

**STANFORD IN REDWOOD CITY
PROJECT DESCRIPTION
INFORMATION May 5, 2016**

Description of departments and services that are occupying the office buildings. Mention if any use of hazardous materials.

The following is a list of departments for Stanford University that will occupy the office buildings for Phase 1:

- **Business Affairs** – including the University’s Chief Financial Officer and staff, and whose departments include Sponsored Research, Financial Management Services, University Information Technology, Audit Compliance and Privacy and Risk Management (approximately 800 staff)
- **School of Medicine** – including departments (approximately 800 staff) who support the School of Medicine via finance, space planning, fundraising, operations and/or administrative support for a limited number of specialty clinics
- **Land, Buildings & Real Estate** – staff who direct and manage the buildings, grounds, and other assets of the university's 8,000-acre campus, as well as the Stanford Research Park, and other off-campus properties (approximately 170 staff)
- **Office of Development** - staff whose job duties include encouraging financial support of the university's research and teaching mission (approximately 150 staff)
- **University Human Resources** – whose staff is committed to advancing Stanford's position and reputation as the best-led, best-managed university in the world (approximately 100 staff)
- **Graduate School of Business** – various staff who support the nation's leading management education programs, such as those involved in developing executive education programming or IT program and/or development staff (approximately 100 staff)
- **Stanford University Libraries** – archivists and preservationists already work at the Redwood City Campus. Staff also includes the Media Preservation Lab, which is responsible for digitizing and preserving the university's extensive holding of sound recording and moving images. (approximately 85 staff)
- **Office of Continuing Studies** – 75 staff for Pre-Collegiate Studies and the Online High School
- **Residence & Dining Enterprises** – staff include the Chief Financial Officer and other finance professionals as well as IT staff, those who manage the University’s Vendors, and staff who oversee the university’s vast residential and dining programs, as well as its conference services (approximately 75 staff)
- **School of Engineering** – 60 staff who lead and support the School’s Certificate for Professional Development program
- **Law School** - advising clinic of 5 staff and 25-30 students who will rotate throughout the academic year
- **Property management office** – office for 4 people who will help Stanford run and operate the new campus
- **Dining, childcare and fitness facilities** will all have staff to service the operations (total headcount around 25, 30, and 4 respectively)

- **Support space** – a variety of conference rooms will be included throughout the campus to provide the collaborative space needed for projects and team work as well as to serve as classrooms for Continuing Studies classes to be offered in Redwood City

The development would primarily be commercial office buildings used for administrative purposes that would use and store typical janitorial supplies at quantities which would not be regulated as hazardous materials.

Detailed Project Description:

As shown within the submitted plan sets, Stanford University is moving forward with a first phase of development that includes development on Blocks A, B, C (portion) and E (portion) as defined by the adopted “Stanford in Redwood City” Precise Plan and related documents including the certified EIR and adopted development agreement.

As proposed by Stanford University (as applicant), our first phase of new construction for the project is as follows:

Block A

Office Building B1 – 107,243 sq. ft.
 Building A1 Day Care Center (amenity space) - 14,753 sq. ft.
 Development of 2.4 acres (minimum) publically accessible private open space area.

Block B

Office Building B2 – 159,437 sq. ft.
 Office Building B3 – 161,231 sq. ft.
 A2 I.T. Hub/Bike Storage (support space) – 6,585 sq. ft.
 A3 Fitness Center (amenity space) - 31,159 sq. ft.
 P1 Parking Structure – 1,076 stalls

Block C (Portion)

Office/Conference Building B4

- Office portion – 161,313 sq. ft.
- Amenity portion (Café/kitchen space/conference space) – 30,320 sq. ft.

Block E (Portion)

Central Energy Facility (support space) - 5,053 sq. ft.

The first phase of development will consist of 677,094 square feet of total gross construction. This breaks down as 589,224 square feet of commercial office buildings, 76,232 square feet of amenity space, and 11,638 square feet of support space. Buildings B1 – B4 are classified as “Administrative, Business and Professional Offices and non-Laboratory R&D Facilities” per page 17 of the “Stanford in Redwood City Precise Plan”.

As part of this first phase of development, Stanford is proposing the removal of the 360,297 square feet of existing buildings, which break down as follows:

405 Broadway	55,282 sq. ft.
425 Broadway	135,284 sq. ft.

475 Broadway	49,510 sq. ft.
555 Broadway	88,221 sq. ft.
1228 Douglas	32,000 sq. ft.

The following existing buildings will remain:

500 Broadway	59,760 sq. ft.
510 Broadway	32,512 sq. ft.
575/585 Broadway	84,000 sq. ft.

Operation of child care, including number of kids, ages, employees, number of classrooms, hours of operation, etc.

The child care facility is a required element of the “Stanford in Redwood City Precise Plan”, which required a child care facility to be established and in operation prior to the time that Stanford occupies 500,000 square feet of Net New Development, as defined by the Precise Plan. Stanford has elected to build and open the facility in the project’s initial phase of development. The facility itself will be 11,300 square feet, with an exterior fenced play yard of 12,000 square feet. The facility is sized to accommodate at least 100 children. In order to lessen construction impacts on the children, the child care facility will be one of the last buildings constructed and occupied in the initial phase.

The child care facility is intended for use by Stanford employees, which may include employees of the adjacent Stanford Hospital and Clinics facility. Stanford is in the process of selecting an operator for the child care facility, who will work with Stanford to finalize the operational aspects of the facility.

Use of conference center

The Stanford in Redwood City campus will include a 10,000 square foot conference center, which will be located on the ground floor of building B4. The conference center will include a large, divisible multi-purpose room, which will be flexible to adapt from lecture to conference to reception style set ups for a variety of meetings and events. In addition, there will be video conference meetings rooms as well as meeting and break-out rooms to accommodate a variety of meeting sizes. Catering for these rooms will be available.

Cafeteria

The dining facilities for Stanford in Redwood City include a 12,000 square foot servery which includes food and catering preparation, a variety of daily food options, a grab and go stand-alone food and drink option, and a juice and coffee bar located within the 5,000 square foot dining room. The food service is expected to be open weekdays from 7am until mid-afternoon for breakfast and lunch with possible options for periodic dinner options.

The cafeteria is located off the campus heart on the first floor of Building B4. The programming of this facility is still underway, but the cafeteria will be available for use by the campus employees and the general public. At the time of this document, the cafeteria will serve breakfast and lunch, and other options, such as late afternoon and evening service, is still being considered. In addition to inside seating, patrons can also dine outside in either the plaza or along the greenway.

In addition to sit-down serve, the cafeteria will have “to go” items, and may have catering facilities that would serve the rest of the campus. Stanford is in the process of developing management policies for the campus, which will address hours of operation, access, and other operational elements for the food service area.

Fitness Center

The Fitness Center at Stanford in Redwood City is a two-story, 28,000 square foot facility. It includes a basketball court, outdoor pool and fitness court as well as a large cardio/fitness room, along with a cycle studio and two flexible exercise studios for classes that are part of Stanford's BeWell/Health Improvement Program. Locker rooms and a retail outpost for juice and healthy snacks are also included in the facility. Adjacent to the fitness center is a 6-story stairwell running along the parking structure which is designed as an outdoor stair running/cardio option.

The fitness center is sized to serve the ultimate build-out of the project, and is intended for use by Stanford employees, which may include employees of the adjacent Stanford Hospital and Clinics facility. Stanford is in the process of developing management policies for the campus, which will address hours of operation, access, and other operational elements for the facility.

Transit hub

The transit hub will serve as a physical focal point for transportation-related services in the Stanford in Redwood City Campus, including public and private buses, transit shuttles, car share and bike share services, as well as appropriate amenities. The transit hub will be served by Stanford shuttles (known locally as Marguerite shuttles) to transport employees to and from the Redwood City Caltrain station. The Marguerite shuttles will be open to general public at no charge. Stanford will work closely with public agencies to ensure frequent, reliable and well-used transit service to the Redwood City campus transit hub. Stanford's Marguerite shuttle service will be optimized and enhanced to quickly transport riders between the hub and nearby Caltrain stations.

The transit hub will be located within building B4, and will support and implement Stanford in Redwood City's Transportation Demand Management (TDM) program. TDM programs will range from infrastructure components that are incorporated in the hub design, such as secure bicycle storage and car share and bike share facilities, to services such as on-site bicycle repairs and trip/commute planning assistance. All programs will be supported with frequent communications to the employees of the campus, as well as incentives to encourage registration and participation.

Publicly accessible/privately owned and maintained park area

As envisioned by the Precise Plan, the project has provided approximately 2.4 acres of property adjacent to Spinax Park for use as a publicly accessible open space. The open space area has been designed to accommodate larger active play areas along with more intimate, passive recreational areas.

Access to the open space will be from Broadway, Bay Road, and Barron Avenue. In addition, a low level fence with pedestrian openings will allow park users to go directly between Spinax Park and the open space area. The open space area is intended for daytime activities only, and evening use of the facility will be discouraged.

Improvements will include such items as safety lighting, irrigation systems, hardscape improvements and landscaping. No overhead lighting has been provided, and the open space is not intended to be active in the evenings. Signage designating the area as publicly accessible private open space shall be provided. As provided for by the Precise Plan, this area is open for use by the general public as well as by Stanford employees.

Stanford is in the process of developing management policies for the campus, including the park, which will address hours of operation, access, and other operational elements for the facility. The park will be available to the general public during daylight hours and closed from dusk to dawn. (Please review to Exhibit D of the Stanford in Redwood City Development, which contains a draft easement and maintenance agreement between the City and Stanford for this area.)

Greenway

The greenway is a landscaped corridor through the central portion of the campus, with pathways available to the general public during normal business hours. The greenway will remain in private ownership and Stanford reserves the right to secure and/or limit access to portions of their property if they deem it necessary.

Bicycle storage locker and racks, how many, locations.

Bicycle parking facilities shall be provided for employees and visitors at a ratio of 1 bicycle per 10 required vehicle stalls. Approximately 80% of these bicycle parking places will be for long term parking in the form of bike lockers, covered locked cages, or special locked room(s), and 20% will be for short term parking in the form of bike racks. Bike racks will be located throughout the site and in close proximity to building entrances.

An exhibit has been added to the PC Permit package (Sheet A1.51) that shows the number, type and location of short-term and long-term bicycle parking.

Description of the CEF and how it works, energy savings, etc.

The Central Energy Facility (CEF) proposed to serve the new “Stanford in Redwood City” campus will result in a reduced carbon footprint and water savings when compared to traditional methods of heating and cooling large campuses. The CEF will require less energy while at the same, shift the energy load to non-peak times. This facility will be similar to the awarding winning CEF on the Stanford main campus ([Engineer News-Record names Stanford CEF Editor’s Choice for 2015](#)).

The proposed Stanford in Redwood City CEF centralizes the production of chilled water and heating water used to heat and cool all buildings on the Stanford Redwood City campus. The chilled water is used in building HVAC equipment to remove heat from the ventilation airstream to cool the building and its occupants. Under normal HVAC systems, this heat would be rejected to the atmosphere thru cooling towers or fans, but the new Stanford Redwood City CEF recovers this heat, stores it and reuses it to provide heating to the buildings during seasonal periods when heating may be required in early morning hours (during spring, fall or even some winter days) and cooling in later afternoon hours. This process is called “heat recovery”, because heat is removed and stored by the CEF, rather than having the heat dispersed thru cooling towers. This process saves a significant amount of water that would be lost thru the evaporative cooling process of traditional cooling tower operation.

During peak cooling days in the summer, there is very little overlap of heating and cooling in the same day; and the cooling load of all the buildings is at its peak in afternoon periods of peak electrical demand and cost of electricity which regular building-based HVAC systems would incur. The new Stanford in Redwood City CEF uses a large Thermal Energy Storage (TES) tank (1 million gallons) with predictive operating control software that operates the high efficiency chilled water generation equipment so that chilled water is generated at night (off peak electrical demand), and stored in the TES tank. The stored chilled water is distributed thru the underground piping distribution system to the buildings the next day during the heat of the day. This centralizing of highly efficient equipment and night operation significantly reduces electrical demand, along with its associated reduction in carbon footprint. The heat recovery part of the system also offsets a natural gas usage normally used to generate heating water. The proposed CEF is predicated to save 18,600 MTCDE over its 30 year life.

The location of the CEF in Block E was determined to be the optimum location for the full build out of the Stanford in Redwood City project. This location does require the crossing of thermal piping (2- 10 inch heating water and 2- 16 inch chilled water pipes) under Broadway to reach the main campus. The thermal piping under Broadway would be installed in a concrete or steel enclosure to protect them from unintentional digging or damage.

The CEF is designed to enclose machinery (chillers and pumps) inside the building to provide acoustical containment of this equipment. The open yard is placed between the building and large TES tank, with an integral metal screening wall that will provide both visual and acoustical shielding of the outside equipment to the neighborhood.

Narrative of overall stormwater and landscape treatments – rain gardens,

The SRWC landscape defines comfortable outdoor spaces and provides a ‘green infrastructure’ for the campus. Its design has mitigated significant technical challenges: capturing and cleaning all rainwater that falls on the campus and developing a plant palette that will both accept reclaimed water and thrive in heavy, alkaline soils.

Stormwater will be captured and filtered in Bio-retention Areas which will cover an area equal to over 4% of the impervious surface area of the project. Different from rain gardens, bio-retention areas are intended specifically to act as filters for dust and pollutants. Plants in bio-retention areas also facilitate with phytoremediation and infiltration. Therefore, nutrient uptake and the ability to neutralize pollutants are priorities for species selection. Plants for these areas will be able to withstand periods of inundation as well as extended periods of drought.

Recycled water for irrigation will be supplied by the South Bayside System Authority (SBSA). Available recycled water analyses from the City indicate that the water is high in total salts (electrical conductivity, total dissolved solids), chloride, sodium, and bicarbonate (see attached report). Damage to salt sensitive plants, spotting on surfaces wetted by the irrigation system, and increased wear of irrigation equipment can be expected when irrigating with this water. Salt tolerant plants can be irrigated with this water. A 20% increase in the quantity of irrigation water will be required to provide leaching to avoid excessive salt build-up in the soil. Routine applications of gypsum will also be required.

Plants irrigated with this water have been selected for their moderate to high salt tolerance. It is likely that, over time, plants will show some salt damage, but the damage probably won't be noticed by most people, especially when the plant is viewed at a distance. Plants also may not attain their anticipated growth rates and scale.

Site soils are generally alkaline in pH, calcareous (containing lime), low in salinity, and heavy in texture (clay, gravelly clay loam, and gravelly sandy loam). The exception is the SE quadrant where the soil is saline, having excess sodium, and boron, and a strongly alkaline pH. The SE quadrant is the location of the future park area. Pre-planting soil amendment and treatment will be needed to improve all soil conditions.

Narrative of off-site improvements, including undergrounding, dedications, recycled water pipeline, sidewalks, bus duck-outs etc.

Block A Improvements:

- Street improvements (include new sidewalk, landscape, street trees and lights) along the south side of Broadway to the project property boundary, which include increasing the width of the sidewalk from ten feet to twelve feet. A new landscaped median and striping within Broadway will accommodate existing and proposed driveway locations along with new turning movements onto the Barron private street extension.
- Street improvements (include new sidewalk, landscape, street trees and lights) along the north side of Bay Road to the project property boundary. New striping within Bay Avenue will accommodate existing and proposed driveway locations along with new turning movements onto the Barron private street extension.
- The existing overhead utilities along the along the frontages Broadway and Bay Road will be undergrounded.

Block B Improvements:

- Street improvements (include new sidewalk, landscape, street trees and lights) along the south side of Broadway, which include increasing the width of the sidewalk from ten feet to twelve feet. A bus pull-out will be located near the intersection of Broadway and Warrington Avenue, as detailed in the project plans. A new landscaped median and striping within Broadway will accommodate existing and proposed driveway locations along with new turning movements onto the Barron and Warrington Avenue private street extensions.
- Street improvements along the north side of Bay Road, which include an eight foot wide landscape strip and eight foot sidewalk which require a four foot right of way dedication. New striping within Bay Avenue will accommodate existing and proposed driveway locations along with new turning movements onto the Barron and Warrington private street extensions.
- The construction of Barron Avenue (include new sidewalk, landscape, street trees and lights) through the project property From Broadway to Bay Road.
- New utilities will be placed within public easements within Barron Avenue (a private road) that will connect to the existing Broadway and Bay Road infrastructure.
- The existing overhead utilities along the along the frontages Broadway and Bay Road will be undergrounded.

Block C Improvements:

- Street improvements (include new sidewalk, landscape, street trees and lights) along the south side of Broadway, which include increasing the width of the sidewalk from ten feet to twelve feet across the portion of Broadway in front of building B4.
- The construction of Warrington Avenue (include new sidewalk, landscape, street trees and lights) through the project property from Broadway to Bay Road.
- New utilities will be placed within public easements within Warrington Avenue (a private road) that will connect to the existing Broadway and Bay Road infrastructure.
- The existing overhead utilities along the along the frontages Broadway and Bay Road will be undergrounded.
- Upgrading of existing parking lots, including modifications to the circulation and access points, on Blocks C and D.

Block E Improvements:

- Frontage improvements (include new sidewalk, landscape, street trees and lights) to the west and south sides of Douglas Avenue (i.e. the project frontage), including an eight foot wide landscape strip and an eight foot wide sidewalk which requires eight feet of right of way dedication.
- The existing overhead utilities along the frontage of Douglas Avenue will be undergrounded.
- Upgrading of existing parking lots, including modifications to the circulation and access points, on Block E as necessary.

Off-Site Improvements:

- Signalized intersections at Charter/Broadway and Douglas/Broadway.
- The extension of City recycled water line to the project site.