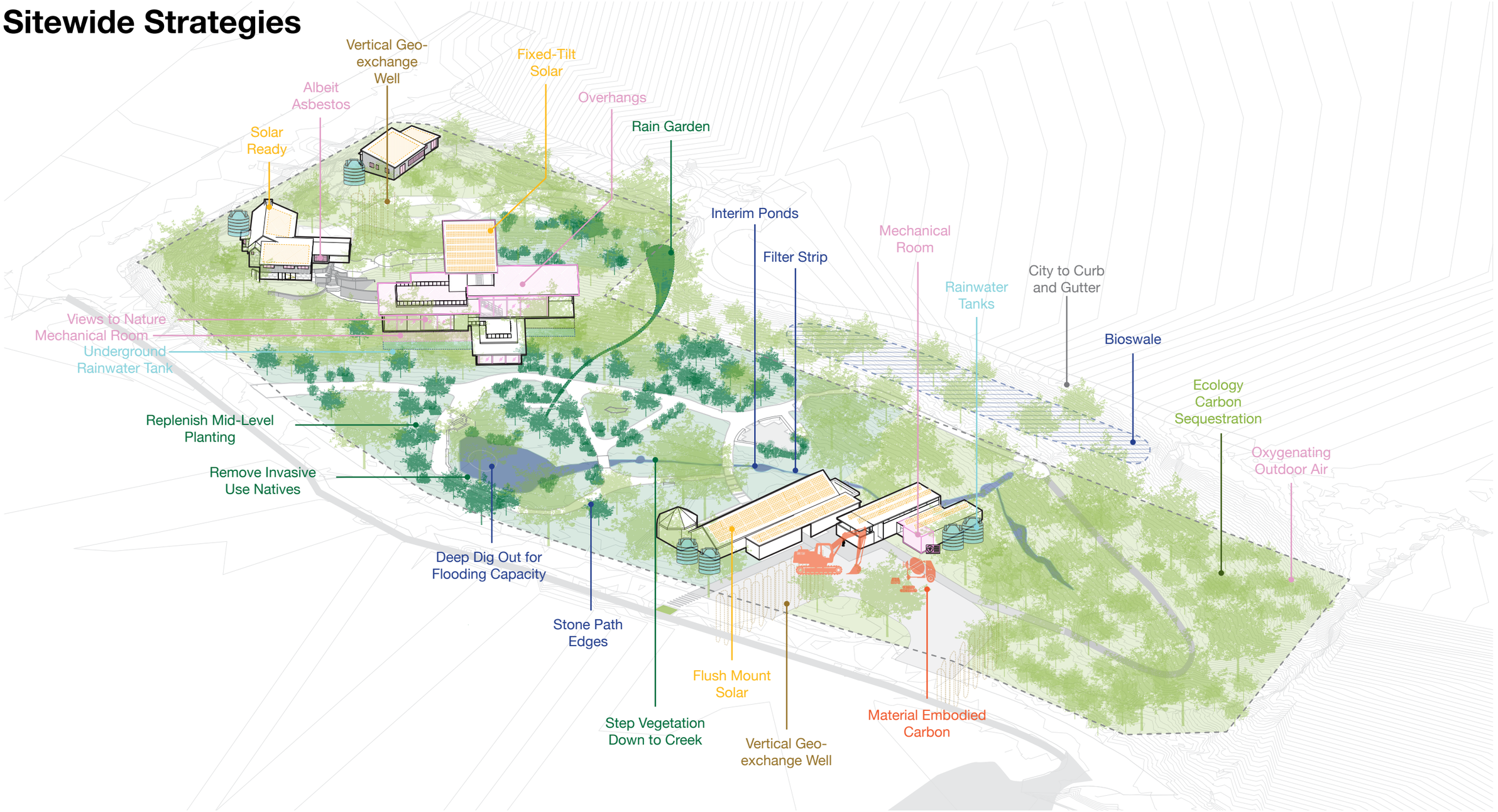
- Reduce site water usage by 80%
- Reduce new building water usage by 25% from an equivalent code compliant building
- Collect all possible rainwater off roofs
- Collect all possible greywater for irrigation

Resilience

Preserve site through a 500 year flood and regular rain events

- Plan stormwater management for typical rain event without major erosion to the site
- Plan stormwater management for 500 year flood event without major damage to the existing structures

Sitewide Strategies



Maintenance

While initial decisions greatly influence the durability of both the buildings and the site, it is imperative to prioritize ongoing operations and maintenance to ensure the facilities remain functional and accessible to the public in the future. The UMLAUF is steadfast in its commitment to maintaining non-traditional sustainability systems such as solar, rainwater harvesting, greywater recycling, and more.

The plan recommends convening fully integrated meetings with all stakeholders, including operations and maintenance personnel, at the project's inception. Throughout the process, operations and maintenance teams will be kept informed and engaged to ensure their endorsement and familiarity with the integrated systems. Upon project completion, it is recommended to compile a comprehensive maintenance manual for both the buildings and the site, ensuring the continuity of sustainability initiatives for years to come.

In alignment with Austin's Zero Waste citywide initiative, further exploration is encouraged to develop an operations, maintenance, and events plan aimed at achieving zero waste objectives.

Aside: Conversations in this process have spurred evaluating sustainability in the perspective of not just the built environment, but also in relation to operations and the organization. The UMLAUF team is re-thinking event-related environmental impacts and community engagement programs in hopes that the operations and organization can leave a positive impact on the environment and community.

UMLAUF HPEU PLAN

Sustainability Glossary

CERTIFICATIONS

Austin Energy Green Building (AEGB) – cultivates innovation in building for the enrichment of the community's environmental, economic, and human well-being. Known as the first rating system in the U.S. for evaluating the sustainability of buildings, AEGB created a model for many other cities as well as direction for the U.S. Green Building Council's LEED certification system. (Definition was paraphrased directly from Austin Energy's website.)

Leadership in Energy and Environmental Design (LEED) – worldwide green building rating system which provides a framework for healthy efficient, and cost-saving green buildings. (Definition was paraphrased directly from USGBC website.)

SITES - provides a comprehensive framework for designing, developing, and managing sustainable and resilient landscapes and other outdoor spaces. (Definition was pulled directly from SITES website.)

WELL Building Standard (WELL) – a performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and well-being, through air, water, nourishment, light, fitness, comfort and mind. (Definition was pulled directly from International WELL Building Institute's (IWGBI) website.)

Living Building Challenge (LBC) - produces regenerative buildings that connect occupants to light, air, food, nature, and community; buildings that are self-sufficient and remain within the resource limits of their site; and buildings that create positive impact on the humans and natural systems that interact with them. (Definition from International Living Building Institute (ILFI) website.)

Passive House Institute U.S. (PHIUS) – leading passive building certification program in North America for any type of project, large or small to create comfortable, healthy, resilient structures. (Definition was pulled directly from PHIUS website.)

JUST. – a nutrition label for socially just and equitable organizations

HEALTH

Health Product Declarations (HPDs) – manufacturer disclosure of potential chemicals and product ingredients.

Mean Radiant Temperature – the measure of radiation on a surface.

Operational Temperature – a measure of ambient temperature, taking into consideration other comfort factors such as radiation, wind, and heat (the "feels-like" temperature on weather reports).

Quality Views – LEED defines as multiple lines of site at least 90 degrees apart to flora, fauna, or sky at least 25' from exterior of glazing.

Useful Daylight Illuminance – the amount of daylight shone on a surface 4' above the ground, which is in a light density range that is comfortable to the eyes.

Glare – fierce, uncomfortable light.

Temperature Stratification – where a single space has hot and cold spots with little air mixing.

Circadian Rhythm – the physical, mental, and behavioral changes an organism experience over a 24 hour cycle.
Environmental Justice (EJ) – social movement that addresses the reality that poor or marginalized communities are harmed by hazardous waste, air pollution, and land uses from which they do not benefit.

ENERGY

Indoor Air Quality – air quality within buildings that relates to the health and comfort of building occupants.
2.5 Particles Per Million (ppm2.5) – fine inhalant materials with diameters that are 2.5 micrometers and smaller. Particles larger than 2.5 ppm cause the largest health risk. The Clean Air Act set by the EPA sets national requirements for air quality monitors based on this metric.

Site Net Zero Annual Energy – The site produces as much energy on-site as it consumes on an annual basis.

Renewable Energy – a form of energy that is not depleted when used such as wind, solar, geothermal, etc.

Site Energy – the amount of energy used on site (the number reflected in energy bills)

Source Energy – the total amount of raw fuel required to operate the building. (For one unit of energy used on site, with the current grid's fuel portfolio, about 3 units of energy are used at the source.)

CARBON

Greenhouse Gases (GHG) – gases in the atmosphere that raise the surface temperature of the planet

Sustainability Glossary

Carbon Dioxide Equivalent (CO_2e) – the number of metric tons of CO_2 emissions with the same global warming potential as one metric ton of another greenhouse gas.

Global Warming Potential – measure of how much infrared thermal radiation a greenhouse gas would absorb over a given time frame after it has been added to the atmosphere .

Embodied Carbon - the total greenhouse gas emissions associated with the entire life cycle of a building or product, including the extraction, manufacturing, transportation, and construction phase. Included in these calculations are CO_2 equivalents of greenhouse gas emissions released from refrigerant leakage.

Operational Carbon - the ongoing carbon emissions resulting from building operational energy consumption.

Sequestered Carbon - the carbon dioxide that is captured and stored, often through sustainable practices like afforestation or the use of carbon-absorbing materials.

On-site Carbon Off-Set - Carbon emissions offset by replacing grid energy with on-site renewables or reducing energy usage with energy reduction strategies.

Environmental Product Declarations (EPDs) – a 3rd party certified report which shows the environmental impact of a material from harvesting, production, use, to decommission. The procedure of reporting is regulated by ISO 14205.

Whole Building/Site Life cycle Analysis – a method of assessing environmental impacts of a building or site over the span of its lifetime, considering the impacts of all the materials and energy that goes into making and operating the building over its lifetime.

Geothermal Energy – heat stored within the earth that can be used to renewable to heat/cool buildings.

Deep Energy Retrofit – the process of installing and/or replacing parts and pieces of an existing building to improve energy efficiency.

ECOLOGY

Shrubs and Forbes – mid-level planting that look like bushes.

Permaculture – an approach to land management and settlement that uses principles of permanent planting. It focuses on diverse plant and animal species and multi-layered planting which creates an interdependent resilient ecology.

Pollinators – an animal that moves pollen from flower to flower such that fertilization can occur for propagation of plants.

WATER

Potable – water that is filtered, treated, and free from contaminants (aka drinking water). City of Austin drinking water quality standards are dictated by the EPA and supplementary local requirements.

Non-Potable – any type of water not suitable for human consumption (greywater or blackwater).

Greywater – clean wastewater without pathogen contamination or grease (typically collected from baths, sinks, HVAC condensate, etc.).

Purple Pipe – City of Austin's reclaimed water (greywater) pipe system.

Black-Water – contaminated wastewater.

Rainwater Harvesting – the collection and storage of rainwater from building roofs.

Stormwater – runoff water that does not infiltrate into the soil but flows over land and collects on surfaces.

RESILIENCY

FEMA 500 year Flood Plane – There is a 0.2% annual chance that a flood event could have a depth of less than 1 foot.

Run-Off – That portion of the precipitation on a drainage area that is discharged from the area in stream channels. Types include surface runoff, ground water runoff or seepage.

Swale – A natural or man-made drainage way that is below the adjacent ground level that collects and moves surface run-off.

Bio-Swale – A vegetated natural or man-made drainage way that is below the adjacent ground level that collects and moves surface runoff. Bioswales are channels designed to concentrate and convey stormwater runoff while removing debris and pollution. Bioswales can also be beneficial in recharging groundwater.

Sustainability Glossary

Curb and Gutter – Curb is a vertical or sloping structure located along the edge of a roadway, normally constructed integrally with the gutter, which strengthens and protects the pavement edge and clearly defines the pavement edge to vehicle operators, gutter is a shallow concrete waterway adjacent to a curb for conveying street flow.

Raingarden – A vegetated, depressed landscape area designed to capture and infiltrate and/or filter stormwater runoff. The growing medium for the rain garden consists of native soil or biofiltration media. If the infiltration capacity of the subgrade soils is limited, the rain garden can be underlain by an underdrain system. Rain gardens provide removal of pollutants in stormwater runoff similar to other treatment systems. However, because they are restricted to smaller drainage areas and shallower ponding depths, which necessitate a larger surface area, infiltration, evapotranspiration, and biological uptake mechanism may be more significant for rain gardens than other treatment BMPs.

Filter Strip – A strip of permanent vegetation above ponds, diversions and other structures to retard flow of runoff water, causing deposition of transported material, thereby reducing sediment flow.

Impervious Cover – The total area of any surface that prevents the infiltration of water into the ground, such as roads, parking areas, concrete, and buildings.

Pervious Cover – The area of land within a lot occupied by trees, lawn, mulch, or other materials that permit rainwater to permeate into the subsurface.

Underdrain Pipe – A buried pipe or other conduit (subsurface drain)

Floodgates – A gate for shutting out, admitting, or releasing a body of water. There are two types: active flood mitigation (requires human interaction to deploy) and passive flood mitigation (has an established elevation that requires no human interaction).

Bioretention Pond – A bioretention pond can be large or small and uses a combination of plantings and special drainage systems to filter surface water runoff before it makes its way into the watershed. Plantings around the pond help to slow the velocity of the water and pick up small particles of sediment.

Detention – The storage of storm runoff for a controlled release during or immediately following the design storm. Release rates draw down within 24 - 48 hours.

On-site Detention – A detention pond which is located within the specific site or subdivision it serves.

On-stream Detention – The temporary storage of storm runoff behind embankments or dams located in a channel.

Drainage Area: The area contributing storm runoff to a stream or drainage system at a particular point.

08

Plan Implementation

Phasing
Case Studies

Phasing

The plan outlines three main phases for implementation, emphasizing that sustainability and resilience strategies should be integrated throughout all phases. To ensure equitable access to the UMLAUF site, programming and operational strategies focused on diversity, equity, and inclusion must be implemented along and after the completion of the three phases.

Before Phase One, it is recommended to perform an Archaeological Survey of the site.

Phase One: Existing Facility Projects

The plan proposes initiating existing facility projects as the initial step to promptly address site accessibility and mitigate current water runoff issues. These strategies can be complemented by edge improvements to enhance site safety, strengthen connections to the city, and raise public awareness.

Accessibility Site Approach Improvements: Site-wide accessibility enhancements, full access to the museum gallery, and the expansion of public restrooms as a priority. Include water filling stations, benches, and other landscape accessibility and inclusion elements.

Parking and Accessible Parking: Include in accessibility approach. Expand parking with code compliant accessible parking spots and relocation of the crosswalk. This could also be the time to install the ground source heat pump loops to be used for new and existing buildings

Garden Improvements: Bringing garden pathways into TABS compliance (follow landscape recommendations), reworking the pond edge, concrete walls for extra stormwater storage, and circulation system, replacing landscape irrigation. Install rain gardens and swales to manage and slow stormwater drainage across the site. Add mid-level native vegetation and replace pond vegetation. Repair and improve stormwater drainage from the UMLAUF site under Azie Morton and Barton Springs Roads.

Other Museum Renovations: Includes sustainability and resilience strategies, as well as strategies to bring the museum up to standards for art installations. These include placing an ERV, dehumidifier, MERV 16 filters, bathroom booster fans, and seal ductwork, among others. Evaluate roof age and place solar on roof. Place rainwater system (collection tank, gutters, and filtration). Collect greywater off condensate to be re-used for toilets.

Edge Improvements: Follow landscape recommendations. Replace fencing along Barton Springs Road and Azie Morton with new edge strategies for visibility and neighborhood enhancement. Consider the curb and gutter strategies on Barton Blvd.

During Phase One it is recommended to further engage with the community to get programming feedback and start implementing equity, diversity, and inclusion programs. Track programs and document their impact.

Phase Two: Historic Preservation

Phase Two could commence either concurrently with phase one or afterward, focusing on historic preservation strategies aimed at preventing the deterioration of the historic homestead. Operational strategies should be enacted to ensure access to the enhanced historic homestead while phase three progresses.

Historic Preservation at Home: Includes exterior and interior

Phasing

approaches. Follow the recommendations in the Historic Preservation chapter. Consider energy retrofit, further existing energy data evaluation is recommended. Includes updating MEP systems to heat pumps, include ventilation, filtration, electrification, solar-ready roof, and greywater collection off the condensate. Further feasibility studies are recommended to collect water off historic buildings, install proper catchment and guttering.

Historic Preservation at Studio: Includes exterior and interior approaches. Follow the recommendations in the Historic Preservation chapter.

Improvements and Access to Upper Garden: Renovating the driveway and accessibility to the Historic Homestead from Barton Blvd. It is recommended to install ground source heat pump loops (for old and new buildings in area) at the same time as driveway renovation.

Phase Three: Expansion and Unification Projects

Phase Three encompasses the incorporation of two primary connectors and the expansion of space to facilitate the implementation of new programs, encompassing both public and private events, exhibitions, arts education, library services, and expanded operational capabilities.

Gateway and welcome zone: The plan recommends the addition of a building of approximately 3,500 SF for educational, operational, and ticketing programs. Follow material and system recommendations from Design Guidelines and Sustainability and Resilience chapters. Along with the building addition, enhancements suggested for the welcome zone must be implemented to support a more inclusive arrival experience, such as a public area, and a welcoming/decision making plaza.

Treehouse: The plan recommends the addition of a connector building of approximately 10,300 SF to support program such as private events, exhibitions, and education. An elevator must be considered for accessibility to the historic homestead. Follow material and system recommendations from Design Guidelines and Sustainability and Resilience chapters (for example: rainwater, greywater for dual plumbing, solar, energy efficiency measures)

Historic Garden Enhancements: Additional enhances to the upper garden—such as outdoor event spaces and overlooks—should be implemented when the area is fully accessible. Follow the recommendations on the Landscape chapter.

Natural Area: Considers landscape strategies to improve biodiversity on the southern area of the site, and an interpretive trail or boardwalk to unify the site, and provide a space to connect to nature. Accessibility strategies must be implemented to make this area fully or partially accessible.

Case Studies

Three pertinent case studies have been included as references for this plan, each offering valuable insights into the preservation of artist houses and studios, now serving as museums. These case studies analyze similarities, differences, and key takeaways from each project, all of which represent significant examples of successful preservation efforts. While the UMLAUF distinguishes itself through its urban setting, unlike most of the referenced cases situated outside bustling urban centers, all examples share the common goal of preserving the artistic legacies while serving as educational and cultural hubs within their respective contexts. By integrating preservation models with new exhibitions and events, these museums have evolved into national destinations, enriching their communities and honoring the artists' contributions.

Library at The Block in Marfa, Texas / Judd Foundation. Photo by Luis Garvan

The Donald Judd Foundation

The Donald Judd foundation in Marfa, Texas, is a thriving art studio, museum, exhibit, and home. The museum experience is divided into two parts, The Block and The Studio. The Block, also known as La Mansana de Chinati, is situated in a separate location within the city. Meanwhile, The Studio comprises three separate downtown spaces: the Architecture Studio, Art Studio, and the Cobb and Whyte Houses.

Similarities:

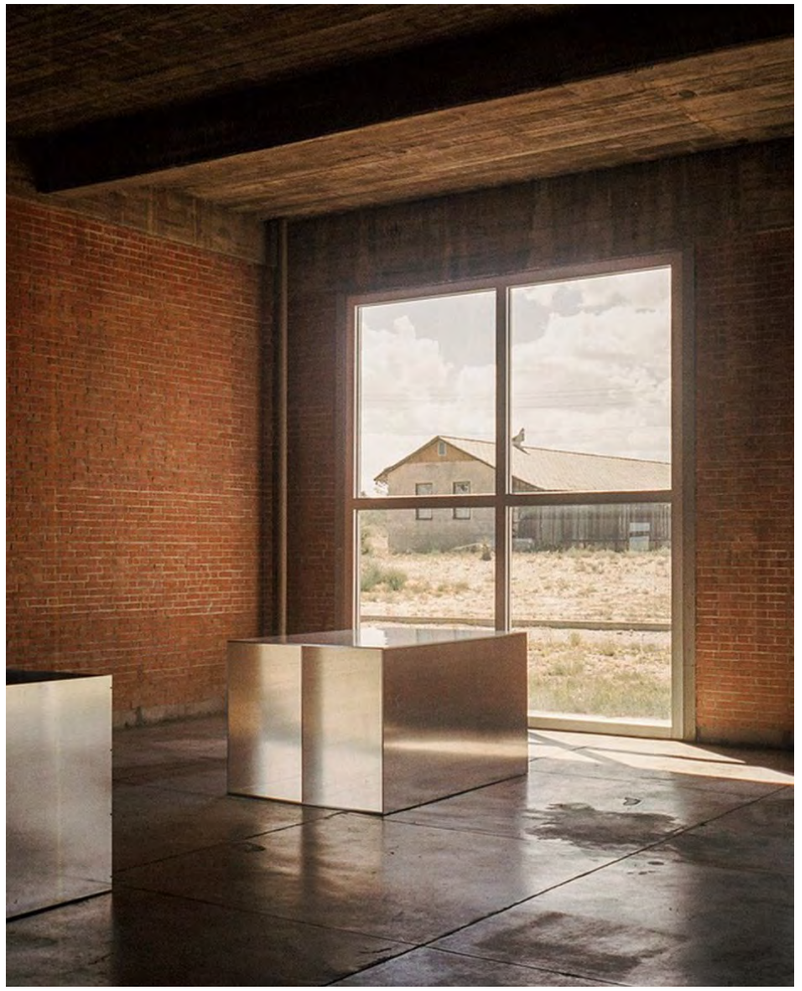
- The foundation preserves and interprets the artist's home and spaces of art production.
- A permanent exhibition of the artist's works span many periods and modes in which Judd worked.
- Direct access to the studio spaces where the artist worked.
- Sculptures are experienced in their original context, as located by the artist.
- The period of historical significance in which the artists lived and worked are similar.
- Exterior and interior space are essential to the art.

Differences:

- The viewings of all facilities are scheduled, guided tours.
- The foundation is spread throughout multiple properties, distributed among a small urban context.
- The scale of the art is often at an architectural scale which is a bigger and different scale of work.

Take-aways:

- Preserving the artist's living and working space sparks interest across diverse communities, from arts and education to tourism.
- The house/studio preservation model integrates easily with exhibits of new work, dozens of events, and foundation staff offices. These programs are shared with the UMLAUF.
- The unification of an urban district into a cohesive web, consisting of multiple points of interest offers valuable insights for UMLAUF's vision of a larger arts district.



The Georgia O’Keeffe Museum

The Georgia O’Keeffe Museum includes two houses owned and used by the artist in Northern New Mexico. The house on the Ghost Ranch property was used by O’Keeffe in the summer months, but only her larger, year round home in the village of Abiquiu is accessible for tours.

Similarities:

- The artists lived and worked in a similar period.
- The artists both carefully studied and adapted their environments to reflect their sensibilities.
- The art has regional character as a center of interest in a larger region.
- Both artists’ homes include gardens where art and space interact.

Differences:

- The UMLAUF is centrally located in a city and can be easily visited. Whereas the O’Keeffe museums require a dedicated effort to reach.
- The museum is substantially focused on the life and works of the artist. At the UMLAUF, the role of rotating exhibits, arts education, and events play a more significant role.
- Private wedding venue functions are not part of the business model at the O’Keeffe Museum.

Take-aways:

- The artist’s home as a destination can motivate people to make the journey.
- The museum can feature the impact of landscape and environmental regional character on the artist’s work—one of the main features of the UMLAUF garden.
- Gardening and landscape characteristics create an important draw to those curious about art and nature.

Sul Ross

The new Sul Ross expansion at The Museum of the Big Bend may seem like a distant relation to the UMLAUF, but, in fact, it effectively combines similar program elements to accomplish similar goals. It is instructive in this regard.

Similarities:

- The MotBB is known to be a destination that is easily accessible to visitors of the national park. While its scale may differ, its context bears resemblance to the UMLAUF's location adjacent to Zilker Park. The proposed new building has the potential to establish an art center that garners attention and recognition on a broader scale.
- Dramatic landscape provided context for viewing and understanding art.
- Each project incorporates a new building that doubles the size of the existing museum.

Differences:

- The Sul Ross is a traditional museum gallery and a single building footprint.
- The cost of construction is less due to the simple, flat site.
- The integration to the Sul Ross State University campus affords the museum a much different advantage for visitors, and a diversity of users.

Take-aways:

- The relation of architecture to the landscape can drive the form and performance of the project.
- A visionary building can positively transform the perception an institution.
- Flexible large assembly spaces used for weddings can maximize use and return on investment and are supportive of arts program building types.

09

Appendix

08.1 Engagement Attendees
08.2 Survey Responses
08.3 Site Surveys
08.4 Accessibility Assessment
08.5 Environmental Resource Inventory
08.6 Geotechnical (Barton Springs Road Bridge Improvements)

Work session attendees

Page/

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Attendees

Project	UMLAUF HPEU PLAN	**Project No.**	31Ci23028
Date	8/8/2023	**Mtg time**	5:30p
Subject	ENVIRONMENTAL SMALL GROUP WORKSESSION	**Location**	UMLAUF

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Al Wegley	ME	alw@martinezengineering llc.com
Billy Hawk	ZBGC	development@zbgconservancy.org
Bill Bunch	SOS	bill@sosalliance.org
AMBAR DEL ANGEL	ME	AMBARD@MARTINEZENGINEERINGLLC.com
Cynthia Klemmer	PARD/ZBG	cynthia.klemmer@austintexas.gov
CHRISTINA MOON	AR	christina@asakurarobinson.com

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Attendees

Project	UMLAUF HPEU	**Project No.**	31Ci230
Date	8/9/2023	**Mtg time**	5:30
Subject	NEIGHBORHOOD SMALL WORKSESSION	**Location**	UMLAUF

Name	Org.	Email address
GINNY CHILTON	PAGE	gchilton@pagethink.com
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Attendees

Project	UMLAUF HPEU	**Project No.**	
Date	8/7/2023	**Mtg time**	5:30
Subject	ARTS WORKSESSION	**Location**	UMLAUF

Name	Org.	Email address
CHRISTINA MOON	AR	christina@asakurarobinson.com
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ROSA FRY	PA	ROSA@PRESERVATIONAUSTIN.ORG
TONY VO	AARC	tony.vo@austintexas.gov.
MATTHEW GASTON	ZBGC	education@zbgconservancy.org
DANNY ORENDORFF	TCA	dorendorff@thecontemporaryaustin.org
JOHN ALLENDER	AT	allenderarchitexas.com

TAG attendees

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Attendees

Project	UMLAUF HPEU PLAN	**Project No.**	31Ci23028
Date	8/7/2023	**Mtg time**	11:30a
Subject	TAG MTG #1	**Location**	UMLAUF

Name	Org.	Email address
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Al Hajka	DAE	[redacted]
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MARGARET ROBINSON	AR	margaret@asakurarobinson.com
CHRISTINA WONG	AR	christina@asakurarobinson.com

Public Session Attendees

First session:

Checked In	RSVP Studio Tour	Last Name	First Name
X	Yes	Alaniz	Reynaldo
X	Yes	Bhaduri	Sway
X	Yes	Breaux	Ellen
X	Yes	Chaussonnet	Valerie
X	Yes	Daniel	Brooke
X	Yes	Embry	Elise
X	Yes	Erickson	Eric
X		Frank	Karl
X		Frank	Jeanne
X		Gonzalez Featherston	Ingrid
X	Yes	Haskins	Jason
X	Yes	Lewellyn	Patricia
X	Yes	Lewellyn	Larry
X		McCoy	Marilyn
X	Yes	O'Callaghan	Patrick
X	No	Ortiz	Marie
X	Yes	Peveto	Charles
X	Yes	Priour	Paula
X	Yes	Priour	Jj
X	Yes	Puckett	Caitlin
X		Rogers	Shannon
X		Thompson	Frances
X	Yes	Umlauf	Carla
X		Weiss	Richard
X		Wendt	Elaine
X		Ulmer	Leland
X		Hajka	Al
X	Yes	Moragne y Silva	Michele
X	Yes	Vidal	
X		Cheng	Jason
X		Williams	Penelope
X		Harrington	Eden
X		Martin	Russell
X		Estrada	Gustavo
X		Estrada	Alonso
X		Franz	Charlene
X		Scott	John
X	Yes	Cheng	Jason
X	Yes	Connelly	Jane
X		Dukes-Williams	Penelope
X		Embry	Elise
X	Yes	MacGuire	Casey
	Yes	Arteaga	Lisa
	Yes	Barber	Leila
	Yes	Beckage	Jeff
		Crawley	Jamie
	Yes	Hall	Dee
	Yes	Hierholzer	Deseree
		Lowe	Jo Ann
		Lowe	Wes
		Minardi	Toni
		Moragne e Silva	Michele
	Yes	Pate	Karen
	Yes	Piper	David
	Yes	Sebert	Pete
	Yes	Wendt	Elaine
		Williams	Charles
		Zepeda	Elizabeth

Second session:

First Name	Last Name	Attended?
Charlotte	Boyle	Attended
Jim	Brady	Attended
Jennie	Branch	Attended
Dee	Hall	Attended
Kimberly	Kohlhaas	Attended
Russell	Martin	Attended
Michael	McGill	Attended
Charles	Peveto	Attended
Shannon	Rogers	Attended
Wyatt	Sharphorn	Attended
Nhat	Ho	Attended
Gus	Voelzel	Attended
Jonathon	Todd	Attended
Dale	Huggins	Attended
Caitlin	Puckett	Attended
Weiss	Richard	Attended

Third session:

Attended?	First Name	Last Name
YES	Caitlin	Puckett
YES	Charlotte	Boyle
YES	David	Downing
YES	Dianne	Hill
YES	Ellen	Breaux
YES	Gail	Vittori
YES	Gus	Voelzel III
YES	Ingrid	Weigand
YES	Jade	Walker
YES	Jim	Brady
YES	Marcelle	Spilker
YES	Marie	Ortiz
YES	Michele	Moragne e Silva
YES	Paula	Brady
YES	Penelope	Dukes-Williams
YES	Pliny	Fisk
YES	Reynaldo	Alaniz
YES	Skyler	Korgel
YES	Lee	Edwards
YES	Coleen	Flannagan
YES	Weiss	Richard
YES	Jennie	Branch
YES	Laura	Esparza
YES	Jonathan	Todd
YES	Dale	Huggins

Survey

Is there anything else you would like to share about the UMLAUF?

- Love the bronze pourings!
- Please don't reduce the garden to a minimalist manicured look. I like the natural aspect
- Accessibility for all spaces at UMLAUF. Extending the current sculpture trails seamlessly to a new path getting up to the house and studio on the hill.
- Overall I think the Umlauf Sculpture Garden could benefit by being a community gathering space for public lectures, exhibits, shows, art, classes, etc. I feel the Umlauf Garden has the potential and space to set the precedent in Austin for what a public art and museum space could be and I would like to be a part of that journey.
- Would like to see more/better access to riverfront areas (platforms/ sitting areas/ sculpture)
- the house and property should be accessible to the public.
- Amazing space and legacy to Austin's Art History.
- I always thought that the Umlauf should focus on Texas and local artists. I am intrigued by the environmental focus in this survey, and think that the Umlauf should pursue that.
- I'm concerned about the 'health' of the retaining wall at the corner of Azie Morton and Barton springs Road -- with the house up above on the hill.....
- Great exhibit. I had a wonderful time.
- There needs to be more emphasis on why sculpture, as a medium, is important. More education on the medium itself.
- Needs more public awareness
- i really appreciate that you can walk all over the gardens and that the space has more of a nature feel than a manicured garden. it is beautifully maintained and feels welcoming.
- Sculptures are the theme and less broadly "art" so it'd be nice if more sculpture insight was provided. Materials, techniques, newer technologies, etc. to bring the art form into fuller view.
- It's important to preserve another Austin icon; combines the art & nature aspects that many love Austin for!
- Love the programing - wish that some of the social events were less expensive. Also more programing in Spanish or for underserved communities?
- Concerts. It will help bring people to the park who wouldn't go otherwise
- I found it by happenstance but I find the art and garden to be a nice place to relax and view various forms of art
- Rewilding!
- I love the UMLAUF and am so glad to have it in our city. I especially like the free events that happen occasionally! Thanks for this outreach effort and I'm excited to see what the future holds for you all!
- Will these spaces be safe? I understand there's a lot of homeless nearby. I don't want to be harassed or attacked when visiting a museum.
- It's a treasure!
- I'm thankful for the peaceful nature of the garden and polite and friendly personality of the attendants.
- Very cool. Would love to learn more about Charles's wife and their relationship. Maybe even be able to read some of her poems
- Love the nature incorporated pieces!!
- An amazing and unique sculpture garden in Austin, with an amazing team
- I would love to see more indoor exhibition space so that exhibitions could delve into the subject or concept presented in more depth and also more space would create more of a worthwhile destination even in bad weather.
- Try to integrate planning with Zilker Park.
- Such a beautiful space that can be used for many more exhibits from local artists along with the beautiful Umlauf sculptures.
- I wish you would level and pave the main trails in the garden for easier access for mobility impaired persons, especially those in manual wheelchairs. The gravel is sometimes uneven or slippery for those with walking disabilities. Please keep having Umlauf After Dark events, those are our favorites to attend!
- More ADA compliant programming. ramps, parking spaces,
- Please save our UMLAUF, a hidden gem.
- It I would be lovely to also have outdoor meditation and yoga classes. Self-care talks and presentations would be nice as well.
- Love your vendor markets!
- Free day a week would be great!
- Amazing garden! Loved all volunteers and greeters.
- Addition to more native plants and flowers and parking space.
- Love this place!
- I like the historical parts to the art and how it was made
- More flowers around the garden
- I loved this experience! My one suggestion, in order to reduce paper. I would have a plaque next to each exhibit and have the small blurb that's on the map, directly in front of the sculpture.
- We love coming on free days, would love to see those expanded if possible.
- It's a lovely space. Taking care of it and making it more arts centric is important. While I have attended a wedding there that was very

Survey

Is there anything else you would like to share about the UMLAUF?

nice, I think that kind of use should be limited.
- Thank you
- The UMLAUF is a treasure! Keep up the great work.
- Just so grateful for this place
- I haven't been able to attend in months because there is never anywhere to park
- I would love for it to be a beautiful garden to visit with more focus on the scupltor and his sculpture, with underlying strategy of smart environmental stewardship. Don't try to do too many things.
- Have a meditation space/class (like the Yoga classes), Dance lessons, identify the tree species
- It would be nice to have tickets to keep as souvenirs (ie: MFA, other art museums usually have printed tickets)
- Katie Robinson Edwards is a superb curator and director. I look forward to more interesting exhibits at the Umlauf under her stewardship.
- A lovely place
- I would like to see a true tie between the home and studio and the sculpture garden. It could be cool to utilize the home similarly to the blue house of Frieda Kahlo in Mexico city where it is preserved intact but has excellent information on the artists process and life. It would be great to also have classes that are specific to sculpture and keep the space sculpture centric. I would also love for the gardens to be more intentional visually and more sustainable is design and maintenance.
- Love this place
- This land area was a historic gathering zone for the Iroquois Confederacy peace conference of Indigenous peoples, and was sacred land for the Tonkawa people. There should be a "Land Acknowledgement" in all the UMLAUF's materials. A good example from UT is here: https://www.ischool.utexas.edu/indigenous-land-acknowledgment
- I love this garden and museum. Good luck making changes with the neighbors y'all have!
- Beautiful grounds wonderful staff
- It is such a charming space! No parking lots please- just more access to the whole of it by opening up the house and having classes there like Laguna Gloria
- Provide more of a balance of all the types and themes of Umlauf's throughout his career. Right now the garden seems to exhibit too many of his religious works. Thanks for asking!
- More publication, particularly by City of Austin, about Umlauf Gardens -- gem in downtown Austin.
- Art in nature.
- It's a jewel. But sort of overlooked locally
- Parking is number 1. There is zero parking across the street now. So it can take 20 min. To find a spot. Easier parking/ shuttle from Zilker etc.. make it more likely for more frequent visits.
- Garden open for meditation/quiet contemplation during non public hours
- Love it!
- Beautiful place
- It's a wonderful place - it's just hard for a young family to access.
- UMLAUF is a treasure and I have great faith in the current leadership.
- It would be great to see more of the Home/Studio. My husband and I visited several months ago and tried to see it, only we were yelled at for trespassing. It was really rude and unprofessional. We were later told that was the museum's Director. So, if you do have Home/Studio open to public, you need to have clear instructions so visitors understand. Yelling at paying visitors is no way to run a business.*
- The UMLAUF currently feels very much like a DIY local museum. Any new work should focus on elevating the experience and making it a world-class museum/must-see Austin destination. I'd hope that the UMLAUF be open to progressive ideas that take the UMLAUF beyond its current state of unmaintained irrelevance, otherwise the cost and effort of the project will not be worth it.
- Yes, to paraphrase what I responded to a question above, I think the sculture garden and artists home would be a much better venue for fine art (especially sculture) and local art rather than contemporary art. I've seen some exhibits here and I appreciated some (the tall chairs were amazing and a soundbath inside the gallery area had an installation of a projector that displayed flower that would either wilt or grow when your shadow passed through them and those were amazing) but to be honest, very few felt like they were in their natural setting and some felt noticebly out of out of place (there was an installation using pvc pipe around the pond a couple years ago and i think one using strips of tire). Also, I believe the space at the top of the trail where has a good amount of space for more of Umlaufs works as well as some other areas around the garden. I actually have more ideas (I'm a full time independent artist so of course I have opinions on all of this lol) but I don't want to ramble too much. Thank you for your time and your contribution to the garden it's a really wonderful space.
- Many people in Austin have not seen the beautiful UMLAUF space. If you are looking at doing more, Laguna Gloria is a good

Survey

Is there anything else you would like to share about the UMLAUF?

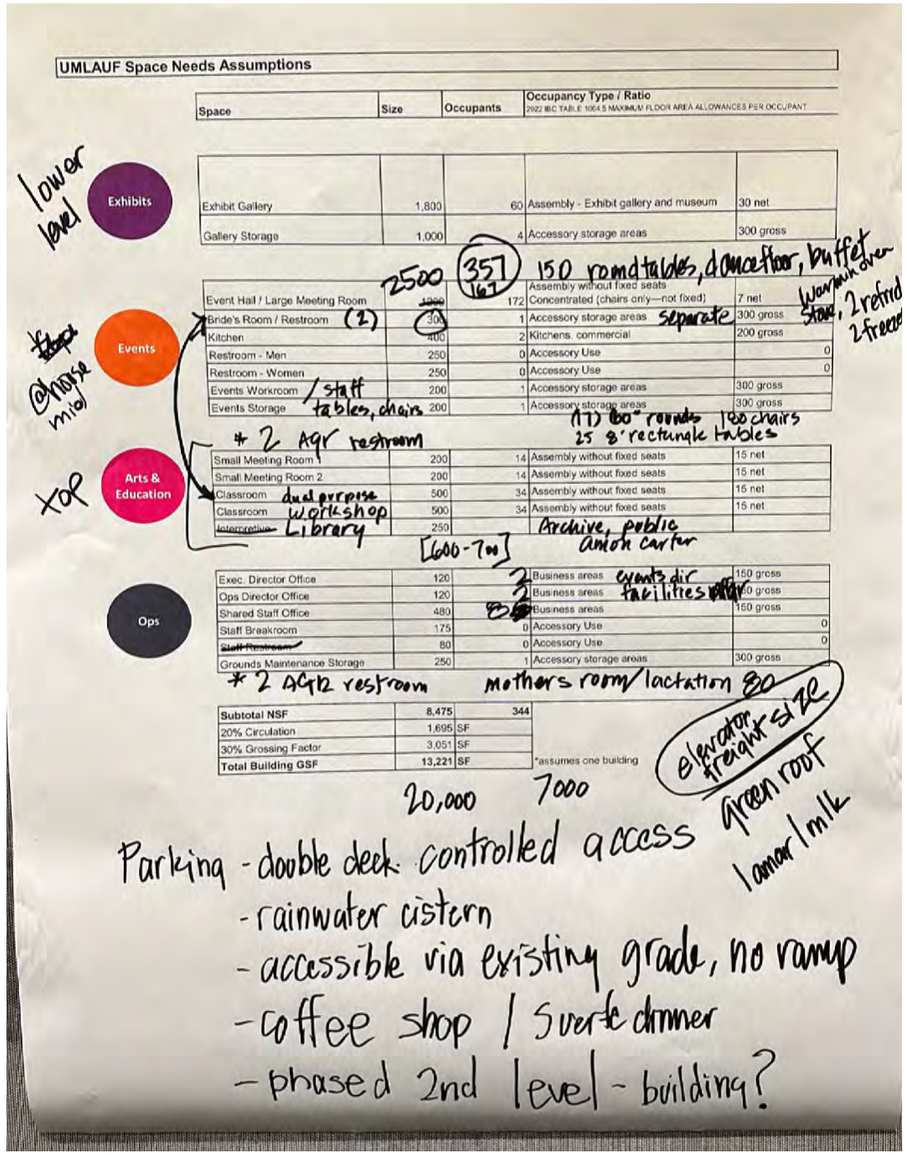
example to follow, albeit with a much bigger area that can handle a lot: public and private event rentals, art classes, a gallery space, beautification and upkeep of the grounds, an on-site restaurant, etc.

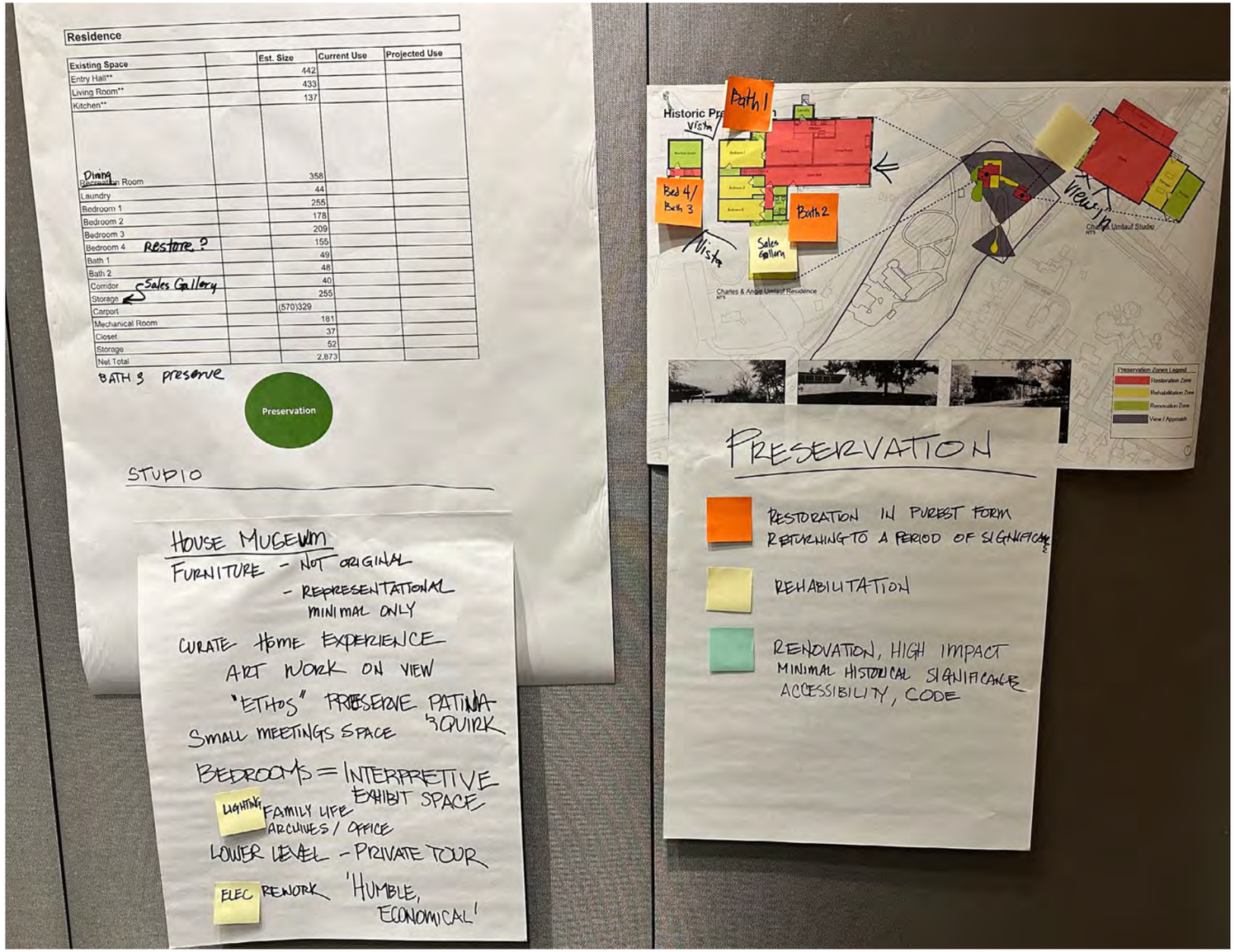
- This is a beautiful space, thank you!
- More of it needs to be more accessible to the public.
- Please make sure that the current political climate of “anti-woke-ness” has no place in this facility. While some restraint should typically be exercised in creating any public display, UMLAUF should provide for artistic expression that seeks to tell a true story, irrespective of socio-political or economic orientation.
- I’d like to suggest a biography of the artist of his life and his art for children. One at elementary level and one at middle school level. Perhaps a photo display of his life.
- stay true to the uniqueness of this place...don’t loose the magic
- La jefa de la UMLAUF es muy mala. Me gritó por tomar una bandera del ORGULLO en Junio.*
- In terms of increasing public access, dealing with parking and providing more direct access through public transportation would go a long way. I think that we might also create more interest by mounting some rotating outside exhibits more often, and anything interactive/”instagramable” is always a good pull. In terms of the house and studio and small garden, I really think that no matter what direction we go in terms of their use, the fact that we have those spaces existing as they did +20 years ago is an amazing and unique resource that we should protect. I am not familiar enough with environmental factors to really comment, but I do know that one aspect that visitors really enjoy is nature, and we should do everything in our power to continue to preserve that.
- I would like to see better leadership at the Executive level on the UMLAUF staff. The local reputation of its current ED/Curator is underwhelming and does not provide the local public confidence that this project will see completion in the near future.*
- Need to preserve the calm ambience of the garden. Keep it informal.
- Preserve its uniqueness.
- Love it
- Very excited about this next phase for the UMLAUF!
- Thank you for protecting this beautiful space.
- It’s a great space!
- While we greatly enjoy the permanent collection we would like to see a dedicated area featuring modern artists and rotating exhibits in the gallery/visitor center. A walk through of his studio and home would be helpful to learn about Charles Umlauf’s history and work process.
- I don’t know much about UMLAUF so I don’t have much of a preference for preserving historic parts of the home and studio, as much as making the space more accessible and enriching for the community (in whatever way). At my first visit I really enjoyed all the outdoor space and sculptures but I didn’t learn much about the context, process, and significance of the works. If I did, maybe I would feel more strongly about preservation of the studio, but I feel like I would rather advocate for more public use and education instead?

** The UMLAUF carefully reviewed all community comments and values the feedback received. These statements have been thoroughly investigated by our staff and Board of Directors.*

Programming Workshop

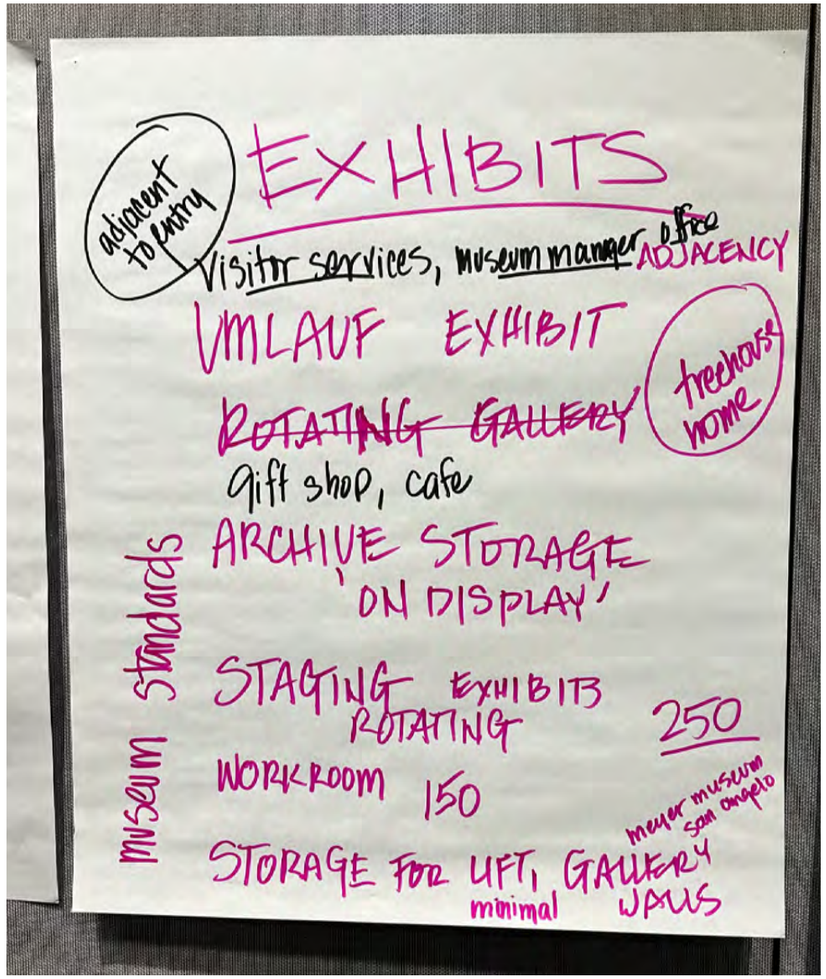
Results from Programming Workshop with the UMLAUF

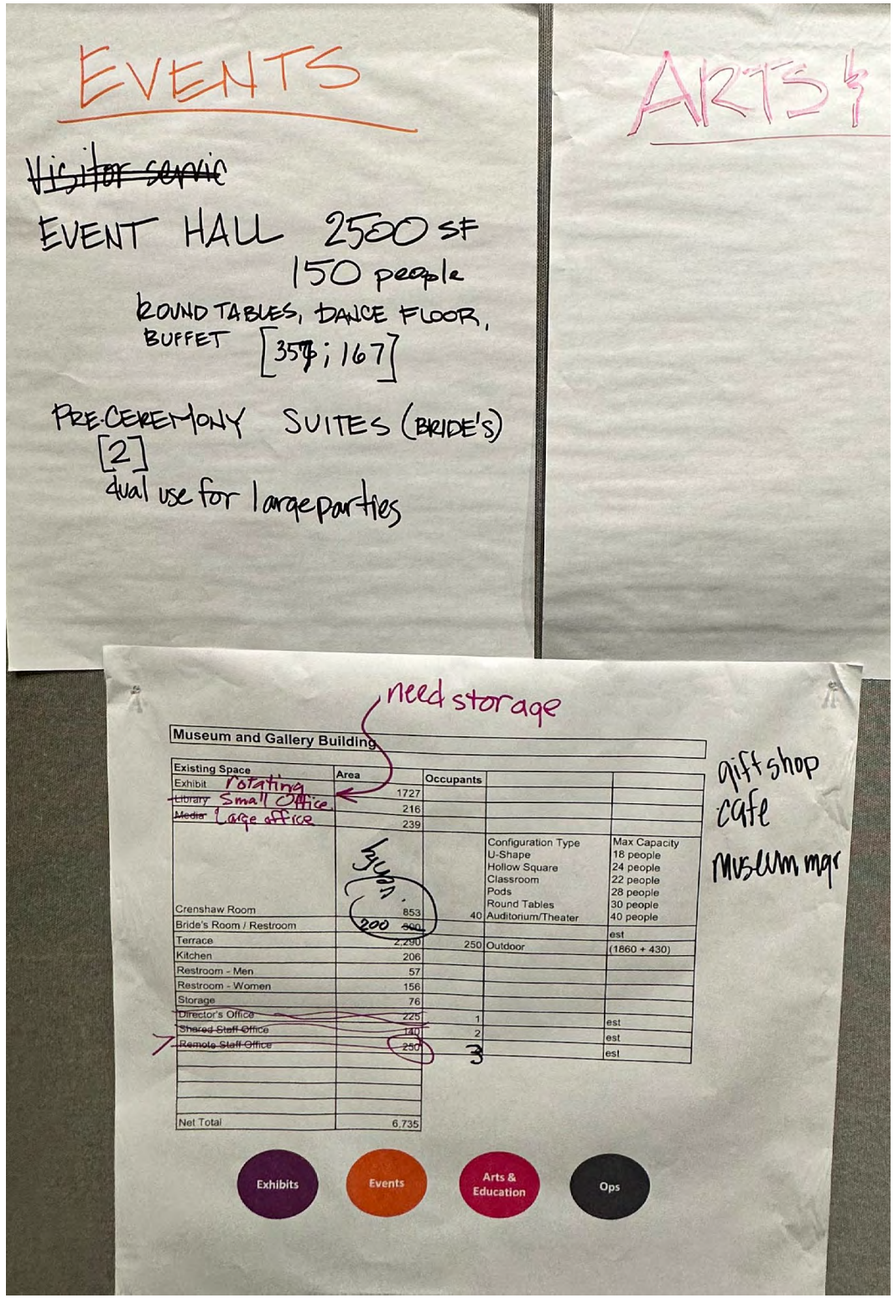




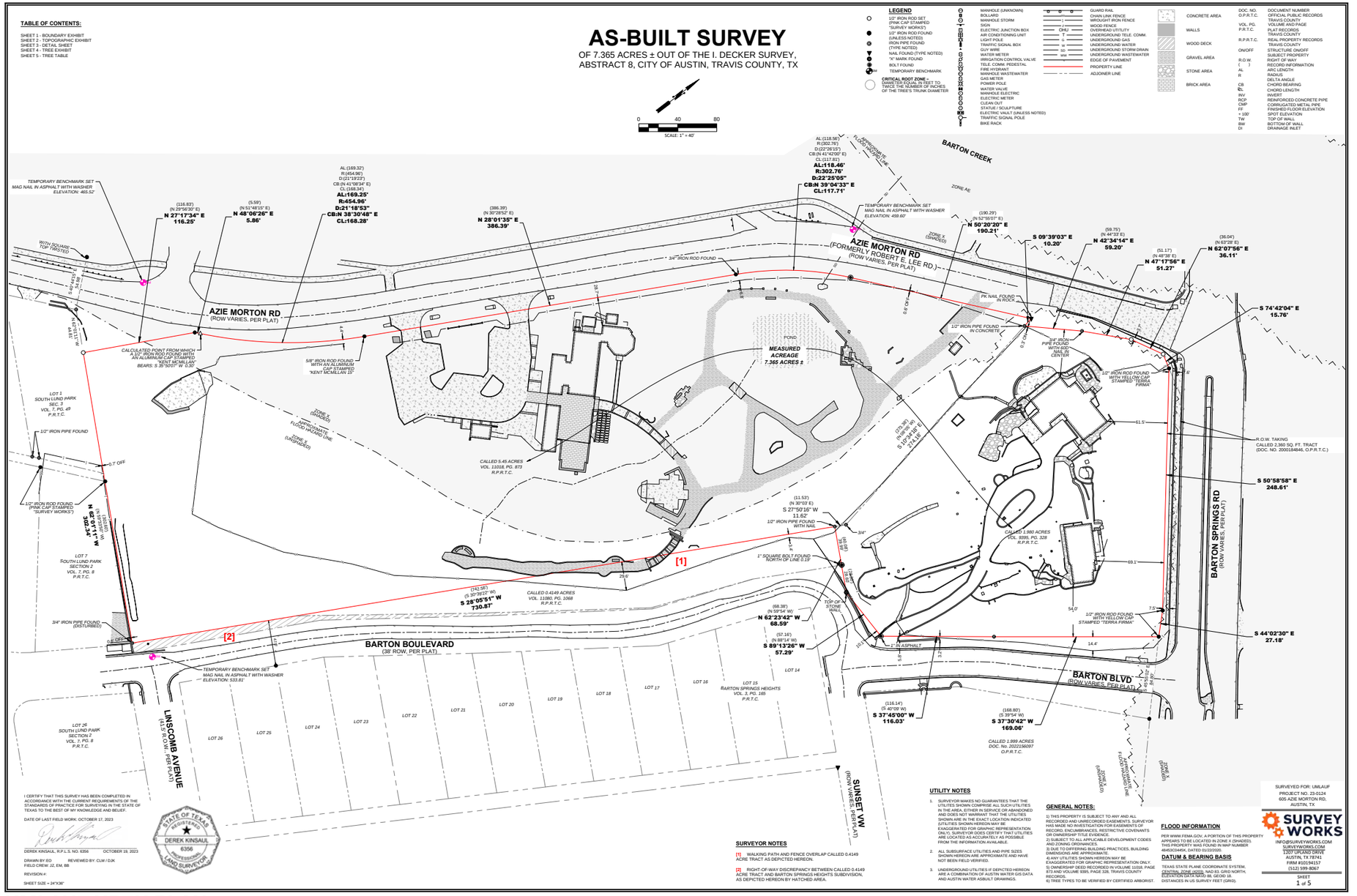
Programming Workshop

Results from Programming Workshop with the UMLAUF

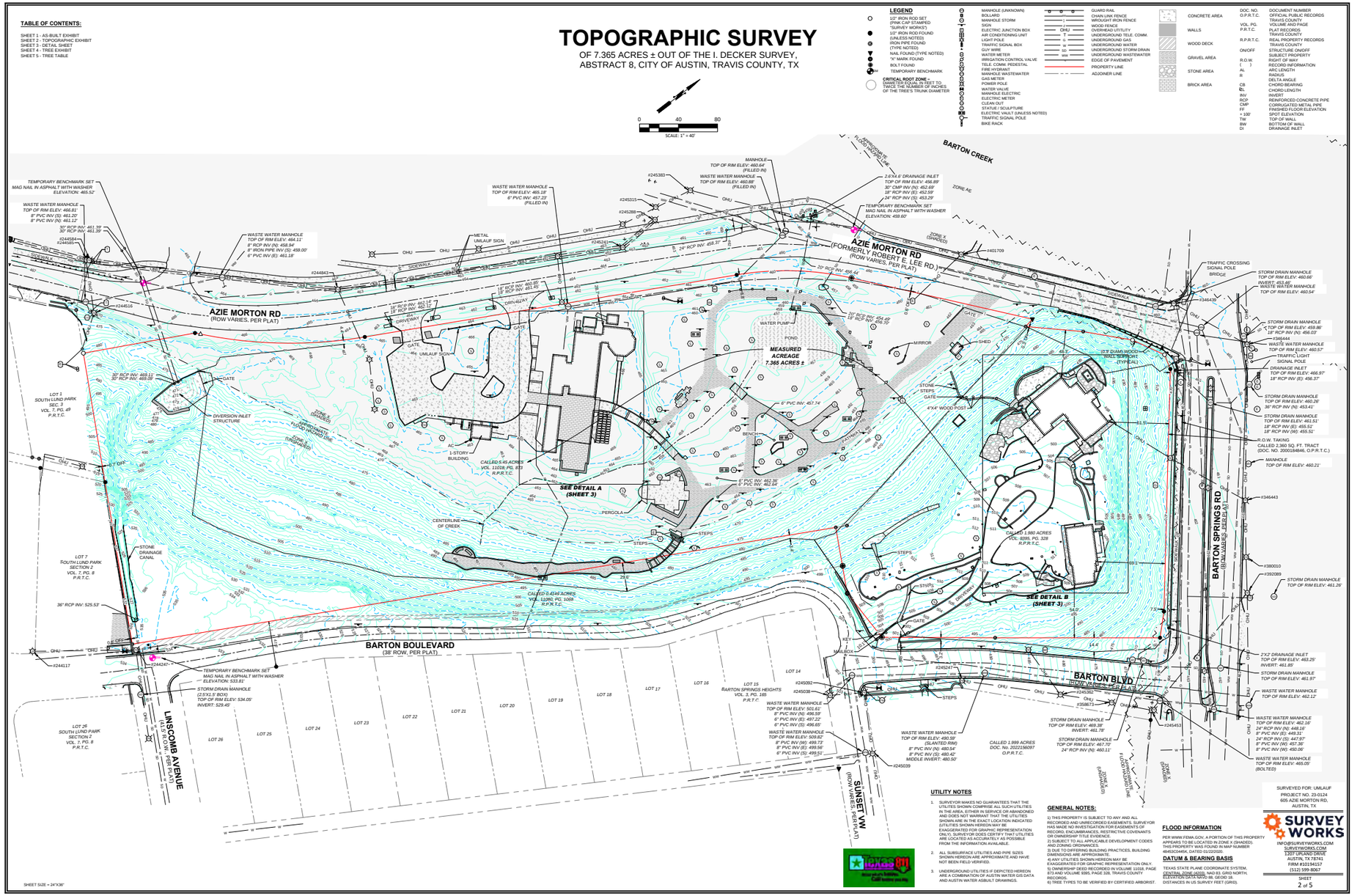




As-built Survey



Topographic Survey



UMLAUF HPEU PLAN

Tree Survey

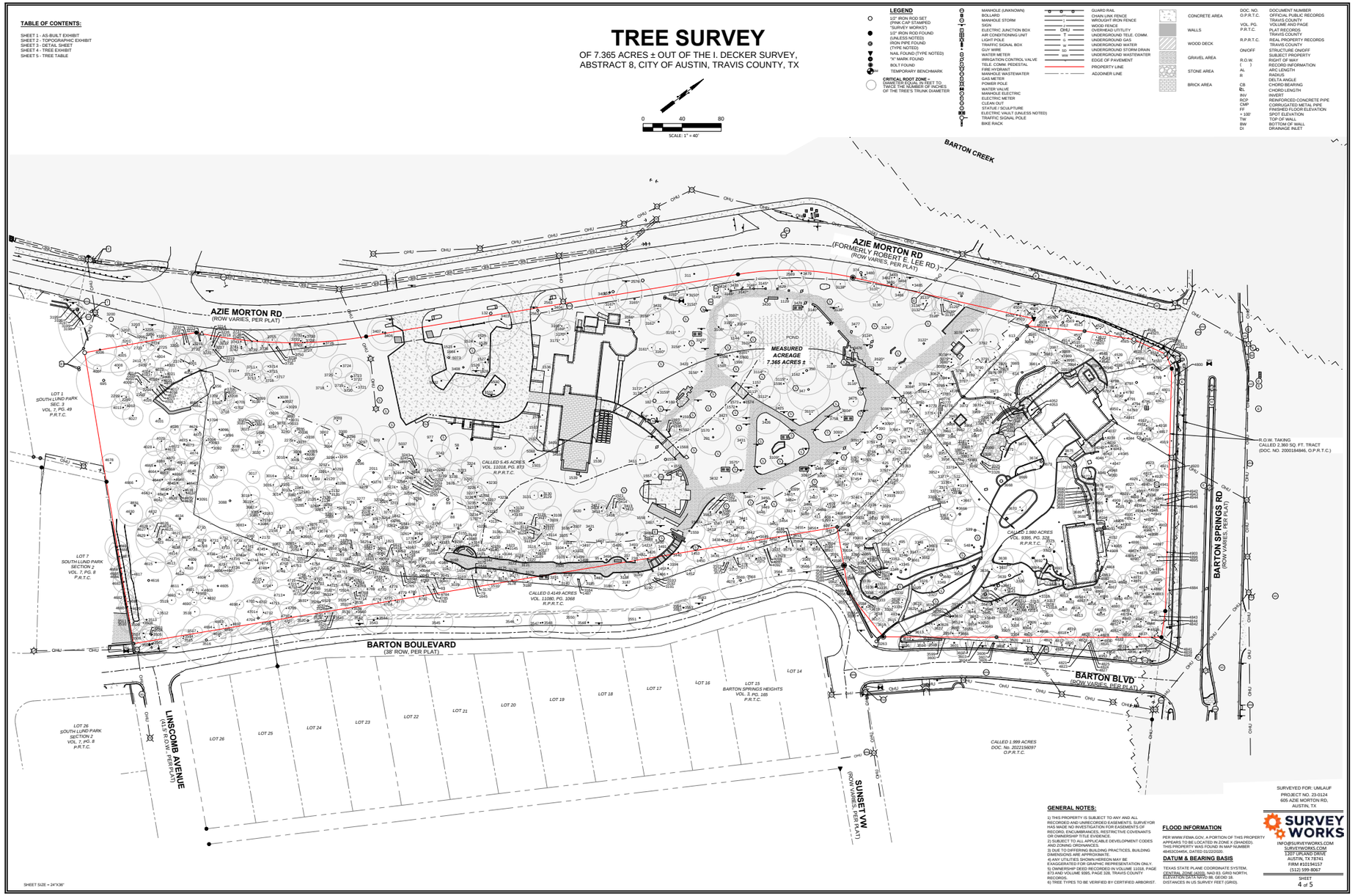


TABLE OF CONTENTS:
SHEET 1 - AS-BUILT EXHIBIT
SHEET 2 - TOPOGRAPHIC EXHIBIT
SHEET 3 - DETAIL SHEET
SHEET 4 - TREE EXHIBIT
SHEET 5 - TREE TABLE
TREE SURVEY
OF 7.365 ACRES ± OUT OF THE I. DECKER SURVEY, ABSTRACT 8, CITY OF AUSTIN, TRAVIS COUNTY, TX
LEGEND
1/2" IRON ROD SET (PINK CAP STAMPED "SURVEY WORKS")
1/2" IRON ROD FOUND (UNLESS NOTED)
IRON PIPE FOUND (TYPE NOTED)
NAIL FOUND (TYPE NOTED)
"X" MARK FOUND
BOLT FOUND
TEMPORARY BENCHMARK
CRITICAL ROOT ZONE = DIAMETER EQUAL IN FEET TO TWICE THE NUMBER OF INCHES OF THE TREE'S TRUNK DIAMETER
MANHOLE (UNKNOWN)
BOLLARD
MANHOLE STORM
SIGN
ELECTRIC JUNCTION BOX
AIR CONDITIONING UNIT
LIGHT POLE
TRAFFIC SIGNAL BOX
GUY WIRE
WATER METER
WATER VALVE CONTROL VALVE
TELECOM PEDESTAL
FIRE HYDRANT
MANHOLE WASTEWATER
GAS METER
POWER POLE
WATER VALVE
MANHOLE ELECTRIC
ELECTRIC METER
CLEAN OUT
STATUE / SCULPTURE
ELECTRIC VAULT (UNLESS NOTED)
TRAFFIC SIGNAL POLE
BIKE RACK
GUARD RAIL
CHAIN LINK FENCE
WROUGHT IRON FENCE
WOOD FENCE
OVERHEAD UTILITY
UNDERGROUND TELE. COMM.
UNDERGROUND GAS
UNDERGROUND WATER
UNDERGROUND STORM DRAIN
UNDERGROUND WASTEWATER
EDGE OF PAVEMENT
PROPERTY LINE
ADJOINER LINE
CONCRETE AREA
WALLS
WOOD DECK
GRAVEL AREA
STONE AREA
BRICK AREA
DOC. NO. DOCUMENT NUMBER
O.P.R.T.C. OFFICIAL PUBLIC RECORDS TRAVIS COUNTY
VOL. PG. VOLUME AND PAGE
P.R.T.C. PLAT RECORDS TRAVIS COUNTY
R.P.R.T.C. REAL PROPERTY RECORDS TRAVIS COUNTY
ON/OFF STRUCTURE ON/OFF SUBJECT PROPERTY
R.O.W. RIGHT OF WAY
( ) RECORD INFORMATION
AL ARC LENGTH
R RADIUS
Δ DELTA ANGLE
CB CHORD BEARING
CL CHORD LENGTH
INV INVERT
RCP REINFORCED CONCRETE PIPE
CMP CORRUGATED METAL PIPE
FF FINISHED FLOOR ELEVATION
+ 100' SPOT ELEVATION
TW TOP OF WALL
BW BOTTOM OF WALL
DI DRAINAGE INLET
0 40 80
SCALE: 1" = 40'
BARTON CREEK
AZIE MORTON RD (ROW VARIES, PER PLAT)
AZIE MORTON RD (FORMERLY ROBERT E. LEE RD.) (ROW VARIES, PER PLAT)
POND
MEASURED ACREAGE 7.365 ACRES ±
CALLED 5.45 ACRES VOL. 11018, PG. 872 R.P.R.T.C.
CALLED 0.4149 ACRES VOL. 11080, PG. 1068 R.P.R.T.C.
CALLED 1.880 ACRES VOL. 9395, PG. 330 R.P.R.T.C.
R.O.W. TAKING CALLED 2,360 SQ. FT. TRACT (DOC. NO. 2000184846, O.P.R.T.C.)
BARTON SPRINGS RD (ROW VARIES, PER PLAT)
BARTON BLVD (ROW VARIES, PER PLAT)
BARTON BOULEVARD (38' ROW, PER PLAT)
LINSCOMB AVENUE (VAR. R.O.W., PER PLAT)
SUNSET VW (ROW VARIES, PER PLAT)
CALLED 1.999 ACRES DOC. No. 2022156097 O.P.R.T.C.
LOT 1 SOUTH LUND PARK SEC. 3 VOL. 7, PG. 49 P.R.T.C.
LOT 7 SOUTH LUND PARK SECTION 2 VOL. 7, PG. 8 P.R.T.C.
LOT 26 SOUTH LUND PARK SECTION 2 VOL. 7, PG. 8 P.R.T.C.
LOT 15 BARTON SPRINGS HEIGHTS VOL. 3, PG. 165 P.R.T.C.
LOT 14
LOT 16
LOT 17
LOT 18
LOT 19
LOT 20
LOT 21
LOT 22
LOT 23
LOT 24
LOT 25
LOT 26
GENERAL NOTES:
1) THIS PROPERTY IS SUBJECT TO ANY AND ALL RECORDED AND UNRECORDED EASEMENTS. SURVEYOR HAS MADE NO INVESTIGATION FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS OR OWNERSHIP TITLE EVIDENCE.
2) SUBJECT TO ALL APPLICABLE DEVELOPMENT CODES AND ZONING ORDINANCES.
3) SUBJECT TO ALL APPLICABLE BUILDING PRACTICES, BUILDING RESTRICTIONS, AND APPROVALS.
4) ANY UTILITIES SHOWN HEREON MAY BE EXAGGERATED FOR GRAPHIC REPRESENTATION ONLY.
5) OWNERSHIP DEED RECORDED IN VOLUME 11018, PAGE 873 AND VOLUME 9395, PAGE 328, TRAVIS COUNTY RECORDS.
6) TREE TYPES TO BE VERIFIED BY CERTIFIED ARBORIST.
FLOOD INFORMATION
PER WWW.FEMA.GOV, A PORTION OF THIS PROPERTY APPEARS TO BE LOCATED IN ZONE X (SHADED). THIS PROPERTY WAS FOUND IN MAP NUMBER 48453C0490K, DATED 01/22/2020.
DATUM & BEARING BASIS
TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (4203). NAD 83, GRID NORTH. ELEVATION DATA NAVD 88, GEOID 18. DISTANCES IN US SURVEY FEET (GRID).
SURVEYED FOR: UMLAUF
PROJECT NO. 23-0124
605 AZIE MORTON RD,
AUSTIN, TX
SURVEY WORKS
INFO@SURVEYWORKS.COM
SURVEYWORKS.COM
1107 CLARKSVILLE
1107 CLARKSVILLE DRIVE
AUSTIN, TX 78741
FIRM #10194157
(512) 599-8067
SHEET
4 of 5
SHEET SIZE = 24"X36"

Tree List

TREE TABLE			TREE TABLE			TREE TABLE			TREE TABLE			TREE TABLE			TREE TABLE			TREE TABLE			TREE TABLE			TREE TABLE		
Tag No.	Type	Trunk	Tag No.	Type	Trunk	Tag No.	Type	Trunk	Tag No.	Type	Trunk	Tag No.	Type	Trunk	Tag No.	Type	Trunk	Tag No.	Type	Trunk	Tag No.	Type	Trunk	Tag No.	Type	Trunk
58	HACKBERRY	15 1/2 "	1838	ASHE JUNIPER	4 1/2 "	3079	CEDAR ELM	4 1/2 "	3214	AMERICAN ELM	11 "	3350	MOUNTAIN LAUREL	4 1/2 "	3488	CEDAR ELM	5 "	3624	CEDAR ELM	4.5X3.5 (M)	3759	CEDAR ELM	4 1/2 "	4045	CEDAR ELM	6 "	4691	CHINABERRY	3X2 (M)
79	ASHE JUNIPER	8 "	1841	ASHE JUNIPER	6 1/2 "	3080	CEDAR ELM	4 1/2 "	3215	CEDAR ELM	10 "	3351	PERSIMMON	3X3X2 (M)	3489	CEDAR ELM	12 "	3625	CEDAR ELM	4 1/2 "	3760	CEDAR ELM	10 1/2 "	4046	CEDAR ELM	4 1/2 "	4692	CEDAR ELM	5 1/2 "
83	ASHE JUNIPER	9 "	1842	ASHE JUNIPER	9 " (D)	3081	CEDAR ELM	4 1/2 "	3216	CEDAR ELM	4 "	3352	CEDAR ELM	4 "	3490	CEDAR ELM	4 "	3626	CEDAR ELM	4 1/2 "	3761	CEDAR ELM	5 1/2 "	4047	HACKBERRY	5 " (D)	4693	CEDAR ELM	5.5X5 (M)
87	CEDAR ELM	30 " (P)	1855	CEDAR ELM	5 "	3082	CEDAR ELM	7 "	3217	CEDAR ELM	6 1/2 "	3353	CEDAR ELM	6 "	3491	CEDAR ELM	9 1/2 "	3627	CEDAR ELM	5 1/2 "	3762	CEDAR ELM	6 "	4048	CEDAR ELM	4 1/2 "	4694	CEDAR ELM	6 "
88	LIVE OAK	18 "	1896	CEDAR ELM	4 1/2 "	3083	CEDAR ELM	7 "	3218	CEDAR ELM	5 "	3354	CEDAR ELM	4X3.5 (M)	3492	CEDAR ELM	9 1/2 "	3628	LIVE OAK	14 "	3763	CEDAR ELM	6 1/2 "	4049	CEDAR ELM	7 "	4695	AMERICAN ELM	6 "
89	LIVE OAK	22.5X14.5 (M.P)	1897	ASHE JUNIPER	14 1/2 "	3084	CEDAR ELM	7 "	3219	CEDAR ELM	12 "	3355	CEDAR ELM	4 "	3493	CEDAR ELM	17 1/2 "	3629	CEDAR ELM	4 1/2 "	3764	CEDAR ELM	6 "	4050	CEDAR ELM	7 "	4696	CEDAR ELM	8 "
95	LIVE OAK	12 1/2 "	2011	LIVE OAK	20 1/2 " (P)	3085	ASHE JUNIPER	11X4.5 (M)	3220	CEDAR ELM	5 1/2 "	3356	CEDAR ELM	6 "	3494	CEDAR ELM	19 1/2 " (P)	3630	CEDAR ELM	6 1/2 "	3765	CEDAR ELM	6 "	4052	CEDAR ELM	14 1/2 "	4697	CEDAR ELM	6.5X4 (M)
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153	PECAN	29 1/2 " (H)	2028	CEDAR ELM	4 1/2 "	3087	CEDAR ELM	4 1/2 "	3222	HACKBERRY	4 "	3358	CEDAR ELM	4 "	3496	LIVE OAK	20 " (P)	3632	ASHE JUNIPER	12.5X10.5 (M)	3767	CEDAR ELM	9 "	4078	HACKBERRY	5 1/2 "	4701	CEDAR ELM	6 1/2 "
180	AMERICAN ELM	14 "	2033	ASHE JUNIPER	11 1/2 "	3088	ASHE JUNIPER	22 " (P)	3223	CEDAR ELM	13 "	3359	CEDAR ELM	7 " (D)	3497	CEDAR ELM	4 1/2 "	3633	CEDAR ELM	6 1/2 "	3768	CEDAR ELM	5 1/2 "	4092	ASHE JUNIPER	6 "	4702	CEDAR ELM	5 "
182	COTTONWOOD	40 1/2 " (P)	2036	ASHE JUNIPER	11X3 (M)	3089	CEDAR ELM	7 "	3224	HACKBERRY	10 "	3360	CEDAR ELM	6 1/2 "	3498	CEDAR ELM	9 "	3634	CEDAR ELM	4 1/2 "	3769	CEDAR ELM	5 "	4096	ASHE JUNIPER	4 "	4703	CEDAR ELM	5 "
237	LIVE OAK	20 1/2 "	2045	ASHE JUNIPER	10 1/2 "	3090	CEDAR ELM	6.5X5.5 (M)	3225	CEDAR ELM	9 "	3361	CEDAR ELM	9 "	3499	CEDAR ELM	10 1/2 "	3635	CEDAR ELM	4 "	4097	HACKBERRY	4 "	4704	CEDAR ELM	24 " (H)	4840	CEDAR ELM	7 "
238	LIVE OAK	10 1/2 "	2051	ASHE JUNIPER	7 "	3091	ASHE JUNIPER	15 "	3226	CEDAR ELM	4 1/2 "	3362	CEDAR ELM	7 "	3500	CEDAR ELM	8 "	3636	CEDAR ELM	9 "	3771	CEDAR ELM	6 "	4099	ASHE JUNIPER	10X4X4 (M)	4705	CEDAR ELM	5 1/2 "
277	ASHE JUNIPER	8 1/2 "	2052	ASHE JUNIPER	14 "	3092	CEDAR ELM	6 "	3227	CEDAR ELM	6 "	3363	BUR	3.5X3 (M)	3501	CEDAR ELM	8 1/2 "	3637	CEDAR ELM	5 1/2 "	3772	CEDAR ELM	9 "	4140	MOUNTAIN LAUREL	4 1/2 "	4706	CEDAR ELM	5 1/2 "
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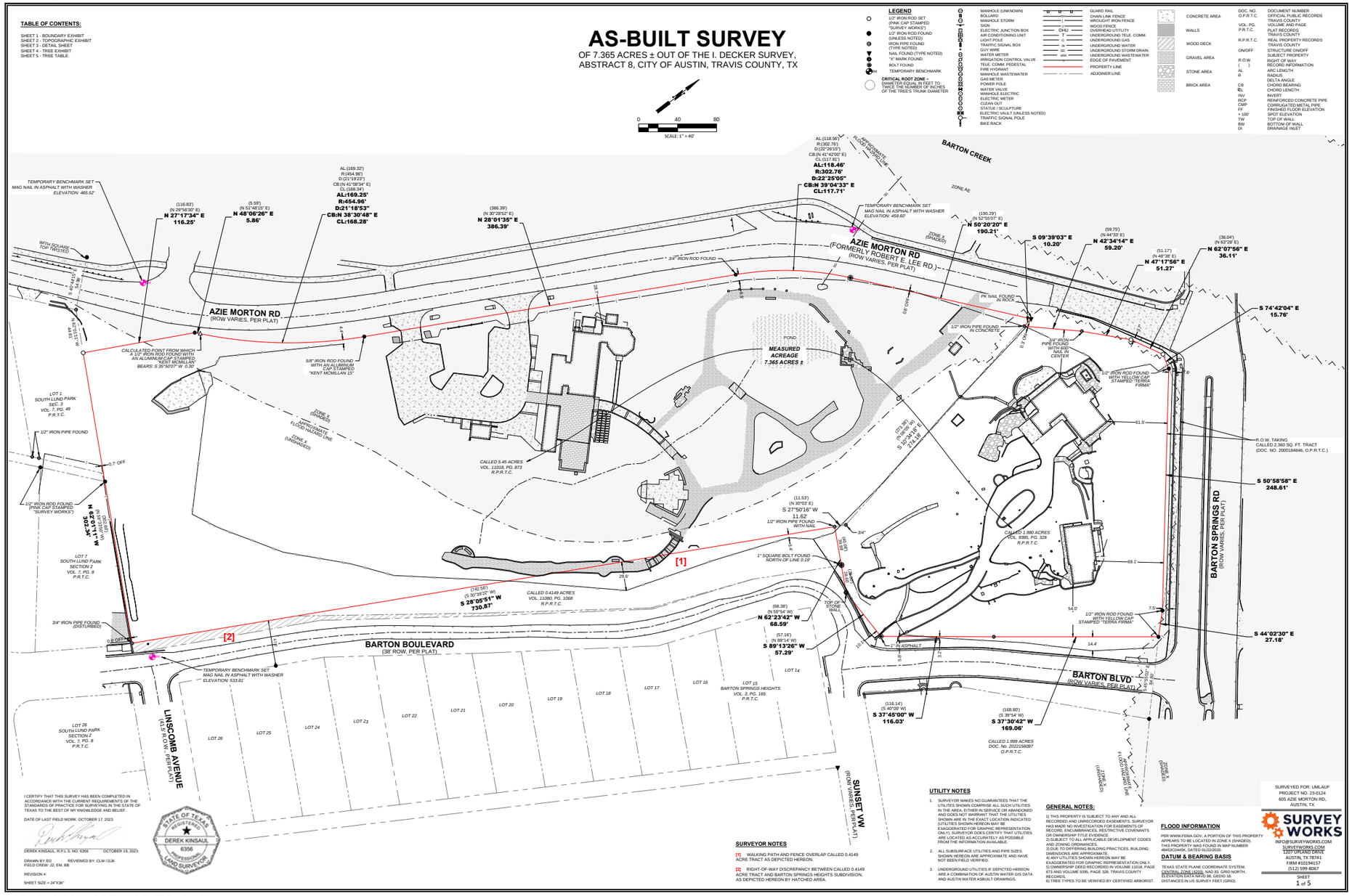
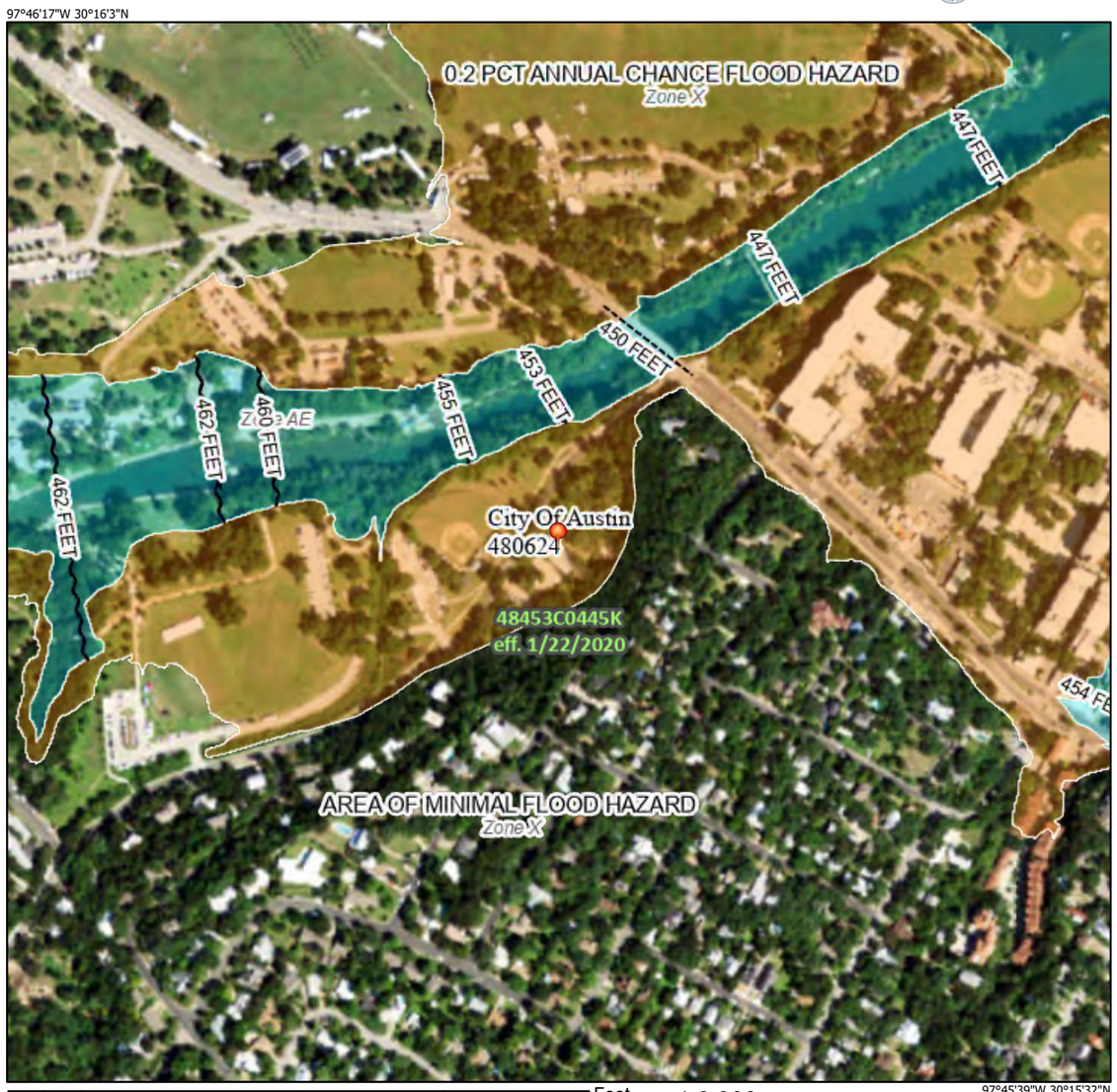
291	AMERICAN ELM	18 "	2059	ASHE JUNIPER	6 "	3094	CEDAR ELM	5 "	3229	CEDAR ELM	9 "	3365	CEDAR ELM	7 1/2 "	3503	CEDAR ELM	10 1/2 "	3639	LIVE OAK	27 1/2 " (H)	3774	CEDAR ELM	7 "	4502	CEDAR ELM	11 "	4709	CEDAR ELM	6 "
311	AMERICAN ELM	15 "	2062	ASHE JUNIPER	7 "	3095	CEDAR ELM	10 1/2 "	3230	CEDAR ELM	10 "	3366	CEDAR ELM	6 "	3504	CEDAR ELM	6 "	3640	CREPE MYRTLE	6/0.5/0.5/0.5

Impervious Cover Exhibit



FEMA FIRMette

National Flood Hazard Layer FIRMette



Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/25/2024 at 9:49 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ADA Assessment

November 12, 2023

CLIENT:
Page
c/o Ginny Chilton
400 W. Cesar Chavez St., Ste.500
Austin, TX 78701

PROJECT:
Umlauf Sculptural Garden & Museum
605 Azie Morton Rd., Austin, TX 78704
Contour Project No: 23-132
Lead Designer: Page

REGISTERED ACCESSIBILITY SPECIALIST:
Elaine Andersen, RAS #1284
Co-Founder

EXISTING CONDITIONS ASSESSMENT

This report presents the findings of the on-site inspection for the ***Umlauf Sculpture Garden & Residence Property*** Project for compliance with the ADA Titles II & III utilizing the 2010 Standards, the Texas Accessibility Standards and the City of Austin IBC Chapter 11.
For brevity in the report the TAS is the referenced barrier code. Title II of the ADA will discuss Program Access.
This report is limited to inspecting the elements for compliance with the applicable technical standards and scoping. An inspection of the site was conducted on *November 7, 2023,* which included the review of existing elements listed below.

Parking, Museum Gallery & Offices, Exterior Sculpture Garden and Umlauf Residence.

In 2015, the City of Austin Parks & Recreation Department had and ADA Transition Plan done and an assessment was done at the Umlauf. The Transition Plan also discusses Program Access compliance. It is recommended it also be referenced. It may be found here:
https://www.austintexas.gov/department/americans-disabilities-act-transition-plan

If you have any questions, contact Elaine Andersen at Elaine@Contour-Collective.com.

Comment #1: **NON-COMPLIANT**; Accessible Parking

LOCATION: Parking

FINDING: Currently there are two accessible parking spaces. One shall be designated as van accessible with a wider access aisle. The parking slopes are up to 2.6%, whereas 2% is the maximum slope in all directions.

2012 TAS CODE REFERENCES:
208 Parking Spaces
208.1 General. Where parking spaces are provided, parking spaces shall be provided in accordance with 208.
EXCEPTION: Parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles, or vehicular impound shall not be required to comply with 208 provided that lots accessed by the public are provided with a passenger loading zone complying with 503.
208.2 Minimum Number. Parking spaces complying with 502 shall be provided in accordance with Table 208.2 except as required by 208.2.1, 208.2.2, and 208.2.3. Where more than one parking facility is provided on a site, the number of accessible spaces provided on the site shall be calculated according to the number of spaces required for each parking facility.

Table 208.2 Parking Spaces

Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

Advisory 208.2 Minimum Number. The term "parking facility" is used Section 208.2 instead of the term "parking lot" so that it is clear that both parking lots and parking structures are required to comply with this section. The number of parking spaces required

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to be accessible is to be calculated separately for each parking facility; the required number is not to be based on the total number of parking spaces provided in all of the parking facilities provided on the site.

502 Parking Spaces

502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.4 Floor or Ground Surfaces. Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

Advisory 502.4 Floor or Ground Surfaces. Access aisles are required to be nearly level in all directions to provide a surface for wheelchair transfer to and from vehicles. The exception allows sufficient slope for drainage. Built-up curb ramps are not permitted to project into access aisles and parking spaces because they would create slopes greater than 1:48.

Comment #2: **NON-COMPLIANT**; Accessible Route

LOCATION: Entrance

FINDING: There is a portion of the pavers (red) that has a running slope exceeding 5% and therefore would need to meet ramp requirements of flat landings and handrails. However, if regraded (green) the running slope would be reduced to less than 5% and handrails and level landings are not required.

2012 TAS CODE REFERENCES:

403 Walking Surfaces

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

405 Ramps

405.1 General. Ramps on accessible routes shall comply with 405.

EXCEPTION: In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with 405.

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Comment #3: **NON-COMPLIANT**; Restrooms

LOCATION: Gallery Restrooms

FINDINGS: The signage to the restrooms shall be on the latch side of the door.
Both men & women the lavatories are too high at 36", whereas 34" is the maximum height. The pipes are also not insulated.
Both men & women water closets are too close to the side wall, whereas 16-18" is the range.
Both men & women coat hooks are too high, whereas 48" is the maximum reach range.
Both men & women grab bars are mounted too high, whereas 36" to the top is the maximum. The women's rear grab bar is not mounted correctly over the water closet.

Baby changer in the women's overlaps the required door maneuvering clearance and the water closet clear floor space and is also a protruding object. It shall be relocated out of the accessible stall. Consider placement in the open position.

The men's partition impedes the required door maneuvering clearance. It shall be removed.

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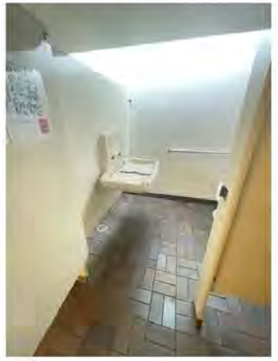

2012 TAS CODE REFERENCES:

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.4 Installation Height and Location.

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

EXCEPTION: Signs with tactile characters shall be permitted on the push side of doors with closers and without hold-open devices.

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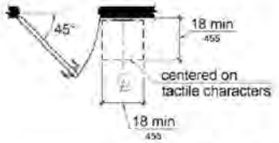

Figure 703.4.2 Location of Tactile Signs at Doors

606 Lavatories and Sinks

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

EXCEPTIONS:

1. A lavatory in a toilet or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 606.3.

2. In residential dwelling unit kitchens, sinks that are adjustable to variable heights, 29 inches (735 mm) minimum and 36 inches (915 mm) maximum, shall be permitted where rough-in plumbing permits connections of supply and drain pipes for sinks mounted at the height of 29 inches (735 mm).

604 Water Closets and Toilet Compartments

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.

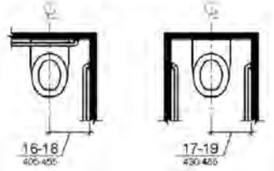

Figure 604.2 Water Closet Location

603 Toilet and Bathing Rooms

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

EXCEPTIONS:

1. Grab bars shall not be required to be installed in a toilet room for a single occupant accessed only through a private office and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 604.5.

2. In residential dwelling units, grab bars shall not be required to be installed in toilet or bathrooms provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 604.5.

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3. In detention or correction facilities, grab bars shall not be required to be installed in housing or holding cells that are specially designed without protrusions for purposes of suicide prevention.
Advisory 604.5 Grab Bars Exception 2. Reinforcement must be sufficient to permit the installation of rear and side wall grab bars that fully meet all accessibility requirements including, but not limited to, required length, installation height, and structural strength.
604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.
EXCEPTIONS:
1. The rear grab bar shall be permitted to be 24 inches (610 mm) long minimum, centered on the water closet, where wall space does not permit a length of 36 inches (915 mm) minimum due to the location of a recessed fixture adjacent to the water closet.
2. Where an administrative authority requires flush controls for flush valves to be located in a position that conflicts with the location of the rear grab bar, then the rear grab bar shall be permitted to be split or shifted to the open side of the toilet area.

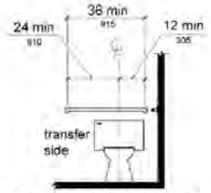

Figure 604.5.2 Rear Wall Grab Bar at Water Closets

609 Grab Bars
609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

Technical Memorandum 2012 TAS

Texas Department of Licensing and Regulation Architectural Barriers

TM 2013-15 Baby Changing Tables
Effective Date: June 1, 2013
2012 TAS Reference: 902

Baby changing tables are work surfaces based on Advisory 902.1; therefore, if fixed or built-in baby changing tables are provided, at least 5%, but not less than one, must comply with TAS 902 based TAS 226.1.

Protruding Objects
Baby changing tables cannot violate the protruding object requirements of TAS 204 and 307 in either an open or closed position since either position is a potential hazard for persons with visual impairments.

Toilet Compartments
Baby changing tables are not prohibited from being located in wheelchair accessible toilet compartments; however, the minimum space required by TAS 604.8.1.1 for the compartment cannot be obstructed by the baby changing table in either an open or closed position.

To achieve compliance with TAS for both the toilet compartment and baby changing table, it may be necessary to design the toilet compartment to exceed the minimum size requirements of TAS 604.8.1.1 as addressed in Advisory 604.8.1.1.

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The clear floor space required for a baby changing table by TAS 902.2 may overlap the water closet clearance based on TAS 604.3.2 since baby changing tables are considered convenience *"fixtures"* based on Advisory 604.8.1.1. The overlap is applicable only to the clear floor space and not to actual table itself.

Dispersion
Baby changing tables must be dispersed throughout a space based on TAS 226.2, however, an additional baby changing table is not required in a common use area of a toilet or bathing room when the only baby changing table is located in a toilet compartment.

These clarifications do not constitute a substantive change to the compliance requirements of TAS.

404 Doors, Doorways, and Gates
404.2 Manual Doors, Doorways, and Manual Gates.
404.2.4 Maneuvering Clearances.
404.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.4.1.

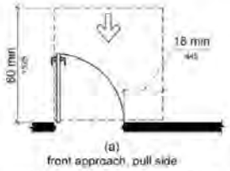

Figure 404.2.4.1 - Maneuvering Clearances at Manual Swinging Doors and Gates

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Comment #4: **NON-COMPLIANT**; Recessed Door

LOCATION: Door to restrooms

FINDING: The door is in a 16" thick overall wall. However, the interior wall is 10" to the door frame and exceeds the maximum thickness allowed for a recessed door. The door shall be reframed within the wall to reduce the interior thickness to 8" or less.

2012 TAS CODE REFERENCES:

404 Doors, Doorways, and Gates
404.2 Manual Doors, Doorways, and Manual Gates.
404.2.4 Maneuvering Clearances.
404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.
Advisory 404.2.4.3 Recessed Doors and Gates. A door can be recessed due to wall thickness or because of the placement of casework and other fixed elements adjacent to the doorway. This provision must be applied wherever doors are recessed.

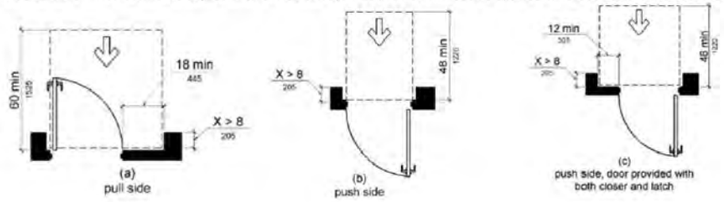

Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

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Comment #5: **NON-COMPLIANT**; Drinking Fountains

LOCATION: Near the Gallery restrooms

FINDING: There is one 'low' fountain. An additional 'high' fountain shall be provided. The low is also a protruding object as the bottom edge is 27 ½". The low shall be lowered ½" and the high fountain provide an apron for edge protection.

2012 TAS CODE REFERENCES:

211 Drinking Fountains
211.2 Minimum Number. No fewer than two drinking fountains shall be provided. One drinking fountain shall comply with 602.1 through 602.6 and one drinking fountain shall comply with 602.7.
EXCEPTION: Where a single drinking fountain complies with 602.1 through 602.6 and 602.7, it shall be permitted to be substituted for two separate drinking fountains.
602 Drinking Fountains
602.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

Comment #6: **NON-COMPLIANT**; Kitchen

LOCATION: Catering Kitchen

FINDING: Since the kitchen is for outside catering it is a public accommodation and shall be fully accessible. If the kitchen is for employees as a break area, it shall be fully accessible. If the kitchen is for employees only to cook as part of their job functions for events, etc; it may be exempt as an employee work area. The elements out of compliance are:
Sink height is too high and not enough knee space.
The microwave is out of an accessible reach range.

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2012 TAS CODE REFERENCES:

606 Lavatories and Sinks

606.1 General. Lavatories and sinks shall comply with 606.

Advisory 606.1 General. If soap and towel dispensers are provided, they must be located within the reach ranges specified in 308. Locate soap and towel dispensers so that they are conveniently usable by a person at the accessible lavatory.

308 Reach Ranges

308.3 Side Reach.

308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

EXCEPTIONS:

1. The top of washing machines and clothes dryers shall be permitted to be 36 inches (915 mm) maximum above the finish floor.
2. Operable parts of fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

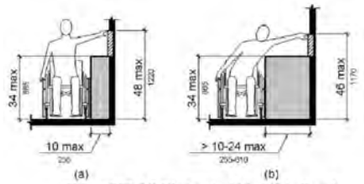

Figure 308.3.2 Obstructed High Side Reach

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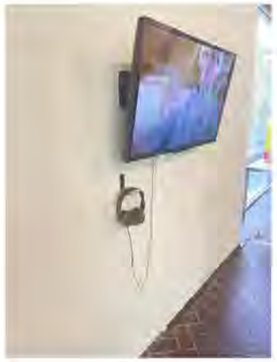
Comment #7: **NON-COMPLIANT**; Protruding Objects

LOCATION: TV in the Gallery

FINDING: The wall mounted television protrudes off the wall more than 4". A slimmer TV or cane detection underneath shall be provided.



2012 TAS CODE REFERENCES:

307 Protruding Objects

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.

Advisory 307.2 Protrusion Limits. When a cane is used and the element is in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact. Elements located on circulation paths, including operable elements, must comply with requirements for protruding objects. For example, awnings and their supporting structures cannot reduce the minimum required vertical clearance. Similarly, casement windows, when open, cannot encroach more than 4 inches (100 mm) into circulation paths above 27 inches (685 mm).

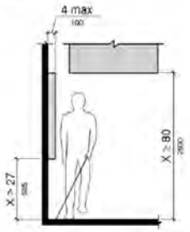


Figure 307.2 Limits of Protruding Objects

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Comment #8: **NON-COMPLIANT**; Sales & Service

LOCATION: Information and Transaction counter

FINDING: The counter is too high and shall provide a lower accessible counter at 36" maximum height.

2012 TAS CODE REFERENCES:

904.4, 4.1

904 Check-Out Aisles and Sales and Service Counters

904.4 Sales and Service Counters. Sales counters and service counters shall comply with 904.4.1 or 904.4.2. The accessible portion of the counter top shall extend the same depth as the sales or service counter top.

EXCEPTION: In alterations, when the provision of a counter complying with 904.4 would result in a reduction of the number of existing counters at work stations or a reduction of the number of existing mail boxes, the counter shall be permitted to have a portion which is 24 inches (610 mm) long minimum complying with 904.4.1 provided that the required clear floor or ground space is centered on the accessible length of the counter.

904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.

EXCEPTION: Where the provided counter surface is less than 36 inches (915 mm) long, the entire counter surface shall be 36 inches (915 mm) high maximum above the finish floor.

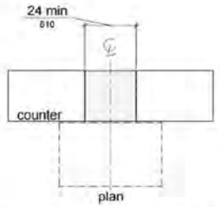

Figure 904.4 (Exception) Alteration of Sales and Service Counters

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Comment #9: **ADVISORY**; Ground Surface

LOCATION: Checkered paver area

FINDING: The large paver and black gravel creates uneven surfaces. The area does not have to be accessible as long as a duplicate item is provided in an accessible area nearby. For example, if there are tables and chairs here, ensure accessible tables and chairs are provided nearby. If the bar is here, there shall be another accessible bar, etc. *See Title II information in the last comment.*

2012 TAS CODE REFERENCES:

302 Floor or Ground Surfaces

302.1 General. Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302.

EXCEPTIONS:

1. Within animal containment areas, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.

2. Areas of sport activity shall not be required to comply with 302.

Advisory 302.1 General. A stable surface is one that remains unchanged by contaminants or applied force, so that when the contaminant or force is removed, the surface returns to its original condition. A firm surface resists deformation by either indentations or particles moving on its surface. A slip-resistant surface provides sufficient frictional counterforce to the forces exerted in walking to permit safe ambulation.

302.3 Openings. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

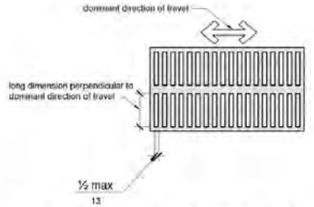

Figure 302.3 Elongated Openings in Floor or Ground Surfaces

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Comment #10: **NON-COMPLIANT**; Paver Accessible Route

LOCATION: Pavers to Crenshaw Room

FINDING: The red brick pavers have a cross slope of up to 3%, whereas 2% is the maximum. There is also a change in level exceeding ½" at the entrance. The pavers shall be reconstructed and the change in level reduced to ½" or less.

2012 TAS CODE REFERENCES:

403 Walking Surfaces
403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.
303 Changes in Level
303.1 General. Where changes in level are permitted in floor or ground surfaces, they shall comply with 303.
EXCEPTIONS:
1. Animal containment areas shall not be required to comply with 303.
2. Areas of sport activity shall not be required to comply with 303.
303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.
303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.
Advisory 303.3 Beveled. A change in level of 1/2 inch (13 mm) is permitted to be 1/4 inch (6.4 mm) vertical plus 1/4 inch (6.4 mm) beveled. However, in no case may the combined change in level exceed 1/2 inch (13 mm). Changes in level exceeding 1/2 inch (13 mm) must comply with 405 (Ramps) or 406 (Curb Ramps).

Figure 303.2 Vertical Change in Level

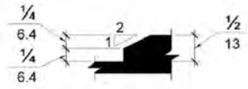

Figure 303.3 Beveled Change in Level

Comment #11: **NON-COMPLIANT**; Concrete Accessible Route

LOCATION: Concrete to the bridge

FINDING: The sloping concrete has a running slope up to 6.3% and shall meet ramp requirements with handrails on both sides and level landings. There is more than a 30" grade drop, therefore shall provide an intermediate landing. Where the change in direction occurs to go to the Crenshaw room, shall be a level landing and not exceed 2%. Currently the slope is 5.5%.

2012 TAS CODE REFERENCES:

405 Ramps
405.1 General. Ramps on accessible routes shall comply with 405.
EXCEPTION: In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with 405.
405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.
EXCEPTION: In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations.

Table 405.2 Maximum Ramp Slope and Rise for Existing Sites, Buildings, and Facilities

Slope[1]	Maximum Rise
Steeper than 1:10 but not steeper than 1:8	3 inches (75 mm)
Steeper than 1:12 but not steeper than 1:10	6 inches (150 mm)

1. A slope steeper than 1:8 is prohibited.

Advisory 405.2 Slope. To accommodate the widest range of users, provide ramps with the least possible running slope and, wherever possible, accompany ramps with stairs for use by those individuals for whom distance presents a greater barrier than steps, e.g., people with heart disease or limited stamina.
405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum.
405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with 505.
EXCEPTION: Within employee work areas, handrails shall not be required where ramps that are part of common use circulation paths are designed to permit the installation of handrails complying with 505. Ramps not subject to the exception to 405.5 shall be designed to maintain a 36 inch (915 mm) minimum clear width when handrails are installed.

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Comment #12: **NON-COMPLIANT**; DG Accessible Routes

LOCATION: Throughout

FINDING: The decomposed granite routes throughout have inconsistencies in slopes and ground surfaces. Many areas the running or cross slope is excessive. The attached Site Plan has areas noting excessive slopes to regrade. When the routes are regraded, ensure the DG is compacted well with a binding agent.

2012 TAS CODE REFERENCES:

302 Floor or Ground Surfaces

302.1 General. Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302.

EXCEPTIONS:

1. Within animal containment areas, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.

2. Areas of sport activity shall not be required to comply with 302.

Advisory 302.1 General. A stable surface is one that remains unchanged by contaminants or applied force, so that when the contaminant or force is removed, the surface returns to its original condition. A firm surface resists deformation by either indentations or particles moving on its surface. A slip-resistant surface provides sufficient frictional counterforce to the forces exerted in walking to permit safe ambulation.

CONTOUR COLLECTIVE
Existing Conditions
Accessibility Assessment
umlauf

Comment #13: **NON-COMPLIANT**; Elements on an Accessible Route

LOCATION: Circle paver installation by the waterfall
FINDING: This installation is unique and shall be connected via an accessible route.

LOCATION: Upper trail with view of water only accessed by stairs
FINDING: There is not an accessible route provided to the upper trails. Unless the stairs or upper trail is modified to trigger TAS compliance; an equivalent experience shall be provided to meet ADA. *See Title II information in the last comment.*

By creating an accessible route to the circular paver art installation, this provides an opportunity to create an equivalent experience from the upper non-compliant trails with the waterfalls. The adjacent waterfalls and louder creek noise could be considered a similar experience from the upper trail.
Wayfinding signage shall be provided at the stairs to indicate what is at the top and also where the equivalient accessible experience is provided.

2012 TAS CODE REFERENCES:

206 Accessible Routes

206.2 Where Required.

206.2.2 Within a Site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

EXCEPTION: An accessible route shall not be required between accessible buildings, accessible facilities, accessible elements, and accessible spaces if the only means of access between them is a vehicular way not providing pedestrian access.

Advisory 206.2.2 Within a Site. An accessible route is required to connect to the boundary of each area of sport activity. Examples of areas of sport activity include: soccer fields, basketball courts, baseball fields, running tracks, skating rinks, and the area surrounding a piece of gymnastic equipment. While the size of an area of sport activity may vary from sport to sport, each includes only the space needed to play. Where multiple sports fields or courts are provided, an accessible route is required to each field or area of sport activity.

ADA Assessment

Comment #14: **NON-COMPLIANT**; Accessible Route to Umlauf House

LOCATION: From the Gardens to the Umlauf House

FINDING: Currently the only pedestrian path from the gardens is via small stone steps. If a garden accessible route is not achievable, accessible parking shall be provided at the residence for guests to use as the vehicular exception.

2012 TAS CODE REFERENCES:

206 Accessible Routes
206.2 Where Required.
206.2.1 Site Arrival Points. At least one accessible route shall be provided within the site from accessible parking spaces and accessible passenger loading zones; public streets and sidewalks; and public transportation stops to the accessible building or facility entrance they serve.
EXCEPTIONS:
1. Where exceptions for alterations to qualified historic buildings or facilities are permitted by 202.5, no more than one accessible route from a site arrival point to an accessible entrance shall be required.
2. An accessible route shall not be required between site arrival points and the building or facility entrance if the only means of access between them is a vehicular way not providing pedestrian access.
Advisory 206.2.1 Site Arrival Points. Each site arrival point must be connected by an accessible route to the accessible building entrance or entrances served. Where two or more similar site arrival points, such as bus stops, serve the same accessible entrance or entrances, both bus stops must be on accessible routes. In addition, the accessible routes must serve all of the accessible entrances on the site.
Advisory 206.2.1 Site Arrival Points Exception 2. Access from site arrival points may include vehicular ways. Where a vehicular way, or a portion of a vehicular way, is provided for pedestrian travel, such as within a shopping center or shopping mall parking lot, this exception does not apply.

CONTOUR COLLECTIVE
Existing Conditions
Accessibility Assessment
umlauf

Comment #15: **NON-COMPLIANT**; Umlauf House Exterior

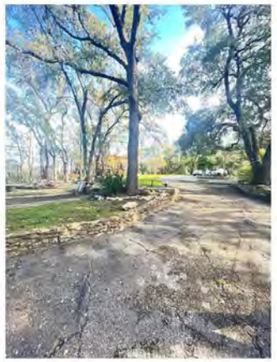
LOCATION: Terraces
FINDING: There are several different levels of outdoor spaces. If each terrace provides a unique experience, each shall be on an accessible route. Depending on what is deemed historic in nature will depict programming in regard to accessibility.

LOCATION: Studio
FINDING: The studio shall be connected via an accessible route. The double doors is the best option with minimal grade changes.

ADA Assessment

LOCATION: Sculpture Park
FINDING: The paths to the sculpture park are generally accessible. When a compliant ground surface is provided, the path shall be regraded to meet compliance.

LOCATION: Parking
FINDING: Ensure if parking is provided, there be at minimum one van accessible parking space with an accessible route to the elements and front door entry.



2012 TAS CODE REFERENCES:
206 Accessible Routes
206.2 Where Required.

206.2.2 Within a Site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.
EXCEPTION: An accessible route shall not be required between accessible buildings, accessible facilities, accessible elements, and accessible spaces if the only means of access between them is a vehicular way not providing pedestrian access.
Advisory 206.2.2 Within a Site. An accessible route is required to connect to the boundary of each area of sport activity. Examples of areas of sport activity include: soccer fields, basketball courts, baseball fields, running tracks, skating rinks, and the area surrounding a piece of gymnastic equipment. While the size of an area of sport activity may vary from sport to sport, each includes only the space needed to play. Where multiple sports fields or courts are provided, an accessible route is required to each field or area of sport activity.
403 Walking Surfaces
403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

208 Parking Spaces
208.1 General. Where parking spaces are provided, parking spaces shall be provided in accordance with 208.
EXCEPTION: Parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles, or vehicular impound shall not be required to comply with 208 provided that lots accessed by the public are provided with a passenger loading zone complying with 503.

Comment #16: **NON-COMPLIANT**; Umlauf House Interior

LOCATION: Main Floor
FINDING: Generally, the main floor areas that will be of interest will be accessible for a tour route. The main entry door and throughout the living areas is wide enough to accommodate a 36" accessible route.
Areas of nonconformance to consider if important to be on an accessible route for a Tour or for Employee Use:
Front door hardware.
The current middle office does not provide 18" door maneuvering clearance and 32" door width.
The pink bathroom has no compliant fixtures.
The basement shall provide an accessible route. A route from the exterior is an option. If the exterior is deemed Historic to create an accessible entry point, the experience may be recreated from the upper floor with photos, etc. *See Title II information in the last comment.*
The basement bathroom door and fixtures are not compliant.

ADA Assessment

2012 TAS CODE REFERENCES:

404 Doors, Doorways, and Gates

404.2 Manual Doors, Doorways, and Manual Gates.

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

EXCEPTIONS:

1. In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear width shall be permitted for the latch side stop.
2. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

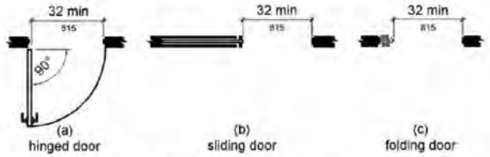


Figure 404.2.3 Clear Width of Doorways

404.2.4 Maneuvering Clearances.

404.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.4.1.

Table 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

Table 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates Type of Use		Minimum Maneuvering Clearance	
Approach Direction	Door or Gate Side	Perpendicular to Doorway	Parallel to Doorway (beyond latch side unless noted)
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	48 inches (1220 mm)	0 inches (0 mm)[1]
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)

From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)[2]	22 inches (560 mm)[3]
From latch side	Pull	48 inches (1220 mm)[4]	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)[4]	24 inches (610 mm)

1. Add 12 inches (305 mm) if closer and latch are provided.
2. Add 6 inches (150 mm) if closer and latch are provided.
3. Beyond hinge side.
4. Add 6 inches (150 mm) if closer is provided.

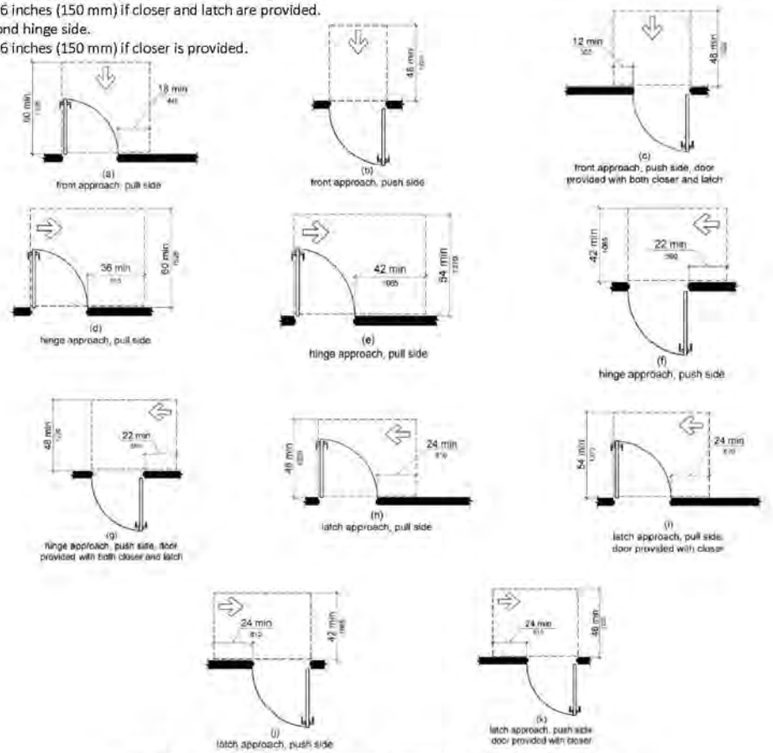


Figure 404.2.4.1 - Maneuvering Clearances at Manual Swinging Doors and Gates

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

EXCEPTIONS:

1. Existing locks shall be permitted in any location at existing glazed doors without stiles, existing overhead rolling doors or grilles, and similar existing doors or grilles that are designed with locks that are activated only at the top or bottom rail.

ADA Assessment

2. Access gates in barrier walls and fences protecting pools, spas, and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finish floor or ground provided the self-latching devices are not also self-locking devices and operated by means of a key, electronic opener, or integral combination lock. **Advisory 404.2.7 Door and Gate Hardware.** Door hardware that can be operated with a closed fist or a loose grip accommodates the greatest range of users. Hardware that requires simultaneous hand and finger movements require greater dexterity and coordination, and is not recommended.

Comment #17: ADA Title II Compliance

ADA is a civil rights law and applies at all times. The City Transition Plan outlines how to achieve compliance.

ADA Title II General Requirement:

Title II of the ADA requires state/local governments to give people with disabilities an equal opportunity to benefit from all of their programs, services, and activities. State/local governments can't deny people with disabilities the chance to participate or make them participate in different programs than available to others.

Specific Requirements:

The ADA also includes specific requirements for state/local governments. For example, if you are part of a state/local government you must:

- Communicate with people with disabilities as effectively as you communicate with others.
- Make reasonable modifications to policies, practices, and procedures where needed to make sure that a person with a disability can access the state/local government's programs, services, or activities.
- Allow service animals to be with their person even if you have a no pets policy.
- Provide *program access* by ensuring that individuals with disabilities are not excluded from programs because existing buildings or facilities are inaccessible to them.
- Follow specific standards for physical accessibility when building or altering a building or facility.
- Follow specific requirements for ticket sales and testing accommodations.

Access to Programs & Services in Existing Facilities:

State/local governments are required to provide *program access*. The program access requirement ensures that individuals with disabilities are not excluded from any program or service because existing buildings and facilities are inaccessible. State/local governments must look at their programs/services in their entirety or as a whole to ensure that they are accessible to individuals with disabilities.

Cited from: https://www.ada.gov/topics/title-ii/

End of Report

Environmental Resource Inventory

Case No.: _____
(City use only)

Environmental Resource Inventory

For the City of Austin
Related to LDC 25-8-121, City Code 30-5-121, ECM 1.3.0 & 1.10.0

The ERI is required for projects that meet one or more of the criteria listed in LDC 25-8-121(A), City Code 30-5-121(A).

1. SITE/PROJECT NAME: Umlauf Barton Springs Tract

2. COUNTY APPRAISAL DISTRICT PROPERTY ID **(#'s)**: 103850 and 103851

3. ADDRESS/LOCATION OF PROJECT: 605 Azie Morton Road, Austin, Travis County, TX

4. WATERSHED: Lady Bird Lake

5. THIS SITE IS WITHIN THE *(Check all that apply)*
   - Edwards Aquifer Recharge Zone* *(See note below)* ..... ☐YES ☑No
   - Edwards Aquifer Contributing Zone* ..... ☐YES ☑No
   - Edwards Aquifer 1500 ft Verification Zone* ..... ☑YES ☐No
   - Barton Spring Zone* ..... ☐YES ☑No

   (as defined by the City of Austin – LDC 25-8-2 or City Code 30-5-2)

   Note: If the property is over the Edwards Aquifer Recharge zone, the Hydrogeologic Report and karst surveys must be completed and signed by a Professional Geoscientist Licensed in the State of Texas.

6. DOES THIS PROJECT PROPOSE FLOODPLAIN MODIFICATION?.....☐YES** ☑NO
   If yes, then check all that apply:
   - ☐ *(1) The floodplain modifications proposed are necessary to protect the public health and safety;*
   - ☐ *(2) The floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a **functional assessment** of floodplain health as prescribed by the Environmental Criteria Manual (ECM), or*
   - ☐ *(3) The floodplain modifications proposed are necessary for development allowed in the critical water **quality zone under LDC 25-8-261 or 25-8-262, City Code 30-5-261 or 30-5-262.***
   - ☐ *(4) The floodplain modifications proposed are outside of the Critical Water Quality Zone in an area determined to be in poor or fair condition by a **functional assessment** of floodplain health.*

   **** If yes, then a functional assessment must be completed and attached to the ERI (see ECM 1.7 and Appendix X for forms and guidance) unless conditions 1 or 3 above apply.**

7. IF THE SITE IS WITHIN AN URBAN OR SUBURBAN WATERSHED, DOES THIS PROJECT PROPOSE A UTILITY LINE PARALLEL TO AND WITHIN THE CRITICAL WATER QUALITY ZONE? ..... ☐YES*** ☑NO

   ***If yes, then riparian restoration is required by LDC 25-8-261(E) or City Code 30-5-261(E) and a functional assessment must be completed and attached to the ERI (see ECM1.5 and Appendix X for forms and guidance).**

8. There is a total of 0 **(#'s)** Critical Environmental Feature(s)(CEFs) on or within150 feet of the project site. If CEF(s) are present, attach a detailed **DESCRIPTION** of the CEF(s), color **PHOTOGRAPHS**, the **CEF WORKSHEET** and provide **DESCRIPTIONS** of the proposed CEF buffer(s) and/or wetland mitigation. Provide the number of each type of CEFs on or within 150 feet of the site *(Please provide the number of CEFs)*:

0 **(#'s)** Spring(s)/Seep(s) 0 **(#'s)** Point Recharge Feature(s) 0 (#'s) Bluff(s)
0 **(#'s)** Canyon Rimrock(s) 0 (#'s) Wetland(s)

Note: Standard buffers for CEFs are 150 feet, with a maximum of 300 feet for point recharge features. Except for wetlands, if the standard buffer is not provided, you must provide a written request for an administrative variance from LDC 25-8-281(C)(1) and provide written findings of fact to support your request. Request forms for administrative variances from requirements stated in LDC 25-8-281 are available from Watershed Protection Department.

9. The following site maps are attached at the end of this report *(Check all that apply and provide)*:

   All ERI reports must include:
   - ☑ **Site Specific Geologic Map with 2-ft Topography**
   - ☑ **Historic Aerial Photo of the Site**
   - ☑ **Site Soil Map**
   - ☑ **Critical Environmental Features and Well Location Map on current Aerial Photo with 2-ft Topography**

   Only if present on site *(Maps can be combined)*:
   - ☑ **Edwards Aquifer Recharge Zone with the 1500-ft Verification Zone**
     (Only if site is over or within 1500 feet the recharge zone)
   - ☐ **Edwards Aquifer Contributing Zone**
   - ☐ **Water Quality Transition Zone (WQTZ)**
   - ☐ **Critical Water Quality Zone (CWQZ)**
   - ☐ **City of Austin Fully Developed Floodplains for all water courses with up to 64-acres of drainage**

10. **HYDROGEOLOGIC REPORT** – Provide a description of site soils, topography, and site specific geology below *(Attach additional sheets if needed)*.

    Surface Soils on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups*. If there is more than one soil unit on the project site, show each soil unit on the site soils map.

Soil Series Unit Names, Infiltration Characteristics & Thickness		
Soil Series Unit Name & Subgroup**	Group*	Thickness (feet)
Bergstom soils & Urban land, 0-2% slopes, rare flooded (Bh)	B	6.7
Eddy soils & Urban land, 0-6% slopes (EuC)	D	1.2
Eckrant soils & Urban land, 18-40% slopes (TeF)	D	0.7
Urban land, 0-6% slopes (Ur)	D	3.3
Austin-Urban land complex, 2-5% slopes (UsC)	D	2.4

Soil Hydrologic Groups Definitions *(Abbreviated)

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate *infiltration* rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

**Subgroup Classification – See Classification of Soil Series Table in County Soil Survey.

Environmental Resource Inventory

Description of Site Topography and Drainage *(Attach additional sheets if needed)*:

Topography on the subject site is flat to slightly sloping. Surface elevations range from approximately 458 to 536 feet above mean sea level (COA, 2019 and USGS, 1988), with surface water flowing generally from east to west towards Barton Creek.

List surface geologic units below:

Geologic Units Exposed at Surface		
Group	Formation	Member
--	Fluviatile terrace deposits (Qt)	--

Brief description of site geology *(Attach additional sheets if needed)*:

Fluviatile terrace deposits (Qt) - Terraces along streams, Qt, consist of three or more levels which may correspond to coastal Pleistocene units; gravel, sand, silt, and clay in various proportions with gravel more prominent in the older, higher terraces; gravel along Guadalupe River, siliceous, coarse, along Colorado River, mostly dolomite, limestone, chert, quartz, and various igneous and metamorphic rocks from the Llano region and dolomite, limestone, and chert from the Edwards Plateau; sand mostly quartz (UT-BEG, 1995).

Wells – Identify all recorded and unrecorded wells on site (test holes, monitoring, water, oil, unplugged, capped and/or abandoned wells, etc.):

There are 0 (#) wells present on the project site and the locations are shown and labeled

0 (#'s) The wells are not in use and have been properly abandoned.

0 (#'s) The wells are not in use and will be properly abandoned.

0 (#'s) The wells are in use and comply with 16 TAC Chapter 76.

There are 0 (#'s) wells that are off-site and within 150 feet of this site.

11. **THE VEGETATION REPORT – Provide the information requested below:**

Brief description of site plant communities *(Attach additional sheets if needed)*:

The subject site is located within the Blackland Prairie ecological area of Texas (Gould, 1975) and the Urban vegetational area of Texas (McMahan et al., 1984). Woodland and grassland species were observed on the subject site. The subject site is dominated by commercial land use; therefore, the vegetation community on the subject site is sparse.

There is woodland community on site .....☑YES ☐ NO *(Check one)*.

If yes, list the dominant species below:

Woodland species	
Common Name	Scientific Name
Red oak	Quercus falcata
Cedar elm	Ulmus crassifolia
Texas live oak	Quercus fusiformis
Ashe juniper	Juniperus ashei
Texas persimmon	Diospyros texana

There is grassland/prairie/savanna on site.....☑YES ☐ NO *(Check one)*.

If yes, list the dominant species below:

Grassland/prairie/savanna species	
Common Name	Scientific Name
Bermudagrass	Cynodon dactylon
Giant ragweed	Ambrosia trifida
Greenbrier	Smilax bona-nox

There is hydrophytic vegetation on site .....☑YES ☐ NO *(Check one)*.

If yes, list the dominant species in table below *(next page)*.

Environmental Resource Inventory

Hydrophytic plant species		
Common Name	Scientific Name	Wetland Indicator Status
Elephant ear	Colocasia esculenta	Obl
White waterlily	Nymphaea odorata	Obl
Pickerelweed	Pontederia cordata	Obl
Sedge	Cyperus sp.	FacW
Dwarf palmetto	Sabal minor	FacW

A tree survey of all trees with a diameter of at least eight inches measured four and one-half feet above natural grade level has been completed on the site.
☑YES ☐ NO *(Check one).*

12. **WASTEWATER REPORT** – Provide the information requested below.

Wastewater for the site will be treated by *(Check of that Apply)*:

- ☐ On-site system(s)
- ☑ City of Austin Centralized sewage collection system
- ☐ Other Centralized collection system

Note. All sites that receive water or wastewater service from the Austin Water Utility must comply with City Code Chapter 15-12 and wells must be registered with the City of Austin

The site sewage collection system is designed and will be constructed to in accordance to all State, County and City standard specifications.
☑YES ☐ NO *(Check one).*

Calculations of the size of the drainfield or wastewater irrigation area(s) are attached at the end of this report or shown on the site plan.
☐YES ☐ NO ☑ Not Applicable *(Check one).*

Wastewater lines are proposed within the Critical Water Quality Zone?
☐YES ☑ NO *(Check one).* If yes, then provide justification below:

Is the project site is over the Edwards Aquifer?
☐YES ☑ NO *(Check one).*

If yes, then describe the wastewater disposal systems proposed for the site, its treatment level and effects on receiving watercourses or the Edwards Aquifer.

13. **One (1) hard copy and one (1) electronic copy of the completed assessment have been provided.**

Date(s) ERI Field Assessment was performed: 8 January 2024
Date(s)

My signature certifies that to the best of my knowledge, the responses on this form accurately reflect all information requested.

Tamura Dunbar	512-328-2430
Print Name	Telephone
	tdunbar@horizon-esi.com
Signature	Email Address
Horizon Environmental Services	17 January 2024
Name of Company	Date

For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).

Environmental Resource Inventory

City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

1	Project Name:	Umlauf Barton Springs Tract
2	Project Address:	605 Azie Morton Rd, Austin, Travis County, TX
3	Site Visit Date:	8 January 2024
4	Environmental Resource Inventory Date:	17 January 2024

5	Primary Contact Name:	Tamura Dunbar
6	Phone Number:	512-328-2430
7	Prepared By:	Tamura Dunbar
8	Email Address:	tdunbar@horizon-esi.com

9	FEATURE TYPE (Wetland,Rimrock, Bluffs,Recharge Feature,Spring)	FEATURE ID (eg S-1)	FEATURE LONGITUDE (WGS 1984 in Meters)		FEATURE LATITUDE (WGS 1984 in Meters)		WETLAND DIMENSIONS (ft)		RIMROCK/BLUFF DIMENSIONS (ft)		RECHARGE FEATURE DIMENSIONS				Springs Est. Discharge
			coordinate	notation	coordinate	notation	X	Y	Length	Avg Height	X	Y	Z	Trend	cfs

City of Austin Use Only
CASE NUMBER:

For rimrock, locate the midpoint of the segment that describes the feature.

For wetlands, locate the approximate centroid of the feature and the estimated area.

For a spring or seep, locate the source of groundwater that feeds a pool or stream.

Please state the method of coordinate data collection and the approximate precision and accuracy of the points and the unit of measurement.

Method		Accuracy	
GPS	☐	sub-meter	☐
Surveyed	☐	meter	☐
Other	☐	> 1 meter	☐

Professional Geologists apply seal below

WPD ERM ERI-CEF-01

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Horizon Environmental Services

ENVIRONMENTAL RESOURCE INVENTORY ATTACHMENTS

UMLAUF BARTON SPRINGS TRACT
605 AZIE MORTON ROAD, AUSTIN, TRAVIS COUNTY, TEXAS
HJN 23334.001 ERI

23334-001 COA ERI Worksheet Attachments

Environmental Resource Inventory

Horizon
Environmental Services

DATA RESOURCES USED IN COMPLETING THIS ERI

(COA) City of Austin. Geographic Information Systems / Maps. *2017 2-foot Contours,* <http://austintexas.gov/department/gis-and-maps/gis-data>. Updated 15 August 2019.

_____. *Property Profile*. City of Austin Property Profile web map application, <http://www.austintexas.gov/gis/propertyprofile/>. Accessed 19 December 2023.

Gould, F.W. *Texas Plants – A Checklist and Ecological Summary*. College Station: Texas A&M University. 1975.

McMahan, Craig A., Roy G. Frye, and Kirby L. Brown. *The Vegetation Types of Texas – Including Cropland*. Austin: Texas Parks and Wildlife Department. 1984.

(Nearmap) Nearmap US, Inc. Nearmap Vertical™ digital orthographic photograph, <https://go.nearmap.com>. Imagery date 8 October 2023.

(NRCS) Natural Resources Conservation Service (formerly Soil Conservation Service), US Department of Agriculture. Web Soil Survey, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Soil map data layer updated 12 September 2019. Accessed 19 December 2023.

(TWDB) Texas Water Development Board. Water Information Integration and Dissemination System. TWDB Groundwater Database, <https://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer>. Accessed 19 December 2023.

(TWSC) United States Geological Survey, Texas Water Science Center. Geologic Database of Texas, <https://txpub.usgs.gov/txgeology/>. Updated 1 February 2014; Accessed 19 December 2023.

(USGS) US Geological Survey. 7.5-minute series topographic maps, Austin West, Texas, quadrangle. 1988.

_____. Aerial Photography, Travis County, Texas. 1995.

(UT-BEG) University of Texas Bureau of Economic Geology, C.V. Proctor, Jr., T.E. Brown, J.H. McGowen, N.B. Waechter, and V.E. Barnes. *Geologic Atlas of Texas*, Austin Sheet, Francis Luther Whitney Memorial Edition. 1974; reprinted 1995.

Horizon
Environmental Services

ERI WORKSHEET SECTION 8:
CRITICAL ENVIRONMENTAL FEATURES

CEF Descriptions
Color Photographs

Environmental Resource Inventory

Horizon
Environmental Services

Critical Environmental Features

CEFs observed on or within 150 feet from the subject site include:

Critical Environmental Feature	Number Observed on Subject Site	Number Observed Within 150 Feet of Subject Site
Springs/Seeps	0	0
Point Recharge Features	0	0
Bluffs	0	0
Canyon Rimrocks	0	0
Wetlands	0	0

Two man-made ornamental ponds (P-1 and P-2) and a man-made ornamental channel (T-1) were located within the subject site. Hydrophilic vegetation was observed within both ponds and along the channel, including elephant ear (*Colocasia esculenta*), white waterlily (*Nymphaea odorata*), pickerelweed (*Pontederia cordata*), dwarf palmetto (*Sabal minor*), and sedge (*Cyperus* sp.). However, the ponds and channel were man-made and water levels were controlled by water pumps. Therefore, the ponds and channel were not considered to be critical environmental features (CEFs).

Environmental Criteria Manual Section 1.10.3 – E. states that pods fed by artificial sources of hydrology are not considered wetlands.

23334-001 COA ERI Worksheet Attachments

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PHOTO 1
A man-made ornamental pond (P-1) was located on the western portion of the subject site

PHOTO 2
A man-made ornamental pond (P-1) was located on the western portion of the subject site

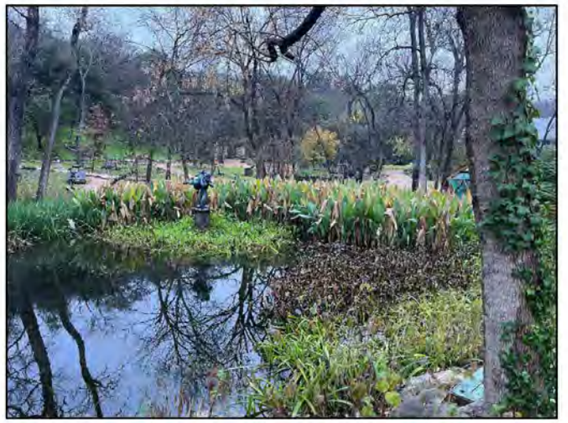

PHOTO 3
A man-made ornamental pond (P-1) was located on the western portion of the subject site

PHOTO 4
A man-made ornamental pond (P-2) was located on the central portion of the subject site

23334-001ERI Photographs

Environmental Resource Inventory

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PHOTO 5
A man-made ornamental pond (P-2) was located on the central portion of the subject site

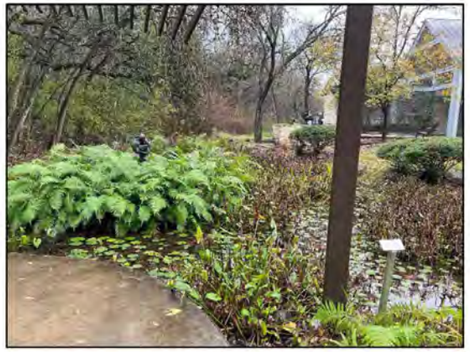

PHOTO 6
A man-made ornamental pond (P-2) was located on the central portion of the subject site

PHOTO 7
A man-made ornamental channel (T-1) was located across the subject site

PHOTO 8
A man-made ornamental channel (T-1) was located across the subject site

23334-001ERI Photographs

Horizon
Environmental Services

PHOTO 9
A man-made ornamental channel (T-1) was located across the subject site

PHOTO 10
A man-made ornamental channel (T-1) was located across the subject site

PHOTO 11
General view of the northern portion of the subject site

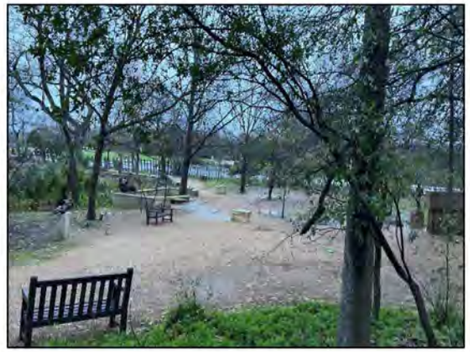

PHOTO 12
General view of the northern portion of the subject site

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PHOTO 13
General view of the northern portion of the subject site

PHOTO 14
General view of the northern portion of the subject site

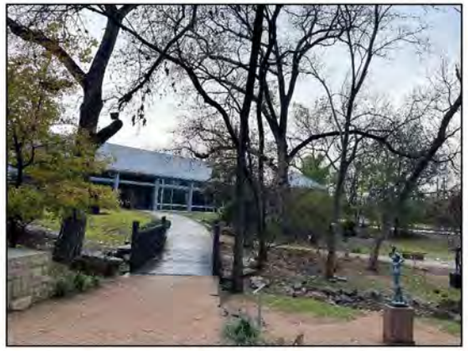

PHOTO 15
General view of the central portion of the subject site

PHOTO 16
General view of the central portion of the subject site

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PHOTO 17
General view of the central portion of the subject site

PHOTO 18
General view of the central portion of the subject site

PHOTO 19
General view of the southern portion of the subject site

PHOTO 20
General view of the southern portion of the subject site

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Environmental Resource Inventory

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PHOTO 21
General view of the southern portion of the subject site

PHOTO 22
General view of the southern portion of the subject site

PHOTO 23
General view of the southern portion of the subject site

PHOTO 24
General view of the southern portion of the subject site

23334-001ERI Photographs

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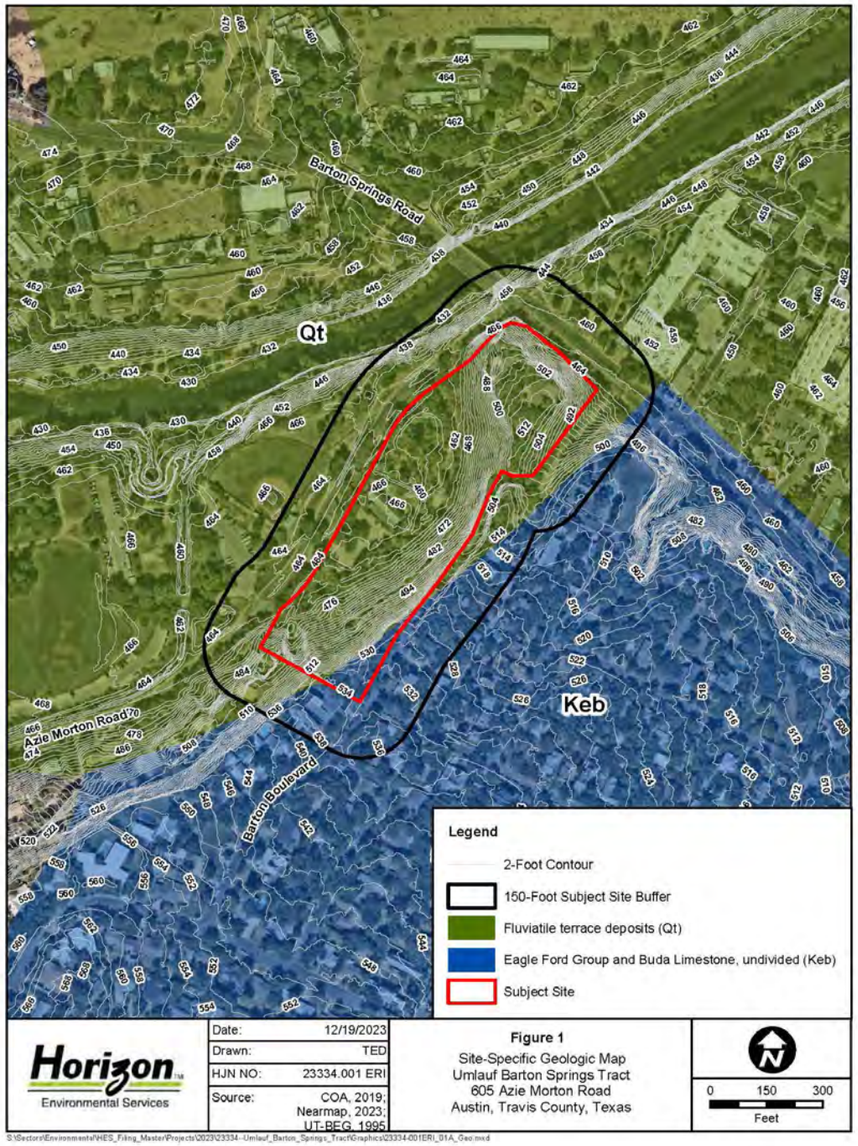
Environmental Services

ERI WORKSHEET SECTION 9:
SITE MAPS

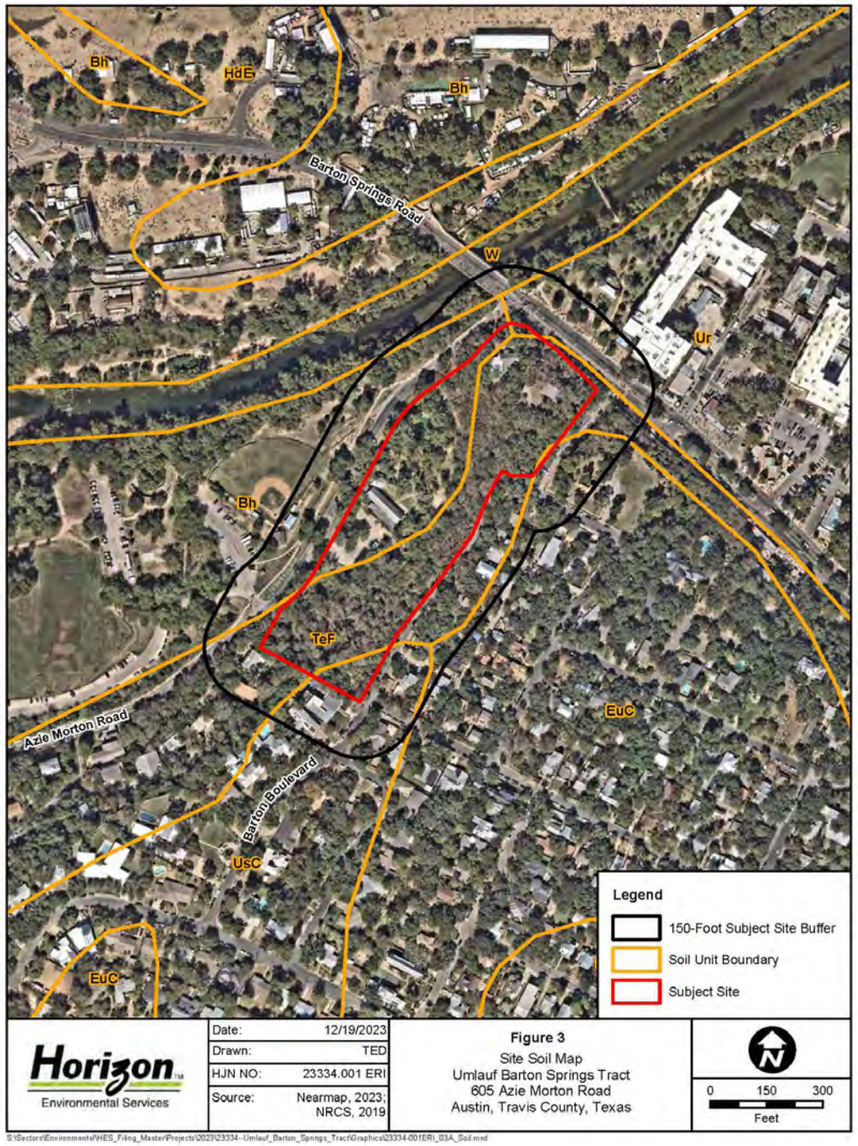
Figure 1. Site-Specific Geologic Map
Figure 2. Historical Aerial Photograph
Figure 3. Site Soil Map
Figure 4. Critical Environmental Features and Well Locations Map
Figure 5. Edwards Aquifer Map

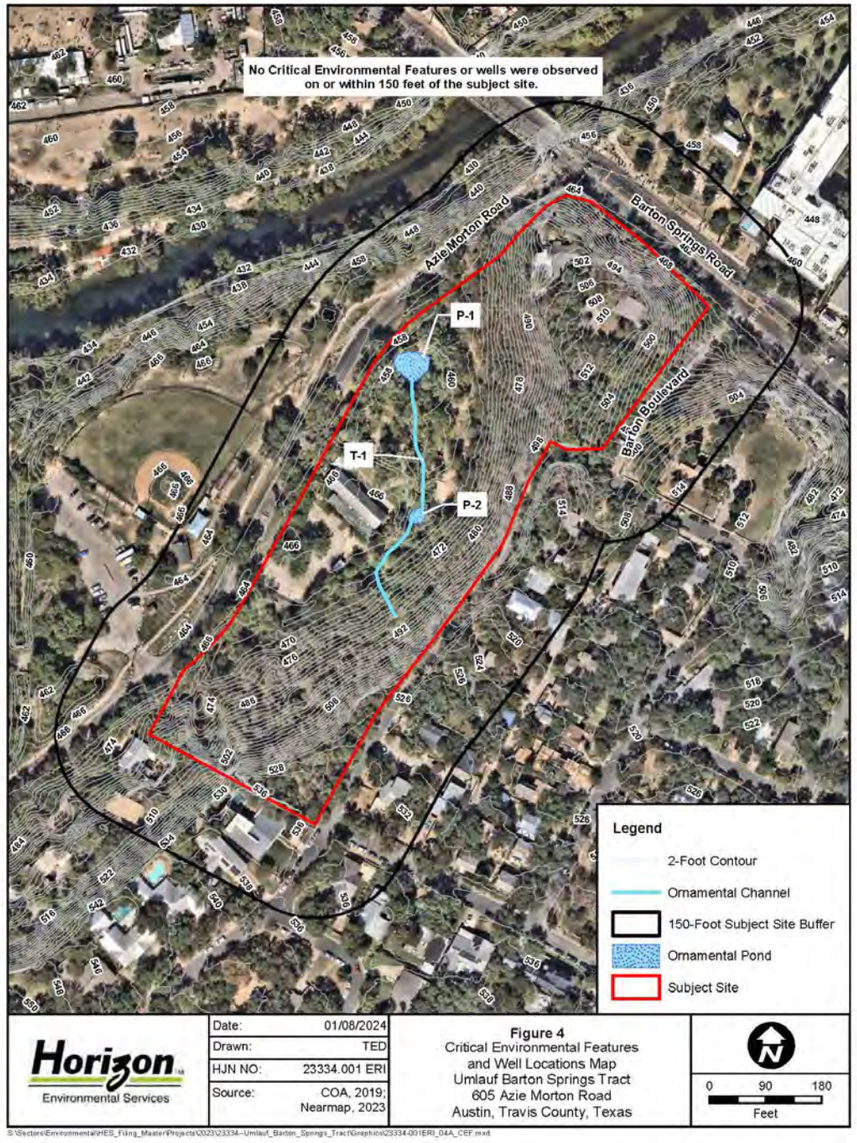
23334-001 COA ERI Worksheet Attachments

Environmental Resource Inventory



Environmental Resource Inventory





Environmental Resource Inventory

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Environmental Services

ERI WORKSHEET SECTION 10:
HYDROGEOLOGIC REPORT ADDITIONAL DATA

23334-001 COA ERI Worksheet Attachments

Environmental Resource Inventory

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Surface geologic units, continued from ERI worksheet, Section 10:

Geologic Units Exposed at Surface		
Group	Formation	Member
--	Eagle Ford Group and Buda Limestone, undivided (Keb)	--

Brief description of site geology, continued from ERI worksheet, Section 10:

Eagle Ford Group and Buda Limestone, undivided (Keb) - Eagle Ford Group, Kef, shale and limestone. Upper part shale, compact, silty, contains fossil fish teeth and bones, 10 feet or more thick; middle part silty limestone grading to calcareous siltstone, flaggy, medium gray, weathers pale yellowish brown, 5 feet thick. Lower part shale, calcareous, dark gray, 7–50 feet thick. Thickness of Eagle Ford Group 25–65 feet. Buda Limestone, Kln, fine grained, bioclastic, commonly glauconitic, pyritiferous, hard, massive, poorly bedded to nodular, thinner bedded and argillaceous near upper contact, light gray to pale orange; weathers dark gray to brown; burrows filled with chalky marl, abundant pelecypods; thickness up to 45 feet, locally absent to north (UT-BEG, 1995).

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APPENDIX:
EDWARDS AQUIFER VERIFICATION ZONE ASSESSMENT

23334-001 COA ERI Worksheet Attachments

Environmental Resource Inventory

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Surface geologic units, continued from ERI worksheet, Section 10:

Geologic Units Exposed at Surface		
Group	Formation	Member
--	Eagle Ford Group and Buda Limestone, undivided (Keb)	--

Brief description of site geology, continued from ERI worksheet, Section 10:

Eagle Ford Group and Buda Limestone, undivided (Keb) - Eagle Ford Group, Kef, shale and limestone. Upper part shale, compact, silty, contains fossil fish teeth and bones, 10 feet or more thick; middle part silty limestone grading to calcareous siltstone, flaggy, medium gray, weathers pale yellowish brown, 5 feet thick. Lower part shale, calcareous, dark gray, 7–50 feet thick. Thickness of Eagle Ford Group 25–65 feet. Buda Limestone, Kln, fine grained, bioclastic, commonly glauconitic, pyritiferous, hard, massive, poorly bedded to nodular, thinner bedded and argillaceous near upper contact, light gray to pale orange; weathers dark gray to brown; burrows filled with chalky marl, abundant pelecypods; thickness up to 45 feet, locally absent to north (UT-BEG, 1995).

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APPENDIX:
EDWARDS AQUIFER VERIFICATION ZONE ASSESSMENT

23334-001 COA ERI Worksheet Attachments

Environmental Resource Inventory

Horizon
Environmental Services

8 January 2024

Umlauf Sculpture Garden + Museum
Attn: Amanda Valbracht
605 Azie Morton Road
Austin, Texas 78704

RE: Edwards Aquifer Verification Zone Assessment
Umlauf Barton Springs Tract
605 Azie Morton Road
Austin, Travis County, Texas
HJN 23334.001ERI

Dear Ms. Valbracht:

In December 2023, Horizon Environmental Services (Horizon) performed a City of Austin (COA) Environmental Resource Inventory (ERI) per Land Development Code (LDC) Section 25-8, Title 30-5 for the above-referenced property. Based on the results of the ERI, no critical environmental features (CEF) were identified on the subject site. However, because the site is located within 1500 feet of the Edwards Aquifer Recharge Zone (i.e., COA Verification Zone), the COA requires that a Professional Geoscientist (PG) verify the contact boundary between the Edwards Aquifer Recharge Zone and the Edwards Aquifer Contributing Zone on the subject site based on exposed rock outcrops and available geologic literature.

The subject site consists primarily of developed land with woodlands along the southern and eastern portions of the site near a residential area with gently to moderately sloping terrain from southeast to northwest. Very little impervious cover was observed within the site. Site drainage is by overland surface flow from east to west towards an unnamed tributary of Lady Bird Lake and Barton Creek.

A review of existing literature shows the subject site is underlain by Fluviatile Terrace Deposits (Qt) and the Eagle Ford Group and Buda Limestone, undivided (Keb) (UT-BEG, 1995). In addition, no mapped faults are located within the subject site. The nearest mapped fault is located less than 0.25 miles southwest of the site, trending from southwest to northeast.

Fluviatile Terrace Deposits (Qt) are described as consisting of three or more levels which may correspond to coastal Pleistocene units, comprising gravel, sand, silt, and clay in various proportions with gravel more prominent in the older, higher terraces. Along the Colorado River the deposits are mostly dolomite, limestone, chert, quartz, and various igneous and metamorphic rocks from the Llano region and dolomite, limestone, and chert from the Edwards Plateau; sand is mostly quartz (UT-BEG, 1995).

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The Eagle Ford Group is described as brown, flaggy, sandy shale and argillaceous limestone identified in the field as thin flagstone with a petroliferous odor. Strata weather easily and form flat to gently rolling topography. Primary porosity has been lost, rendering very low permeability rates in the Eagle Ford Group. It is known as lignite by local drillers. No cavern development or fossils are evident in this group. Thickness ranges from 30 to 150 feet (Blome et al., 2005).

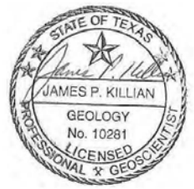
Buda Limestone is described as variably nodular, buff, light-gray, dense mudstone. It is identified in the field as nodular, porcelaneous limestone with calcite-filled veins and no common fossils. Limestone beds in the upper part of the formation are generally hard and dense and may exhibit conchoidal fracturing and a porcelaneous texture when broken. Limestone beds in the lower part of the formation tend to be chalky. It is regionally considered a confining unit. The unit has minor surface karst with low porosity and permeability. Thickness ranges from 40 to 90 feet (Blome et al., 2005).

During the site visit, exposed bedrock observed within the southeastern portion of the subject site was composed of beds of nodular, pale grey-weathered to yellowish-orange, dense limestone, with conchoidal fracture upon breaking open with a rock hammer, which evidently correlate with the Buda Limestone (Kbu). The northwestern portion of the subject site was composed of recent gravel, sand, silt, and clay deposits which correlate with fluviatile terrace deposits (Qt). Photographs of the differing geologic areas are attached.

Based on the results of the Verification Zone assessment, it is Horizon's opinion that, consistent with currently available published geologic mapping, the subject site is underlain by the Buda Limestone (Kbu) and recent Fluviatile Terrace Deposits (Qt) and therefore should not be included within the Recharge Zone of the Edwards Aquifer. If you have any further questions regarding this investigation or our recommendations, please contact me or Horizon's Ecological Program Manager, Mr. Scott Flesher.

Sincerely,

James Killian, PG[1]
Senior Geologist – Horizon



[1] Registered Professional Geoscientist, State of Texas

Environmental Resource Inventory

REFERENCES

(Blome et al.) Blome, Charles D., Jason R. Faith, Diana E. Pedraza, George B. Ozuna, James C. Cole, Allan K. Clark, Ted A. Small, and Robert R. Morris. *Geologic Map of the Edwards Aquifer Recharge Zone, South-Central Texas*. US Geological Survey Scientific Investigations Map 2873, Version 1.1. 2005.

(COA) City of Austin. Geographic Information Systems/Maps. *2017 2-foot Contours*, <http://austintexas.gov/department/gis-and-maps/gis-data>. Updated 1 May 2019.

_____. *Property Profile*. City of Austin Property Profile web map application, <http://www.austintexas.gov/gis/propertyprofile/>. Accessed 15 February 2023.

Small, T.A., and A.K. Clark. *Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Outcrop, Medina County, Texas*. U.S. Geological Survey Water-Resources Investigation Report 00-4195. 2000.

Stein, W.G., and G.B. Ozuna. *Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas*. U.S. Geological Survey Water-Resources Investigation Report 95-4030. 1995.

(UT-BEG) University of Texas Bureau of Economic Geology, C.V. Proctor, Jr., T.E. Brown, J.H. McGowen, N.B. Waechter, and V.E. Barnes. *Geologic Atlas of Texas*, Austin Sheet, Francis Luther Whitney Memorial Edition. 1974; reprinted 1995.

Environmental Resource Inventory

Horizon
Environmental Services

PHOTO 1
Buda Limestone (Kbu) at location 1

PHOTO 2
Buda Limestone (Kbu) at location 2

PHOTO 3
Buda Limestone (Kbu) at location 3

PHOTO 4
Fluviatile Terrace Deposits (Qt) at location 4

23334-001ERI Contact Verification Photographs

Horizon
Environmental Services

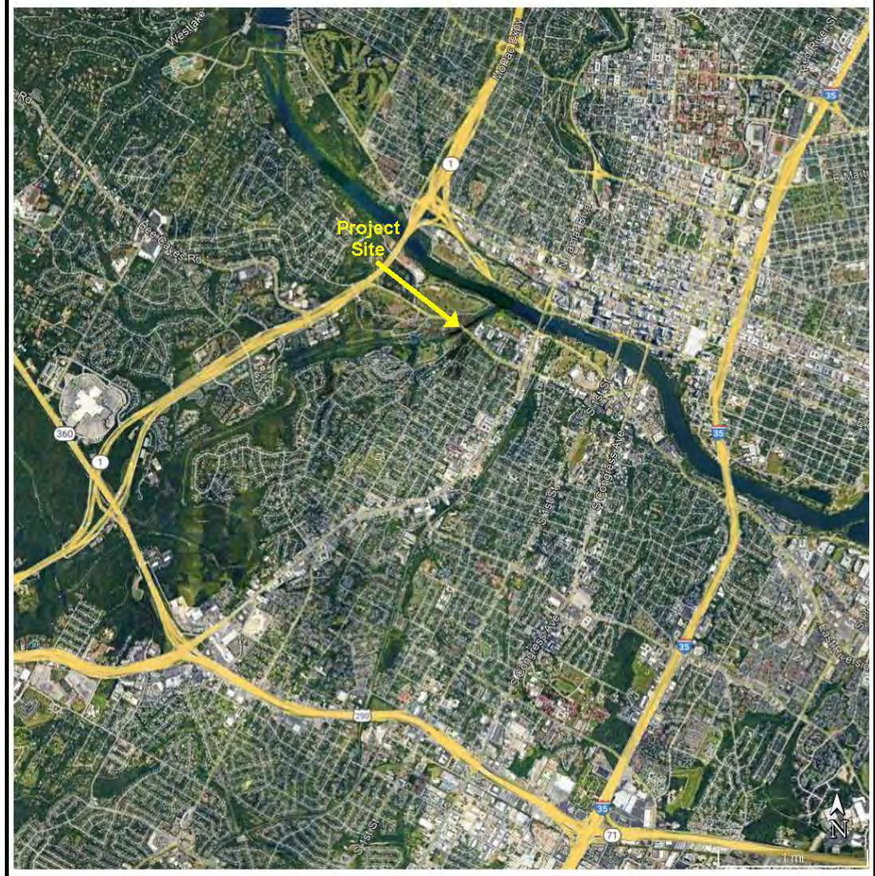
PHOTO 5
Buda Limestone (Kbu) at location 5

PHOTO 6
Fluviatile Terrace Deposits (Qt) at location 6

23334-001ERI Contact Verification Photographs

Geotechnical

Project No. 0121-014



Source: Google Earth Professional, imagery dated 6/17/2021

VICINITY MAP

Barton Springs Road Bridge Improvements
Austin, Texas

Balcones Geotechnical
Austin, TX 78731
512.380.9969

Plate 1

Project No. 0121-014

Source: Google Earth Professional, imagery dated 6/17/2021

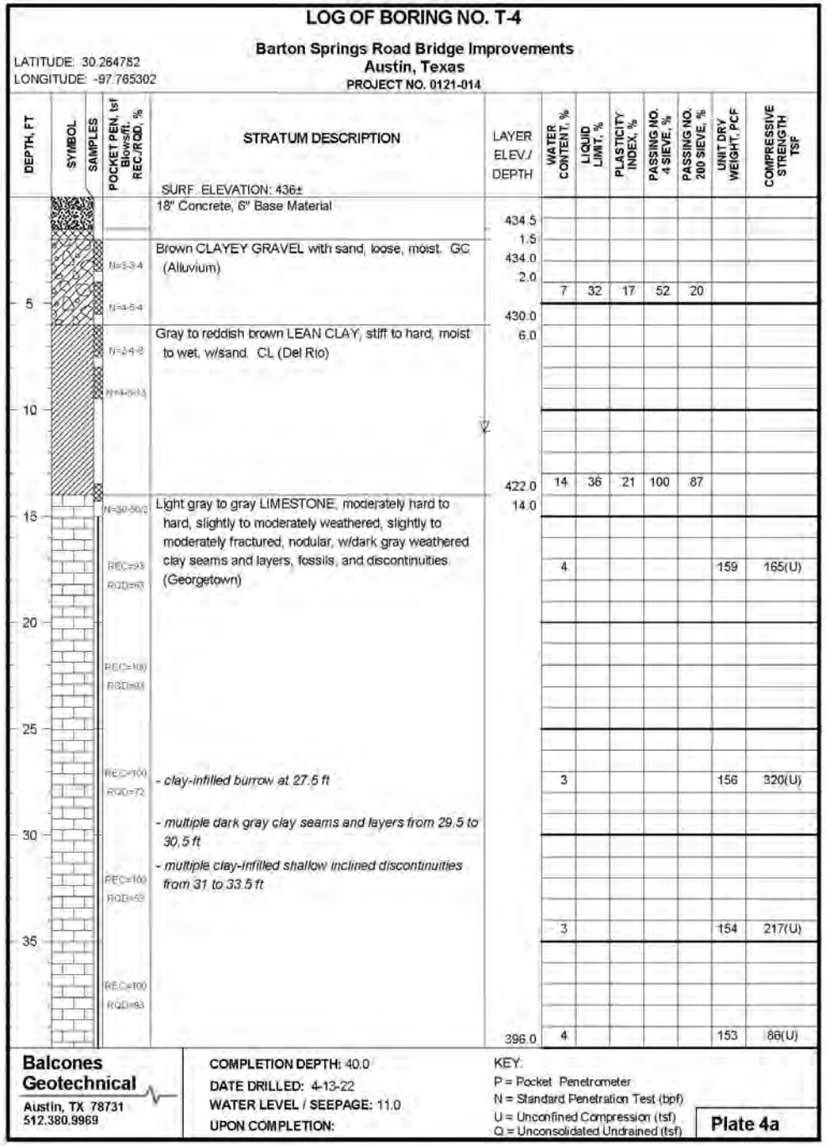
BORING LOCATION PLAN

Barton Springs Road Bridge Improvements
Austin, Texas

Balcones Geotechnical
Austin, TX 78731
512.380.9969

Plate 2

Geotechnical



LOG OF BORING NO. T-4

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264782
LONGITUDE: -97.765302

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf / Blows/ft. / REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 436±								
				18" Concrete, 6" Base Material	434.5							
					1.5							
			N=3-3-4	Brown CLAYEY GRAVEL with sand, loose, moist. GC (Alluvium)	434.0							
					2.0	7	32	17	52	20		
5			N=4-5-4		430.0							
				Gray to reddish brown LEAN CLAY, stiff to hard, moist to wet, w/sand. CL (Del Rio)	6.0							
			N=2-4-6									
			N=4-6-13									
10												
					422.0	14	36	21	100	87		
			N=50/2"	Light gray to gray LIMESTONE, moderately hard to hard, slightly to moderately weathered, slightly to moderately fractured, nodular, w/dark gray weathered clay seams and layers, fossils, and discontinuities. (Georgetown)	14.0							
15			REC=93			4					159	165(U)
			RQD=93									
20			REC=100									
			RQD=83									
25			REC=100	- *clay-infilled burrow at 27.5 ft*		3					156	320(U)
			RQD=72	- *multiple dark gray clay seams and layers from 29.5 to 30.5 ft*								
30			REC=100	- *multiple clay-infilled shallow inclined discontinuities from 31 to 33.5 ft*								
			RQD=53			3					154	217(U)
35			REC=100									
			RQD=93									
					396.0	4					153	86(U)

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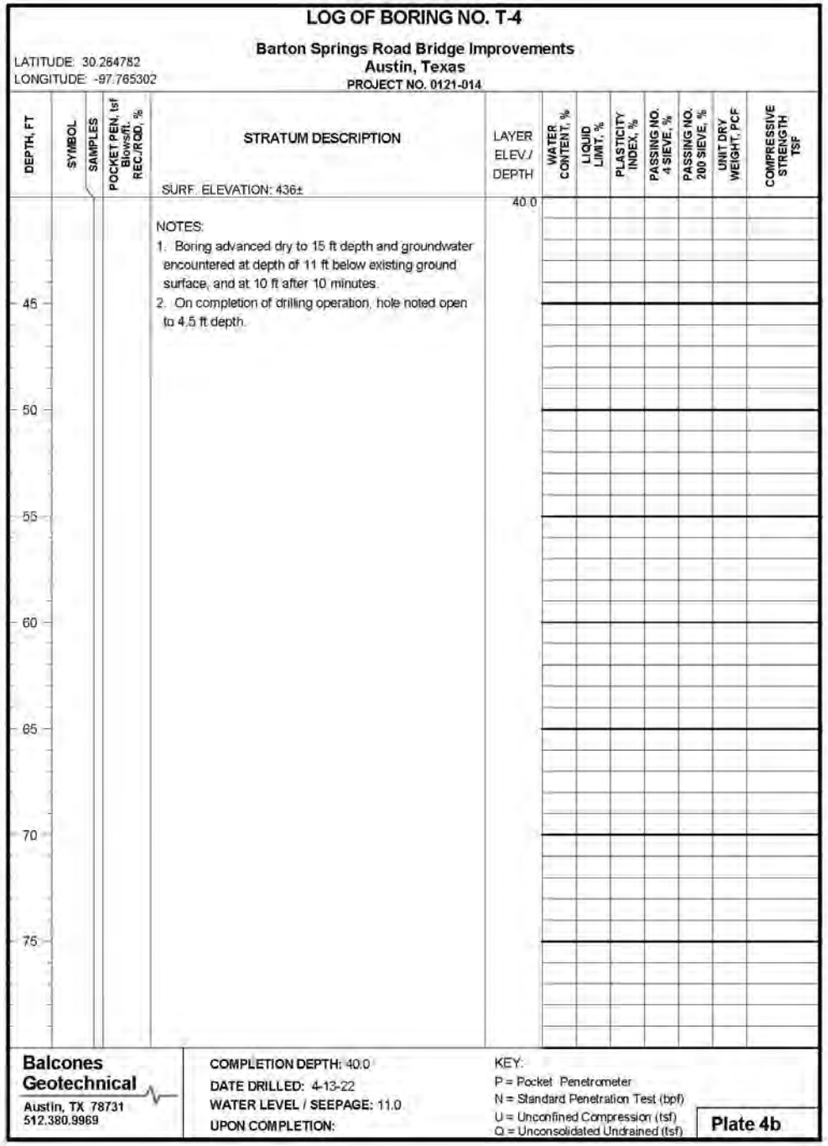
512.380.9969

COMPLETION DEPTH: 40.0
DATE DRILLED: 4-13-22
WATER LEVEL / SEEPAGE: 11.0
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 4a



LOG OF BORING NO. T-4

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264782
LONGITUDE: -97.765302

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf / Blows/ft. / REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 436±	40.0							
45				NOTES: 1. Boring advanced dry to 15 ft depth and groundwater encountered at depth of 11 ft below existing ground surface, and at 10 ft after 10 minutes. 2. On completion of drilling operation, hole noted open to 4.5 ft depth.								
50												
55												
60												
65												
70												
75												

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512.380.9969

COMPLETION DEPTH: 40.0
DATE DRILLED: 4-13-22
WATER LEVEL / SEEPAGE: 11.0
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 4b

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – T-4

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 1 of 2

Project No. 0121-014

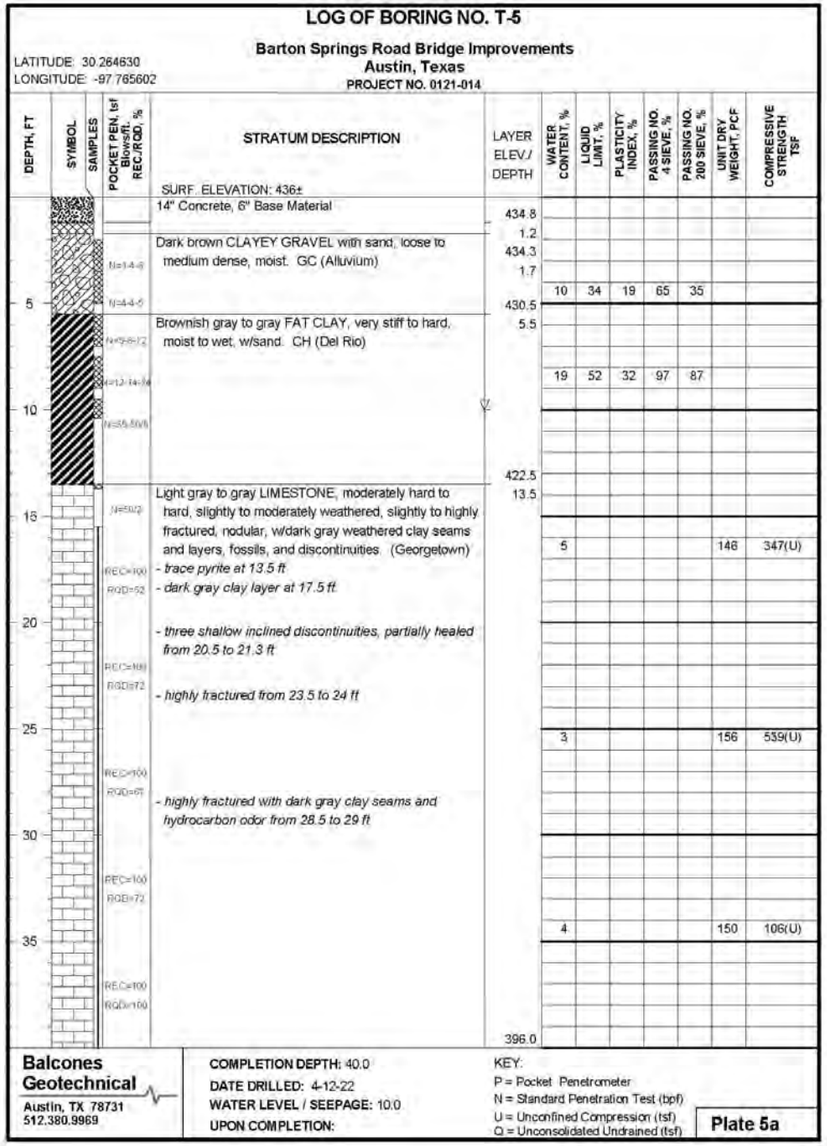
SAMPLE PHOTOGRAPHS – T-4

Barton Springs Road Bridge Improvements
Austin, Texas

Balcones Geotechnical
Austin, TX 78731
512.380.9969

Sheet 2 of 2

Geotechnical



LOG OF BORING NO. T-5

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264630
LONGITUDE: -97.765602

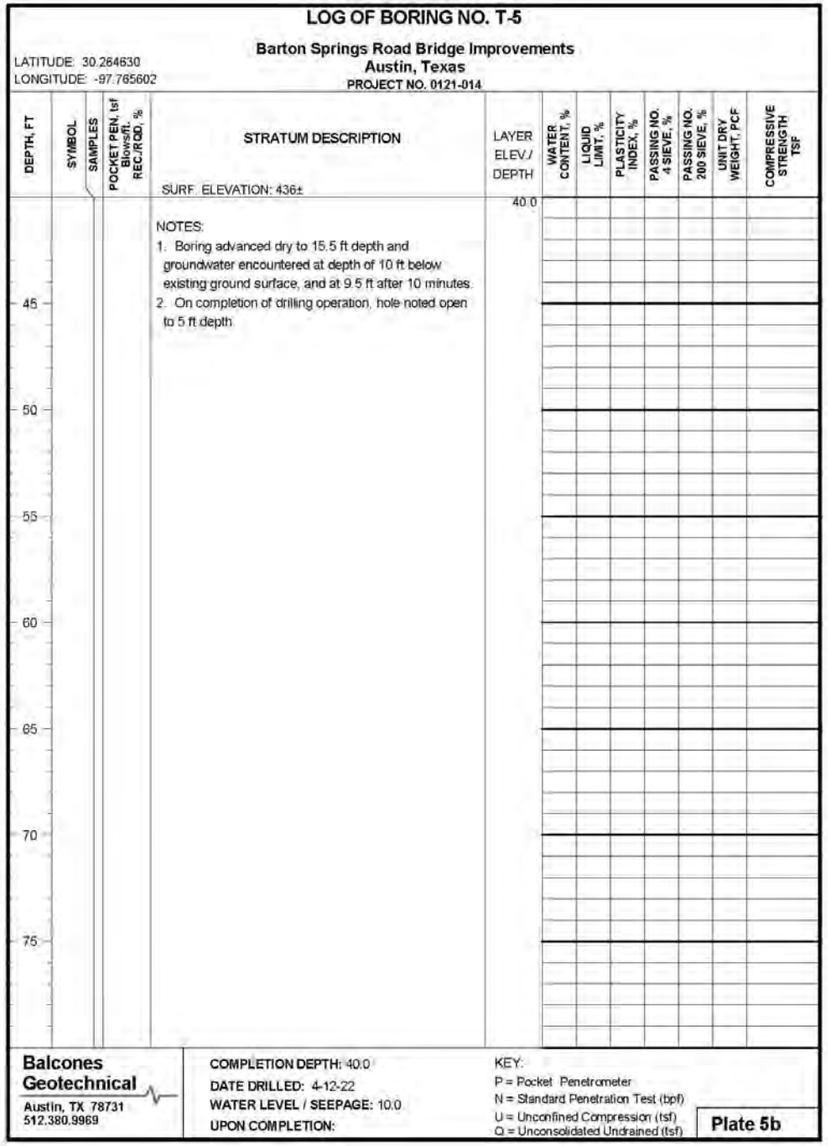
DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 436±								
				14" Concrete, 6" Base Material	434.8							
					1.2							
				Dark brown CLAYEY GRAVEL with sand, loose to medium dense, moist. GC (Alluvium)	434.3							
			N=4-4-6		1.7							
						10	34	19	65	35		
5			N=4-4-5		430.5							
				Brownish gray to gray FAT CLAY, very stiff to hard, moist to wet, w/sand. CH (Del Rio)	5.5							
			N=9-8-12									
						19	52	32	97	87		
			N=12-14-16									
10												
			N=35-50/6									
					422.5							
				Light gray to gray LIMESTONE, moderately hard to hard, slightly to moderately weathered, slightly to highly fractured, nodular, w/dark gray weathered clay seams and layers, fossils, and discontinuities. (Georgetown)	13.5							
15			N=50/2									
						5					148	347(U)
			REC=100	- *trace pyrite at 13.5 ft*								
			RQD=52	- *dark gray clay layer at 17.5 ft*								
20				- *three shallow inclined discontinuities, partially healed from 20.5 to 21.3 ft*								
			REC=100									
			RQD=72	- *highly fractured from 23.5 to 24 ft*								
25						3					156	539(U)
			REC=100									
			RQD=67	- *highly fractured with dark gray clay seams and hydrocarbon odor from 28.5 to 29 ft*								
30												
			REC=100									
			RQD=72									
						4					150	106(U)
35												
			REC=100									
			RQD=100									
					396.0							

Balcones Geotechnical
Austin, TX 78731
512.380.9969

COMPLETION DEPTH: 40.0
DATE DRILLED: 4-12-22
WATER LEVEL / SEEPAGE: 10.0
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 5a



LOG OF BORING NO. T-5

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264630
LONGITUDE: -97.765602

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 436±								
					40.0							
				NOTES: 1. Boring advanced dry to 15.5 ft depth and groundwater encountered at depth of 10 ft below existing ground surface, and at 9.5 ft after 10 minutes. 2. On completion of drilling operation, hole noted open to 5 ft depth.							
45												
50												
55												
60												
65												
70												
75												

Balcones Geotechnical
Austin, TX 78731
512.380.9969

COMPLETION DEPTH: 40.0
DATE DRILLED: 4-12-22
WATER LEVEL / SEEPAGE: 10.0
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 5b

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – T-5

Barton Springs Road Bridge Improvements
Austin, Texas

Balcones Geotechnical
Austin, TX 78731
512.380.9969

Sheet 1 of 2

Project No. 0121-014

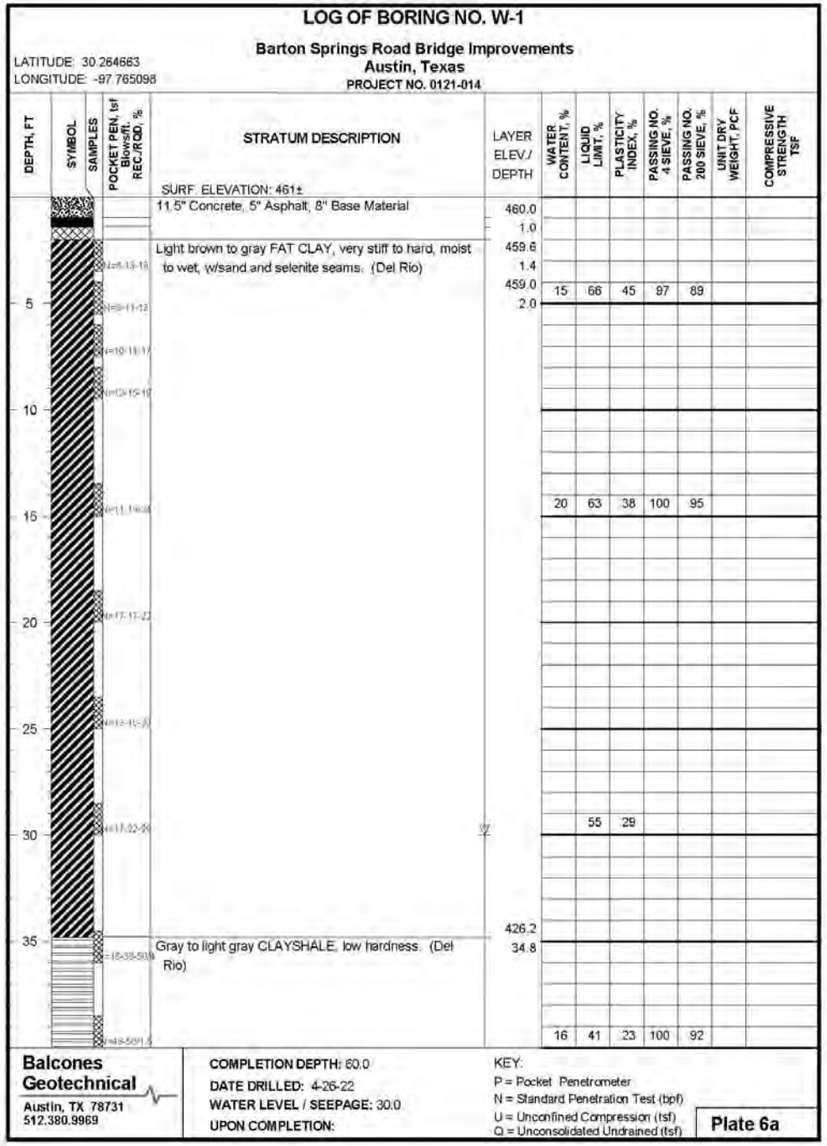
SAMPLE PHOTOGRAPHS – T-5

Barton Springs Road Bridge Improvements
Austin, Texas

Balcones Geotechnical
Austin, TX 78731
512.380.9969

Sheet 2 of 2

Geotechnical



LOG OF BORING NO. W-1

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264663
LONGITUDE: -97.765098

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 461±								
				11.5" Concrete, 5" Asphalt, 8" Base Material	460.0 1.0							
				Light brown to gray FAT CLAY, very stiff to hard, moist to wet, w/sand and selenite seams. (Del Rio)	459.6 1.4							
			N=8-13-18		459.0 2.0	15	66	45	97	89		
5			N=9-11-13									
			N=10-13-17									
			N=12-15-17									
10												
						20	63	38	100	95		
15			N=11-14-18									
20			N=17-17-22									
25			N=12-15-20									
			N=17-22-28		▽		55	29				
30												
					426.2							
35			N=38-50/5	Gray to light gray CLAYSHALE, low hardness. (Del Rio)	34.8							
						16	41	23	100	92		
			N=8-50/5									

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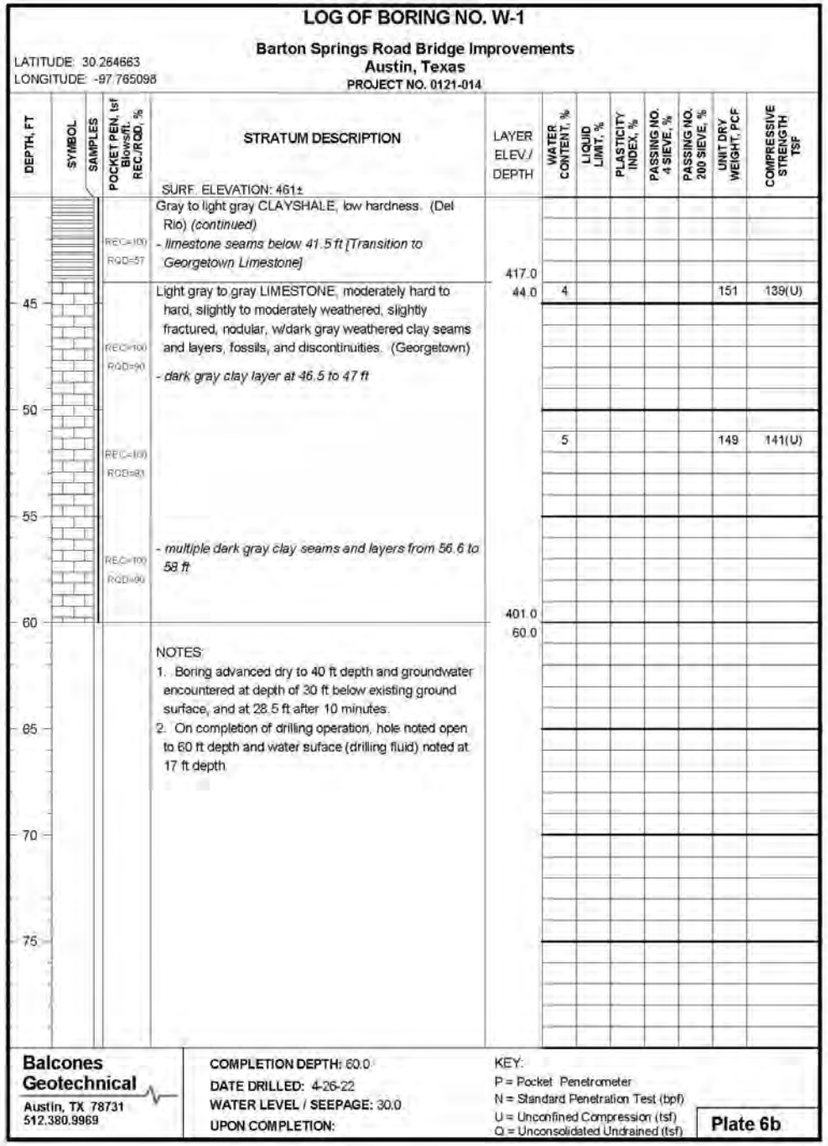
COMPLETION DEPTH: 60.0
DATE DRILLED: 4-26-22
WATER LEVEL / SEEPAGE: 30.0
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 6a



LOG OF BORING NO. W-1

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264663
LONGITUDE: -97.765098

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 461±								
				Gray to light gray CLAYSHALE, low hardness. (Del Rio) *(continued)*								
			REC=100 RQD=57	*- limestone seams below 41.5 ft [Transition to Georgetown Limestone]*	417.0							
				Light gray to gray LIMESTONE, moderately hard to hard, slightly to moderately weathered, slightly fractured, nodular, w/dark gray weathered clay seams and layers, fossils, and discontinuities. (Georgetown)	44.0	4					151	139(U)
45			REC=100 RQD=90	*- dark gray clay layer at 46.5 to 47 ft*								
50						5					149	141(U)
			REC=100 RQD=83									
55												
			REC=100 RQD=90	*- multiple dark gray clay seams and layers from 56.6 to 58 ft*								
60					401.0 60.0							
65												
70												
75												

NOTES:
1. Boring advanced dry to 40 ft depth and groundwater encountered at depth of 30 ft below existing ground surface, and at 28.5 ft after 10 minutes.
2. On completion of drilling operation, hole noted open to 60 ft depth and water suface (drilling fluid) noted at 17 ft depth.

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COMPLETION DEPTH: 60.0
DATE DRILLED: 4-26-22
WATER LEVEL / SEEPAGE: 30.0
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 6b

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-1

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 1 of 2

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-1

Barton Springs Road Bridge Improvements
Austin, Texas

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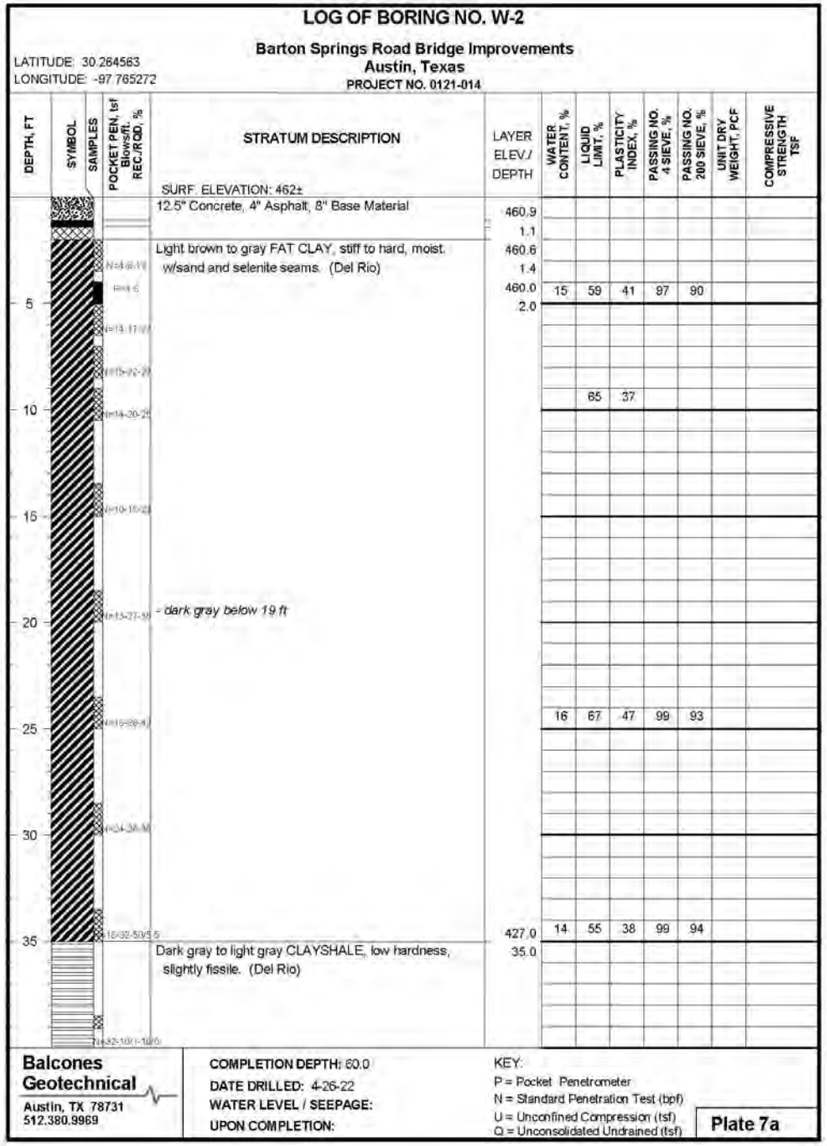
Sheet 2 of 2

Geotechnical



LOG OF BORING NO. W-2

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264563
LONGITUDE: -97.765272

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 462±								
				12.5" Concrete, 4" Asphalt, 8" Base Material	460.9 1.1							
				Light brown to gray FAT CLAY, stiff to hard, moist, w/sand and selenite seams. (Del Rio)	460.6 1.4							
					460.0 2.0	15	59	41	97	90		
10							65	37				
20				- dark gray below 19 ft								
25						16	67	47	99	93		
35					427.0	14	55	38	99	94		
				Dark gray to light gray CLAYSHALE, low hardness, slightly fissile. (Del Rio)	35.0							

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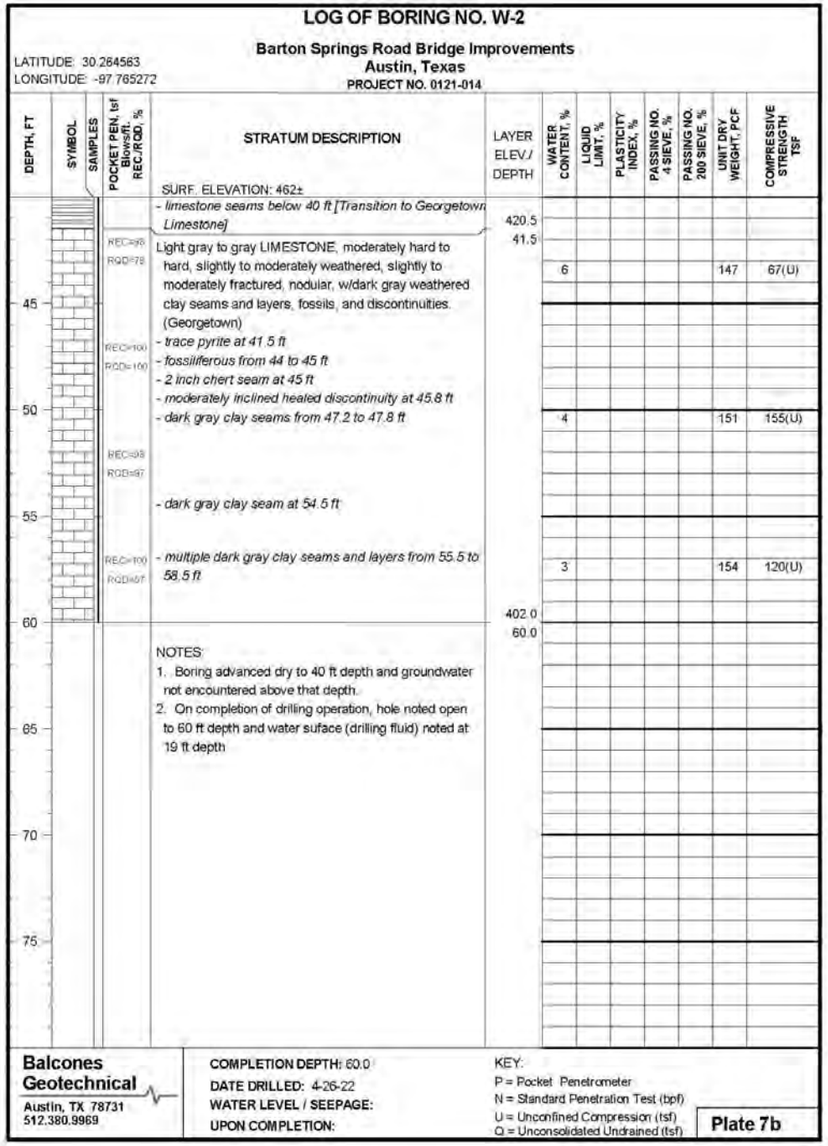
COMPLETION DEPTH: 60.0
DATE DRILLED: 4-26-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 7a



LOG OF BORING NO. W-2

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264563
LONGITUDE: -97.765272

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 462±								
				- limestone seams below 40 ft [Transition to Georgetown Limestone]	420.5 41.5							
45			REC=98 RQD=78	Light gray to gray LIMESTONE, moderately hard to hard, slightly to moderately weathered, slightly to moderately fractured, nodular, w/dark gray weathered clay seams and layers, fossils, and discontinuities. (Georgetown)		6					147	67(U)
50			REC=100 RQD=100	- trace pyrite at 41.5 ft - fossiliferous from 44 to 45 ft - 2 inch chert seam at 45 ft - moderately inclined healed discontinuity at 45.8 ft - dark gray clay seams from 47.2 to 47.8 ft		4					151	155(U)
55			REC=98 RQD=97	- dark gray clay seam at 54.5 ft								
60			REC=100 RQD=57	- multiple dark gray clay seams and layers from 55.5 to 58.5 ft		3					154	120(U)
					402.0 60.0							
65				NOTES: 1. Boring advanced dry to 40 ft depth and groundwater not encountered above that depth. 2. On completion of drilling operation, hole noted open to 60 ft depth and water suface (drilling fluid) noted at 19 ft depth								

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COMPLETION DEPTH: 60.0
DATE DRILLED: 4-26-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 7b

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-2

Barton Springs Road Bridge Improvements
Austin, Texas

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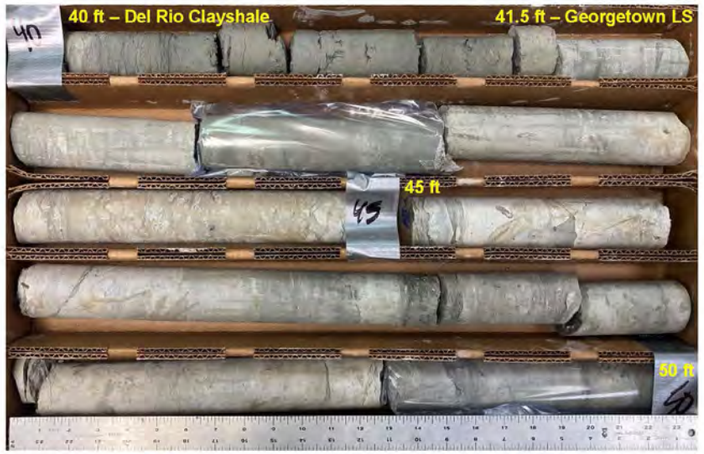
Sheet 1 of 2

Project No. 0121-014



SAMPLE PHOTOGRAPHS – W-2

Barton Springs Road Bridge Improvements
Austin, Texas

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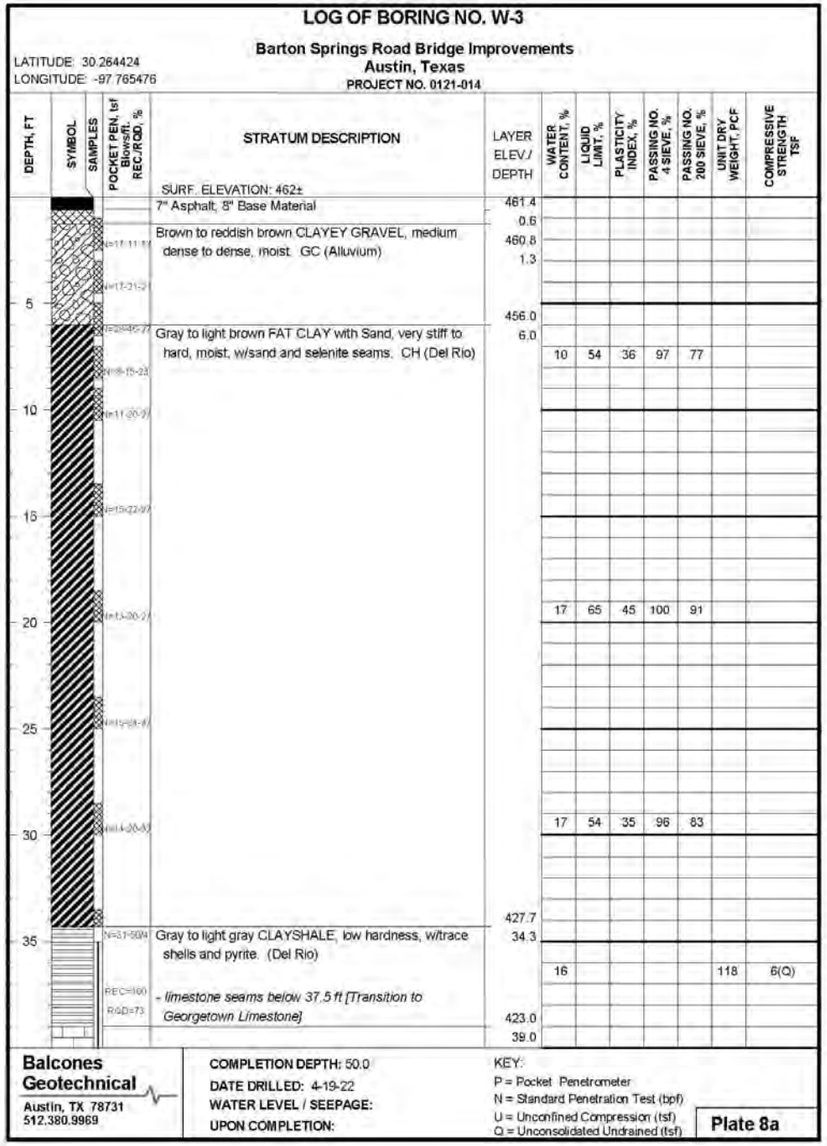
Sheet 2 of 2

Geotechnical



LOG OF BORING NO. W-3

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264424
LONGITUDE: -97.765476

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 462±								
				7" Asphalt, 8" Base Material	461.4 0.6							
			N=17-11-11	Brown to reddish brown CLAYEY GRAVEL, medium dense to dense, moist. GC (Alluvium)	460.8 1.3							
5			N=17-21-21									
					456.0							
			N=28-45-77	Gray to light brown FAT CLAY with Sand, very stiff to hard, moist, w/sand and selenite seams. CH (Del Rio)	6.0	10	54	36	97	77		
			N=8-15-23									
10			N=11-20-27									
15			N=15-22-27									
20			N=13-20-27			17	65	45	100	91		
25			N=15-28-47									
30			N=14-20-47			17	54	35	96	83		
					427.7							
35			N=31-50/4	Gray to light gray CLAYSHALE, low hardness, w/trace shells and pyrite. (Del Rio)	34.3							
						16					118	6(Q)
			REC=100 RQD=73	- *limestone seams below 37.5 ft [Transition to Georgetown Limestone]*	423.0 39.0							

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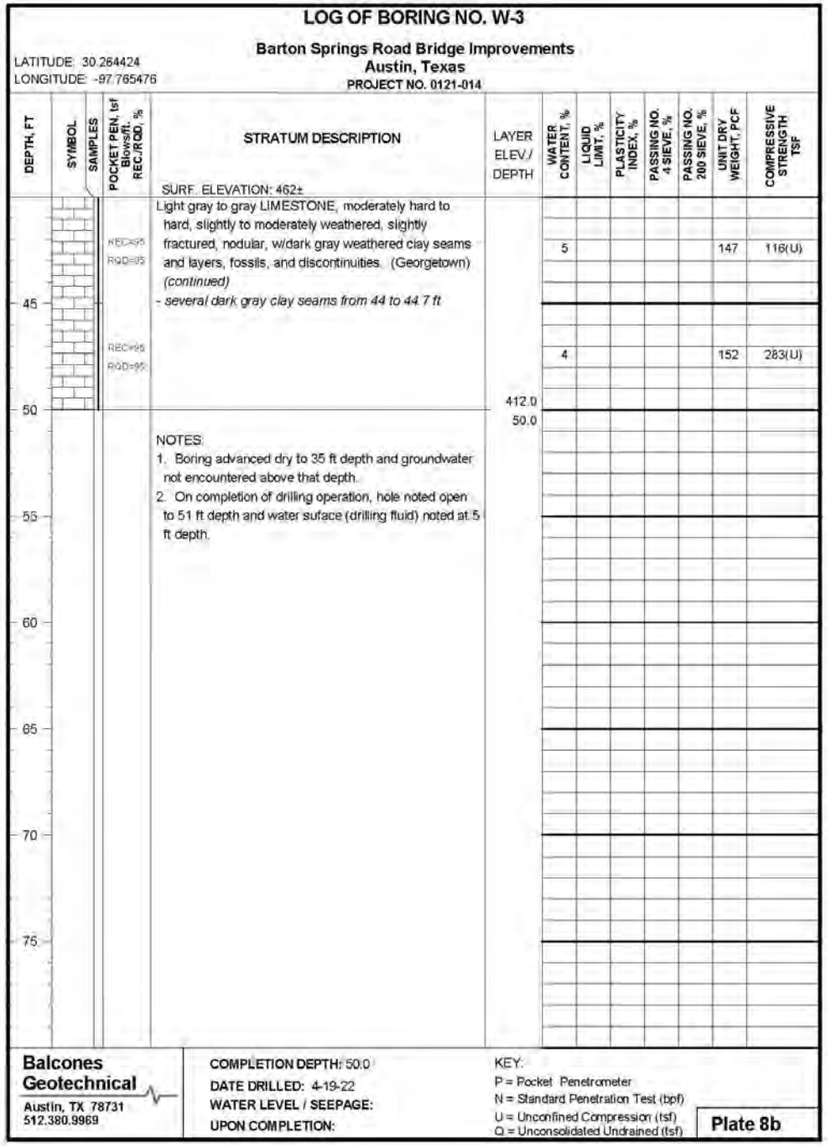
COMPLETION DEPTH: 50.0
DATE DRILLED: 4-19-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 8a



LOG OF BORING NO. W-3

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264424
LONGITUDE: -97.765476

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 462±								
			REC=95 RQD=95	Light gray to gray LIMESTONE, moderately hard to hard, slightly to moderately weathered, slightly fractured, nodular, w/dark gray weathered clay seams and layers, fossils, and discontinuities. (Georgetown) *(continued)* - *several dark gray clay seams from 44 to 44.7 ft*		5					147	116(U)
45												
			REC=95 RQD=95			4					152	283(U)
50					412.0 50.0							
				NOTES: 1. Boring advanced dry to 35 ft depth and groundwater not encountered above that depth. 2. On completion of drilling operation, hole noted open to 51 ft depth and water suface (drilling fluid) noted at 5 ft depth.							
55												
60												
65												
70												
75												

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COMPLETION DEPTH: 50.0
DATE DRILLED: 4-19-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 8b

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-3

Barton Springs Road Bridge Improvements
Austin, Texas

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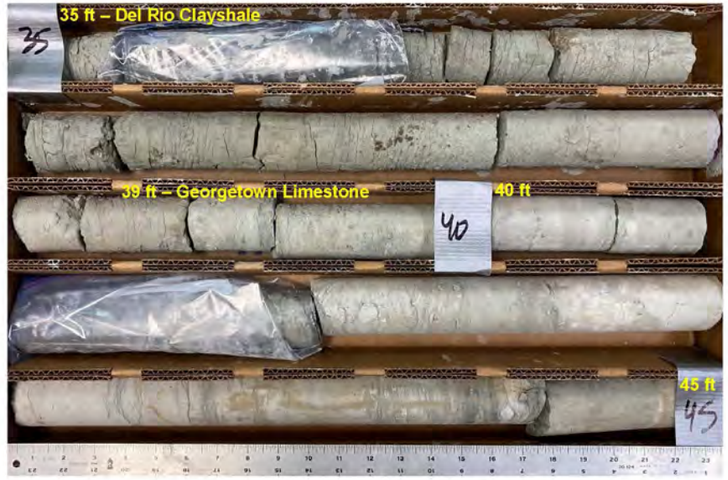
Sheet 1 of 2

Project No. 0121-014



SAMPLE PHOTOGRAPHS – W-3

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 2 of 2

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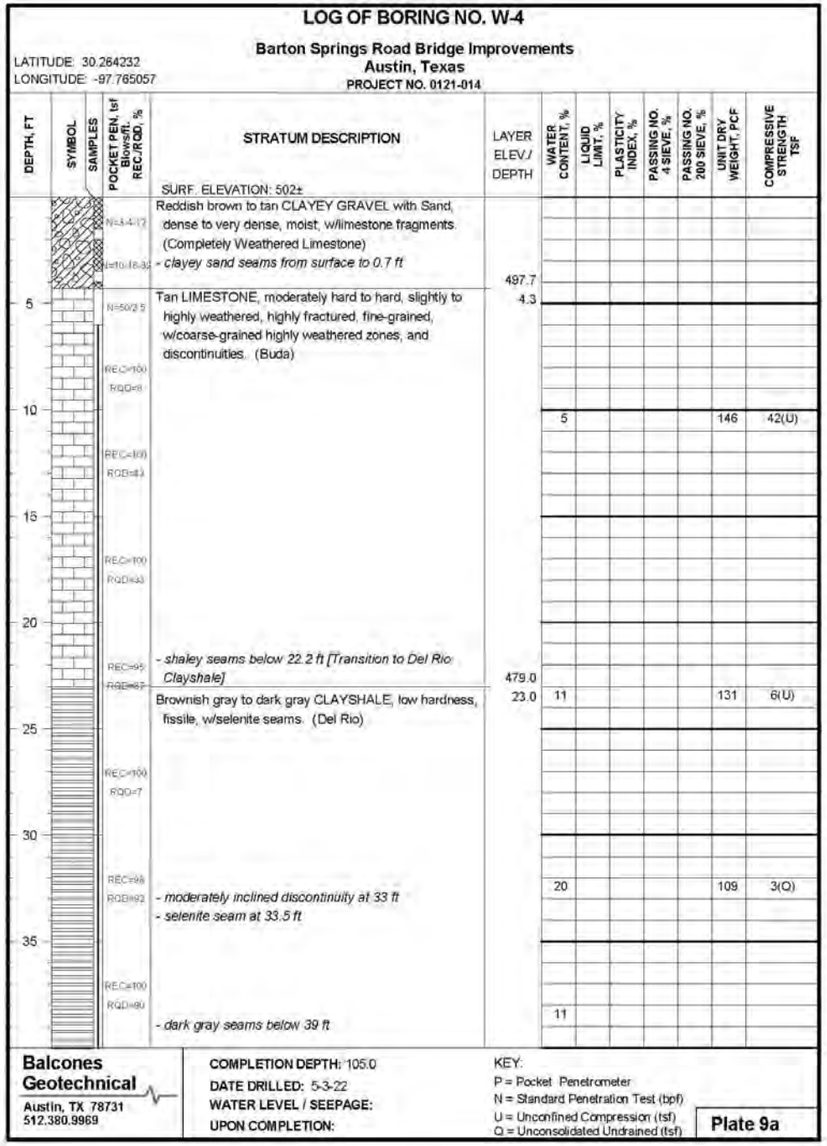

LOG OF BORING NO. W-4

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264232
LONGITUDE: -97.765057

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 502±								
			N=3-4-7	Reddish brown to tan CLAYEY GRAVEL with Sand, dense to very dense, moist, w/limestone fragments. (Completely Weathered Limestone)								
			N=10-18-32	*- clayey sand seams from surface to 0.7 ft*	497.7							
5			N=50/3.5	Tan LIMESTONE, moderately hard to hard, slightly to highly weathered, highly fractured, fine-grained, w/coarse-grained highly weathered zones, and discontinuities. (Buda)	4.3							
			REC=100 RQD=8									
10						5					146	42(U)
			REC=100 RQD=83									
15												
			REC=100 RQD=93									
20												
			REC=95 RQD=87	*- shaley seams below 22.2 ft [Transition to Del Rio Clayshale]*	479.0							
				Brownish gray to dark gray CLAYSHALE, low hardness, fissile, w/selenite seams. (Del Rio)	23.0	11					131	6(U)
25			REC=100 RQD=7									
30												
			REC=98 RQD=92	*- moderately inclined discontinuity at 33 ft* *- selenite seam at 33.5 ft*		20					109	3(Q)
35												
			REC=100 RQD=90	*- dark gray seams below 39 ft*		11						

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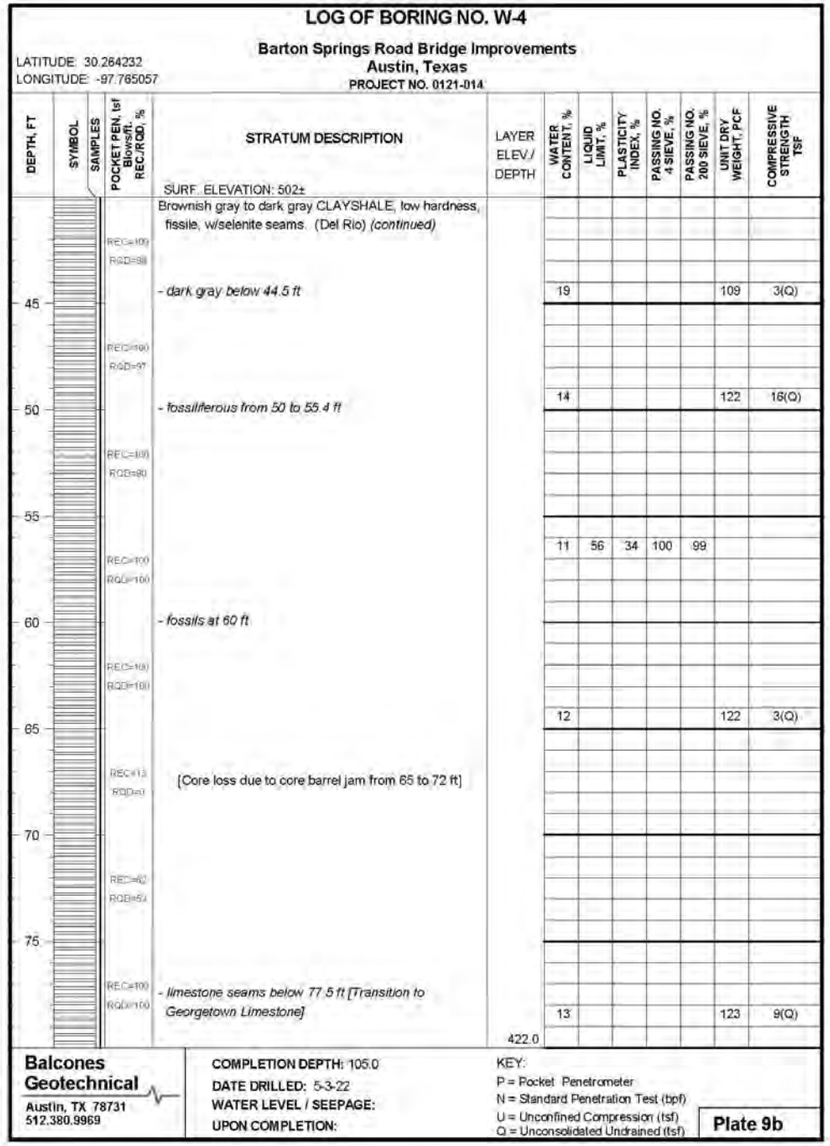
COMPLETION DEPTH: 105.0
DATE DRILLED: 5-3-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 9a



LOG OF BORING NO. W-4

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264232
LONGITUDE: -97.765057

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 502±								
				Brownish gray to dark gray CLAYSHALE, low hardness, fissile, w/selenite seams. (Del Rio) *(continued)*								
			REC=100 RQD=88									
45				*- dark gray below 44.5 ft*		19					109	3(Q)
			REC=100 RQD=97									
50				*- fossiliferous from 50 to 55.4 ft*		14					122	16(Q)
			REC=100 RQD=80									
55												
			REC=100 RQD=100			11	56	34	100	99		
60				*- fossils at 60 ft*								
			REC=100 RQD=100									
65						12					122	3(Q)
			REC=13 RQD=0	[Core loss due to core barrel jam from 65 to 72 ft]								
70												
			REC=92 RQD=84									
75												
			REC=100 RQD=100	*- limestone seams below 77.5 ft [Transition to Georgetown Limestone]*		13					123	9(Q)
					422.0							

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COMPLETION DEPTH: 105.0
DATE DRILLED: 5-3-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 9b

Geotechnical

LOG OF BORING NO. W-4

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264232
LONGITUDE: -97.765057

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf / Blows/ft. / REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 502±	80.0							
			REC=100 RQD=100	Light gray to gray LIMESTONE, moderately hard to hard, slightly to moderately weathered, slightly fractured, nodular, w/dark gray weathered clay seams and layers, fossils, and discontinuities. (Georgetown)		13					125	30(U)
				- clay seam at 84.5 ft								
85				*- fossiliferous from 85 to 86 ft*								
			REC=100 RQD=100			7					143	68(U)
90												
			REC=100 RQD=90	*- multiple inclined clay-coated discontinuities from 92.5 to 93.5 ft*								
95												
			REC=100 RQD=93			4					151	343(U)
100				*- clay seems at 100.5 ft*								
			REC=100 RQD=87			4					151	126(U)
105					397.0 / 105.0							
				NOTES: 1. Boring advanced dry to 6 ft depth and groundwater not encountered above that depth. 2. On completion of drilling operation, hole noted open to 33 ft depth and water suface (drilling fluid) noted at 29 ft depth.								
110												
115												

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COMPLETION DEPTH: 105.0
DATE DRILLED: 5-3-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 9c

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-4

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 1 of 6

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-4

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 2 of 6

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-4

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 3 of 6

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-4

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 4 of 6

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-4

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 5 of 6

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-4

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 6 of 6

LOG OF BORING NO. W-5

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264122
LONGITUDE: -97.765169

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 503±								
				3" Asphalt	502.8							
			N=9-19-18	Tan CLAYEY GRAVEL, dense to very dense, moist, w/limestone fragments. (Completely Weathered Limestone)	0.3 499.0							
5			N=35-50/5	Tan LIMESTONE, moderately hard to hard, slightly to highly weathered, slightly to moderately fractured, fine-grained, w/coarse-grained highly weathered zones, and discontinuities. (Buda) - *ferrous stained vug at 7.5 ft*	4.0							
10			REC=100 RQD=62	- *shallow to moderately inclined discontinuities at 10.3 ft*		5					147	347(U)
15			REC=100 RQD=42									
			REC=100 RQD=45		484.8							
20				Brownish gray to dark gray CLAYSHALE, low hardness, fissile, w/selenite seams. (Del Rio) - *limestone seams from 19 to 21 ft [Transition to Del Rio Clayshale]*	18.2	11					129	9(U)
			REC=97 RQD=55									
25				- *100% water loss at 25 ft*			63	39	100	99		
			REC=97 RQD=89									
30			REC=100 RQD=30			17					118	7(Q)
35			REC=89 RQD=36									

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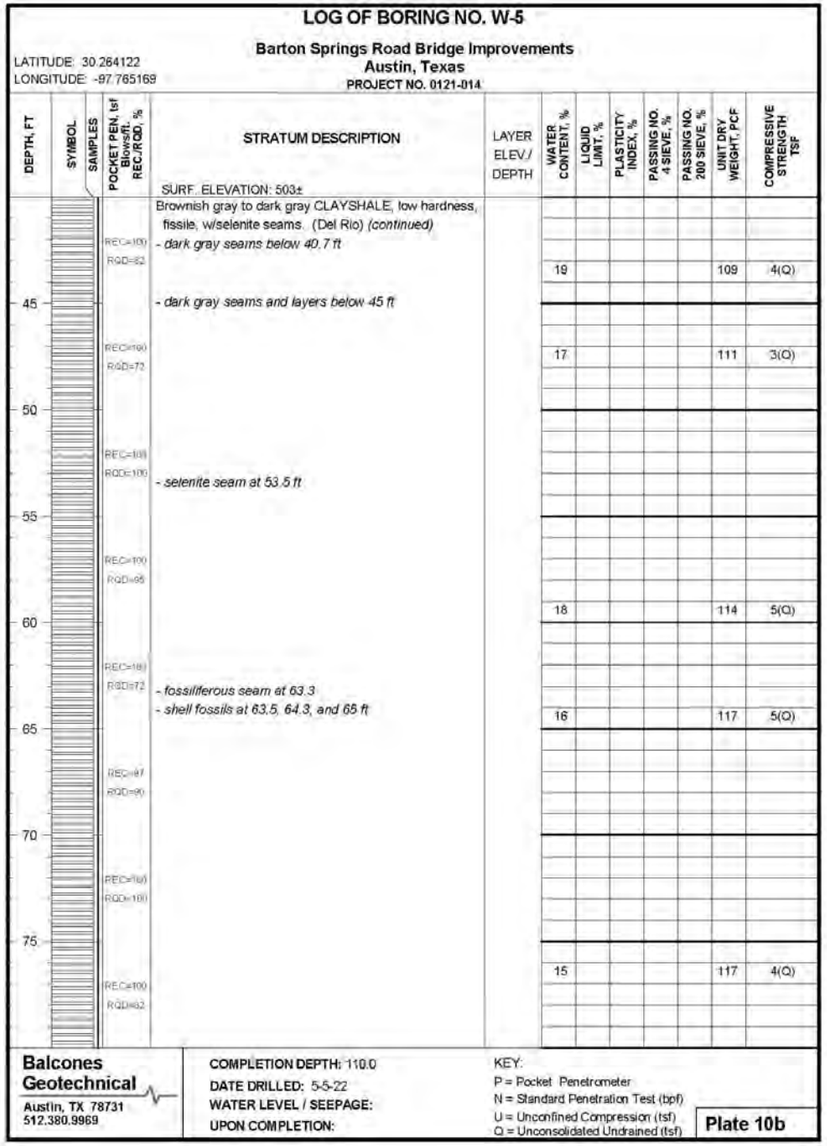
Austin, TX 78731
512.380.9969

COMPLETION DEPTH: 110.0
DATE DRILLED: 5-5-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 10a

Geotechnical



LOG OF BORING NO. W-5

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264122
LONGITUDE: -97.765169

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 503±								
				Brownish gray to dark gray CLAYSHALE, low hardness, fissile, w/selenite seams. (Del Rio) *(continued)*								
			REC=100	- *dark gray seams below 40.7 ft*								
			RQD=82			19					109	4(Q)
45				- *dark gray seams and layers below 45 ft*								
			REC=100			17					111	3(Q)
			RQD=72									
50												
			REC=100									
			RQD=100	- *selenite seam at 53.5 ft*								
55												
			REC=100									
			RQD=95			18					114	5(Q)
60												
			REC=100									
			RQD=72	- *fossiliferous seam at 63.3*								
				- *shell fossils at 63.5, 64.3, and 65 ft*		16					117	5(Q)
65												
			REC=97									
			RQD=90									
70												
			REC=100									
			RQD=100									
75												
						15					117	4(Q)
			REC=100									
			RQD=82									

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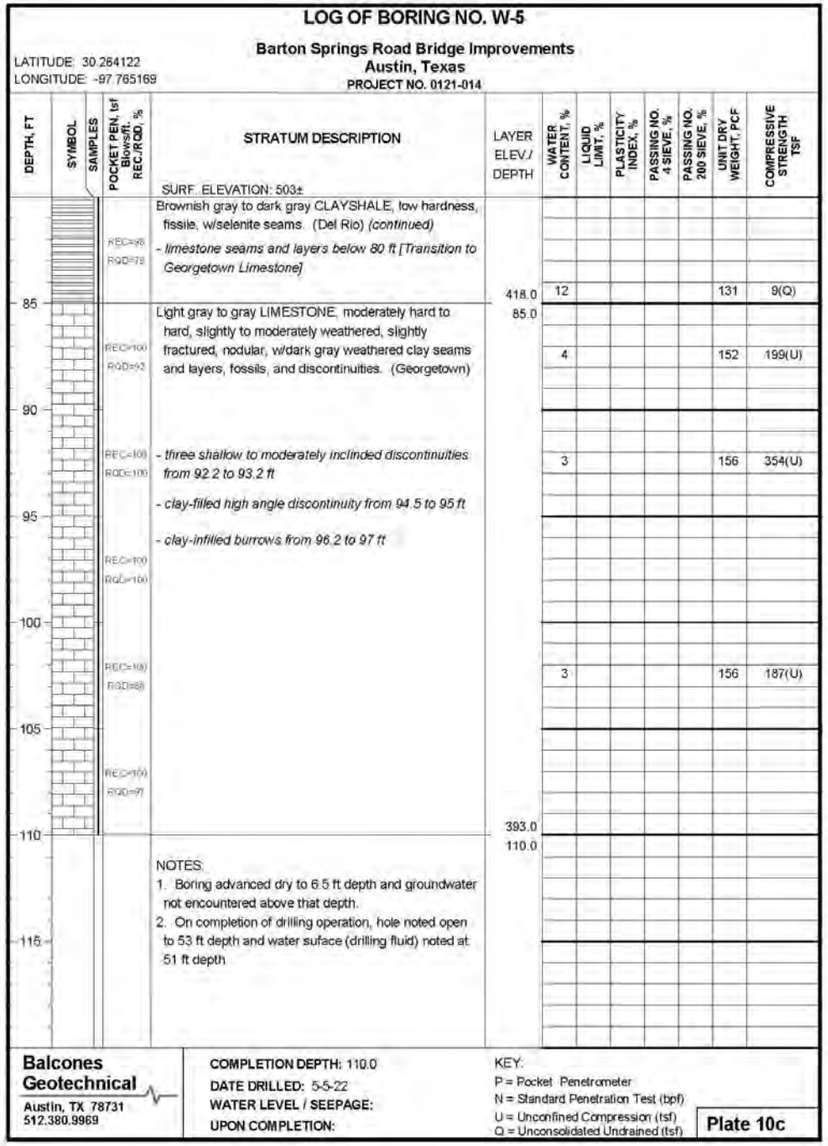
Austin, TX 78731
512.380.9969

COMPLETION DEPTH: 110.0
DATE DRILLED: 5-5-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 10b



LOG OF BORING NO. W-5

Barton Springs Road Bridge Improvements
Austin, Texas
PROJECT NO. 0121-014

LATITUDE: 30.264122
LONGITUDE: -97.765169

DEPTH, FT	SYMBOL	SAMPLES	POCKET PEN, tsf Blows/ft. REC./RQD, %	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX, %	PASSING NO. 4 SIEVE, %	PASSING NO. 200 SIEVE, %	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH TSF
				SURF. ELEVATION: 503±								
				Brownish gray to dark gray CLAYSHALE, low hardness, fissile, w/selenite seams. (Del Rio) *(continued)*								
			REC=98	- *limestone seams and layers below 80 ft [Transition to Georgetown Limestone]*								
			RQD=78		418.0	12					131	9(Q)
85				Light gray to gray LIMESTONE, moderately hard to hard, slightly to moderately weathered, slightly fractured, nodular, w/dark gray weathered clay seams and layers, fossils, and discontinuities. (Georgetown)	85.0							
			REC=100			4					152	199(U)
			RQD=92									
90												
			REC=100	- *three shallow to moderately inclinded discontinuities from 92.2 to 93.2 ft*		3					156	354(U)
			RQD=100	- *clay-filled high angle discontinuity from 94.5 to 95 ft*								
95				- *clay-infilled burrows from 96.2 to 97 ft*								
			REC=100									
			RQD=100									
100												
			REC=100			3					156	187(U)
			RQD=88									
105												
			REC=100									
			RQD=97									
110					393.0							
				NOTES:	110.0							
				1. Boring advanced dry to 6.5 ft depth and groundwater not encountered above that depth.								
				2. On completion of drilling operation, hole noted open to 53 ft depth and water suface (drilling fluid) noted at 51 ft depth								
115												

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COMPLETION DEPTH: 110.0
DATE DRILLED: 5-5-22
WATER LEVEL / SEEPAGE:
UPON COMPLETION:

KEY:
P = Pocket Penetrometer
N = Standard Penetration Test (bpf)
U = Unconfined Compression (tsf)
Q = Unconsolidated Undrained (tsf)

Plate 10c

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-5

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 1 of 6

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-5

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 2 of 6

Geotechnical

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-5

Barton Springs Road Bridge Improvements
Austin, Texas

Balcones Geotechnical
Austin, TX 78731
512.380.9969

Sheet 3 of 6

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-5

Barton Springs Road Bridge Improvements
Austin, Texas

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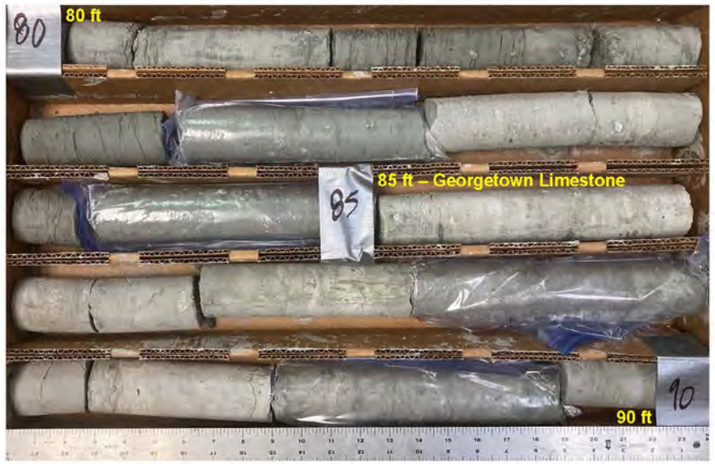
Sheet 4 of 6

Geotechnical

Project No. 0121-014



SAMPLE PHOTOGRAPHS – W-5

Barton Springs Road Bridge Improvements
Austin, Texas

Balcones Geotechnical
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512.380.9969

Sheet 5 of 6

Project No. 0121-014

SAMPLE PHOTOGRAPHS – W-5

Barton Springs Road Bridge Improvements
Austin, Texas

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Sheet 6 of 6

Geotechnical

TERMS AND SYMBOLS USED ON BORING LOGS FOR SOIL

SOIL TYPES

- CLAY (CH)
- SHALY CLAY (CH)
- CLAY (CL)
- SANDY CLAY (CL)
- Well-Graded SAND (SW)
- Poorly-Graded SAND (SP)
- SILTY SAND (SM)
- CLAYEY SAND (SC)
- Well-Graded GRAVEL (GW)
- Poorly-Graded GRAVEL (GP)
- SILTY GRAVEL (GM)
- FILL Material

SOIL GRAIN SIZE

U.S.STANDARD SIEVE

12"	3"	3/4"	4	10	40	200	
BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE	
304	76.2	19.1	4.76	2.00	0.420	0.074	0.002

SOIL GRAIN SIZE IN MILIMETERS

STRENGTH OF COHESIVE SOILS (2)

CONSISTENCY	UNDRAINED COMPRESSIVE STRENGTH Tons Per Sq. Ft.
Very Soft	Less Than 0.25
Soft	0.25 to 0.50
Firm	0.5 to 1.00
Stiff	1.00 to 2.00
Very Stiff	2.00 to 4.00
Hard	greater than 4.00

DENSITY OF GRANULAR SOILS (2)

NUMBER OF BLOWS PER FT., N	RELATIVE DENSITY
0-4	Very Loose
4-10	Loose
10-30	Medium
30-50	Dense
Over 50	Very Dense

DESCRIPTIVE TERMS FOR SOIL (1)

DESCRIPTION	CRITERIA
Stratified	Alternating layers of varying material or color with layers at least 6 mm thick.
Laminated	Alternating layers of varying material or color with the layers less than 6 mm thick.
Fissured	Breaks along definite planes of fracture with little resistance to fracturing.
Slickensided	Fracture planes appear polished or glossy, sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps which resist further breakdown.
Lensed	Inclusions of small pockets of different soils.

MOISTURE	
Dry	No water evident in sample; fines less than plastic limit.
Moist	Sample feels damp; fines near the plastic limit
Very Moist	Water visible on sample; fines greater plastic limit and less than liquid limit
Wet	Sample bears free water; fines greater than liquid limit.

INCLUSIONS (1)	
Parting	Inclusion <1/8" thick extending through sample
Seam	Inclusion 1/8" to 3" thick extending through sample.
Layer	Inclusion >3" thick extending through sample.
Trace	<5% of sample.
Few	5% to 10% of sample.
Little	15 to 25% of sample.
With	15% to 29% of sample.

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512.451.8600

NOTE: Information on each boring log is a compilation of subsurface conditions and soil and rock classifications obtained from the field as well as from laboratory testing of samples. Strata have been interpreted from commonly accepted procedures. The stratum lines on the logs may be transitional and approximate in nature. Water level measurements refer only to those observed at the times and places indicated, and may vary with time, geologic condition or construction activity.

REFERENCES: 1) ASTM D 2488 2) Peck, Hanson and Thornburn, (1974), Foundation Engineering.

Plate 11

TERMS AND SYMBOLS USED ON BORING LOGS FOR ROCK

ROCK TYPES

- LIMESTONE
- SHALE
- SANDSTONE
- WEATHERED LIMESTONE
- WEATHERED SHALE
- WEATHERED SANDSTONE
- HIGHLY WEATHERED LIMESTONE
- ARGILLACEOUS LIMESTONE
- MARL

SAMPLER TYPES

- Thin-walled Tube
- Rock Core
- Standard Penetration Test
- Auger Sample
- THD Cone Penetration Test
- Bag Sample

SOLUTION & VOID CONDITIONS

Void	Interstice; a general term for pore space or other openings in rock.
Cavities	Small solutional concavities.
Vuggy	Containing small cavities, usually lined with a mineral of different composition from that of the surrounding rock.
Vesicular	Containing numerous small, unlined cavities, formed by expansion of gas bubbles or steam during solidification of the rock.
Porous	Containing pore, interstices, or other openings which may or may not interconnect.
Cavernous	Containing cavities or caverns, sometimes quite large. Most frequent in limestones and dolomites.

WEATHERING GRADES OF ROCKMASS (1)

Slightly	Discoloration indicates weathering of rock material and discontinuity surfaces.
Moderately	Less than half of the rock material is decomposed or disintegrated to a soil.
Highly	More than half of the rock material is decomposed or disintegrated to a soil.
Completely	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.
Residual Soil	All rock material is converted to soil. The mass structure and material fabric are destroyed.

HARDNESS

Friable	Crumbles under hand pressure
Low Hardness	Can be carved with a knife
Moderately Hard	Can be scratched easily with a knife
Very Hard	Cannot be scratched with a knife

BEDDING THICKNESS (2)

Very Thick	>4'
Thick	2'-4'
Thin	2"-2'
Very Thin	1/2"-2"
Laminated	0.08"-1/2"
Thinly-Laminated	<0.08"

JOINT DESCRIPTION

SPACING	
Very Close	<2"
Close	2"-12"
Medium Close	12"-3'
Wide	>3'

INCLINATION	
Horizontal	0-5
Shallow	5-35
Moderate	35-65
Steep	65-85
Vertical	85-90

SURFACES	
Slickensided	Polished, grooved
Smooth	Planar
Irregular	Undulating or granular
Rough	Jagged or pitted

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512.451.8600

NOTE: Information on each boring log is a compilation of subsurface conditions and soil and rock classifications obtained from the field as well as from laboratory testing of samples. Strata have been interpreted by commonly accepted procedures. The stratum lines on the logs may be transitional and approximate in nature. Water level measurements refer only to those observed at the times and places indicated, and may vary with time, geologic condition or construction activity.

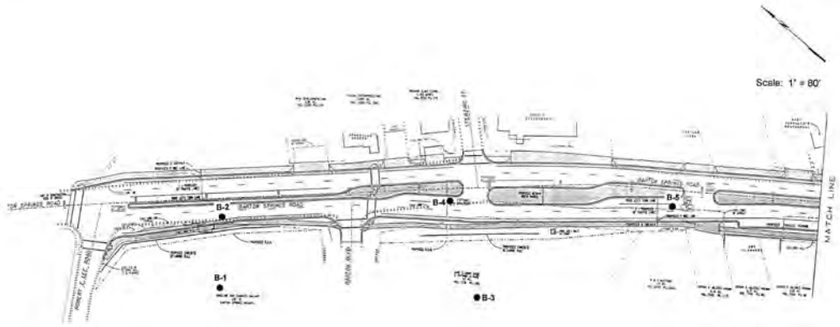
REFERENCES: 1) British Standard(1981) Code of Practice for Site Investigation BS 5930.
2) The Bridge Division, Texas Highway Dept. Foundation Exploration & Design Manual, 2nd Edition,revised June,1974.

Plate 12

Geotechnical

Report No. 1001-2559

FUGRO



PLAN OF BORINGS
Barton Springs Road Improvements
Austin, Texas

PLATE 2a

LOG OF BORING B-1

FUGRO

Barton Springs Road Improvements
Austin, Texas

TYPE: Wet Rotary — LOCATION: Umlauf Residence

SURF. EL. 508 ft± — Job No. 1001-2559

DEPTH, FT	SYMBOL	SAMPLES	BLOWS PER FOOT OR REC/(RQD),%	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX(PI),%	PASSING NO. 200 SIEVE,%	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH, TSF
			72 (8)	Dark brown sandy lean CLAY, hard, w/roots. (Fill)	507.5 / 0.5						4.0(P)
				Tan LIMESTONE, highly weathered, hard, medium- to fine-grained, w/soft seams. (Buda) -100% water loss at 3.5 ft							
5			57 (7)								
10			100 (25)	-100% water loss at 10.5 ft							
15			93 (0)								
20			100 (27)	-continuous water loss below 20 ft		1				162	259(U)
25			40 (0)								
30			45 (0)	Dark greenish gray fat CLAY, hard, fissured, w/selenite seams and fossils. CH (Del Rio)	478.0 / 30.0	19	55	33	79	112	6.9(Q)
35			80 (80)			18	67	44	92	123	7.6(Q)
40			100 (67)	Dark gray CLAYSHALE, low hardness. (Del Rio)	466.6 / 41.4	16				115	13(U)
45			88 (63)	-alternating greenish gray w/selenite crystals above 47 ft		14	59	39	90		

COMPLETION DEPTH: 95.0 ft — DEPTH TO WATER: See Note

DATE: 4/27/99

U = Unconfined
Q = Unconsolidated Undrained Triaxial
P = Pocket Penetrometer
T = Torvane

PLATE 3a

Geotechnical

LOG OF BORING B-1

FUGRO

Barton Springs Road Improvements
Austin, Texas

TYPE: Wet Rotary — LOCATION: Umlauf Residence

SURF. EL. 508 ft± Job No. 1001-2559

DEPTH, FT	SYMBOL	SAMPLES	BLOWS PER FOOT OR REC/(RQD),%	STRATUM DESCRIPTION	LAYER ELEV./ DEPTH	WATER CONTENT, %	LIQUID LIMIT, %	PLASTICITY INDEX(PI),%	PASSING NO. 200 SIEVE,%	UNIT DRY WEIGHT, PCF	COMPRESSIVE STRENGTH, TSF
			93 (93)	Dark gray CLAYSHALE, low hardness. (Del Rio)		12				126	15(U)
55			100 (100)			16				117	14(U)
60			100 (100)	NOTE: Boring was advanced dry to the 0.5-ft depth and no groundwater was encountered above that depth.		14				118	15(U)
65			100 (100)								
70			100 (100)	-soft seams 71 to 73 ft		13				125	12(U)
75			100 (100)								
80			100 (100)	-transition zone below 80 ft		12				126	18(U)
85			100 (100)			11				130	27(U)
90			100 (100)	Gray LIMESTONE, hard, fine-grained, nodular. (Georgetown)	418.5 89.5	4				153	359(U)
95					413.0 95.0	5				150	223(U)

COMPLETION DEPTH: 95.0 ft DEPTH TO WATER: See Note

DATE: 4/27/99

U = Unconfined
Q = Unconsolidated Undrained Triaxial

P = Pocket Penetrometer
T = Torvane

PLATE 3b

TERMS & SYMBOLS USED ON BORING LOGS FOR SOIL

FUGRO

SOIL TYPES

- CH, Fat Clay
- CL, Lean Clay
- ML, Silt
- Fill, Unclassified
- SP, Poorly-Graded Sand
- SC, Clayey Sand
- SM, Silty Sand
- SW, Well-Graded Sand
- GP, Poorly-Graded Gravel
- GC, Clayey Gravel
- GM, Silty Gravel
- GW, Well-Graded Gravel

SAMPLER TYPES

- Seamless Push Tube
- Core
- Standard Penetration Test
- Auger
- THD Cone Penetrometer Test
- Auger Sample

SOIL GRAIN SIZE

U.S.STANDARD SIEVE

6"	3"	3/4"	4	10	40	200	
BOULDERS	COBBLES	GRAVEL		SAND			SILT / CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE	
152	76.2	19.1	4.76	2.00	0.420	0.074	0.002

SOIL GRAIN SIZE IN MILLIMETERS

STRENGTH OF COHESIVE SOILS(1)

CONSISTENCY	UNDRAINED SHEAR STRENGTH Kips Per Sq. Ft.
Very Soft	Less Than 0.25
Soft	0.25 to 0.50
Firm	0.50 to 1.00
Stiff	1.00 to 2.00
Very Stiff	2.00 to 4.00
Hard	Greater Than 4.00

DENSITY OF GRANULAR SOILS(1)

NUMBER OF BLOWS PER FT., N	RELATIVE DENSITY
0-4	Very Loose
4-10	Loose
10-30	Medium
30-50	Dense
Over 50	Very Dense

1) Peck, Hanson, and Thornburn, (1974), Foundation Engineering.

ASTM D 2488 TABLE 7 Criteria for Describing Structure

Description	Criteria
Stratified	Alternating layers of varying material or color with layers at least 6 mm thick; note thickness
Laminated	Alternating layers of varying material or color with the layers less than 6mm thick; note thickness
Fissured	Breaks along definite planes of fracture with little resistance to fracturing
Slickensided	Fracture planes appear polished or glossy, sometimes striated
Blocky	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay; note thickness
Homogeneous	Same color and appearance throughout

ASTM D 2488 TABLE 3 Criteria for Describing Moisture Condition

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

ASTM D 2488 Note 15 Criteria for Describing Percentages of Gravel, Sand and Fines

Description	Criteria
Trace	Particles are present but estimated to be less than 5 %
Few	5 to 10 %
Little	15 to 25 %
Some	30 to 45 %
Mostly	50 to 100 %

Criteria for Describing Inclusions

Description	Criteria
Parting	Inclusion <1/8" thick extending through sample
Seam	Inclusion 1/8" to 3" thick extending through sample
Layer	Inclusion >3" thick extending through sample

PLATE 14

Geotechnical

TERMS & SYMBOLS USED ON BORING LOGS FOR ROCK

FUGRO

ROCK TYPES

- LIMESTONE
- DOLOMITE
- SANDSTONE
- HIGHLY WEATHERED LIMESTONE
- HIGHLY WEATHERED DOLOMITE
- SHALE
- DOLOMITIC LIMESTONE
- GRANITE
- CLAYSHALE

SAMPLER TYPES

- Seamless Push Tube
- Core
- Standard Penetration Test
- Auger
- TxDOT Cone Penetration Test
- Auger Sample

HARDNESS

Friable	- Crumbles under hand pressure
Low Hardness	- Can be carved with a knife
Moderately Hard	- Can be scratched easily with a knife
Hard	- Can be scratched with a knife with difficulty

SOLUTION & VOID CONDITIONS

Void	Interstice; a general term for pore space or other opening in rock.
Cavities	Small solutional concavities.
Vuggy	Containing small cavities, usually lined with a mineral of different composition from that of the surrounding rock.
Vesicular	Containing numerous small, unlined cavities, formed by expansion of gas bubbles or steam during solidification of the rock.
Porous	Containing pore, interstices, or other openings which may or may not interconnect.
Cavernous	Containing cavities or caverns, sometimes quite large. Most frequent in limestones and dolomites.

WEATHERING GRADES OF ROCKMASS (1)

TERM	DESCRIPTION
Slightly	Discoloration indicates weathering of rock material and discontinuity surfaces.
Moderately	Less than half of the rock material is decomposed or disintegrated to a soil
Highly	More than half of the rock material is decomposed or disintegrated to a soil.
Completely	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.
Residual Soil	All rock material is converted to soil. The mass structure and material fabric are destroyed.

BEDDING THICKNESS (2)

Very Thick	>4'
Thick	2' - 4'
Thin	2" - 2'
Very Thin	1/2" - 2"
Laminated	0.08" - 1/2"
Thinly-Laminated	<0.08"

JOINT DESCRIPTION

SPACING	INCLINATION	SURFACES
Very Close <2"	Horizontal 0 - 5	Slickensided - Polished, grooved
Close 2" - 12"	Shallow 5 - 35	Smooth - Planar
Medium Close 12" - 3'	Moderate 35 - 65	Irregular - Undulating or granular
Wide >3'	Steeply 65 - 85	Rough - Jagged or pitted
	Vertical 85 - 90	

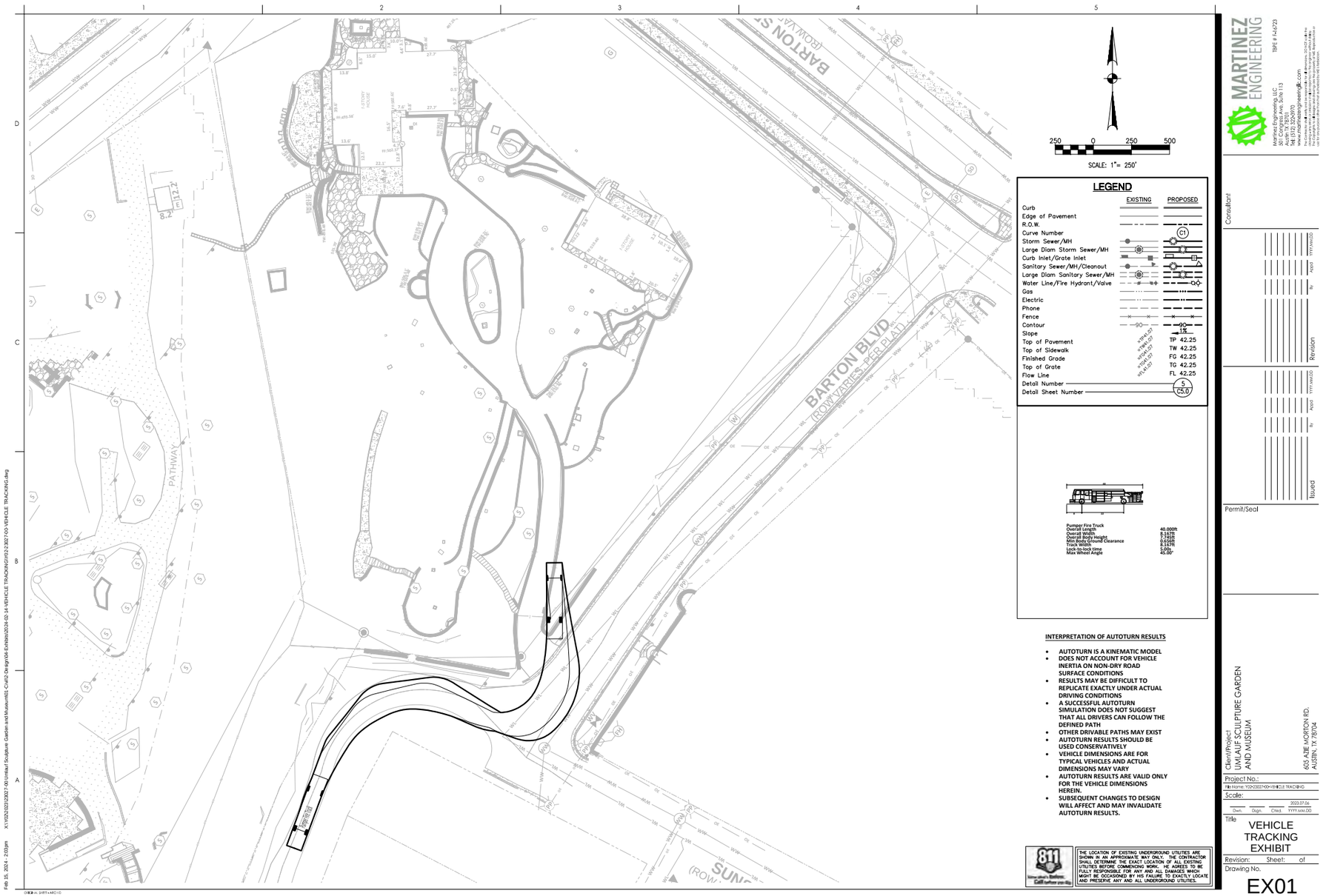
REFERENCES:

1) British Standard (1961) Code of Practice for Site Investigation, BS 5930

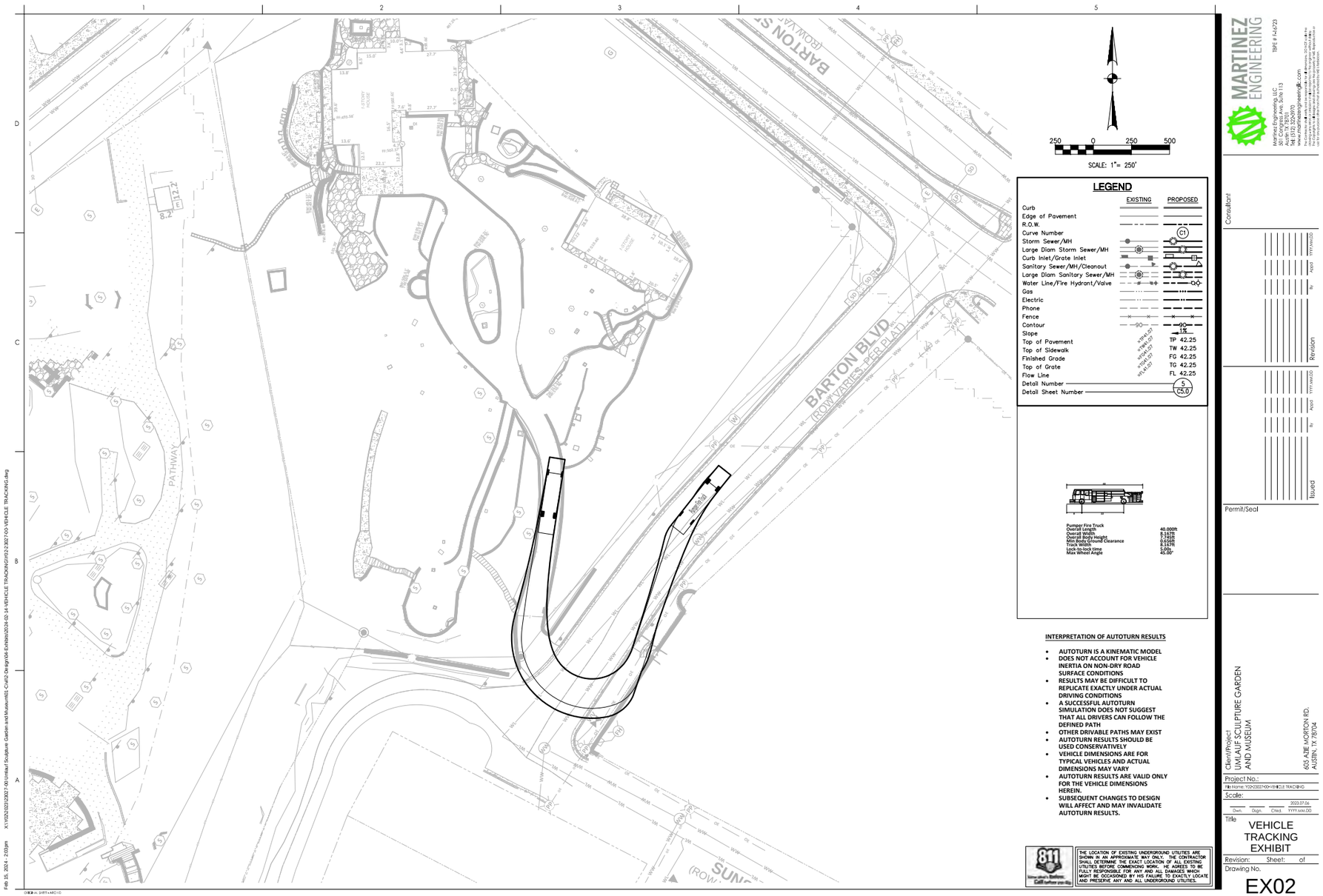
2) The Bridge Div., Tx. Highway Dept. Foundation Exploration & Design Manual 2nd Edition, revised June, 1974.

PLATE 15

Fire Truck Maneuvers



Fire Truck Maneuvers



LEGEND

	EXISTING	PROPOSED
Curb		
Edge of Pavement		
R.O.W.		
Curve Number		C1
Storm Sewer/MH		
Large Diam Storm Sewer/MH		
Curb Inlet/Grate Inlet		
Sanitary Sewer/MH/Cleanout		
Large Diam Sanitary Sewer/MH		
Water Line/Fire Hydrant/Valve		
Gas		
Electric		
Phone		
Fence		
Contour	90	90 / 15
Slope		
Top of Pavement	XTP 42.25	TP 42.25
Top of Sidewalk	XTW 42.25	TW 42.25
Finished Grade	XFG 42.25	FG 42.25
Top of Grate	XTG 42.25	TG 42.25
Flow Line	XFL 42.25	FL 42.25
Detail Number		5
Detail Sheet Number		C6.0

Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	9.750ft
Min Body Ground Clearance	0.625ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

INTERPRETATION OF AUTOTURN RESULTS

- **AUTOTURN IS A KINEMATIC MODEL**
- **DOES NOT ACCOUNT FOR VEHICLE INERTIA ON NON-DRY ROAD SURFACE CONDITIONS**
- **RESULTS MAY BE DIFFICULT TO REPLICATE EXACTLY UNDER ACTUAL DRIVING CONDITIONS**
- **A SUCCESSFUL AUTOTURN SIMULATION DOES NOT SUGGEST THAT ALL DRIVERS CAN FOLLOW THE DEFINED PATH**
- **OTHER DRIVABLE PATHS MAY EXIST**
- **AUTOTURN RESULTS SHOULD BE USED CONSERVATIVELY**
- **VEHICLE DIMENSIONS ARE FOR TYPICAL VEHICLES AND ACTUAL DIMENSIONS MAY VARY**
- **AUTOTURN RESULTS ARE VALID ONLY FOR THE VEHICLE DIMENSIONS HEREIN.**
- **SUBSEQUENT CHANGES TO DESIGN WILL AFFECT AND MAY INVALIDATE AUTOTURN RESULTS.**

811 Know what's Below. Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

MARTINEZ ENGINEERING
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Martinez Engineering, LLC.
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www.martinezengineering.com

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Permit/Seal

Client/Project
UMLAUF SCULPTURE GARDEN AND MUSEUM

605 AZIE MORTON RD.
AUSTIN, TX 78704

Project No.:

File Name: 102-23027-00-VEHICLE TRACKING

Scale:

Own.	Dsgn.	Chkd.	2023.07.06 YYYY.MM.DD

Title
VEHICLE TRACKING EXHIBIT

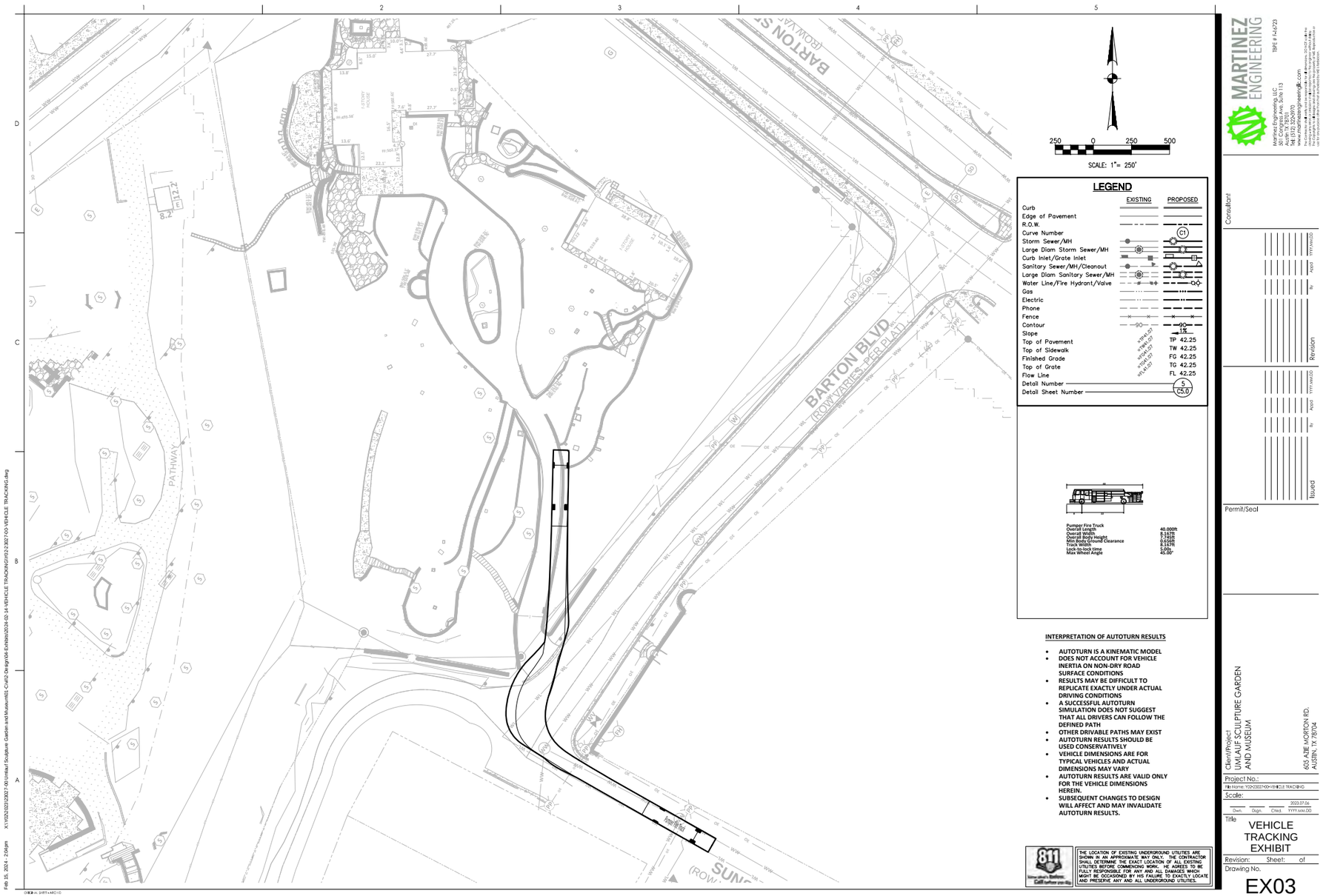
Revision: Sheet: of

Drawing No.
EX02

Feb 15, 2024 - 2:03pm X:\102\102\23027-00 Umlauf Sculpture Garden and Museum\01-Civil\02-Dwgs\04-Exhibits\2024-02-14 VEHICLE TRACKING\102-23027-00-VEHICLE TRACKING.dwg

D30 in. SHEET ARCH D

Fire Truck Maneuvers



LEGEND

	EXISTING	PROPOSED
Curb		
Edge of Pavement		
R.O.W.		
Curve Number		C1
Storm Sewer/MH		
Large Diam Storm Sewer/MH		
Curb Inlet/Grate Inlet		
Sanitary Sewer/MH/Cleanout		
Large Diam Sanitary Sewer/MH		
Water Line/Fire Hydrant/Valve		
Gas		
Electric		
Phone		
Fence		
Contour	90	90 / 15
Slope		
Top of Pavement	TP 42.25	TP 42.25
Top of Sidewalk	TW 42.25	TW 42.25
Finished Grade	FG 42.25	FG 42.25
Top of Grate	TG 42.25	TG 42.25
Flow Line	FL 42.25	FL 42.25
Detail Number		5
Detail Sheet Number		C6.0

Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	9.833ft
Min Body Ground Clearance	0.625ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

INTERPRETATION OF AUTOTURN RESULTS

- **AUTOTURN IS A KINEMATIC MODEL**
- **DOES NOT ACCOUNT FOR VEHICLE INERTIA ON NON-DRY ROAD SURFACE CONDITIONS**
- **RESULTS MAY BE DIFFICULT TO REPLICATE EXACTLY UNDER ACTUAL DRIVING CONDITIONS**
- **A SUCCESSFUL AUTOTURN SIMULATION DOES NOT SUGGEST THAT ALL DRIVERS CAN FOLLOW THE DEFINED PATH**
- **OTHER DRIVABLE PATHS MAY EXIST**
- **AUTOTURN RESULTS SHOULD BE USED CONSERVATIVELY**
- **VEHICLE DIMENSIONS ARE FOR TYPICAL VEHICLES AND ACTUAL DIMENSIONS MAY VARY**
- **AUTOTURN RESULTS ARE VALID ONLY FOR THE VEHICLE DIMENSIONS HEREIN.**
- **SUBSEQUENT CHANGES TO DESIGN WILL AFFECT AND MAY INVALIDATE AUTOTURN RESULTS.**

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Permit/Seal

Client/Project
UMLAUF SCULPTURE GARDEN AND MUSEUM

605 AZIE MORTON RD.
AUSTIN, TX 78704

Project No.:

File Name: 102-2307-00-VEHICLE TRACKING

Scale:

Own.	Dsgn.	Chkd.
		2023.07.06 YYYY.MM.DD

Title
VEHICLE TRACKING EXHIBIT

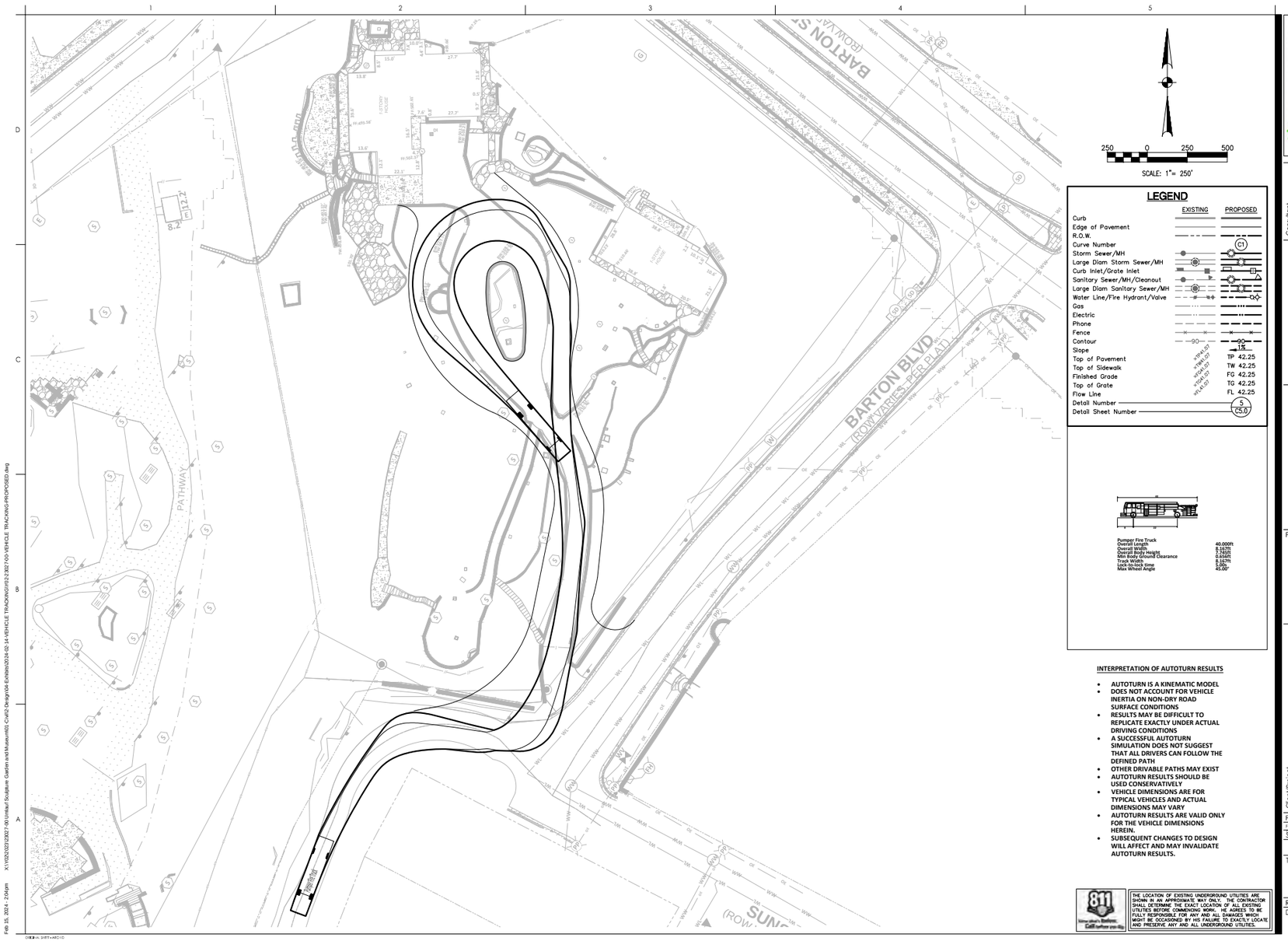
Revision: Sheet: of

Drawing No.
EX03

Feb 15, 2024 - 2:04pm X:\102\102\2023\2307-00 Umlauf Sculpture Garden and Museum\01-Civil\02-Dwgs\04-Exhibits\2024-02-14 VEHICLE TRACKING\102-2307-00-VEHICLE TRACKING.dwg

DESIGN SHEET - ARCH D

Fire Truck Maneuvers



LEGEND

	EXISTING	PROPOSED
Curb		
Edge of Pavement		
R.O.W.		
Curve Number		C1
Storm Sewer/MH		
Large Diam Storm Sewer/MH		
Curb Inlet/Grate Inlet		
Sanitary Sewer/MH/Cleanout		
Large Diam Sanitary Sewer/MH		
Water Line/Fire Hydrant/Valve		
Gas		
Electric		
Phone		
Fence		
Contour	90	90
Slope		1%
Top of Pavement	TP 42.25	TP 42.25
Top of Sidewalk	TW 42.25	TW 42.25
Finished Grade	FG 42.25	FG 42.25
Top of Grate	TG 42.25	TG 42.25
Flow Line	FL 42.25	FL 42.25
Detail Number		5
Detail Sheet Number		C6.0

Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	9.792ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

INTERPRETATION OF AUTOTURN RESULTS

- **AUTOTURN IS A KINEMATIC MODEL**
- **DOES NOT ACCOUNT FOR VEHICLE INERTIA ON NON-DRY ROAD SURFACE CONDITIONS**
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			YYYY.MM.DD

Permit/Seal

Client/Project
UMLAUF SCULPTURE GARDEN AND MUSEUM
605 AZIE MORTON RD.
AUSTIN, TX 78704

Project No.:
File Name: 102-2307-00-VEHICLE
SCALE: As Noted on Plot/Print

Own.	Dsgn.	Chkd.	2023.07.06 YYYY.MM.DD

Title
VEHICLE TRACKING EXHIBIT - PROP

Revision: Sheet: of

Drawing No.
EX04

Feb 15, 2024 - 2:04pm X:\102\02\2023\2307-00 Umlauf Sculpture Garden and Museum\01-Civil\02-Dwgs\04-Exhibits\2024-02-14 VEHICLE TRACKING\102-2-2307-00-VEHICLE TRACKING-PROPOSED.dwg

DESIGN SHEET ARCH D

Fire Truck Maneuvers

LEGEND

	EXISTING	PROPOSED
Curb		
Edge of Pavement		
R.O.W.		
Curve Number		C1
Storm Sewer/MH		
Large Diam Storm Sewer/MH		
Curb Inlet/Grate Inlet		
Sanitary Sewer/MH/Cleanout		
Large Diam Sanitary Sewer/MH		
Water Line/Fire Hydrant/Valve		
Gas		
Electric		
Phone		
Fence		
Contour	90	90
Slope		1%
Top of Pavement	XTP 42.25	TP 42.25
Top of Sidewalk	XTW 42.25	TW 42.25
Finished Grade	XFG 42.25	FG 42.25
Top of Grate	XTG 42.25	TG 42.25
Flow Line	XFL 42.25	FL 42.25
Detail Number		5
Detail Sheet Number		C6.0

Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	9.792ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

INTERPRETATION OF AUTOTURN RESULTS

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Revision			

Permit/Seal

Client/Project
UMLAUF SCULPTURE GARDEN AND MUSEUM
605 AZIE MORTON RD.
AUSTIN, TX 78704

Project No.:
File Name: 102-2307-00-VEHICLE
SCALE: as noted on this sheet

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Title
VEHICLE TRACKING EXHIBIT - PROP

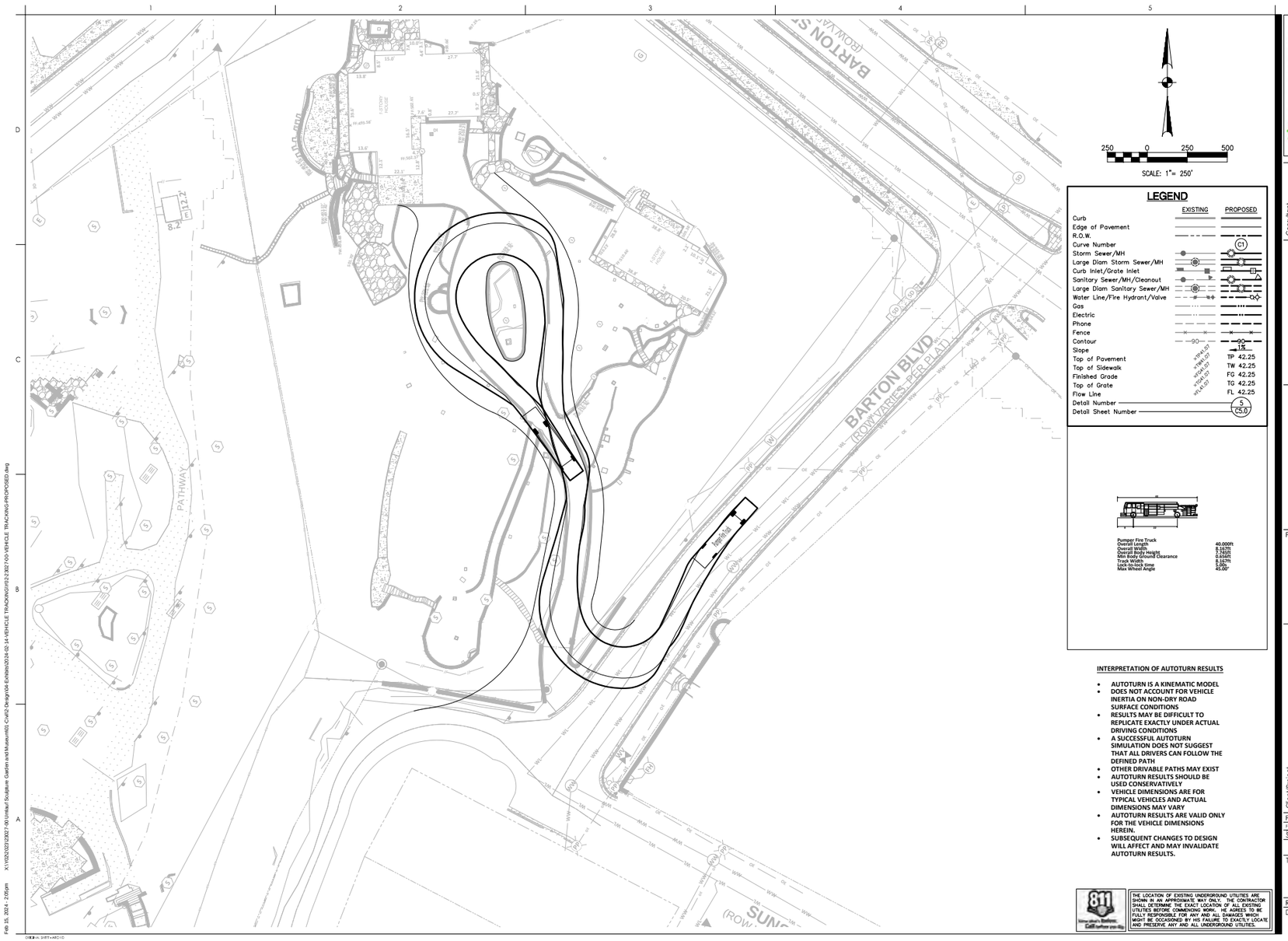
Revision: Sheet: of

Drawing No.
EX05

Feb 15, 2024 - 2:05pm X:\102\02\02\3027-00 Umlauf Sculpture Garden and Museum\01-Civil\02-Dwgs\04-Exhibits\2024-02-14-VEHICLE TRACKING\102-2302T-00-VEHICLE TRACKING-PROPOSED.dwg

DESIGN SHEET ARCH D

Fire Truck Maneuvers



250 0 250 500

SCALE: 1"= 250'

LEGEND

	EXISTING	PROPOSED
Curb		
Edge of Pavement		
R.O.W.		
Curve Number		C1
Storm Sewer/MH		
Large Diam Storm Sewer/MH		
Curb Inlet/Grate Inlet		
Sanitary Sewer/MH/Cleanout		
Large Diam Sanitary Sewer/MH		
Water Line/Fire Hydrant/Valve		
Gas		
Electric		
Phone		
Fence		
Contour	90	90 / 15
Slope		
Top of Pavement	XTPXX.XX	TP 42.25
Top of Sidewalk	XTWXX.XX	TW 42.25
Finished Grade	XFGXX.XX	FG 42.25
Top of Grate	XTGXX.XX	TG 42.25
Flow Line	XFLXX.XX	FL 42.25
Detail Number		5
Detail Sheet Number		C6.0

Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	9.792ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

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Issued	By	Appd	YYYY.MM.DD

Permit/Seal

Client/Project
UMLAUF SCULPTURE GARDEN AND MUSEUM

605 AZIE MORTON RD.
AUSTIN, TX 78704

Project No.:

File Name: 103-2307-00-VEHICLE

SCALE: As noted on this sheet

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Title
VEHICLE TRACKING EXHIBIT - PROP

Revision: Sheet: of

Drawing No.
EX06

Feb 15, 2024 - 2:05pm X:\103\2023\2023-07-00 Umlauf Sculpture Garden and Museum\01-Civil\02-Dwgs\04-Exhibits\2024-02-14-VEHICLE TRACKING\103-2-2307-00-VEHICLE TRACKING-PROPOSED.dwg

DESIGN SHEET ARCH D

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AUSTIN
PARKS &
RECREATION
Cultural Places, Natural Spaces
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