

# COB3

## PDU County of San Mateo

January 25, 2022



# County Office Building 3

Redwood City, CA





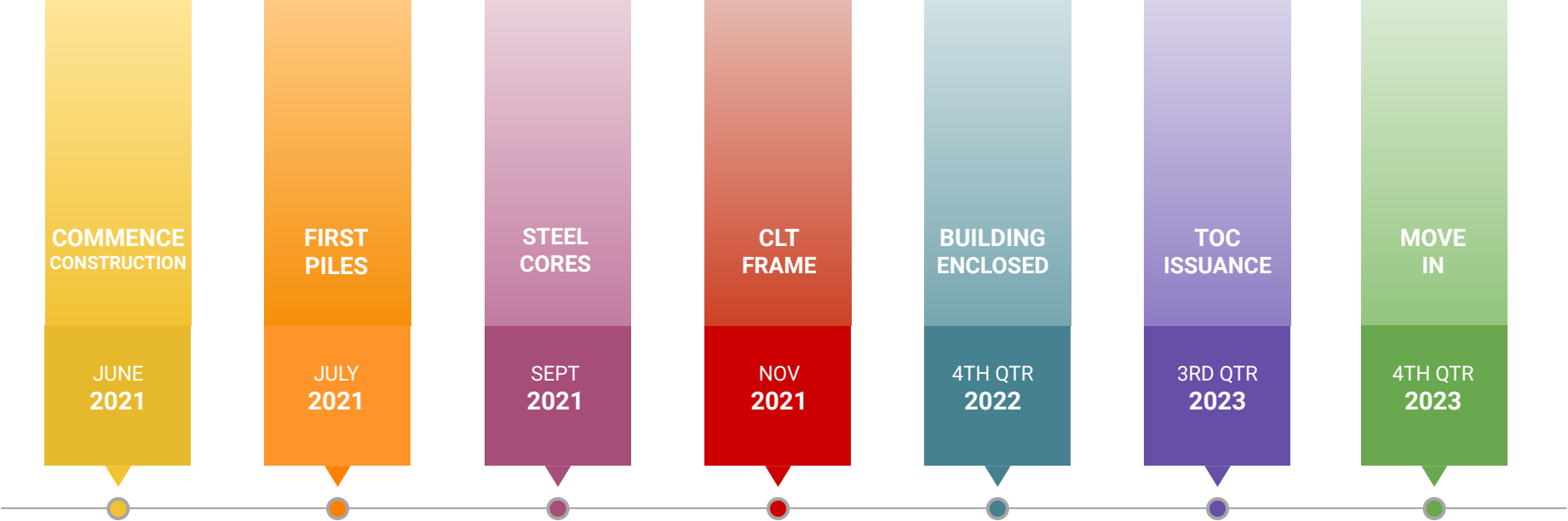
# Project Goals & Priorities

## Design Principles

- **Healthy and Contemporary Working Environment** - Light-filled and Naturally Ventilated Workplace designed for Future Programming Flexibility
- **Sustainable Design** : Net Zero / LEED Platinum / Low Carbon
- **Iconic Civic Design**: Strengthening the Public Realm, Sense of Presence, and Civic Gravitas

# General Schedule

## Overview





# Sustainability

## Design Goals



### ZERO NET ENERGY

On-site photovoltaics offset 100% building operational predicted energy usage.



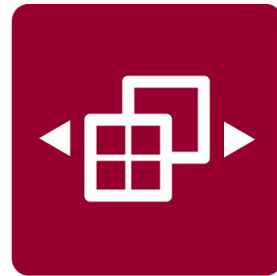
### LOW EMBODIED CARBON

A commitment to minimize embodied carbon through the use of timber and other natural or recycled materials.



### WATER CONSERVATION

100% stormwater runoff from building roof and site paving treated with On-site Bioretention Planters.



### WELLNESS & RESILIENCY

Pandemic responsive design. Access to daylight, natural ventilation, and green open space.



### LEED CERTIFICATION PLATINUM

The Project is pursuing the highest LEED Certification - Platinum

# Axometric Design Features

Type  
**Civic / Commercial + Office**

Construction Type  
**Type IV Heavy Timber (HT)**

Project Area  
**208,000 sqft**

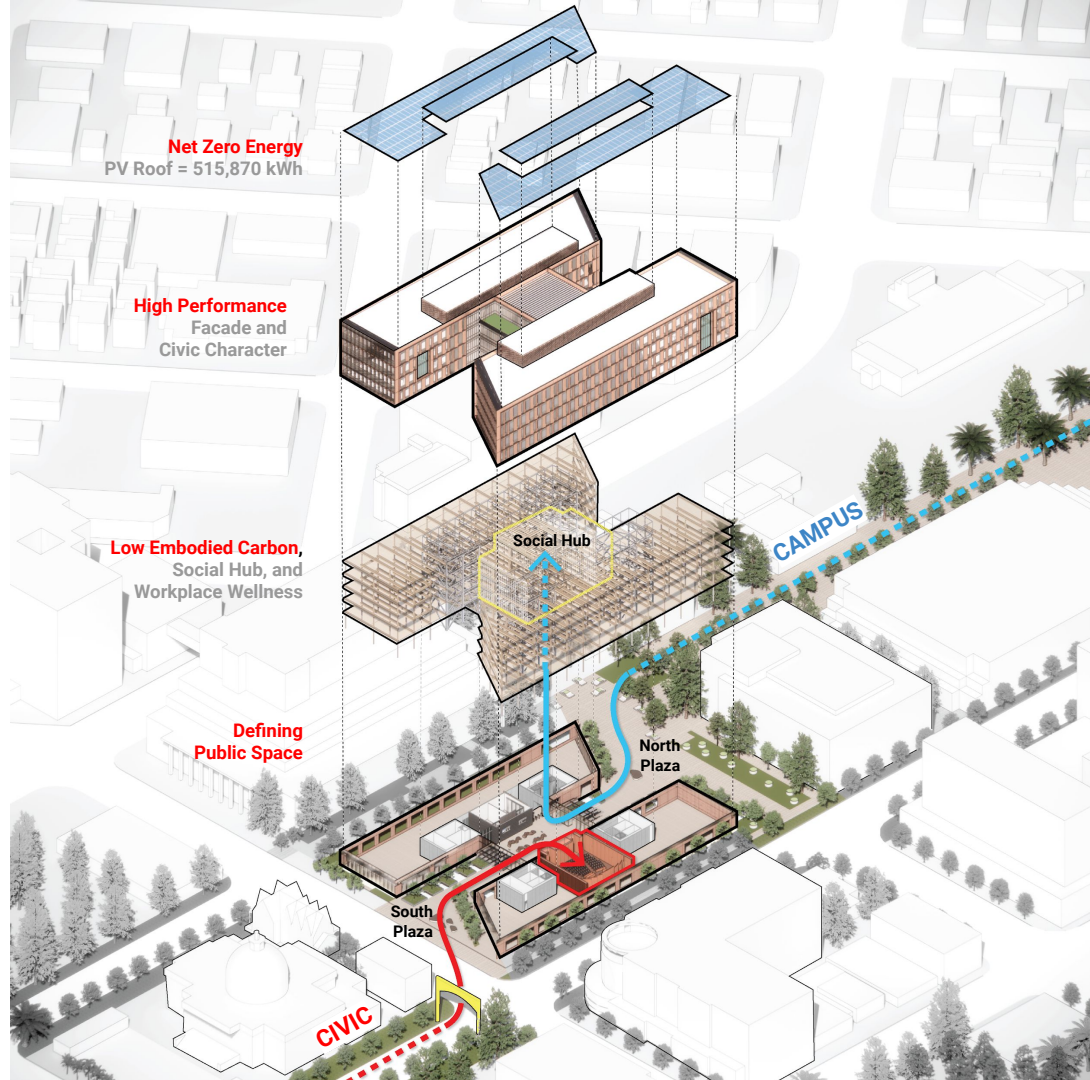
Stories  
**5 Levels**

Height  
**75'-9" to roof**

Sustainability  
**Zero Net Energy**  
**LEED Platinum**  
**Low Embodied Carbon**

Completion  
**October 2023**

SAN MATEO COB3  
SKIDMORE, OWINGS & MERRILL LLP



# Site Plan

## Level 01





# Entry Canopy Perspective





# Lobby

## Perspective









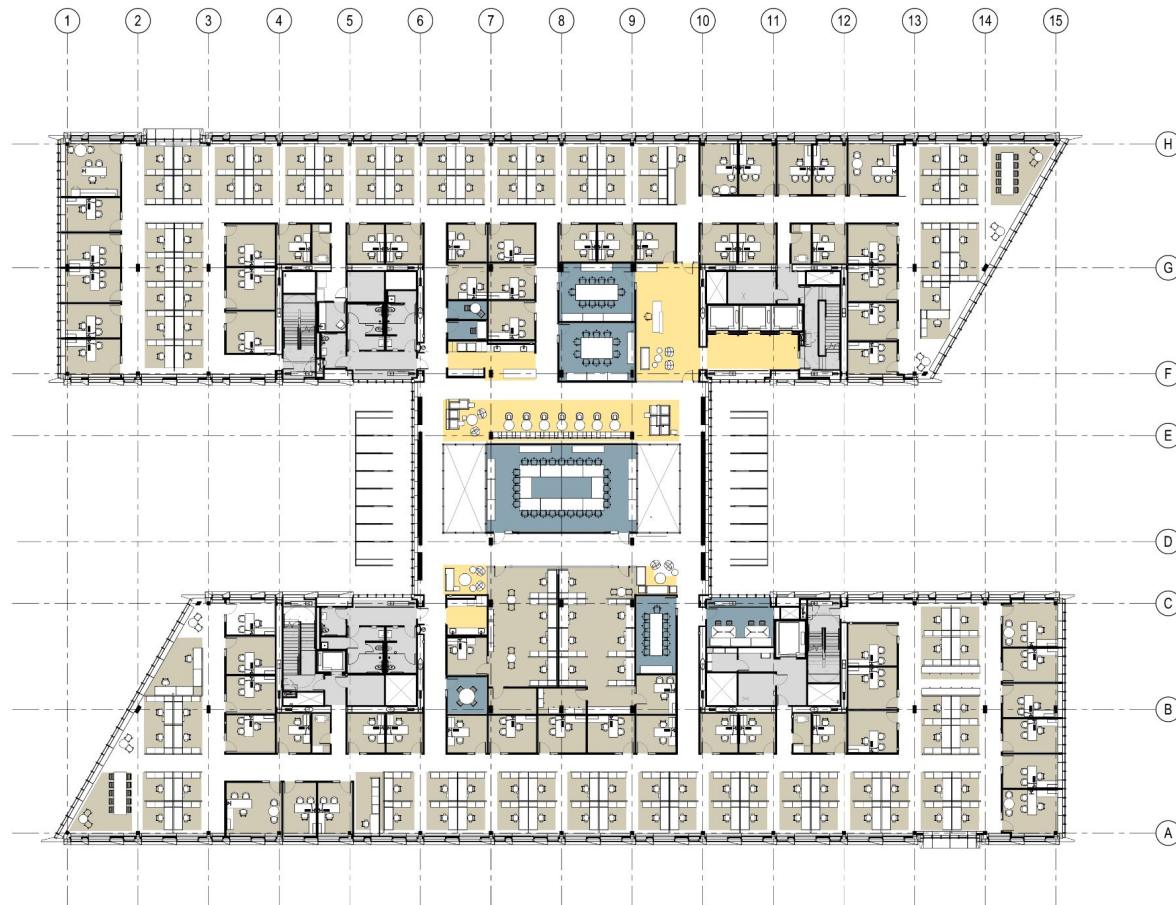


# Typical Floor Program Plan

Level 02  
**HSA Office**

Design Principles  
**Flexible and Highly Efficient Floorplate**

Typical Floor Plate Area  
**~40,000 gsf**





# Net Zero

## On-site Energy

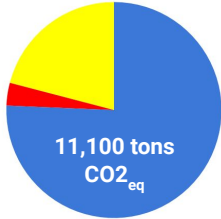
Expected COB3 Consumption	1,410,000 kWh
PS2 Production	1,003,600 kWh
COB3 Production	515,872 kWh
Total Expected PV Production	1,519,472 kWh
ZNE Buffer	<b>+108%</b>





# Low Carbon Timber Structure

## Glulam + CLT

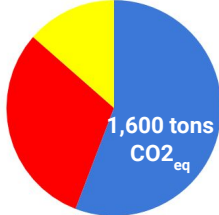


Conventional Steel  
or Concrete

Material



Construction



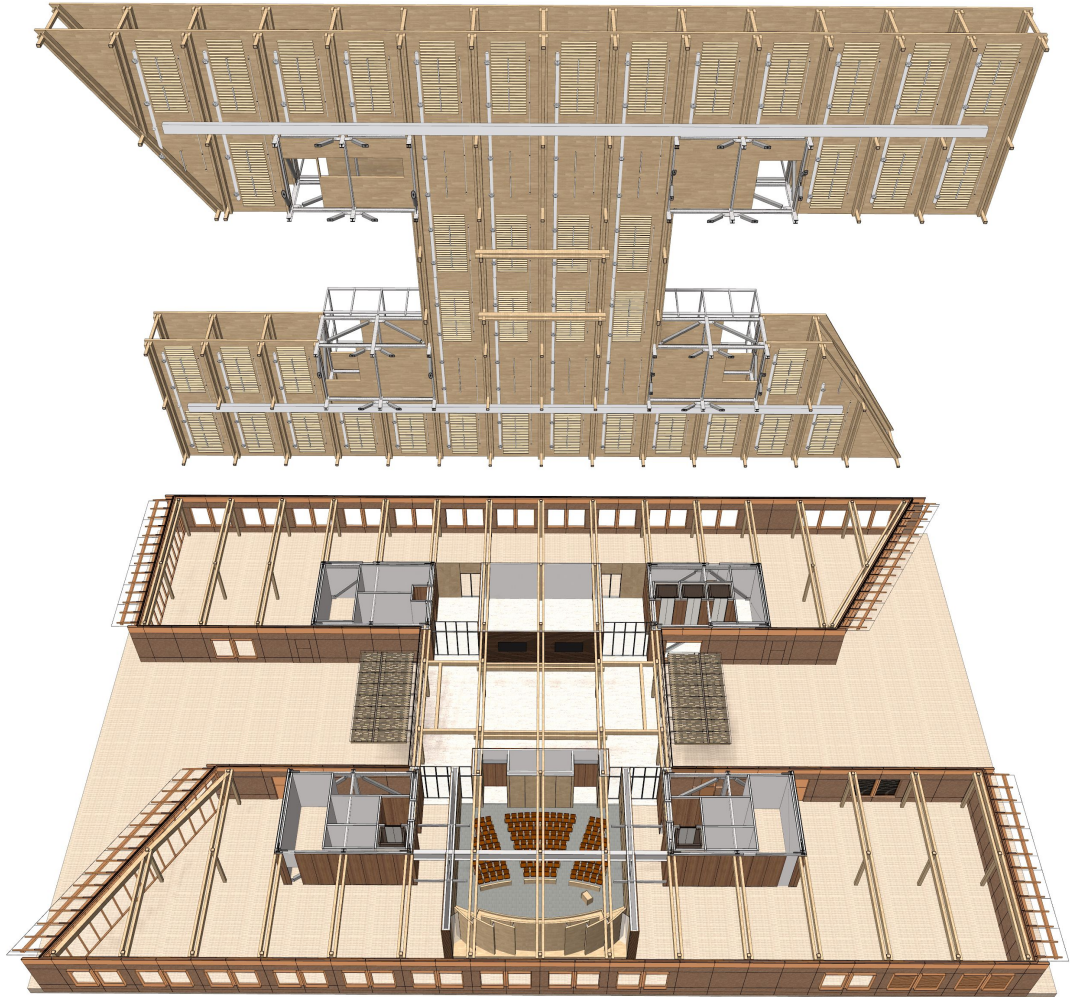
Mass Timber  
w/Sequestration

Probabilistic Seismic  
Damage

### Structure: 85% Reduction in Embodied Carbon

- Optimized timber material volume
- Reduced piece count
- Reduced steel connections
- Reduced construction time
- Reduced floor-to-floor height

**80% Less Embodied Carbon**  
Against Concrete Building Baseline  
Measured in the Life Cycle Analysis



# Carbon Summary

## Facts

### Results:



Volume of Wood products used:  
**6,487 m<sup>3</sup>** of lumber and sheathing



US and Canada forests grow this much wood in:  
**18 minutes**



Carbon stored in the wood  
**5,670 mt** ( metric tons) of CO<sub>2</sub>



Avoided greenhouse gas emissions:  
**2,194 mt** ( metric tons) of CO<sub>2</sub>



Total potential carbon benefit:  
**7,864 mt** ( metric tons) of CO<sub>2</sub>

### Equivalent:



**1,663 cars** off the road for a year



Energy to operate **830 homes** for a year





# Workplace Perspective





# Building Program

## By Floor



### OFFICE:

- L05** Board of Supervisors, PDU, County Managers
- L04** County Counsel, Human Resources
- L03** District Attorney
- L02** Human Service Agency

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### PUBLIC SPACES & OFFICE:

- L01** Lobby, Chambers, Cafe, Gym, Multi-Purpose Human Service Agency



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