



Building plans of Apple's new headquarters include naturalized, relaxing spaces for employees to enjoy—and helps spur creativity in the process.

THE APPLE DOESN'T FALL FAR FROM THE TREE

By Theresa M. Casey

Seeds planted at Apple Campus 2 spur long-term employment growth and creativity.

True to its brand, Apple's new \$5 billion, spaceship-like campus epitomizes the next generation of its current Infinite Loop Campus, located just one mile away. Legendary founder, Steve Jobs, was determined to keep Apple's headquarters in Cupertino, California, the city in which he grew up and in which his company was born. With over 14,000 employees scattered throughout 2 million-square-

feet of space in and around Cupertino, he looked to house everyone in a single building. Considered one of the priciest and most complicated construction projects ever attempted by a private company, the self-contained Apple Campus 2 is expected to be complete in late 2016.

The new 176-acre, 2.6-million-square-foot campus serves a variety of functions. It will contain office,



research and development spaces; an underground auditorium; a fitness center; underground and surface parking; 92,000 square-feet of utility plants; and other ancillary buildings. With the combination of a temperate climate, energy-efficient materials and technology, and on-site renewable energy, plans call for an overall net-zero carbon emission.

The buildings are sited in a unified landscape, which extends and connects interior workplaces to outdoor facilities. This, in turn, will spur creativity and invention of the next several generations of Apple products while also supporting relaxation, recreation and reflection for employees.

RAISING THE BAR IN THE CONSTRUCTION INDUSTRY

Approximately 2.65 million square feet of existing office, research and development areas, formerly owned primarily by Hewlett-Packard, had to be demolished to make way for the new campus. Jobs' vision for the mothership building reflects

The new Apple Campus 2 is a 2.6-million-square-foot project sitting on approximately 176 acres in Cupertino, Calif. As home to Apple's future corporate headquarters, it will serve a variety of mixed-use functions.

the company's brand values of innovation, ease of use, and beauty. Conceptualized by Foster + Partners, a world-renowned architecture firm specializing in sustainable design, the facility mimics the minimalist approach and smooth, exacting finishes of its most successful product to date—the iPhone. While DPR/Skanska built the core and shell, Rudolph & Sletten and Holder Construction teamed up to complete the interior fit-out.

Word in the industry is that this project likely will raise the bar of construction standards. According



Workers provide a sense of scale in this photo of the 2.6-million-square-foot, spaceship-like Apple headquarters building that is being built in Cupertino, Calif.

to a July 2015 *Business Insider* article, one worker who was interviewed commented, “There were many meetings when the Apple representative would pick up your [iPhone] and say: ‘That’s what we’re building.’ What that means is—if you look at the phone, there’s the sheen on the phone, there’s the smooth bevel on the phone, there’s precise fit and finish ...every piece of that phone is engineered, and the building is to be built the same way.”

The four-story, circular-shaped structure will feature huge walls of curved windows—claimed to be the largest pieces of arched glass ever made. The translucent panes will offer breathtaking views of the campus’ park-like grounds, which encircle the outer perimeter and are also located within the inner ring’s open, natural space.

BRINGING CALIFORNIA BACK TO CUPERTINO

Apple plans to exceed sustainability requirements set by the Cupertino Green Building Ordinance, the California Green Building Standards Code, and California’s Building Energy Efficiency Standards.

Lisa Jackson, Apple’s Vice President of Environmental Initiatives, has reported that 80 percent of the site will consist of green space. Also, the main building will not need air conditioning or heating for 75 percent of the year, thanks to specialized climate control and natural ventilation features. Plans call for 100 percent of the campus’ energy to be from renewable sources, such as solar power and biofuels, reserving the Cupertino power grid as a back-up electrical supply only.

The goal during construction of the campus is to divert building and demolition waste from landfills by finding multiple alternate uses, including recycling, on-site reuse or off-site reprocessing. In addition, Apple put in place protocols that promote the use of alternative clean-burning fuels, modern fuel-efficient vehicles, and emissions for measures to reduce the level of air contaminants. Surprisingly, Apple was able to demonstrate that no soil would have to be removed from the site, even with the large cut-and-fill requirements of such a large building.

Apple’s current waste management program, which achieves a 78 percent diversion ratio, will also be expanded. Key elements of the program during operations include the increase



The huge walls of curved windows, claimed to be the largest pieces of arched glass ever made, are being installed with highly specialized machines like the one shown here.

of material reuse, recycling from solid waste sources, and composting.

David Muffly, Apple's senior arborist, announced in an official Apple YouTube video in 2013 that part of Apple's plan is to "bring California back to Cupertino." As such, the new campus will reverse an 80/20 development to green ratio, adding thousands of indigenous, drought-tolerant tree species and positioning the majority of parking underground.

INSTALLING JOBS AND ECONOMIC GROWTH NOW AND IN THE FUTURE

According to a 2013 economic impact study conducted by Keyser Marston Associates, the construction of Apple Campus 2 will generate approximately 9,200 high-paying, full-time jobs over the three-year construction period. It will also indirectly support another 12,600 full-time jobs in Santa Clara County over the same timeline.

In addition, the construction will yield an unprecedented amount of \$38.1 million in one-time revenues to the city of Cupertino. This figure comes from construction taxes and fees as well

as \$13.9 million of sales tax revenues derived from the purchase of construction materials.

The benefits to the city and its residents don't stop there. Apple is funding more than \$66 million in public improvements to be built around the campus and in the city of Cupertino. These include \$50.2 million of roadway, traffic, intersection, landscape and utility improvements; \$10 million for bicycle and pedestrian facilities; \$3.7 million in park land; and \$2.5 million in contributions toward affordable housing.

On an ongoing basis, the company will spend approximately \$35 million annually on a transportation demand management program as part of its alternative commute strategy. In addition, Apple traditionally supports many local businesses, resulting in an unusually high multiplier effect on the regional economy.

As the single-largest taxpayer in Cupertino, it is estimated that Apple directly pays \$9.2 million, or 18 percent, of the city's annual general fund budget. With the Apple Campus 2, the net annual fiscal surplus generated by Apple to Cupertino is anticipated to exceed \$11 million.



The new four-story, ring-shaped Apple Campus 2 main building, shown here in progress from the Wolfe Road entrance gate, is expected to be complete in late 2016.

CREATING AND SUPPORTING PERMANENT JOBS

Apple is the second-largest technology employer in Silicon Valley, with 16,000 full-time employees in Santa Clara County. It is also the largest employer in Cupertino, comprising approximately 40 percent of the city's job base. With the Apple Campus 2, an estimated 7,400 new employees will be added to its rolls; Apple and its employees will support an estimated total of 41,000 jobs countywide.

Apple's contribution to local employment extends well beyond its campuses. For instance, in 2012, Apple purchases totaled \$4.6 billion from over 700 businesses located within Cupertino and neighboring Santa Clara and Sunnyvale. This type of volume clearly has a positive impact on the number of jobs supported in business in and around Apple's headquarters.

Since 1976, Apple has remained true to its

Conceptualized by Foster + Partners, the facility mimics the minimalist approach and smooth, exacting finishes of Apple's most successful product to date—the iPhone.

roots since its founding in a small garage in Cupertino. It is committed to exacting standards, minimalist design, and engineered precision as demonstrated in its successful line of electronic products and services. The Apple Campus 2 extends the same premise and commitment. The new expansive green facility will offer a unified and secure space. Technological resources and recreational opportunities will continue to be an important part of Apple's offerings. Now the corporation's employees will be assembled in one central location, resulting in a more highly collaborative workplace.



The Apple 2 campus will reverse an 80/20 development to green ratio, adding thousands of indigenous, drought-tolerant tree species and maintaining Calabaza Creek, shown here in the foreground

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