

SAN MATEO COUNTY OFFICE BUILDING 3

Redwood City, CA | In Progress

Role of the firm: Specialty Engineering Services

Area: 207,000 ft² (19,230 m²)

Budget: US\$150 million

Architect: Skidmore Owings & Merrill (SOM)

Client: County Of San Mateo Project Development Unit

Fast + Epp provided specialty engineering services to the SOM structural team. The San Mateo County Office Building 3 is a new county government building that is set to be the nation's first mass timber civic building and achieve a net-zero energy certification as well. This visionary project raises the bar for modern architecture, as its innovative design, sustainable features, and cutting-edge technology will introduce many novelties in the field

Configured in an H-shape, the ground level allows for two generous plazas that invite foot traffic towards the building. The layout maximizes the use of available space while providing a comfortable and productive working environment for its occupants. Program-wise, the ground level houses the public and civic functions of the building, while the upper levels include flexible working spaces, meeting rooms, break spaces and circulation areas that encourage teamwork and collaboration.

The structure uses double glulam beams and CLT decking with exposed timber in all public areas. Moment connections were used to achieve double spans for the beams to reduce deflections and improve vibration performance. Hybrid steel beams were used for long-span spaces which were then intumescent painted for fire protection.

COB3's mass timber structure is designed to lower the building's embodied carbon to 85% less than a conventional steel structure. The presence of natural wood from both the exposed structural frame and interior elements allows for a soothing environment for the buildings' occupants. This tranquility is further enhanced by natural light and ventilation, as well as views of the surrounding landscape.

