



Sunnyvale

SUNNYVALE CIVIC CENTER MASTER PLAN

SMITHGROUP





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EXECUTIVE SUMMARY

The Sunnyvale Civic Center, on the corner of El Camino Real and Mathilda Avenue, is home to the City of Sunnyvale's (City) primary administrative facilities (City Hall), Library, and Department of Public Safety Headquarters. The goals for modernizing the Civic Center are straightforward—to improve access to City services, preserve or enhance current City service levels, and improve technology to expand service capabilities. The Civic Center Master Plan (Master Plan) contains a long-term, multi-phased vision of the entire campus: constructing three new facilities—a City Hall, Department of Public Safety Headquarters, and Library; razing older structures on site, relocating most of the on-grade parking to underground spaces; increasing open space and native landscape; and modernizing the entire campus. During the phased construction, the City prefers to keep the campus in situ with its services functioning at full capacity, and to avoid relocating any employees to temporary facilities.

The County Courthouse parcel (605 W. El Camino Road) is not owned by the city and is not included in the Master Plan.

PHASE 1

The City will implement the Master Plan in several phases, over several decades, to modernize and expand the Civic Center. The following elements will be included in Phase 1:

City Hall: A new four-story, 103,250 square-foot City Hall near the corner of West Olive Avenue and South Mathilda Avenue will be the first building constructed on the campus. The new City Hall will house NOVA Workforce Services, a One Stop Permit Center, City Council Chambers and City staff offices.

Department of Public Safety Headquarters and Addition: A two-story, 11,300-square-foot addition will be constructed adjacent to the existing Department of Public Safety Headquarters building. This addition will relieve overcrowding in the existing building, now 32 years old. Estimated costs for partial renovation of the existing building and construction of the addition are much lower than the alternatives of a full renovation or replacement, but can still satisfy many of the high priority space needs for public safety. The planned addition will provide dedicated space for an Emergency Operations Center and additional space for the crime lab, briefing room, evidence storage and locker rooms.

Site: Following completion of the new City Hall, the existing City Hall, City Hall Annex, City Hall South Annex, and the Sunnyvale Office Center buildings will be demolished. Approximately 6 acres of open space will be created, including an improved pedestrian oriented Olive Avenue, a new civic plaza, an outdoor amphitheater, and passive landscape where the Sunnyvale Office Center currently is located.

The total estimated cost for Phase 1 is \$191 million. Phase 1 will be constructed over 30 months and is projected to begin in spring 2020, with completion projected for the fall of 2022. Future work to follow Phase 1 will be built over multiple phases, beginning with the library.



Full Civic Center Master Plan Vision

SCALE: 1"=200'



Phase 1



City Hall



Public Safety Headquarters + Addition



 CIVIC CENTER



PROCESS

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INTRODUCTION

CONTEXT FOR THE PLAN

The Sunnyvale Civic Center, on the corner of El Camino Real and Mathilda Avenue, is home to the City of Sunnyvale’s (City) primary administrative facilities (City Hall), Library, and the Public Safety Headquarters.

As the population of Sunnyvale has grown, so has the demand for City services and accordingly, the City’s office space needs. Demographic data from 2000 to 2015 shows that Sunnyvale’s population grew by 14 percent, the number of households grew by 8 percent, and the average household size was 2.49. Between 2000 and 2015, nearly 5,000 housing units were built in Sunnyvale; 53 percent of the housing was renter-occupied and 44 percent was owner-occupied. Primarily because of regional job growth trends, the population of Sunnyvale is estimated to reach 178,300 by 2035. The Civic Center facilities have become dated and inefficient, with the buildings ranging between 30 and 60 years old.

In early 2015, the City began an extensive community engagement process to evaluate how the facilities could be renovated or replaced. Through this process, the City developed a Needs Assessment, a Vision Statement, and Success Criteria to help guide master planning efforts.

In 2017, two Civic Center Master Plan (Master Plan) options were developed for building placement, site circulation, parking facilities, and open space elements. In November 2017, the City Council selected Option 1, which has been developed further and is outlined in the following chapters.

PURPOSE OF THE CIVIC CENTER MASTER PLAN

The Master Plan sets the course for future improvements and provides a framework to guide investment and decision-making for the foreseeable future. Although the Master Plan establishes a vision for the future, it also remains intentionally flexible, to accommodate the needs of the City and community as they change over time. Through land use, urban design, and circulation strategies, the Master Plan lays out the roadmap that will transition the existing low-rise, parking lot-oriented complex into a distinctive and community focused campus to better serve Sunnyvale.

The Master Plan includes specific detail about the Phase 1 design of the campus, with the expectation that future phases take on similar character and align with the vision, goals, and success criteria established for the Civic Center.

In Phase 1, the City will replace several single-story buildings with a single multi-story City Hall. This will consolidate numerous City services into a central, easy-to-access location and will free up room on the campus for more usable open space. Phase 1 also will include an addition to the City’s existing Public Safety Headquarter building. This will create a designated and fully operational emergency operations facility that will greatly improve the City’s ability to respond to natural disasters and other emergencies until funding is available for a new facility (as part of a future phase in the Master Plan).

NEEDS ASSESSMENT

Site

- High Percentage of Green Space
- Safe Pedestrian Pathways
- Support a Variety of Community Use and Gathering in Outdoor Space
- Adequate Parking for Facility Usage

Library

- Additional Meeting Space for Small Groups, Programs, and Events
- Bigger and More Robustly Shelved Collections and Areas for Teens, Tweens, and Children
- More Effective Space Layout
- More Robust and Appropriate Technology

City Hall

- Innovative 21st Century Services
- More Effective Space Layout and Allocation
- More Meeting Space
- Improved Security
- More Robust and Appropriate Technology in Council Chambers and Meeting Rooms

Public Safety

- More Effective Space Layout
- Dedicated Space for Emergency Operations Center
- Additional Space for Evidence Storage and Processing
- Upgrade Crime Lab Facilities
- Additional Secure Parking

VISION STATEMENT

The Sunnyvale Civic Center will:

Serve the Community by:
Providing efficient, functional, and flexible facilities to support innovative service delivery and sharing resources to support the community’s needs.

Welcome the Community by:
Reflecting the identity of Sunnyvale and creating an environment that inspires community pride, promotes civic engagement, preserves open space and trees, and offers a wide range of indoor and outdoor services to accommodate the city’s diverse community.

Lead the Community by:
Supporting participatory governance and being a model of fiscal and environmental sustainability.

SUCCESS CRITERIA



Improve the Quality of Services—Lead in New Services Innovations

- Preserve or enhance current city service levels
- Create flexibility for future city needs
- Improve technology to expand service capabilities and improve efficiencies



Show Fiscal Responsibility

- Consider lifecycle costs by balancing ongoing operational/maintenance costs with initial construction costs
- Balance short-term costs with long-term value
- Demonstrate strategic use of land and resources



Be Accessible to All Members of the Community

- Improve access to city services
- Improve connectivity between city services on the civic center campus
- Create an attractive, welcoming, and safe environment for frequent community use



Demonstrate Leadership in Sustainability

- Be a civic model of sustainability
- Reduce water and energy consumption



Increase Usability of Open Space

- Contain a walkable, safe environment
- Maintain a balance between built structures and open space that can accommodate multiple uses by the community, both indoors and outdoors
- Combine active and passive space to meet a range of user needs
- Preserve open space and city ownership of land at the civic center while preserving the community garden function on the civic center campus



Encourage Civic and Community Engagement

- Flexible and adaptable spaces for civic and community use – meeting and gathering space
- Provide cultural and community resources

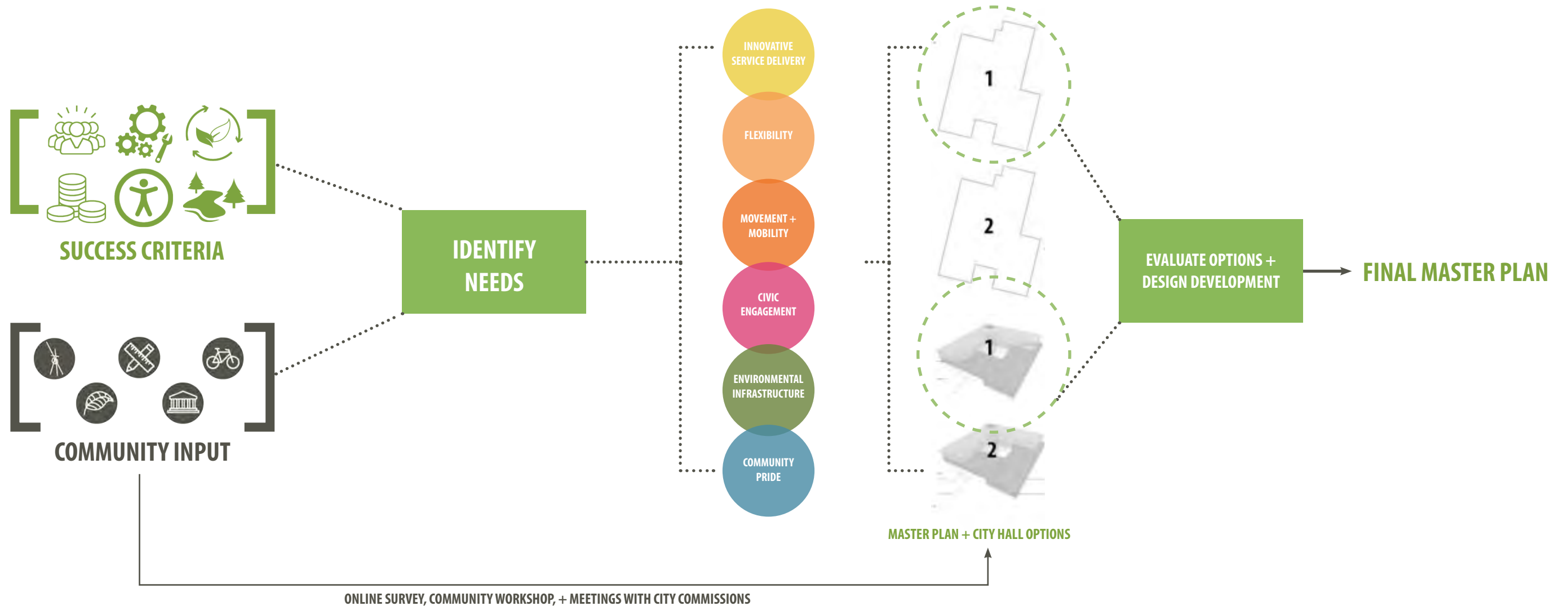
TIMELINE

Community engagement initiated for the Master Plan has been inclusive, comprehensive, consensus-oriented, and a direct reflection of community groups and cultures.

Beginning in 2015, the City engaged various community members to evaluate how Civic Center facilities could be renovated or replaced. Through this process, the City developed a Needs Assessment, Vision

Statement, and Success Criteria. Building on the work completed at the end of 2017, two Civic Center Master Plan options were developed and presented to the public.

After receiving community feedback, holding workshops, and soliciting input at seven City Commission meetings, City Council selected Option 1.

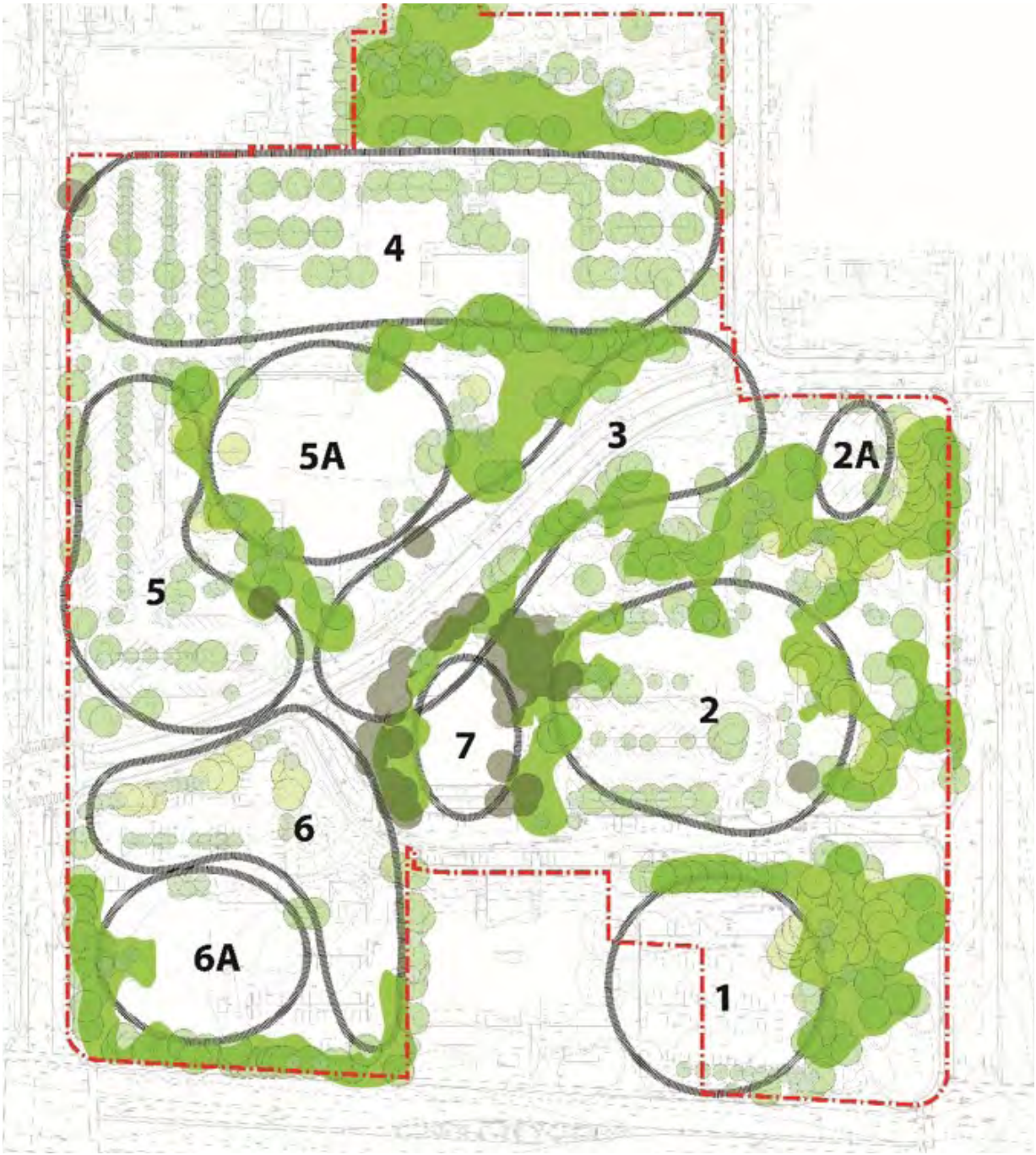


DESIGN DEVELOPMENT

The Civic Center’s trees not only relate to Sunnyvale history and a sense of place for the campus but were a primary driver for design of the Master Plan. A detailed study was developed regarding where to build in order to preserve a high percentage of significant trees.

Other site constraints included maintaining existing building services during construction, building in phases, and retaining the community garden. Ten areas on the campus were identified and ranked as potential locations for the new City Hall, Department of Public Safety Headquarters (DPS) Building Addition, and Library. Multiple iterations tested different combinations and forms, to optimize land use. Through this process, four main options were developed, as shown on the following page.

SITE	CITY HALL	LIBRARY	DPS
1	N	N	Y
2	N	N	Y
2A	Y	N	N
3	Y	N	N
4	N	Y	Y
5	N	N	Y
5A	N	Y	Y
6	N	Y	Y
6A	N	Y	N
7	N	N	N



Buildable Area Diagram

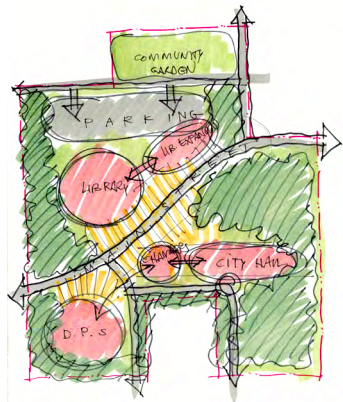
SCALE: 1"=200'

CONCEPT DEVELOPMENT

Based on site opportunities and constraints, the design team developed diagrams and massing studies for Concepts A - D.

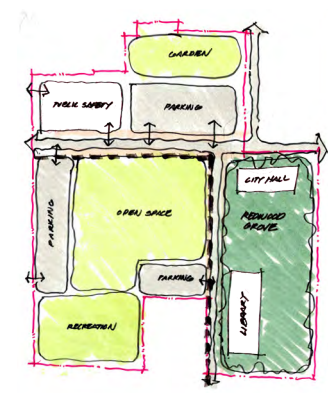
Keeping Olive
Concept A

Create a strong civic campus, centered around a civic plaza, with Olive Avenue to remain



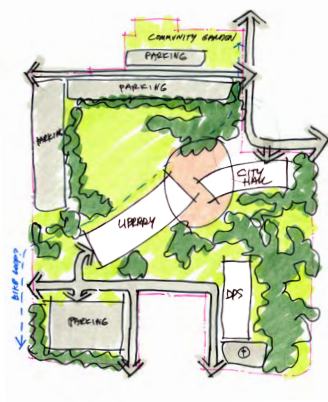
Civic Green
Concept B

Straighten Olive Avenue, reduce vehicular traffic on campus, and focus on a central, green open space



New Olive
Concept C

Remove Olive Avenue and create buildings in its place to draw pedestrian circulation to a large central plaza



Civic Plaza
Concept D

Straighten Olive Avenue and center buildings around a grand civic plaza with open space to the south



MASTER PLAN OPTIONS

Concepts A and C were selected for further development (shown below) as they best met the City’s goals. In September 2017, two Civic Center Master Plan options were presented to the public. At the November 7, 2017 City Council meeting, Option 1 was selected as the preferred alternative for environmental review.

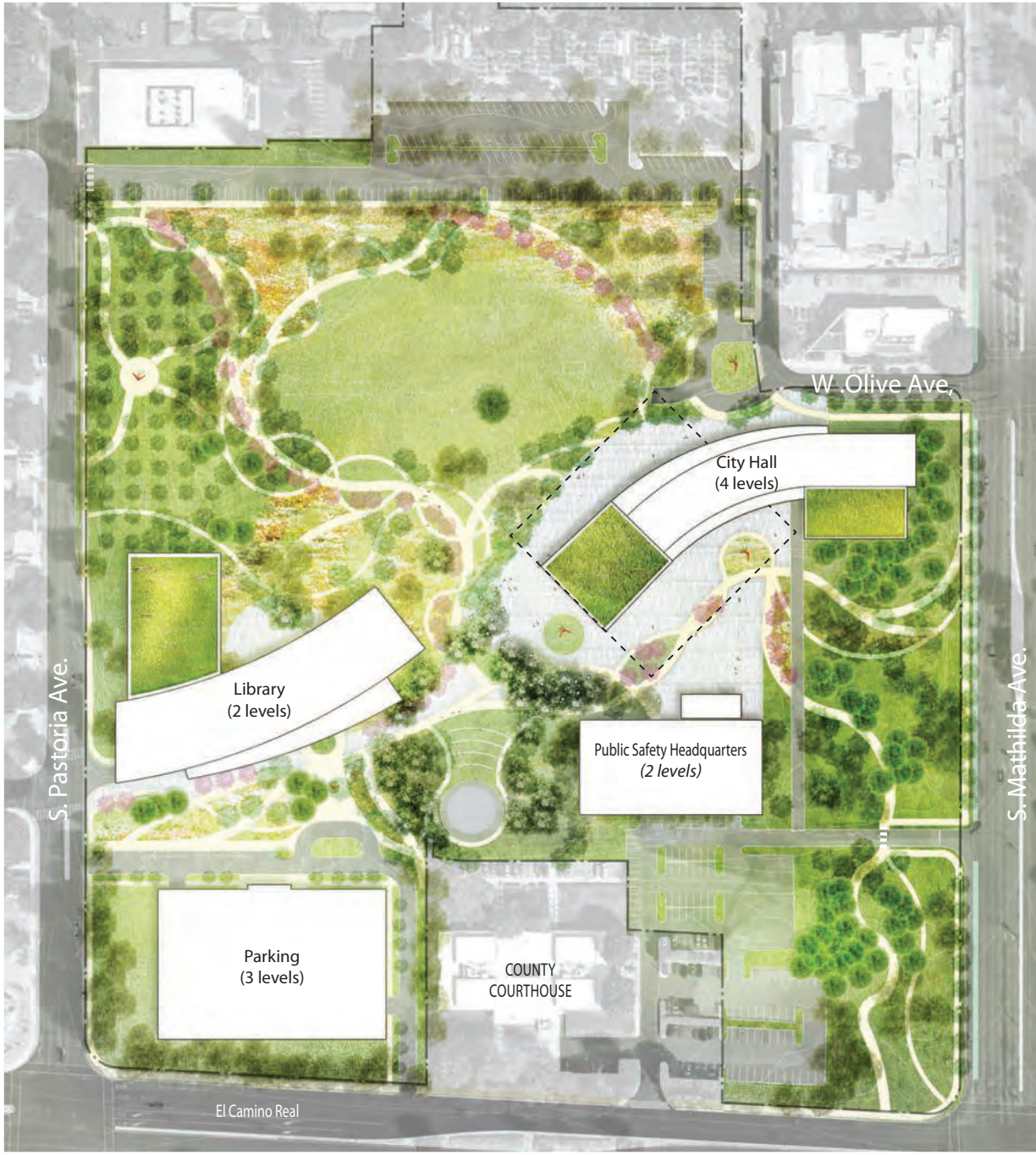
OPTION 1 shows Olive Avenue remaining as a main thoroughfare and rectangular architecture surrounding a plaza.



Option 1

SCALE: 1"=200'

OPTION 2 shows the removal of Olive Avenue and curving architecture along winding campus pathways.



Option 2

SCALE: 1"=200'

CITY HALL OPTIONS

Master planning also included two options for design of the new City Hall, as shown below. At the November 7, 2017 meeting, the City Council selected Option 1.

OPTION 1 features a transparent canopy to accentuate the front entrance and a portion of the building clad in wood. The building maximizes natural light with walls of windows.



Option 1

OPTION 2 places curving architecture along winding campus pathways, to connect the building to future campus development. The clean, elegant design includes a perforated façade with vertical windows.



Option 2

COMMUNITY ENGAGEMENT

OVERVIEW

The primary purpose of the community outreach program was to constructively engage various members of the Sunnyvale community—elected officials, business and neighborhood stakeholders, City Commissions, and others—in developing the Civic Center Master Plan and sharing their visions. This was rooted in the assumption that a successful Master Plan should respond to and reflect, to the extent feasible, the overall vision of the needs of the surrounding community and its stakeholders.

A series of meetings and workshops allowed community members an opportunity to share their insights, observations, concerns, and ideas for the Civic Center campus. Additional outreach included traditional and digital activities, such as press releases, newsletter articles, email updates, and online surveys to reach the greatest number of constituents.



First Community Focus Group Meeting | June 2017



Community Workshop And Vision Session | October 2017

OPEN CITY HALL SURVEY

The Open City Hall Survey was one of several outreach activities that helped inform decisions in developing the Master Plan. This survey and other community engagement activities assisted the City Council in selecting a preferred option. A total of 278 responses were received, with 88 percent from Sunnyvale residents. Examples of the responses are shown below, and a complete list of questions and responses are available online on the Civic Center project page.



Civic Center Master Plan Survey

City Manager Kent Steffens from City of Sunnyvale · 13 Oct

An online survey through Open City Hall was launched today to gather community input on the Sunnyvale Civic Center Master Plan. It shows the current Master Plan alternatives and asks for your opinions about site features you like, and ones you think should be changed.

Here's a link to the survey: <https://www.peakdemocracy.com/5520>

There are also several City Commission meetings coming up when you can see the alternatives presented and provide comments. More information about these public meetings is located on the project website here: <https://sunnyvale.ca.gov/news/displaynew...>

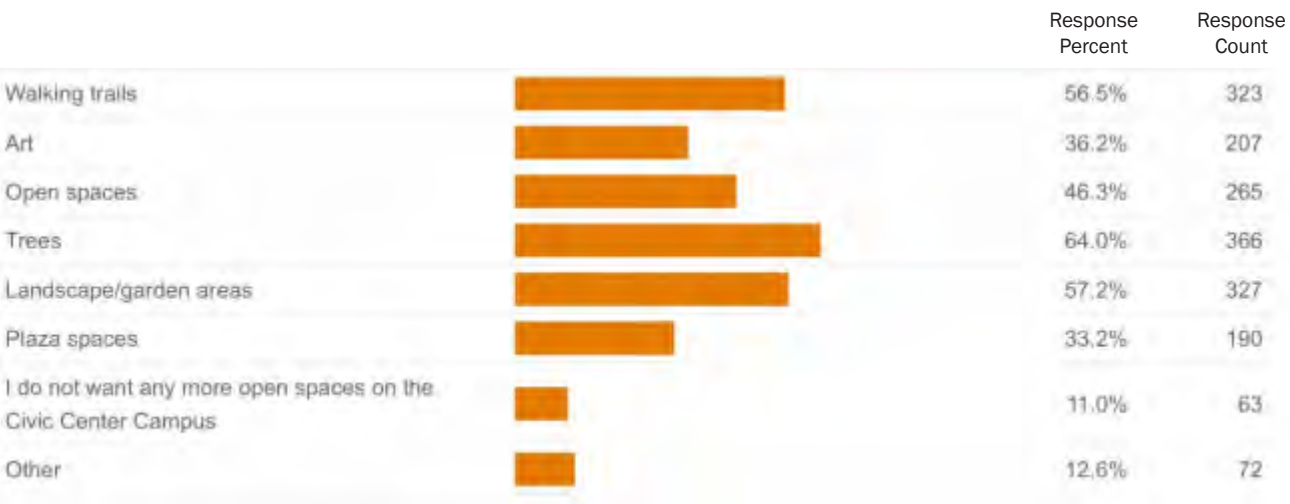
Please feel free to contact me with any questions about the Civic Center Master Plan at ksteffens@sunnyvale.ca.gov

13 Oct · Subscribers of City of Sunnyvale in General

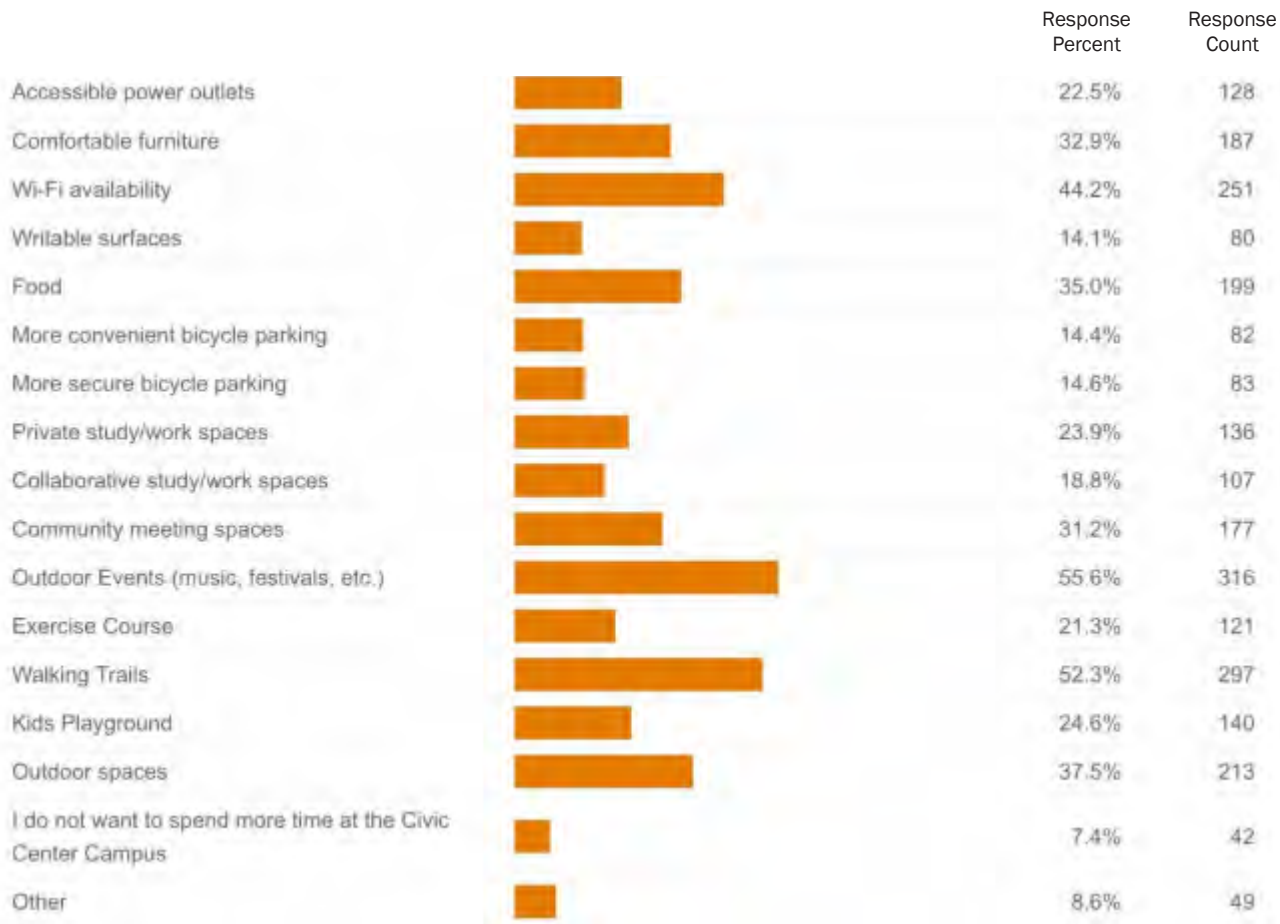
THANK 12 REPLY

'Nextdoor' call for responses

I would like to see more open spaces on the Civic Center Campus that includes _____ (select all that apply)



I might stay on the Civic Center Campus for longer periods or more often if there was more _____ (select all that apply)



CITY BOARDS AND COMMISSIONS FEEDBACK

As part of the community outreach efforts, the City met with the following seven Boards and Commissions to better understand their needs and hear their comments about the two Master Plan options. The top priorities for each City Board and Commission are summarized below.



ARTS COMMISSION

- Include interactive art at the library entry
- Include public art in the amphitheater, preferably from local artists
- Use the parking structure to display art



BICYCLE AND PEDESTRIAN ADVISORY COMMISSION

- Separate bike and pedestrian traffic
- Incentivize biking through visibility and signage
- Consider safety of pedestrians
- Include a play area



HERITAGE PRESERVATION COMMISSION

- Add more landscape to Option 1’s plaza
- Make the walkways more landscape than hardscape
- Warm the design of City Hall



BOARD OF LIBRARY TRUSTEES

- Celebrate diversity with an Asian Garden Community Space
- Consider bus accessibility and parking
- Include safe areas for children to play



PLANNING COMMISSION

- Consider uses for open space that will avoid static space
- Create a City Hall design that is timeless and welcoming
- Consider the impact of traffic on Department of Public Safety emergency access roads



SUSTAINABILITY COMMISSION

- Make the Civic Center campus the center of sustainable innovation for Sunnyvale
- Preserve and protect trees
- Optimize spatial efficiency and flexibility



PARKS AND RECREATION COMMISSION

- Ensure open space has character and is activated
- Create a place to meet and gather
- Prioritize safety and security in proximity of parking areas
- Incorporate existing art with the work of local artists





MASTER PLAN

Master Plan

20

Site Features
Architectural Features
Circulation
Landscape by Ecosystem Type
Land Use

MASTER PLAN

The Civic Center Master Plan is a living plan that provides a vision for the future yet remains intentionally flexible to accommodate change. The Master Plan provides a framework to guide investment and decision-making for the foreseeable future. Thus, it emphasizes strategies and guiding principles that should not change, and it differentiates those items from specific elements and systems that can and should be expected to change in the future. The Master Plan is intended to guide the transition of the existing low-rise, parking lot-oriented complex into a civic campus that is denser, greener, and more efficient, to better serve Sunnyvale.





EL CAMINO REAL

CALIFORNIA
WILDFLOWER TRAIL

SOUTH PASTORIA AVENUE

AMPHITHEATER IN
THE REDWOOD GROVE

ALL AMERICA WAY

OAK WOODLAND
TRAIL

PLAYGROUND

SOUTH PLAZA

PUBLIC LIBRARY

CIVIC PLAZA

DEPARTMENT OF
PUBLIC SAFETY
HEADQUARTERS

REDWOOD
WALK

WEST OLIVE AVENUE

CHARLES STREET

SITE FEATURES

New streetscape, walking paths, and protected bike lanes will improve the overall site circulation and accessibility for bicyclists and pedestrians. The Civic Plaza will create a distinctive and welcoming central gathering space to accommodate a variety of functions and programs. The open space also will include an amphitheater tucked into the existing redwood trees, varied landforms for play and respite, and a children's playground adjacent to the library.

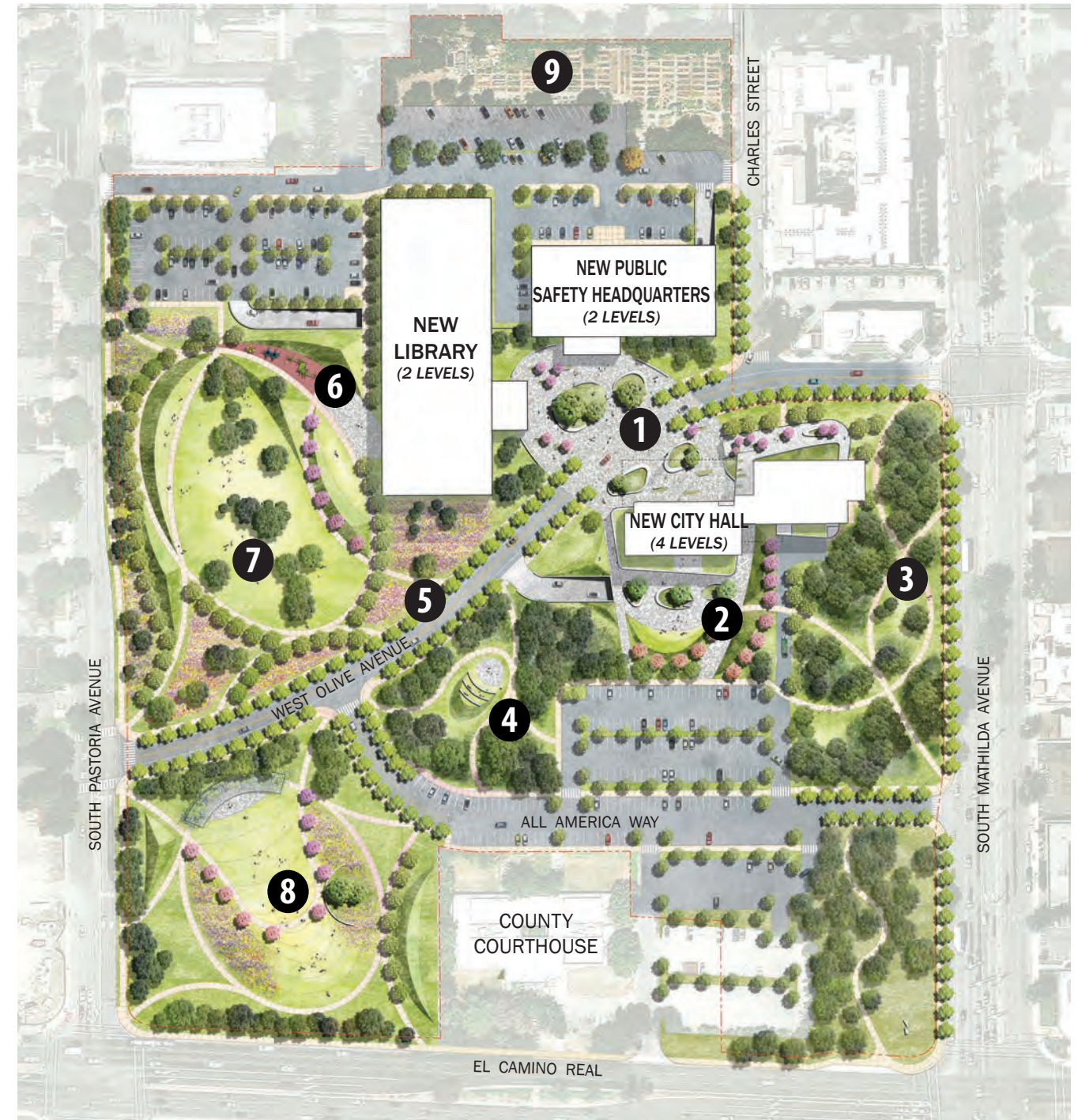
The following features will be constructed as part of the Master Plan.

- 1 CIVIC PLAZA
- 2 SOUTH PLAZA
- 3 REDWOOD WALK
- 4 AMPHITHEATER IN THE REDWOOD GROVE
- 5 WEST OLIVE AVENUE STREETScape
- 6 PLAYGROUND
- 7 OAK WOODLAND TRAIL
- 8 CALIFORNIA WILDFLOWER TRAIL
- 9 COMMUNITY GARDEN (existing to remain)

ARCHITECTURAL FEATURES

A new, four-level City Hall will be the first building completed in Phase 1. Future phases of the Master Plan will include construction of a two-story library and a new Public Safety Headquarters. The full vision Master Plan includes the following buildings:

- New City Hall (4 Levels, 103,250 square feet)
- New Library (2 Levels, approximately 118,000 square feet)
- New Department of Public Safety Headquarters (2 Levels, approximately 65,000 square feet)



Full Civic Center Master Plan Vision

SCALE: 1"=200'



CIRCULATION

Two streets cross the Civic Center campus, West Olive Avenue and All America Way, with the primary vehicular circulation into the campus along West Olive Avenue (see page 100 of the Appendix for further traffic analysis). With the implementation of the Master Plan, West Olive Avenue will remain open to automobiles with protected bicycle lanes, limited street parking, and additional traffic calming methods to increase the safety of pedestrians and encourage pedestrian and bicycle use on the campus.

Adjacent to the Civic Center campus, El Camino Real is the busiest bus corridor in Santa Clara County, carrying nearly 20% of all bus passengers in the County. The Valley Transportation Authority (VTA) Rapid 522 bus line runs every 12 minutes on weekdays and every 15 minutes on weekends.

The Master Plan will enhance the bike and pedestrian connections to the surrounding community. Pedestrian activity will be encouraged by the variety of amenities, opportunities for activities, and places for respite. Trees for shade and seating opportunities along sidewalks, paths, plazas, and green roofs will provide visitors with opportunities to enjoy the pedestrian experience in a comfortable way.

PARKING COUNT

Surface Parking:	500 spaces
Below Grade City Hall Parking:	100 spaces
Below Grade City Hall Extension:	100 spaces
Below Grade Library Parking:	140 spaces
Below Grade Public Safety Parking:	70 spaces

Total Parking Count: 910 spaces

KEY

DROP OFF

ENTRY

PEDESTRIAN

VEHICULAR

SERVICE

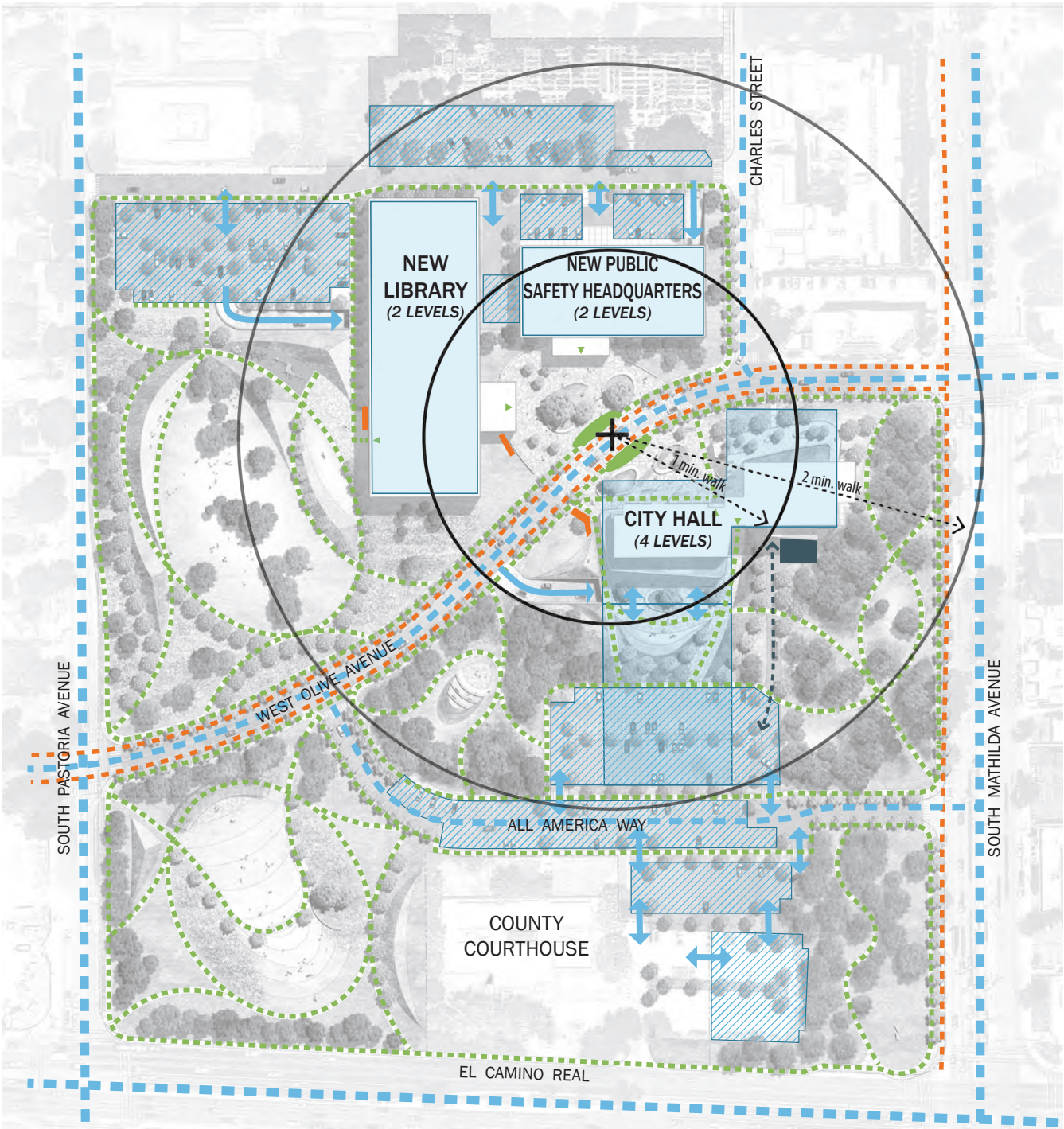
BIKE LANE

BIKE PARKING

SURFACE PARKING

BELOW GRADE PARKING

SERVICE AREA



Circulation Diagram

LANDSCAPE BY ECOSYSTEM TYPE

Drawing on the beauty of California oak woodlands, the Master Plan design reintegrates oaks and other native vegetation on the campus as well as enhances and preserves the existing redwood trees. Areas have also been identified for native wildflowers and grasses to add color, texture, and variety.

Identifying and specifying zones for ecosystems throughout the campus will highlight the diversity of California's natural landscapes. California native, drought-tolerant species have been selected when possible in an effort to reduce site maintenance and increase native wildlife habitats. (see page 61 of the Appendix for a complete list of the plants to be used in each ecosystem type).

KEY

- REDWOOD
- OAK WOODLAND
- NATIVE WILDFLOWERS AND GRASSES



Landscape By Ecosystem Type Diagram

LAND USE

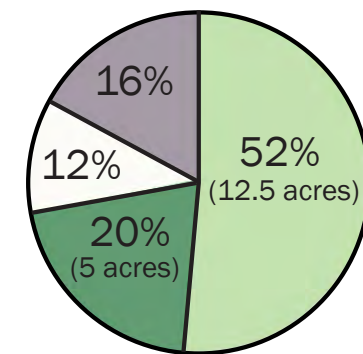
Surface parking on the campus will be reduced and building services will be consolidated into a smaller overall footprint, allowing for 72% (17.5 acres) of the campus to be open space.

The envisioned campus will contain both active, programmed open space—the civic plaza, the amphitheater in the redwood grove, a children’s playground—as well as passive open space—walking trails, the existing redwood grove, and the central oak woodland walking path.

KEY

- PASSIVE OPEN SPACE
- ACTIVE OPEN SPACE
- SURFACE PARKING
- BUILDING FOOTPRINT

SUMMARY



Land Use Diagram

SCALE: 1"=200'





PHASE 1

Phase 1 28

Site Features
Architectural Features
Circulation

Site Features 34

Civic Plaza
South Plaza
Redwood Walk
West Olive Avenue Streetscape
Amphitheater in the Redwood Grove

Architectural Features 40

City Hall
City Hall Ground Floor Plan
City Hall Typical Office Floor Plan
Department of Public Safety (DPS) Addition and Tenant Improvement (T.I.)
DPS Addition and T.I.
DPS Addition and T.I. Ground Floor Plan
DPS Addition and T.I. Second Floor Plan

PHASE 1

The City will implement the Master Plan in several phases, over several decades, to modernize and expand the Civic Center. The following elements will be included in Phase 1:

City Hall: A new four-story, 103,250 square-foot City Hall near the corner of West Olive Avenue and South Mathilda Avenue will be the first building constructed on the campus. The new City Hall will house NOVA Workforce Services, a One Stop Permit Center, City Council Chambers and City staff offices, and will feature a large solar canopy to help power the building.

Department of Public Safety Headquarters and Addition: A two-story, 11,300-square-foot addition will be constructed adjacent to the existing Department of Public Safety Headquarters building. This addition will relieve overcrowding in the existing building, now 32 years old. Estimated costs for partial renovation of the existing building and construction of the addition are much lower than the alternatives of a full renovation or replacement, but can still satisfy many of the high priority space needs for public safety. The planned addition will provide dedicated space for an Emergency Operations Center and additional space for the crime lab, briefing room, evidence storage and locker rooms.

Site: Following completion of the new City Hall, the existing City Hall, City Hall Annex, City Hall South Annex, and the Sunnyvale Office Center buildings will be demolished. Approximately 6 acres of open space will be created, including an improved pedestrian oriented Olive Avenue, a new civic plaza, an outdoor amphitheater, and passive landscape where the Sunnyvale Office Center currently is located.





EXISTING PUBLIC
SAFETY HEADQUARTERS

DPS ADDITION

EL CAMINO REAL

COUNTY
COURTHOUSE

ALL AMERICA WAY

AMPHITHEATER IN
THE REDWOOD GROVE

EXISTING LIBRARY

SOUTH PASTORIA AVENUE

SOUTH PLAZA

CIVIC PLAZA

WILDFLOWER
FIELD

REDWOOD
WALK

WEST OLIVE AVENUE

CHARLES STREET

SITE FEATURES

The following site features will be constructed as part of Phase 1.

- 1 CIVIC PLAZA
- 2 SOUTH PLAZA
- 3 REDWOOD WALK
- 4 AMPHITHEATER IN THE REDWOOD GROVE
- 5 WEST OLIVE AVENUE STREETScape
- 6 WILDFLOWER FIELD

ARCHITECTURAL FEATURES

As the first building to be completed as part of the Master Plan, the City Hall design is modern with a bold and iconic form that speaks to the character of the community. The existing Department of Public Safety building will be renovated and an addition will be constructed adjacent to the existing Department of Public Safety building to meet current needs.

- New City Hall (4 Levels, 103,250 square-feet)
- Department of Public Safety Addition (2 Levels, 11,300 square-feet)



Phase 1 Site Plan

SCALE: 1"=200'

CIRCULATION

During Phase 1, the existing surface parking lots north of West Olive Avenue will remain. Parking south of Olive Avenue will be reconfigured slightly to make way for the new City Hall and the Department of Public Safety Addition. The Department of Public Safety's secure parking and drives will be maintained.

An underground parking garage with 100 spaces will be constructed beneath the new City Hall, accessible from Olive Avenue.

The designated bike lanes will be completed to connect the campus to the City's bicycle network, and the Civic Plaza will include a drop-off zone for City Hall visitors.

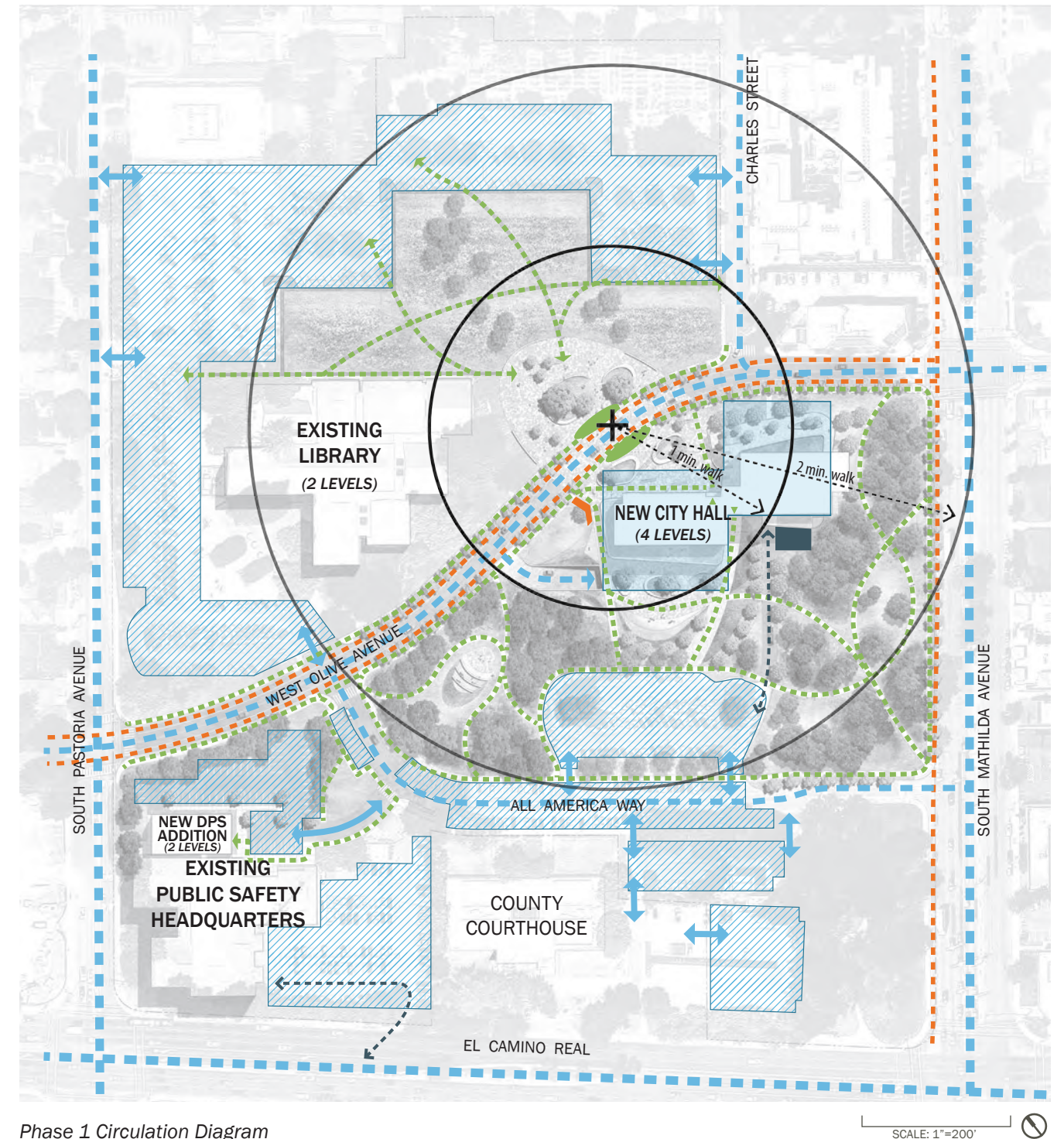
PARKING COUNT

Surface Parking: 860 spaces
Below Grade Parking: 100 spaces

Total Parking Count: 960 spaces

KEY

-  DROP OFF
-  ENTRY
-  PEDESTRIAN
-  VEHICULAR
-  SERVICE
-  BIKE LANE
-  BIKE PARKING
-  SURFACE PARKING
-  BELOW GRADE PARKING
-  SERVICE AREA





View Of Civic Plaza and Public Roof Terrace



View Of South Plaza, Green Roof, and Staff Roof Terrace

SITE FEATURES

CIVIC PLAZA

The Civic Plaza will connect the new City Hall with the future Public Safety Headquarters and Library, creating a place for the community to gather. The plaza is designed to prioritize safe pedestrian movement across the campus and slow vehicular traffic. Multiple seating options including tables and chairs as well as raised planters and seat walls will create spaces for individuals and small groups during day-to-day use. The Civic Plaza, when used in its entirety, can also accommodate large community functions and special events. From the plaza, a glass curtain wall will reveal the transparency of City Hall; the overhang will extend into the plaza, creating shade and giving the space a porch-like feel. Outdoor stairs will connect the plaza to the second floor green roof of City Hall, the One Stop Permit Center, and City staff offices.



BENCH WITH PLANTER



SEAT WALL PLANTERS



SEAT WALL PLANTERS





SEAT WALL PLANTERS

SHADED LANDFORM



SOUTH PLAZA

The South Plaza will not be just a pass-through on the way from the parking lot to City Hall. As the southern gateway to City Hall, the plaza welcomes City employees and visitors alike, offering places to sit and enjoy lunch or work remotely. Similar to the civic plaza, tables and chairs and planter walls will provide seating.

A large landform south of the plaza will create a visual and noise buffer from the parking and offer a place for lounging and relaxation. The South Plaza also will connect to the Redwood Walk and the Amphitheater in the Redwood Grove, encouraging movement throughout the campus.

REDWOOD WALK

Lined with mature redwood trees, the Redwood Walk will offer respite and shade to visitors. The walk will connect the campus to the south, as a passageway to City Hall. Seating has been included in the design for a peaceful and reflective space.



DENSE CANOPY



SEATING ALONG REDWOOD WALK



GATEWAY TO CAMPUS



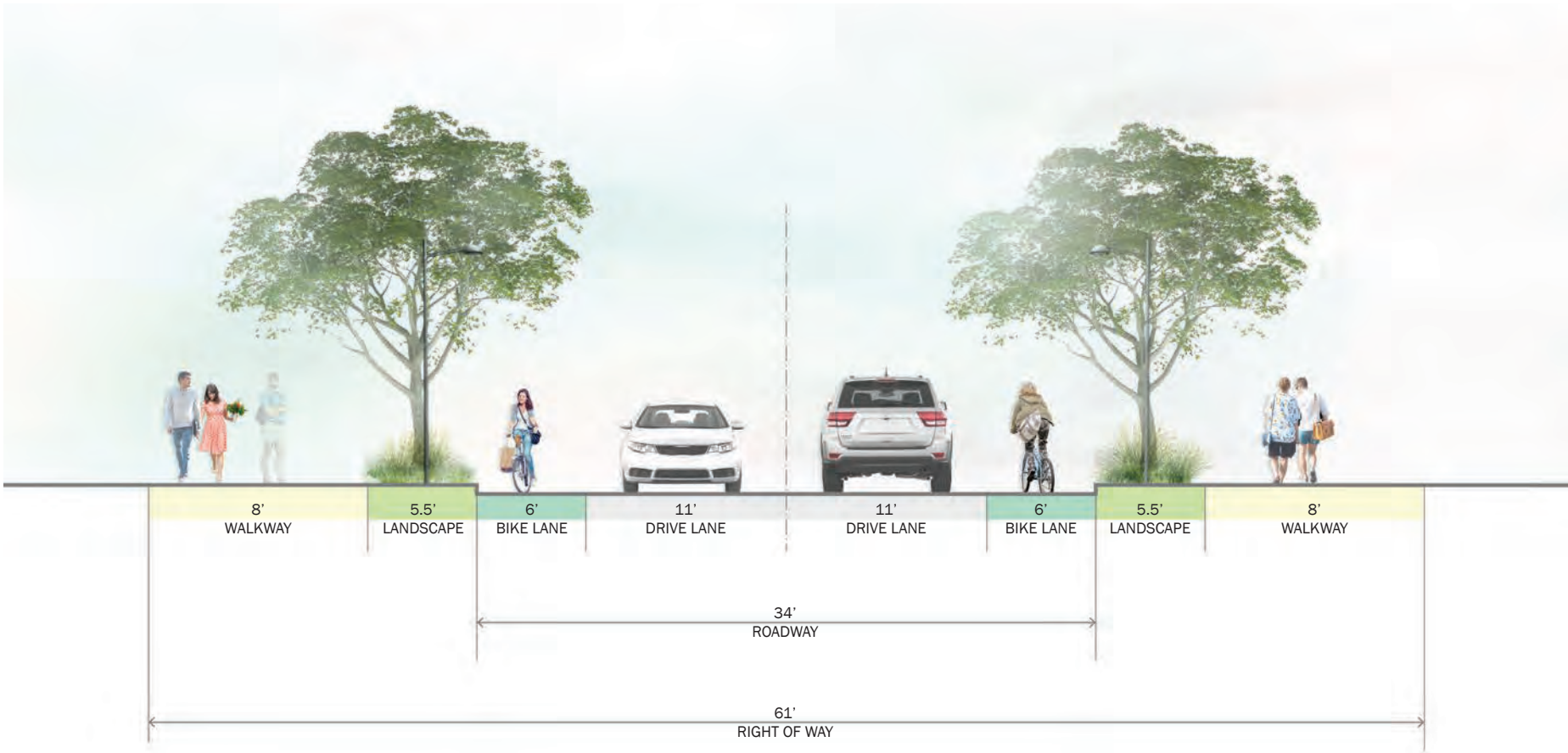


WEST OLIVE AVENUE STREETSCAPE

West Olive Avenue runs through the campus and will be enhanced to provide a designated bike lane, a landscape buffer, and a pedestrian walkway.

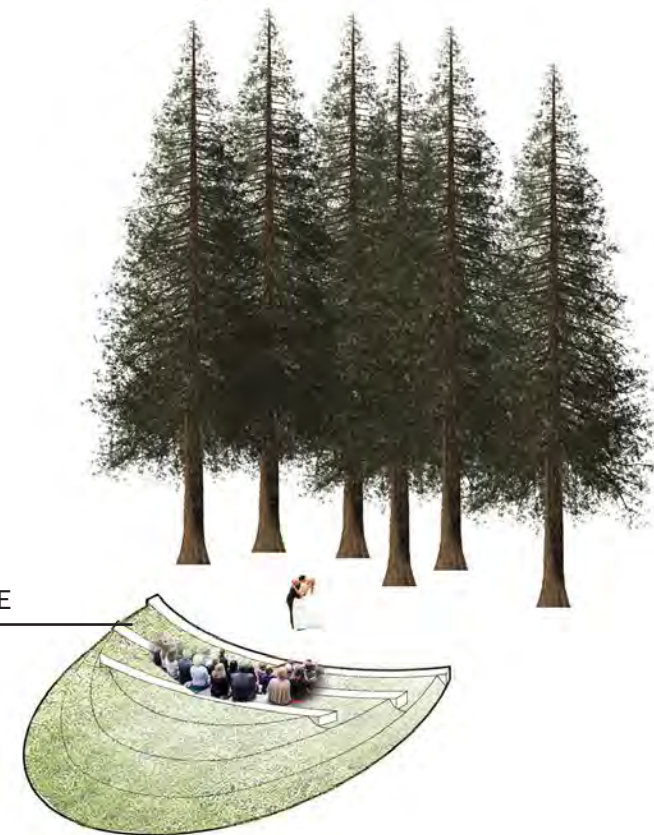
A pedestrian drop-off zone will be accessible in both directions in the Civic Plaza.

Trees on both sides of the street will provide shade for pedestrians.





PERFORMANCE SPACE

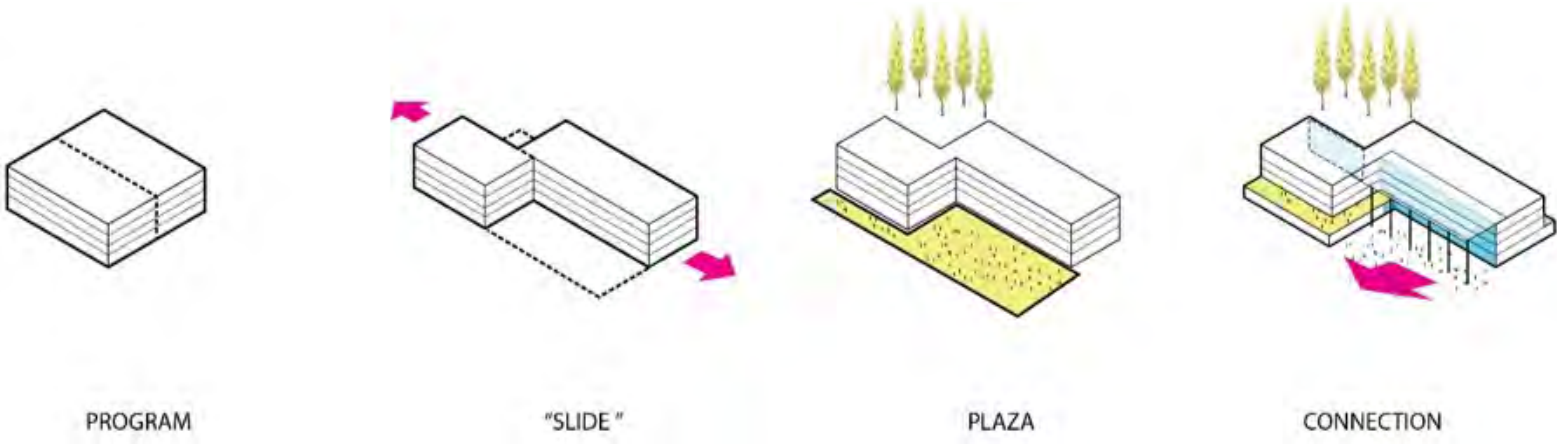


AMPHITHEATER IN THE REDWOOD GROVE

Nestled among the mature redwoods, the Amphitheater will be a place for concerts, performances, and special events. Seats will be carved into the landform to provide three levels of seating.

ARCHITECTURAL FEATURES

CITY HALL



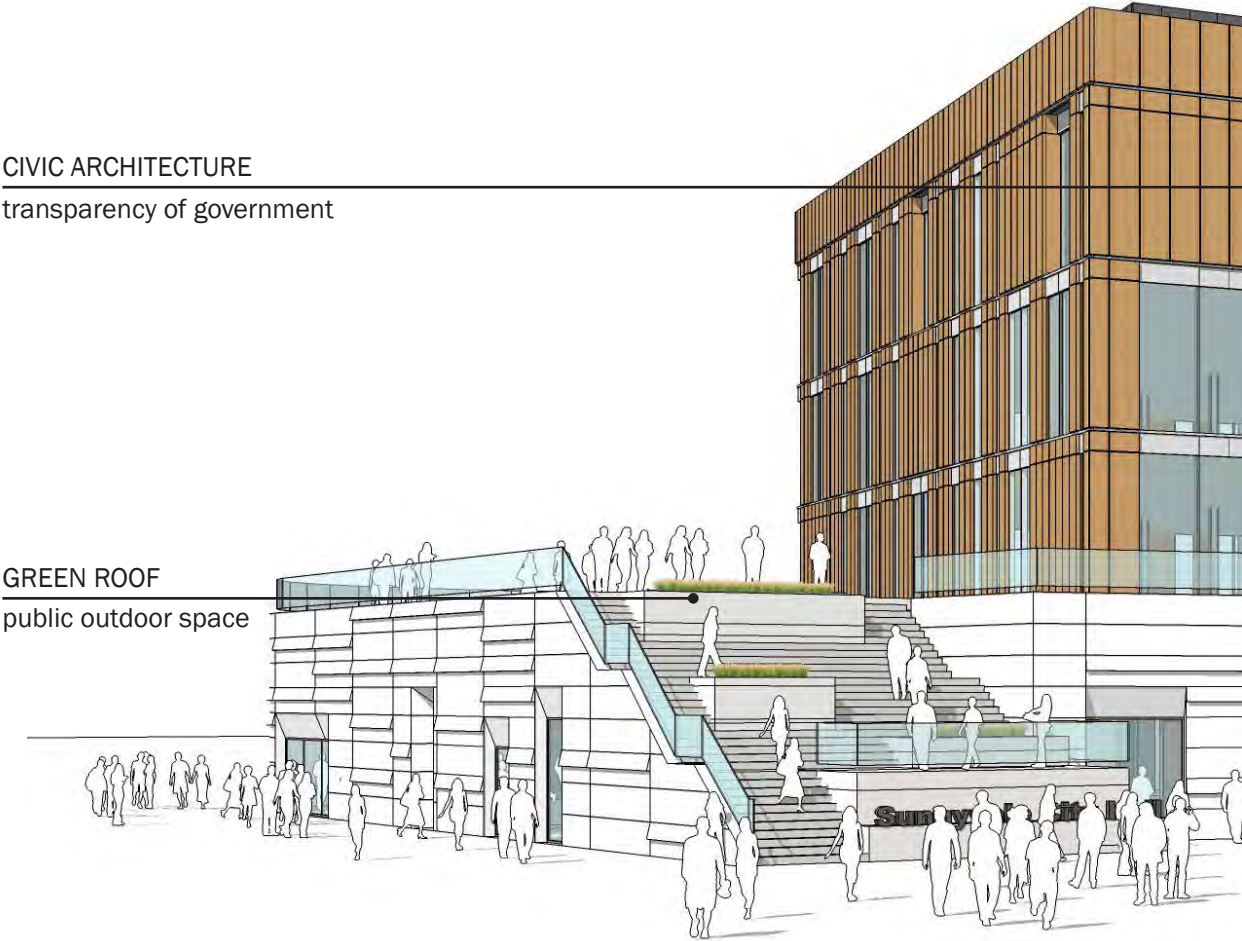
Consolidating City services into one location presents many key advantages. The new City Hall will welcome the community not only through transparency, materials, and scale, but also through the building uses and functions. The new City Hall will offer spaces for meeting and gathering which are intended to be accessible to the community at night and on weekends. There will be places for protection from sun or inclement weather, with these spaces transitioning from open and airy landscapes to enclosed environments. City staff will be able to provide service from a central location and demonstrate to the public that the government is working for its citizens.

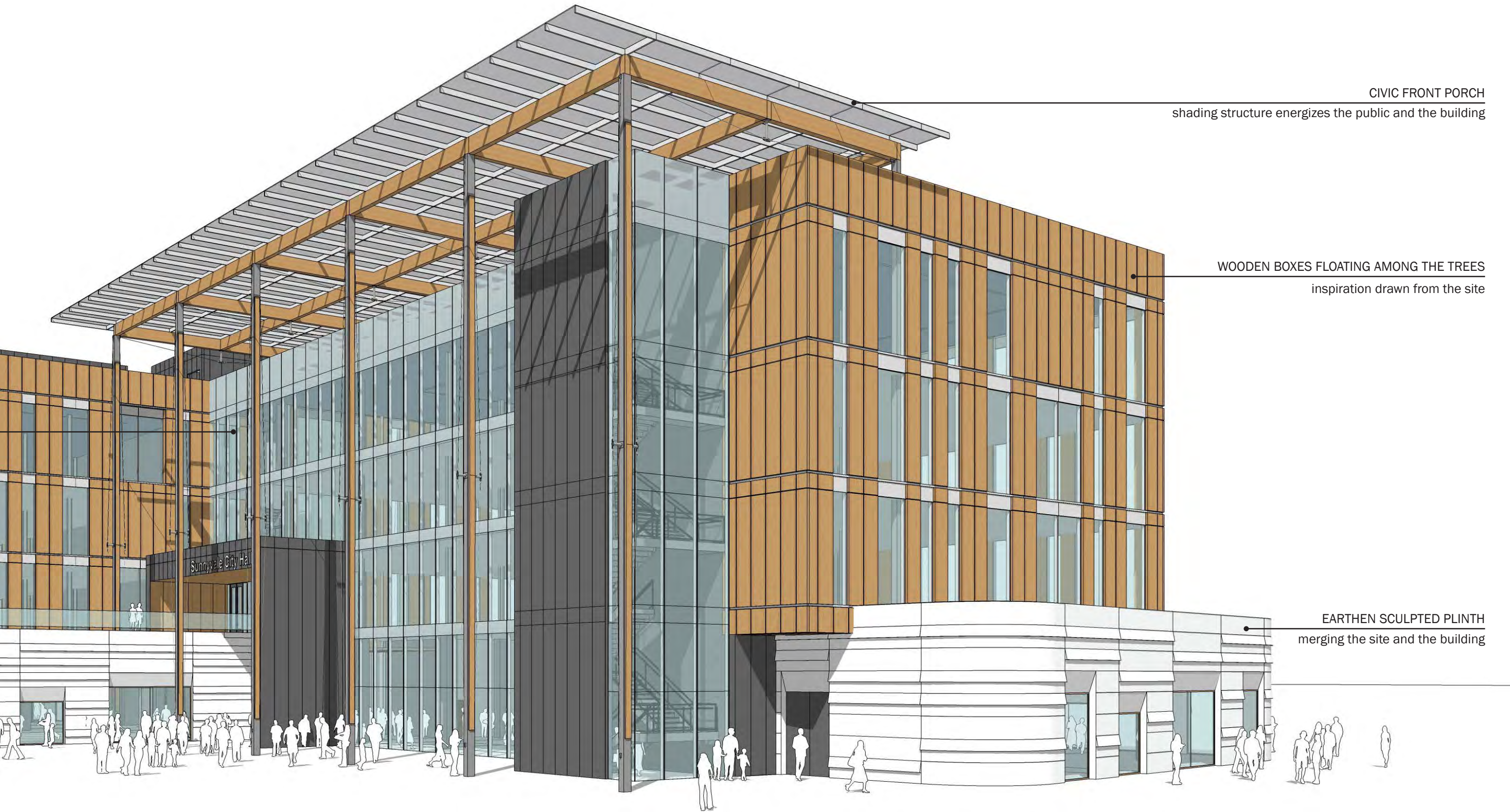
The design of the new City Hall is rooted in the principles of civic architecture, reflecting transparency of government and a place for people to gather. The design is modern with a bold and iconic form that speaks to the character of the community. The overall building concept plays off of civic architecture ideals and grounds the building with a strong foundation. The architecture relates to being grounded because the base has texture, shade, and shadow, yet the building appears to look forward to a technology-driven future, a connection that relates to the dichotomy of heavy and light. Wooden boxes float above this strong base and respond to the surrounding stands of mature trees. These wooden boxes become treehouses floating in the canopy of the trees, offering an inspiring setting and beautiful views. This new design also re-interprets the traditional civic architecture elements of steps, columns, and a front porch. The way that the steps lead to the second level with greenery and usable space caters to the interests, values, and goals expressed by community members for sustainability and green roofs.

The two building halves will be clad in a wood panel system, pulling apart in the center. Transparency will be demonstrated physically by the split between the two towers, and the broad porch overhanging the Civic Plaza is designed to be welcoming. The main entrance and connection of the two wings is glass. The visual continuity through the building and to the site beyond creates a strong connection between City Hall and the surrounding site. The floorplan is flexible to accommodate departments that grow and shrink over time. Because most people coming to City Hall will be using the services of the One Stop Permit Center on the second floor, the outdoor roof terrace will become an extension of the Civic Plaza as a gathering or waiting area. The new City Hall will also be a shining example for all future Sunnyvale buildings with regards to energy use and water efficiency, with a goal to achieve the U.S. Green Building Council's LEED Platinum certification.

CIVIC ARCHITECTURE
transparency of government

GREEN ROOF
public outdoor space





CIVIC FRONT PORCH

shading structure energizes the public and the building

WOODEN BOXES FLOATING AMONG THE TREES

inspiration drawn from the site

EARTHEN SCULPTED PLINTH
merging the site and the building



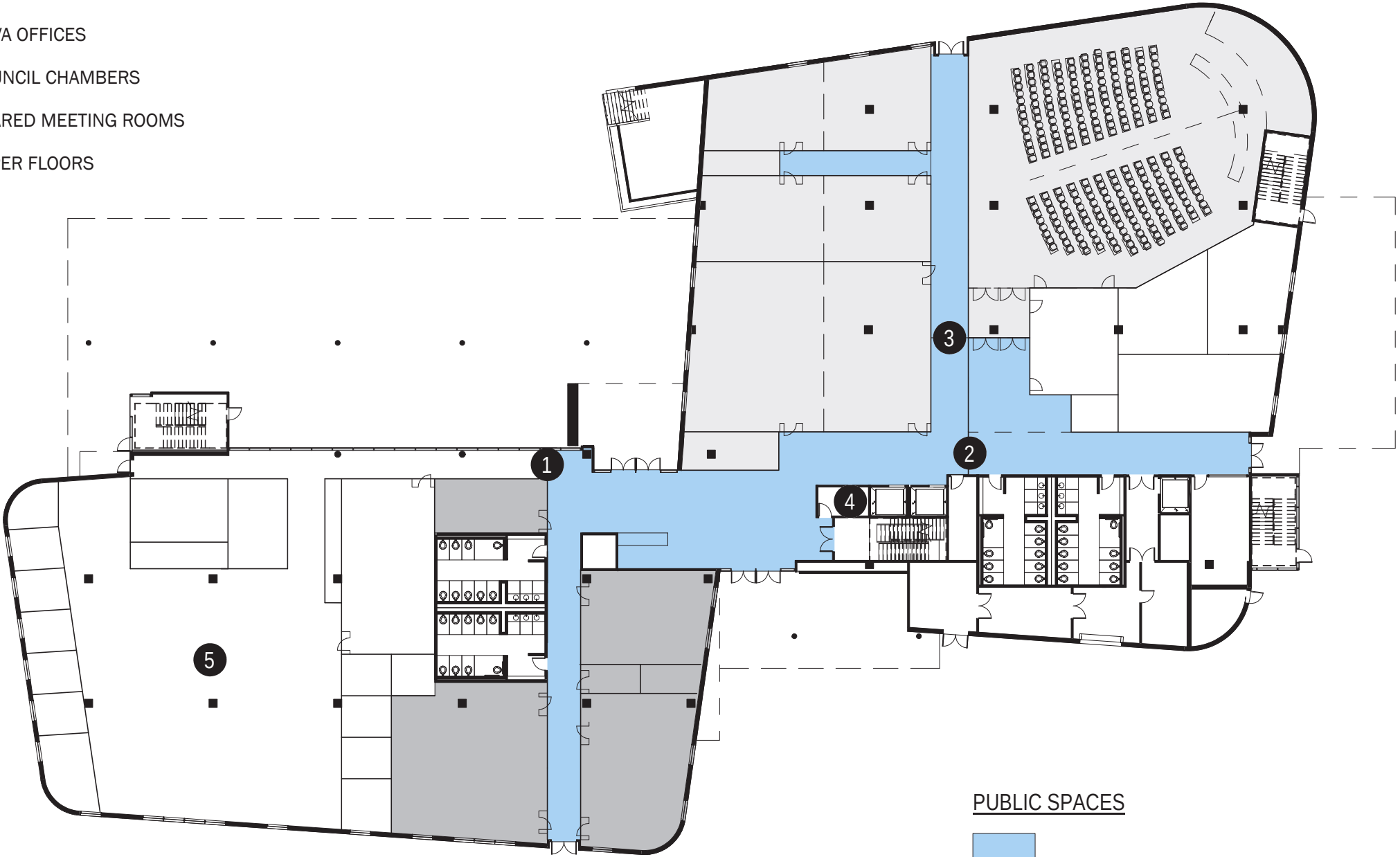
View Of City Hall From The Civic Plaza



View Of City Hall From Mathilda Ave.

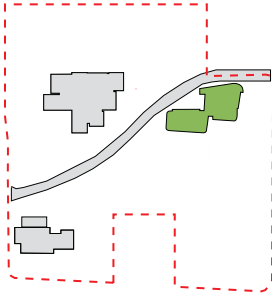
CITY HALL GROUND FLOOR PLAN

- 1 SECURE ACCESS TO NOVA OFFICES
- 2 SECURE ACCESS TO COUNCIL CHAMBERS
- 3 SECURE ACCESS TO SHARED MEETING ROOMS
- 4 SECURE ACCESS TO UPPER FLOORS
- 5 NOVA OFFICE



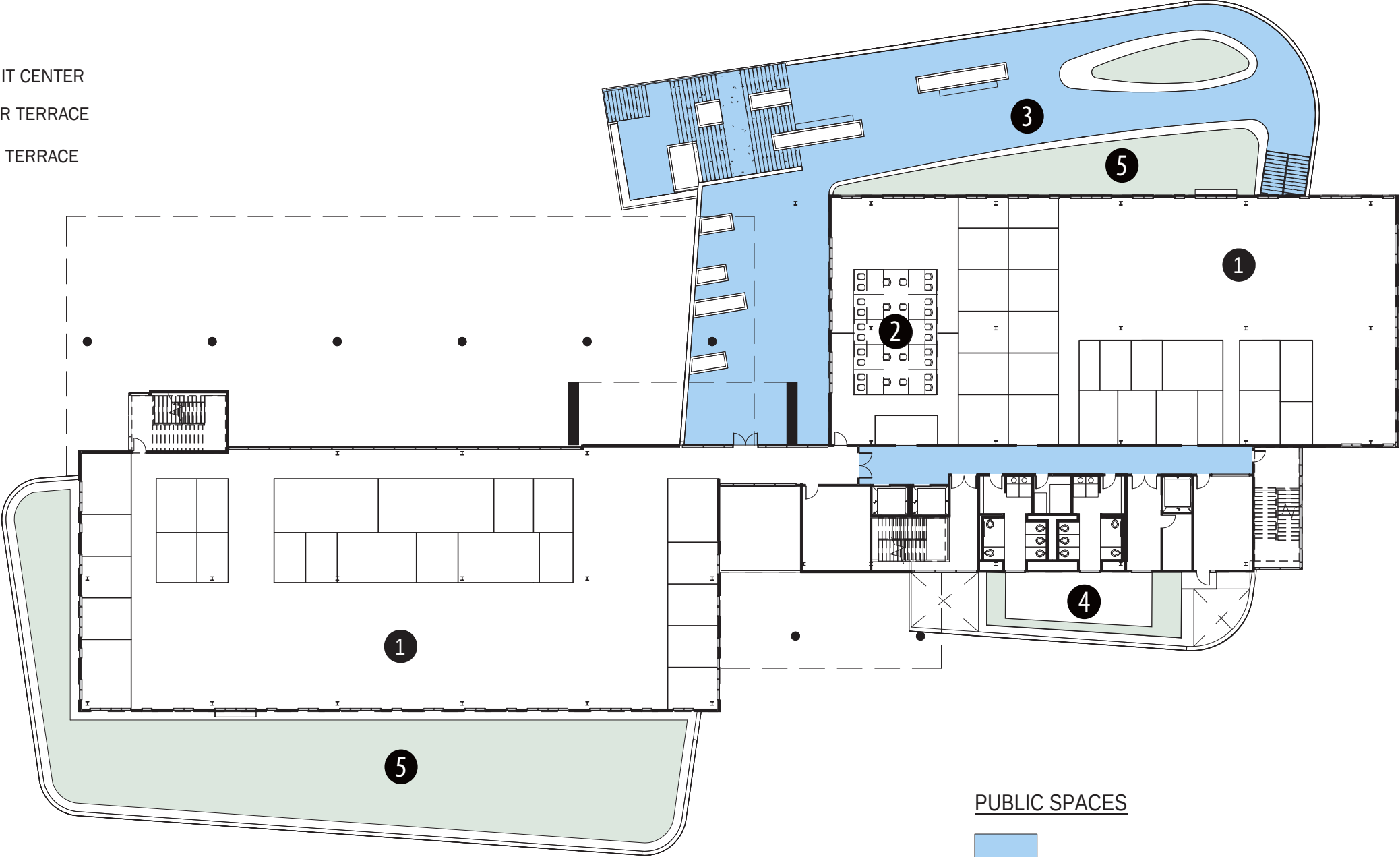
PUBLIC SPACES

- PUBLIC CIRCULATION
- PUBLIC MEETING ROOMS
- NOVA MEETING ROOMS



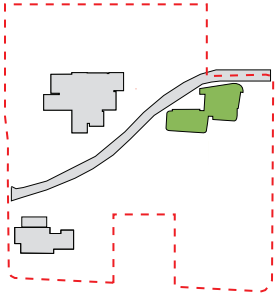
CITY HALL LEVEL TWO PLAN

- 1 OFFICE
- 2 ONE STOP PERMIT CENTER
- 3 PUBLIC OUTDOOR TERRACE
- 4 STAFF OUTDOOR TERRACE
- 5 GREEN ROOF



PUBLIC SPACES

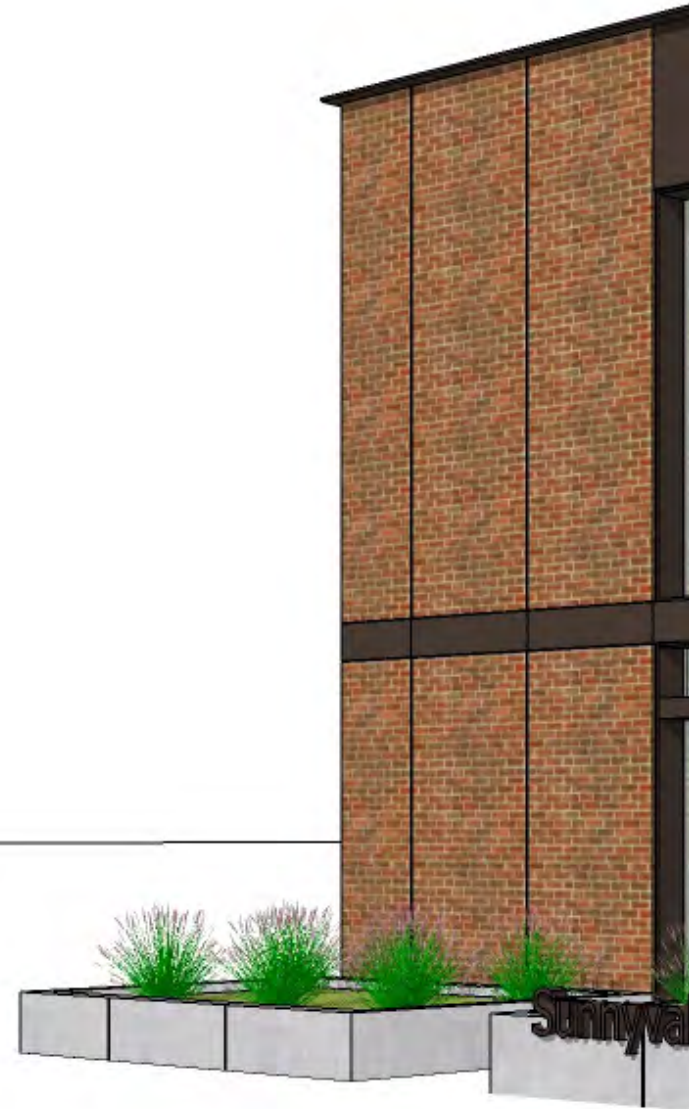
- PUBLIC CIRCULATION
- GREEN ROOF PLANTING



PUBLIC SAFETY HEADQUARTERS ADDITION

The initial needs assessment planning work helped to identify the many improvements required to support public safety services. The phased Master Plan is focused on how to meet the most urgent needs first, and then establish a long-term plan to replace or fully renovate and expand the Public Safety Headquarters.

A high priority is to create a dedicated space for the City's Emergency Operations Center (EOC). The current EOC in the building is a training and meeting space, and it is not configured as an EOC until an emergency occurs. Extra phones, computers, maps, and emergency supplies must be set up by staff arriving to manage the emergency. Having a dedicated EOC with better technology will make Sunnyvale's City government vastly more prepared for the next emergency. The best location for a dedicated EOC space was determined to be an 11,300 square-foot addition to the north side of the existing Public Safety Headquarters.





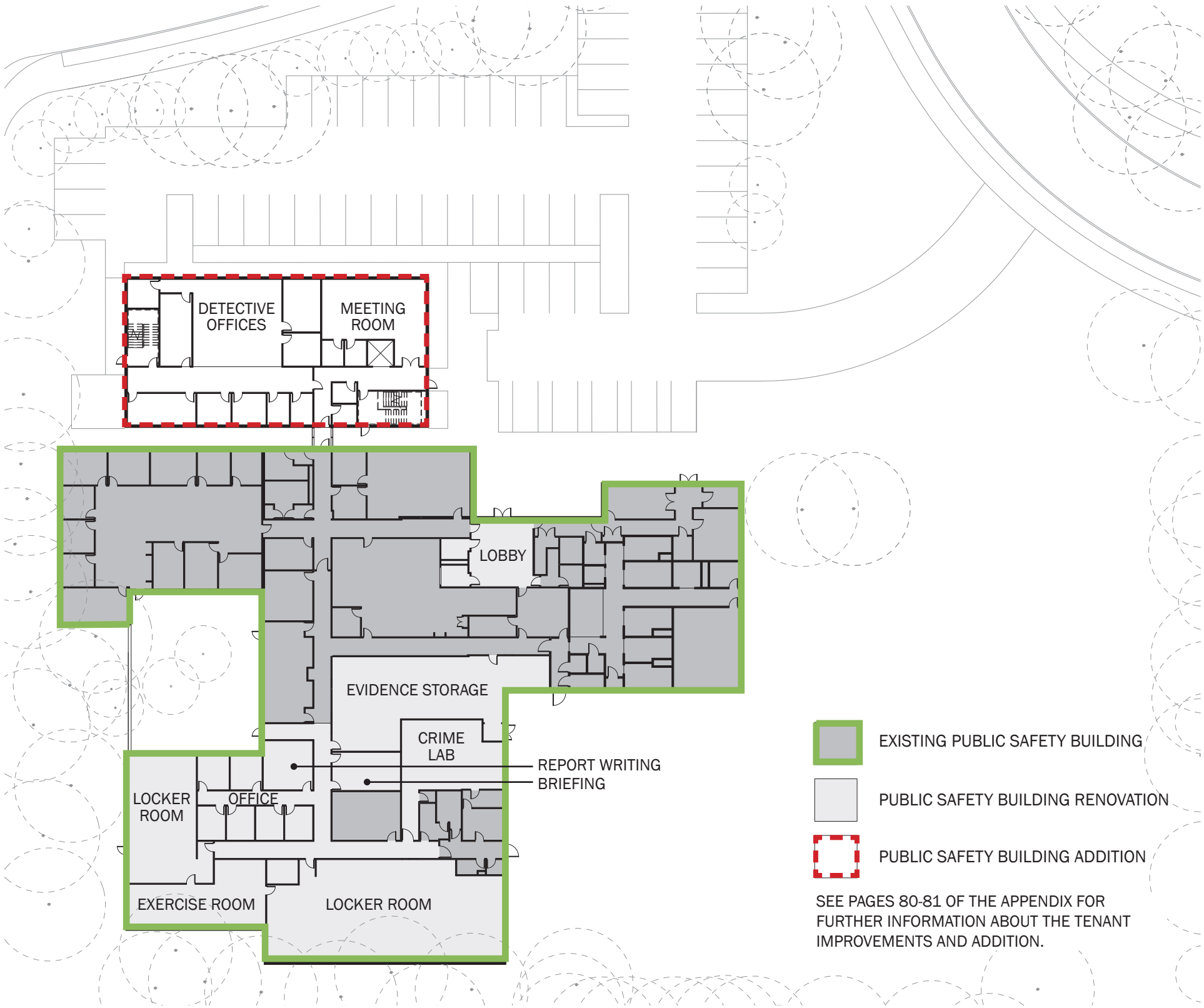
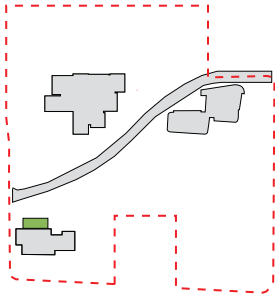


View North Of Department Of Public Safety Addition



View Of Department Of Public Safety Addition

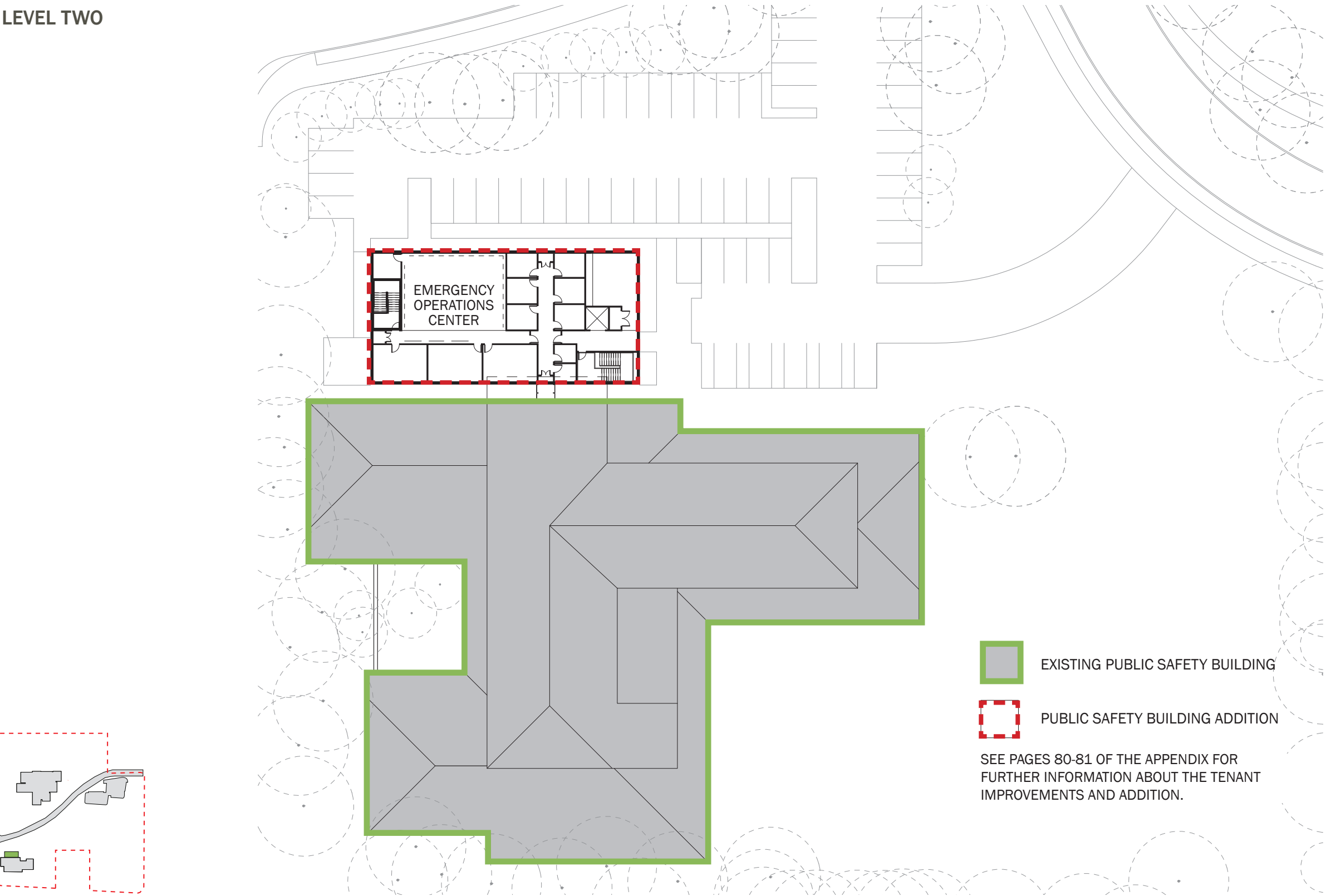
DPS ADDITION AND TENANT IMPROVEMENTS
GROUND FLOOR



- EXISTING PUBLIC SAFETY BUILDING
- PUBLIC SAFETY BUILDING RENOVATION
- PUBLIC SAFETY BUILDING ADDITION

SEE PAGES 80-81 OF THE APPENDIX FOR FURTHER INFORMATION ABOUT THE TENANT IMPROVEMENTS AND ADDITION.

DPS ADDITION AND TENANT IMPROVEMENTS
LEVEL TWO







APPENDIX

Phase 1 Details 54

Design and Construction Schedule
Cost Estimate
Construction Staging
Materials

City Hall Details 66

Workplace Strategy
Floor Plans
Elevations
Perspective Views

Public Safety HQ Addition Details 80

Floor Plans
Elevations

Sustainability 85

Sustainable Site Design
Path to LEED Platinum
LEED Scorecard
Path to Net Zero Energy
Lifecycle Costs

Site Analysis and Research 91

Acknowledgments | Project Team 102

PHASE 1 DETAILS

DESIGN AND CONSTRUCTION SCHEDULE

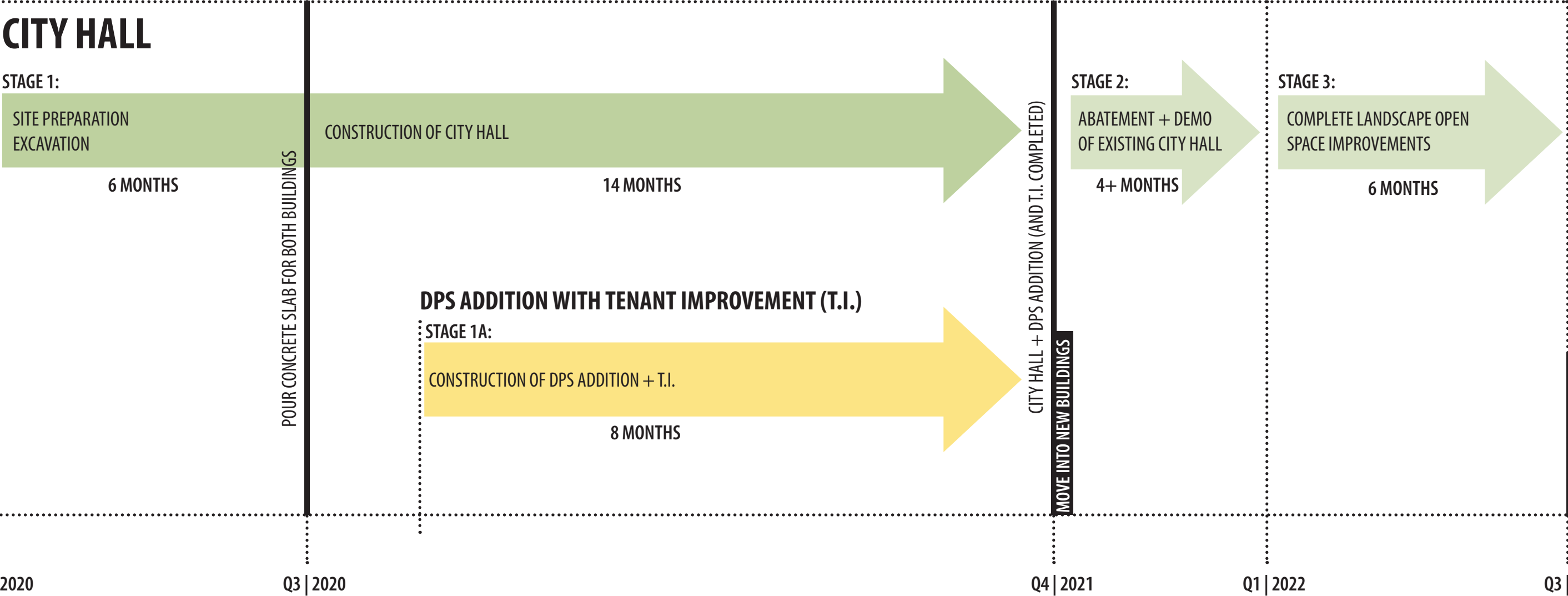
To maintain services and spread out costs over time, the City plans to build the new Civic Center in three phases. Planned construction for Phase 1 includes a new LEED Platinum-certified City Hall with underground parking, Olive Avenue streetscape improvements, open space improvements including a new Civic Plaza, and an 11,300-square-foot Department of Public Safety Headquarters building addition.

Phase 1 will be constructed over 30 months, projected to begin in spring 2020. Future work will be built over multiple phases, beginning with the library. The following diagrams show the proposed design and construction schedules for Phase 1, based on scope of work.

PHASE 1 DESIGN SCHEDULE

3 MONTH	SCHEMATIC DESIGN	NOV'18	→	JAN'19	+/- 12-16 WEEKS
1 MONTH	REVIEW	FEB'19			
4 MONTH	DESIGN DEVELOPMENT	MAR'19	→	JUN'19	+/- 16 WEEKS
1 MONTH	REVIEW	JULY'19			
5 MONTH	CONSTRUCTION DOCS	AUG'19	→	DEC'19	+/- 20 WEEKS
3 MONTH	BID	JAN/FEB/MAR'20			+/- 3 MONTHS
	CONSTRUCTION ADMINISTRATION	APR'20	→	OCT'22	+/- 30 MONTHS

PHASE 1 CONSTRUCTION SCHEDULE



PHASE 1 COST ESTIMATES

Phase 1 was reviewed by a Cost Estimator. The expected costs for the project are listed below:

City Hall	\$ 124,000,000
Site Improvements	\$ 35,000,000
Parking	\$ 12,000,000
DPS	\$ 20,000,000
Subtotal	\$ 191,000,000
* Construction Escalation (8.1%)	\$ 11,500,000
* Change Order Contingency (7.0%)	\$ 10,000,000
Grand Total	\$ 212,500,000

PHASE 1 INCLUDES:

- New City Hall
- Public Safety T.I. Renovation and DPS Addition
- Demolition of Existing Buildings
- 960 Total Parking Spaces – 100 Below-Grade Parking
- Site Improvements
- Public Art (1%)
- \$2.2M for PV of Net Zero Energy (Included in City Hall Cost)
- 35% Soft Costs

* Construction Escalation and Change Order Contingency based on the subtotal prior to adding Soft Costs



Phase 1

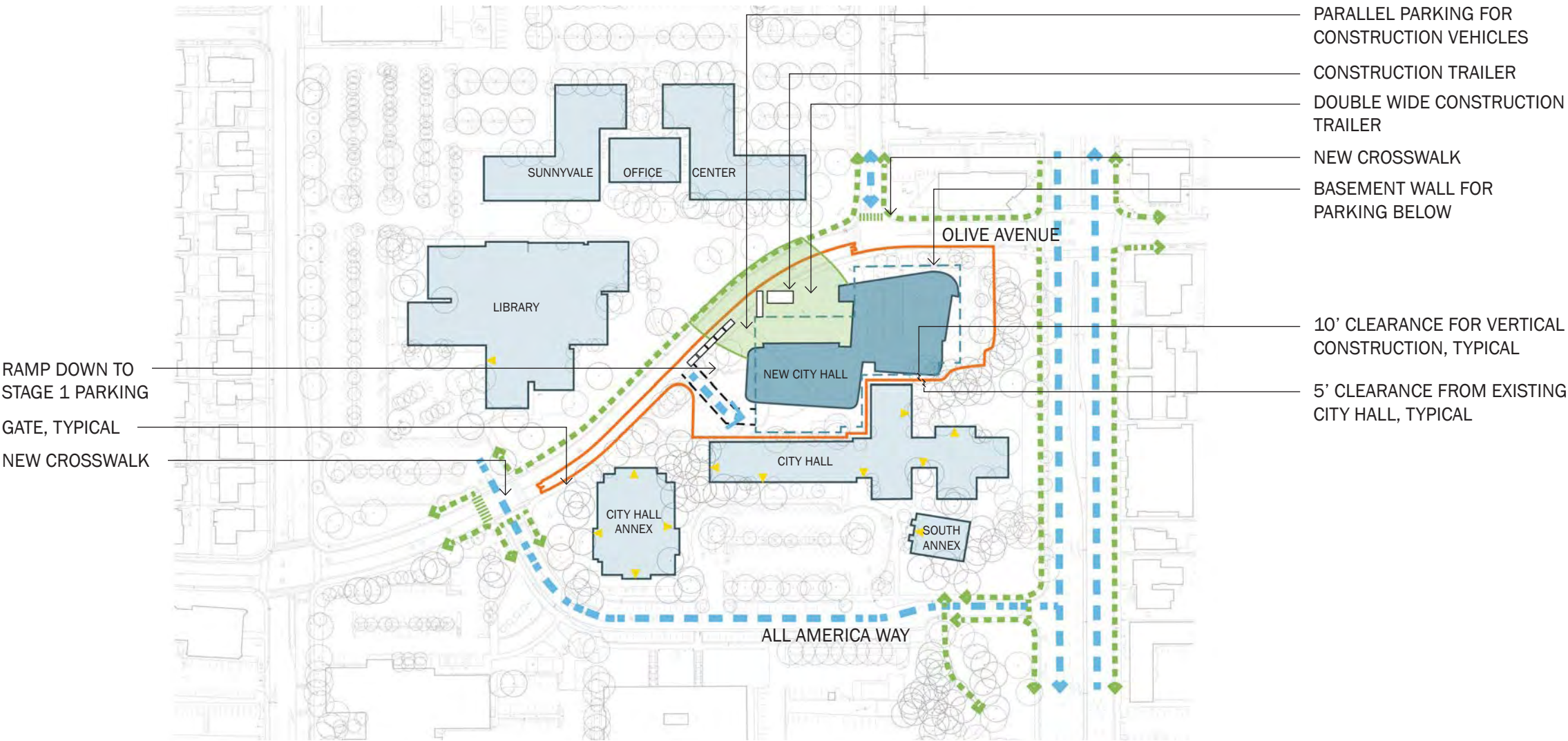
SCALE: 1"=200'

PHASE 1 CONSTRUCTION STAGING

STAGE 1

West Olive Avenue will remain open during construction. Two lanes will be open for two-way public traffic, one lane will be used for contractor deliveries, and no on-street parking will be allowed. During Stage 1, the work site will be prepared and excavated, and City Hall will be completed.

KEY	
	PEDESTRIAN CIRCULATION
	VEHICULAR CIRCULATION
	CONSTRUCTION FENCE
	BASEMENT WALL
	NEW PLAZA UNDER CONSTRUCTION
	NEW CITY HALL UNDER CONSTRUCTION
	EXISTING BUILDING



PHASE 1 CONSTRUCTION STAGING

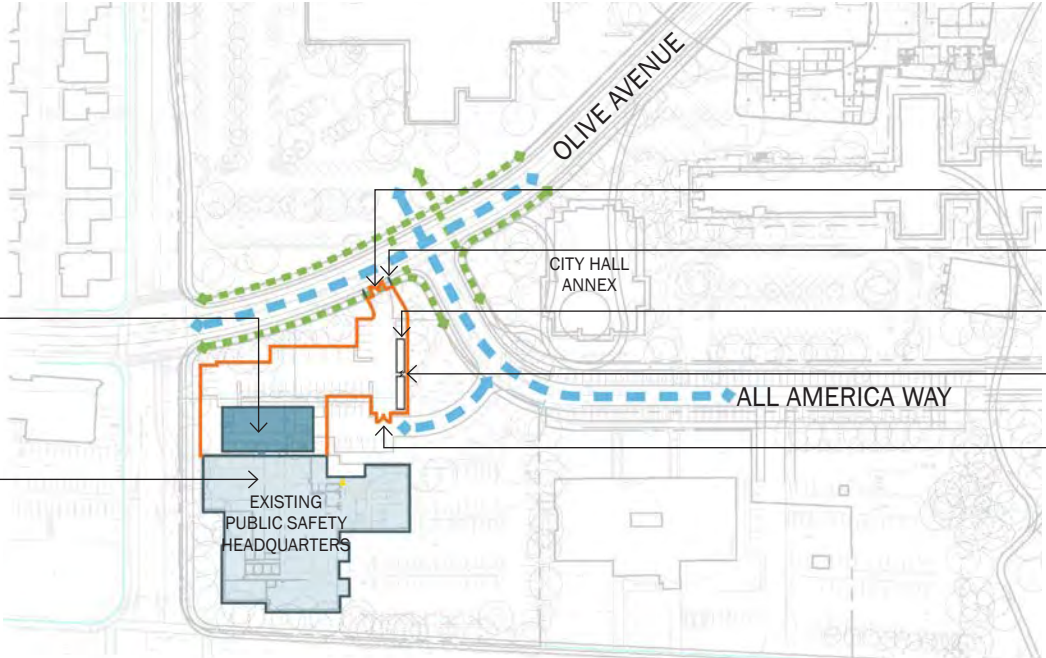
STAGE 1A

Stage 1A will begin shortly after Stage 1 and will include the construction of the Department of Public Safety Addition and the tenant improvements in the existing Public Safety Headquarters.

KEY	
	PEDESTRIAN CIRCULATION
	VEHICULAR CIRCULATION
	CONSTRUCTION FENCE
	DEPARTMENT OF PUBLIC SAFETY ADDITION
	EXISTING BUILDING

SEE APPENDIX 'DEPARTMENT OF PUBLIC SAFETY (DPS) ADDITION - PLANS' FOR NEW ADDITION BUILDING INFORMATION

SEE APPENDIX 'DEPARTMENT OF PUBLIC SAFETY (DPS) ADDITION - PLANS' FOR INFORMATION ON TENANT IMPROVEMENTS



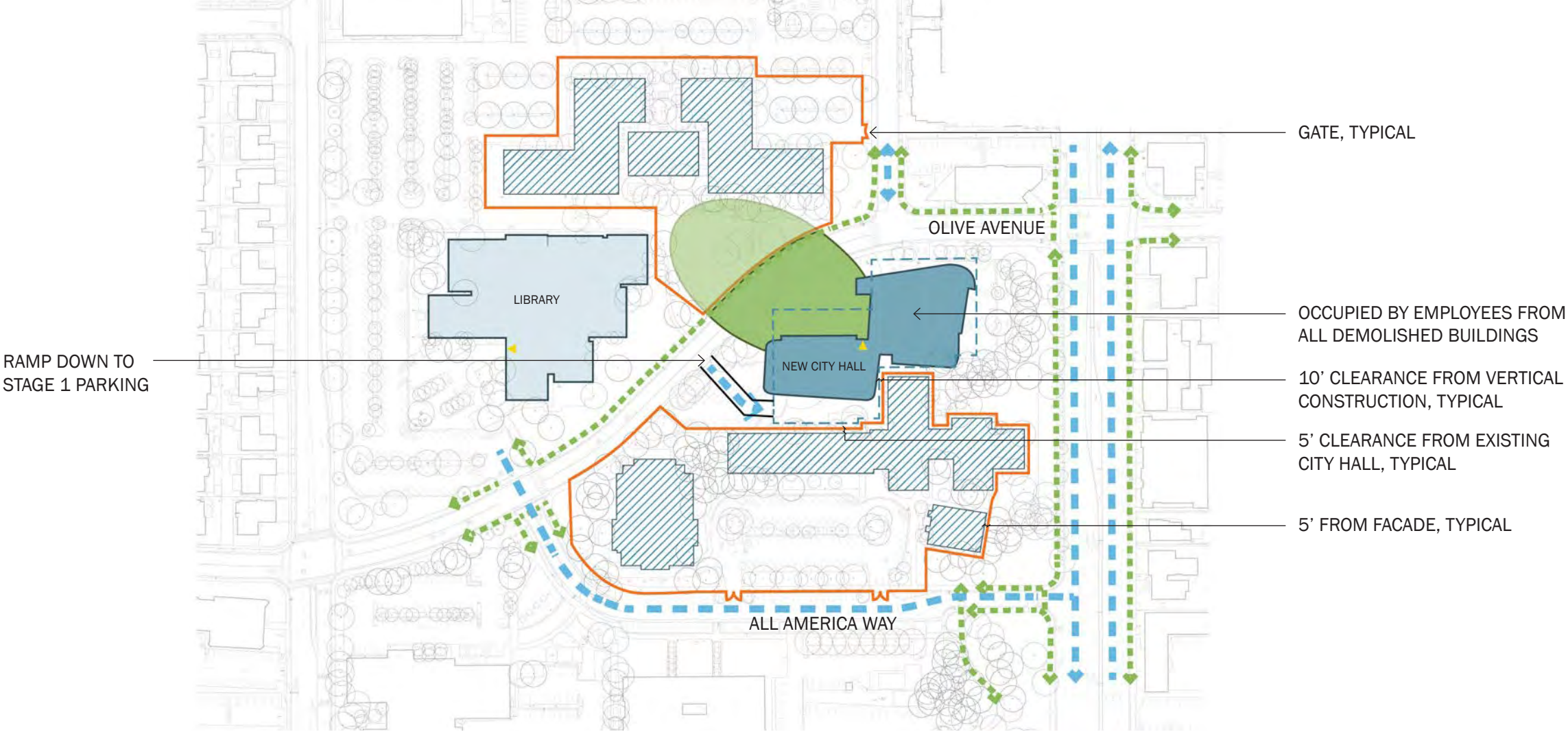
- GATE, TYPICAL
- NEW CURB CUT
- CONSTRUCTION TRAILER, TYPICAL
- 10' GAP BETWEEN TRAILERS
- GATE, TYPICAL

PHASE 1 CONSTRUCTION STAGING

STAGE 2

In Stage 2, the new City Hall and Department of Public Safety Addition will be completed, and tenants will move into the new buildings. Possible abatement and demolition of the Sunnyvale Office Center, old City Hall, City Hall Annex, and South Annex will occur during this stage.

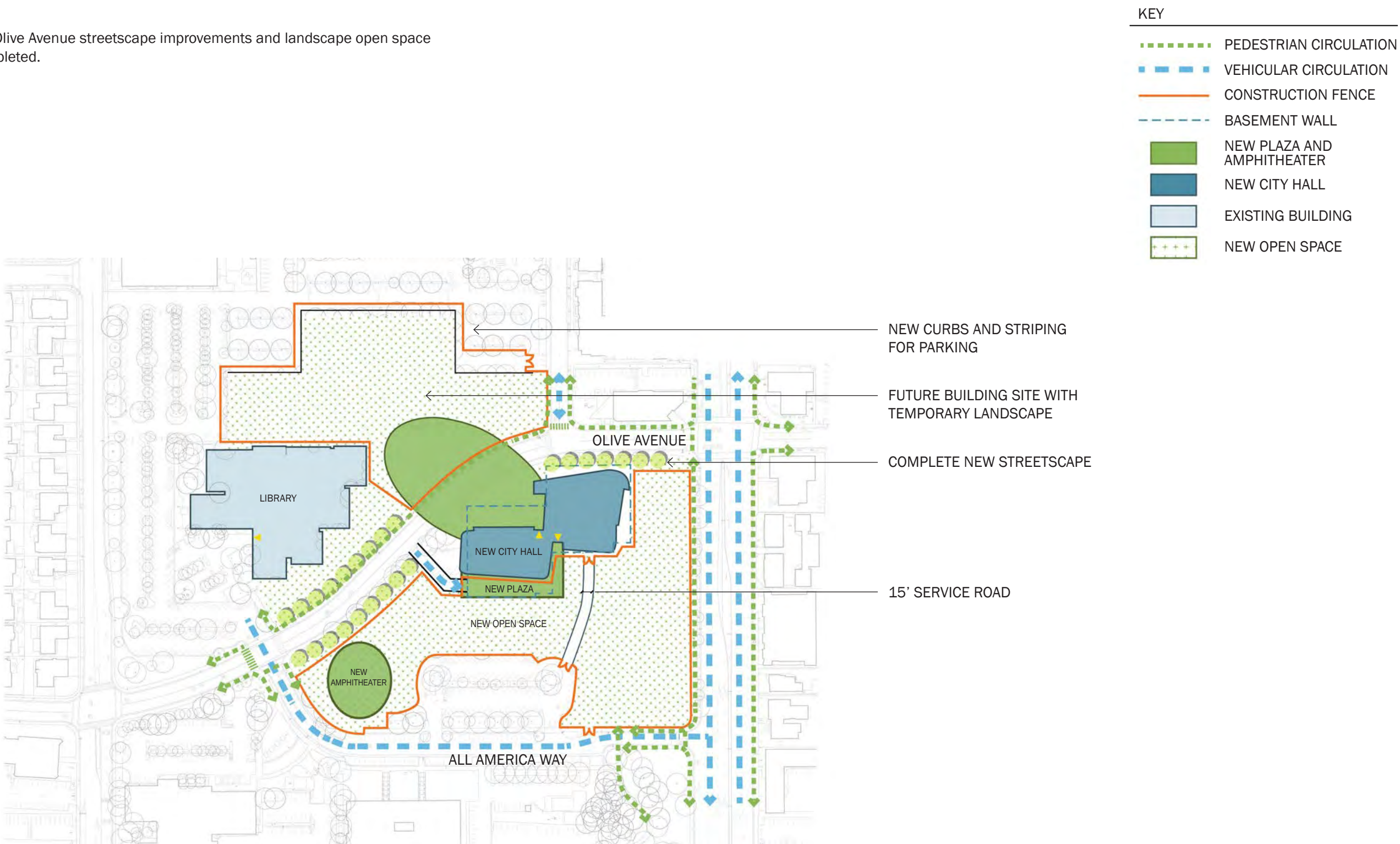
KEY	
	PEDESTRIAN CIRCULATION
	VEHICULAR CIRCULATION
	CONSTRUCTION FENCE
	BASEMENT WALL
	NEW PLAZA
	NEW CITY HALL
	DEMOLISHED BUILDING
	EXISTING BUILDING



PHASE 1 CONSTRUCTION STAGING

STAGE 3

During Stage 3, the West Olive Avenue streetscape improvements and landscape open space improvements will be completed.



MATERIALS

Materials listed below are design recommendations for use in Phase 1. Any future design or development shall match these listed materials and plant selections.

HARDSCAPE



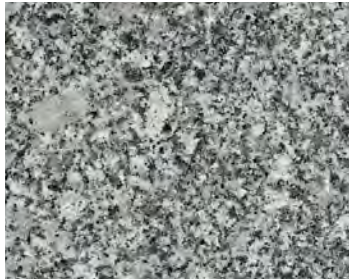
Precast Concrete Planter



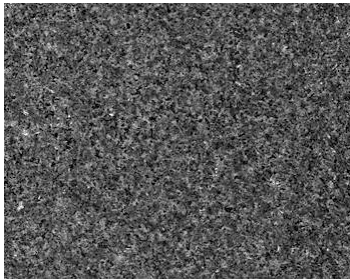
Granite Seating



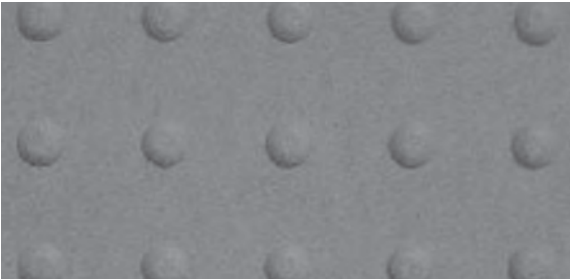
Granite Paver



Granite Paver



Granite Paver



Detectable Warning Pavers

OUTDOOR FURNISHINGS



Chipman Chair
Landscape Forms



Rest Bench
Landscape Forms



Stop Bollard
Landscape Forms



Hi-Glo Area Light
Landscape Forms



Collect Litter Receptacle
Landscape Forms



Chipman Table
Landscape Forms



Gretchen Picnic Table
Landscape Forms



Ride Bike Rack
Landscape Forms



Barrier Free Fountain
Most Dependable Fountains



Pet Station
Most Dependable Fountains

PLANT PALETTE | NATIVE GRASSES

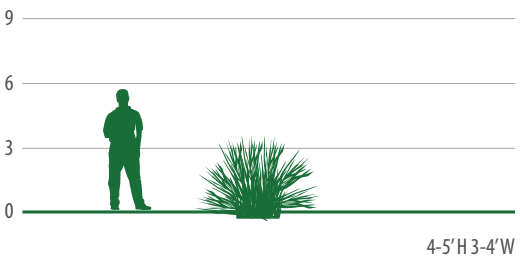
The 'LANDSCAPE BY ECOSYSTEM TYPE' diagram on page 24 illustrates which plant palette (Oak Woodland, Redwoods, or Native Wildflowers and Grasses) correlates to each area of the campus.



Purple Fountain Grass
(*Pennisetum setaceum* 'Rubrum')



evergreen grass



Clumping semi-evergreen grass that grows upright with dark burgundy-red arching foliage and produces 1-foot-long plume-like inflorescence, great ornamental grass with dark foliage.

California Melic
(*Melica californica*)



perennial grass

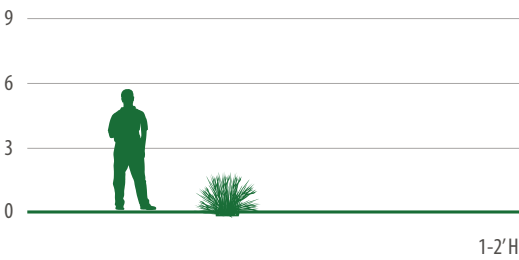


Ideal grass for under oaks, needs little to no water. Green and glossy in spring, dormant in summer after producing silvery seed heads, golden fall foliage.

Red Fescue
(*Festuca rubra*)



grass



Lush green grass for shady areas that tolerates more sun along the coast. Good lawn substitute, spreads outwards, tufted, spreading habit.

Feather Reed
(*Calamagrostis acutiflora* 'Karl Foerster')



grass

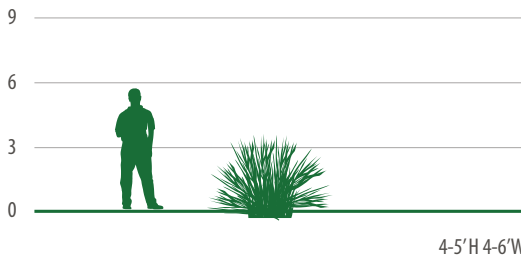


Narrow, vertical growth of bright green leaves and feathery plumes of summer-blooming pink to purple tinged flowers. Used in mass, group, or specimen.

Deer Grass
(*Muhlenbergia rigens*)



grass



Warm season California native bunch grass, with narrow leaves and long silver-gray flowers that arch over in late summer. Extremely adaptable plant.

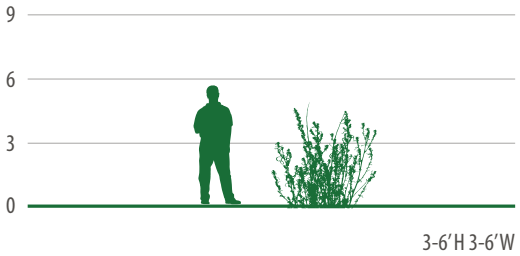
PLANT PALETTE | NATIVE WILDFLOWERS + GRASSES



Black Sage
(*Salvia mellifera*)



shrub

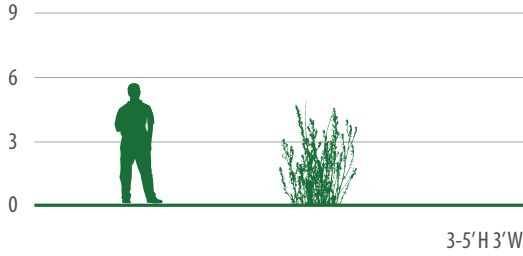


Rounded, dense, and upright. Great habitat plant, drought tolerant, fragrant foliage. Attracts butterflies.

California Buckwheat
(*Eriogonum fasciculatum*)



shrub

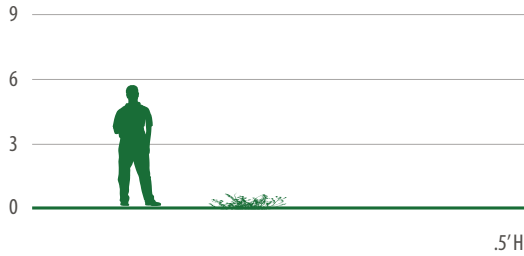


Tough, easy to grow, can be open and upright or dense and mounding. Produces profuse pink and white flowers as early as March. Habitat plant used as a spreading ground cover.

California Poppy
(*Eschscholzia californica*)



flowering perennial



California state flower. Annual plant with alternately branching blue-green foliage. Bright orange flowers appear in February.

Yarrow
(*Achillea millefolium*)



groundcover / herbaceous perennial

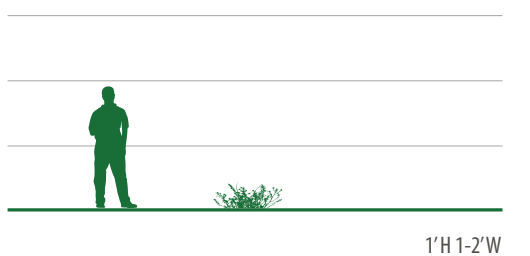


Erect, herbaceous perennial plant. Spreading growth form, leaves have varying degrees of hairiness. Very light and feathery texture, used for native, drought-tolerant, and wildlife gardens.

Alum Root
(*Heuchera maxima*)



groundcover



Clumping perennial that forms 1-foot-tall mounds of lightly marbled dark green leaves. Clusters of pinkish-white flowers on intricately branching stems that rise 1 to 2 feet above the foliage.

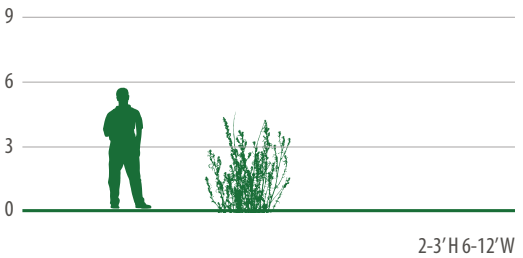
PLANT PALETTE | OAK WOODLAND



Pacific Mist
(*Arctostaphylos manzanita*)



shrub



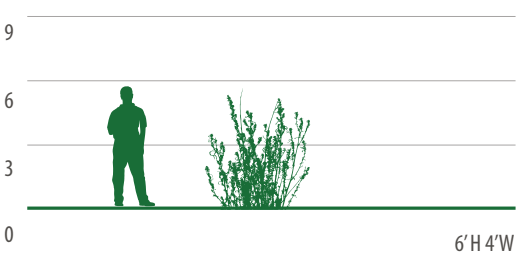
A fast growing low sprawling shrub, with twisting pinkish branches that mature to a dark purple-brown and turn upwards towards the tips. This is a quick grower and good for dry shade.



California Coffeeberry
(*Rhamnus californica*)



evergreen shrub



Fairly common California native plant. This is a dense evergreen shrub with dark red branches; birds like its fruit, and it is easy to grow. Used for bank stabilization, hedges, ground cover, habitat value.



California Sagebrush
(*Artemisia californica*)



shrub



Branches from the base and grows out, becoming rounded. The stems of the leaves are leafy and narrow. The plant contains terpenes which makes it quite aromatic.



Coast Live Oak
(*Quercus agrifolia*)



large tree



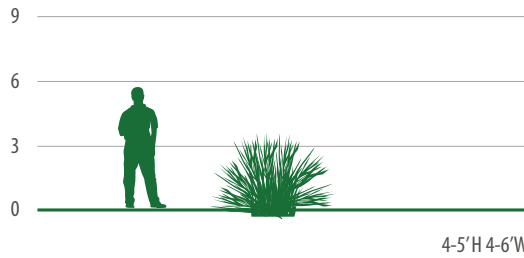
Typically has a heavily-branched trunk that is unique and sculptural in nature. The crown is broadly rounded and dense and the leaves are a dark green.



Deer Grass
(*Muhlenbergia rigens*)



grass



Warm season California native bunch grass, with narrow leaves and long silver-gray flowers that arch over foliage in late summer. Extremely adaptable plant.

PLANT PALETTE | REDWOODS

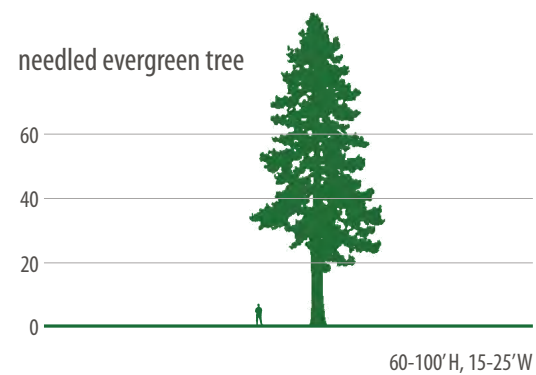


Coast Redwood

(Sequoia sempervirens)



needled evergreen tree



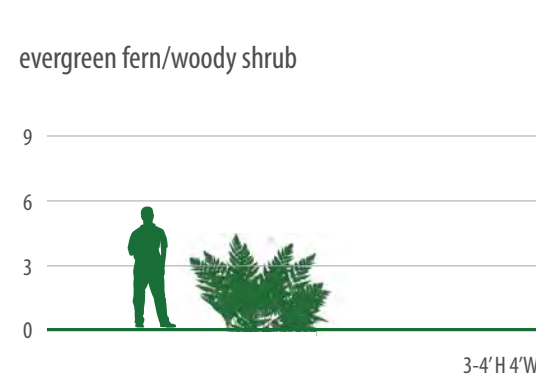
California state tree. An evergreen, long-lived tree known for incredible height. Tree has horizontal branches that turn up at the tip full of fragrant dark green needles. Stout trunk with red-brown bark.

Giant Chain Fern

(*Woodwardia fimbriata*)



evergreen fern/woody shrub

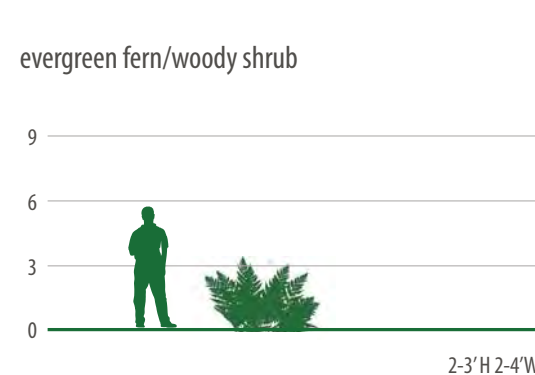


Large fern with thick, leathery fronds that are medium green in color. Upright habitat that is spreading at the top. Shade tolerant and ideal for use in a woodland garden.

Western Sword Fern
Polystichum munitum



evergreen fern/woody shrub



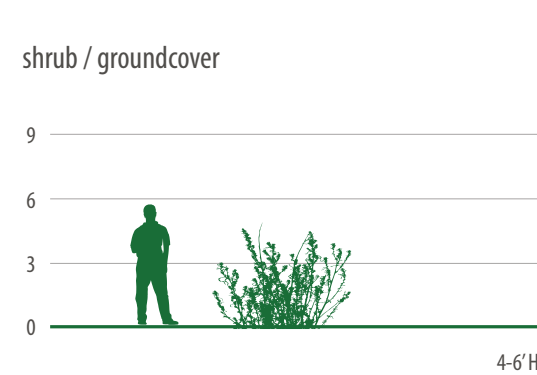
Common fern of Western forests. Leathery, dark green fronds with dagger-shaped leaflets that are upright and spreading. Shade tolerant woodland planting. Native to California.

Thimbleberry

(*Rubus parviflorus*)



shrub / groundcover



Dense, upright, shrub. Soft, velvety lobed green leaves with sharp-toothed margins that turn gold and brown in fall. White flowers in the Spring with tart edible red fruit in the Summer. Native to California.

Yerba de Selva
(*Whipplea modesta*)



semi-deciduous groundcover



Spreading groundcover common to forested areas. Medium green color foliage with tiny white flowers in the Spring. Native to California.

CITY HALL FINISHES



Timber Building Structure



Timber Building Structure



Timber Building Structure



Concrete Planter



Curtainwall



Solar Canopy



Metal Panel



Granite



PreCast Concrete



Wood Panel - Glass Infill

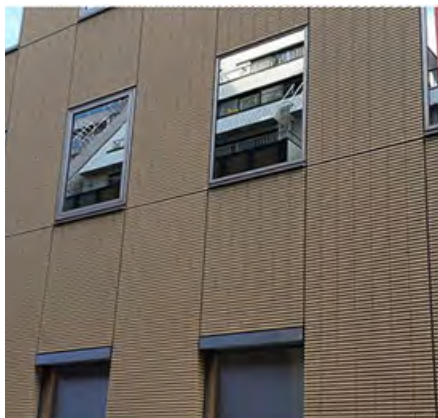


Wood Panel



Solar Canopy

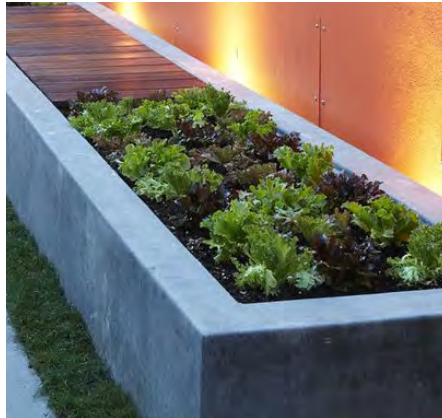
PUBLIC SAFETY HEADQUARTERS ADDITION FINISHES



Brick Veneer



Brick Veneer



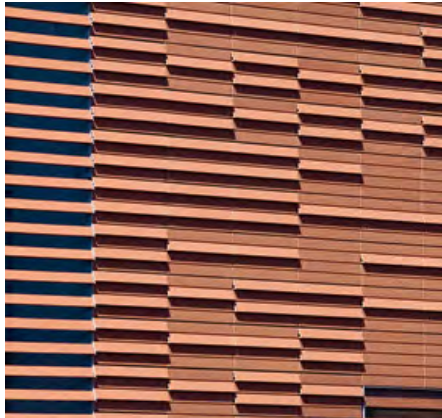
Concrete Planter



Metal Panel



Terracotta

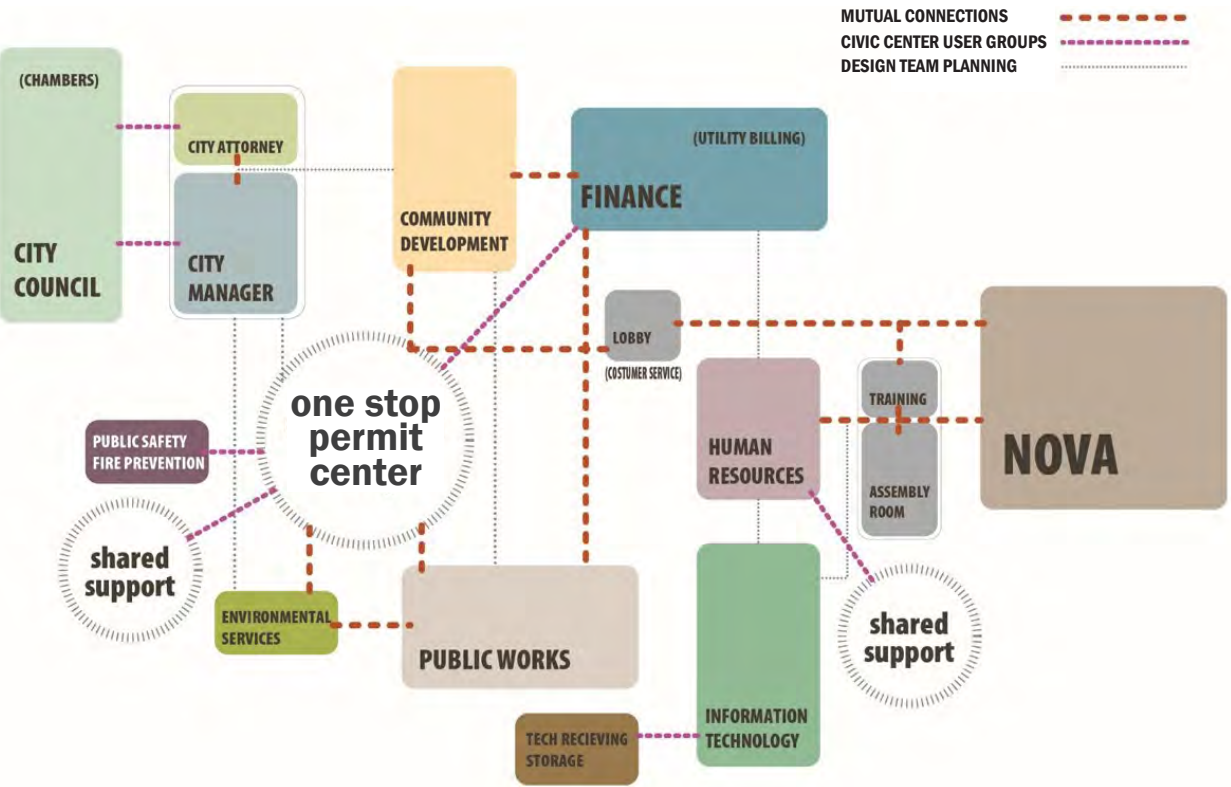


Terracotta

CITY HALL DETAILS

WORKPLACE STRATEGY PROGRAM

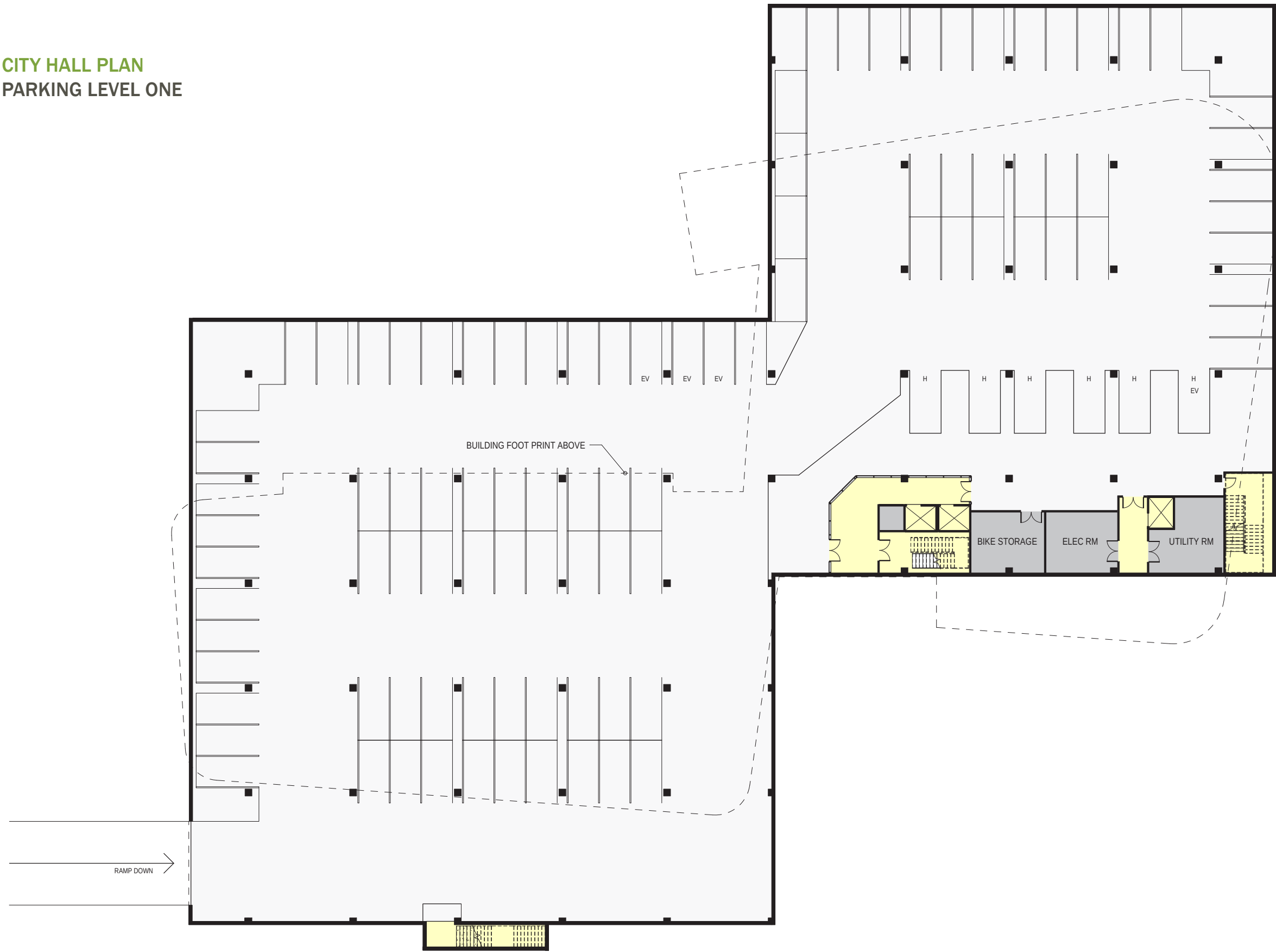
To better provide efficient, functional, and flexible facilities to support innovative service delivery, the design team analyzed the different City user groups, to identify space efficiencies and adjacencies. The user groups are listed below.



SPACE EFFICIENCIES AND ADJACENCIES

After understanding how the organization works and the space needs of each user group, the design team was able to create a workplace strategy and test-fit to streamline service delivery for Sunnyvale residents. Site visits, user meetings, workshops, and a “day in the life” exercise allowed the design team to successfully create a One Stop Permit Center experience for workshop participants.

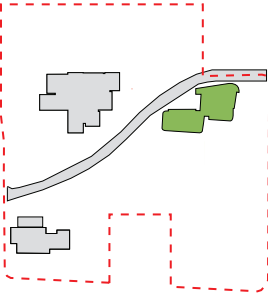
CITY HALL PLAN
PARKING LEVEL ONE



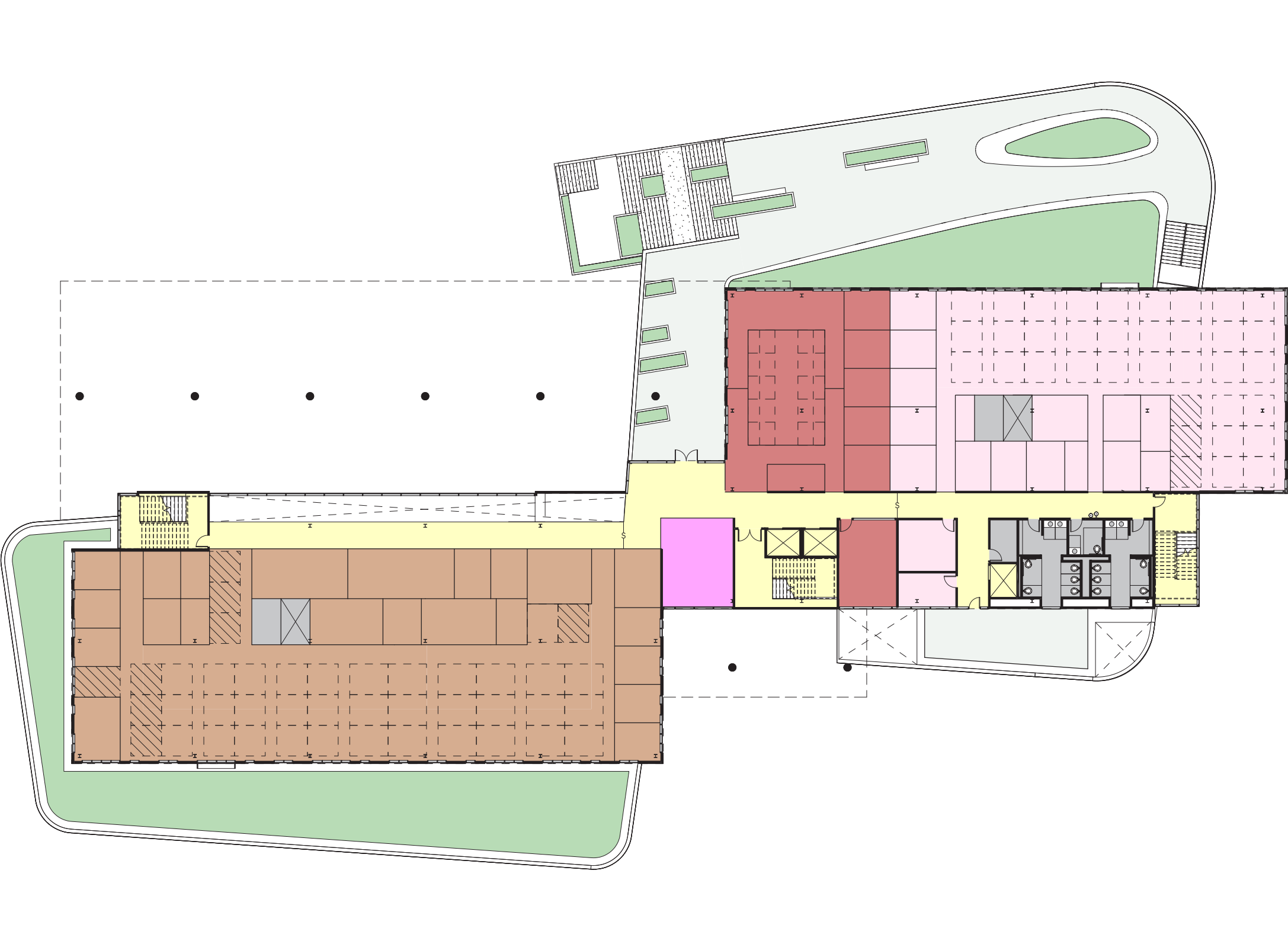
- KEY
- CIRCULATION
 - PARKING
 - SHARED CORE

CITY HALL PLAN
GROUND FLOOR

- KEY
- CIRCULATION
 - COUNCIL CHAMBERS
 - NOVA OFFICES
 - NOVA TRAINING
 - SHARED BREAK ROOM
 - SHARED CORE
 - SHARED MEETING ROOMS



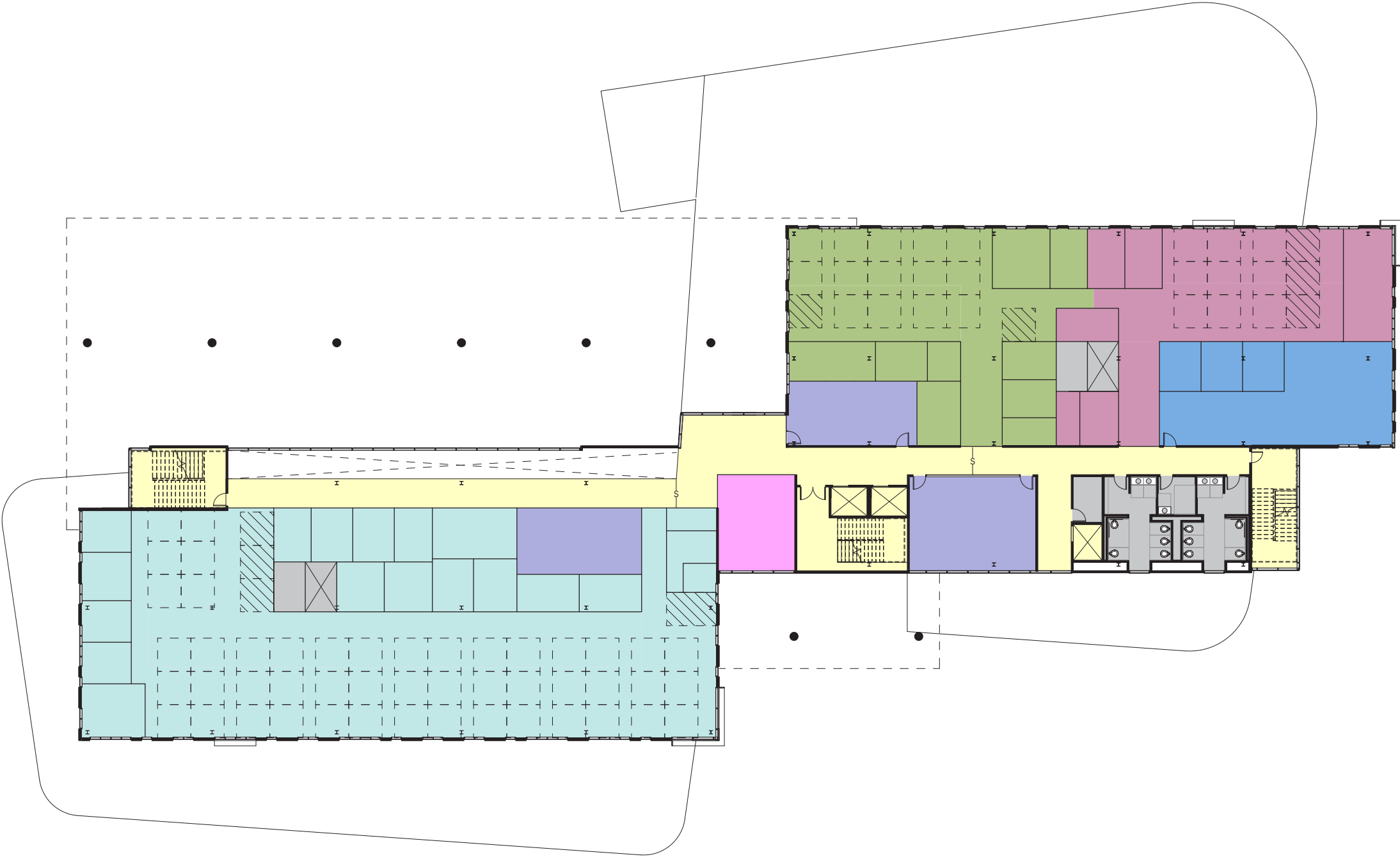
CITY HALL PLAN
LEVEL TWO



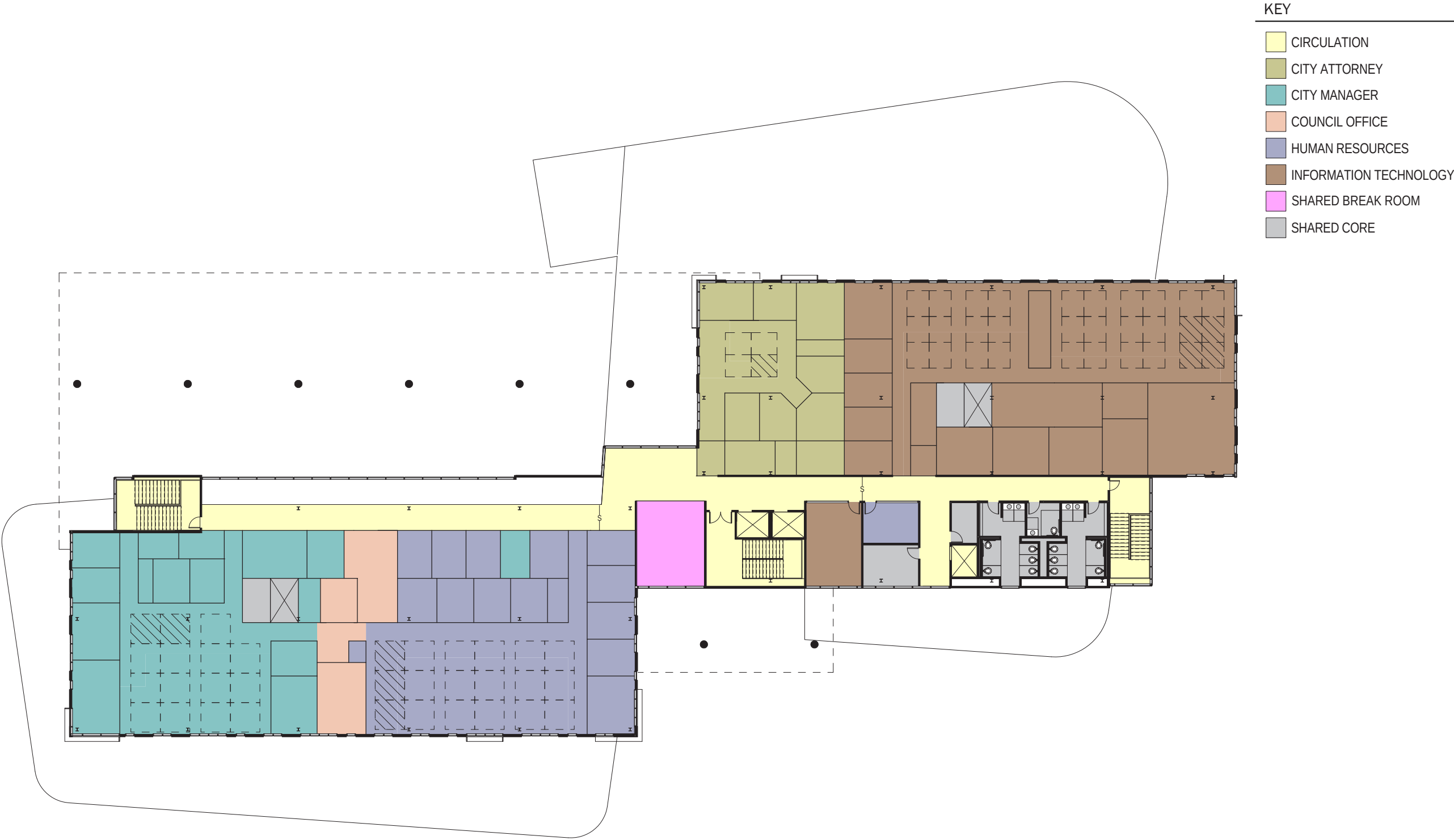
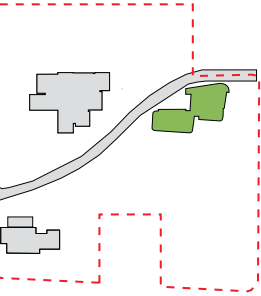
KEY	
	CIRCULATION
	COMMUNITY DEVELOPMENT
	ONE STOP PERMIT CENTER
	GREEN ROOF PLANTING
	PUBLIC WORKS
	SHARED BREAK ROOM
	SHARED CORE
	TERRACE

CITY HALL PLAN
LEVEL THREE

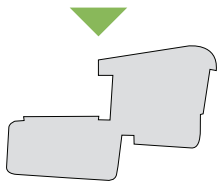
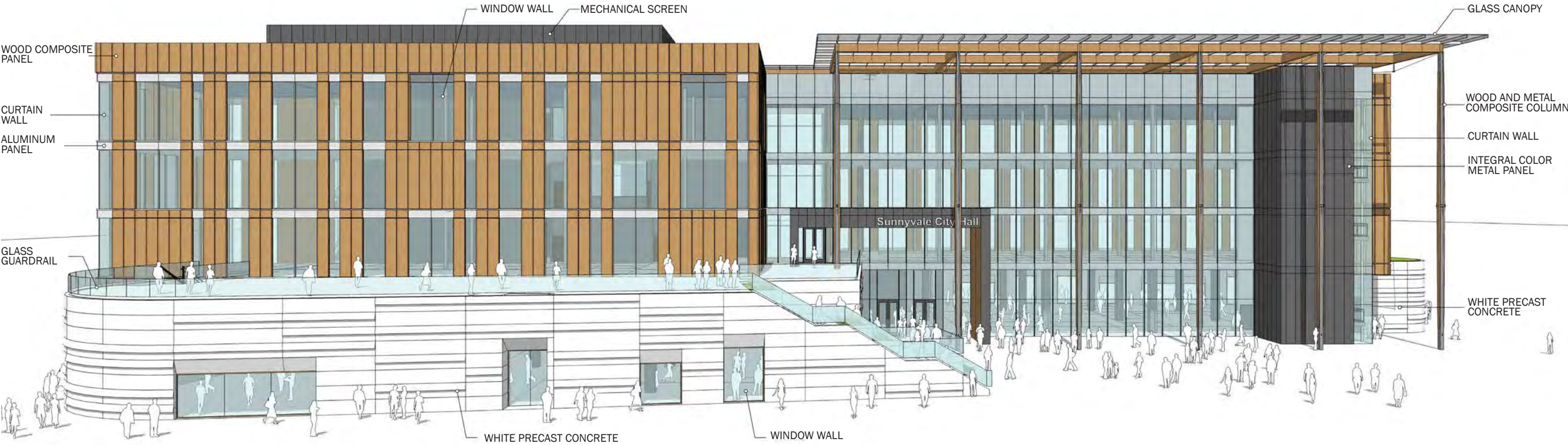
- KEY
- CIRCULATION
 - ENVIRONMENTAL SERVICES
 - FINANCE
 - FIRE PREVENTION
 - SHARED BREAK ROOM
 - SHARED CONFERENCE
 - SHARED CORE
 - SHARED GYM



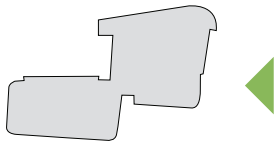
CITY HALL PLAN
LEVEL FOUR



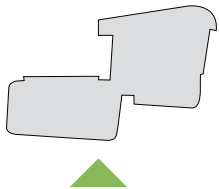
CITY HALL ELEVATION
NORTH ELEVATION



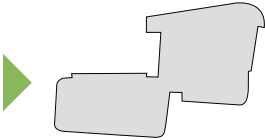
CITY HALL ELEVATION
EAST ELEVATION



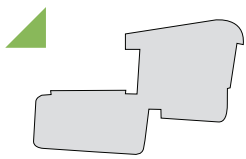
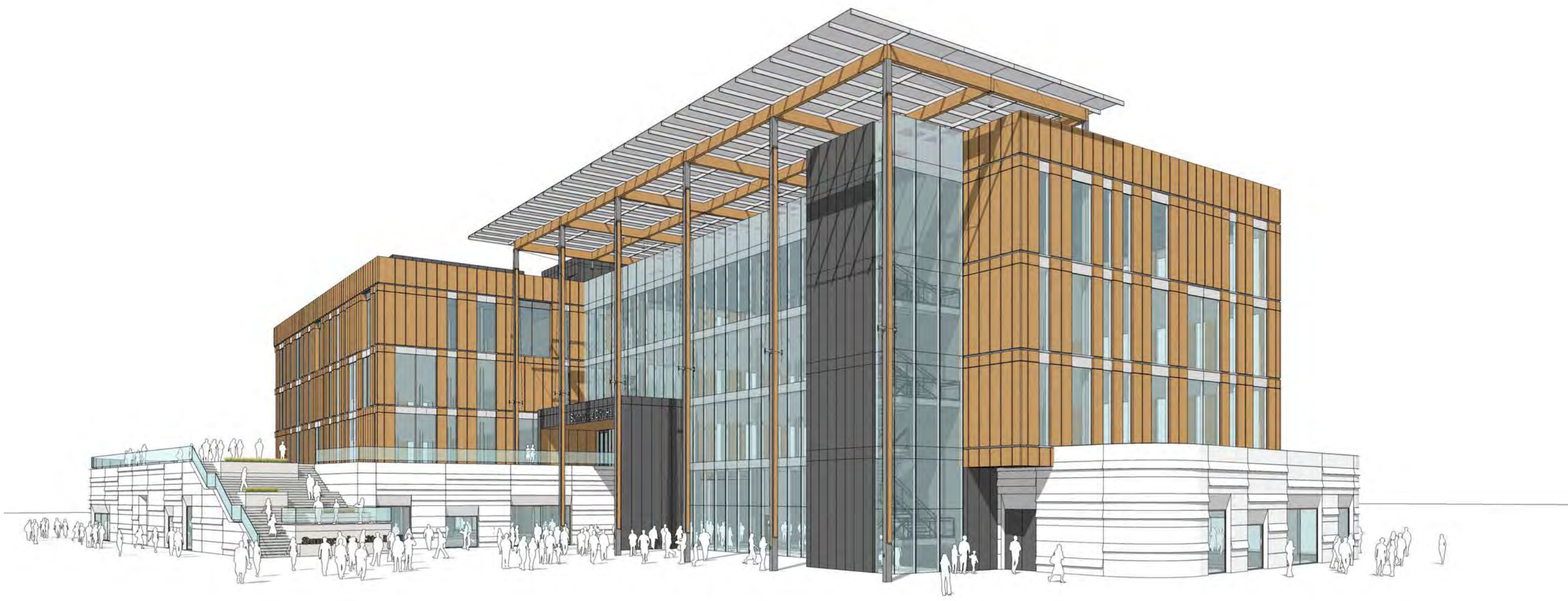
CITY HALL ELEVATION
SOUTH ELEVATION



CITY HALL ELEVATION
WEST ELEVATION



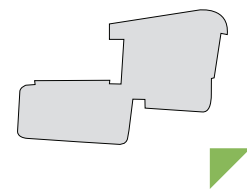
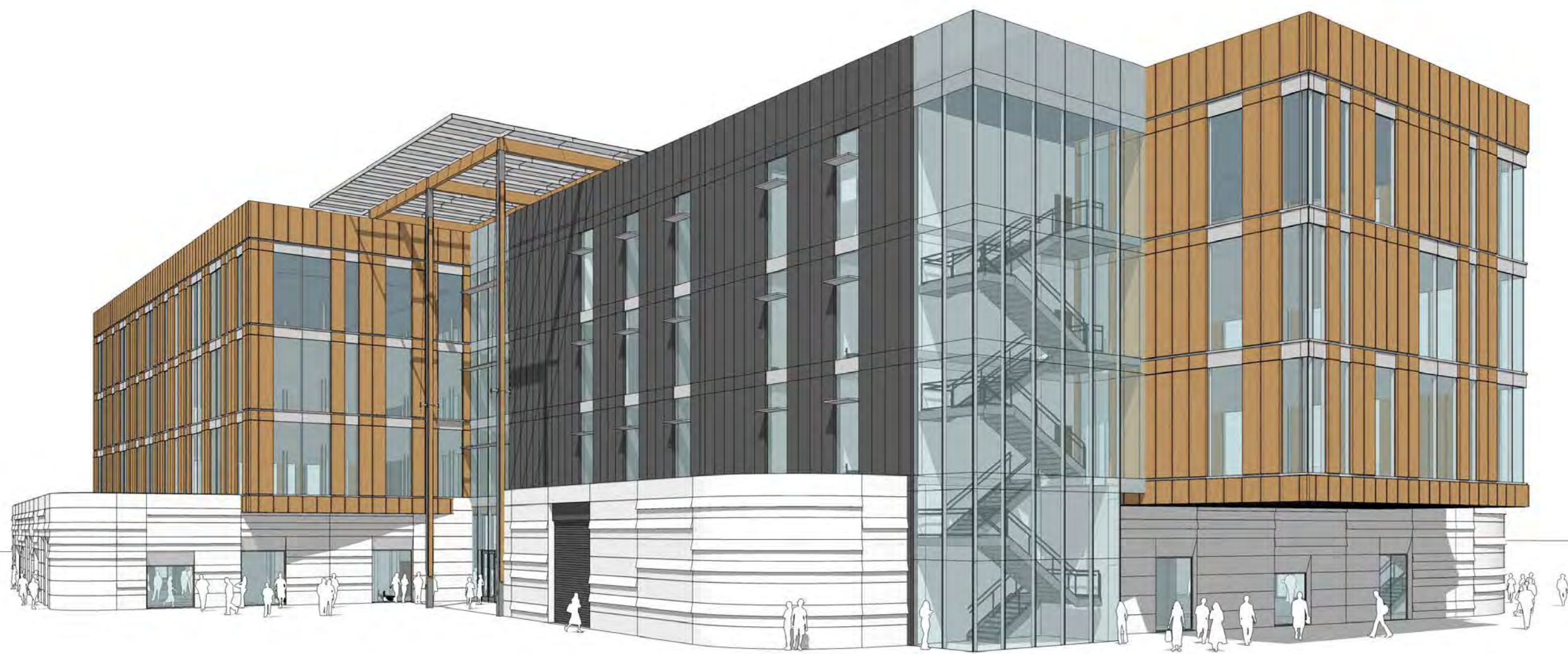
CITY HALL PERSPECTIVE VIEW
NORTHWEST



CITY HALL PERSPECTIVE VIEW
SOUTHWEST



CITY HALL PERSPECTIVE VIEW
SOUTHEAST



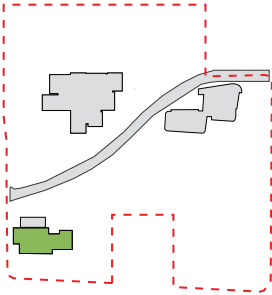
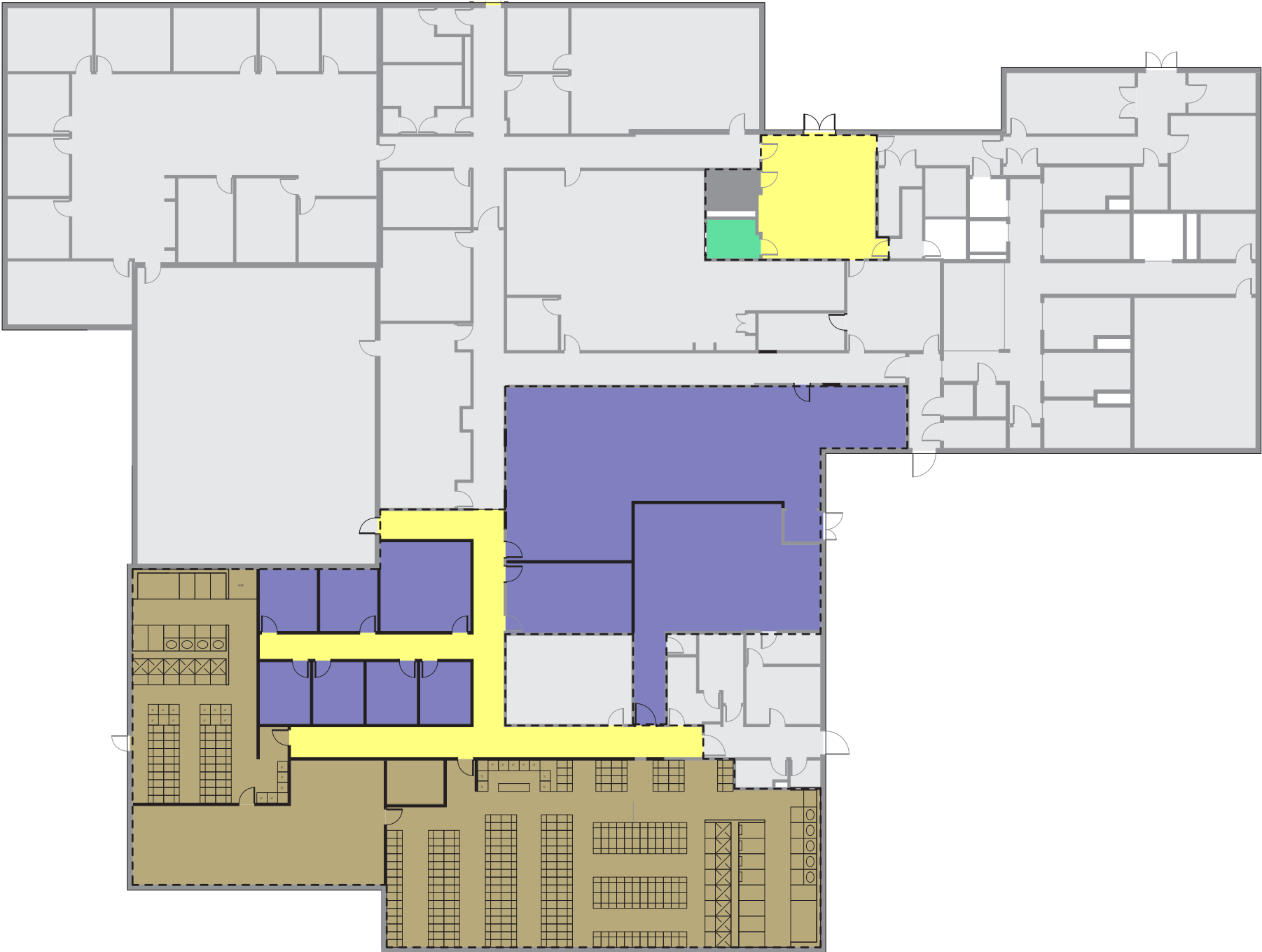
CITY HALL PERSPECTIVE VIEW
NORTHEAST



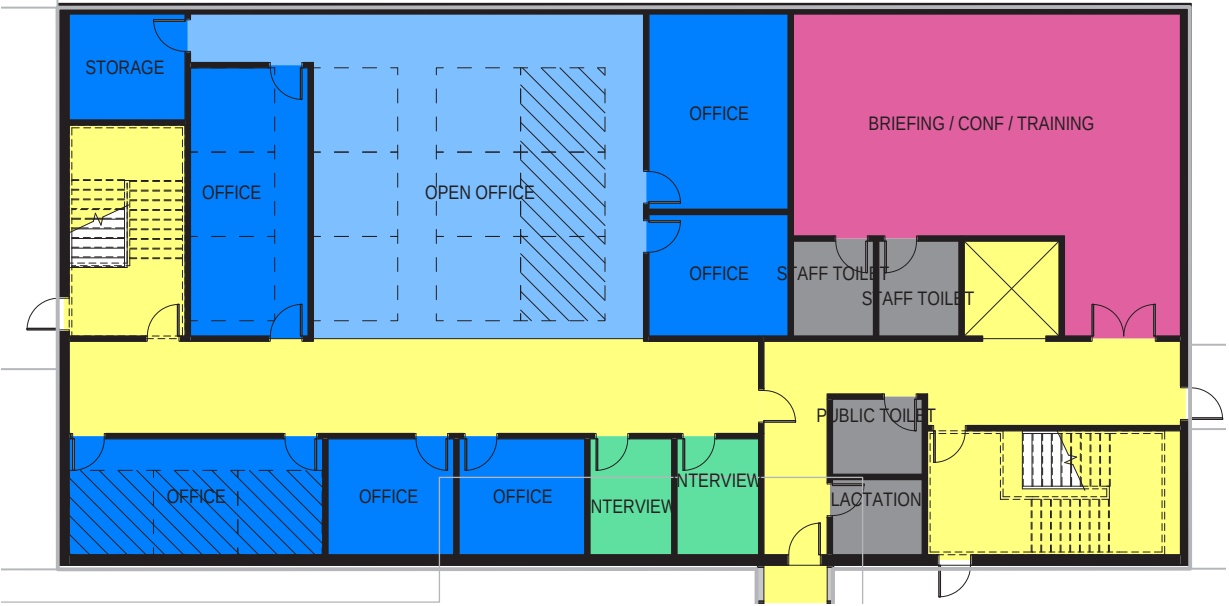
PUBLIC SAFETY HEADQUARTERS ADDITION DETAILS

PUBLIC SAFETY HEADQUARTERS TENANT IMPROVEMENTS
GROUND FLOOR

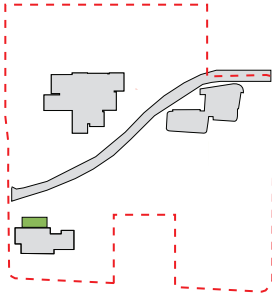
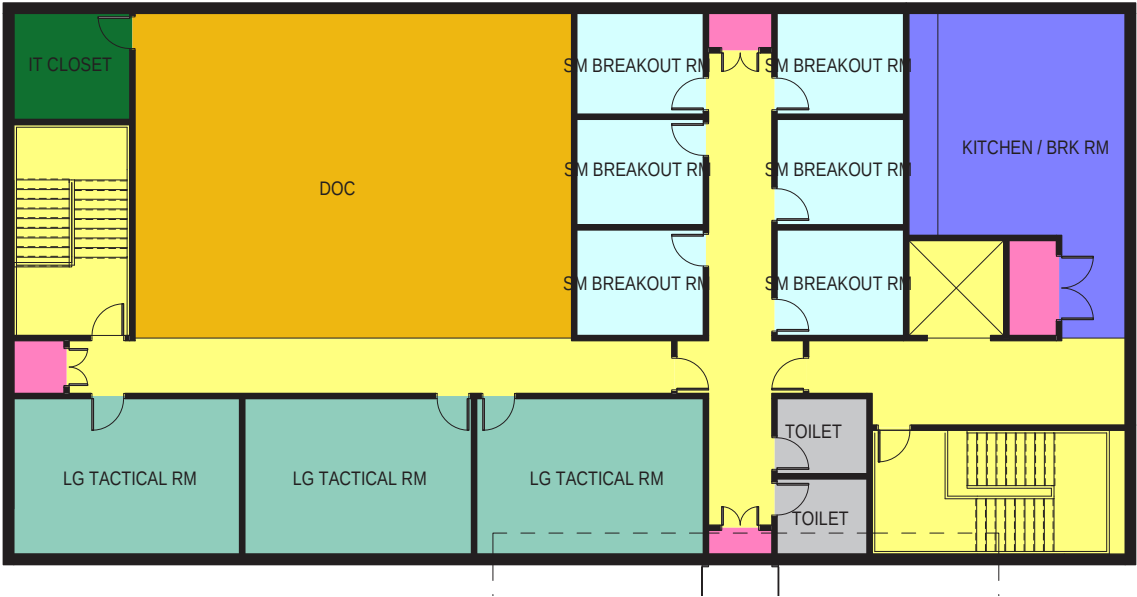
- KEY
- CIRCULATION
 - DETECTIVES
 - EXISTING TO REMAIN
 - INTERVIEW
 - PATROL
 - TOILET / LOCKER ROOMS
 - TOILET ROOMS



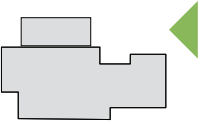
PUBLIC SAFETY HEADQUARTERS ADDITION PLAN GROUND FLOOR



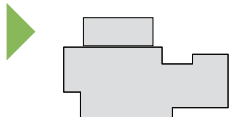
LEVEL TWO



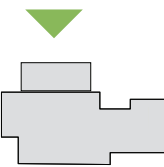
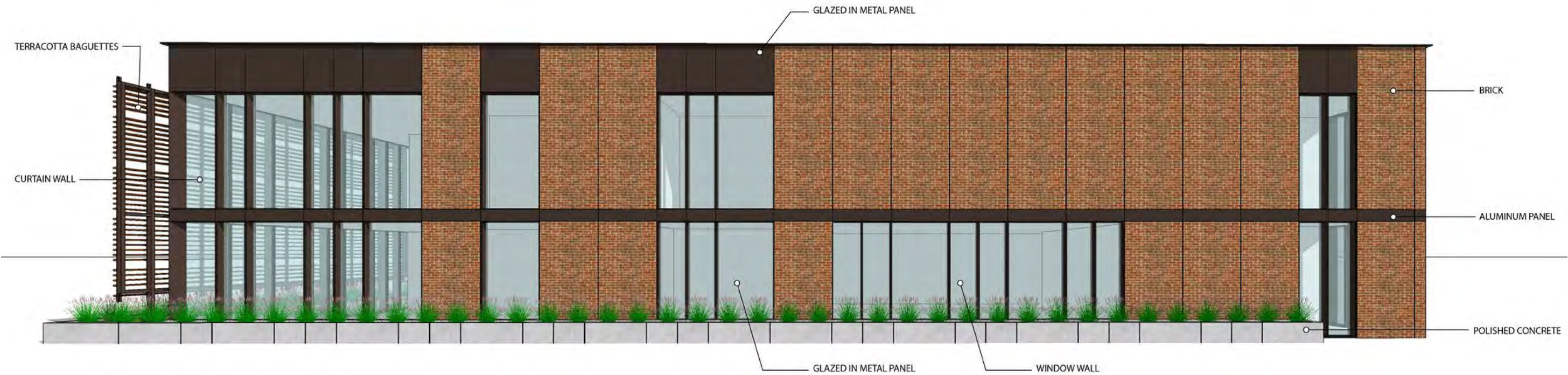
PUBLIC SAFETY HEADQUARTERS ADDITION ELEVATION
EAST ELEVATION



PUBLIC SAFETY HEADQUARTERS ADDITION ELEVATION
WEST ELEVATION



PUBLIC SAFETY HEADQUARTERS ADDITION ELEVATION
NORTH ELEVATION



SUSTAINABILITY

ESTABLISHING COMMUNITY PRIORITIES

The design team engaged with Sunnyvale community members to develop a sustainable design strategy for the Master Plan. Through meetings with the City's Sustainability Commission and the public, the design team developed a series of sustainability priorities, shown below, and strategies to push the Civic Center development toward a high achievement benchmark in each of these.

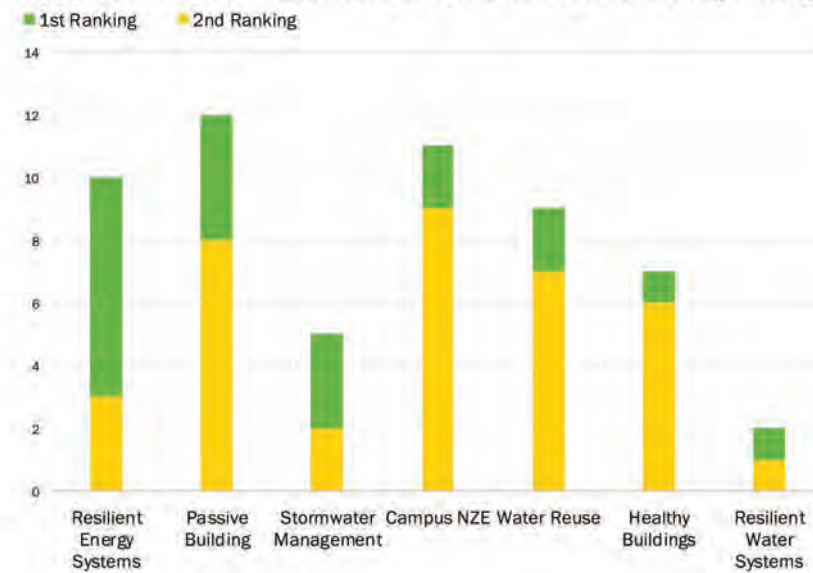


At a community meeting in October 2017, members of the public were presented with information on various proposed environmental strategies for the Civic Center and asked to voice their opinions. The adjacent charts show the results of this community survey. Meeting attendees were asked to rank the following sustainability strategies, which fit into the broader categories of Net Zero Energy, Water Security, Resilience, Carbon, and Healthy Buildings:

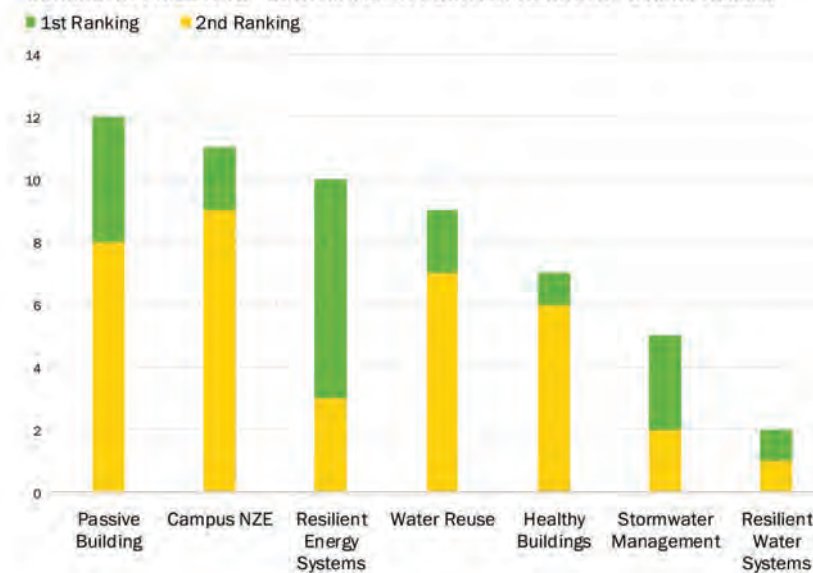
- Resilient Energy Systems
- Passive Building
- Campus Net Zero Energy
- Water Reuse
- Stormwater Management
- Resilient Water Systems
- Healthy Buildings

Through this exercise, the design team was able to highlight passive building design and resilience, and renewable energy systems as key development drivers.

COMMUNITY MEETING - SUSTAINABILITY SURVEY RESULTS - 1st Priority Ranking



COMMUNITY MEETING - SUSTAINABILITY SURVEY RESULTS - Overall Results



SUSTAINABLE SITE DESIGN

Site features of the Civic Center Master Plan have been designed to protect and improve existing environmental conditions. Conserving special-status vegetation is a key element of the site design. Protected trees and mature redwoods will be protected. These groves provide a substantial shade canopy, creating a cooler, more comfortable microclimate during the warm summer season. Enhancing these groves will provide useful gathering spaces for visitors to engage and learn about native landscapes.

A native plant palette will be used for new landscape areas, to improve ecology and reduce irrigation water use. Conservation of existing groves and enhancements with restorative native planting will provide much-needed habitat in an urbanized area. The Master Plan also preserves the existing community garden.

Careful attention will be paid to reducing the heat island effect associated with new buildings and hardscape. Light-colored roofing and paving, as well as extensive landscaping, will limit this condition and provide a thermally comfortable outdoor environment. In addition, stormwater management strategies will be incorporated, to reduce run-off during high rainfall events and facilitate groundwater recharge. Opportunities will be explored to collect and store rainwater for non-potable uses.

Furthermore, site features have been designed not only to improve the environmental conditions described above, but also to enhance passive aspects of the building architecture. Site canopies and plantings can be used to improve outdoor thermal comfort and provide transitions between exposed and interior environments.



PATH TO LEED PLATINUM

The Phase 1 City Hall construction will pursue LEED v4 Platinum certification. This high benchmark for sustainability requires achieving 80 credit points. Figure 1 shows the planned approach to meeting the LEED Platinum target.

Sustainable site design strategies will be implemented for the new City Hall and across the Civic Center campus, enhancing the inherent qualities of the location and supporting transit accessibility. Water efficiency will be a priority for the new City Hall because of the importance of limiting potable water use in Northern California. Use of sustainable building materials will also be prioritized to provide high indoor environmental quality. Additionally, the new City Hall will target a sizeable 27 points in the Energy and Atmosphere category, to be achieved through the rigorous Net Zero Energy design strategy.

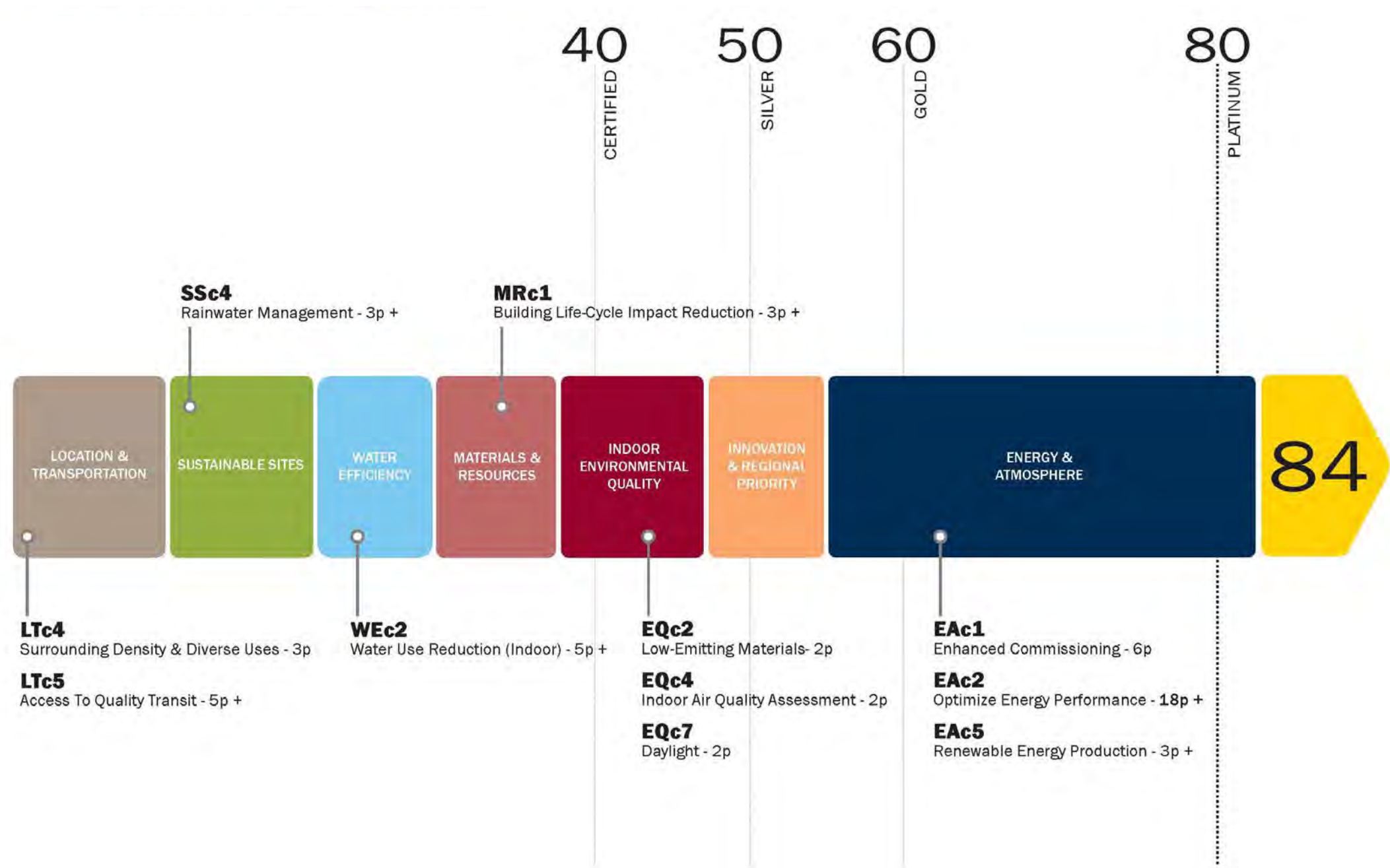


FIGURE 1: Path to LEED Platinum

CITY HALL LEED SCORECARD

Sunnyvale City Hall LEED-NC v4 Scorecard

Achievability			
hi	med	low	NP
84	16	4	4

Certified 40 to 49 points **Silver** 50 to 59 points **Gold** 60 to 79 points **Platinum** 80+
Achievability rating: **Hi** = 90%, **Med** = 60%, **Low** = 10%, **NP** = not possible.

86 Projected Points

Prerequisites					
Y				SS Prereq 1	Construction Activity Pollution Prevention
Y				WE Prereq 1	Outdoor Water Use Reduction: 30%
Y				WE Prereq 2	Indoor Water Use Reduction: 20%
Y				WE Prereq 3	Building-Level Water Metering
Y				EA Prereq 1	Fundamental Commissioning and Verification
Y				EA Prereq 2	Minimum Energy Performance
Y				EA Prereq 3	Building-Level Energy Metering
Y				EA Prereq 4	Fundamental Refrigerant Management
Y				MR Prereq 1	Storage & Collection of Recyclables
Y				MR Prereq 2	Construction and Demolition Waste Management Planning
Y				IEQ Prereq 1	Minimum IAQ Performance
Y				IEQ Prereq 2	Environmental Tobacco Smoke (ETS) Control

1	0	0	0	Integrative Process	
1				IP Credit 1	Integrative Process

12	2	0	2	Location & Transportation	
			16	LT Credit 1	LEED for Neighborhood Development Location
1				LT Credit 2	Sensitive Land Protection
			2	LT Credit 3	High Priority Site
3	2			LT Credit 4	Surrounding Density and Diverse Uses
5				LT Credit 5	Access to Quality Transit
1				LT Credit 6	Bicycle Facilities
1				LT Credit 7	Reduced Parking Footprint
1				LT Credit 8	Green Vehicles

10	0	0	0	Sustainable Sites	
1				SS Credit 1	Site Assessment
2				SS Credit 2	Site Development: Protect or Restore Habitat
1				SS Credit 3	Open Space
3				SS Credit 4	Rainwater Management
2				SS Credit 5	Heat Island Reduction
1				SS Credit 6	Light Pollution Reduction

7	3	1	0	Water Efficiency	
1				WE Credit 1	Outdoor Water Use Reduction: 50% Reduction
		1		WE Credit 1	Outdoor Water Use Reduction: No Potable Water
3				WE Credit 2	Water Use Reduction: 25% / 30% / 35%
2	1			WE Credit 2	Water Use Reduction: 40% / 45% / 50%
	2			WE Credit 3	Cooling Tower Water Use
1				WE Credit 4	Water Metering

30	1	0	2	Energy & Atmosphere	
6				EA Credit 1	Enhanced Commissioning
3				EA Credit 2	Optimize Energy Performance: 6% / 8% / 10%
3				EA Credit 2	Optimize Energy Performance: 12% / 14% / 16%
3				EA Credit 2	Optimize Energy Performance: 18% / 20% / 22%
3				EA Credit 2	Optimize Energy Performance: 24% / 26% / 29%
3				EA Credit 2	Optimize Energy Performance: 32% / 35% / 38%
3				EA Credit 2	Optimize Energy Performance: 42% / 46% / 50%
1				EA Credit 3	Advanced Energy Metering
2				EA Credit 4	Demand Response
3				EA Credit 5	Renewable Energy Production: 1% / 5% / 10%
	1			EA Credit 6	Enhanced Refrigerant Management
			2	EA Credit 7	Green Power and Carbon Offsets

8	0	3	0	Materials & Resources	
3				MR Credit 1	Building Life-Cycle Impact Reduction
1		1		MR Credit 2	Building Product Disclosure & Optimization: Environmental Product Declarations
1		1		MR Credit 3	Building Product Disclosure & Optimization: Sourcing of Raw Materials
1		1		MR Credit4	Building Product Disclosure & Optimization: Material Ingredients
2				MR Credit 5	Construction & Demolition Waste Management: 50% / 75%

10	6	0	0	Indoor Environmental Quality	
1	1			IEQ Credit 1	Enhanced Air Quality Strategies
2	1			IEQ Credit 2	Low-Emitting Materials: 2 / 4 / 5 categories
1				IEQ Credit 3	Construction IAQ Management Plan
2				IEQ Credit 4	Indoor Air Quality Assessment
	1			IEQ Credit 5	Thermal Comfort
	2			IEQ Credit 6	Interior Lighting
2	1			IEQ Credit 7	Daylight: 55% / 75%
1				IEQ Credit 8	Quality Views
1				IEQ Credit 9	Acoustic Performance

3	3	0	0	Innovation in Design	
1				ID Credit 1.1	Innovation in Design, EAc2 Exemplary Performance
1				ID Credit 1.2	Innovation in Design, TBD
	1			ID Credit 1.3	Innovation in Design, TBD
	1			ID Credit 1.4	Innovation in Design, TBD
	1			ID Credit 1.5	Innovation in Design, TBD
1				ID Credit 2	LEED™ Accredited Professional

3	1	0	0	Regional Priority	
1				RP Credit 1.1	Regional Priority, Optimize Energy Performance (10)
	1			RP Credit 1.2	Regional Priority, Access to Quality Transit (5)
1				RP Credit 1.3	Regional Priority, Indoor Water Use Reduction - 40%
1				RP Credit 1.4	Regional Priority, Rainwater Management (3)

PATH TO NET ZERO ENERGY

As part of the Master Plan, the design team explored the path to Net Zero Energy. This means that, on an annual basis, on-site renewable energy generation will be equal to or greater than site energy use. To meet this target, the new City Hall has been designed as a high-performance building that will use passive strategies and efficient lighting and HVAC systems. A whole building energy analysis for the new City Hall was completed to assess energy end-use components and evaluate the effectiveness of various envelope, lighting, and HVAC measures, to improve the energy performance towards the goal of achieving net zero site energy.

Figure 2 shows the expected energy end-use components for a code-compliant City Hall design, helping to identify where energy is being used in the building. The information shown in Figure 3 was used to optimize the building envelope by testing the impact on energy use of different glazing assemblies, window-to-wall ratios, and opaque assemblies. Figure 4 on the next page shows the reduction in building energy consumption associated with key energy efficiency measures that are planned for the building.

Strategies recommended for the new City Hall include the following:

- Improved building envelope—Glazing U-Value: 0.25, Glazing SHGC: 0.25, Roof R-Value: R-30, Wall R-Value: R-25
- Enhanced daylight—65-foot floorplate width
- Operable windows—natural ventilation cooling
- Stack ventilation atrium—natural stack ventilation cooling
- Efficient electric lighting—30 percent LPD reduction from T-24
- Demand control ventilation
- Ground or air source heat pump (GSHP/ASHP)
- Plug load management strategy—installed and operational strategies to reduce plug loads
- PV array—approximately 23,000-square-foot on-site PV array

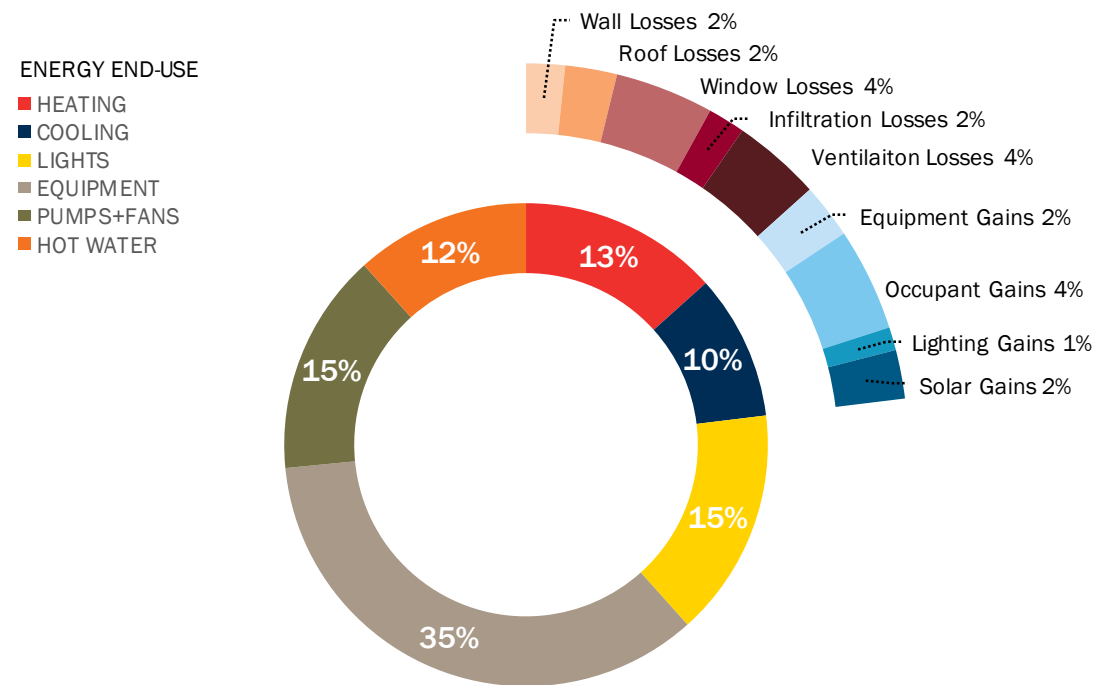


FIGURE 2: Baseline Energy End Use Characterization

DEFINITIONS

Center of Glass U-Factor: A measure of heat loss and conductive heat gain through a window
Wall/Roof R-Value: Roof and wall insulation values, inverse of U-factor
Window SHGC: Solar heat gain coefficient, a measure of heat gain through window glass
Window to Wall Ratio: Ratio of glazed window area to solid wall area

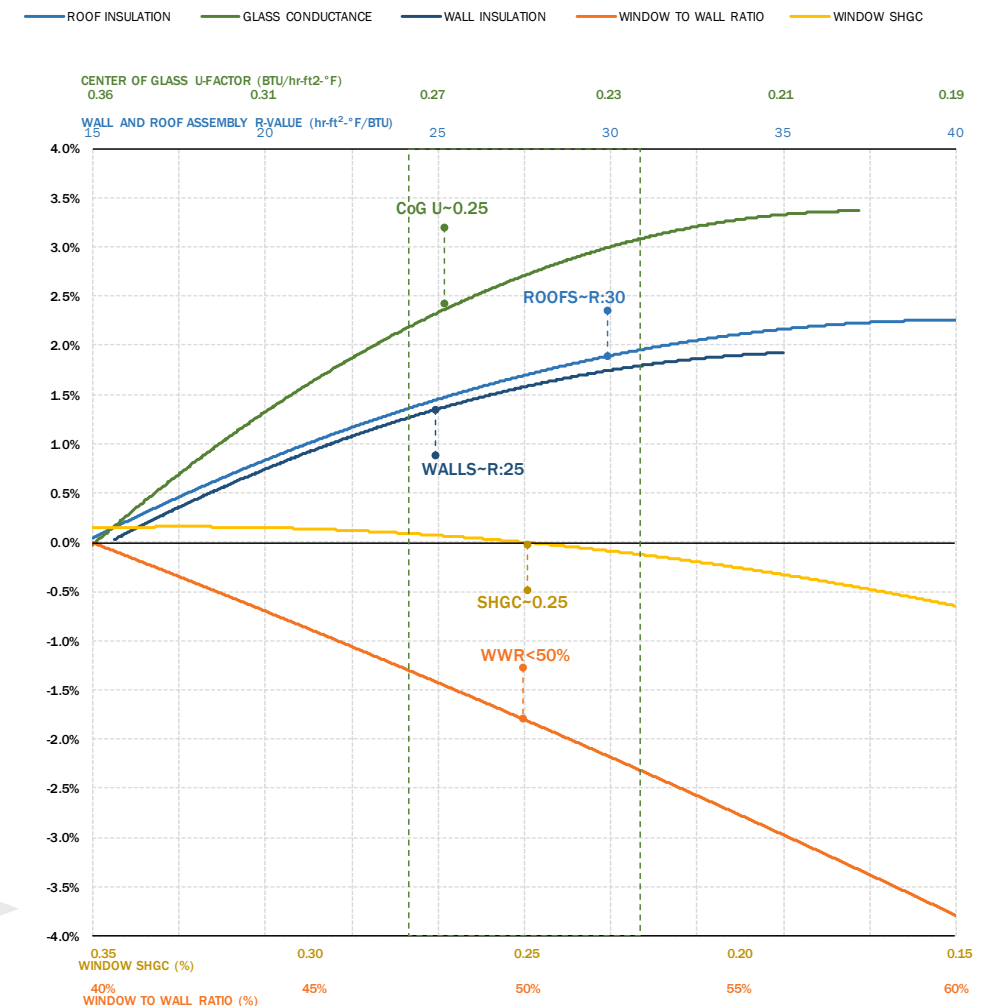


FIGURE 3: Building Envelope Sensitivity Analysis

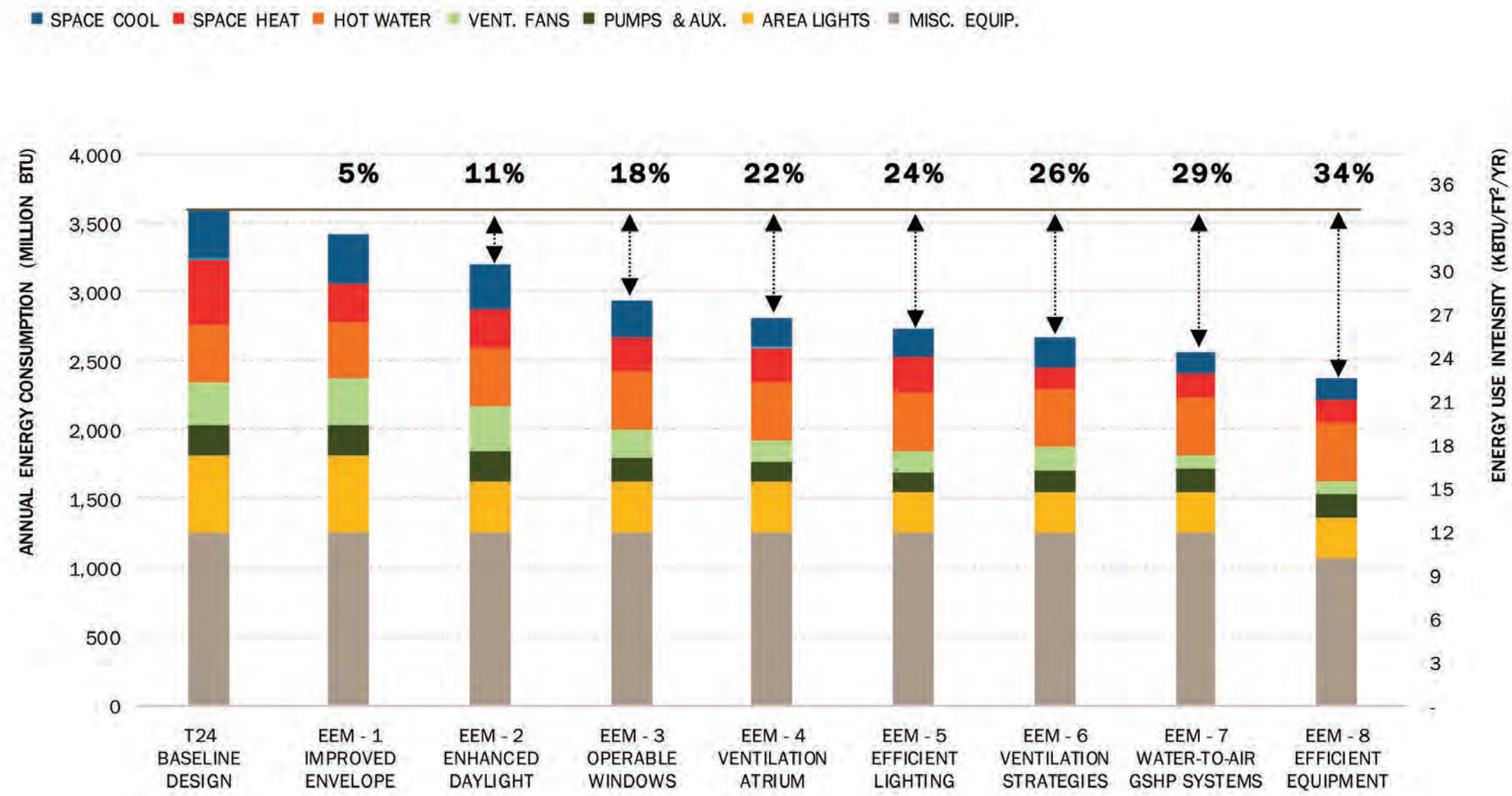


FIGURE 4: Path to NZE - Annual Site Energy Consumption

LIFECYCLE COST ANALYSIS

A life-cycle cost analysis was performed a life-cycle cost analysis for eight of the previously described energy efficiency measures (EEMs), to evaluate and compare the long-term financial feasibility of each. Five EEMs—improved envelope, daylighting controls, high-efficiency lighting, air-source heat pump, and domestic hot water heat pump—reflected payback periods of less than 10 years and positive life-cycle cost savings.

The annual and life-cycle cost savings associated with each EEM are shown in Table 1 for comparison.

Because the building is designed to consume net zero energy, the reduced photovoltaic (PV) capacity and footprint needed after implementation of each EEM is shown successively. These figures, along with the avoided first cost of Photovoltaics, are noted in the last two columns of Table 1.

Table 2 summarizes the first cost and life-cycle cost savings associated with the new City Hall’s LEED Platinum and Net Zero Energy benchmarks.

ENERGY EFFICIENCY MEASURE	DESCRIPTION (DIFFERENCE FROM BASELINE)	ANNUAL ENERGY COST SAVINGS	FIRST COST DELTA	OPERATIONAL CONSIDERATIONS	25 YR LIFE CYCLE COST SAVINGS	PV CAPACITY REQD FOR NZE & ADD’L PV COST SAVED	PV FOOTPRINT
IMPROVED ENVELOPE <i>Recommended</i>	Insulated glazing units with U-0.25; walls and roofs with R-25 and R-30 respectively; Window-Wall Ratio of <50%.	\$4,661	Negligible	-	\$86,000	518 KW - \$40,000	28,836 sf
ENHANCED DAYLIGHT DISTRIBUTION & CONTROLS <i>Recommended</i>	Daylight-responsive lighting controls for open spaces up to 25 ft from the building perimeter.	\$4,962	\$ 39,000	-	\$53,000	483 KW - \$64,000	27,674 sf
NATURAL VENTILATION - OPERABLE WINDOWS AND STACK EFFECT <i>Recommended</i>	Casement windows with a fully automated natural ventilation system and additional story for the atrium to assist cross-ventilation in office spaces	\$6,047	\$ 285,000	Maintenance of operable window system, controls, and actuators	(\$173,000)	468 KW - \$28,000	25,838 sf
HIGH EFFICIENCY LIGHTING DESIGN <i>Recommended</i>	Reduction in lighting power density by 20% compared to Title 24 requirements	\$5,068	\$15,000	-	\$79,000	455 KW - \$25,000	25,037 sf
ENERGY RECOVERY	Inclusion of exhaust air enthalpy recovery wheel	\$3,109	\$84,000	Maintenance of ERV components, filter replacement, exchanger cleaning	(\$26,000)	450 KW - \$9,000	24,301 sf
GROUND SOURCE HEAT PUMP	A switch from baseline VAV system with electric-reheat and onsite water-cooled chillers to high efficiency ground-source heat pumps	Negligible	\$716,000	Avoided chiller replacement, filter changes, add’l maintenance; however ground heat profile might deteriorate over time	(\$721,000)	445 KW - \$10,000	24,045 sf
AIR SOURCE HEAT PUMP <i>Recommended</i>	A switch from baseline VAV system with electric-reheat and onsite water-cooled chillers to high efficiency air-source heat pumps	\$11,811	Negligible	Filter replacement, duct inspection, refrigerant leak check	\$218,000	434 KW - \$19,000	23,759 sf
DOMESTIC HOT WATER HEAT PUMP <i>Recommended</i>	A switch from baseline electric resistance heater to high efficiency heat pump	\$6,860	\$25,000	Filter replacement, duct inspection, refrigerant leak check	\$102,000	417 KW - \$32,000	22,272 sf

TABLE 1: Lifecycle Cost Analysis Results

TOTALS:

DESIGN CASE	FIRST COST	25 YEAR LIFECYCLE COST SAVINGS	PAYBACK PERIOD
LEED PLATINUM	+ \$ 364,000 All recommended energy efficiency measures described in Table 2	\$365,000	11 yrs
NET ZERO ENERGY BUILDING	+ \$ 1,075,000 421 kW DC PV Array necessary to meet net zero energy goal	\$1.77 M	8 yrs

TABLE 2: Sustainability Benchmarks LCCA Summary

SITE ANALYSIS AND RESEARCH

The design team explored the site from a variety of scales:



STATE | CALIFORNIA

The Civic Center site is in the San Francisco Bay Area in Northern California.

REGION | BAY AREA

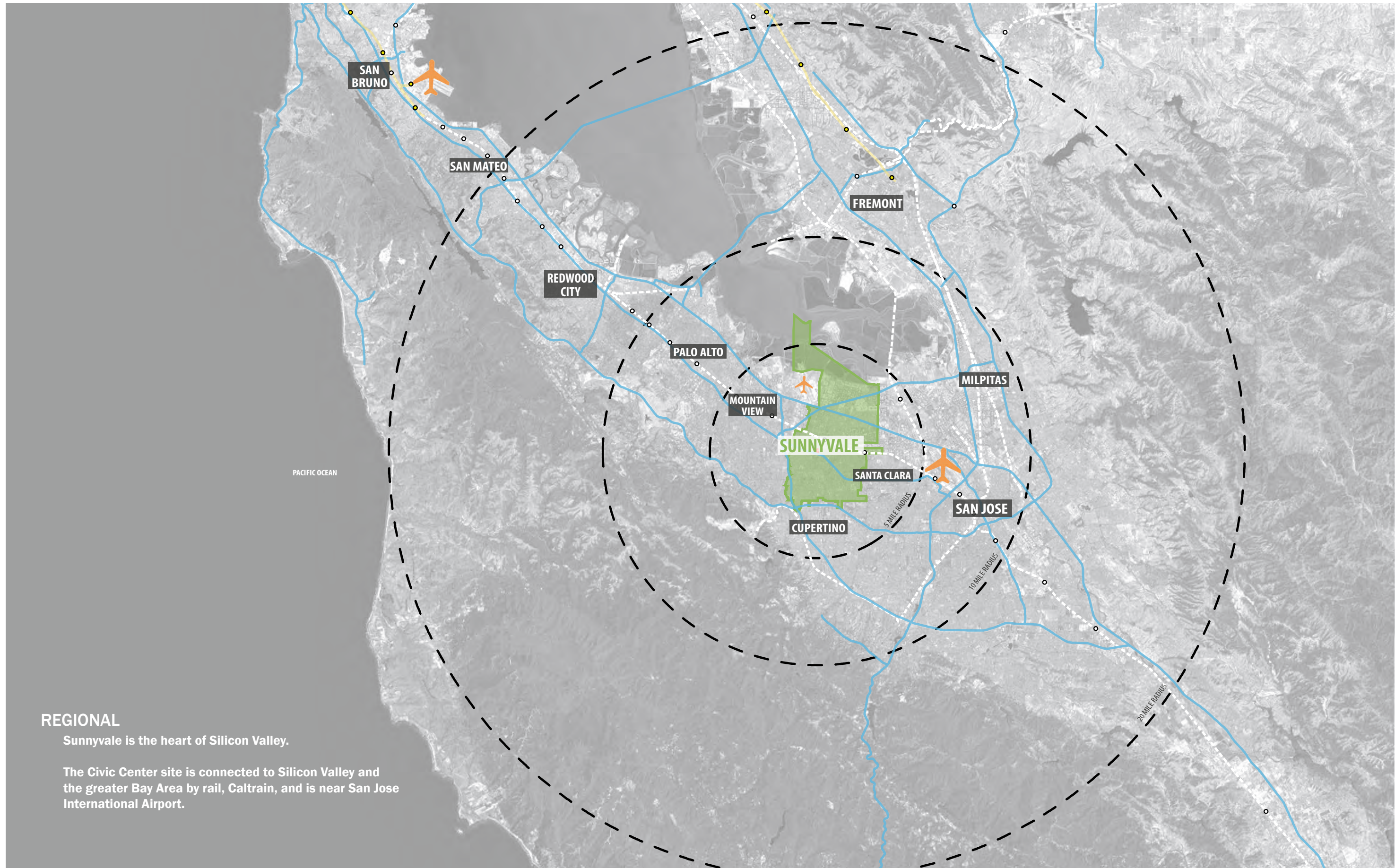
The city of Sunnyvale is approximately 32 miles southeast of the city of San Francisco and is east of the city of Mountain View, west of the city of Santa Clara, and north of the city of Cupertino.

CITY | SUNNYVALE

The Civic Center site is near the geographic center of the city of Sunnyvale. The site is a little less than 2 miles south of U.S. Highway 101 and approximately 0.5 mile south of the Sunnyvale Caltrain station.

SITE | CIVIC CENTER CAMPUS

The Civic Center site encompasses a 24.5-acre campus, divided into eight parcels that range from 0.2 to 6.9 acres in size. The site is roughly bounded by South Pastoria Avenue to the west, El Camino Real to the south, South Mathilda Avenue to the east, and West Iowa Avenue to the north. West Olive Avenue and All America Way cross the center of the site.



REGIONAL

Sunnyvale is the heart of Silicon Valley.

The Civic Center site is connected to Silicon Valley and the greater Bay Area by rail, Caltrain, and is near San Jose International Airport.

HISTORY

The early development of the Sunnyvale area generally was because of the vigorous promotional efforts of real estate entrepreneur Walter Everett Crossman. In 1897, Crossman purchased 200 acres, laid out streets for subdivision in 1-acre parcels, and named the new city Sunnyvale in 1901.

Crossman spearheaded an ambitious marketing plan to turn Sunnyvale into a factory town that combined both agriculture and industry, referring to the new town as the “City of Destiny” and offering free train rides to prospective homebuyers.

The 1906 San Francisco Earthquake and resulting fire were a major turning point in the promotion, and many businesses and residents fled to the surrounding counties. Crossman offered free land to companies that would relocate and build a new plant in Sunnyvale. Iron Works (now Northrop Grumman) and the fruit canner Libby, McNeil & Libby were among the companies that accepted.

In 1955, the City hired architect Milton Pflueger and landscape architect Robert Royston to design and build the Sunnyvale Civic Center complex, starting with the City Hall as the focus of the complex, as well as aligning Olive Avenue and All America Way. The Main Library was completed in 1960, the Sunnyvale Office Center in 1963, the City Hall Annex in 1970, and the Public Safety Headquarters Building in 1985.

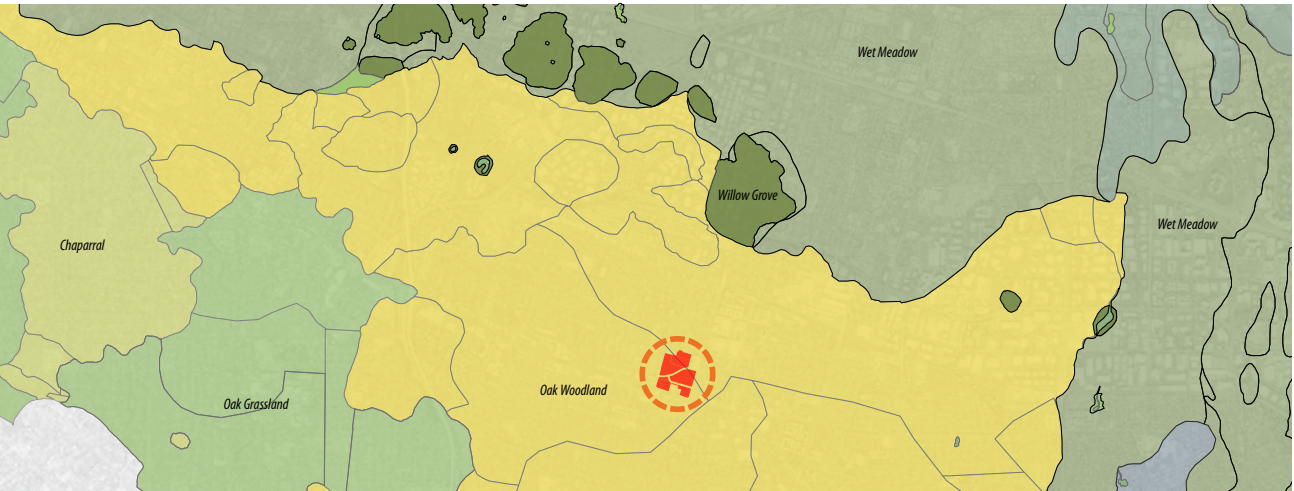


Historical Aerial Map

HISTORICAL ECOSYSTEMS AND HABITATS

Before 1900, native oaks were abundant in many of California’s valley, including Sunnyvale. These trees thrived on hot open plains, enabling them to endure California’s long dry season and frequent droughts.

Historic data shows that the Civic Center campus previously was in an oak woodland ecosystem.



Historical Ecosystem Gis Data

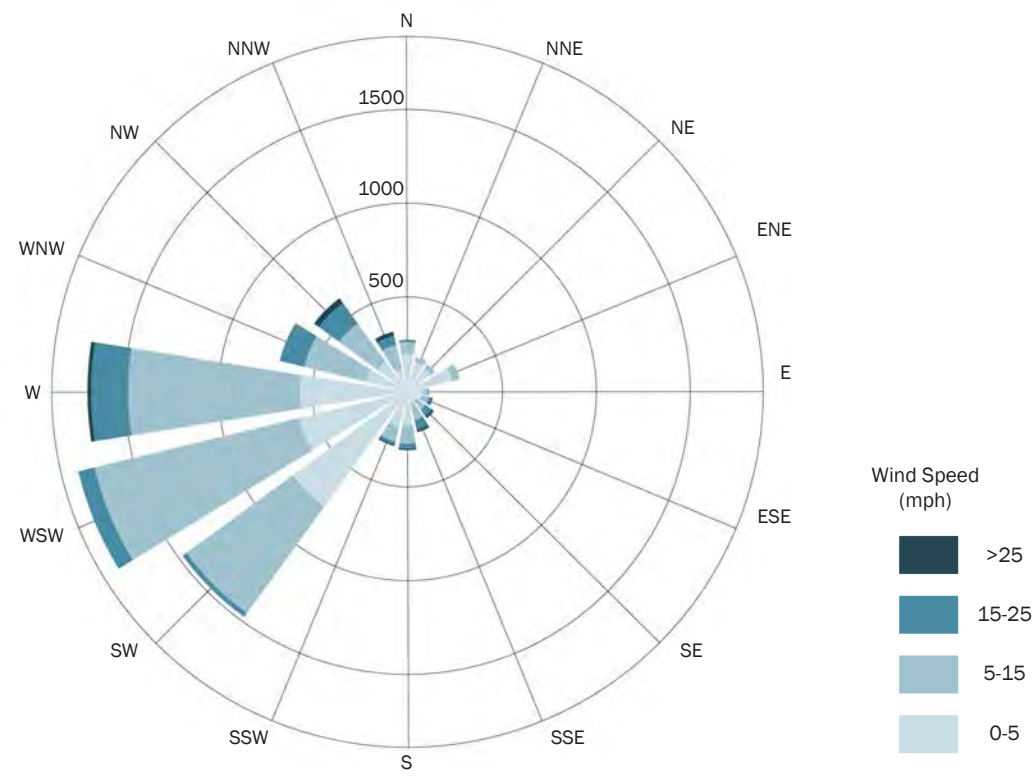
CLIMATIC INFLUENCE

The San Francisco Bay Area has a Mediterranean climate that is characterized by wet winters and dry summers. The city of Sunnyvale is in the Santa Clara Valley at the southern most end of the San Francisco Bay.

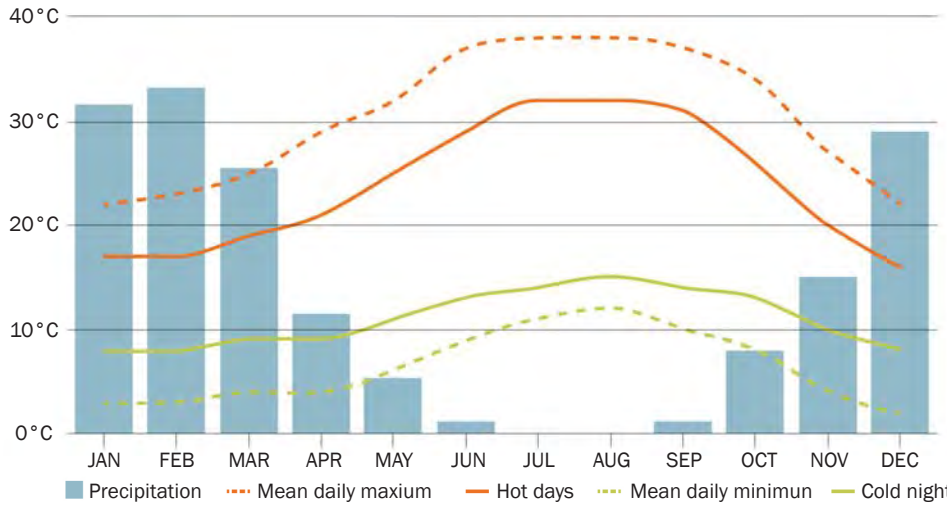
Santa Clara County is bounded by the Santa Cruz Mountains to the west and the Diablo Range to the south. Temperatures in the South Bay range from the high 70s to low 80s during summer and high 50s to mid-60s during winter.

Precipitation averages 13 inches annually. Because of the Santa Cruz Mountains to the west, a “rain shadow” occurs in Sunnyvale. The hottest temperatures occur in July and August, and the coldest temperatures occur in December and January.

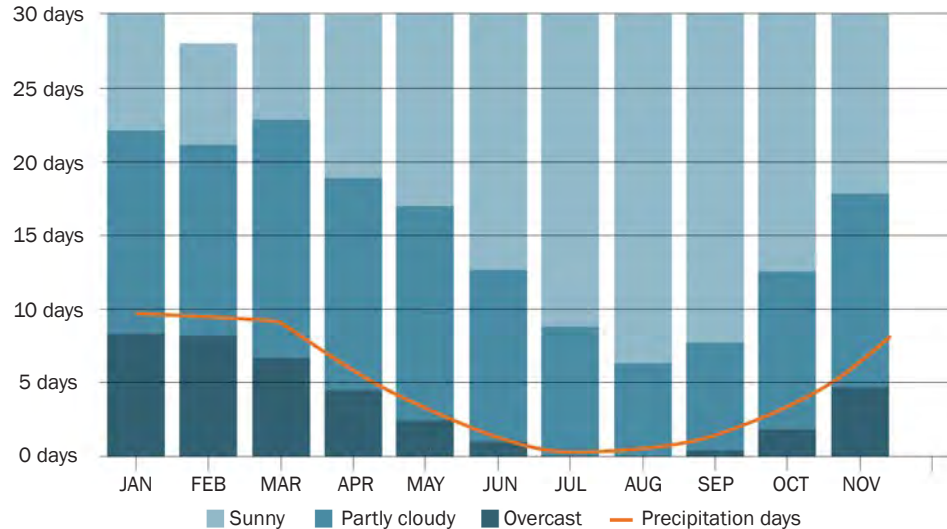
WIND DIRECTION



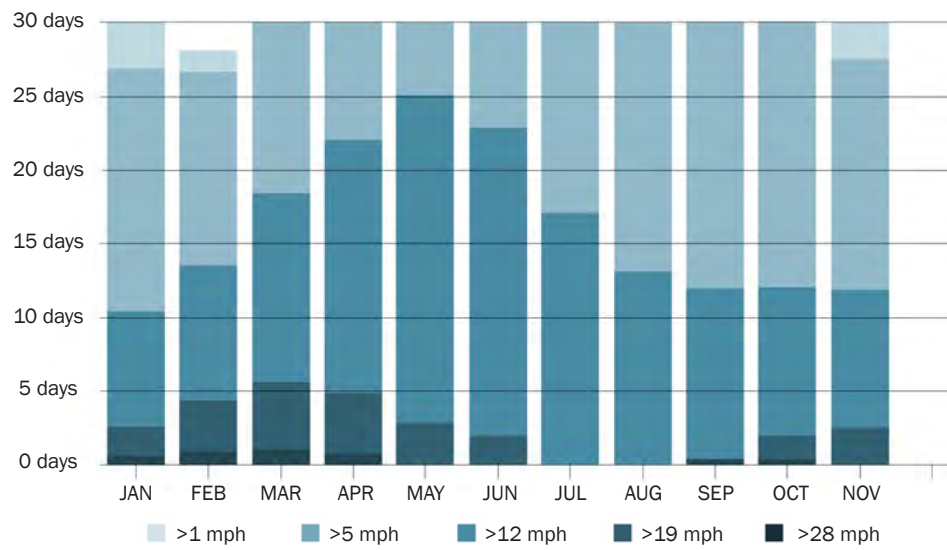
AVERAGE
TEMPERATURES AND
PRECIPITATION



CLOUDY, SUNNY, AND
PRECIPITATION DAYS



WIND SPEED





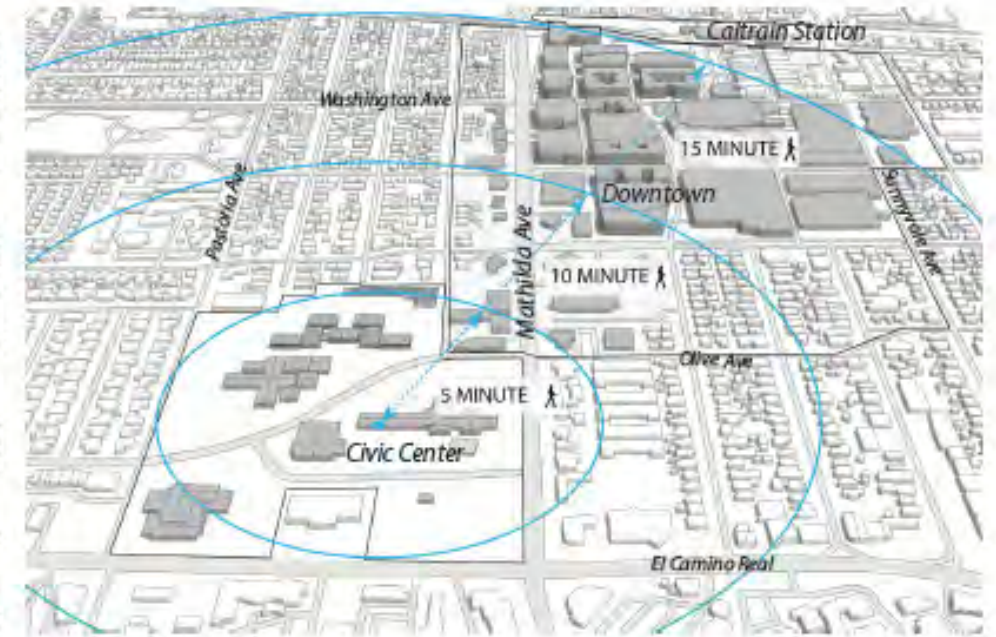
URBAN CONTEXT

The Civic Center is adjacent to Downtown, the Town Center, and the Caltrain station supporting urban connections.



ENVIRONMENTAL CONDITIONS

Orientation of buildings and adjacent outdoor spaces can provide protection from the wind and create shade to maximize comfort.



WALKABILITY

Although Sunnyvale is predominately car-focused, the short distance from the Civic Center to Downtown and the Caltrain station support a walkable strategy for the community. The high traffic volumes on Mathilda and El Camino should be taken into consideration and designed for to enhance the pedestrian experience.



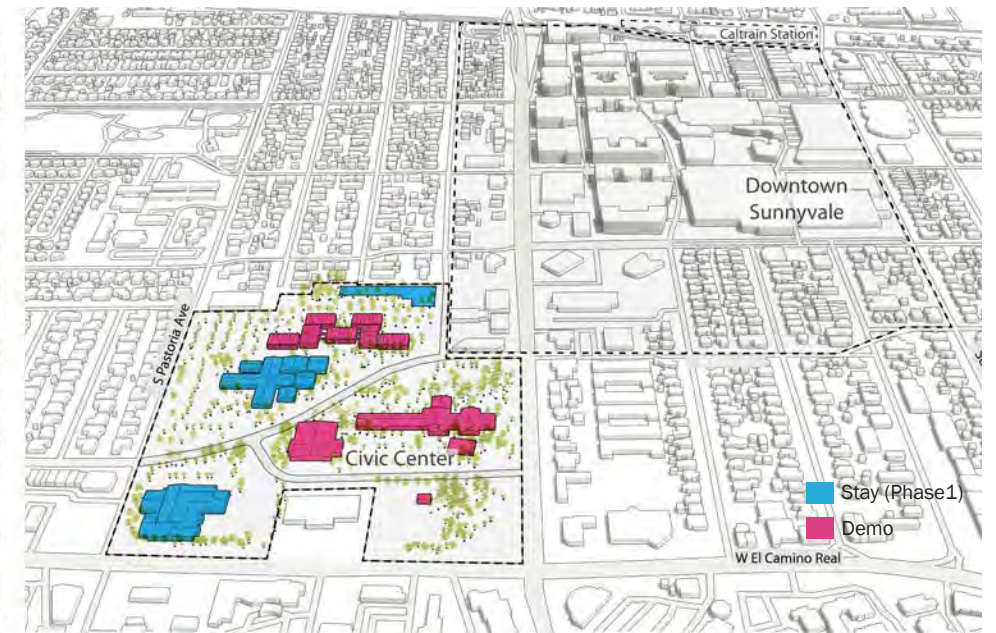
TRANSIT

With adjacent bus lines to the Civic Center and nearby bike lanes, the new Master Plan can take advantage of a multi-modal transit strategy.



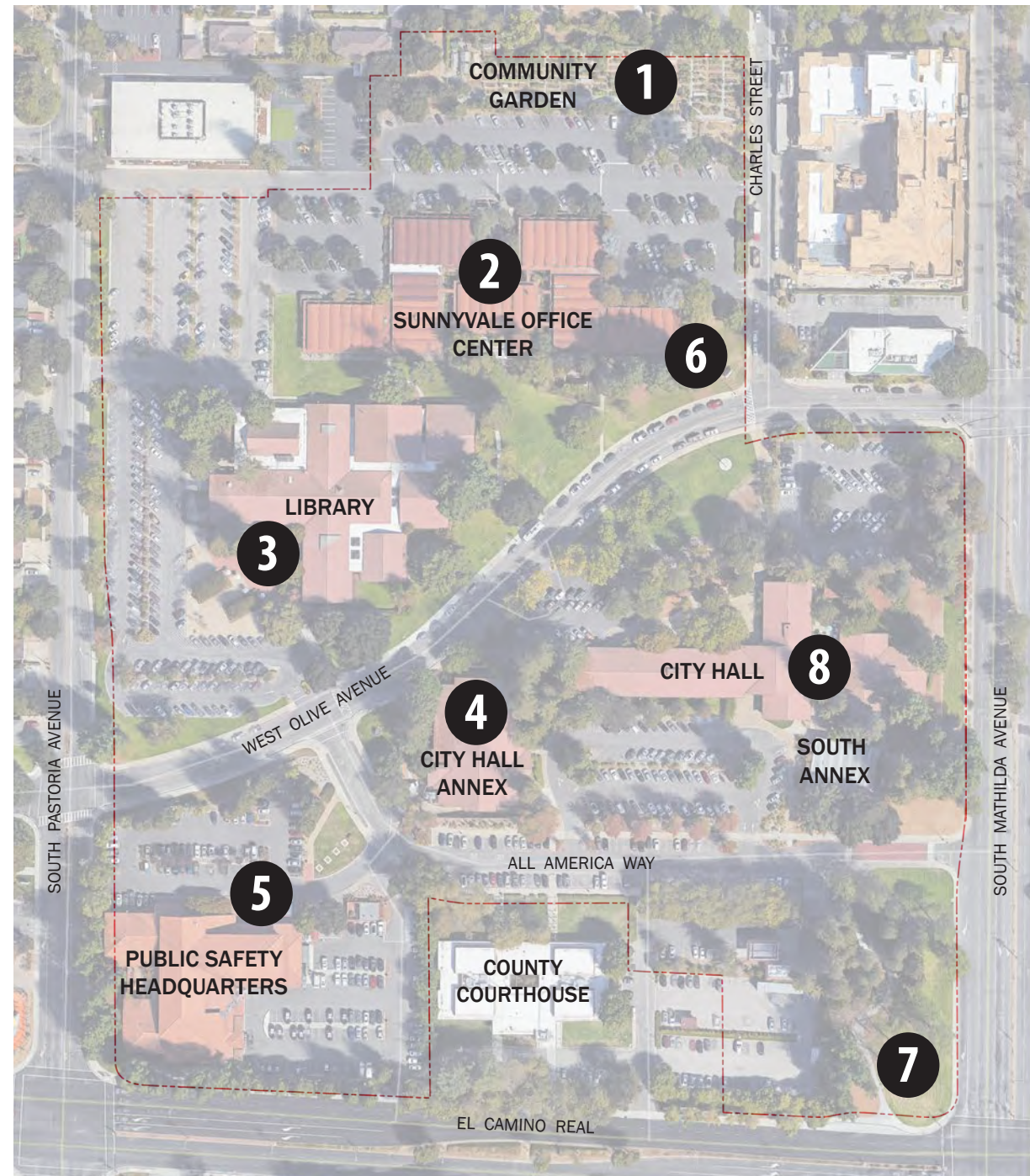
GATEWAY

The Civic Center and Downtown together create and anchor the city center north and south along Mathilda Avenue. Conceptual or physical gateways can be identified at Washington Avenue and El Camino Real along Mathilda Avenue.



EXISTING BUILDINGS AND SITE FEATURES

The design team reviewed and determined which existing buildings will remain, and the existing protected trees will determine available land area and opportunities to optimize future Master Plan development.



Sunnyvale Civic Center - Existing Conditions

SCALE: 1"=200'



CIVIC CENTER CAMPUS - EXISTING CONDITIONS

The 24.5-acre Civic Center campus is divided into eight parcels, ranging from 0.2 to 6.9 acres in size. The site is roughly bounded by South Pastoria Avenue to the west, El Camino Real to the south, South Mathilda Avenue to the east, and West Iowa Avenue to the north. West Olive Avenue and All America Way cross the center of the site.

Six main buildings are on the Civic Center campus: City Hall, the City Hall Annex, the City Hall South Annex, Sunnyvale Library, the Public Safety Headquarters building, and the Sunnyvale Office Center. A community garden is along the northern edge of the campus. Several public art pieces are in and around the campus buildings.

Impervious surfaces, primarily buildings and parking spaces, cover approximately 70 percent of the campus. The campus includes an unofficial park on South Mathilda Avenue, between All America Way and El Camino Real.



1 COMMUNITY GARDEN



5 PUBLIC SAFETY HEADQUARTERS



2 SUNNYVALE OFFICE CENTER



6 NOVA



3 LIBRARY



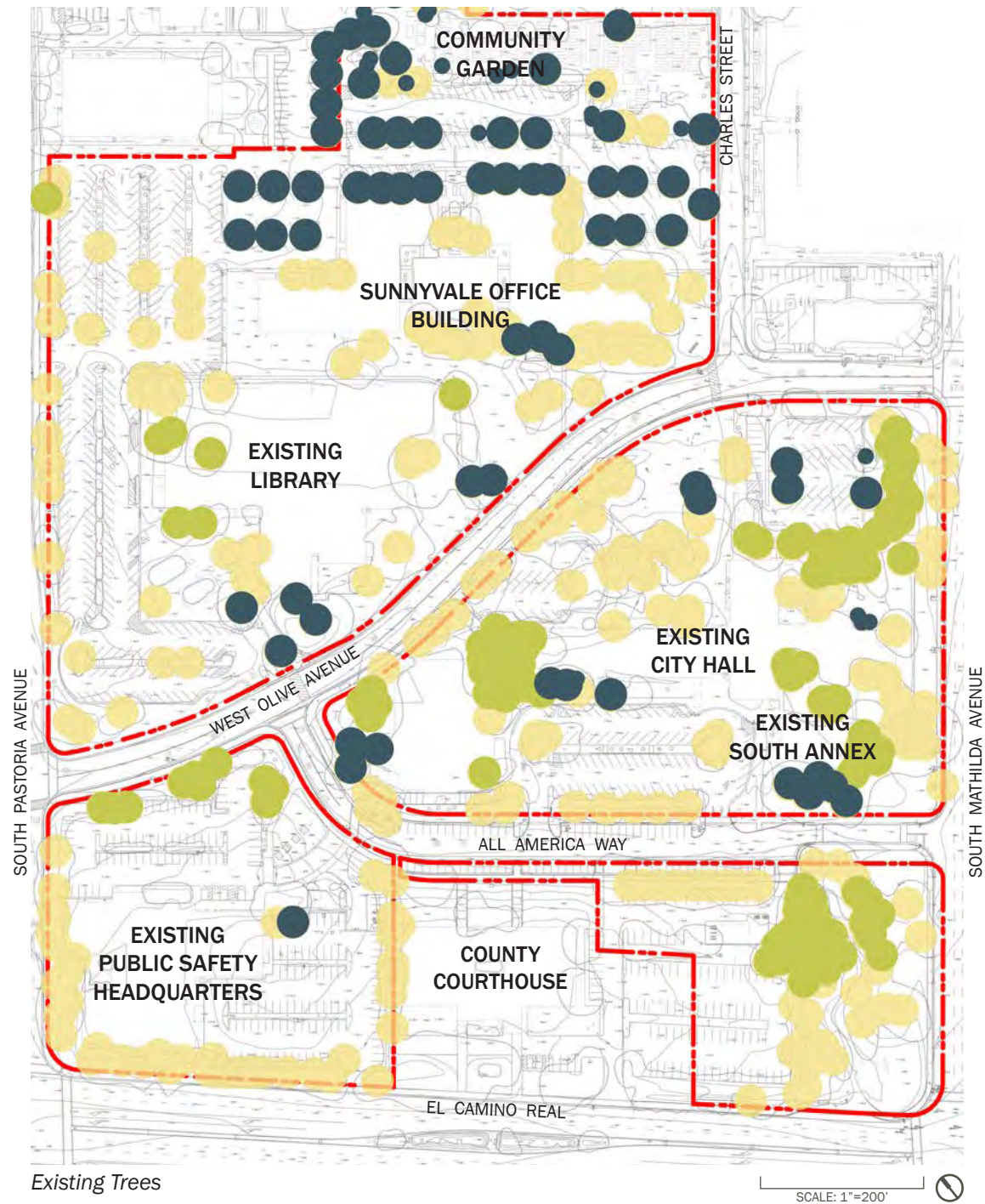
7 PUBLIC ART



4 CITY HALL ANNEX



8 CITY HALL



KEY

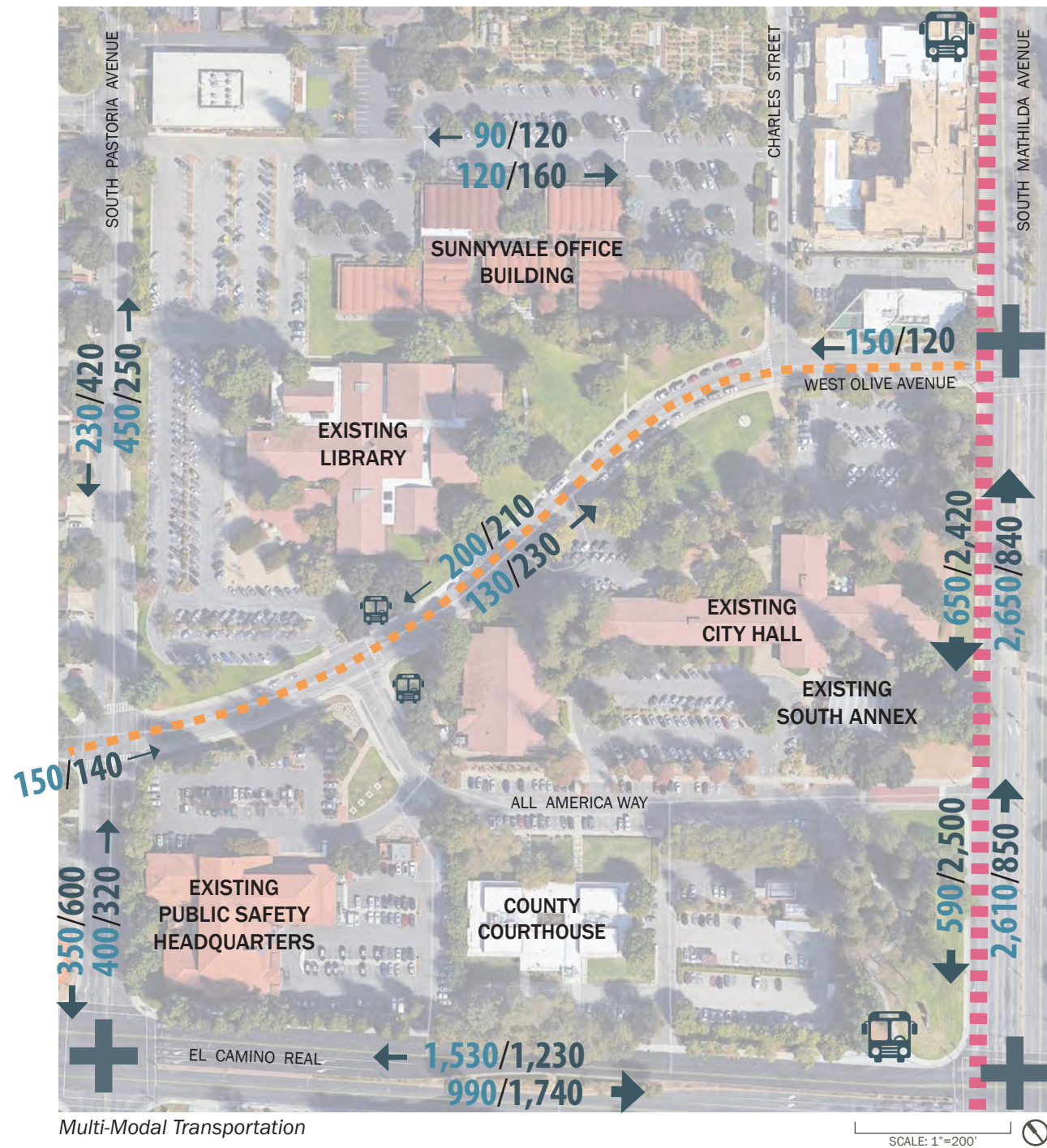
- REDWOODS
- OAKS
- PROTECTED TREES

CAMPUS TREES

A tree survey was performed by HortScience in July 2017. A total of 725 trees are on the campus, half of which are considered to be protected by the City's Tree Preservation Ordinance. The campus has 60 different tree species, with Coast redwoods accounting the greatest portion.

Redwood groves create beneficial microclimates in the campus, decreasing the average dry bulb temperature and increasing the relative humidity, and provide places of shade and respite for visitors.





KEY

AM PEAK AVERAGE DAILY TRAFFIC

PM PEAK AVERAGE DAILY TRAFFIC

TRAFFIC LIGHTS

BUS STOPS

FUTURE PROTECTED BIKE LANE

GUIDED BIKE ROUTE | 600 [NOT PROTECTED OR SEPARATED]

MULTI-MODAL TRANSPORTATION

A traffic analysis was conducted for the campus, noting primary traffic patterns during peak travel times. Existing vehicular circulation accesses the Civic Center Campus via Olive Avenue and All America Way.

Both El Camino Real and Mathilda Avenue are arterial roadways, with wide streets and high traffic volumes. El Camino Real is the busiest transit corridor in Santa Clara County and has a high caution street rating for pedestrians and bicyclists.

In 2017, the Santa Clara Transportation Authority approved changes to the public transportation routes which includes the elimination of Route 54 (which runs along West Olive Avenue) and the creation of a rapid Route 523.



PARKING - EXISTING SUPPLY

All parking space on the Civic Center campus is surface parking space, providing 952 parking spaces. A secured lot with 98 parking spaces serves the Department of Public Safety (DPS) Headquarters building.

Parking Summary

Public Spaces	854
DPS Secure	98
Total	952

PARKING - AVERAGE OCCUPATION

Parking spaces currently are under-utilized, with the average occupancy for parking on the campus at 68 percent. Further analysis found that different user groups use the public spaces at different times and dates.

Campus-wide Summary

Public Spaces	75%
DPS Secure	59%
Avg.	68%

Average Occupancy

68%

Utilization Summary

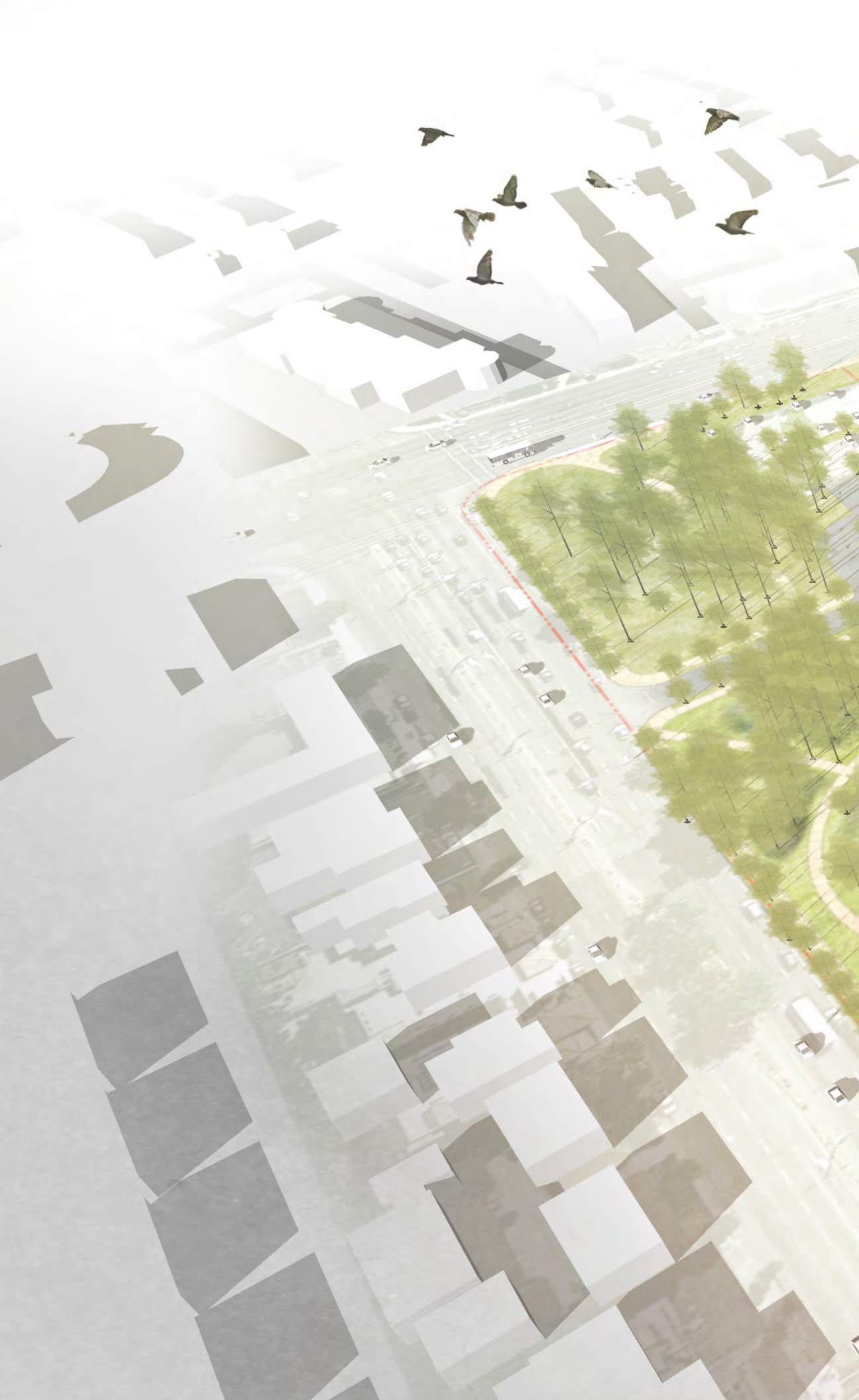
Total Parking Spaces	952 Spaces
Maximum Utilization	714 Spaces
Average Utilization	674 Spaces

ACKNOWLEDGMENTS | PROJECT TEAM

The Sunnyvale Civic Center Master Plan would not have been possible without the support and input of countless individuals that devoted their time and input to its development. The individuals listed below, and those who participated behind the scenes, yielded ideas and a framework for change that have defined a forward-thinking vision and implementable strategy for the Civic Center.

Prepared by:
Architecture, Landscape Architecture, Campus Planning: **SMITHGROUP**

Consultants:	
Structural Engineer:	Rutherford + Chekene
Sustainability Consultant:	Atelier Ten
MEP Engineer:	PAE
CEQA/Program Level EIR:	Panorama Environmental, Inc.
Cost Estimation:	Cumming
Arborist:	Hort Science
Civil Engineer/Survey:	BKF
Parking Consultant:	Watry Design, Inc.







Sunnyvale

SMITHGROUP

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