Design Guidelines

Site and Landscape
Architecture
Sustainability and Resilience
Introduction

The purpose of the Design Guidelines is to guide future civic and private development on the Civic Center campus, focused on look and feel, design character, and sustainability goals of site and building projects, and other guidelines that influence the project design. This document has been prepared in conjunction with the Master Plan book, to make it easier for architect, developer, City and County staff, and decision makers to use, and to provide clear direction on new developments.

Photographs that accompany the guidelines are intended to depict concepts related to building elements and site design rather than a specific architectural theme or style.

For the purpose of this document, the primary focus is Site A and C (Civic Core).

The Design Guidelines is organized into the following topics:

- Site and Landscape

The site and landscape guidelines provide look and feel recommendations on all site projects.

- Architecture
  The architecture guidelines provide direction on the more qualitative aspects of a development project and may be interpreted with some flexibility.

- Sustainability and Resilience
  The sustainability and resilience guidelines describe performance goals for new developments.
Site and Landscape Overview

The purpose of the site and landscape design guidelines is to lay out a cohesive vision for site and landscape design as a civic campus, and improve the overall aesthetic character and visual unity of the Santa Clara County Civic Center Campus. These guidelines are intended to guide the design of the public realm that is of a civic nature and quality and is a comfortable, well-shaded environment that favors the pedestrian.

The Site and Landscape design guidelines are organized into the following structure:

- Site Circulation
- Parking Areas
- Service and Utility Areas
- Program Areas
- Plazas
- Garden Areas
- Terraces, Breezeways, and Covered Areas
- Planting
- Site Materials and Site Furnishing
- Signage and Wayfinding
- Site Lighting
- Site Security
- Streetwall
- View Corridors

Sidewalk with ample landscape, lighting, and furnishing
Site Circulation

Pedestrian Facilities

All pedestrian facilities shall:

- Include shading elements such as roof overhangs and mature tree canopy trees to create a comfortable shaded pedestrian environment.
- Provide clear directionality and hierarchy of circulation corridors.
- Employ a consistent and limited number of pavement, planting, lighting, and furnishing materials.
- Pavement materials should be pedestrian in scale and character.
- Provide small scale waste receptacles in convenient, yet non-obtrusive locations.

Pedestrian spine shall:

- Provide special paving, planting, signage, and lighting.
- Allow for mid-block pedestrian crossings across West Younger Avenue.

Sidewalk improvements shall:

- Provide sidewalk of a minimum width of 15 feet along West Hedding Street.
- Include the potential to incorporate stormwater management.

Bicycle Facilities

Bike lane realignment on West Hedding Street:

- Bike lane design shall conform to the City of San Jose Bike Plan.
Streetscape and Parking Areas

Streetscape
New streets and streets improvement should consider:
- Incorporate traffic calming measures such as pavement material differentiation, narrowed road sections at crossing points, raised crosswalks, or speed tables.
- Incorporate stormwater management.
- Provide continuous shaded landscapes that are safe and comfortable for pedestrians, bicycles, transit users, and vehicles.

Parking Areas
All Parking Areas in Phase 1 and 2 shall:
- Minimize curb cuts for parking access to decrease vehicular-pedestrian conflicts.
- Provide clear signage and wayfinding for all parking areas and entries.
- Incorporate photovoltaic arrays into parking area design for shade and energy generation.
- Provide safe and clear pedestrian circulation – separate walkways from vehicular travel – within parking areas, as well as to and from parking areas and program areas.
- Incorporate regularly and consistently spaced lighting along drive aisles and walkways to provide uniform light levels.

Parking Structures:
- Incorporate screening into the parking structure exterior that enhances aesthetics, ventilation, and security.

Surface Parking Lots:
- Incorporate stormwater management such as parking filter strips and pervious paving where conditions allow, especially at the parking perimeter landscape areas, and where planter islands divide parking fields.
- Tree planting and low planting should be employed to mitigate urban heat island and reduce visual impact of vehicles.
Service and Utility Areas

Service and utility areas shall:

- Service areas shall be screened from view by walls, fences, planting, use of grade separation, or any combination of these.
- Access to service areas should be designed to create a positive interface with adjacent buildings and nearby pedestrian circulation.
- Separate pedestrian and bike circulation from service areas.
- Design vehicular access to service areas with clear sight lines and clearances to provide safe interactions between drivers, pedestrians and property.
Program Areas

New open space areas should incorporate programs and activities in order to bring positive activity into the space throughout the day, evenings, and weekends. Public realm programming helps to keep the spaces safe, welcoming, and well used. Programming should target the County employees who work on site, welcome in the surrounding neighborhood, and be an amenity for the entire County. Programming opportunities will support public life activities, cultural programming, civic events, and recreational opportunities. The calendar of programming should focus on bringing in regular day-to-day activity into the public realm, as well as some larger audience programs and events.

Potential daily programs and activities include:
- shaded seating areas
- free Wi-Fi
- community gardens and orchards
- fitness loop
- playgrounds
- public art
- ping pong, bocce, chess
- cafe, coffee cart, or neighborhood retail
- wedding chapel

Potential special event programs include:
- cultural festivals
- small musical performances
- children’s storyline or puppet show
- art market
- farmer’s market, food trucks
- movie night
- outdoor yoga, tai chi, fitness

![Community garden](image1)
![Playground](image2)
![Bocce](image3)
Plazas

The plazas are portals into the site, providing vibrant and active gathering area with inviting spaces to sit, walk through, and enjoy daily programs or small events. The plazas are made up of hardscape paving, allowing for a variety of uses, complemented with clusters of trees and planting, ample shade, and a variety of places to linger.

The plazas should:
- be inviting and open to the street
- allow for flexible programming
- have an open path of travel that reinforces the internal circulation network
- provide a variety of places to sit and gather, including lawn, sculptural furniture, flexible seating, and seating in the sun and in the shade

Materiality and amenities include:
- unit pavers
- lighting
- signage
- planting beds
- larger trees
- bermed lawns
- seatwalls
- flexible/movable seating
- bike racks
- trash cans
- sculptural play elements
- art elements
- bollards
- planted biofiltration areas
- slot drains
Garden Areas

The garden areas are lush and inviting with places to sit and linger in a more intimate setting. They have a more room-like quality, and break up the larger plaza spaces. The planting will have a textural and colorful quality to provide visual interest, and strands of trees will provide ample shade. The main pedestrian pathway will be paved with unit paves, and the seating areas will have decomposed granite, wood, or gravel paving. Trees are mostly in planting, and occasionally in tree grates. Drainage is taken care of with biofiltration planting and slot drains.

The garden areas should:
- offer respite and quiet from the more busy and vibrant plaza areas
- allow for small-scale programming and flexible seating
- have an open path of travel that reinforces the internal circulation network
- have a cozy an intimate feel

Materiality and amenities include:
- unit pavers
- small areas of decomposed granite, wood, and gravel paving
- lighting
- planting beds
- trees and tree bosques
- movable furniture
- specialty seating elements
- scuptural play elements
- fitness equipment
- possible bocce ball or ping pong
Terraces, Breezeways and Covered Areas

Terraces and covered areas provide a transitional area from building to open space, and a shaded area for seating, break out, or gathering. Breezeways can help connect through a building, uniting major plaza spaces or bridging the connection from a plaza to the street.

Where feasible:

- Incorporate terraces and outdoor covered areas to connect buildings to the campus surroundings.
- Connect to main circulation elements and outdoor open space.
- Integrate into the design of collaborative program areas.
- Provide a variety of shaded scaled spaces to accommodate for formal and informal gathering.
Planting

Trees and plantings will incorporate the natural qualities, climate, and waterwise solutions as appropriate for the Santa Clara County landscape. The trees and plantings will reflect the composition of the landscape communities found in the nearby hills, as well as a more cultivated, gardenesque character that affords visual interest in texture, color, and forms.

Where feasible, the design will incorporate and work with the remarkable full growth tree specimens that can currently be found on site.

All trees and plantings will support the sustainability goals of the project, including selections that adhere to low water use and are adapted to urban conditions. Where feasible, native plant selections will be incorporated.

Planted areas will be part of the stormwater solution, using raingardens, bioswales, and planting beds to collect and clean stormwater, and allowing for slow infiltration back into the soils and ground water. The landscape stormwater elements will be aesthetic, holistic, and educational.
Site and Landscape

Site Materials and Site Furnishings

Site materiality and site furnishing can enhance the sense of place and continuity of the civic center experience by bringing together a cohesive language of aesthetics. Site materiality and furnishings can also be an occasion to add playful elements, visual interest, or differentiated gathering locations.

Materials and site furnishings should be functional, appealing, and comfortable. They should follow a contemporary aesthetic, while still being accessible and inviting. The material and furnishing selection should encourage patrons to linger outdoors and invite social interaction.

Materials and furnishings should be durable and adhere to the sustainability standards of the site.

When feasible, materials should be:
- locally sourced
- recyclable
- made with recycled content
- come from renewable sources
- not emit VOCs

Site materials should be maintained to a high quality, promoting a sense that the spaces are well cared for and looked after, advocating for the public to do the same and treat the site areas and furnishings with respect.

In all cases, site materials and furnishings should provide for optimal site accessibility and safety, and adhere to all ADA standards.

Variety of materials
Timber benches
Unit pavers and tree grates
Flexible seating
Drinking fountains
Bike racks
Lighting
Trash receptacles
Signage and Wayfinding

The Santa Clara County Civic Center signage and wayfinding guidelines are intended to create a cohesive and engaging signage experience for all Civic Center visitors and users.

These placement guidelines, along with the signage design and usage guidelines found in the County of Santa Clara Sign Standards - Version 2 (available from the County), illustrate a unified system of identification, directional and regulatory signs for the main Civic Center exterior environments, and will:

- Enhance the overall first impression of the Civic Center.
- Provide a branded character and visual language that reflects the pride and values that SCCCC exemplifies.
- Bring a consistent and visual hierarchy to signage and wayfinding elements.
- Simplify Civic Center orientation and navigation, for both vehicles and pedestrians.
- Incorporate modularity, flexibility, durable materials, vandal resistance, and sustainability.
- Consider the needs of all users, and all user’s abilities.
Sign Types

E.ID.01.1 - Skyline Identification

E.ID.02.1 - Primary Site ID (Monument)

E.ID.03.2 - Primary Building ID (Monument)

E.ID.04.1 - Building Entrance ID (Freestanding)

E.ID.05 - Building Entrance ID (Wall-Mounted)

E.ID.06 - Building Entrance Vinlys

E.ID.07 - Campus Map

E.ID.08 - Parking Lot ID

E.DIR.01 - Vehicular Directional

E.DIR.02 - Pedestrian Directional

E.DIR.03 - Off-Site Campus Directional

E.R.01 - No Smoking

Scale: 1/8" = 1'-0"

For more specific sign details and usage criteria, refer to complete County of Santa Clara Sign Standards - Version 2 (available from the County).
Sign Program Location Plan

This sign location plan shows preliminary programming locations for the sign types included in the proposed County of Santa Clara Sign Standards - Version 2 (available from the County), per the Standards’ usage guidelines. The Sign Type List below shows those signs currently programmed; those not programmed require coordination by project architect.

Master Sign Type List

**IDENTIFICATION SIGNAGE**
- E.ID.01.1 - Skyline Identification
- E.ID.02.1 - Primary Site ID (Monument)
- E.ID.03.2 - Primary Building ID (Monument)
- E.ID.04.1 - Building Entrance ID (Freestanding)
- E.ID.05 - Building Entrance ID (Wall-Mounted)
- E.ID.06 - Building Entrance Vinyls
- E.ID.07 - Campus Map
- E.ID.08 - Parking Lot ID

**DIRECTIONAL SIGNAGE**
- E.DIR.01 - Vehicular Directional
- E.DIR.02 - Pedestrian Directional
- E.DIR.03 - Off-Site Campus Directional

**REGULATORY SIGNAGE**
- E.R.01 - No Smoking
Sign Placement: Example Detail

This hypothetical site plan illustrates how the exterior sign types function together, each sign type providing identity, information, and direction. Applied as a system, the signage guides visitors and employees toward vehicular entry points, parking, pedestrian paths, and building entries.
Site Lighting

Site lighting guidelines have been developed with a focus on safety, sustainability, maintenance, and respect for the Civic Center aesthetics.

As the Civic Center and technology evolve, additional outdoor lighting needs will develop.

Site lighting should consider:

- Lighting is an important element to help unify civic center spaces and provide consistency and hierarchy amongst architectural, landscape, circulation, and use elements and patterns.
- Provide orientation by clearly indicated pathways and destinations.
- Enhance circulation by providing lighting that is evenly dispersed and color accurate.
- Provide uniformity in fixture finish for aesthetic consistency and ease of maintenance.
- Site lighting shall avoid unnecessary light pollution.
- Provide increased illumination levels at major destinations or nodes.
- Site lighting shall utilize energy-efficient lighting and durable fixtures, integrate a smart lighting system that is motion-activated, adjusts for the amount of natural illumination available, and can activate audible information for the hearing impaired.
Site Security

According to the County of Santa Clara Security Policy, security measures have been integrated into the design, implementation, and day-to-day practices of the entire County operating environment as part of its continuing commitment to risk management. These security measures are meant to safeguard the County’s telecommunications and computing infrastructure. With the development of a new campus, the County has an opportunity to simultaneously develop a county-wide policy to address the critical importance of their physical security program. These recommendations are meant to assist the County in the further development of system-wide security guidelines. Some buildings and/or programs may require additional levels of security than those outlined here.

Crime Prevention Through Environmental Design

Crime Prevention Through Environmental Design (CPTED) is defined as a multi-disciplinary approach to deterring criminal behavior through environmental design. CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts by affecting the built, social and administrative environment.²

Strategies for the built environment include:

1. Natural Surveillance – Maximize the visibility of the space and its users, fostering positive social interactions among legitimate users.
   - Design streets to increase pedestrian and bicycle traffic.
   - Place windows to overlook open spaces.
   - Use transparent materials in lobby vestibules.
   - Ensure appropriate levels of lighting.

2. Natural Access Control – Clearly differentiate between public and private space.
   - Design a single, clearly marked point of entry.
   - Eliminate public access to roofs.
   - Use appropriate fencing between properties.

3. Natural Territorial Reinforcement – Clearly delineate spaces to create a sense of ownership.
   - Maintain premises and landscaping to activate a sense of ownership and presence.
   - Place amenities, such as seating, in common areas to help attract a larger number of users.
   - Provide trees in outdoor areas to foster a more welcoming, attractive, and safer space.

4. Target Hardening – Strengthening the security of a building to protect it in the event of an attack.³

Streetwall

Streetwalls help to define the public realm. Building frontages create the ‘walls’ that provide an engaging backdrop for urban street life and the projection of civic identity.

- The buildings shall be located within 15’ of the property line for a minimum of 50% of street-facing building frontage.
- The strength of the streetwall is dependent on the consistency of its deployment; however, the occasional opening of the streetwall can foster a sense of openness and welcoming. Consider a balance of consistency and porosity in the streetwall design of the Civic Center.
- Consider the design of strong streetwalls along West Hedding Street and North First Street – the main addressing roads for the Civic Center, for a high level of pedestrian engagement.
- Consider the design of streetwalls that define the site’s internal open spaces. Giving clear edges to these public spaces help provide character and definition.
- Bulk and height shaping of the upper floors should allow views to the sky and penetration of natural light at the ground level.
- The building scale at ground level shall be designed to actively engage pedestrians with clear building entries, fine-grained building detail, and glazing.
View Corridors

View corridors should connect the Civic Center Campus to the community. These corridors allow people to visually and physically orient themselves on site within the urban context. The overall consideration of location, height, and orientation of buildings, open space, and paths will help create view corridors.

- Balance the view corridors’ sense of connectivity with the streetwall’s sense of scale and identity to design an active, pedestrian-oriented Civic Center.
- Re-align West Hedding Street between North San Pedro Street and North First Street to create a view corridor between the site and the neighboring context, highlighting the inside-outside connections – including the neighborhood to the east and the Guadalupe River Trail and Park to the west.
- Create visual interest by aligning views of prominent buildings and open space with promenades and paths.
- Consider locating plazas and courtyards at the forefront of buildings, within view of the public realm, to provide welcoming environment to the site.
- Consider vertical as well as lateral view corridors. Design and frame views to and from taller buildings.
- Consider distant views: view corridors may frame landmarks off-site, such as the Diablo Range to the east and downtown San Jose to the south. Consider views of the skyline, such as the view of the site from the Guadalupe Freeway and Highway 880.
- Discourage views towards parking areas, service and utility areas, and jail facilities by limiting glazing, directing views elsewhere, and/or screening these elements from view.
Architecture Overview

The goal of the architectural planning and design guidelines is to improve the overall aesthetic character and visual unity of the Civic Center Campus.

The guidelines are organized into the following architectural elements:

- Architectural Character
- Scale and Massing
- Exterior Appearance
- Interior Experience

Architectural Character

A distinctive architectural character shall be established that creates a strong sense of civic identity and relates to the surrounding neighborhood.

- The symbolic importance of key public buildings shall be emphasized by locating and maintaining them in highly visible settings.
- Buildings shall be designed and sited to reinforce a cohesive campus experience and assist with wayfinding.
- Buildings should incorporate active street wall design and ground-floor uses to maintain an active and human-scaled environment.
- The street wall facade shall incorporate architectural details to create interest and variety for pedestrians; blank walls are discouraged.
- Architectural materials shall be highly durable, and reinforce a timeless and classic design.
Scale and Massing

Massing and building forms on the Civic Center Campus should maintain a welcoming, pedestrian-friendly scale at the ground plane, while retaining its civic feel.

- Create meaningful spatial interactions between interior and exterior environments to enrich building occupants’ experience.
- Develop intentional hierarchy between various buildings, building components, and open space that emphasizes major programs, pathways, and public spaces.
- The relationship between building height and open space depth should be proportional, e.g. pedestrian circulation paths should be bordered by lower scale elevations, while new quads and bike circulation can be bordered by larger elevations.
- No building shall exceed 195 feet in total height, and final building height for each site shall be established by the FAA.
- There is no minimum or maximum Floor Area Ratio (FAR) designated for the Civic Center.
- Building forms should be given volumetric depth and offsets to prevent large monolithic building elevations.
- Buildings should be strongly connected to the site, the natural soundings, and the community.
- Dynamic roof forms that integrate with the volumetric building design are encouraged.
Exterior Appearance

Ground Plane
Foster an active ground plane through visual interest, community-serving uses and programs, and connective public space.

- Create a depth of experience and gradated transition between indoor and outdoor.
- Locate community-serving retail at prominent intersections to benefit from high visibility vehicular and pedestrian traffic.

Entries
Building entrances help orient employees and visitors to the Civic Center and should thus be clearly marked and visible from a distance. Entrances should enhance the pedestrian experience around the building threshold through changes in massing, materiality, transparency, and scale at the ground floor in a welcoming manner.

- Entrances should be identified, with recesses or projections to promote ease of access and wayfinding.
- Building entries should provide a protected, fluid transition between interior and exterior, and incorporate strategies to support healthy indoor air quality.
- The main access for all buildings should be located along the internal public realm, allowing for efficient and convenient wayfinding along a central civic function spine.
- Limit the number of entries where possible to focus traffic and promote interaction.
- Signify the entry location along the exterior through scale and/or architectural features.
- Design architectural features that differentiate between primary and secondary entrances.

Materiality and Texture
Material and color help to distinguish from and/or harmonize with other buildings within the community, while texture helps break up homogeneous surfaces, and add character, depth, scale, and visual interest.

- Finishes and forms should be high quality and enduring.
- Building designs shall balance light and transparent materials with solid, durable materials and shall avoid or limit the use of highly reflective materials.
- Buildings shall utilize known standards for bird-safe buildings, such as glazing treatment, architectural screening, and opaque surfaces.
- Vary the height and width of facade features to add texture to buildings.
- Integrate fine-grained detail in the facade, particularly at the ground-floor level, to impart a human scale.
- Articulate form with material differentiation.
Facade Drivers

Building facades should take the following into consideration:

- Iconicity + Civic Presence: Facade materials and articulation should be appropriate to a Civic building with a long useful life.
- Workplace: Facilitate views of the surrounding city and hillsides. Connect the workplace to the outside. Be mindful of the need for security with regards to views into the interior space from certain vantage points.
- Performance: The envelope should be energy efficient, promoting daylight while avoiding excessive heat gain and heat loss.
- Security: Incorporate Threat and Vulnerability Assessment recommendations for security, including blast and ballistic resistance.
Interior Experience

Building interiors that promote a healthy work environment are an essential part of the Civic Center vision. Interiors should strive to inspire efficiency and foster employee well-being, but still remain flexible and diverse enough to accommodate a variety of uses and programs.

Office space should feel welcoming while enhancing the campus’s civic identity.

- Office space should be sophisticated without feeling excessive.
- Lighting and controls should be efficient, easy to use, and contribute to an engaging work environment and user experience.
- Integrate access to natural daylight, views and fresh air where possible and efficient, to promote an indoor-outdoor connection.
- Utilize healthy materials, furnishing, and fixtures that are durable and easy to clean and repair.
- Provide integrated, flexible furniture.
- Utilize an open floor plan for ease of reconfiguration.
- Provide spaces for collaboration and privacy.

Interior finishes should use healthy, durable materials

Access to natural daylight can increase employee productivity and well-being

Open plan office space allows for greater flexibility and efficiency

A variety of spaces types can promote focus, privacy, and collaboration
Sustainability and Resilience Overview

The sustainability and resilience goals for the Santa Clara County Civic Center Master Plan have been drafted based on analysis of the proposed campus, conversations with County representatives, feedback from the eco-charrettes, best practices, and projections of future code requirements likely to be implemented during the project construction. These goals and their origin is summarized below.

In general, goals were derived based on assessment of economically feasible strategies for the County to pursue. Total cost of ownership through 2050 was evaluated for a variety of sustainable design elements. Where increasingly stringent regulation was anticipated, the expected baseline for efficiency and on-site sustainable design was assumed as the minimum allowable target. For voluntary measures, goals were based on past experience. Specific strategies are not recommended for achieving some targets given that the final design of the facilities has not been completed, and particular strategies may be more or less effective depending on the final design. Instead, we recommend performance goals, leaving the exact path to compliance to the designers of each building. This also opens the possibility of technological innovations that may emerge prior to detailed design of future buildings.

For more information regarding stormwater management, water, storm drain, sanitary sewer, logistics, district systems, and building systems, refer to the Master Plan book.

Sustainability Goals

The proposed goals are divided into the following categories:

- Energy and Carbon
  - EC-1. Aim to meet California ZNE-ready EUI (when proposed)
  - EC-2. Employ economically feasible strategies to exceed Title 24 requirements

- Water

- Health and Wellness

- Ecology and Habitat

- Materials Management

- Transportation

- Leadership

- As part of the path to requiring that buildings be Zero Net Energy, the California Energy Commission has promoted an intermediate step of creating a “ZNE-Ready” Energy Use Intensity (EUI). While not yet proposed, this would be the performance target required of buildings prior to offsetting remaining energy use with on-site generation. The County is interested in achieving Zero Net Energy for the campus, so if/when a ZNE-Ready EUI is proposed, the County should evaluate setting this as the standard for new buildings on the campus.

- EC-2. Employ economically feasible strategies to exceed Title 24 requirements

- Our analysis has shown that the buildings can, at a minimum, exceed Title 24 energy performance requirements by 15%, and likely can economically achieve up to 30% reduction in energy consumption. We have taken a 15% improvement as a baseline in recommending the mechanical, electrical, and plumbing systems. This is because the energy and water savings for these systems provide a lower Total Cost of Ownership despite slightly higher capital cost. However the percentage of savings relative to Title 24 will depend significantly on final building design and potential changes in Title 24 during the 2019, 2022, and 2025 code cycles. Given that the timing of construction extends over the next decade and the building forms are not well developed, Facilities and Fleet (FAF) suggests pursuing the add-on strategies discussed in this report to achieve better performance than Title 24 minimum, but that each strategy be evaluated for each building. Furthermore, FAF does not recommend committing to a percentage improvement given that the exact nature of future code requirements is unknown.
• **EC-3. Aim for ENERGY STAR**
  - ENERGY STAR certified buildings and plants meet strict energy performance standards set by EPA. They use less energy, are less expensive to operate, and cause fewer greenhouse gas emissions than their peers. It is recommended that new buildings aim for ENERGY STAR certification.

• **EC-4. Generate & use energy from photovoltaics on parking lots and/or building roofs**
  - The County already has existing PV that will be relocated to the site. Additionally, there is substantial interest in developing additional PV and aiming for Zero Net Energy. However, since these projects can be developed through a Power Purchase Agreement (PPA) or as part of the capital expense of the project, we recommend that while on-site generation be utilized, a particular level of generation not be mandated within the plan as this could appear to require new capital and jeopardize the project. It should be noted that if 15% of energy use is provided through PV, the Civic Center campus will be eligible for a lower tariff structure from PG&E (Option R).

• **EC-5. Minimize or eliminate natural gas use**
  - On the pathway to decarbonization, natural gas must be eliminated. However our analysis has shown that it is not cost effective for the Civic Center to eliminate natural gas from day one through ground source heating or air source heat pumps. Efficient systems and heat recovery chillers are included in the design, and these reduce natural gas consumption. The County should continue to explore efficiency options to minimize the need for gas heating. Furthermore, the central plant also allows the Civic Center to more easily switch from gas boilers to biogas, heat pumps, or electric heating in the future.

• **EC-6. Evaluate off-site or additional on-site PV to achieve ZNE**
  - The County has expressed interest in achieving Zero Net Energy for the new campus. Our analysis shows that the campus is capable of achieving Zero Net Energy on-site only with aggressive energy efficiency measures and complete coverage of roofs and parking structures with solar panels. However the County also currently owns off-site solar arrays that can be credited to this project to help achieve ZNE off-site. In pursuit of the ZNE goal, the County should evaluate both options and determine which location and what procurement pathway is most feasible to achieve a ZNE goal. It should be noted that to meet the 2030 ZNE requirement for the State of California, off-site solar is expected to be allowed.

• **EC-7. Detailed monitoring of energy uses**
  - The County desires detailed energy monitoring and advanced Building Management Systems (BMS) controls to help monitor and respond to energy use during building operation. All new Civic Center buildings should be equipped with submetering of building circuits to enable continuous commissioning of the buildings and analysis of campus energy use.

**Water**

• **W-1. Reduce water fixture use below Code Minimum through efficient devices and behavioral incentives**
  - Water saving fixtures are cost effective, and have been proposed in our basis of design. Furthermore, additional savings cannot easily be realized through improved fixture efficiencies. Behavioral incentives are required, and savings from these efforts are not guaranteed.
Additionally, given the timing of the development, it is hard to determine how these savings will compare to the minimum code requirements. Therefore, we recommend exploring water savings incentives and features, but not requiring a performance standard.

- **W-2. Minimize water use for irrigation (drip, efficient fixtures)**
  - Water saving fixtures are cost effective, and have been proposed in our basis of design. However, without a full landscaping plan, it is challenging to assign appropriate water standards for irrigation. The ability to eliminate or reduce water use for irrigation should be explored in each subsequent development phase.

- **W-3. Provide cooling tower, flushing, and irrigation water use from recycled water**
  - It is cost effective to use recycled water for non-potable needs given the presence of a recycled water main on Hedding (see page 117 of the Master Plan Book). This water could also be provided through on-site recycling.

- **W-4. Smart stormwater management**
  - The low water use of the site allows for most of the water demand to be met with recycled water. Additionally, analysis shows that rainwater from roofs can be collected and used for toilet flushing with only small tanks required for storage at each building. Stormwater at the ground plane should be allowed where possible to infiltrate and recharge the aquifer below the site, reducing stormwater run-off from the site. Combined with the reclaimed water network providing non-potable water to the site, stormwater management helps close the water loop for the Civic Center.

### Health and Wellness

- **HW-1. Aim for WELL Gold / Fitwel 2-Star**
  - The WELL Standard provides a certification pathway for measuring how buildings contribute to health & wellness. It was discussed in the eco-charrettes and a number of County stakeholders expressed interest in striving for the standard. Aim for WELL Gold and decide during building design and budgeting if the high cost of certification is amenable to the project. Regardless of whether certification is achieved, using the standard as a benchmark for healthy design & material selection is recommended.

- **HW-2. Maximize day lighting and access to views**
  - This option is cost neutral in our experience, though it has not been studied in detail for the Civic Center due to lack of definition of the building form and aesthetic. In general, this requires greater glazed area and open floor plans, and can reduce energy consumption by lowering lighting energy required. Maximizing daylighting and views also provides a wellness benefit and helps toward achieving WELL standard.

- **HW-3. Minimize glare & noise**
  - Title 24 requires specific standards for glazed facades and walls which help reduce noise penetration. Additionally, the best way to achieve glazing standards is through blinds, which can help reduce glare. Therefore the costs to minimize glare and noise are neutral for the project, requiring only thoughtful design and early consideration of glare and noise.

- **HW-4. Integrate natural elements into design**
  - Natural elements and biophilia were discussed at the eco-charrette, and some enthusiasm for these concepts was noted. Including biophilic elements can be cost neutral and provide a benefit to the building interiors.

- **HW-5. Emphasize walkability, connections to nature & connection to Guadalupe River Trail**
  - These three goals are already integrated into the Master Plan and are cost neutral. However they have been shown in numerous studies to promote employee wellness through access to nature and improved walkability.

- **HW-6. Provide healthy food choices**
  - This option is cost neutral and requires the County
putting in place a policy for healthy food options in the cafeteria. This contributes to aiming for the WELL standard.

- HW-7. Provide hydration stations
  - Hydration stations throughout the campus encourage Civic Center employees and visitors to maintain a healthy level of hydration and reduce their environmental impact through refilling reusable water bottles rather than using disposable bottles.

Ecology and Habitat

- EH-1. Prioritize Plantings of Native Species
  - Select native species connected to regional plant communities

- EH-2. Showcase Smart Stormwater Management
  - Collect and clean water passively within the landscape through infiltration and evapo-transpiration.
  - Implement landscape based integrated stormwater capture including use of bioswales, French drains, mulched basins, pervious pavement and bioretention basins.

- EH-3. Optimize Soil Conservation
  - Balance cut and fill in construction to avoid importing soil
  - Preserve healthy topsoil and avoid compaction
  - EH-4. Maximize vegetation and minimize hardscape
  - Integrate landscape and people with living processes occurring on its campuses.
  - Encourage a wide range of plant communities to have a better chance of adapting to changes and create a richer environment for human habitation.

Materials Management

- MM-1. Source Materials and Services Responsibly
  - Prefer materials and services that are sourced locally, using local labor and resources; Require publicly available product environmental and ingredient transparency (Environmental Product Declarations and Health Product Declarations/Ingredient Disclosure)
  - Prefer materials that have low embodied energy and carbon footprints.
  - Require EnergyStar and WaterSense compliant appliances and fixtures for all new buildings and facility renovations.
  - Require that all computers (including desktops, laptops and monitors) meet EPEAT Gold standard.

- MM-2. Aim to structure facilities to be “zero-waste ready” and Provide means for waste separation at point of collection

- MM-3. Minimize emissions from goods movement & waste collection and Maximize consolidation of goods receipt, materials handling & waste management
  - If the County pursues the logistics hub for the new campus, scheduling of waste movement and goods delivery can be accomplished to reduce vehicle traffic, idling, and emissions. This would entail a higher capital cost for the Civic Center but potentially a lower operating cost. Even without the logistics hub, minimizing emissions from goods movement can be accomplished through consolidation of scheduling across buildings which can be achieved at no added cost.

- Integrate receptacles for source separation of landfill, recyclables, and compost in all buildings and throughout the campus.
  - The County has a stated goal of achieving zero waste and currently provides source separation of the waste stream. Therefore setting up facilities to be zero waste through separation, education, and committed contracts for recycling and composting represents no additional cost to the County.
Transportation

• T-1. Limit provision of parking for drive alone commuters

The construction of parking in phases, coupled with strategic investment in transportation demand management measures, could enable the County to reduce the amount of space dedicated to parking on campus. This enables more productive uses of space, potentially reduces the heat-island effect, and greenhouse gas emissions due to vehicular trips by reducing the capacity for the site to draw in single occupancy vehicles.

• T-2. Promote active modes of transportation

An emphasis on bicyclist and pedestrian friendly access to the Civic Center site, through design elements, the provision of supporting amenities (such as bicycle parking, showers, and bike repair services), and active incentive programs will promote transit usage (due to improved last-mile/first-mile travel alternatives), employee health and productivity, encourage a more vibrant Civic Center, and help reduce employee dependency on driving, thereby reducing transportation related greenhouse gas emissions.

• T-3. Explore innovative opportunities to deliver alternative modes of transportation to site

An initiative to collaborate with surrounding employers and use technology to deliver alternative modes of transportation to the site could result in powerful and effective new options of employees and visitors seeking access to the new Civic Center. The sustainability benefits of this strategy will extend beyond the Civic Center and over a period of time could enable more efficient mobility and reduced vehicular emissions for the overall area surrounding the Civic Center.

• T-4. Aim for ParkSmart Silver

Parksmart garages offer significant benefits for drivers, tenants, building owners, and property managers. Parksmart creates opportunities for parking structures to lower their energy usage through lighting, ventilation, controls and commissioning measures, reducing operational costs up to 25 percent compared to the national average. Using the standard as a benchmark for parking garages is recommended.

• T-5. Conduct annual transportation survey to determine employee and visitor transportation trends.

The survey will be key in informing transportation strategy and investments. An annual survey will help the County gain insights into how employees and visitors make transportation choices and which factors will be most influential in increasing the number of people who choose alternatives to driving alone to campus.
Leadership

L-1. Aim for LEED Gold (New Construction)

- All buildings in California must comply at a minimum with the Title 24 energy efficiency regulation. In addition, the County has stated a policy of exceeding Title 24 by achieving CalGREEN Tier 2. Voluntary measures beyond code requirement can signal leadership to County stakeholders and set a new standard for regional development. Therefore, striving for a minimum goal of LEED Gold, with opportunities to achieve Platinum to be reviewed individually for each building as it is designed, ought to be considered.

L-2. Implement a district wide sustainability dashboard

- Implement a district-wide sustainability dashboard, available for viewing at select site locations and on the County’s web site. This dashboard should provide real time as well as trending analyses of the sustainable performance of the County - as a whole and on a site by site basis. Energy consumption, renewable energy generation, recycling and composting diversion rates, water (potable and other) consumption and GHG emissions are just some of the sustainability insights that can be reported on the dashboard.
Resilience Goals

The proposed resilience goals are divided into resource or service categories:

Energy and Carbon

- EC-1. Evaluate use of PV & battery storage to provide required backup power for critical loads and aim to eliminate diesel generation as a backup power source for the campus
  - The County has stated that one of the buildings on the Civic Center will hold a command center in the event of an emergency. Traditionally, such a facility would rely on diesel generators which require monthly maintenance, diesel storage, and produce significant emissions. We recommend instead exploring the use of PV and batteries to provide resilient power. These technologies can generate income during normal operation, do not require fuel storage, and are cleaner that diesel generators. Some jurisdictions, however, may not allow these to replace diesel generators depending on the load they are backing up. Furthermore, battery investments may not pay back during the battery lifetime according to our analysis. Therefore, we recommend investigating the opportunity to use PV and batteries to provide 24-48 hours of continuous backup power for a command center.

- EC-2. Where PV is used, create island-able PV installations to provide minimal power to each building from panels
  - Whether a building is designated as a critical facility or not, if PV is applied, the ability to island the building enables some continuity of operation in the event of a power outage or disaster. This is a cost neutral adjustment where PV is already proposed or in use.

Water

- W-1. Identify location for future blackwater treatment
  - Whether or not an on-site water treatment system is selected for application in this project (see discussion below), identifying a location for a future on-site system is recommended.

- W-2. Identify location for optional on-site water tank
  - Currently the cost of on-site treatment is comparable to projections of continued water purchasing. Should this change, an on-site treatment system would provide water both in normal operation and in the event of a disaster. Resilient water supplies are often in greatest need in the event of a disaster.

- W-3. Where feasible, provide rainwater storage tanks to retain a small amount of water that can be treated after a disaster
  - Rainwater harvesting is discussed as a sustainability strategy that contributes to net zero water and is projected to be cost neutral over the project lifetime. This water can also provide an emergency water source in the event of a disaster. The water stored can be treated and dispersed as needed for building operation or potable use (depending on the treatment).
### Buildings

**B-1. Aim for REDi Gold for all new buildings**
- Resilience-based Earthquake Design Initiative (REDi) is a resilience performance standard that helps designers achieve high quality performance-based seismic and disaster resilience in building structures. Pursuing REDi Gold is highly recommended given that the seismic concern in the region is high. After a single earthquake, additional expenses incurred in achieving REDi certification will likely be recovered in avoided costs of repairs.

**B-2. Provide shelter or safe spaces for employees and visitors either indoors or outdoors**
- Seismic and disaster safety includes providing locations for gathering and sheltering-in-place for employees and visitors. These can be designated spaces within the building rather than purpose-built rooms or structures. When the former approach is taken, these strategies are cost-neutral.

**B-3. Where possible, locate critical infrastructure in areas not at risk for flooding**
- Building equipment and key central plant equipment can be elevated or protected through the use of flood barriers where equipment is at risk of being damaged due to flooding. If no flooding risk is present, then no design modifications are required. Though a higher cost may be incurred to protect against flood risk, analysis on prior projects has shown that after just one flood event the avoided cost of repairs and downtime is greater than the initial capital cost.

**B-4. Maximize building flexibility to adapt uses over time**
- Resilience also involves the ability to adapt to slower, systemic changes. The more open and flexible the building floor plan, the more likely it can respond to changes in use, climate, and economic conditions surrounding the site. If designed into the project early, floor plan flexibility should not require additional cost. Underfloor air distribution (as recommended in the basis of design) preserves this flexibility.

### Transportation

**T-1. Provide clear wayfinding to shelter & disaster relief areas**
- Wayfinding is a required component of the Civic Center master plan. Adding signage that indicates disaster relief areas, shelter spaces, and call boxes should be cost neutral.

**T-2. Provide strong site transportation access for a range of modes**
- The current design includes a number of transportation modes and accessible parking spaces. This ensures that the site can be accessed by a diversity of community stakeholders and enables alternative means to access the site in case of the failure of any single transportation system. Much of this infrastructure (such as rail, bike lanes, and sidewalks) is in place and requires relatively little additional investment for significant enhancement in degree of access.
Site and Landscape

Sidewalk with ample landscape, lighting, and furnishing (pg. 4)
San Jacinto Plaza, El Paso, TX
Photo by SWA

Major pedestrian path with special paving and clear directionality (pg. 5)
Library Walk, University of California, San Diego
Designed by PWP Landscape Architecture

Shaded pedestrian area (pg. 5)
University of Arizona
Designed by Ten Eyck Landscape Architects
Retrieved from https://www.asla.org/

Pedestrian-scale pavement, planting and furnishing (pg. 5)
Canary Wharf
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Protected bike lane (pg. 5)
Arapahoe Street bike lane
Retrieved from denver.streetsblog.org

Streetscape with ample pedestrian space and landscape (pg. 6)
Deaderick Street, Nashville

Streetscape with clearly marked pedestrian crossings and drop offs (pg. 6)
Bell Street Park, Seattle
Designed by SvR Design

Parking garage with architectural screening (pg. 6)
Hoover Garage, Stanford University
Retrieved from https://www.azahner.com

Separate pedestrian and vehicular traffic in parking areas (pg. 6)
De Anza College Parking
Photo by Gensler

Incorporate bioswales into surface parking lots (pg. 6)
Castro Valley Library, San Leandro Senior Center Parking

Central utility plant with architectural screening (pg. 7)
University of California Merced - Central Plant Complex
Designed by SOM

Service area separated from pedestrian and bike circulation (pg. 7)
Irving Convention Center
Retrieved from https://www.irvingconventioncenter.com

Service area separated from pedestrian and bike circulation (pg. 7)
The Living Screen: Trellis System
Designed by GSR Architecture Group

Community garden (pg. 8)

Playground (pg. 8)
Grand Park, Los Angeles
Designed by Rios Clementi Hale

Bocce (pg. 8)
Guthrie Green, Tulsa
Designed by SWA

Plaza (pg. 9)
SWA professional rendering

Movable seating in plaza (pg. 9)
San Jacinto Plaza, El Paso
Designed by SWA

Activation in the plaza (pg. 9)
SWA professional rendering

Special lighting and public art (pg. 9)
Zuccotti Park, NYC
Designed by Quennell Rothschild & Partners

Variety of materials (pg. 9)
Arts Festival Plaza, El Paso
Designed by SWA

Garden room (pg. 10)
Morelondon, London
Designed by Townshend Landscape Architects

Garden room (pg. 10)
SWA professional rendering

Seating areas (pg. 10)
Lake Park Business Center, San Jose
Designed by SWA

Activity in garden room (pg. 10)
Lake Park Business Center, San Jose
Designed by SWA

Variety of planting (pg. 10)
Nanjing Greenland
Designed by SWA
Shaded overhang (pg. 11)
SWA professional rendering

Breezeways (pg. 11)
Professional Rendering by Gensler, SWA and Brick Visual

Textual and color variety (pg. 12)
The Collective at Playa Vista
Designed by Office of James Burnett

Stormwater collection (pg. 12)
CyFair College, Cypress, TX
Designed by SWA

Mixture of trees and understory (pg. 12)
Burbank Studios Faiway Building
Designed by Office of James Burnett

Incorporating existing trees (pg. 12)
Photo by SWA

Native species (pg. 12)
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Variety of materials (pg. 13)
Burbank Studios Faiway Building
Designed by Office of James Burnett

Unit pavers and tree grates (pg. 13)
41st St Plaza, Tulsa
Designed by SWA

Trash receptacle (pg. 13)
Forms + Surfaces Orbit Litter & Recycling Receptacle

Timber benches (pg. 13)
San Antonio Station, Mountain View
Designed by SWA

Flexible seating (pg. 13)
Monash University Caulfield Campus Green
Designed by Taylor Cullity Lethlean

Drinking fountains (pg. 13)
Haws 3377G Outdoor Drinking Fountain

Bike racks (pg. 13)
Landscape Forms 35 Loop Bike Rack

Lighting (pg. 13)
Rochester Institute of Technology
Designed by SWA

Pathway bollard lights foster a sense of safety and visibility (pg. 18)
85 4th Ave, New York
Photo by Intense Lighting

Lobby lighting helps define the public entry (pg. 18)
Dallas City Performance Hall
Retrieved from facebook.com

Plaza lighting creates a welcoming environment at night (pg. 18)
Director Park, Portland
Designed by ZGF Architects

LED street lighting for energy efficiency (pg. 18)

A clearly defined point of building entry performs natural access control (pg. 19)
Partners HealthCare Administrative Campus, Somerville
Designed by Gensler

Increased pedestrian and bicycle traffic fosters natural surveillance (pg. 19)
Colorado State University, Fort Collins
Photo by Megan Fischer

Strong streetwalls help foster an active and engaging public realm (pg. 20)
Woolwich Squares, London
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Streetwalls provide definition and character to internal and external public spaces (pg. 20)
Professional Rendering by Gensler and Brick Visual

Streetwalls help create civic identity (pg. 20)
Santana Row, San Jose
Designed by SWA

Reinforce a welcoming environment by forefronting prominent buildings with open space (pg. 21)
Professional Rendering by Gensler and Brick Visual

Consider the skyline view of the site from the Guadalupe Freeway (pg. 21)
Santa Clara Government Offices
Photo by Buddy Rogers

Architecture
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between buildings and the public realm (pg. 22)
San Bernardino Justice Center
Designed by SOM

Interaction between interior and exterior environments enrich occupants’ experience (pg. 23)
Piri Reis Maritime University
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The architectural scale – including building proportion, massing, articulation and design features – helps create a civic environment (pg. 23)
J. Michael Ruane Judicial Center
Designed by Goody Clancy

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FAA Southwest Regional Headquarters
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Partners HealthCare Administrative Campus, Somerville
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JW Marriott Los Angeles L.A. LIVE
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Create an iconic and civic building facade (pg. 25)
Civic Building, Silver Spring
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City of Maricopa City Hall, Maricopa
Designed by Gensler

Open plan office space allows for greater flexibility and efficiency (pg. 26)
Confidential Client
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Access to natural daylight can increase employee productivity and well-being (pg. 26)
Siemens Mobility - Workplace, Iselin
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A variety of spaces types can promote focus, privacy, and collaboration (pg. 26)
Baird - Global Headquarters
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