Apple Campus 2

Project Description

April 2013

Table of Contents **Page**

Apple Campus 2

Apple proposes to create Apple Campus 2 - an integrated, unified and secure 21st Century campus surrounded by green space. This new development will provide a serene environment reflecting Apple's brand values of innovation, ease of use and beauty. The entire 176-acre site will be redeveloped with sustainable, state-of-the-art office, research and development facilities. The project replaces the current disjointed assemblage of aging corporate facilities with a single high performance office, research and development building, with supporting facilities. The buildings are located in a unified and secure landscape, which extends and connects the interior workplaces to outdoor facilities for relaxation, recreation and reflection. The entire Campus, indoors and out, is intended to promote shared creativity and collaboration, and spur invention of the next several generations of Apple products.

Apple selected the internationally renowned architectural firm Foster + Partners, headed by Norman Foster, as architects. Foster + Partners has drawn upon its global leadership in sustainability and design to help achieve Apple's goals.

The signature Main Building accommodates up to 12,000 employees and comprises approximately 2.8 million square feet in four stories, resulting in a significant reduction of overall building footprint when compared to the facilities that exist on the site. The Main Building is located and designed to minimize the visual impact on adjacent residential neighborhoods and to enhance the existing deep landscape setbacks at the periphery.

Campus amenities will include a striking restaurant within the Main Building, a separate Corporate Fitness Center comprising approximately 100,000 square feet, and a 1,000-seat Corporate Auditorium comprising approximately 120,000 square feet.

There will be approximately 10,980 parking spaces. Of these, approximately 9,240 parking spaces will serve the main site of Apple Campus 2. The parking spaces on the Main Building site will be divided between a basement below the Main Building and an above-grade parking structure situated along I-280. The Campus will feature a Central Plant that is integrated with the parking structure and serves all buildings on the Main Building site.

In addition, office and research facilities accommodating up to 2,200 employees and comprising approximately 600,000 square feet will be located along North Tantau Avenue, with approximately 300,000 square feet of development east of North Tantau Avenue and approximately 300,000 square feet west of North Tantau. The 600,000 square feet of office, research and development space will comprise Phase 2, which is scheduled to commence construction after Phase 1 is completed. These additional buildings will house office and research and development functions that need to be located adjacent to the Main Building, and will be supported with approximately 1,740 parking spaces.

Integration and unification of the currently divided parcels will be achieved by reclaiming Pruneridge Avenue as green space. Access to the Hamptons Apartments from North Wolfe Road at Pruneridge Avenue will remain.

The project replaces existing asphalt and hardscape with over 100 acres of landscaped green space. The landscape design of meadows and woodlands will create an ecologically rich oak savanna reminiscent of the early Santa Clara Valley. It will incorporate both young and mature trees, and native and drought tolerant plants, that will thrive in Santa Clara County with minimal water consumption. The increase in permeable surfaces will promote natural drainage and improve water quality in Calabazas Creek. The thoughtful and extensive landscaping will recall Cupertino's pre-agricultural and agricultural past, which will be further acknowledged by preserving and relocating the Glendenning Barn to a more appropriate on or off-site setting.

Apple Campus 2 will promote creativity and collaboration by consolidating up to 14,200 Apple employees in one location. Apple will continue to occupy the existing Infinite Loop Campus, as well as other buildings within Cupertino.

The project generally aligns with Cupertino's existing planning framework set forth in its General Plan, and the policies established for the Vallco Park North Employment Center. It maintains the residential neighborhoods, minimizes additional infrastructure demands and expands the existing perimeter protection to meet Apple's security needs. The project will strengthen Cupertino's competitive position in Silicon Valley and help Apple continue to attract the industry's leading talent.

Apple Campus 2 will become a model for the 21st century workplace – a fantastic place to work, to create, to collaborate, and to shape future technology.

Project Objectives

Apple Campus 2 will result in replacement and rebuilding of the entire approximately 176-acre site with a mix of office, research and development and ancillary land uses. The main objective of the project is to redevelop the site with a new, unified, secure and private Apple campus. The project's specific objectives are to:

Primary Objectives

- Create an innovative and beautiful campus near Apple's Infinite Loop facility that consolidates up to 14,200 of Apple's engineers and support personnel in a single distinctive office, research and development building with supporting facilities. The purpose of consolidation within a single building set in a secure landscape is to promote shared creativity and collaboration, and spur invention of the next several generations of Apple products.
- Achieve the security and privacy required for the invention of new products by eliminating any public access through the site, and protecting the perimeters against trespassers.

Secondary Objectives:

- Maximize the provision of green space, and design this space in accordance with the climate and history of the area.
- Provide on-site amenities for Apple's employees in order to promote employees' health and well-being and reduce off-campus travel.
- Provide an on-site venue for the introduction of Apple's new products that will generate surprise and delight, and enable the products to be introduced at Apple's corporate home.
- Create a physically unified campus community that improves internal circulation and eliminates unnecessary access points by consolidating the existing properties within one campus.
- Create a campus plan that incorporates flexibility to respond to Apple's future business needs.
- Achieve a net zero energy development by constructing energy efficient buildings, generating a significant amount of the Campus' energy from on-site renewable sources, and developing partnerships with renewable energy providers for grid-purchased renewable energy.
- Minimize use of potable water through using recycled water, if available as a result of projects now under consideration, and improve runoff by increasing permeable surfaces.
- Enable a commuting culture where thoughtful site planning and regional connectivity coupled with a robust TDM program prioritize transit and active commute modes.
- Exceed economic, social, and environmental sustainability goals through integrated design and development.
- Enhance the City's tax base.
- Create a campus that reflects Apple's business and design practices, and allows for a long-term presence in Cupertino.

Location

The approximately 176-acre site is bounded by I-280, North Wolfe Road, East Homestead Road and North Tantau Avenue, as shown on Exhibit A-6 and described more fully in Exhibit A-7. The Campus also includes parcels located to the east and west of North Tantau Avenue.

Site Development Overview and Detail
Apple is seeking from the City the entitlements and approvals listed below. Apple may supplement this list as the project develops. Apple may seek additional approvals from the appropriate local, regional, state and federal agencies.

- Legislative Approvals
  - General Plan Amendments
    - Remove Park designation
    - Remove Pruneridge Avenue as a Minor Collector in Circulation Element
  - Zoning Amendments – Rezone park site to P(MP)
  - Development Agreement for the entire site to vest the Project Approvals

- Project Level Approvals
  - Conceptual Plan approval
  - Development Permit(s)
  - Vesting Tentative Map, including approval of a grading plan
  - Vacation of Pruneridge Avenue and associated agreements
  - Land Transfer Agreement with City for Pruneridge Avenue right-of-way
  - Utility Relocation & Easement Agreements with City (and applicable utilities)
  - Tree Removal Permit
  - Streamside Modification Permit
  - Architectural Site Approval
  - Environmental Review
  - Approvals relating to land use amendments necessary for additional traffic lane on part of North Wolfe Road.

Apple anticipates commencing construction immediately after approval and expects construction to be completed by the summer of 2016. This schedule may be modified to meet Apple's business needs.

As indicated, Apple Campus 2 replaces the current outdated office, research and development buildings. The result is an incremental net new development, as described in Table 1.

Site
Although there will be an incremental increase in gross office and research and development floor area of approximately 20%, the efficient use of the main site will result in almost tripling the landscaped area. Underground and structured parking will replace 9,220 surface parking spaces – creating almost three times more open space. The new open space will be developed using native and drought tolerant trees and landscaped to minimize water consumption. The increased permeability will assist in controlling site water run-off and help to improve local water quality.

The sloping site will be re-graded to provide a level ground floor for the Main Building.

	Existing Site	Apple Campus 2	Net New Development
Main Site			
Number of Employees (Current Occupancy)	4,844	12,000	+7,156
Number of Employees (Current Capacity)	8,400	12,000	+3,600
Office, Research and Development - Occupied Area (sq ft)	2,287,000	2,820,000	+533,000
Corporate Auditorium & Corporate Fitness Center - Gross Floor Area (sq ft)	0	220,000	+220,000
Tantau Development Phase 2			
Tantau Phase 2 Development - Number of Employees	1,400	2,200	+800
Tantau Phase 2 Development - Office, Research and Development, Occupied Area (sq ft)	370,000	600,000	+230,000
Apple Campus 2			
Parking Space Capacity	9,220	10,980	+1,760
Site Coverage (sq ft)	1,400,000	1,000,000	-400,000
Number of Trees on Site	4,506	7,000	+2,494
Permeable Landscape (acres)	42	102	+60

Table 1 Site Development Overview (See Exhibit A-4)

Transportation and Parking

Replacement and rebuilding the outdated existing facilities provide the opportunity to consolidate twenty-four driveways into ten access points, thereby advancing the City's policy on managing access to major streets. The proposed access and circulation plan will reduce the impact on traffic associated with numerous driveways, eliminate conflicts that jeopardize safety for pedestrians, bicyclists and motorists, enhance emergency access to the site and simplify way finding.

Site Access

Primary vehicular access to the site for employees and visitors will be via a new intersection located approximately 260 feet north of the intersection of North Wolfe Road and Pruneridge Avenue, thereby allowing separation of Campus traffic from Hamptons Apartments' traffic. This new intersection will have a 3-leg (tee) configuration. The eastern leg will be a new private service road inside the main Campus site. This service road will provide access to the visitor parking area, below grade parking garage and parking structure located near the southern boundary of the site.

A secondary access point is provided on North Tantau Avenue, north of Calabazas Creek. This access serves the above-grade parking structure, as well as providing service access to the Central Plant, the Corporate Auditorium, additional access to the garage beneath the Main Building, maintenance access to Calabazas Creek and secondary emergency fire access to the Hamptons Apartments. This intersection also provides access to the site's property located east of North Tantau Avenue and north of Calabazas Creek.

The properties located south of Calabazas Creek, as well as east and west of North Tantau Avenue, will have their own dedicated intersection and site access points.

Apple's employee shuttles and service and delivery vehicles access the site from an intersection on North Tantau Avenue south of East Homestead Road. This intersection provides access to the project's Corporate Transit Center for Apple's employees adjacent to North Tantau Avenue. Access to the loading dock area is via separate driveways along North Tantau Avenue.

A service and emergency access point to the Corporate Fitness Center is located on an existing curb cut on East Homestead Road.

Multiple pedestrian and bicycle access points are provided in order to encourage employees to travel to the site on foot, bicycle and public transportation. Apple employees traveling by foot or on bicycle may access the site adjacent to the primary entrance on North Wolfe Road, where public transit stops, and just north of the project's service entrance on North Tantau Avenue. Additional pedestrian and bicycle access will be provided adjacent to the Corporate Fitness Center, the Corporate Auditorium and on North Tantau Avenue north and south of Calabazas Creek.

On-Site Circulation and Emergency Access

A private internal service road will connect from North Wolfe Road to North Tantau Avenue. This service road will provide access to the visitor parking area, below-grade parking garage and parking structure located near the southern boundary of the site.

A security plaza will be built east of North Wolfe Road, beyond which only employees or credentialed visitors will be granted access. Beyond the security plaza, the service road will enter a below grade tunnel from which two below-grade intersections will provide access to the below-grade parking garage. The service road will than rise to grade and turn south to provide access to the above-grade parking structure and ultimately to connect to the vehicle access point at North Tantau Avenue, north of Calabazas Creek. Employee entry from North Tantau Avenue includes a secondary security plaza.

Emergency responders access the site from the primary access point via North Wolfe Road, the secondary employee access point from North Tantau Avenue, as well as the Corporate Auditorium and the Corporate Fitness Center entry points. The Hamptons Apartments' primary emergency vehicle access from North Wolfe Road via Pruneridge Avenue remains in the same location, and a new secondary emergency access to the complex is provided from the service road at the southern boundary of the site.

Vacation of Pruneridge Avenue
Most of Pruneridge Avenue will be vacated. This vacation will create a physically unified campus community that respects Apple's security and privacy needs by eliminating public access through the Campus, and it will improve internal circulation.

Pruneridge Avenue will remain open from its intersection with North Wolfe Road to the entrance to the Hamptons Apartments. This segment of Pruneridge Avenue would function principally as access to the Hamptons Apartments, as well as serve vehicles exiting from the Apple Campus 2 visitor security kiosk. Traffic demand on this segment of Pruneridge Avenue would be reduced from existing conditions, allowing the roadway to be reduced to two lanes.

Through traffic formerly using Pruneridge Avenue is routed to parallel facilities including East Homestead Road, Vallco Parkway and Stevens Creek Boulevard. One existing transit route on Pruneridge Avenue requires re-routing to utilize Vallco Parkway and North Tantau Avenue. Similarly, closure of the existing bike lanes on Pruneridge Avenue will require bicyclists to use the bike lanes on East Homestead Road, or to travel down an improved North Tantau Avenue to Vallco Parkway. Utilities located beneath Pruneridge Avenue will be relocated.

The second emergency access point for the Hamptons Apartments off North Tantau Avenue will be rerouted via Apple's service road north of the Creek.

Off-Site Improvements
Apple proposes to improve North Wolfe Road by adding additional lanes that increase both capacity and storage and maintain the City's Level of Service (LOS) standard. Lanes added to North Wolfe Road include two southbound left turn lanes at the new site entrance, an additional northbound lane from I-280 to the new site entrance, and an additional right turn lane on the I-280 northbound off ramp. North Tantau Avenue will be widened in the vicinity of the employee entrance on the east side of the site.

North Wolfe Road will be widened to provide four continuous through lanes and one shared through/right turn lane at Pruneridge Avenue. The proposed widening would occur entirely on the eastern side of the North Wolfe Road. The I-280 northbound off- ramp to the north would be widened to provide a second right turn lane. The I-280 southbound off-ramp to the south will be widened as well.

A northbound Class II bicycle lane will be provided adjacent to the curb on North Wolfe Road between I-280 and Pruneridge Avenue. Approaching Pruneridge Avenue, the bicycle lane will shift west with the through traffic, to avoid conflict with vehicles turning right into the main Campus north of Pruneridge Avenue. Northbound bicyclists will cross the main Campus entrance in a dedicated Class II bike lane and the bike lane will transition back adjacent to the curb north of the entrance. Additionally a Class I bike lane will be provided from midway between I-280 and Pruneridge Avenue to the AC2 Site Entry for cyclists wishing to enter the Campus.

At the intersection of North Wolfe Road and Pruneridge Avenue, the eastern leg of the intersection will be reduced in width to three lanes (one lane in and two lanes out).

A new three-legged (tee) intersection will be created approximately 260 feet north of the intersection of North Wolfe Road and Pruneridge Avenue. The northbound North Wolfe Road approach will consist of three through lanes and two right turn lanes. The southbound North Wolfe Road approach will consist of three through lanes and two left turn lanes with approximately 330 feet of storage. Widening of North Wolfe Road will accommodate the additional lanes. The proposed widening after Pruneridge Avenue will occur entirely on the east side of the roadway within the City-owned right-of-way and on Apple-owned property.

North Tantau Avenue will be widened north and south of Calabazas Creek and north of the I-280 overcrossing. The widening will allow for a five-lane cross-section south of the employee access intersection. The bridge over I-280 will be reconfigured to consist of four traffic lanes with bike lanes in both directions and sidewalks on both sides of the street.

Parking
There will be approximately 10,980 parking spaces provided within Apple Campus 2. Of these, approximately 9,240 employee parking spaces will serve the main site of Apple Campus 2, and about 1,740 employee parking spaces will serve the Tantau Development sites.

While Apple Campus 2 will be Apple's center for research and development, 1 Infinite Loop will remain the primary location for visitors. Apple Campus 2 will provide visitor parking spaces with access directly from the new Apple-dedicated entrance point off North Wolfe Road. The careful management of parking is an essential component of Apple's Transportation Demand Management program. The specifics related to parking are as follows:

- **Main Building Employee Basement Parking:** Approximately 2,385 employee parking spaces will be located in the Main Building basement. There are two vehicular access points for employees to the B1 level with internal ramps to the B2 level.

- **Main Site Employee Parking Structure:** Approximately 5,870 employee parking spaces will be accommodated in a multi-story parking structure along the southern edge of the site, adjacent to I-280.

- **Tantau Parking Structure:** Apple will provide about 750 parking spaces for visitors, employees and guests attending events at the Corporate Auditorium in a parking structure. Sixty additional valet parking spaces are available for event days.

- **Wolfe and Tantau Visitor Parking:** There will be two visitor parking lots on site. Approximately 150 surface parking spaces will be provided in a secure zone within the site accessible from North Wolfe Road. Access to this area is controlled by a manned security kiosk, which also monitors pedestrian and bicycle access into the site. The location of this visitor parking lot is just south of the Apple Campus 2 driveway. About 150 additional parking spaces for visitors are provided in the Tantau Parking Structure.

- **Tantau Development Parking:** There will be approximately 1,740 employee parking spaces located east and west of North Tantau Avenue serving the Phase 2 development.

Bicycle Access

Recommended Bicycle Access Improvements
The following is an overview of the recommended bicycle facilities on streets adjacent to the campus. The recommended improvements include the following treatments:

Bike Lanes
Bike lanes are defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes are recommended on North Wolfe Road, Pruneridge Avenue, and Homestead Road. This section of the corridor includes conventional bike lanes where there is not enough right-of-way to include enhanced treatments such as buffered bikeways.

Buffered Bike Lanes
A buffered bike lane, also called an enhanced bike lane is a bike lane that is buffered by a striped "shy zone" between the bike lane and the moving vehicle lane. With the shy zone, the buffered lane offers a more comfortable riding environment for bicyclists who prefer not to ride adjacent to traffic. This design has a number of benefits including:

- Provides greater shy distance between cars and bicyclists.
- Provides space for bicyclists to pass each other.
- Provides greater space for the bicycle travel lane without making the lane appear so wide that it may be mistaken for car use.
- Appeals to not just experienced bicyclists, but people who bicycle on occasion and those new to bicycling.

Buffered bike lanes are recommended on North Tantau Avenue and Vallco Parkway.

The recommended buffered bike lane design is the same design as a recently implemented Caltrans buffered bikeway on Sloat Boulevard in San Francisco and is a modified version of the design guidance presented in the NACTO (National Association of City Transportation Officials) Urban Bikeway Design Guide. The key difference is the proposed design has an inner dashed stripe; this will permit vehicles to cross when necessary, for example to enter or exit driveways.

Bike Boxes
A bike box is generally a right angle extension to a bike lane at the head of a signalized intersection. The bike box allows bicyclists to get to the front of the traffic queue on a red light and proceed first when that signal turns green. The bike box can also act as a storage area if heavy bicycle traffic exists. The bike box can also facilitate left turning movements for bicyclists who use the 'two stage turn.' Motor vehicles must stop behind the white stop line at the rear of the bike box. Bike boxes should be located at signalized intersections only. Bike boxes can be combined with intersection through bike lanes for green light situations to remind vehicles to be aware of bicyclists. This treatment is not a Caltrans approved traffic control device, however the City can apply to Caltrans for approval to experiment.

Bike boxes are recommended at:

- Northbound N Wolfe Ave at Pruneridge Ave
- Westbound Homestead Rd at N Tantau Ave
- Westbound Pruneridge Ave at N Tantau Ave

Two –Stage Turn Boxes
Two-stage turn boxes assist bicyclists with making left turns at multi-lane intersections. This treatment is typically applied on multi-lane streets with high traffic speeds and/or volumes. It provides a number of benefits including:

- Improves bicyclist comfort.
- Provides formal waiting area for bicyclists making left turns outside of the crosswalk.

The two stage turn box is recommended on N. Wolfe Ave at Pruneridge Ave.

This treatment is not a Caltrans approved traffic control device, however the City can apply to Caltrans for approval to experiment.

Intersection Crossing Markings
Intersection crossing markings are an extension of the bicycle lane through an intersection. This bike lane extension has a number of benefits, including:

- Enables bicyclists to correctly position themselves to the left of right turn lanes or to the right of left turn lanes.
- Reduces conflict between turning motorists and bicycle through traffic.
- Provides bicyclists with guidance to follow the preferred travel path.
- Alerts motorists to expect and yield to merging bicycle traffic.

Intersection crossing markings are recommended at:

- Northbound N Wolfe Ave at Pruneridge Ave
- Northbound N Wolfe Ave at Campus Entrance
- Westbound Homestead Rd at N Tantau Ave
- Westbound Pruneridge Ave at N Tantau Ave

Green Bike Lanes Through Conflict Areas
Green bike lanes through conflict areas is the application of green coloring applied to pavement in conflict zones.
Benefits of this treatment include:
Alerts roadway users to expect bicyclists.
Assigns the right of way to bicyclists.
The FHWA (Federal Highway Administration) has provided blanket approval for green colored pavement and Caltrans has also approved this treatment.

Green bike lanes through conflict areas are recommended at:

- N Wolfe Ave at all 280 ramps
- Northbound N Tantau Ave at parking lot entrances and approach to dedicated right turn lane at Homestead Rd
- N Tantau Ave at the Transit Center entrance/exit, loading area and parking lot entrances

Rapid Rectangular Flashing Beacon
Rectangular rapid flashing beacons (RRFB) are pedestrian actuated devices mounted adjacent to the roadway. The beacon lights are rectangular LED lights installed below a pedestrian crosswalk sign that flash in an alternating pattern when activated. The beacon is dark when not activated. Caltrans has received approval from the Federal Highway Administration (FHWA) for use of RRFBs on a blanket basis at uncontrolled pedestrian and school crosswalk locations in California, including State highways and all local jurisdictions' roadways.

RRFB's are recommended at:

N Tantau Ave, two uncontrolled crosswalks at either end of the Transit Center

Utilities

Pruneridge Avenue Utility Relocations
The Pruneridge Avenue street vacation requires the relocation of existing utilities within its right-of-way. Preliminary studies and discussions with utility providers indicate that the following improvements may be required in the adjacent public streets:

- **Sanitary Sewer:** Upsize and deepen the existing sewers in North Wolfe Road (between Pruneridge Avenue and East Homestead Road) and in East Homestead Road (between North Wolfe Road and Tantau Avenue).
- **Storm Drain :** Upsize the existing storm drain in North Wolfe Road (between Pruneridge Avenue and East Homestead Road). The design of this storm drain is pending hydraulic analysis and consultation with the City.
- **Water:** Increase the size of the existing water line in East Homestead Road (between North Wolfe Road and North Tantau Avenue).
- **Power:** Install new conduits from the intersection of North Wolfe Road and Pruneridge Avenue to North Tantau Avenue and Pruneridge Avenue via North Wolfe Road, East Homestead Road and North Tantau Avenue.
- **Gas:** Install a gas pipe on Tantau Avenue between East Homestead Road and Pruneridge Avenue to maintain connectivity within Pacific Gas and Electric's (PG&E) gas network.
- **ICT:** Install new conduits from the intersection of North Wolfe Road and Pruneridge Avenue to North Tantau Avenue and Pruneridge Avenue via North Wolfe Road, East Homestead Road, and North Tantau Avenue.

Surrounding Streets Utility Improvements
Utility connections for the project are likely to require utility improvements in the surrounding streets. Preliminary studies and discussions with utility providers indicate that the following improvements may be required in the adjacent public streets:

- **Power:** Install new conduits with feeder circuits from the intersection of North Wolfe Road and East Homestead to the Central Plant via North Wolfe Road and Pruneridge Avenue. New feeder circuits may be required from PG&E's distribution network to the main site Central Plant and the Tantau satellite plants.
- **Recycled Water:** Apple is discussing with the City of Sunnyvale the possibility to bring a recycled water supply to the site. The most likely alignment would extend the line from the existing Sunnyvale Water Pollution Control Plant to the Apple Campus 2 along North Wolfe Road.

The above relocations are preliminary, subject to confirmation with the utility providers during design coordination and review.

Grading and Construction

Grading
The intent of the site grading strategy is to:

- Locate buildings out of the flood plain zone, and outside the top of the Calabazas Creek bank, such that the buildings will not be affected by Creek flows during a 100-year storm event.
- Generally grade the site away from the buildings toward the perimeter streets so that site storm water does not pose a flood risk to the buildings.
- Maintain a constant relationship between the elevation of the buildings and the surrounding landscape.
- Integrate storm water management treatment systems into the site grading strategy.
- Import topsoil for planted areas.
- Balance cut and fill on site.

The following areas of the Campus will require excavation:

- Two levels of basement parking located under the Main Building.
- Ramps to the underground parking and loading dock storage areas.
- Excavation and foundations for the Parking Garage and access tunnel.
- The basement elements of the Corporate Auditorium and Corporate Fitness Center.
- Site grading excavation.
- East and West of Tantau Office, Research and Development facilities.

Preliminary studies indicate a balanced site with no soil off-haul for the main site. Topsoil import will be required.

Construction
Apple's construction protocol will promote the use of alternative clean-burning fuels, modern fuel-efficient vehicles, and emissions reduction measures in order to achieve a "less than significant" level of air contaminants. Apple is still working on the details of these protocols.

Buildings

Main Building
The focal point of the proposed development is the four-story office, research and development Main Building comprising 2.8 million sq. ft. gross floor area above ground. This area also includes the in-building employee services, meeting spaces, office entrance areas, and circulation zones.

- **Employee Restaurant and Dining Facilities:** There will be a dining facility of about 60,000 sq. ft. with movable seating at ground level for 2,100 occupants, as well as about 20,000 sq. ft. of mezzanine space to seat an additional 600 people, with 1,750 seats on terraces for outdoor dining

- **Meeting Rooms:** Approximately 83,000 sq. ft. of space will be dedicated to meeting and breakout spaces within the communal zones of the building.

- **Kitchen and Loading Dock:** At the lower basement level, there will be a double-height kitchen and service loading dock, which together have a floor area of 130,000 sq. ft. The kitchen is located directly under the restaurant, and the loading dock is located outside the footprint of the Main Building above.

- **Plant Rooms:** There is 260,000 sq. ft. of space allocated for mechanical rooms within the Main Building, some of which is located below-grade, and some of which is located within the roof build-up above the 4th floor.

- **Engineering and Testing Spaces:** Approximately 15% of the Main Building area is allocated for technical support spaces.

Corporate Fitness Center
To the northwest of the Main Building, the proposed project also includes a Corporate Fitness Center of approximately 100,000 sq. ft. for use by employees. It will contain changing rooms, showers, laundry facilities, gym equipment, multi-purpose rooms for group classes and other related facilities.

Corporate Auditorium
An assembly space with fixed seating for 1,000 people is proposed for the southern part of the site comprising about 120,000 sq. ft. with pedestrian access off North Tantau Avenue, north of Calabazas Creek. The building also will contain a large lobby space, restrooms, and some back-of-house facilities, including a catering kitchen. The Corporate Auditorium will be served by 350 parking spaces in the North Tantau Parking Structure.

Central Plant
Co-location of services within a large integrated development will improve efficiency over the current disjointed development. In addition to the mechanical space within the Main Building (primarily located under the roof build-up), the project will locate the mechanical and electrical equipment that serves buildings on the main site in one location, containing fuel cells, back-up generators, chillers, condenser water storage, hot water storage, electrical substation, water and fire pumps.

Tantau Development Phase 2

Phase 2 includes 600,000 square feet of office, research and development buildings for up to 2,200 employees along North Tantau Avenue, providing flexibility to address future business needs. Construction of Phase 2 will follow completion of Phase 1. The Tantau sites will have small satellite plants.

Landscape

The Apple Campus 2 landscape framework primarily comprises landforms and vegetation found in the Oak Woodland and Oak Savanna that once were prevalent in the area. Within this setting, the site is developed in four different zones:

- Passively programmed Oak Savanna between the Parking Structure and the Main Building
- Active recreation, sports, and fitness areas in the northwest
- Pastoral and passive landscape in the northeast with an outdoor dining terrace associated with the Main Building Café.
- More intensely used and developed inner courtyard within the Main Building.

The inner courtyard combines natural and cultural elements, orchards and dining terraces, a large basin of water within a grove, an amphitheater within an orchard and woodlands, and numerous areas to walk, stroll, meet, rest, and work outdoors in shade or sun.

Ecological Context and Benefits:

- The Campus is located along the Pacific Flyway. Complex woodland planting with layered understory will provide urban habitat islands for many migrating songbirds. The vast majority of the 309 species to be planted in the new Campus are native to California. This diverse landscape will contribute significantly to the regional diversity of flora and fauna.
- The plant list does not include any plants listed by the California Invasive Pest Council (CALIPC) as invasive. Many of the existing plants on the site are listed as noxious weeds by CALIPC and will be removed and replaced with native plants; for example, Cotoneaster and Pyracantha along the perimeter will be replaced with Ceanothus spp. and Manzanitas.
- 15 acres of contiguous California grassland will be created as part of the Campus. All of these grasses are native to California. Dotted within the grassland will be occasional perennials and bulbs, the vast majority of which are native to California.
- This is to be a low watered, climate appropriate landscape. Irrigation will be applied to the Campus during the dry season, but all plants (excluding the limited amount of lawn) are drought tolerant and will survive with minimal irrigation (1-2x/month during the dry season). Although approximately 50% of the oaks on Campus are not native to California, they are good, drought-adapted trees that will function well in this climate.
- Sudden Oak Death (SOD), an oak disease caused by Phytophtera Ramorum, is currently impacting the Coast Live Oak, Black Oak and Tan Oak populations throughout California. Coast Live Oak is by far the most numerous oak species in the Santa Clara Valley, but it is threatened by SOD. Species affected by SOD are primarily the Red/Black Oaks. By increasing the diversity of oaks on Campus to include a variety of evergreen and deciduous oaks from other oak groups (White, Cerris, Intermediate), the Campus will be more resilient to SOD and other diseases.
- The existing Memorial Tree identified in the arborist report as Tree #1034 – Memorial English Oak – will be transplanted to a public location along Tantau Avenue near the Calabazas Creek.
- In addition to the Memorial Tree, eleven other existing Specimen Trees, as identified by the arborists report, will be transplanted to new locations on site and three Specimen Trees will be preserved in place. The remaining fifty-four Specimen Trees to be removed will be replaced at a two to one ratio.

Calabazas Creek Linkage

The pedestrian route along North Tantau Avenue associated with Calabazas Creek (between Pruneridge Avenue and Vallco Parkway) will be an improved experience. The walkway itself will provide more comfort and safety, improved materials, planting, and marked bicycle lanes. New interpretative signage will be located adjacent to Creek view sheds at the North Tantau Avenue crossing, the I-280 overpass, and at the Vallco Parkway crossing.

Within the 50-foot zone adjacent to the Calabazas Creek right-of-way, planting follows guidelines and standards for land use near streams from both the California Native Plant Society and the Santa Clara Valley Water District's Qualifying Plant List. The project includes only local cultivars of native species along the Creek. Plans will be reviewed with the Santa Clara Valley Water District for final approval.

Environmental Sustainability

Apple's commitment to innovation and environmental sustainability is provided through net zero energy buildings, a climate-responsive design, a comprehensive multi-modal transportation plan, a compact land use that reduces building and parking footprints and the heat island effect, and a landscape plan reminiscent of the natural California landscape, including the use of native and drought-tolerant vegetation. Access to daylight, views and natural ventilation provide strong inside-outside connections. The environmental sustainability features are designed to provide a net zero increase of greenhouse gas emissions, minimize natural resource consumption and improve the air, water, light and micro-climate quality of the site.

Additional sustainability features are as follows:

- Co-location of services within the large integrated Campus development will improve efficiency over the current disjointed land use.
- The number of inter- and intra-Campus car trips generated will be reduced through Apple's existing and extensive TDM programs.
- The Central Plant serves as a primary consolidation point for heating, cooling and electricity for the main site.
- Approximately 9,240 of the 10,980 parking spaces provided on-site will be provided in sub-grade levels or in a parking structure, creating more permeable landscape and minimizing heat island effect.
- In excess of 6,000 trees will be planted on the site, including fruit trees, in addition to retaining approximately 1,000 trees currently on the site.
- The project will increase the permeable area on site from about 42 acres to approximately 109 acres.

Energy

Apple is committed to using 100% renewable energy throughout Apple Campus 2, with an emphasis on on-site generation from photovoltaics and fuel cells. The Main Building will incorporate a variety of technologies that help to achieve Apple's net zero energy goal. Initiatives include radiant conditioning systems, LED electric lighting, natural ventilation, and green information and communication technologies. Other energy initiatives include:

- 300 electrical vehicle charging stations will be provided, with built-in capacity to expand.
- Buildings will be designed to allow for passive heating and cooling and high performance building systems.
- The project's overall energy needs will be provided by renewable energy. The majority will be generated on-site through the use of photovoltaics and fuel cells with directed biogas. These will be supplemented by grid purchased renewable energy if needed during periods of peak demand.
- Approximately 8MW of photovoltaics will be installed on the Main Building and parking structure roofs.
- The sites east and west of North Tantau Avenue will also be served by 100% renewable energy, maximizing the use of photovoltaics and fuel cells on-site.

Acoustics

Operation of mechanical equipment for the completed project will be subject to the City of Cupertino Municipal Code, Chapter 10.48 'Community Noise Control'. Since non-emergency equipment to be installed as a permanent part of the project may be operated during the day or night, the design approaches implemented shall reflect the more stringent nighttime noise requirements of the City of Cupertino Municipal Code, which is to not to exceed 55 dBA on adjacent residential properties. To that end, the layout, selection of equipment and noise control approaches, such as barrier walls or add-on noise reducing devices, will be designed to achieve a noise level during operation of less than 55 dBA when measured in outdoor areas of adjacent residential properties.

Mobility

Apple will expand its already robust Transportation Demand Management (TDM) program by 20%, increasing the reduction in peak hour trips from 28% to 34%. Key elements of the TDM program include expansion of the employee shuttle program to access all regional public transportation systems and communities with concentrations of Apple employees, targeting employees residing within 15-minutes of the Campus. Management of the site's limited parking supply will be used as an incentive for employees to take advantage of Apple's alternative commute offerings.

Water
A recycled water main connection to the site is under consideration. Apple is currently discussing the potential recycled water line with the City of Sunnyvale. The most likely alignment would extend the line from the existing City of Sunnyvale Water Pollution Control Plant to the Apple Campus 2 site along North Wolfe Road. A final route and design specifications, including capacity, have not been determined.

The reduction of impermeable surfaces on site, and roof rainwater capture from the Main Building roof will promote natural drainage, reduce storm water runoff and improve water quality in Calabazas Creek. Landscaping will incorporate both young and mature trees, and native and drought tolerant plants, which will minimize water consumption. Water efficiency initiatives include the evaluation of low flow fixtures. Water use would be reduced by about 30 percent below a typical commercial development within the Silicon Valley area.

Waste
Apple will expand its current waste management program, which achieves a diversion rate of 78%. During construction of Apple Campus 2, the goal is to divert construction and demolition waste from landfills by finding multiple alternative uses, such as recycling, reuse on site or on other sites. Key elements of the waste management program during operations are the increase of material reuse, recycling from solid waste sources and composting.

Green Building Codes and Regulations
Apple will exceed sustainability requirements set by the Cupertino Green Building Ordinance (GBO), the California Green Building Standards Code ("CalGreen", Title-24, Part 11), and the Californian Energy Efficiency Standards (Title 24, Chapter 6). The Cupertino GBO and CalGreen have been recently enacted and represent a new level of sustainability – thereby setting a significant performance baseline for Apple Campus 2 to exceed.

Site Connectivity, Linkages and Public Improvements

As part of the proposed project, Apple will improve the quality of public spaces surrounding the site to enhance the pedestrian and bicycle experience, as follows: (See Exhibit A-5)

North Tantau Avenue

- Providing a fully landscaped median along North Tantau Avenue from the I-280 bridge to East Homestead Road in all locations where existing trees and topography allow.
- Providing fully detached sidewalks along North Tantau Avenue from I-280 to East Homestead Road.
- Improving the bicycle and pedestrian links on the Tantau Bridge across I-280 by providing sidewalks on both sides, and a bicycle lane, which is separated from vehicular traffic by a buffer zone. This will connect the east-west bicycle and pedestrian links from Pruneridge Avenue east of North Tantau Avenue to East Homestead Road, and it will enhance the bicycle and pedestrian connectivity to Vallco Parkway and North Wolfe Road south of I-280.
- Pedestrian scale lighting, enhanced paving and enhanced railings will be provided on the Tantau Bridge across I-280.
- Restriping and/or providing colored bike lanes on both sides of the street.
- Establishing a link from the Calabazas Creek crossing of North Tantau Avenue to its junction with Vallco Parkway to the south across I-280 through specialty paving, signage, way finding and other features.
- Reducing the number of curb cuts and left-turn lanes on North Tantau Avenue.
- Introducing public art in a location along North Tantau Avenue.
- Creating architectural elements and landscaping at the Tantau Visitor entrance to the project site.
- Improving and upgrading utility connections impacted by the project.

North Wolfe Road

- Providing fully detached sidewalks along North Wolfe Road from I-280 to East Homestead Road, in all locations where existing trees and topography allow.
- Increasing vehicular capacity of North Wolfe Road to allow for increased traffic demand.
- Establishing an off-street bicycle lane in connection with the Campus' new entry.
- Planting new trees along North Wolfe Road wherever trees will be removed.
- Retaining existing trees and enhancing the buffer to the site with new planting wherever practicable.
- Improving and upgrading utility connections impacted by the project.
- Restriping and/or providing colored bike lanes on both sides of the street.
- Pedestrian scale lighting, enhanced paving and enhanced railings will be provided on the Wolfe Bridge across I-280.

East Homestead Avenue

- Reducing the number of curb cuts and left-turn lanes to improve pedestrian and bicycle safety.
- Connecting bicycle paths with North Tantau Avenue and North Wolfe Road.
- Restriping and/or providing bike lanes on both sides of the street.
- Providing a landscaped median along the entire block where space and vehicular movement allow.
- Potentially expanding the recycled water system to service the proposed project, as well as parks and other sites in the area that could benefit from the use of recycled water.
- Improving and upgrading utility connections impacted by the project.

Vallco Parkway

- Providing fully detached sidewalks along Vallco Parkway adjacent to the Apple sites, in all locations where existing trees and topography allow.
- Connecting bicycle paths with North Tantau Avenue and North Wolfe Road.
- Restriping and/or providing colored bike lanes on both sides of the street.
- Coordinating with the City and landowners on stormwater improvements, road markings, signage, and crosswalk enhancements along the northern side of Vallco Parkway between North Tantau Avenue and North Wolfe Road.

Pruneridge Avenue

- The segment of Pruneridge Avenue between North Tantau Avenue and Santa Clara has been narrowed to a residential scale with two vehicular lanes with a landscaped median, striped bike lanes on both sides, detached sidewalks, and enhanced landscaping.
- Pruneridge Avenue east of North Wolfe Road has also been reduced to a two lane road with detached sidewalks and enhanced landscaping on the northern side. A cul-de-sac ensures emergency vehicle maneuverability.

Exhibit A-1 Visualization 1

View of Landscaped Green Space for Apple Employee Recreation

Exhibit A-2 Visualization 2

View of Main Building and Green Space Linkage

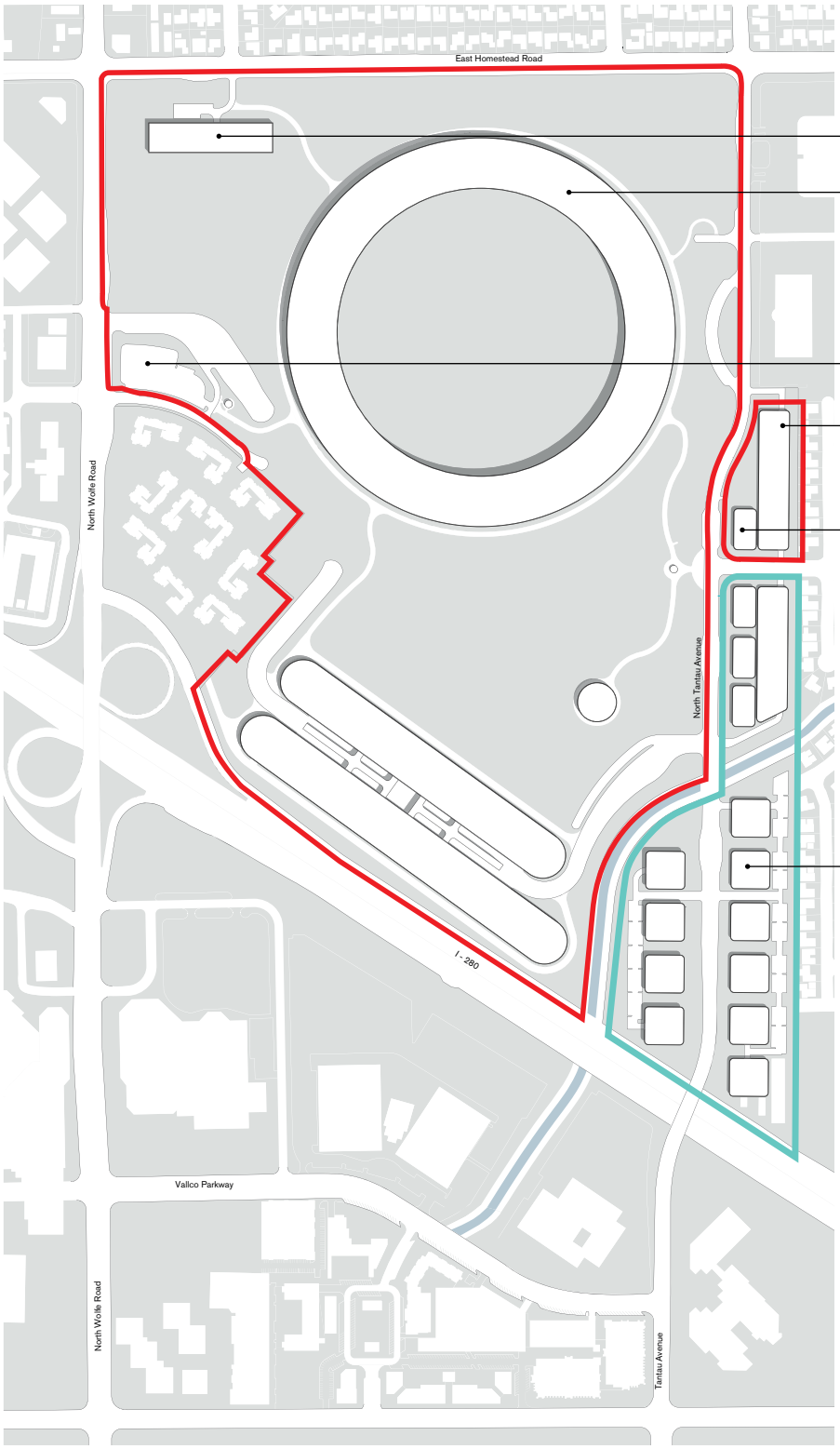
Exhibit A-3 Visualization 3

View of Net Zero Energy Office, Research and Development Building

Exhibit A-4 Visualization 4

View of Perimeter Bicycle and Pedestrian Enhancements

Exhibit A-5 Apple Campus 2 Site Development Overview



Main Site

Fitness Center
Employee Parking: 25 spaces

Gross Floor Area: 2,820,000 sq. ft.
Employees: 12,000
Employee Parking: 8,255 spaces

North Wolfe Road Visitor Parking
Visitor Parking: 150 spaces

North Tantau Avenue Visitor Center
Visitor Parking: 150 spaces

Employee/Auditorium Parking
Visitor Parking: 660 spaces

Main Site total parking: 9,240 spaces

Tantau Development | Phase 2

Gross Floor Area: 600,000 sq. ft.
Employees: 2,200
Employee Parking: 1,740 spaces

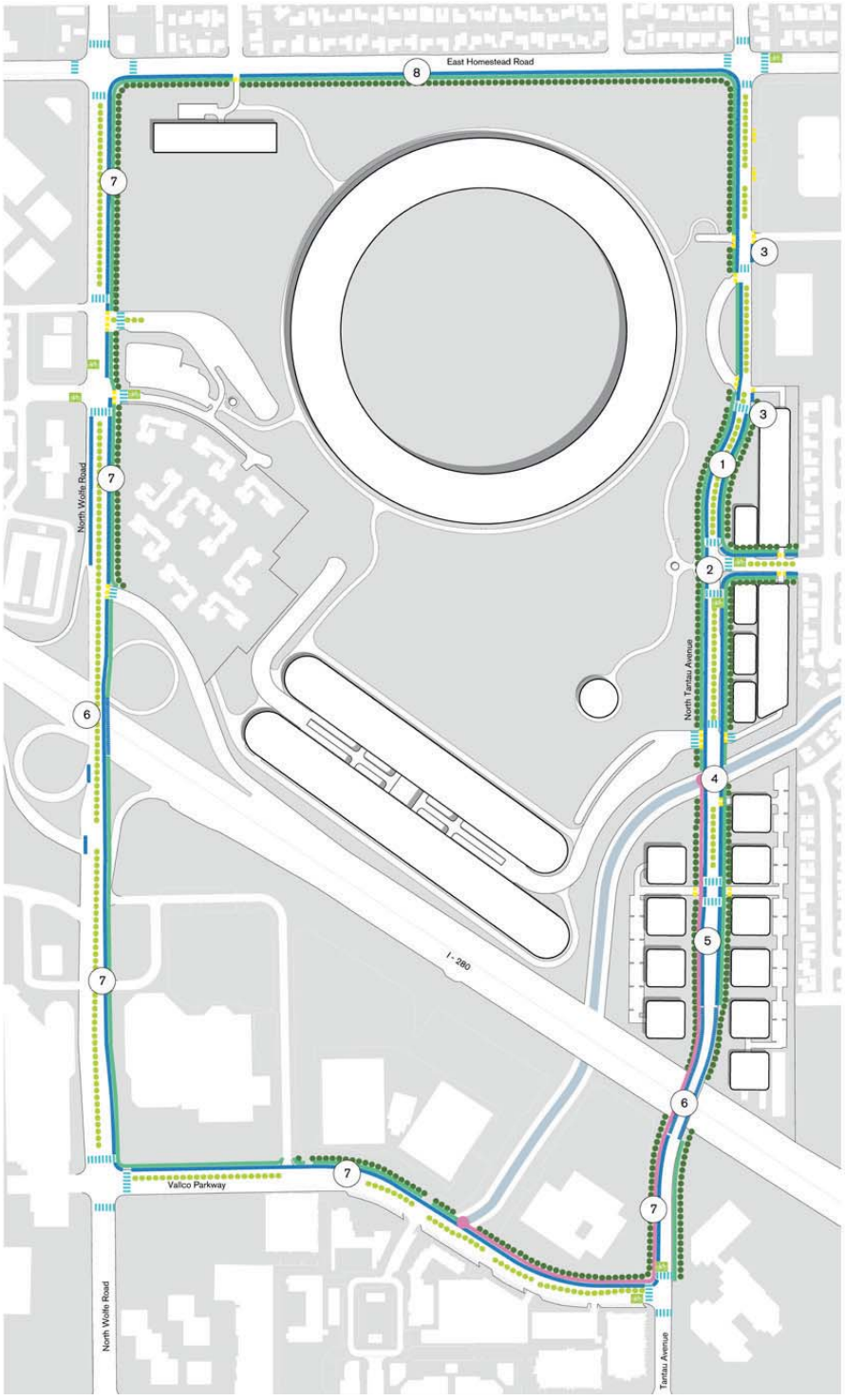
Apple Campus 2

Parking Space Capacity: 10,980

Main Site
Tantau Development Phase 2

N

Exhibit A-6 Site Connectivity, Linkages and Public Realm Improvements



North Tantau Avenue

1

Tantau Avenue is enhanced as a landscaped boulevard with detached sidewalks, plantings, landscaped median, and clearly demarcated bike lanes on both sides.

2

Tantau Visitor Entrance

3

Additional Bike/Ped Crossings

4

Pedestrian bridges along both sides over bridge.

5

Creek Trail linkage enhanced with paving and landscape plantings.

6

Bike/Ped Connection Over I-280 on both sides of the road.

Vallco Parkway
North Wolfe Road

7

Detached sidewalks, enhanced plantings, landscaped median, and/or painted bike lanes.

East Homestead Road

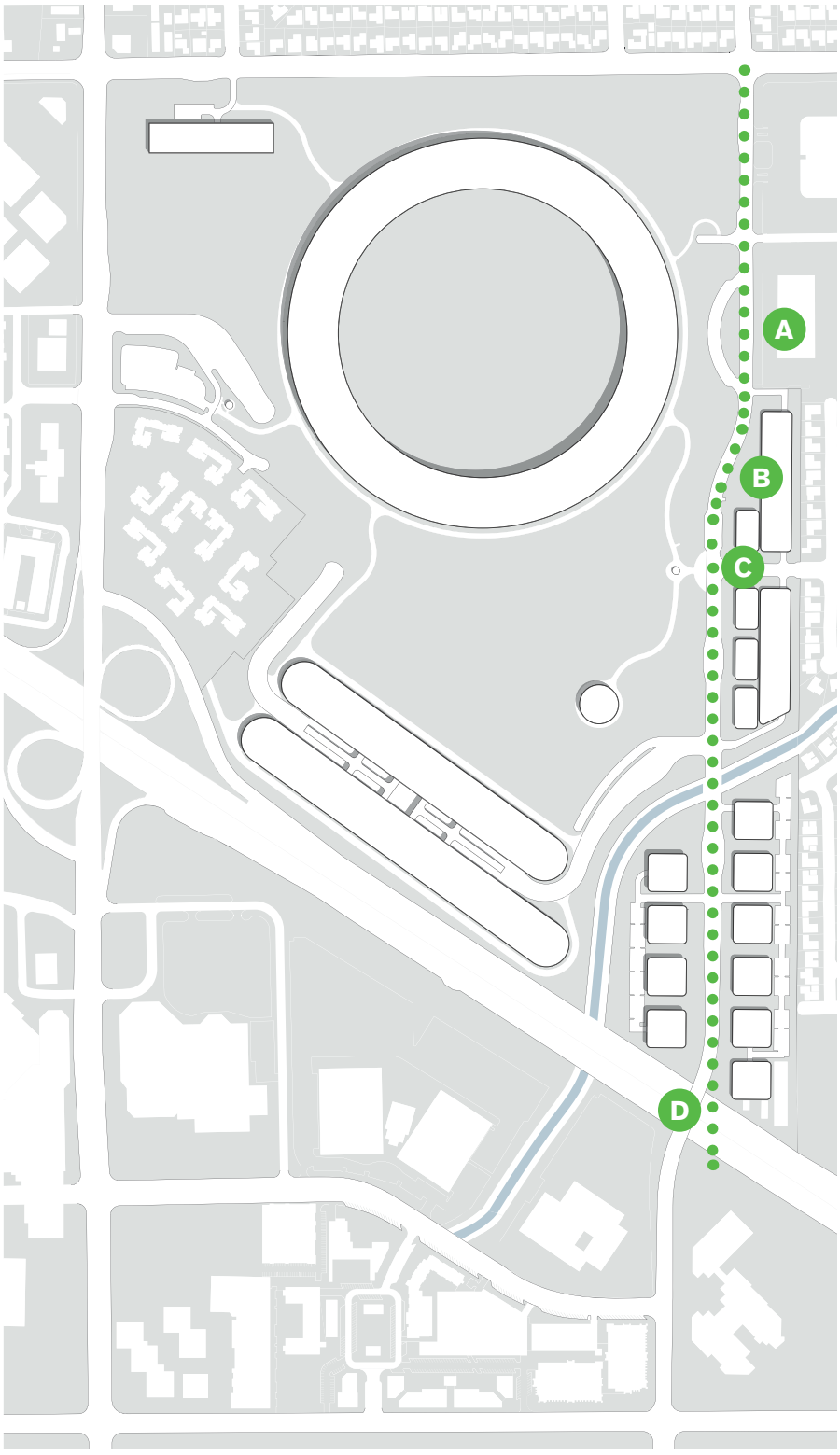
8

Curb cuts reduced to a single entry, enhanced landscape plantings, repaving, and replanting.

- Marked Left Turn Lane
- Concrete Median
- Landscape Median
- Landscape Enhancement
- Detached Sidewalk
- Attached Sidewalk
- Proposed Creek Trail Linkage
- Raised Pedestrian Crossing
- Pedestrian Crosswalk
- Bicycle Crossing Striping
- Marked Bicycle Lane
- Protected Bicycle Lane
- Undesireable Bike/Ped Condition
- Curb Cut
- Bike Box

N

Exhibit A-7 Public Art

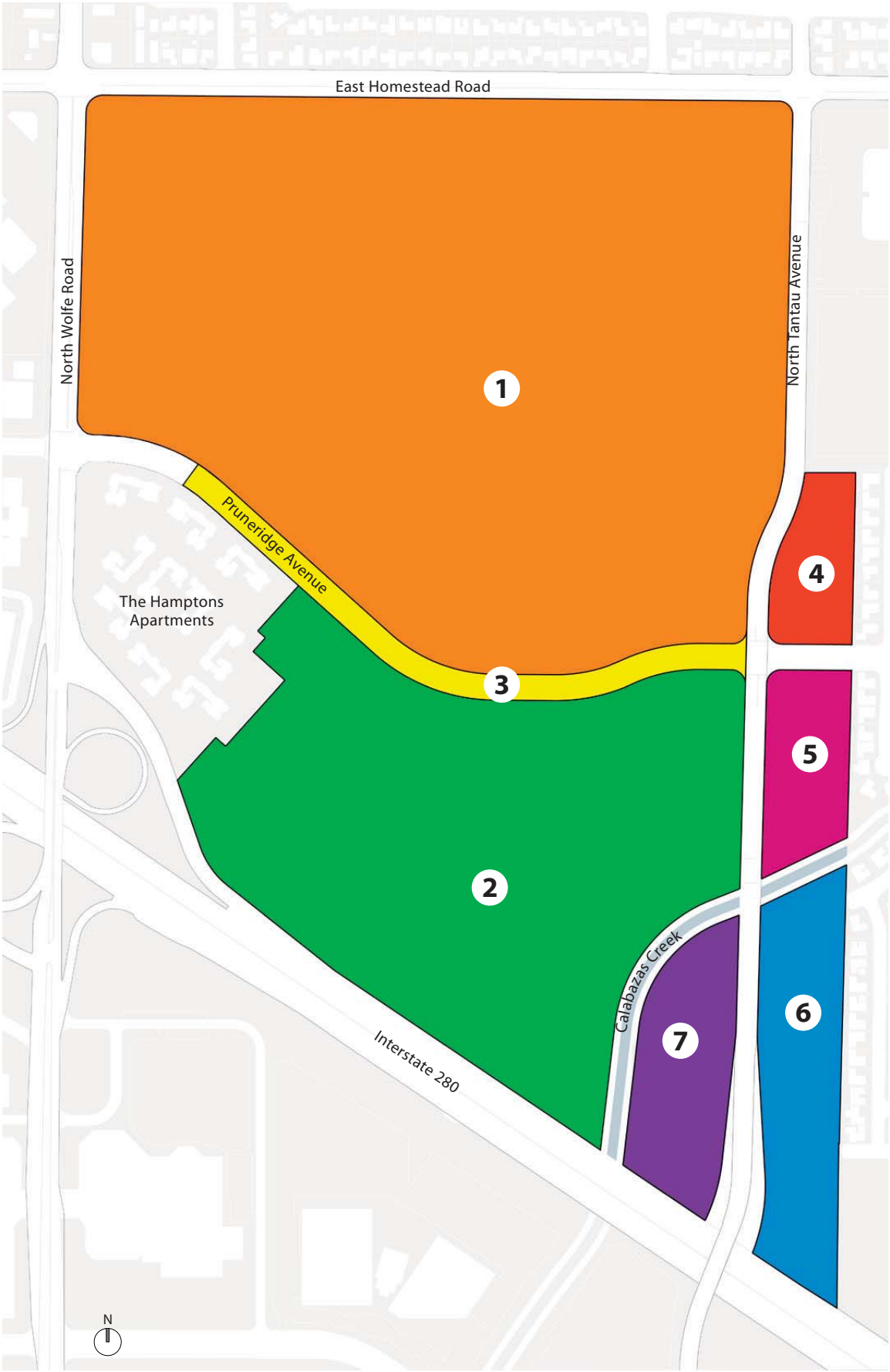


Potential Locations

- **A** Transit Center Crescent
- **B** North of Tantau Auditorium and Visitor Parking
- **C** Pruneridge Avenue Terminus
- **D** Linear Element Series on Tantau Avenue

N

Exhibit A-8 Site Map and Gross Site Areas



TOTAL AREA =
7,684,000 sq ft
176.3 acres

- **1. Pruneridge Campus**
  4,280,000 sq ft
  98.2 acres
- **2. Ridgeview Court**
  2,155,000 sq ft
  49.3 acres
- **3. Vacation of Pruneridge Avenue**
  207,000 sq ft
  4.75 acres
- **4. North Tantau Avenue - Site A**
  155,000 sq ft
  3.6 acres
- **5. North Tantau Avenue - Site B**
  198,000 sq ft
  4.5 acres
- **6. North Tantau Avenue - Site C**
  399,000 sq ft
  9.1 acres
- **7. North Tantau Avenue - Site D**
  290,000 sq ft
  6.8 acres

Exhibit A-9 Description of Site

Coordinating with the City and landowners on stormwater improvements, road markings, signage, and crosswalk enhancements along the northern side of Vallco Parkway between North Tantau Avenue and North Wolfe Road.

The plots that will be combined to create Apple Campus 2 are all located within the North Vallco District and have been designated by the City of Cupertino as a center for employment.

The site comprises a series of mostly adjacent parcels, which Apple currently owns, as follows:

Plot 1: Pruneridge Campus
19111 Pruneridge Avenue, APN: 316 07 044, 316-07-045, 316-07-046, Zoning P/MP

This site (formerly the Hewlett Packard campus) is bounded by East Homestead Road to the north, Pruneridge Avenue to the south, North Tantau Avenue to the east, and North Wolfe Road to the west. It contains 9 buildings, comprising approximately 1.3 million sq. ft. of office space.

Site Area: 98.2 acres

Plot 2: Ridgeview Court
10600 Ridgeview Court, APN: 316 06 045, Zoning P/MP
10400 Ridgeview Court, APN: 316 06 046, Zoning P/MP
10500 Ridgeview Court, APN: 316 06 053, Zoning P/MP
10501 N Tantau Avenue, APN: 316 06 052 Zoning P/MP
10555 Ridgeview Court, APN: 316 06 048, Zoning P/MP
19050 Pruneridge Avenue, APN: 316 06 033, Zoning P/MP
19310 Pruneridge Avenue, APN: 316 06 051, Zoning P/MP
19320 Pruneridge Avenue, APN: 316 06 050, Zoning P/MP
APN: 316 06 049 (Vacant), Zoning P/MP

This site is bounded by Pruneridge Avenue to the north, the I-280 Freeway to the south, North Tantau Avenue to the east and the Hamptons Apartments (owned by the Irvine Company) to the west. It contains 7 buildings currently used by Apple as part of its Ridgeview Campus, and contains about 900,000 sq. ft. of office space. In 2009, a portion of this site was re-zoned by the City to allow for office use.

Site Area: 49.3 acres

Plot 3: Vacation of Pruneridge Avenue
This single site includes a portion of Pruneridge Avenue, currently owned by the City of Cupertino, bounded by the access point to the Hamptons Apartments to the west, and continuing to North Tantau Avenue to the east. The vacation of this portion of Pruneridge Avenue will require an amendment to the Cupertino General Plan, which designates Pruneridge Avenue as a minor collector road.

Site Area: 4.75 acres.

Plot 4: North Tantau Avenue - Site A
10700 N Tantau Avenue, APN: 316 09 028, Zoning P/MP
10670 N Tantau Avenue, APN: 316 09 019, Zoning P/MP
APN: 316 09 027 (Vacant), Zoning P/MP

This site is bounded by 10900 North Tantau Avenue to the north (APN 316 09 029), Pruneridge Avenue to the south, North Tantau Avenue to the west and the City of Cupertino – City of Santa Clara boundary line to the east. There are detached single-family homes to the east.

Site Area: 3.6 acres

Plot 5: North Tantau Avenue - Site B
10600 N Tantau Avenue, APN: 316 18 035, Zoning P/MP
APN: 316 18 012 (Vacant), Zoning P/MP

This site is bounded by Pruneridge Avenue to the north, Calabazas Creek to the south, North Tantau Avenue to the west and the City of Cupertino – City of Santa Clara boundary line to the east. There are detached single-family homes to the east.

Site Area: 4.5 acres

Plot 6: North Tantau Avenue - Site C
10300 N Tantau Avenue, APN: 316 18 025, Zoning P/MP
10430 N Tantau Avenue, APN: 316 18 027, Zoning P/MP
APN: 316 18 026 (Vacant), Zoning P/MP

This site is bounded by Calabazas Creek to the north, the I-280 Freeway to the south, North Tantau Avenue to the west and the City of Cupertino - City of Santa Clara boundary line to the east. There are detached single-family homes and the Jenny Strand Park to the east.

Site Area: 9.1 acres

Plots 4, 5 and 6 contain about 260,000 sq. ft. of office space.

Plot 7: North Tantau Avenue - Site D
10435 N Tantau Avenue, APN: 316 06 039, Zoning P/MP
APN: 316 06 038 (Vacant), Zoning P/MP

This site is west of North Tantau Avenue, adjacent to the Calabazas Creek. It contains one building currently in use by Apple as part of its Ridgeview Campus.

Site Area: 6.8 acres