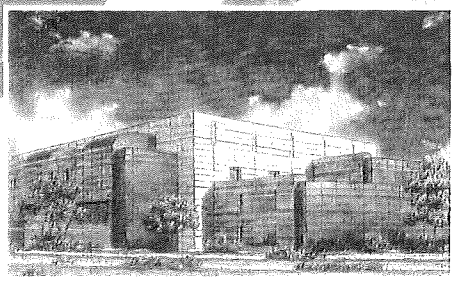
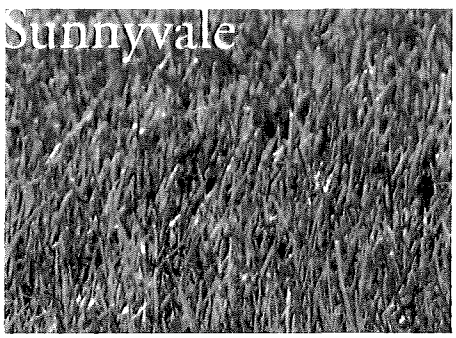


ARQUES CAMPUS SPECIFIC PLAN

974 East Arques Avenue
Sunnyvale, California
June 15, 1999



CITY OF SUNNYVALE

City Council:	Manuel Valerio, *Mayor* Patricia Vorreiter, *Vice-Mayor* Fred Fowler Jack Walker Stan Kawczynski Julia Miller Jim Roberts
Planning Commission:	Vicki Piazza, *Chair* John Howe, *Vice Chair* Lee Flanagin Michelle Hornberger Otto Lee Megan Satterlee
City Staff:	Robert LaSala, *City Manager* David S. Boesch, *Community Development Director* Trudi Ryan, *Planning Officer* Gail Price, *Principal Planner* Marvin Rose, *Public Works Director* Ray Williamson, *Traffic Engineer* Jack Witthaus, *Transportation Planner* William "Mike" Smith, *Senior Civil Engineer* Richard Bell, *Civil Engineer*

SPECIFIC PLAN TEAM

Applied Materials:	Andy Finfrock, *Managing Director, Global Real Estate and Facilities* Wei Chiu, *Senior Director, Global Real Estate and Facilities* Susan Wilson, *Environmental Engineer*
Architect/Planners:	Jim Waymire, *NBBJ Architects* Vince Vergel de Dios, *NBBJ Architects* Scott Williams, *NBBJ Architects* Steve Bryan, *NBBJ Architects* Jerry Haag, *Urban Planner*
Landscape Architect:	Dan Tuttle, *SWA Group*
Traffic/Transportation:	Robert Scales, *Barton-Aschman Associates* Dan Grayuski, *Barton Aschman Associates* Fred Kelly, *Barton Aschman Associates* Wendy Hoyt, *Hoyt Company* Alyssa Kelly, *Hoyt Company* Alan Telford, *Fehr & Peers*
Civil Engineer:	Martin Parissenti, *BKF Associates*
Legal Counsel:	J. Cleve Livingston, *Pillsbury, Madison and Sutro*
Project Management:	David Bowden, *Graeber Hathaway Obayashi* William Prince, *Graeber Hathaway Obayashi* Jane Everaert

RESOLUTION NO. 162-99

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE ADOPTING THE APPLIED MATERIALS ARQUES CAMPUS SPECIFIC PLAN

WHEREAS, an Environmental Impact Report evaluating the environmental consequences of the Applied Materials Arques Campus Specific Plan as an amendment to the General Plan of the City was approved on June 15, 1999, in compliance with the requirements of the California Environmental Quality Act, as amended, and with City Council Resolution No. 193-86; and

WHEREAS, the Planning Commission has held a noticed public hearing on the proposed Specific Plan on June 7, 1999, after which the Commission recommended that the City Council adopt the Arques Campus Specific Plan, as set forth in the minutes of the meeting; and

WHEREAS, the City Council held a noticed public hearing on June 15, 1999, to consider adoption of the Arques Campus Specific Plan;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE THAT:

1. The City Council finds and determines that the proposed Applied Materials Arques Campus Specific Plan is consistent with the existing terms of the 1972 General Plan of the City of Sunnyvale, as amended, that the Specific Plan conforms with the requirements of the "Uniform Planning and Zoning Code of the City of Sunnyvale," that the Specific Plan is a suitable and logical change in the Plan for the physical development of the City of Sunnyvale, and that the Specific Plan is in the public interest.

2. The City Council finds and determines that all necessary environmental assessment procedures have been conducted and completed in accordance with the requirements of the California Environmental Quality Act, as amended, all guidelines promulgated thereunder, and pursuant to City Council Resolution No. 193-86, that the proposed Arques Campus Specific Plan with mitigation measures as presented in the Environmental Impact Report will not cause any significant environmental impacts other than as identified and accepted in the Statement of Overriding Considerations; and that the Department of Community Development of the City of Sunnyvale is hereby authorized and directed to prepare and file one or more Notices of Determination consistent with the environmental assessment previously approved for this Specific Plan and the findings of the City Council.

3. The Specific Plan is as follows: Any development of property in the area covered by the Specific Plan, shall be in accordance with the Arques Campus Specific Plan dated April 1999, prepared by Applied Materials. Standard zoning

requirements are hereby included in the Specific Plan, except to the extent that new Specific Plan-related regulations are adopted.

4. The City Clerk is directed to file a certified copy of this amendment to the 1972 General Plan of the City of Sunnyvale with the Board of Supervisors and the Planning Commission of the County of Santa Clara and the planning agency of each city within the County of Santa Clara. The City Clerk is directed further to file a certified copy of this amendment with the legislative body of each city, the land of which may be included in the plan.

Adopted by the City Council at a regular meeting held on June 15, 1999, by the following vote:

AYES: WALKER, ROBERTS, VORREITER, KAWCZYNSKI, FOWLER, MILLER, VALERIO
NOES: NONE
ABSENT: NONE

APPROVED:

Manuel Valerio
Mayor
Date: 6-18-99

ATTEST:
City Clerk

By Carol Ann Butler
Deputy City Clerk
Date: 6/18/99
(SEAL)

THE CITY OF SUNNYVALE AND APPLIED MATERIALS: A PARTNERSHIP FOR A DYNAMIC FUTURE

The purchase of the Arques Campus in 1995 marked the beginning of a partnership between the City of Sunnyvale and Applied Materials. At its Sunnyvale facilities, Applied Materials is shaping the development of semiconductor technology through its prototype research and development efforts. These efforts seek to improve qualitatively the way we live, work, and play.

Advances in chip design, pioneered by process equipment manufactured by Applied Materials, have played a significant role in the emergence of the global Information Age. However, if Applied Materials is to maintain its position as the world's leading producer of wafer fabrication systems and services for the semiconductor industry, it must continue to expand its research and development capability.

The Arques Campus Specific Plan is intended to address Applied Materials' expansion needs through the transformation of a 35-acre site, originally designed for light industrial operations, into one of the world's foremost research and development (R&D) campuses. The Specific Plan reflects Applied Materials' continued commitment to leadership in both the high technology sector and the community.

Located along Sunnyvale's prestige corridor, Applied Materials' Arques Campus has the potential to be a "jewel" in Sunnyvale's high technology crown. Implementation of the Specific Plan will bring to Sunnyvale an additional infusion of creative energy helping to sustain Sunnyvale as one of the region's most exciting and dynamic places to live and work.

Applied Materials aspires to be one of Sunnyvale's most responsible corporate citizens. In this regard, the Arques Campus Specific Plan manifests a long-term investment by Applied Materials in the City of Sunnyvale. At its core is a vision of future prosperity for both Applied Materials and the City of Sunnyvale.

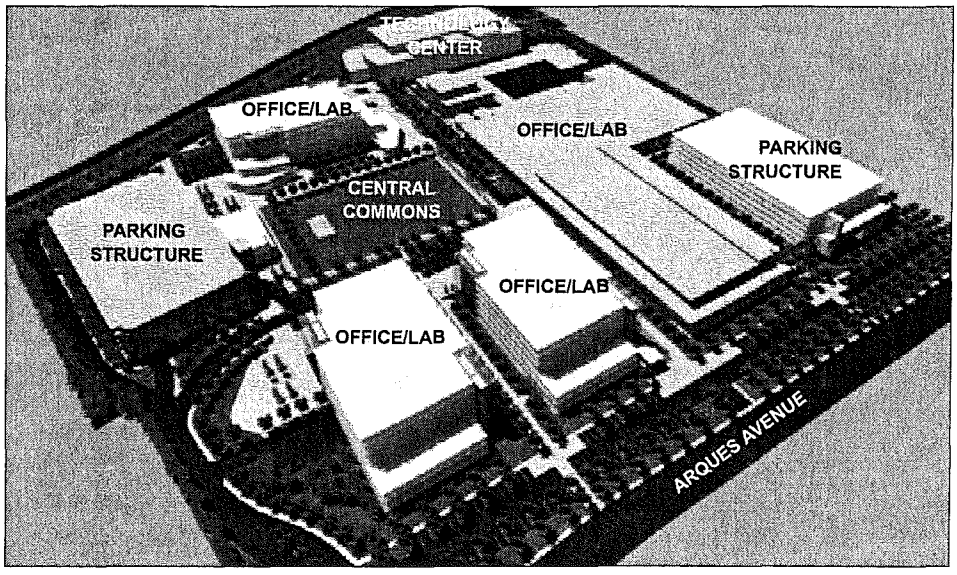


FIGURE 1
Illustrative Aerial View of the Arques Campus Master Plan from Arques Avenue

"Looking forward, Sunnyvale is a dynamic community with a strong positive image and identifiable community character."

City of Sunnyvale, General Plan, Vision, 1997

THE CHALLENGE OF GLOBAL LEADERSHIP

Leadership is an especially challenging proposition in the world of high technology. New uses for semiconductors extend far beyond the computer to include applications in communications, transportation, medical technology, automation, and a host of other fields. Driven by the enormous expansion in applications for advanced chips, the semiconductor industry as a whole is expected to grow significantly.

Production of these advanced chips requires new technologies to optimize device dimensions and increase the capacity of silicon wafers. As the world's leading producer of wafer-fabrication systems, Applied Materials must be ready to provide the solutions needed to help customers transition to even more advanced generation of semiconductors.

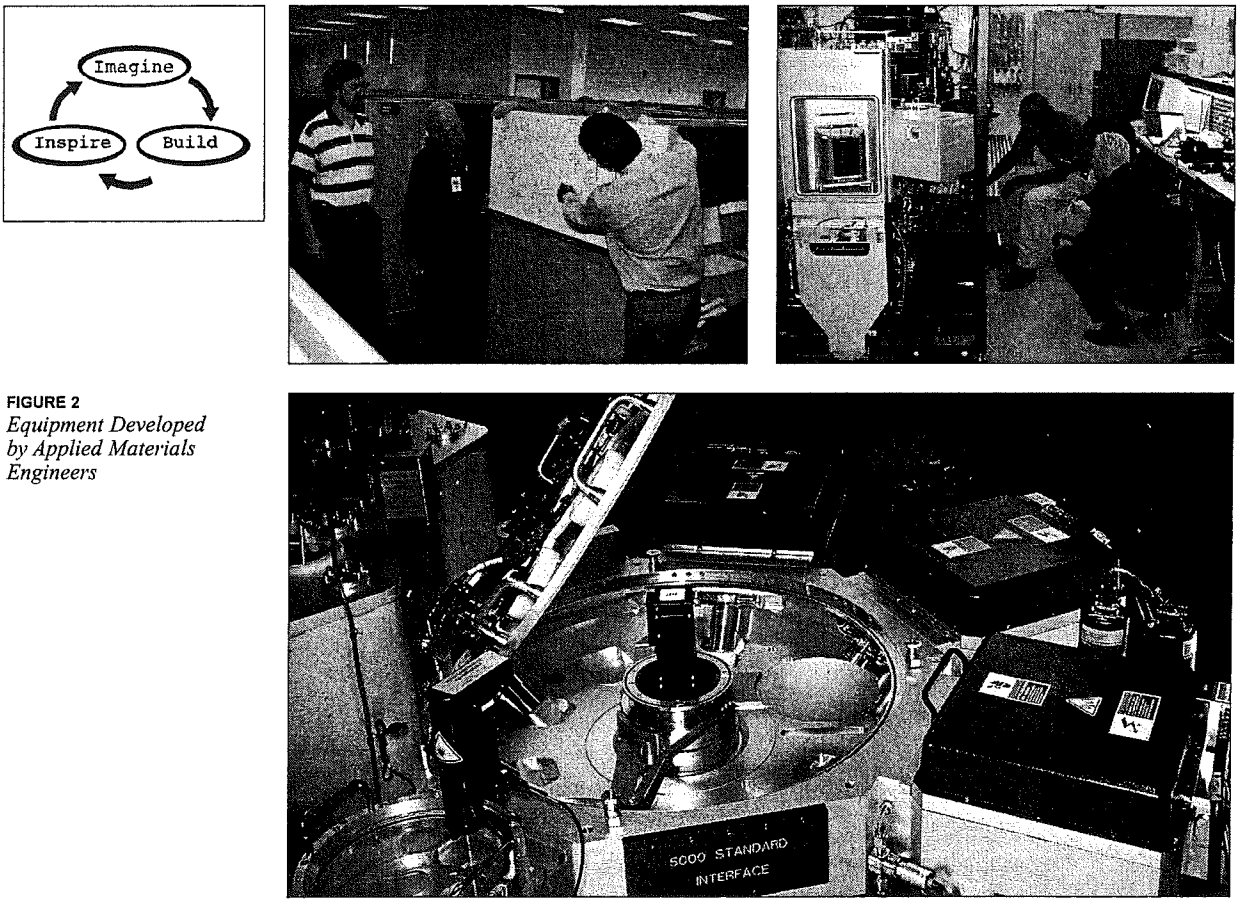


FIGURE 2
Equipment Developed by Applied Materials Engineers

TRANSFORMING THE ARQUES CAMPUS: STRATEGIC INVESTMENT FOR FUTURE SUCCESS

Applied Materials' success is built on a commitment to innovation. As the company's principal research and development center, the Arques Campus plays a critical role in Applied Materials' efforts to nurture the innovation required to lead the semiconductor industry into the 21st century. However, the Arques Campus is not fully capable of meeting the needs of the company.

As a first step in the transformation of the Arques site, the new Technology Center is being constructed to form the core of a revitalized campus. This effort is advancing under previous land use entitlements granted by the City of Sunnyvale. See Figure 3.

The Technology Center on the Arques Campus will set a new global standard for process equipment testing and demonstration. As one of only two facilities built to this structural standard in the world, the Technology Center will allow Applied Materials to test and demonstrate the tools it produces to prospective customers, which include all major semiconductor manufacturers and some of the world's leading technology companies.

Building 81, a 30-year-old 400,000 square foot microelectronics building, has been recently renovated to house office and light prototype lab space. It is fully occupied, and rapidly becoming inadequate. If the Arques Campus is to remain viable as a source of the new ideas that will carry Applied Materials into the future, this existing space must be upgraded and new space must be added.

The following Specific Plan guides the expansion of high quality office, research and development laboratories, on-site campus amenities, parking, and other improvements to be used in conjunction with the Technology Center. These improvements are in accordance with Applied Materials' long-term strategic plan and will allow the company to conduct operations on this site for many years to come.

FIGURE 3
Applied Materials' Technology Center, Currently under Construction

APPLIED MATERIALS ARQUES CAMPUS DEVELOPMENT STRATEGY: FIVE PLANNING OBJECTIVES

Applied Materials has identified the following five planning objectives.

1. *Develop talent of sufficient breadth and depth to keep pace with the growing demand for new ideas.*

   Applied Materials recognizes that the company's most important resource is its people. Their collective imagination and creativity is the source of innovation. To address this need, the Arques Campus Specific Plan is designed to accommodate a flexible expansion in the number employees through the phased addition of Office/Prototype Lab space.

2. *Nurture inspiration and imagination.*

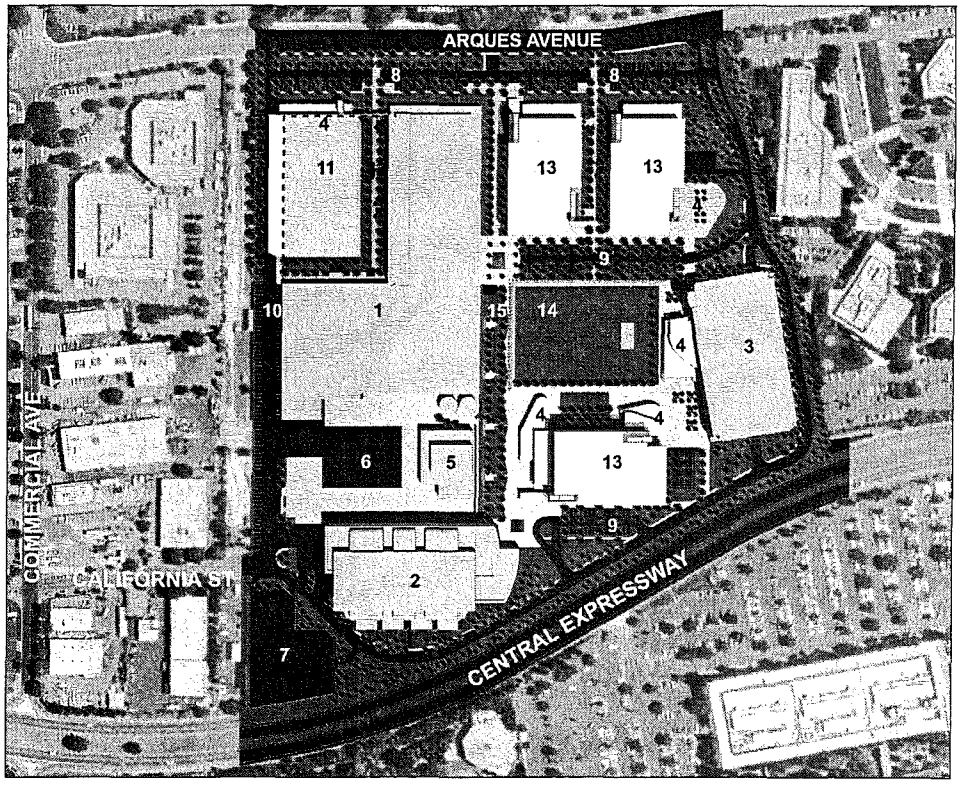
   As problems become more complex, solutions increasingly require collective effort. The Arques Campus Specific Plan is designed to stimulate collaboration, and in so doing, produce a team effort that is greater than the sum of its parts.

3. *Create leading-edge facilities.*

   The Arques Campus Specific Plan provides Applied Materials with the opportunity to create state-of-the-art facilities that continue to enable and stimulate innovation. The new Technology Center represents just such a major investment in a leading-edge facility.

FIGURE 4
Proposed Arques Campus Master Site Plan

1. Building 81– Research Office/ Prototype Lab
2. Technology Center
3. Employee Parking Structure 1300 cars/6 levels
4. Amenity Buildings– Campus Cafeteria Campus Recreation Center Campus Conference Center Campus Training Rooms
5. Central Utility Building
6. Service Yard
7. Electrical Substation Yard
8. Visitor Parking (Surface)
9. Employee Priority Parking (Surface)
10. Employee Parking (Surface)
11. Employee Parking Structure 1300 cars/7 levels
12. Building 81– Area of demolition
13. Research Office/ Prototype Lab Building 2-5 levels
14. Central Commons
15. Pedestrian "Mainstreet"



4. *Build flexibility within the workplace environment.*

   Perhaps no characteristic of the technological revolution is more compelling than today's phenomenal rate of change. In such an environment, adaptability must be a design characteristic of any research and development facility explicitly intended to drive change. The Arques Campus expansion is designed to ensure flexibility through construction phasing, floor-plate design, and a modular organization of workspace and building systems.

5. *Optimize the design opportunities presented by the Arques Campus site.*

   Expansion affords a unique opportunity to upgrade the Arques Campus in a manner that improves its form, function and fit within the surrounding community. The site size, configuration, location, and the organization of existing facilities present a solid foundation for campus transformation.

THE ARQUES CAMPUS SPECIFIC PLAN: CREATING THE WORKPLACE OF THE FUTURE

To create a research and development campus capable of inspiring the new solutions demanded by a rapidly changing industry, Applied Materials is committed to transforming the Arques Campus into the workplace of the future. The following Arques Campus Specific Plan describes the design initiatives that underlie the proposed transformation.

"Progress is a process of connecting known things to one another to achieve new outcomes."

Applied Materials, asks.amat.com, 1998

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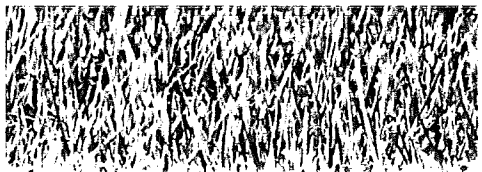

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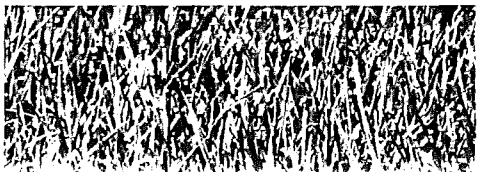
1. INTRODUCTION



1. INTRODUCTION

1.1 VISION

The Arques Campus Specific Plan provides a vision for transforming the 35.46-acre site, originally designed to accommodate light industrial operations, into an integrated state-of-the-art research and development campus. See Figure 1.1. The Arques Campus sets a standard for future high technology development in Sunnyvale and the region. The Specific Plan establishes design guidelines, development standards, and implementation measures for the Arques Campus program.

1.2 PROGRAM SUMMARY

Upon completion, the Arques Campus Specific Plan program will:

- Complete the transformation and revitalization of older workspace, originally designed for light industrial use, to a research and development campus;
- Approximately double the amount of research and development workspace on the project site;
- Significantly upgrade the operational utilities and efficiencies of existing facilities to ensure state-of-the-art research and development capabilities;
- Increase open space by replacing surface parking with a second 1,300 space parking structure and by using multi-story construction to accommodate the Office/Prototype Lab expansion requirements;
- Reorganize the workspace around a landscaped Central Commons and a network of walkways to create a truly interconnected and interactive campus environment;
- Incorporate workplace amenities, such as campus dining and recreational facilities and a Campus Conference Center, to encourage on-site interaction of employees;
- Incorporate architectural and landscape design elements in a manner that enhances the form and function of the campus and its fit within the surrounding community;

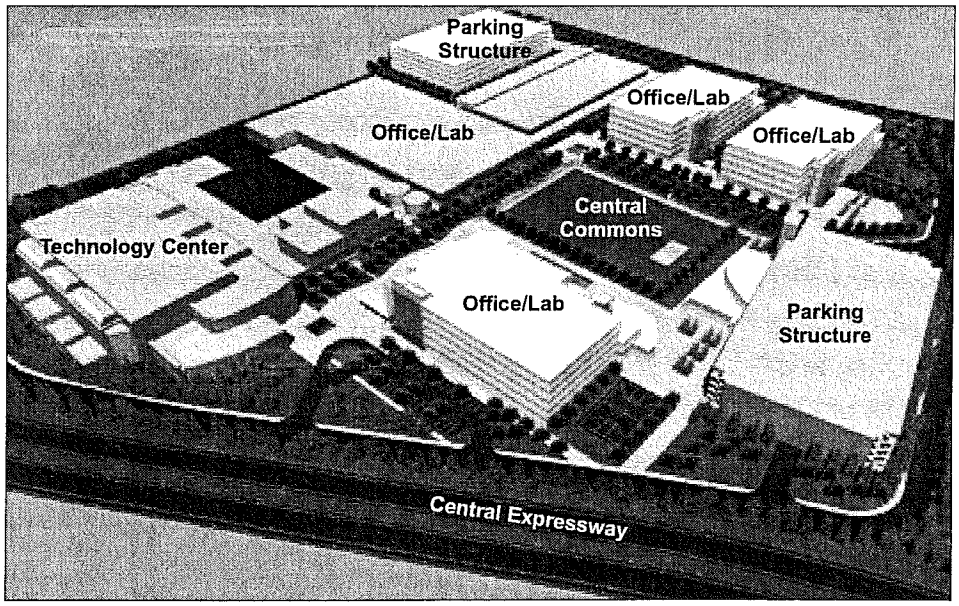


FIGURE 1.1
Proposed Arques Campus Master Plan aerial perspective from the south along Central Expressway

- Improve site access through use of a loop roadway and structured parking at the perimeter of the site; and
- Build in flexibility to respond to the rapidly changing high technology marketplace through construction phasing, floor plate design and modular organization of building systems.

The Specific Plan includes retention and reuse of approximately 345,000 gross square feet (gsf) of existing office/lab space together with the existing Central Utility facilities, service yard and electrical substation. New buildings in the current phase of construction (1998–99) include: the Technology Center (100,300 gsf), a Central Utility Building (16,900 gsf), a Recreation Facility (4,000 gsf), and Parking Garage (1,300 spaces).

The Plan provides for three new Office/Prototype Lab buildings (approximately 205,000 gsf each), a second parking garage (1,300 spaces), a new Campus Conference Center (30,000 gsf), and new related campus amenities (including a Recreational Center of 8,000 gsf, Campus Training Rooms of 7,000 gsf, and a Campus Cafeteria of 20,000 gsf). Also included in the Arques Campus are a new one-and-one-third-acre Central Commons, a pedestrian "Mainstreet" promenade and related pathway system, and a loop roadway that circles the perimeter of the site. See Table 1.1.

Implementation of this Specific Plan is expected to take place in phases as described in this document.

TABLE 1.1
Program Summary

	Existing Program (gsf)	Proposed Program (gsf)	Total Program (gsf)
Admin/Research Office	290,000	399,400	642,400
(Admin/Research Office–Partial B81 demolition)	0	(47,000)	Incl. above
Prototype Lab	126,700	215,000	316,700
(Prototype Lab–Partial B81 demolition)	0	(25,000)	Incl. above
Tool Testing/Demonstration	67,000	0	67,000
Central Utility	17,000	0	17,000
Materials Storage	6,500	0	6,500
Campus Cafeteria	9,800	20,000	20,000
(Campus Cafeteria–Partial B81 demolition)	0	(9,800)	Incl. above
Campus Recreation Center	4,000	8,000	8,000
(Campus Recreation Center–demolition)	0	(4,000)	Incl. above
Campus Conference Center	0	30,000	30,000
Campus Training Rooms	0	7,000	7,000
Total Floor Area	521,000	593,600	1,114,600
Site Area			1,544,900
FAR (Total Floor Area/Site Area)			**72.1%**
Total Parking Spaces	2,025	950	2,975

1.3 PROJECT LOCATION

The project site is entirely within the jurisdiction of the City of Sunnyvale, California. Sunnyvale is situated in the southern portion of the San Francisco Bay Area, adjacent to the cities of Mountain View to the north, Santa Clara to the east, and Cupertino to the west and south. See Figure 1.2.

The project site is located at 974 Arques Avenue, one-quarter mile west of Lawrence Expressway, northeast of downtown Sunnyvale, immediately north of Central Expressway, and south of US-101, along the Arques Avenue.

Regional access to the project site is from US-101, Highway 237, Highway 85, Central Expressway, I-280, and Lawrence Expressway. See Figure 1.3.

FIGURE 1.2
Regional Location Map

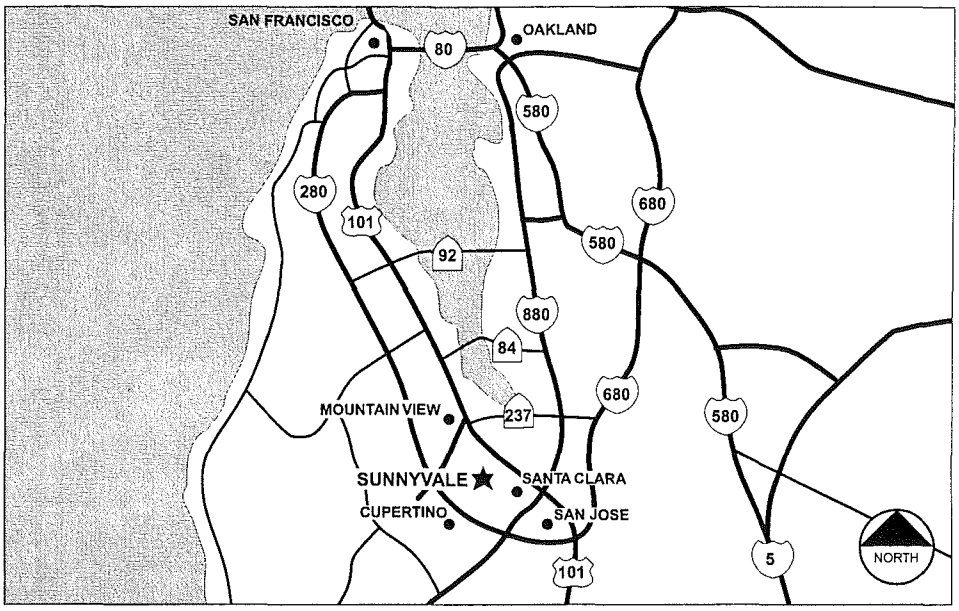
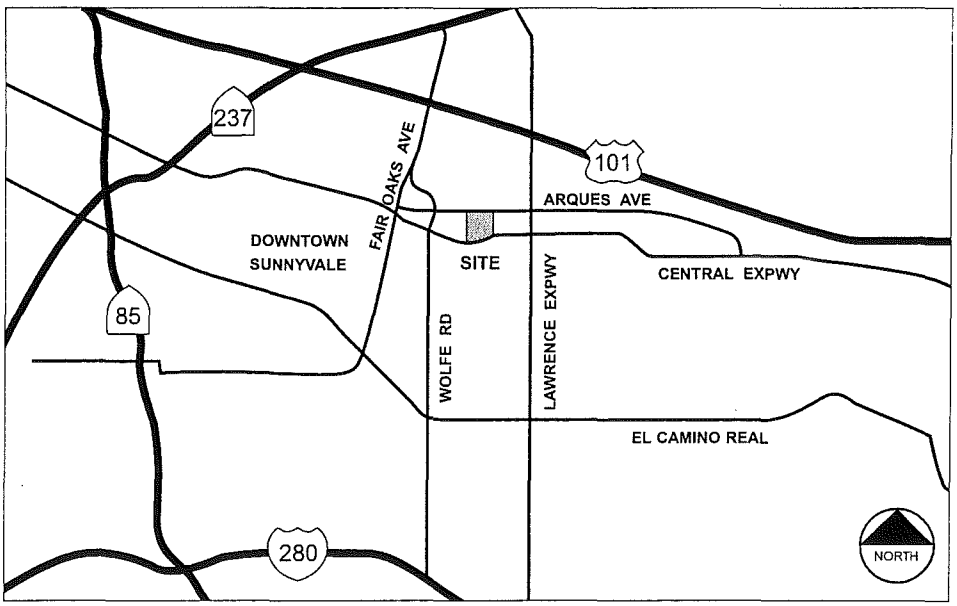


FIGURE 1.3
Site Location Map



1.4 GOALS AND OBJECTIVES

The primary goal of the Arques Campus Specific Plan is to transform the project site into a research and development campus, nurturing the innovation that is the key to success in the semiconductor industry.

Objectives of the Specific Plan are:

1. Transforming the loose configuration of poorly organized work spaces, originally designed for light industrial use, into an integrated, high technology research and development campus that sets a global standard for design quality and workplace environment;
2. Allowing for the phased expansion of the existing research and development operation, increasing floor space from an existing 521,000 gsf to 1,114,600 gsf at full buildout;
3. Providing a state-of-the-art facility that attracts and retains the brightest talent in the semiconductor industry;
4. Providing for increased employment activity at a location that is proximate to regional vehicular and rail transportation corridors, and well separated from residential neighborhoods;
5. Providing for the consolidation of workplaces within a single-use campus that would otherwise be scattered throughout the community and beyond;
6. Optimizing site accessibility and mitigate project traffic impacts to the surrounding roadways based on Valley Transportation Authority (VTA) standards;
7. To the maximum extent feasible, providing a self-mitigating specific plan, whereby all environmental impacts are reduced to a level of insignificance;
8. Creating a single-user environment with a level of on-site amenities (Campus Conference Center, Campus Cafeteria, Campus Recreation Center, Central Commons, landscaped open space, plazas, etc.) not economically feasible in smaller scattered site facilities;
9. Enhancing the operational efficiency and functional design qualities of the existing facilities;
10. Providing a distinguishing presence at the east entrance to the City of Sunnyvale;
11. Developing and maintaining a design strategy that establishes a consistent architectural and landscape theme, tying the campus together in terms of both the internal relationships and the external compatibility with the surrounding community;
12. Maximizing the amount of campus open space through the use of structured parking and multi-story Office/Prototype Lab buildings; and
13. Phasing each increment of development to maintain the coherence of the campus environment and function on a stand-alone basis.

1.5 SPECIFIC PLAN OVERVIEW

The Arques Campus Specific Plan encompasses an area of 35.46 acres of land located along Arques Avenue approximately one-quarter mile west of Lawrence Expressway. This site provides a special opportunity for campus transformation because of its size, regular configuration, single-user ownership and proximity to regional transportation corridors. In addition, the layout of existing facilities allows expansions and upgrades to be carried out without interfering with the ongoing research and development effort or the day-to-day activities of the surrounding neighborhood.

The Arques Campus Specific Plan is designed to accommodate an expansion of the campus floor area from a current maximum of 521,000 gross square feet (gsf) to approximately 1,114,600 gsf. This increase in floor area, together with an expansion of on-site parking from 2,025 spaces to a maximum of 2,975 spaces, will ultimately accommodate approximately 2,800 employees and 280 visitors. At build-out, the increased floor area will include approximately 642,400 gsf of office research work-space; 316,700 gsf of related prototype lab work space; 67,000 gsf of tool testing and demonstration space; a 16,000 gsf central utility building; 6,500 gsf of materials storage space; a 20,000 gsf Campus Cafeteria; an 8,000 gsf Recreation Center; a 300,000 gsf Campus Conference Center; and 7,000 gsf of Campus Training Rooms. See Table 1.1.

Campus buildings and facilities are designed around a one-and-one-third-acre Central Commons that forms the heart of the campus. The Central Commons is a key component intended to revitalize the Arques Campus site. See Figure 1.4.

FIGURE 1.4
Proposed Arques Campus Master Land Use Plan

1. Building 81– Research Office/ Prototype Lab
2. Technology Center
3. Employee Parking Structure 1300 cars/6 levels
4. Amenity Buildings– Campus Cafeteria Campus Recreation Center Campus Conference Center Campus Training Rooms
5. Central Utility Building
6. Service Yard
7. Electrical Substation Yard
8. Visitor Parking (Surface)
9. Employee Priority Parking (Surface)
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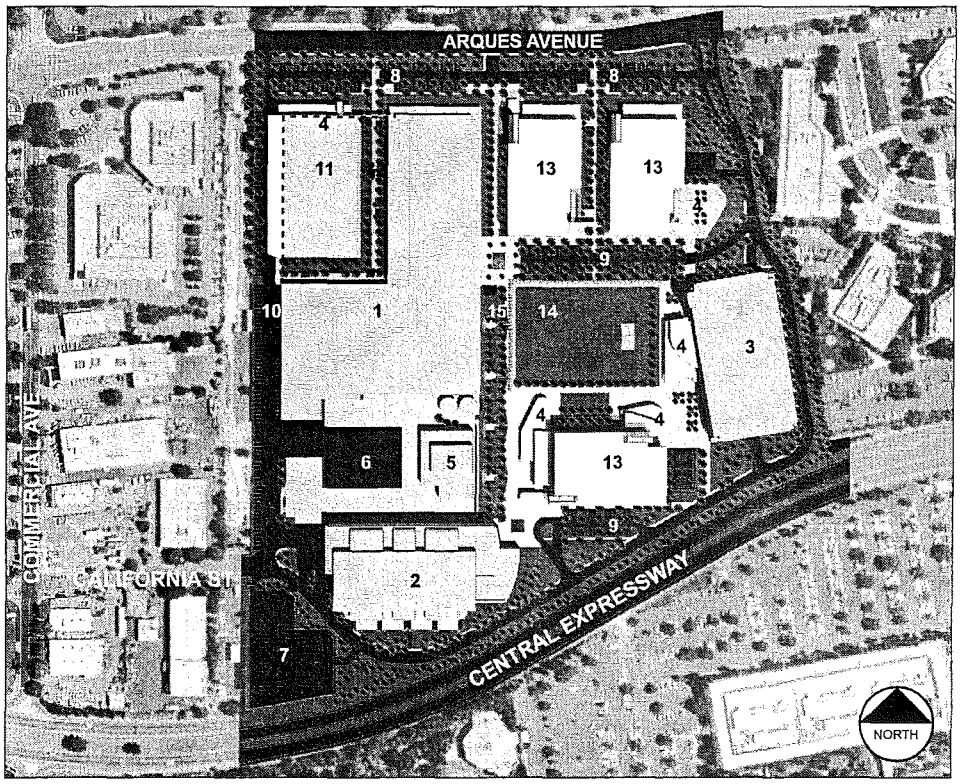
11. Employee Parking Structure 1300 cars/7 levels
12. Building 81– Area of demolition
13. Research Office/ Prototype Lab Building 2-5 levels
14. Central Commons
15. Pedestrian "Mainstreet"



For centuries, central commons/town squares/plazas/quads/village greens have served as principal organizational elements to integrate the form and function of some of the world's great universities and cities.

The Central Commons includes a pedestrian "Mainstreet" promenade which, together with a comprehensive network of secondary pathways, ties together all elements of the campus.

The Specific Plan provides for 2,975 on-site parking spaces, principally in two 1,300 space garages located on opposite sides of the campus. The second of the two garages replaces a portion of the existing Building 81 that is not suitable for redesign. By accommodating most of the parking in two garages, the Specific Plan provides space for the Central Commons, reduces the amount of surface parking to approximately 375 spaces, and maximizes the amount of open space. The new parking garage (to be constructed at the northwest corner of the site) incorporates Campus Training Rooms along the Arques Avenue frontage to ensure an attractive streetscape.

Vehicular circulation is simplified. The campus is served by a perimeter loop road and landscape corridor that provides visual and spatial buffers, as well as efficient, safe access to all areas of the site. The Specific Plan also includes a comprehensive landscape design to ensure that, like the indoor work space, the outdoor environment provides opportunities for individual thought and collective interaction. See Figure 1.4.

1.6 SITE HISTORY

The existing site was originally developed for industrial use by Fairchild Semiconductor in 1967 and later purchased by Hewlett Packard in 1978. Applied Materials acquired the property in 1995. The current use is research and development.

The initial phase of the work to transform the site into a research and development campus is currently in progress. At the completion of the current construction, the campus will have 521,000 gross square feet of building area and 2,025 parking spaces. See Table 1.1 and Figure 1.5.

1.7 AUTHORITY

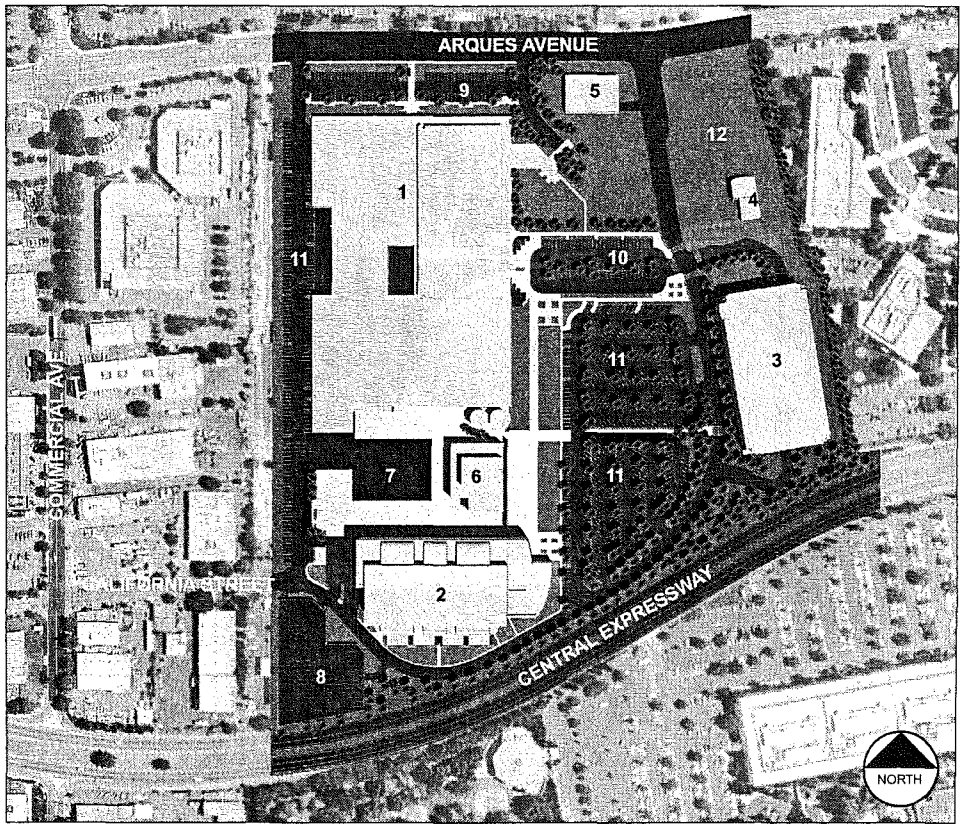
This Specific Plan has been prepared and adopted pursuant to and in accordance with the provisions of Section 65450 et seq. of the California Government Code.

1.8 SEVERABILITY

If any term, provision, condition, or requirement of this Specific Plan is held invalid or unenforceable, the remainder of the Specific Plan or the application of such term, provision, condition, or requirement to circumstances other than those in which it is held invalid or unenforceable shall not be affected thereby; and each term, provision, condition, or requirement of the Specific Plan shall be valid and enforceable to the fullest extent permitted by law.

FIGURE 1.5
Existing Arques Campus Site Plan (1999)

1. Building 81– Research Office/ Prototype Lab
2. Technology Center (Under Construction)
3. Employee Parking Structure (Under Construction)
4. Recreation Center (Under Construction)
5. Building 82 (To be demolished)
6. Central Utility (Under Construction)
7. Service Yard
8. Electrical Substation Yard
9. Visitor Parking (Surface)
10. Employee Priority Parking (Surface)
11. Employee Parking (Surface)
12. Temporary Parking (Surface)



2. EXISTING CONDITIONS

2. EXISTING CONDITIONS

INTRODUCTION

This section of the Specific Plan identifies the existing physical and other environmental conditions of the Arques Campus at the time the Plan was prepared. It describes the topography and natural features of the site, current land uses, zoning and surrounding land uses, the existing roadway network, alternative transit modes, commute alternative programs, site access, on-site circulation, utilities, public services, and environmental features.

2.1 TOPOGRAPHY AND NATURAL FEATURES

The site is generally flat with a gradual but distinct upward slope to the southwest. Elevations range from approximately 55 feet above sea level along Central Expressway to a low of 45 feet above sea level along Arques Avenue. There are no unique or unusual geographic or topographic conditions on the site. The project has approximately 1,115 feet of frontage along Arques Avenue and an approximate depth of 1,490 feet at the deepest point.

2.2 CURRENT LAND USES

The existing site conditions are classified in two categories: site improvements that exist and site improvements under construction pursuant to approved building plans. See Table 2.1.

When current site improvements are complete, the campus will have 521,000 gross square feet (gsf) of building area and 2,025 parking spaces. See Table 1.1 and Figure 2.1.

TABLE 2.1
Existing Site Conditions Summary

(For building locations, refer to Figure 2.1.)

EXISTING IMPROVEMENTS	
1. Building 81	A 30-year-old partial two-story microelectronics building. This building has been renovated to house offices, light prototype labs and storage space, as well as the campus cafeteria. The square footage of the building is 402,000 gsf.
2. Building 82	An 11,500 gsf obsolete conference center building with parking below. This structure is currently used as a temporary office for the design-build management team and will eventually be demolished.
3. Service Yard	Adjacent to Building 81, provides truck access and paved support areas for Building 81 and the Technology Center, currently under construction.
4. Surface Parking	Located in three areas of the site. The first area is at the north site border along Arques Avenue. The second area is along the western border of the site adjacent to Building 81. The third area is east of Building 81, the Central Utility Building, and the Technology Center.
5. Landscaping	Areas are currently located adjacent to Buildings 81 and 82. A paved walk exists along Building 81, connecting this building to the Technology Center and Building 82. On-site landscaping also exists along Central Expressway and East Arques Avenue.
UNDER CONSTRUCTION	
1. Technology Center	A 100,300 gsf Technology Center designed to showcase the emerging technologies developed by the research and development activities on site.
2. Central Utility Building	A 16,900 gsf Central Utility Building to house utilities supporting the engineered systems for the Technology Center.
3. Recreation Center facility	A 4,000 gsf Recreation Center facility.
4. Site Utilities	Site utilities including a 115kV electrical substation yard.
5. Parking Garage	A six level parking garage to accommodate 1,300 cars.

The current use of the site is research and development for the high-technology industry. The site incorporates office, research and development, utility support, and process equipment and tool demonstration uses on the site. The site also includes an employee cafeteria and recreation center to support the primary uses on the site.

The project site borders other office, research and development, and manufacturing uses. Three buildings to the east are occupied by Mitsubishi Corporation, and a large campus to the south across the Central Expressway is occupied by National Semiconductor. To the north across Arques Avenue is a Fry's Electronics retail store. A block further north is Advanced Micro Devices (AMD). The western site edge is bordered by smaller parcels with a mixture of office, research and development, and warehouses for various service companies. See Figure 2.2.

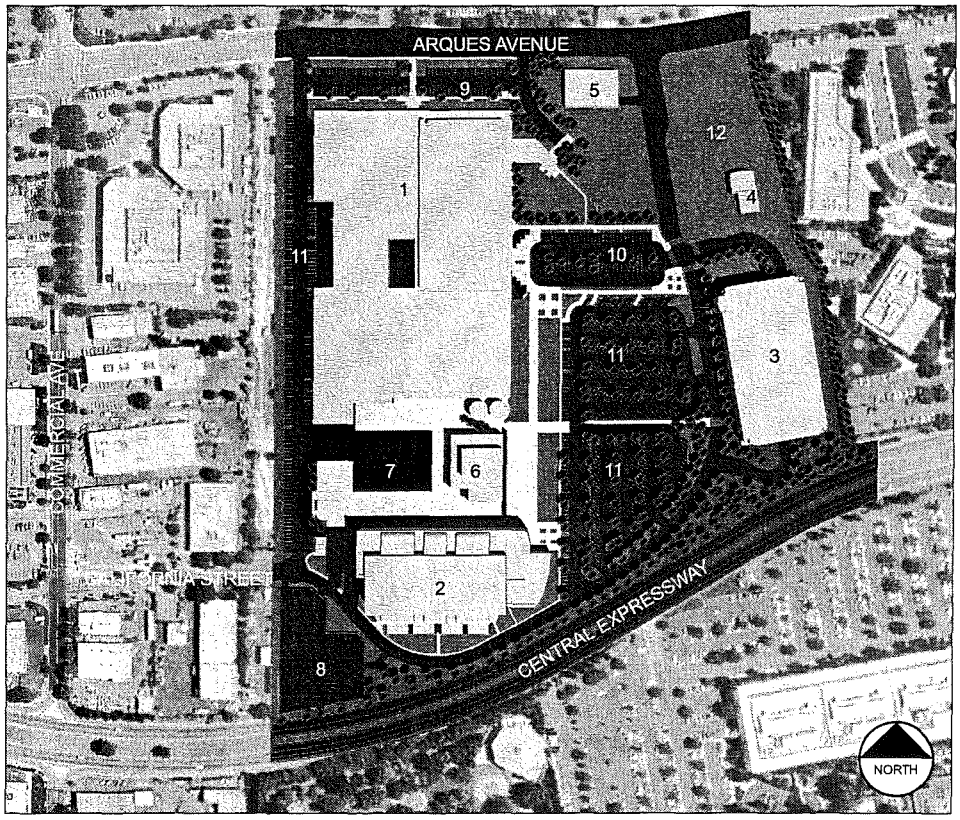


FIGURE 2.1
Existing Arques Campus Site Plan

1. Building 81– Research Office/ Prototype Lab
2. Technology Center (Under Construction)
3. Employee Parking Structure (Under Construction)
4. Recreation Center (Under Construction)
5. Building 82 (To be demolished)
6. Central Utility (Under Construction)
7. Service Yard
8. Electrical Substation Yard
9. Visitor Parking (Surface)
10. Employee Priority Parking (Surface)
11. Employee Parking (Surface)
12. Temporary Parking (Surface)

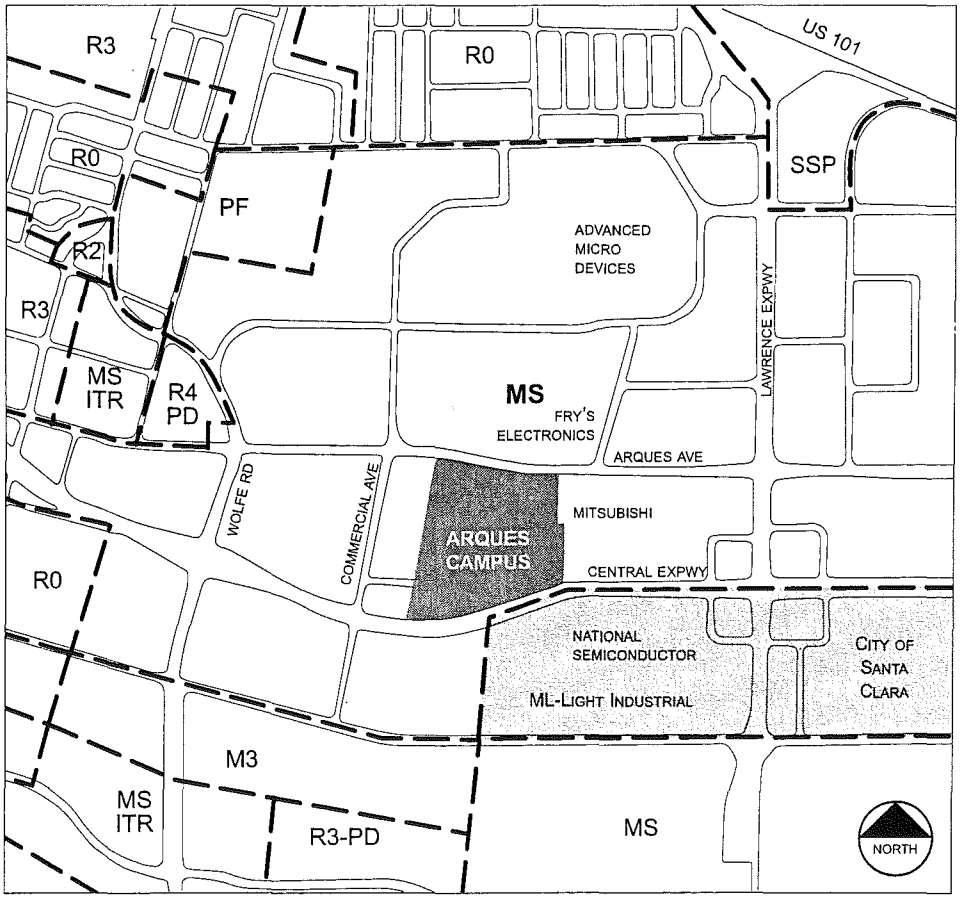
2.3 EXISTING GENERAL PLAN DESIGNATION ZONING AND SURROUNDING LAND USES

The project site is designated as "Industry" in the City of Sunnyvale General Plan. The "Industry" designation is intended for office and support uses, research and development, product assembly, and warehouses. Typical businesses within this designation include advanced electronics, computers, communication manufacturing, and biotechnology research.

The site is located within the City's M-S (Industrial and Service) zoning district. The M-S district is reserved for the construction, use, and occupancy of buildings and facilities for the following: offices, research, limited manufacturing, hotels and motels, restaurants, financial uses, retail sales and services, professional services, and other compatible uses. Industrial plants and facilities for assembly, compounding, manufacturing, packaging, processing, repairing (or treatment of equipment) of materials, merchandise, or products may also occupy this zone. See Figure 2.2.

FIGURE 2.2
Existing Zoning

M3	General Industrial
ML	Light Industrial
MS	Industrial and Service
MS/ITR	Industrial and Service/ Industrial to Residential
R0	Low Density Residential
R2	Low Medium Density Residential
R3	Medium Density Residential
R3/PD	Medium Density Residential/ Planned Development
R4	High Density Residential
R4/PD	High Density Residential/ Planned Development
SSP	Site Specific Plan
PF	Public Facilities



2.4 EXISTING ROADWAY NETWORK

Following is a summary of the existing regional and local vehicular access system near the project site. See Figure 2.3 and Figure 2.4.

1. *U.S. 101*
   This eight-lane freeway (three mixed-flow lanes and one High Occupancy Vehicle lane) in each direction, extends northward through San Francisco and southward through Morgan Hill. Site access to this freeway is provided by interchanges with Lawrence Expressway and Fair Oaks Avenue.
2. *State Route 237*
   This route extends in an east/northeast direction from El Camino Real in Mountain View to I-680 in Milpitas. It is generally a six-lane freeway with two mixed-flow lanes and one High Occupancy Vehicle lane in each direction. This roadway provides access to the site via interchanges at U.S. 101 and Lawrence Expressway.
3. *Lawrence Expressway*
   This six- to eight-lane limited access road extends south from SR 237 to Saratoga Avenue where it becomes Quito Road. One lane in each direction is reserved for high occupancy vehicles during commute periods. Lawrence Expressway has interchanges with SR 237 and Interstate 280 in addition to its interchange with U.S. 101.
4. *Central Expressway*
   This is a four-lane limited access road with a number of grade-separated intersections near the project site. This roadway provides access to the site from the City of Santa Clara to the east and the City of Mountain View to the west. Access to and from the site is via interchanges at Lawrence Expressway and Wolfe Road and right turns to and from westbound Central Expressway at Commercial Street.

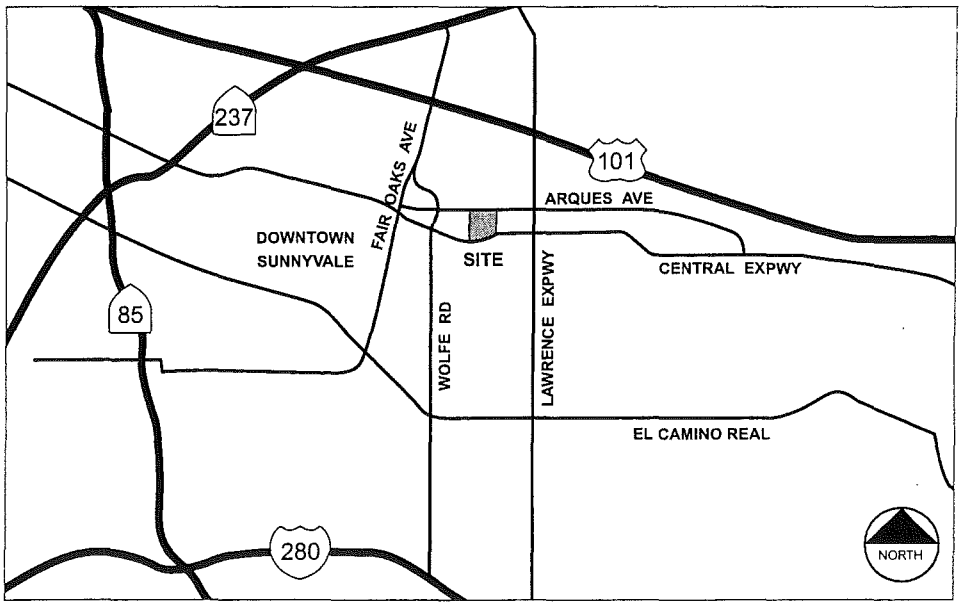


FIGURE 2.3
Roadway Network: Regionally Significant Roadways and Freeways in the Vicinity of the Project Site

5. *Fair Oaks Avenue*
   This is a north/south arterial roadway extending from U.S. 101 to El Camino Real. This roadway has an interchange with U.S. 101 and is grade separated from the Central Expressway. Fair Oaks Avenue is generally a four-lane road, with three southbound lanes provided between Wolfe Road and U.S. 101.
6. *Wolfe Road*
   This north/south arterial roadway extends from the intersection at Fair Oaks Avenue south to Cupertino. Wolfe Road is six lanes wide between Maude Avenue and Reed Avenue. South of Reed, Wolfe Road is typically four lanes wide, with a section in the vicinity of El Camino Real.
7. *Arques Avenue*
   This road provides direct access to the project site via three driveways. This collector road extends east from Fair Oaks Avenue into the City of Santa Clara where it becomes Scott Boulevard. In the vicinity of the site, Arques Avenue has five travel lanes, including two lanes in each direction plus a center lane reserved for left turns.
8. *Commercial Avenue*
   This two-lane local street connects Central Expressway to Arques Avenue and continues northward. At the Central Expressway/Commercial Avenue intersection, right turns are permitted from the westbound Central Expressway to the northern direction of Commercial Street, and right turns from southbound Commercial Avenue are permitted onto westbound Central Expressway.
9. *California Street*
   This two-lane local street provides access to the southwest corner of the site by way of Commercial Avenue.

FIGURE 2.4
Street Access

2.5 ALTERNATIVE TRANSIT MODES

The project site is also served by transportation facilities other than the automobile, including public transit service, bicycle, and pedestrian facilities. See Figure 2.5 for bus routes. These facilities and services include:

1. Public Transit—Four bus routes (Routes 41, 56, 140, and 304) provide service within a one-quarter mile radius of the project site. Several additional bus routes operate within a one-half mile radius of the site. Bus service is operated by the Santa Clara Valley Transportation Authority (VTA). Bus routes directly serving the site are described in more detail below.
   - Route 41 provides commute service along Arques Avenue and DeGuigne Drive between the Lawrence and Caltrain station and the Sunnyvale industrial area on 20- to 60-minute headways.
   - Route 56 provides commute service between the intersection of Fair Oaks Avenue and El Camino Avenue (in Sunnyvale and Milpitas). Service is provided on 30- to 60-minute headways. This route connects to both Caltrain and the Guadalupe Corridor Light Rail line (LTR). Route 56 also provides service along Arques Avenue in front of the project site.
   - Route 140 provides express commute service between the Fremont BART station and the Sunnyvale Caltrain station via two buses during the morning and evening commute periods. This route operates along the Arques Avenue project frontage and provides connections to Caltrain, BART, and the LRT line.
   - Route 304 is a limited stop route operating between south San Jose and the Mountain View Caltrain station and provides commute service only (with headways of between 15 and 30 minutes). Route 304 provides connections between Caltrain and LRT stations.
2. Sidewalks—Public sidewalks have been constructed along both sides of Arques Avenue in the vicinity of the project site. Pedestrian crosswalks with signals are provided at the signal intersections of Arques Avenue with Commercial Street and with Santa Trinita Avenue.

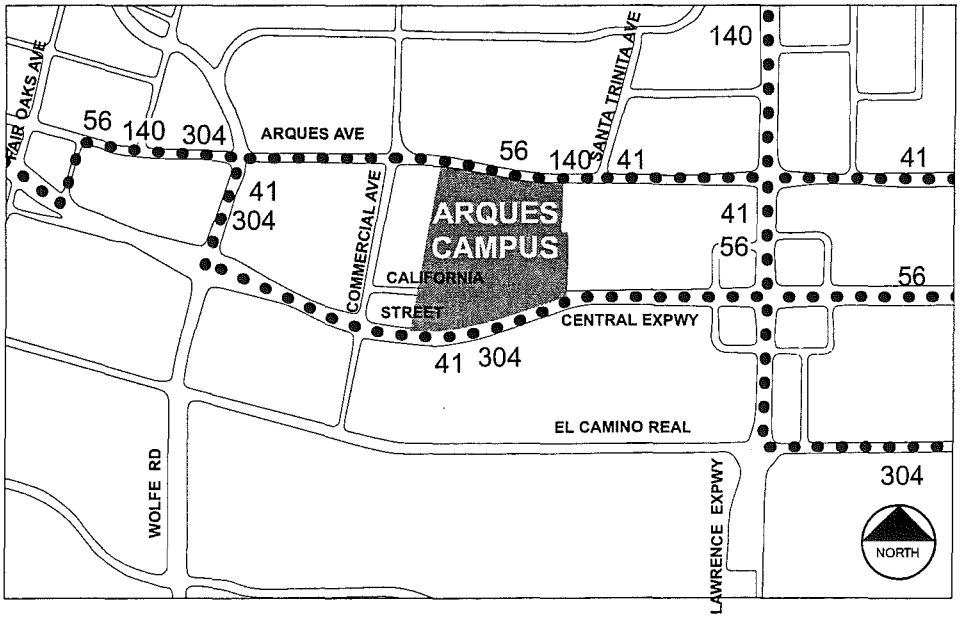


FIGURE 2.5
Bus Routes in the Vicinity of the Project Site

3. Bicycle Routes—The Santa Clara County Bikeways Map designates a bicycle route along Central Expressway (west of Wolfe Road). Central Expressway (east of Wolfe Road) and Lawrence Expressway are also accessible to cyclists, since all expressways in the County are intended to be accessible to bicyclists. Additional bicycle lanes along Reed Avenue provide a connection to the residential areas to the south and west.

2.6 COMMUTE ALTERNATIVE PROGRAM

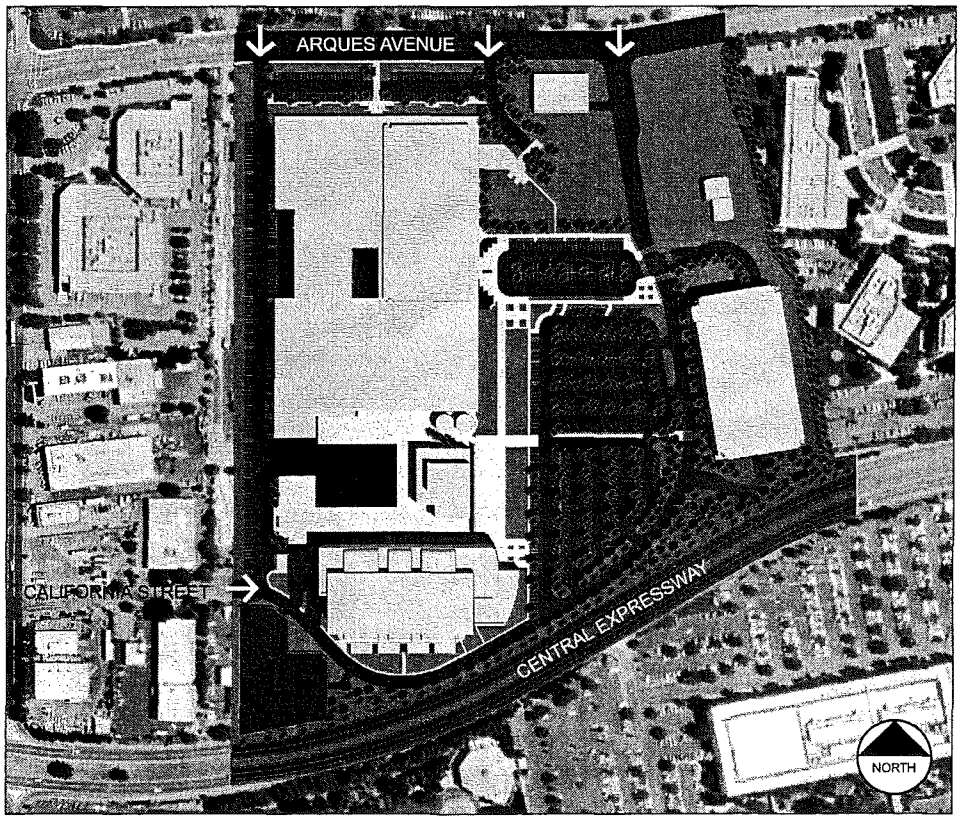
Applied Materials presently operates a successful Commute Alternative Program for their employees with the objective of reducing automobile trips within the area. In place since 1991, the program uses a number of techniques to maximize non-auto modes to and from Applied Materials' facilities in the region. Briefly, the program includes:

1. Shuttle service between Applied Materials' facilities and nearby Caltrain and LRT station,
2. Incentives to employees for use of public transportation, including public transit pass subsidies, a guaranteed-ride-home program and other incentives, and
3. A Commuter Information Line staffed to answer questions regarding scheduling and availability of public transit service.

2.7 EXISTING SITE ACCESS POINTS AND ON-SITE CIRCULATION

There are four vehicle access points to the site, three of which are located along Arques Avenue. The easternmost entrance currently operates as the main employee entrance and serves the surface parking and parking garage. A visitor parking lot is located along Arques Avenue, parallel with the north face of Building 81. The

FIGURE 2.6
Existing Site Access Points



westernmost entrance is the primary service entrance and accesses the loading dock and maintenance related functions that are positioned along the western face of Building 81. A fourth vehicular entrance is located at the western site border at the end of California Street, connecting to Central Expressway by way of Commercial Avenue. See Figure 2.6.

At this time, no continuous, well defined on-site system exists to move vehicles through the campus in a safe and efficient manner. Access from adjacent roadways is provided to individual parking areas immediately off each access drive with circuitous routing to other site destinations.

2.8 UTILITIES

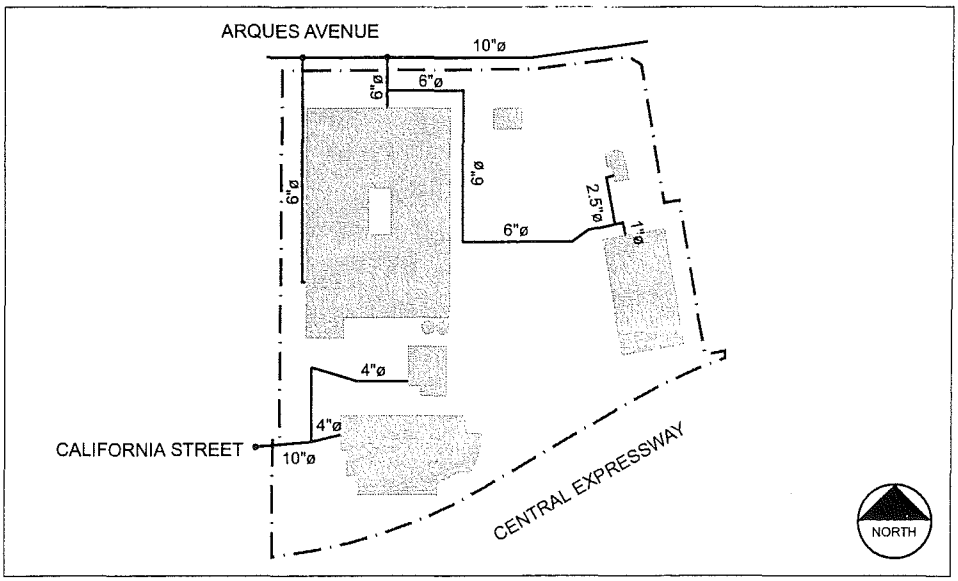
Upon completion of the currently approved construction program, the project site will be served by the following utilities and infrastructure.

1. Water:
   Water for domestic and firefighting purposes is supplied by the City of Sunnyvale through existing water mains, one of which is located on Arques Avenue and a second on California Street. A number of smaller underground water facilities have been constructed on the project site to serve existing development. See Figure 2.7.
   - Existing domestic water demand is approximately 33,000 gallons per day (1,500 people x 22 gallons per day per person).
   - Existing industrial water consumption is approximately 142,000 gallons per day.
   - Existing irrigation water consumption is approximately 243,000 gallons per day.
   - Existing evaporation consumes approximately 249,000 gallons per day.

   Total existing water use is therefore approximately 667,000 gallons per day.

   A combination of City water mains and an on-site system of privately maintained tanks and pumps provide adequate fire service. See Figure 2.13.

FIGURE 2.7
Existing Water Service Diagram

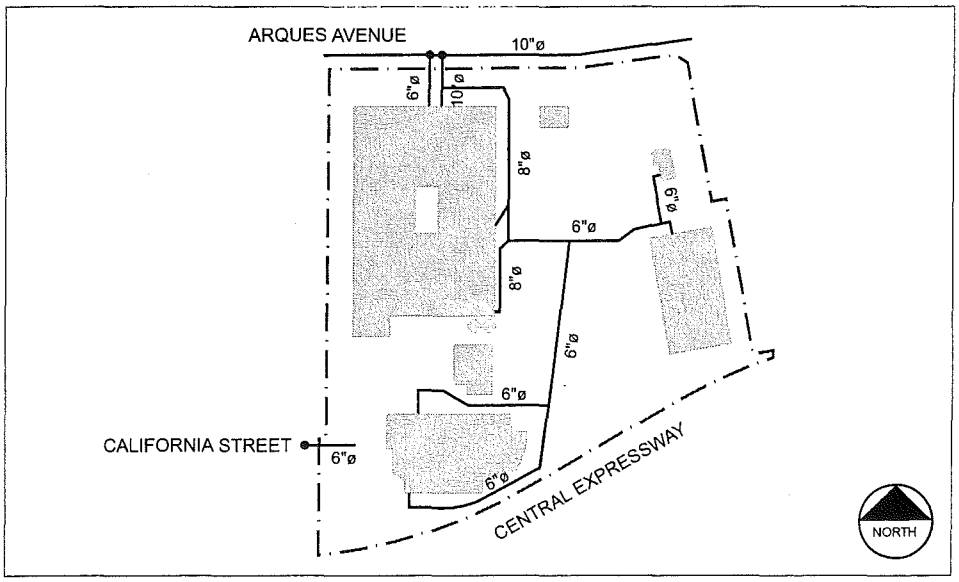


2. Wastewater Disposal:
   The Arques Campus generates approximately 175,000 gallons of wastewater on a daily basis (domestic wastewater at 1,500 people x 22 gallons per day per person, plus wastewater from industrial processes).

   The City of Sunnyvale's sewer lines located on Arques Avenue are not presently adequate to accommodate the additional flows from the amount of development now under construction. The City has plans to make modifications to the sanitary sewer collection system to increase its capacity, and the current construction program has resulted in the contribution of monies for this expansion of the system. The project's contribution was based on the cost of storing sewage on-site to avoid discharge into the municipal system during peak periods. The absolute sewage discharge quantity will be monitored as part of the conditions of approval adopted by the City. If the actual volume of sewer discharge is higher than the projected volume, the project's contribution to sewer mitigation will be proportionally increased.

   Wastewater from the site is treated at the City of Sunnyvale Water Pollution Control Plant (WPCP). Current wastewater treatment capacity is adequate for the proposed development.

FIGURE 2.8
Existing Wastewater Service Diagram

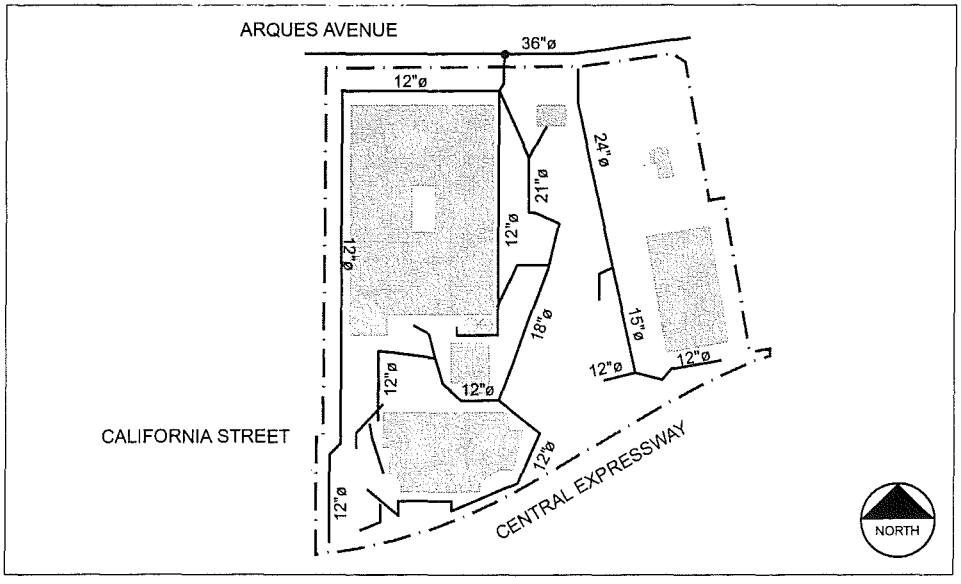


3. Solid Waste Disposal:
With the completion of the current construction, the project is anticipated to generate a total of approximately 350 cubic yards (cy) of solid waste per month. This solid waste will consist of: 135 cy of compacted waste, 125 cy of uncompacted waste from the cafeteria, 40 cy of uncompacted recycled wood pallets, and 50 cy of uncompacted wood pallets with non-wood materials attached. Given the available capacity of the City of Sunnyvale's solid waste disposal system, the project is not expected to cause significant solid waste impacts.

4. Stormwater Drainage and Flooding Potential:
The Specific Plan area is located within the City of Sunnyvale drainage basin. As proposed, the Specific Plan zone will be Area "X" as shown on the National Flood Insurance Program FIRM (Flood Insurance Rate Map) 060352.000ID revised December 19, 1997. Zone "X" is defined as "areas of 500-year flood, areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 100-year flood." All existing development meets the National Pollutant Discharge Elimination System (NPDES) requirements.

   Existing drainage facilities have been constructed on and adjacent to the project site. See Figure 2.9.

FIGURE 2.9
Existing Stormwater Drainage Service Diagram



5. Electrical Service:
   Electric distribution is provided to the site by PG&E. See Figure 2.10. The total connection load is approximately 32,000 kW, and the total demand load is approximately 16,000 kW.

   An on-site 115kV substation provides an increased level of electrical energy to support operations of the Technology Center.

6. Natural Gas:
   PG&E provides natural gas to the existing site. See Figure 2.11.

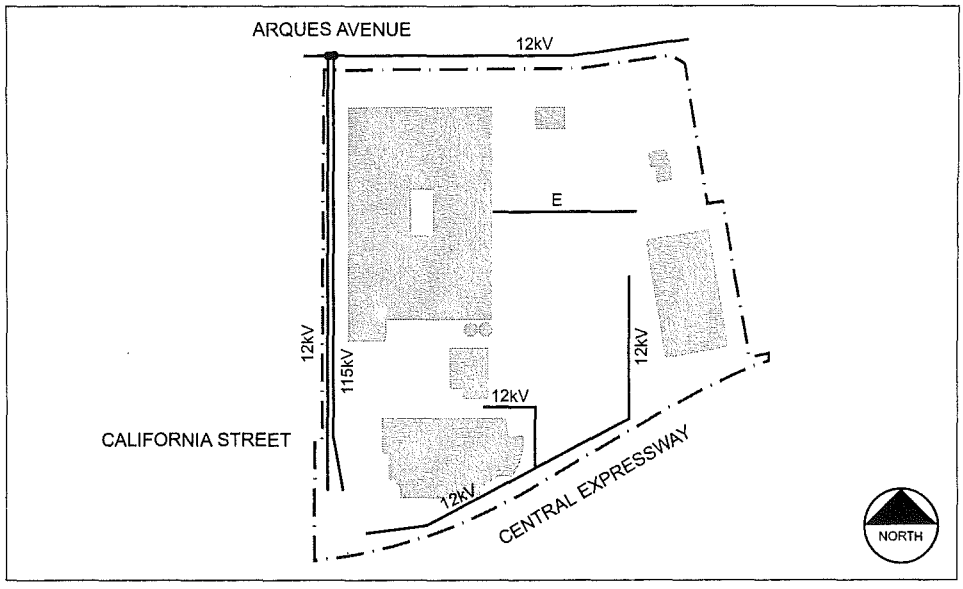


FIGURE 2.10
Existing Electrical Service Diagram
(Underground Conduit)

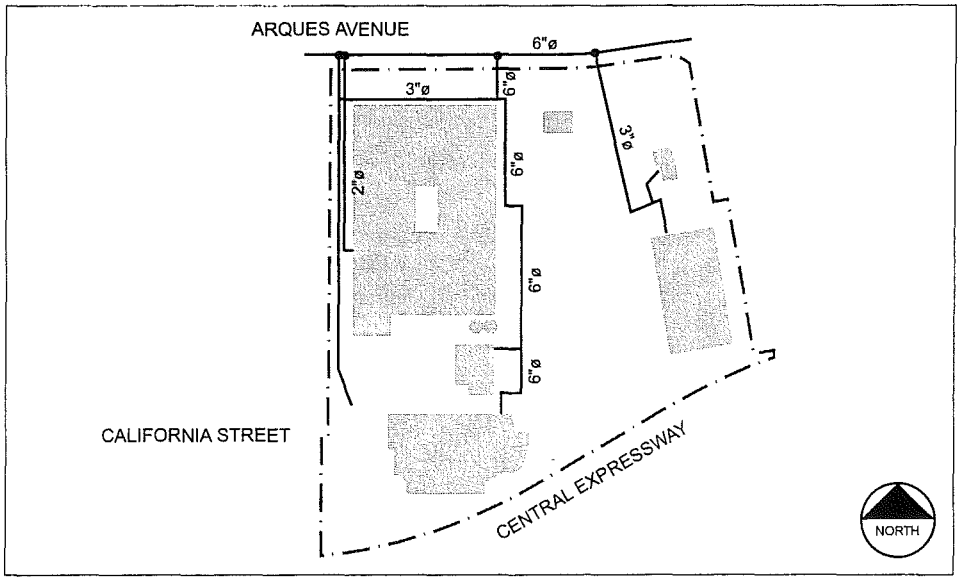


FIGURE 2.11
Existing Natural Gas Service Diagram

7. Nitrogen:
   Nitrogen is provided by Air Products, Inc., via a private pipeline.
8. Telecommunications:
   Pacific Bell provides telephone and telecommunication service to the project site. See Figure 2.12.

2.9 PUBLIC SERVICES

Public services are provided by the City of Sunnyvale's Department of Public Safety located at 700 All America Way. Existing service providers include:

1. Fire and Emergency Services:
   Fire protection and emergency medical response services for the Specific Plan site and the surrounding area are provided by the City of Sunnyvale's Department of Public Safety.

   The station at 795 E. Arques Avenue is located one quarter mile west of the Arques Campus and currently serves as the primary fire station for the site.

FIGURE 2.12
Existing Communications Service Diagram
(Underground Conduit)

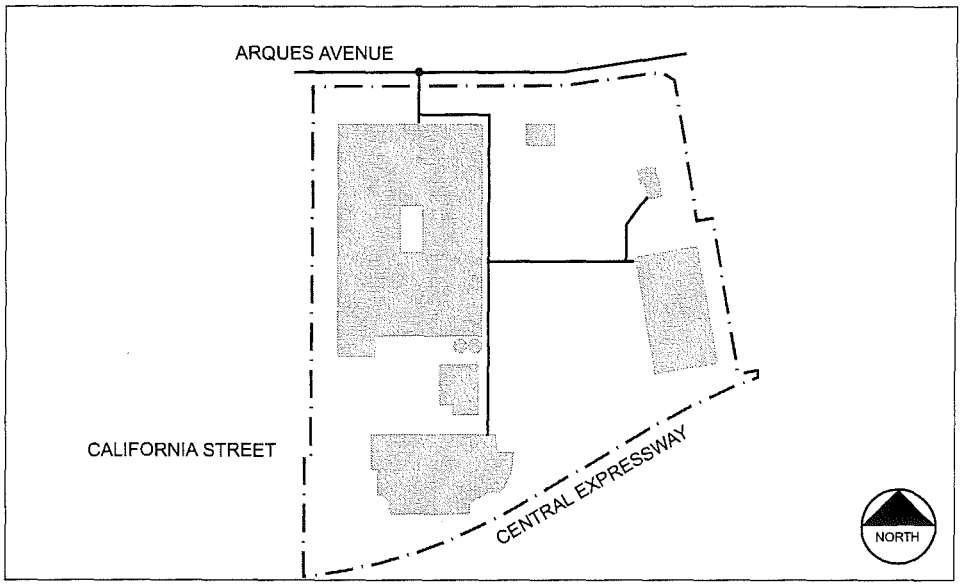
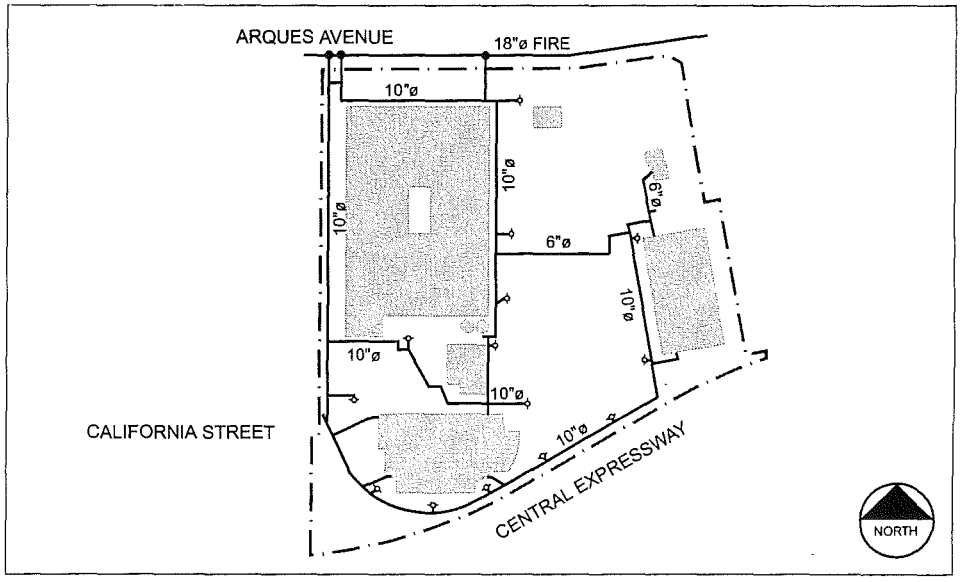


FIGURE 2.13
Existing Fire Protection Service Diagram



The City of Sunnyvale's Fire Department presently operates six fire stations, located at the following addresses:

- 795 E. Arques Avenue,
- 171 N. Mathilda Avenue,
- 910 Ticonderoga,
- 996 Wolfe Road,
- 1120 Lockheed Way, and
- 1282 N. Lawrence Station Road.

Paramedic service for the Arques Campus is currently provided by American Medical Response under contract to the City of Sunnyvale. The Specific Plan area will meet county codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the Specific Plan.

2. Police:
The City of Sunnyvale's Department of Public Safety provides primary police protection service for the project site.

3. Roadway Maintenance and Solid Waste Disposal:
The City of Sunnyvale.

4. Library, Recreation and Cultural Services:
The City of Sunnyvale.

5. Schools:
The Sunnyvale School District (elementary)
The Fremont Union High School District (high school).

2.10 ENVIRONMENTAL FEATURES

The existing site has two primary environmental features: the existing trees and on-going site remediation.

1. Tree Resources:
There are approximately 446 trees of 25 different species on the campus site. The trees vary in size and health, ranging from large specimen trees to smaller, less adapted species. The majority of trees are located within and adjacent to parking lots, and along the Central Expressway frontage and the eastern perimeter of the campus. See Appendix C, Existing Trees Survey.

   To the extent feasible, existing trees will be integrated into the landscape plan for the campus, as improvements are made. Refer to Section 6.7, Tree Preservation and Protection.

2. Site Remediation:
Based upon historic use of the site, both soils and groundwater have been found to be contaminated. The Regional Water Quality Control Board issued Site Cleanup Order No. 97-113 in September 1997, and Order No. 91-137 in September 1991. Both orders require the remediation of groundwater contamination. All new development on the site shall comply with these requirements.

   Additionally, Order No. 91-137 requires a deed restriction on the eastern portion of the site which prohibits the use of "A"and "B" underground aquifers as a source of drinking water until groundwater cleanup standards have been achieved. Preparation and regulatory approval of Safety Plans is necessary whenever construction activities disturb site soil and groundwater.

3. SITE DESIGN CONCEPT

3. SITE DESIGN CONCEPT

INTRODUCTION

The concept for the site is a synthesis of five design principles. The Campus will be an integral part of the Sunnyvale community, will provide an interactive environment for the users, will be organized around an outdoor green space in the form of a Central Commons, will have a safe and efficient on-site circulation system, and will be unified by the architectural and landscape design components. The following sections describe the guiding principles for the Arques Campus.

3.1 COMMUNITY COMPATIBILITY

Incorporate an overall design emphasizing compatibility with the surrounding community.

The Arques Campus Specific Plan reflects a commitment to the long term viability of the campus as a critical component of the Sunnyvale community. The plan is designed to ensure compatibility of the campus with the surrounding developed environment. See Figure 3.1 and Figure 3.2.

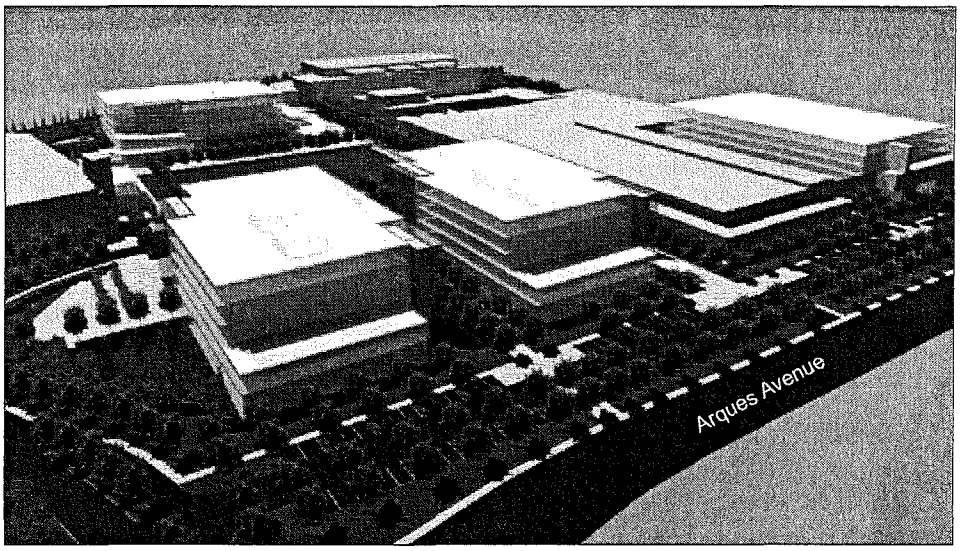


FIGURE 3.1
Proposed Arques Campus Master Plan Aerial Perspective from Arques Avenue

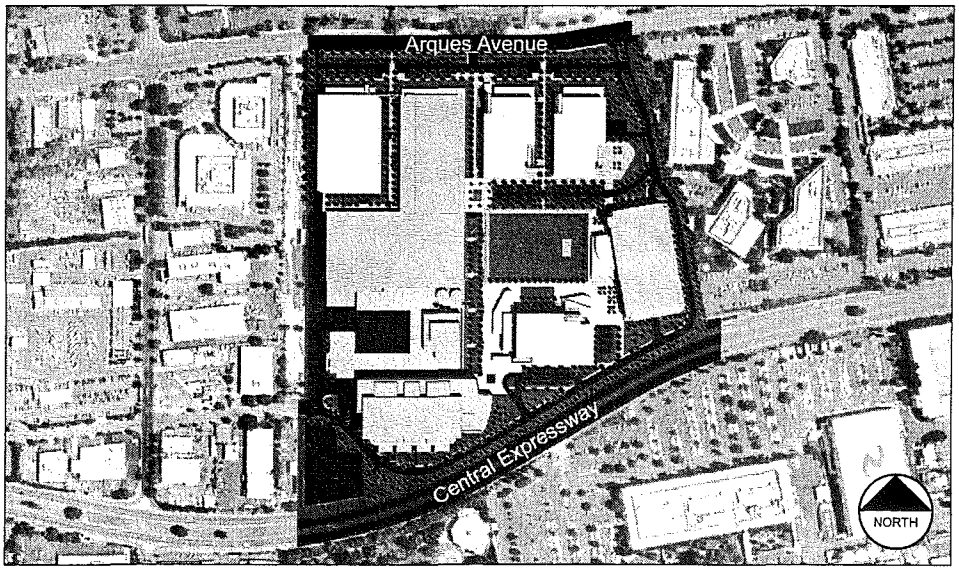


FIGURE 3.2
Proposed Arques Campus Master Plan in the Context of the Surrounding Community

The building footprints in the Arques Campus development are consistent with the neighborhood fabric.

The campus use is research and development for the high-technology industry, consistent with the M-S Industrial and Service District established by the City of Sunnyvale and the "Industry" General Plan designation. Special attention is given in the Specific Plan to the design treatment along Arques Avenue.

The new buildings along Arques Avenue are designed to ensure a unified appearance, adding to the prominence of Arques Avenue. Landscape plantings adjacent to the street reinforce this theme.

Because the height of the surrounding buildings varies from two to three stories, the new buildings within the campus are set back significantly to reduce their visual impact from Arques Avenue. A cohesive campus is further enhanced by maintaining a two-story facade along the Arques frontage and stepping building heights back from the campus edge. See Figure 3.2.

The relationship of the size of the building footprints to open-space area is consistent with similar developments in the immediate vicinity. The campus also fits within the neighborhood in terms of the ease of access onto the site.

There are four points of access to the site which distribute traffic flow, thus facilitating efficient movement of vehicles off the streets.

3.2 CENTRAL COMMONS

Create an active center or "heart" of the campus.

The major organizing feature of the Arques Campus is the Central Commons. The idea of a Central Commons is consistent with the historical function of town squares and university quads—to establish a sense of place. This usable, landscaped outdoor space enriches the work environment by providing a place for the campus community to gather. It also affords relief from the surrounding indoor space. See Figure 3.3. Section 6.3 provides additional detail regarding the size and conceptual design of this key area.

The Central Commons is intended to encourage a variety of activities. Amenities are clustered along the edges and include a Campus Cafeteria with an outdoor eating area, a Campus Recreation Center, and a Campus Conference Center. These amenities are visible from any point within the Central Commons. See Figure 3.4.

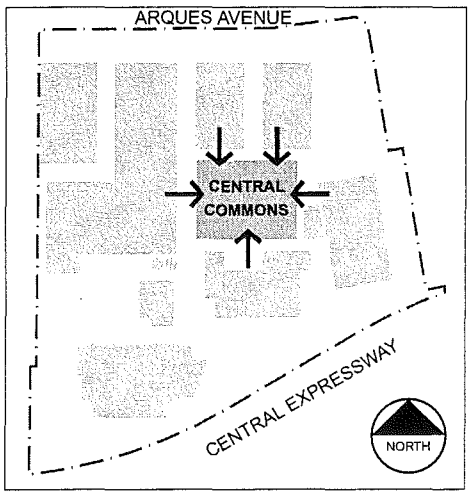


FIGURE 3.3
Central Commons Concept Diagram

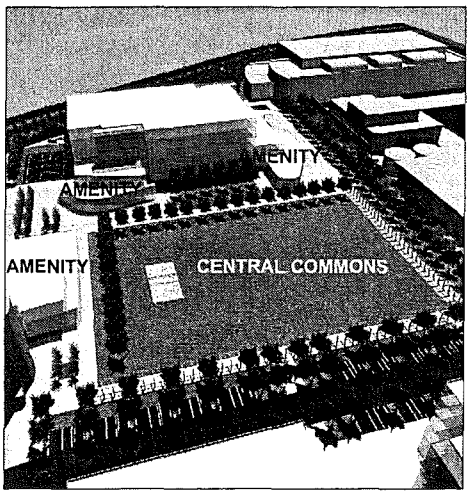


FIGURE 3.4
Central Commons Aerial Perspective from the North

3.3 INTERACTIVE CAMPUS ENVIRONMENT

Create a campus environment that stimulates creativity and fosters collaboration.

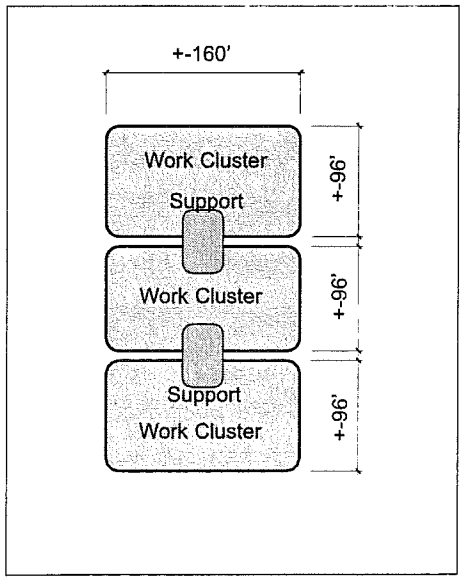
The research and development workplace of the future must maximize opportunities for creative interaction. Guided by this principle, the design of the Arques Campus reflects the concept that people shape the place, and likewise the place shapes the people.

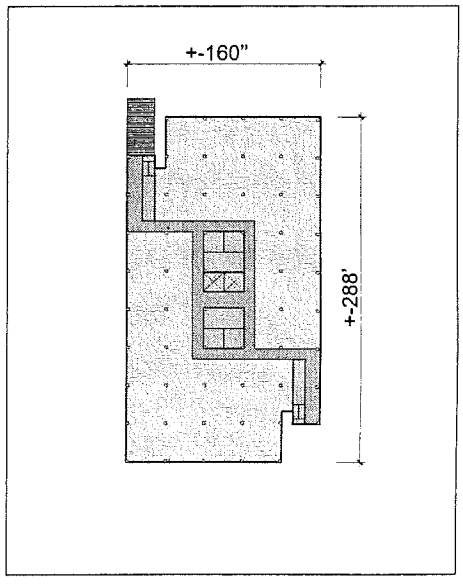
In the semiconductor sector, the complexity of design solutions increasingly requires a team approach. The Arques Campus Specific Plan seeks to accommodate and foster a team approach by organizing workspace into clusters within buildings. These clusters allow teams to be formed around individual projects in an environment that encourages competitive creativity. Each cluster is made up of approximately 7,500 to 15,000 square feet of floor area including varying proportions of research office space, prototype lab space, and administrative support space, depending on the specific needs of the project. The floor plates are designed to accommodate several clusters per floor, sharing building support space. See Figure 3.5.

These clusters are a critical element in providing an opportunity for the serendipitous exchange of information in a more personal and decentralized work environment. New ideas are conceived in the research office space and tested and developed in the prototype lab space. Adaptable building floor plates allow space to be used in an ever-changing manner. See Figure 3.6.

FIGURE 3.5: (NEAR RIGHT)
Plan Cluster Diagram

FIGURE 3.6: (FAR RIGHT)
Hypothetical Floor Plan Diagram





3.4 CAMPUS CIRCULATION

Create a system of circulation that is safe, clear, and convenient for pedestrians and vehicles.

1. Pedestrian Circulation

   The Arques Campus Specific Plan provides for a comprehensive pedestrian pathway system designed for safe, attractive, efficient, and varied access to all parts of the campus. The pedestrian pathway network is anchored by a pedestrian "Mainstreet"; a wide, landscaped promenade that connects the campus entry plaza off Arques Avenue to the Technology Center and the Central Commons. A secondary pathway network reaches out from the "Mainstreet" promenade to provide access to outdoor activity areas as well as building entrances. This pedestrian pathway ties the campus together around the Central Commons and establishes a sense of "the whole" from any point within the site. See Figure 3.7.

2. Campus Drive/Vehicular Circulation

   Vehicular circulation and parking is organized to facilitate access and to help define the campus setting. A private campus loop road, Campus Drive, provides access to all parking areas, with drop-off points near main building entries. See Figure 3.7.

   Visitor/employee/service access to the site is by way of three entrances off Arques Avenue. An employee/service entrance is located off California Street.

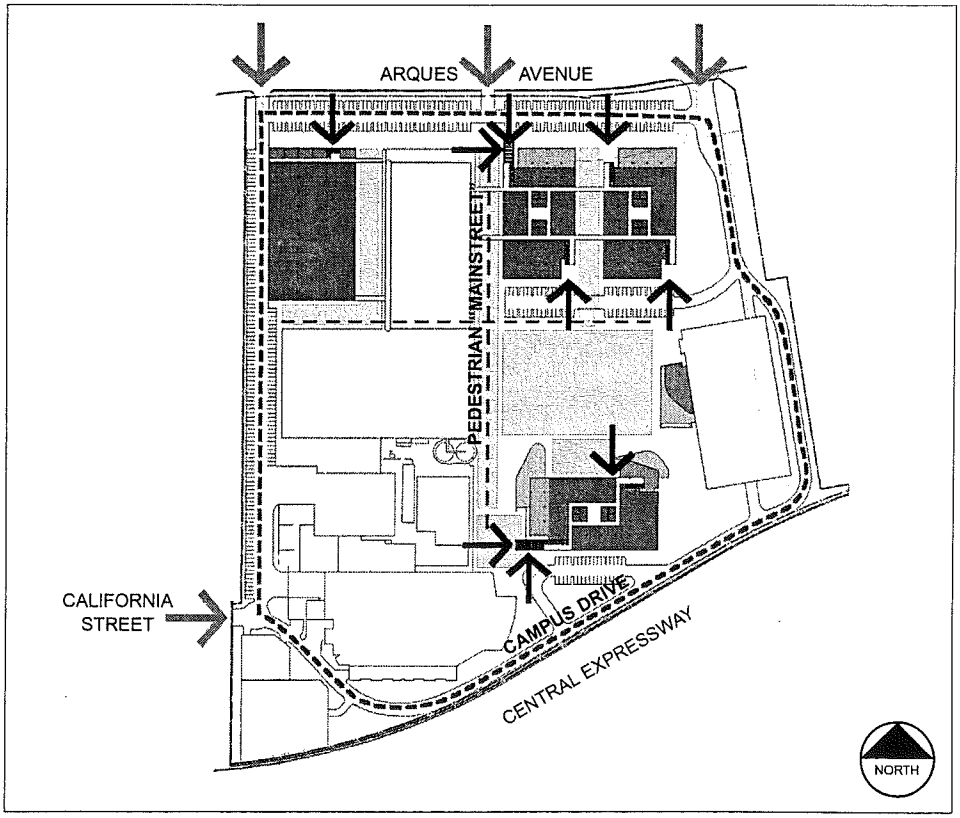


FIGURE 3.7
Campus Circulation Diagram

A clear hierarchy of circulation is established on-site for pedestrians. A pedestrian "Mainstreet" provides access to all buildings, amenities, and parking.

Vehicular circulation is pulled to the perimeter of the site to provide clarity for access and safety.

Secured employee parking will be provided in two parking garages located on opposite sides of the campus. This arrangement has a three-fold purpose: to enhance convenience, to help disperse traffic flows, and to allow queuing to take place on the site. The Arques Campus Specific Plan also includes Priority Parking Areas located near the building's main entrances as a means of providing a benefit to those employees who volunteer for the Emergency Response Team (ERT). The visitor parking is located on the Arques frontage outside the security gates.

3.5 UNIFIED ARCHITECTURAL DESIGN

Create a unified architectural theme that minimizes visual impacts to employees and site visitors, is sensitive in its use of colors and materials, and organizes space efficiently.

The Arques Campus Specific Plan includes Architectural Design Guidelines to unify the campus environment and serve the functional needs of employees and visitors. All buildings, including most of the amenity buildings, will have a direct visual and pedestrian connection to the Central Commons, making each building an easily accessible and active part of the campus.

The scale, character and architectural design of the new development will be compatible with surrounding development. The form and scale of facades along Arques Avenue will be designed to reflect the importance of this campus and establish a strong presence for the user.

Adequate transitions will be provided when a different building scale is required for functional reasons. The Office/Prototype Lab buildings and Campus Training Rooms on the north side of the Parking Structure will maintain a two-story facade along Arques Avenue to minimize the perceived mass, with additional building height set back a minimum of one structural bay. The Office/Prototype Lab building at the southern portion of the site may be stepped in a similar manner to improve the visual connection of the Technology Center with the Central Commons. See Figure 3.8.

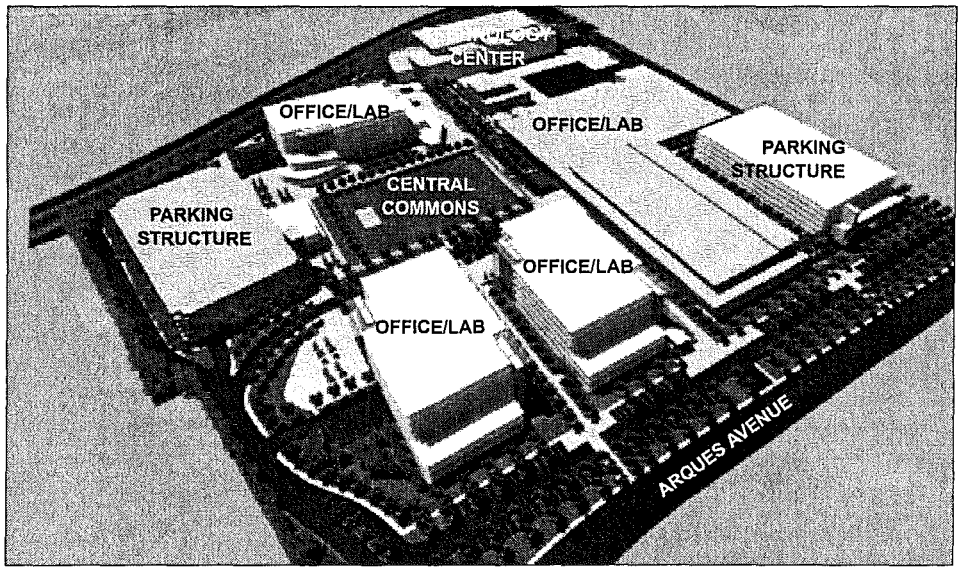


FIGURE 3.8
Proposed Arques Campus Master Plan Aerial Perspective from Arques Avenue

Main entries to buildings will be located near the Central Commons. Circulation through the buildings will be clear, efficient, and direct.

In general, core elements (such as elevators and stairs) will be positioned toward the interior of the buildings' floor plates to maximize perimeter window area and allow natural light to penetrate deep into each building. Each Office/Prototype Lab building will have a minimum of one service entry for truck access.

Building architecture will make use of materials that have integrity and longevity and are compatible with existing buildings. The buildings' articulation will be concentrated where there is visibility from public streets. A comprehensive color scheme shall be developed for the site. Variations will occur among the different buildings within the overall established theme. See Figure 3.9.

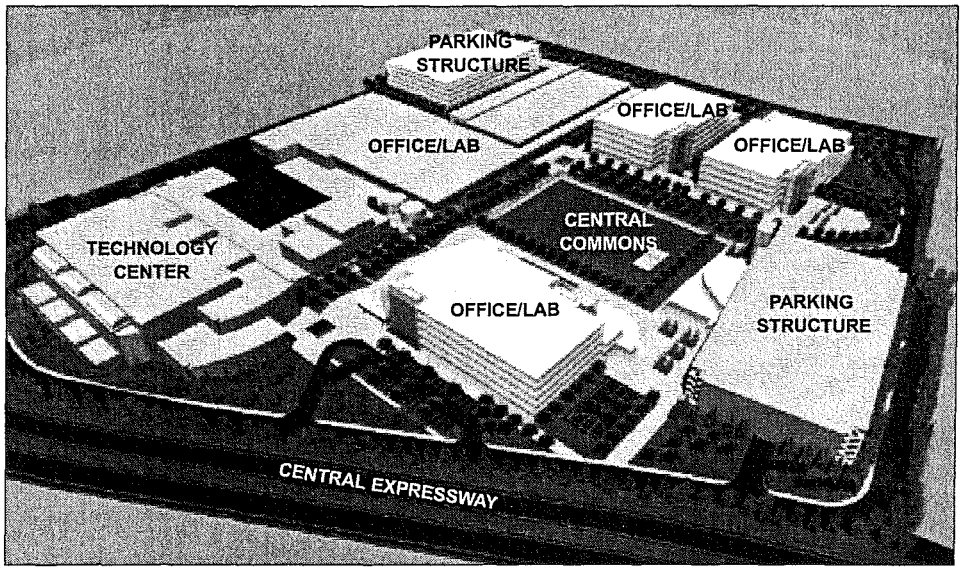


FIGURE 3.9:
Proposed Arques Campus Master Plan Aerial Perspective from Central Expressway

3.6 INTEGRATED LANDSCAPE DESIGN

Create landscaping that complements the architecture and provides a natural counterpoint to the built environment.

The Arques Campus Specific Plan's Landscape and Site Standards encourage a landscape design that unifies the campus, thus enriching spaces that can be used for a variety of outdoor activities and to provide a natural complement to the indoor spaces. See Figure 3.10. The landscape concept builds upon the existing campus landscape with its mix of mature trees, and establishes design continuity along Arques Avenue and Central Expressway.

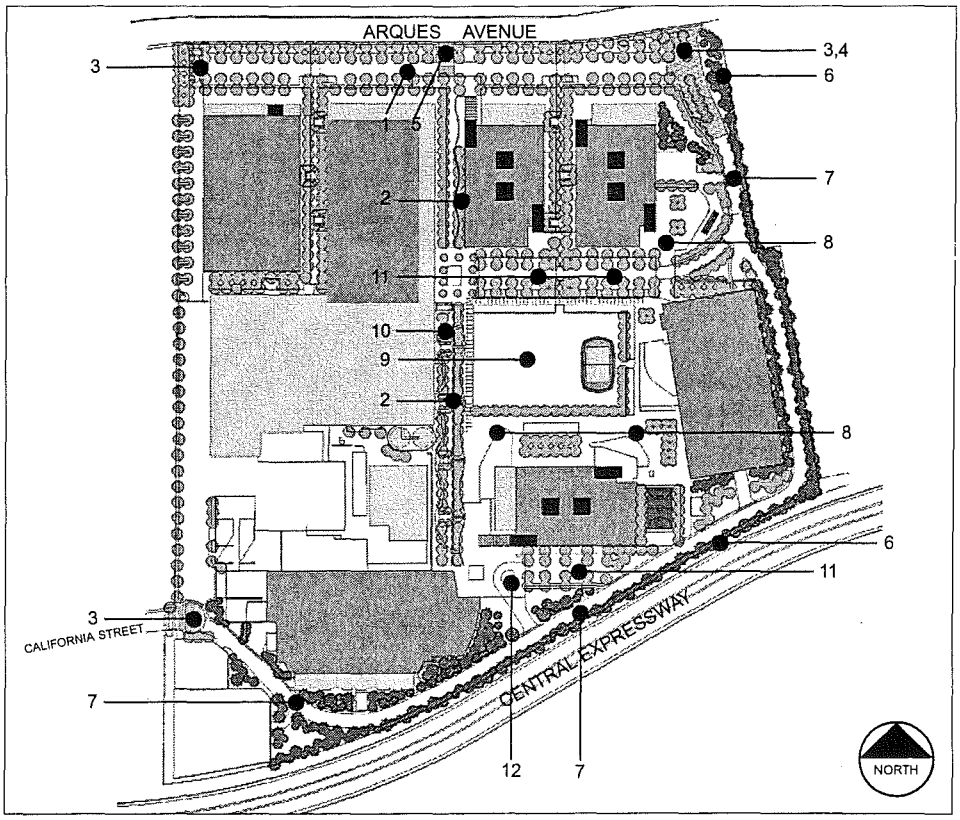
The perimeter of the campus is extensively planted to provide an attractive transition and buffers with adjacent uses and streets. Along the Arques Avenue frontage, ordered plantings of large canopy shade trees establish a formal, processional "front door" image for the campus.

Surface parking areas include planting to create tree-shaded "orchards," providing a pleasant interface between surrounding streets and the campus. This landscaping also keeps cars cooler during summer months.

Within the Campus, the landscape plan is organized around the Central Commons and the pedestrian "Mainstreet" promenade. The one-and-one-third acre Central Commons is an open grassy area bordered by formal, tree-shaded promenades and/or arbors. The campus amenities, including the recreation center, cafeteria, and others, are located adjacent to the Central Commons, with surrounding landscaped plazas and gardens. The "Mainstreet" promenade will be more heavily landscaped and will contain smaller, more intimate gardens or courtyards for informal meetings or gatherings.

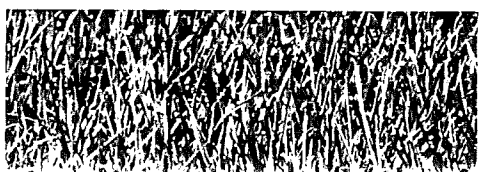
FIGURE 3.10
Illustrative Arques Campus Landscape Concept Plan

1. Visitor Parking Orchard
2. Pedestrian "Mainstreet"
3. Corporate Entry
4. Employee/Service Entry with Project Signage
5. Visitor Entry with Project Signage
6. Landscape Buffer
7. Campus Drive
8. Amenity Plaza
9. Central Commons
10. Typical Garden/ Courtyard Area
11. Employee Priority Parking
12. Drop-off



Landscape materials have been selected for adaptability to site conditions and maintenance requirements. Drought tolerant plants are specified, consistent with the City's water conservation requirements.

4. LAND USE AND DEVELOPMENT STANDARDS



4. LAND USE AND DEVELOPMENT STANDARDS

INTRODUCTION

This Specific Plan provides policy guidance and regulatory direction for development of the 35.46-acre Arques Campus site. It implements the General Plan by refining its policies specifically to address the Arques Campus within the context of a focused development program. The Specific Plan is a regulatory tool adopted by ordinance.

4.1 PERMITTED USES

The following M-S district uses are permitted within the Arques Avenue Specific Plan:

- Equipment testing and demonstration
- Administrative, professional, and corporate offices
- Research and development laboratories
- Conference and training facilities
- Recreation facilities, food service facilities, and other accessory uses
- Limited assembly and manufacturing
- Sales and services
- Parking
- Storage
- Infrastructure and utility facilities.

4.2 DEVELOPMENT STANDARDS

The Specific Plan Development Standards are adopted to achieve the following planning objectives:

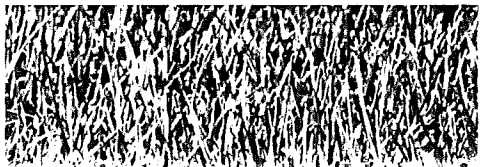
- Implement the intent and purpose of the Sunnyvale General Plan.
- Promote the health, safety, and general welfare of the Sunnyvale community.
- Provide maximum opportunities to enhance and maintain the quality of the site and architectural design.
- Create a unique work environment, provide a sense of place, and set the standard for collaborative invention.

The general development standards for the M-S Industrial and Service District of the City of Sunnyvale Zoning Code (Title 19) shall apply to development of the Arques Specific Plan except as noted below and elsewhere in this Plan. See Table 4.1.

TABLE 4.1
Development Standards

Maximum Building Height	7 stories, 75 feet
Maximum Lot Coverage	45%
Maximum Floor Area Ratio	0.72
Effective Floor Area Ratio (only employee generating floor space)	0.64
Minimum Front Yard Building Setback	75 feet
Minimum Side Yard Building Setback	40 feet (with exception of existing substation yard, which is 20 feet)
Minimum Rear Yard Building Setback	40 feet (with exception of existing substation yard, which is 20 feet)
Minimum Landscape Areas	325,000 square feet
Parking Quantity	2,975 spaces
Parking Ratio	1 space per 322 gsf of office/lab space
Truck Loading	14 spaces (minimum)

5. ARCHITECTURAL DESIGN GUIDELINES



5. ARCHITECTURAL DESIGN GUIDELINES

INTRODUCTION

This section of the Arques Campus Specific Plan establishes guidelines for the architecture of the high technology research and development campus. The guidelines presented are consistent with the *Industrial Design Guidelines*, developed by the City of Sunnyvale Community Development Department and adopted by the City Council March 16, 1993. The architectural guidelines are characterized by two complementary themes:

1. Establishing and reinforcing the scale of the existing streetscape and adjacent buildings, and
2. Developing a design that expresses the programmatic functions and building space types.

The Plan generally conforms to the existing two- and three-story scale of the buildings adjacent to the campus edges. A rhythm of two-story structures is consistent with existing buildings along the Arques Avenue frontage, with a transition to taller four- and five-story buildings. The taller structures are oriented toward the interior of the site, organized around the Central Commons. One- and two-story scale is re-established nearer the grade along the Central Commons by the amenity buildings. See Figure 5.14. The amenity buildings will include (in addition to the Recreation Center, Campus Cafeteria, and Campus Conference Center) ground level gathering and dining spaces, providing a transition from the interior work areas to the outdoor relaxation and recreation areas. See Figure 5.1.

The facilities will be constructed with materials and details that have integrity and longevity. Colors and materials compatible with the new Technology Center will be used, thus developing a consistent theme of color, texture, and scale for the entire site.

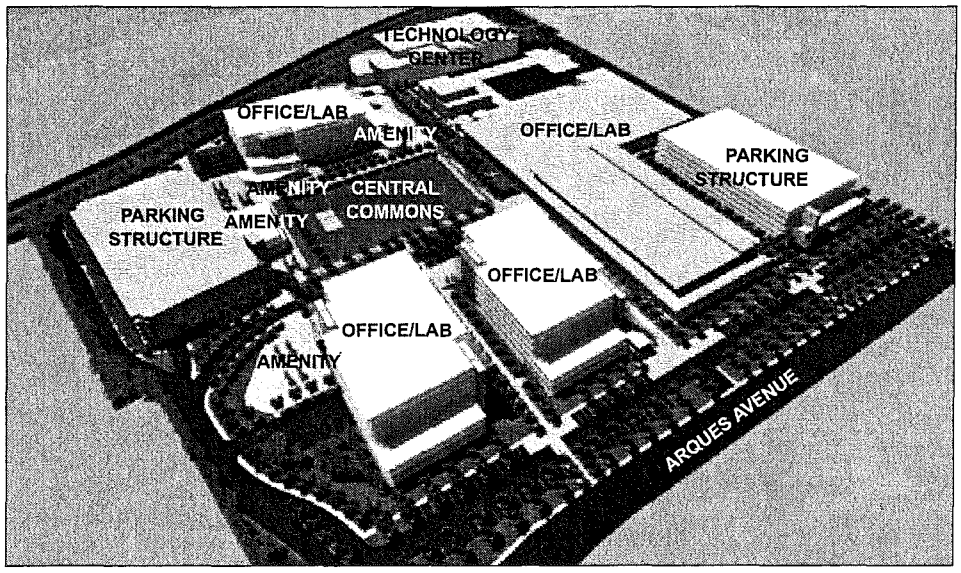


FIGURE 5.1
Proposed Massing along Arques Avenue

Two-story scale of existing buildings transitions to taller structures at the interior of the site.

5.1 CHARACTERISTIC BUILDING SPACE TYPES

In addition to the Technology Center (used for testing and demonstration of equipment) and the Central Utility Building, there are currently four basic space and building types on the Arques Campus. See Figure 5.2. These uses will expand based on the program presented in this Plan. These space and building types have architectural, structural, and mechanical characteristics that identify them. The space and building types are:

1. Office/Prototype Lab Space

   These buildings will house engineering research and development programs. Floor plates will be flexible as the programmed use of the space will change over time. Three new Office/Prototype Lab Buildings are planned in the Arques Campus Specific Plan.

2. Amenity Features

   Amenity features support the campus users' needs outside the Office/Lab environments. These features include places for meetings, training, eating, exercising, and general recreation. Amenity features will occupy building volumes up to two stories. They will be located adjacent to the Central Commons (except for the Campus Training Rooms) and create a transition from the landscaped exterior to the interior Office/Lab areas.

3. Support Facilities

   Support Facilities include utility yards, workshops, loading docks, central storage areas, and the electrical substation yard. These facilities will be screened to mitigate off-site and on-site views. Screening will be accomplished by the strategic location of buildings, landscaping, berms, and walls.

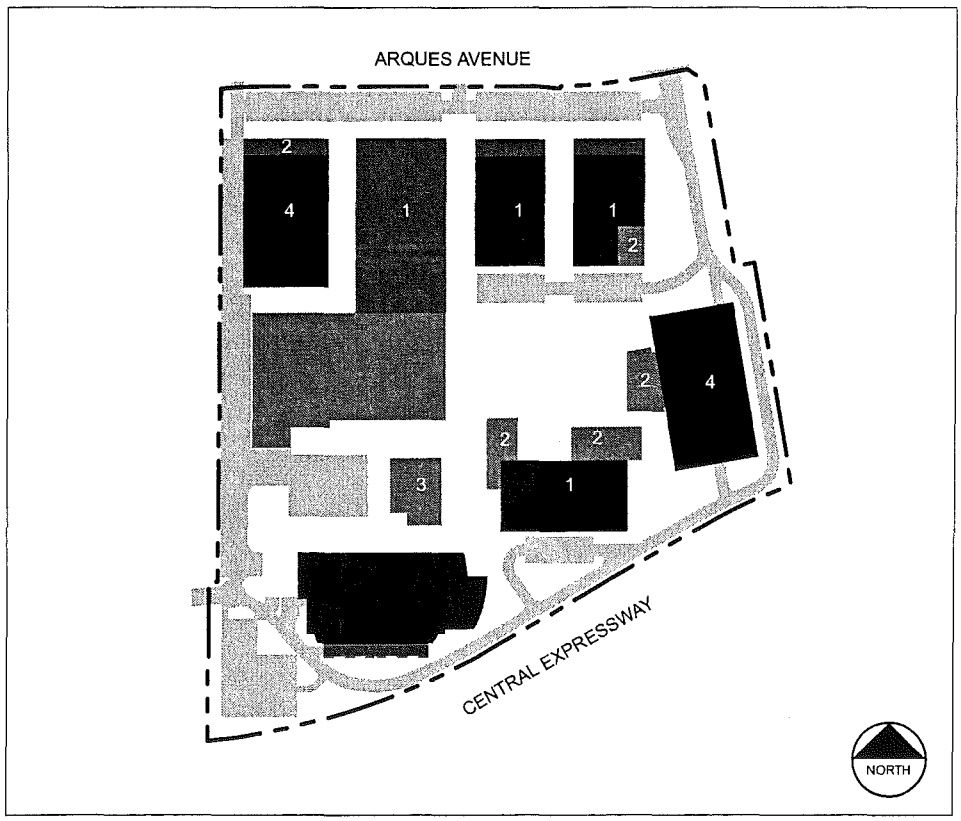


FIGURE 5.2
Use and Building Type Diagram
1. Office/Prototype Lab
2. Amenity Features
3. Support Facilities
4. Parking Structures

4. Parking Structures

The plan calls for the addition of a new parking structure at the northwest corner of the site. Amenity space, currently designated as Campus Training Rooms, will be incorporated along Arques Avenue to develop a scale compatible with other frontage buildings. The parking structure will be attractive and secure, and will provide access to pedestrian circulation to the Campus.

5.2 OFFICE / PROTOTYPE LAB BUILDINGS

Large, simple volumes are employed in the design of the Office/Prototype Lab buildings to maximize functional space and enhance flexibility. The need for adaptable space necessitates the use of simple forms (components of the building). Entries, windows, sun screens, and canopies can be used to create architectural interest. See Figure 5.3.

1. Building Orientation and Setbacks

a) Buildings facing Arques Avenue establish an introduction to the entire campus. Accordingly, these buildings must provide a strong link to the existing scale of buildings along the street. A generous landscape setback will be maintained, consistent with the existing streetscape along Arques Avenue.

b) The buildings will be set back along Arques Avenue to align with the existing building on the campus (Building 81). Similarly, on the Central Expressway edge of the campus, the setback aligns with the existing Technology Center and Parking Garage. See Figure 5.4.

c) The southerly Office/Prototype Lab building will be oriented parallel to the new Technology Center. This placement will maintain visual prominence for the Technology Center and provide a foreshortened view of the new Office/ Prototype Lab building.

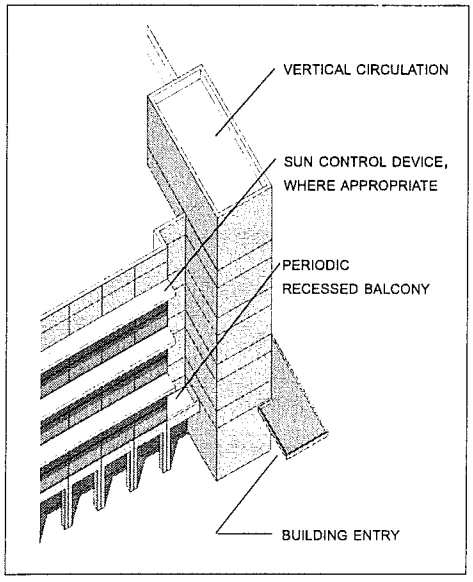


FIGURE 5.3 (NEAR RIGHT)
Building Details

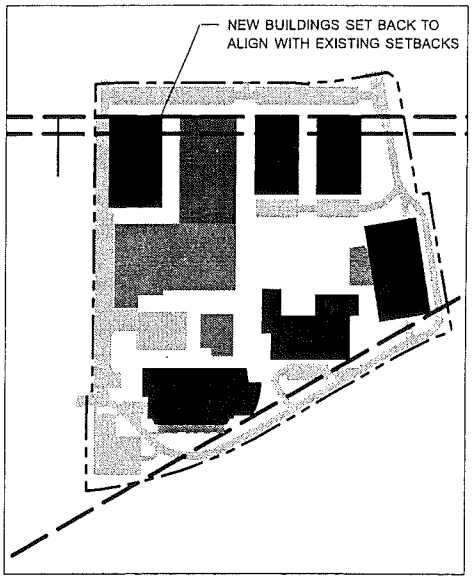


FIGURE 5.4 (FAR RIGHT)
Setback Diagram

2. Building Step-Backs

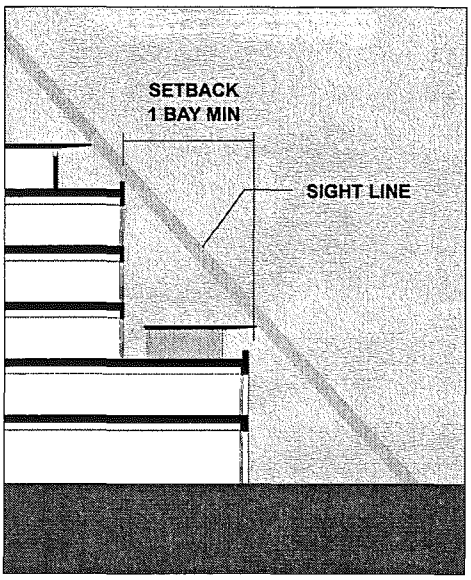
   The buildings fronting Arques Avenue will be designed to include step-backs along the vertical facade that reduce the perceived mass of the overall buildings, thus creating a more sculptured presentation to the street. These building frontages will also incorporate architectural elements such as recesses, balconies, porches, and distinctive openings or volumes. See Figure 5.5 and Figure 5.6. These figures represent conceptual illustration only.

3. Building Entrances

   For clear identity and convenience, each building will have well-defined entrances, relating to the public way, Central Commons, and pedestrian walk-ways. See Figure 5.7 and Figure 5.8.

FIGURE 5.5 (NEAR RIGHT)
Building Step-Back Diagram

FIGURE 5.6 (FAR RIGHT)
Conceptual Building Elevation from Arques Avenue



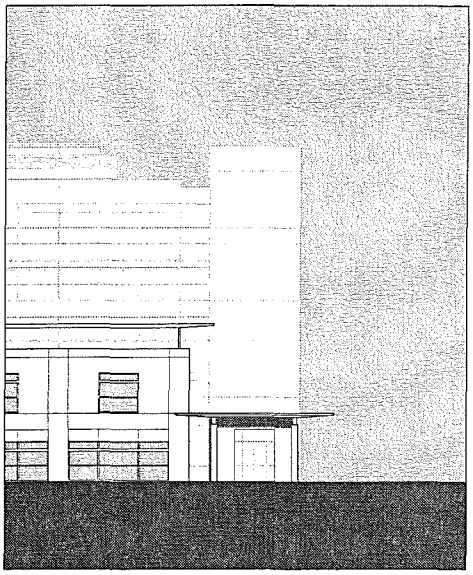
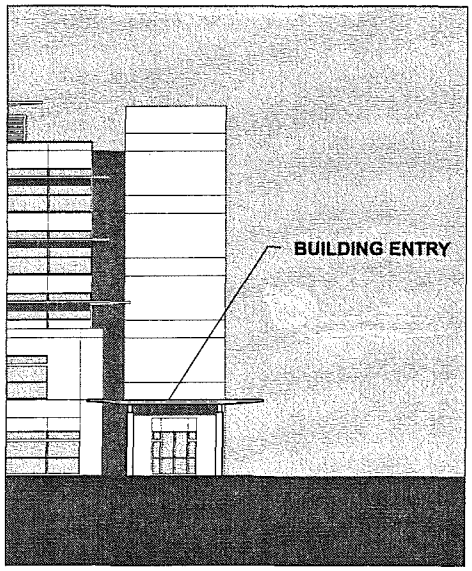
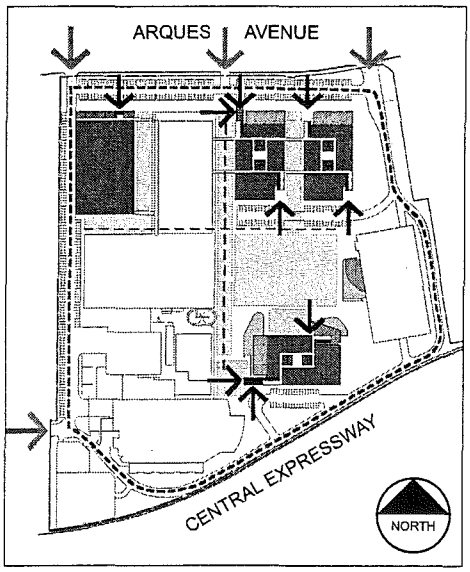


FIGURE 5.7 (FAR RIGHT)
Entry Elevation Study

FIGURE 5.8 (FAR RIGHT)
Entry Plan Diagram





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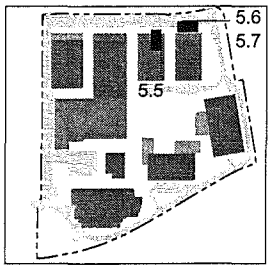


4. Elevations

a) Building elevations that face Arques Avenue are limited to two stories in height, stepping up to five stories, and at least one structural bay back from the face of the lower level. The scale of these elevations will conform to the existing Arques Avenue streetscape. See Figure 5.6. The building facing Central Expressway will be of a scale and level of detail relating to the fast moving automobile traffic. Simple articulation of the building volumes are appropriate along this thoroughfare as the foreground will be screened by the landscape buffer.

b) The southern Office/Prototype Lab Building also has important relationships to the Technology Center and the pedestrian "Mainstreet." This building will be limited to two stories in height along the pedestrian "Mainstreet," stepping up to five stories, and at least one structural bay back from the face of the lower level.

c) The addition of a low-scale amenity feature such as a campus dining facility will also help to create a comfortable pedestrian scale along "Mainstreet." See Figure 5.15. Consideration will be given to creating shade and shadow articulation on the elevations. Exterior sun shading over the glazed areas could provide additional articulation.

d) The lower portion of the facades will be clad in materials that relate to the pedestrian scale and respond to the adjacent exterior uses. Selection of the facade materials and detailing is to be compatible with the existing Technology Center.

e) Building elevations will generally have identifiable bases, middles, and tops, consistent with City of Sunnyvale *Industrial Design Guidelines*.

5. Building Floor Plates and Floor to Floor Heights

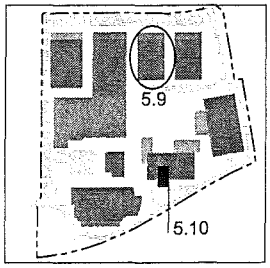
a) Office/Prototype Lab building floor plates may be up to approximately 50,000 gsf. See Figure 5.9.

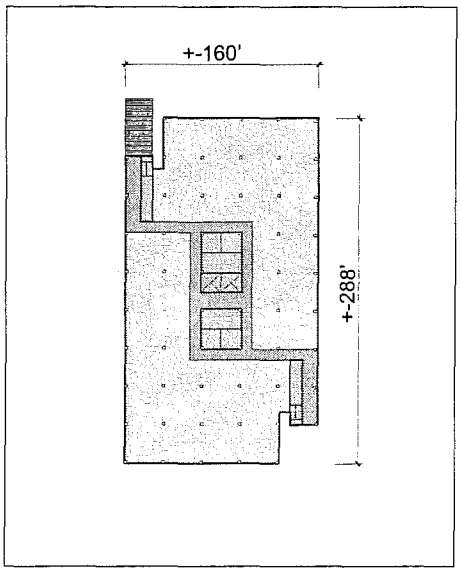
b) The increased floor height at ground level will be at least 15'-0", to permit flexibility of use. The floor height is approximately the same as Building 81, and will allow a compatibility of functions. The floor-to-floor height above

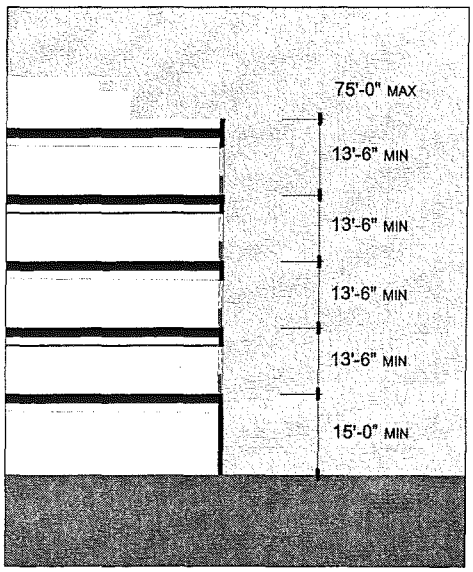
FIGURE 5.9 (NEAR RIGHT)
Hypothetical Floor Plan Diagram

FIGURE 5.10 (NEAR RIGHT)
Office/Prototype Lab Floor-to-Floor Diagram

KEY PLAN







ground level will be at least 13'-6". This floor height is adequate to accommodate offices and light tech labs, which are the anticipated uses for levels above grade. See Figure 5.10.

6. Daylighting

   For user comfort, all buildings will access views and daylight. Fenestration will have sun shading, where appropriate, to prevent excessive solar heat gain and to reduce glare. The window sills will provide a range of height so that work apparatus is not significantly exposed to view. Where appropriate, glass will extend to the floor to reinforce the open, interactive work environment and provide expansive views of the Central Commons. See Figure 5.11.

7. Rooftop Equipment

   Rooftop mechanical equipment will be screened and set back from the building edge to reduce its visual impact. The mechanical equipment and screen will also avoid the use of bright reflective finishes. See Figure 5.12.

8. Service

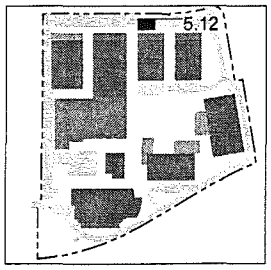
   Each building will be serviced from an individual loading dock. Loading docks will be sited away from public view, or fully screened from public view.

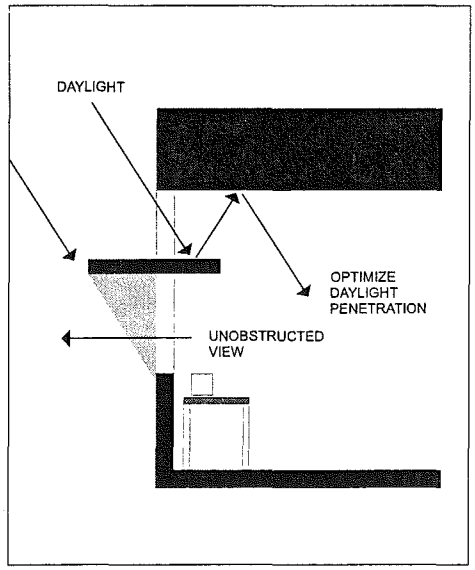
FIGURE 5.11 (NEAR RIGHT)
Sun Control Diagram

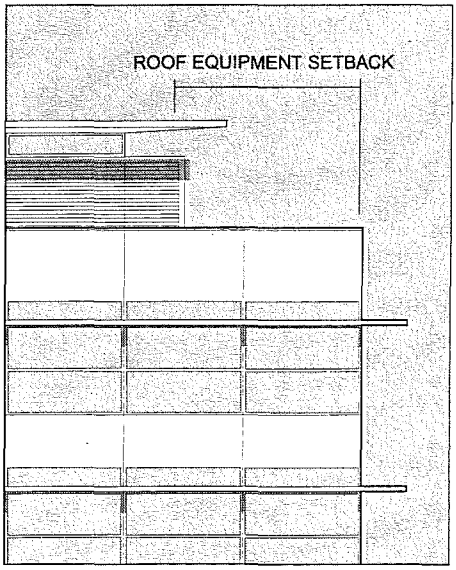
FIGURE 5.12 (FAR RIGHT)
Roof Equipment Setback Diagram

Mechanical Equipment spaces will be set back from the major building volume and treated as an integral part of the overall building design.

KEY PLAN







5.3 AMENITY BUILDINGS AND SPACES

Special campus amenity facilities are an integral part of the total campus and are features that enhance the quality and diversity of the work environment. See Figure 5.13. Specific campus amenity improvements include:

- Campus Cafeteria
- Campus Conference Center
- Campus Training Rooms
- Campus Recreation Center
- Other Campus Support Facilities (vending, staff services, etc.)

Specific locations for these facilities are yet to be determined and implementation will occur in phases associated with the growth of the research and development population on the Arques Campus. The following guidelines apply to the development of amenity buildings and spaces.

1. Campus amenity facilities may be integrated with other buildings and distinguished architecturally from the adjoining buildings so as to be recognized as special places. See Figure 5.13.
2. Except for the Campus Training Rooms, the campus amenity facilities will be located adjacent to the landscaped Central Commons or pedestrian "Mainstreet," and will be designed to contribute to the activity that enlivens these outdoor spaces. Access to the facilities and their primary functions will be oriented toward these spaces. See Figure 5.14.
3. The new Campus Cafeteria may be located in or adjacent to either the new south Office/Prototype Lab building or the new northeast Office/Prototype Lab Building. The Campus Conference Center may be developed as part of the new south Office/Prototype Lab Building near the Technology Center. The Campus Training Rooms will be developed as part of the new parking garage. The re-sited Campus Recreation Center may be located adjacent to the existing parking garage. See Figure 5.14.

FIGURE 5.13 (NEAR RIGHT)
Aerial Perspective of the Amenity Features Surrounding the Central Commons, Looking South.

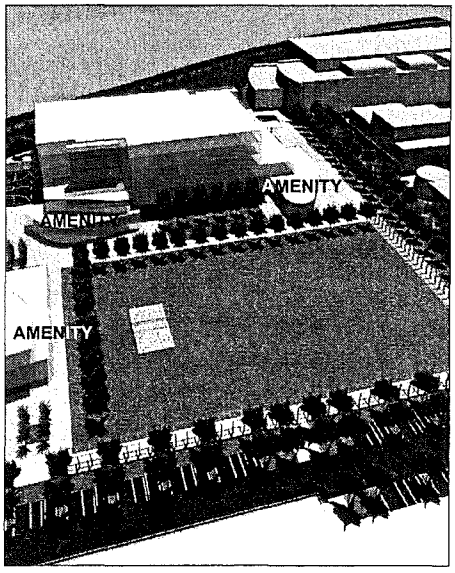
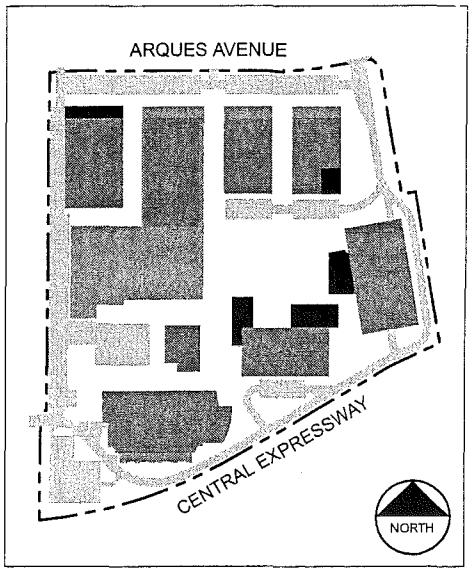


FIGURE 5.14 (FAR RIGHT)
Amenity Features Site Location Diagram



Amenity Features

4. Amenity spaces will be connected with adjacent outside spaces. Exterior improvements, such as plazas, view points, seating, and sports courts, will link the campus spaces with the amenity facilities. Further, the outside improvements will be linked with each other to encourage ease of movement and access. See Figure 5.15.
5. The campus amenity facilities will be one or two levels and designed to facilitate people meeting, interacting, and playing. The amenity facilities provide a variety of spaces, ranging in size from those required for large gatherings to those required for small private meetings. See Figure 5.15 and Figure 5.16.
6. Although the design of the amenity facilities will be consistent with the overall campus architectural character, the facilities will also feature unique and distinctive treatments to accent and celebrate the special character of the amenities. The design of the campus amenity facilities will emphasize openness and brightness in order to reinforce accessibility by employees.

FIGURE 5.15 (NEAR RIGHT)
Conceptual Building Section at an Amenity Feature

Express roof planes, breaking down building mass to reduce apparent volume and transition interior and exterior spaces.

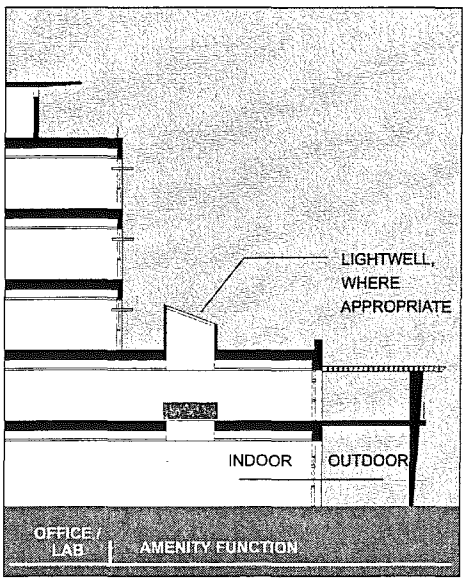
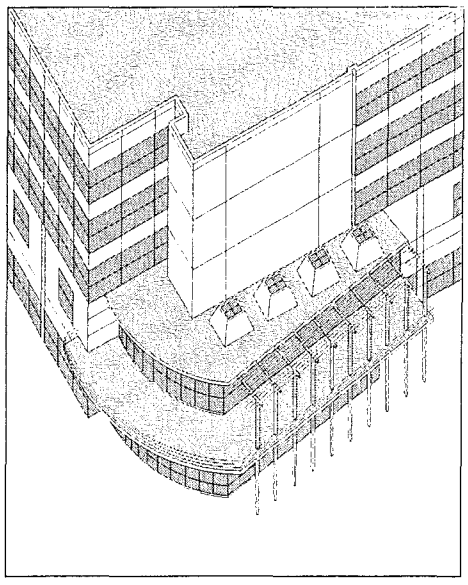


FIGURE 5.16 (FAR RIGHT)
Conceptual Building Diagram at an Amenity Feature

Shapes and forms occupied by amenity features will provide places to gather inside and outside. Natural sunlight will be screened and shaped outside and allowed to penetrate for interior daylight.



5.4 SUPPORT FACILITIES

The existing Central Utility Building and Electrical Substation Yard are fixed elements of the Arques Campus.

5.5 PARKING STRUCTURES

Vehicle entry and egress from parking structures need to be positioned to minimize their impact on the surrounding traffic flow.

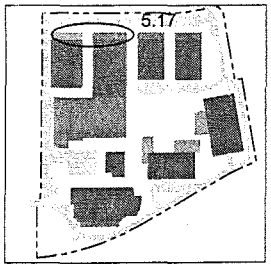
The parking facilities will be designed to be attractive and secure and also to provide clear pedestrian circulation.

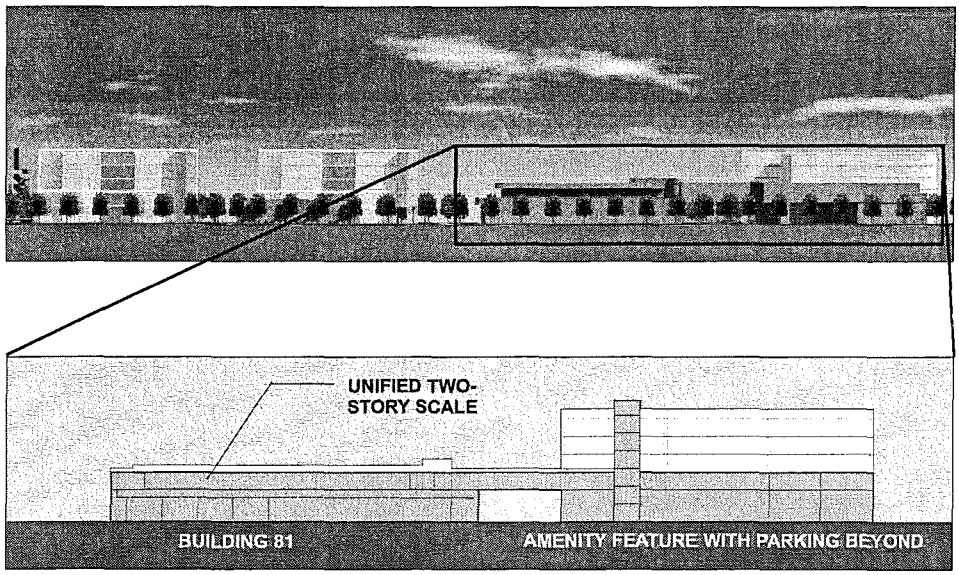
1. The architecture of the new parking structure will be consistent with the existing parking structure. The parking structure must be designed to meet standards that are consistent with the architectural quality established for the campus, and for its particular siting.
2. While the parking structure needs to be an inherently different building type than the Office/Prototype Lab buildings, it is possible to occupy space adjoining the ground floor with amenity uses that can interact with the campus. These adjoining structures will be scaled to visually minimize the potential impact of the parking structures. See Figure 5.17.
3. Stairs and elevators will be visually open with secured access for safety. The lobbies will be prominently located for easy identification. Pedestrian circulation to and within the structure will be as open and visible from the campus and surrounding community as possible.

FIGURE 5.17
Arques Avenue Frontage Scale Diagram

Develop a two-story scale along Arques Avenue that is compatible with Building 81. Develop a vocabulary of materials for a two-story frontage to unify new and existing buildings.

KEY PLAN





5.6 EXTERIOR BUILDING MATERIALS

The Arques Campus Specific Plan identifies material groups for the exterior treatments of buildings that are compatible with the material palette adopted for the new Technology Center and new parking structure. It is the intent of the Plan to develop a comprehensive material and color palette for the building complex that is complementary and compatible with the various structures. See Figure 5.18.

The Specific Plan requires compliance with the following guidelines regarding material, color, texture, and their application:

1. Large expanses of smooth material such as concrete or cement plaster will be modulated with expansion joints, reveals, or changes in texture and color.
2. Mirror glass and highly reflective surfaces are not permitted.
3. Bright, contrasting colors will be used only as accents and when balanced with large areas of neutral color.
4. Exterior material and paint will be durable and high quality to prevent degradation.
5. Metal panels, siding, and exposed metal frameworks may be used but will be of sufficient gauge to maintain a consistent plane and or regular pattern. Finishes will be metallic but not polished or highly reflective.

TABLE 5.1
Exterior Building Materials

Building Walls	Metal Panels: Flat Metal Panels: Ribbed Preformed Metal Panels Precast Panels Concrete Masonry Units
Windows/ Curtain Wall	Aluminum Window Frames Solar Efficient Glass (not highly reflective) Spandrel Glass
Terrace Walls	Concrete Masonry Units Concrete Masonry Units
Metals (architectural features)	Semi-Exposed Stairs Entry Canopy Parking Garage Stairs
Louvers and Grills	Railings Sun Screens Trellis Structures

FIGURE 5.18
Applied Materials' Technology Center under Construction

6. LANDSCAPE DESIGN GUIDELINES

6. LANDSCAPE DESIGN GUIDELINES

INTRODUCTION

The following criteria establish the basic landscape requirements needed to implement the landscape concept as described in Section 3, Site Design Concept. The landscape concept includes both formal and informal planting approaches reflecting the hierarchy of outdoor spaces established by the buildings and their uses. See Figure 6.1. Additionally, the landscape treatment incorporates existing trees to the extent possible. The following criteria describe the general requirements for landscaping at specific campus areas, including:

- Streets and Edges,
- Campus Entries,
- Pedestrian and Open Space Areas,
- Parking Areas, and
- Campus Buffers.

Criteria are also set forth for landscape maintenance, irrigation, and tree protection. A basic plant palette is established for the campus, with provisions for additional plant material subject to review and approval by the City of Sunnyvale Director of Community Development.

The landscape concept is designed to accommodate Best Management Practices (BMPs) to promote post-construction stormwater quality standards.

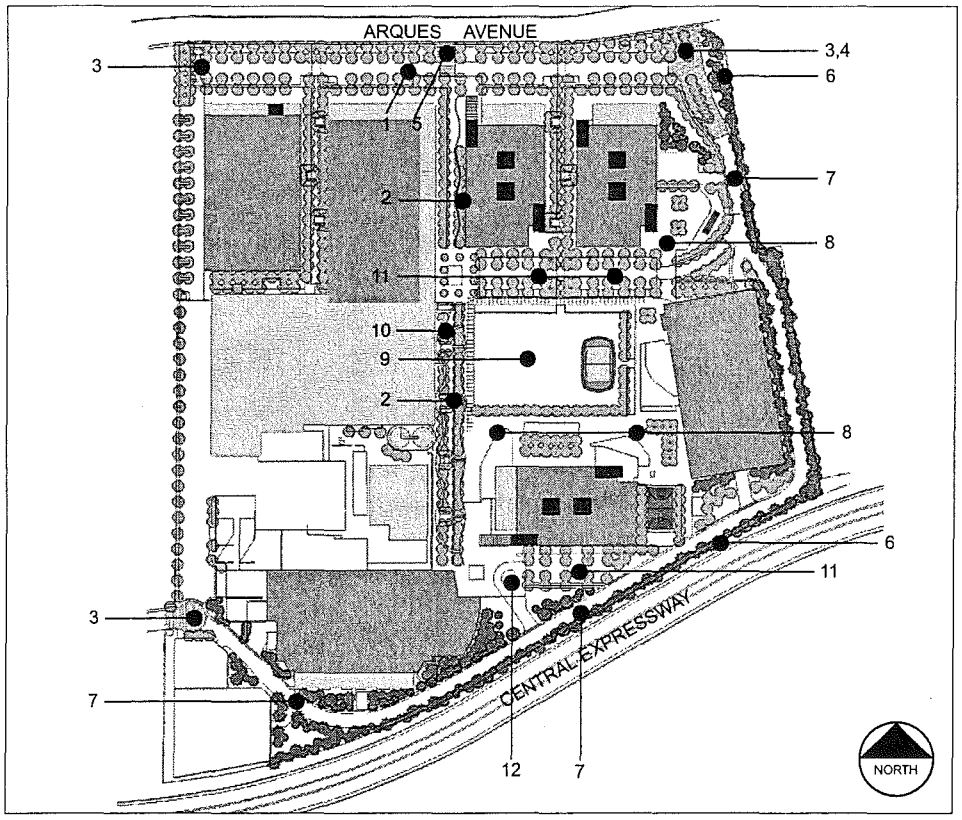


FIGURE 6.1
Proposed Arques Campus Landscape Concept Plan

1. Visitor Parking Orchard
2. Pedestrian "Mainstreet"
3. Corporate Entry
4. Employee/Service Entry with Project Signage
5. Visitor Entry with Project Signage
6. Landscape Buffer
7. Campus Drive
8. Amenity Plaza
9. Central Commons
10. Typical Garden/ Courtyard Area
11. Employee Priority Parking
12. Drop-off

6.1 STREETS AND EDGES

The project incorporates landscaping along public street frontages, including Arques Avenue and Central Expressway, and the internal private perimeter loop road (Campus Drive) providing vehicular circulation through the site. Landscaping along all streets will comply with the standards herein and with all other applicable City ordinances and standards. Landscaping of streets and edges reflects either a formal, ordered approach consistent with the architectural treatment and reinforcement of the roadway corridor, or a more informal approach at certain edges where a visual buffer is required.

1. Arques Avenue

   a) The Arques Avenue street frontage will be planted with regularly spaced street trees. The new street planting will be a visual extension of the corporate facade planting design which extends a shaded tree canopy from the buildings, through the parking lot, to the street edge. This treatment will result in a formal, shaded landscape environment along this important corridor.

   b) The sidewalk will extend along the entire street frontage adjacent to the curb to allow placement of the street trees behind the sidewalk and the curb. See Figure 6.2.

2. Central Expressway and East Edge

   Site perimeters along the east and south boundaries will be extensively planted with evergreen trees and shrubs except at the view corridor at the south end of the Technology Center, referred to as the "Corporate Window." Here, the buffer will be a mix of evergreens and deciduous plant materials to provide filtered views of the site. See Figure 6.3.

FIGURE 6.2
Section at Arques Avenue Roadway Frontage

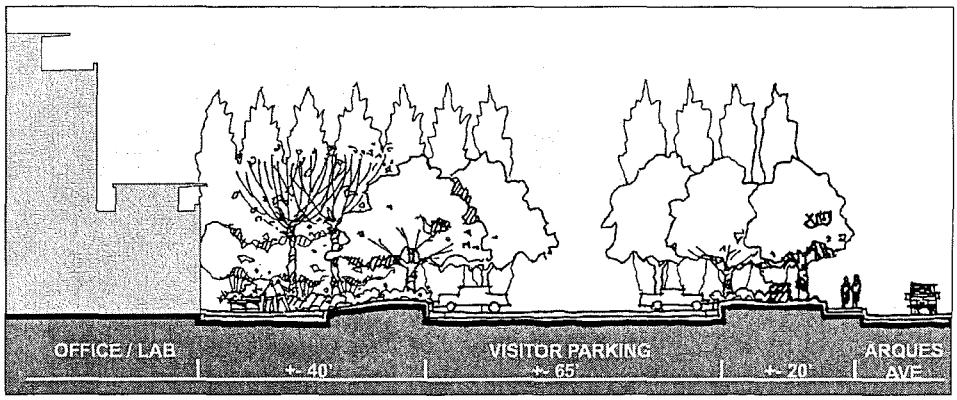
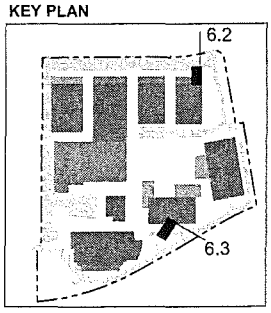
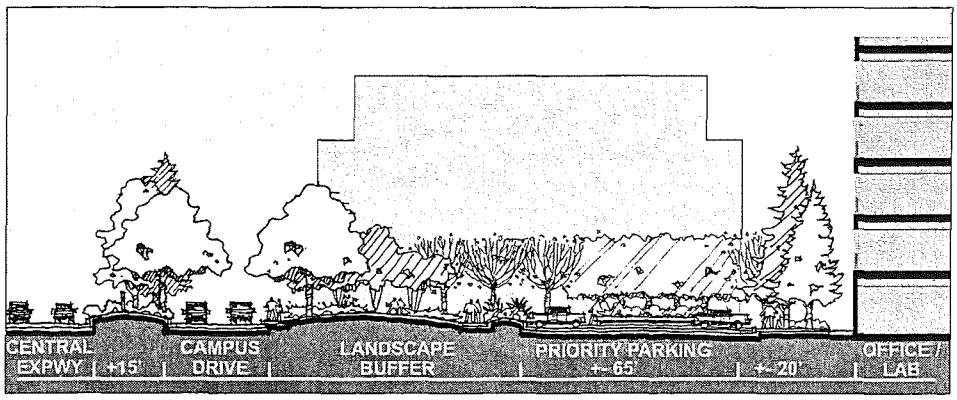


FIGURE 6.3
Section at Central Expressway Roadway Frontage

KEY PLAN





3. Campus Drive

   a) Planting of street trees and associated buffer and shrub planting along Campus Drive will enhance Arques Avenue site entry and set the standard for a consistent character throughout the interior of the site.

   b) Campus Drive will have a double row or grouping of canopy trees planted at the easternmost entry along Arques Avenue and a minimum single row of trees in all other locations, planted either as regularly spaced street trees or as groupings.

   c) A continuous concrete pedestrian sidewalk (five feet wide, minimum) will be provided on the campus side of the road where appropriate and as space permits.

   d) A densely planted buffer of evergreen trees and shrubs will be provided along the east property line. This buffer will vary in width at different points along the road as necessitated by the site plan and by the geometry of Campus Drive, but will maintain at minimum a 15-foot planted area.

   e) Campus Drive will be densely buffered along most of the southern edge of the site, adjacent to Central Expressway. However, at the entry plaza, the buffer will be less densely planted to permit filtered views into the plaza and southern portion of the campus. See Figures 6.4 and 6.5.

4. West Edge

   The existing landscaped buffer along the west side of the site will be retained and enhanced with supplemental planting where space permits.

FIGURE 6.4
Section at Campus Drive East Entry at Arques Avenue

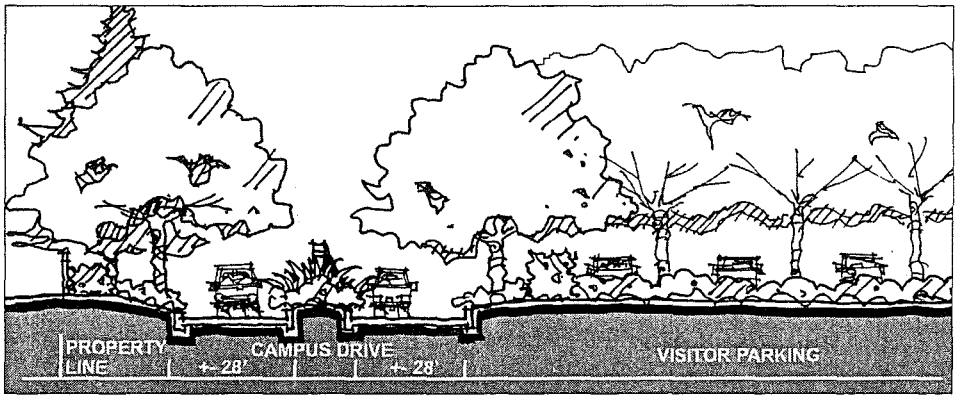
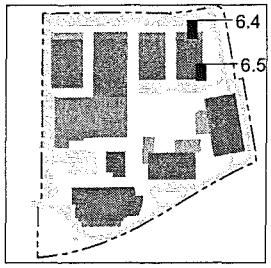
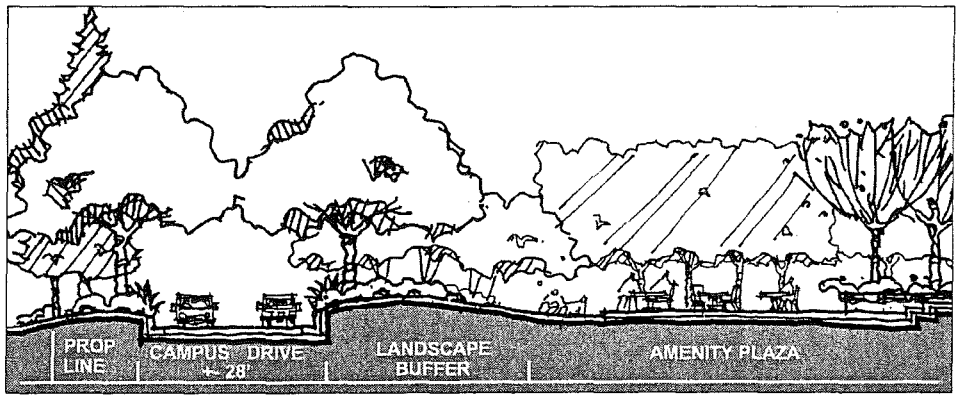


FIGURE 6.5
Section at Campus Drive and an Amenity Plaza along the East Property Line

KEY PLAN





6.2 CAMPUS ENTRIES

1. Arques Avenue Entries

   a) Vehicular entries along Arques Avenue will include special paving and landscaping treatments to establish a hierarchy of gateways into the campus.

   b) The easternmost entry onto Campus Drive from Arques Avenue will be a four-lane roadway, with a landscaped median. Median planting will include flowering shrubs or ground covers and will incorporate entry signage.

   c) The "Corporate Entry" at Arques Avenue will be enhanced with accent trees, seasonal color, and focal elements to create a strong visual presence and to signal the pedestrian gateway to the "Mainstreet" corridor. See Figure 6.6.

2. California Street Entry

   The California Street entry will be retained, with landscaping and/or signage added to indicate arrival to the campus.

6.3 PEDESTRIAN AND OPEN SPACE AREAS

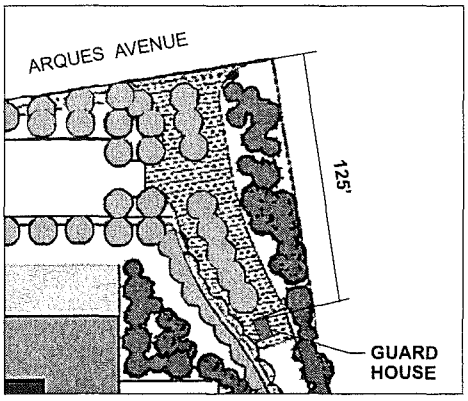
1. Central Commons

   a) The Central Commons, an approximately one-and-one-third acre multi-use lawn area, will be located at the center of the campus with a small surface for outdoor performances and campus-wide gatherings.

   b) The Central Commons will be framed by trees and arcades or trellises to define the space and provide shade for pedestrians. Scattered specimen trees may be located near the perimeter of the lawn area to provide shade and to serve as focal elements within the large space. See Figure 6.7.

FIGURE 6.6 (NEAR RIGHT)
Concept Plan of East Entry at Arques Avenue

FIGURE 6.7 (FAR RIGHT)
Central Commons Aerial Perspective



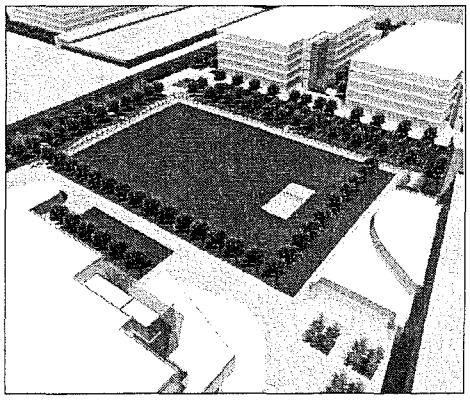
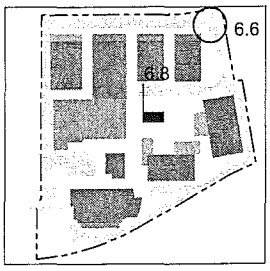
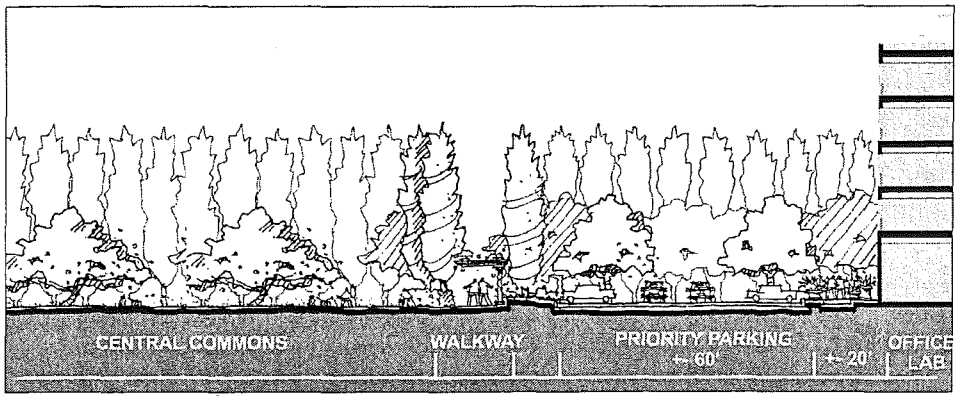


FIGURE 6.8
Section at Walkway between the Central Commons and Priority Parking

KEY PLAN





c) The Priority Parking area and the pedestrian "Mainstreet" will be separated from the Central Commons by shaded walkways and landscaping. See Figure 6.8.

2. "Mainstreet" and Other Pedestrian Pathways

a) Landscaped pedestrian walkways will be provided to connect open space areas and other campus destinations. The primary pedestrian spine will be the "Mainstreet," a continuous north/south walkway connecting Arques Avenue to the Technology Center.

b) The "Mainstreet" walkway will be 16 feet wide, while secondary walkways will be up to 8 feet wide. Walkway locations and dimensions will comply with the Americans with Disabilities Act and necessary emergency vehicle access requirements.

c) Trees along the "Mainstreet" and in hardscape areas such as plazas will be planted in regularly spaced rows or bosques to create a formal, campus landscape character and to reinforce the architectural character of the campus.

d) The "Mainstreet" and other major walkways will have frequent seating opportunities for informal meetings and for shaded rest.

e) Pedestrian walkways between buildings and open spaces will be sheltered with arcades or trellises to provide all-weather protection for pedestrians. Other walkways will be shaded by trees.

f) Pedestrian corridors between buildings will be formally planted with rows of trees and have pedestrian walkways. The ground plane (planting beds and ground covers) may be planted in a more naturalistic, informal manner. See Figures 6.9, 6.10, 6.11, and 6.12.

FIGURE 6.9 (NEAR RIGHT)
Section of the Pedestrian "Mainstreet" at North Entry

FIGURE 6.10 (FAR RIGHT)
Section of the Pedestrian "Mainstreet"

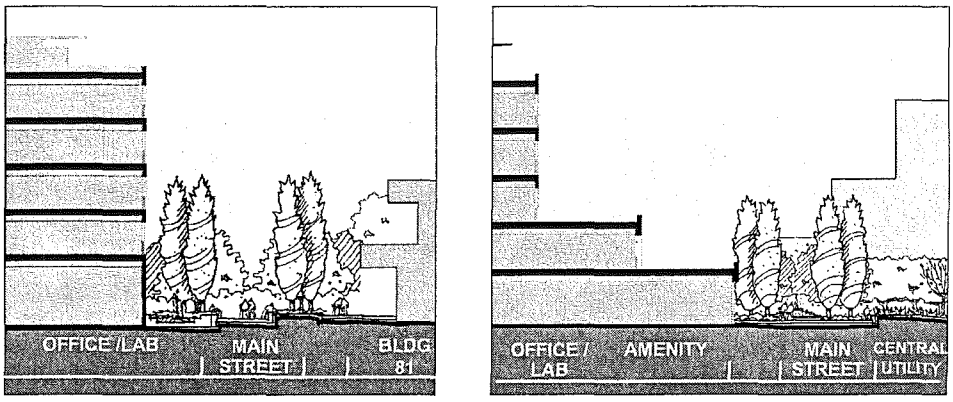
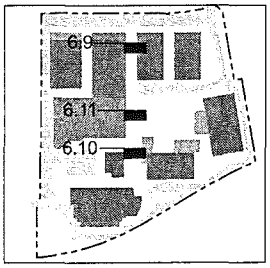
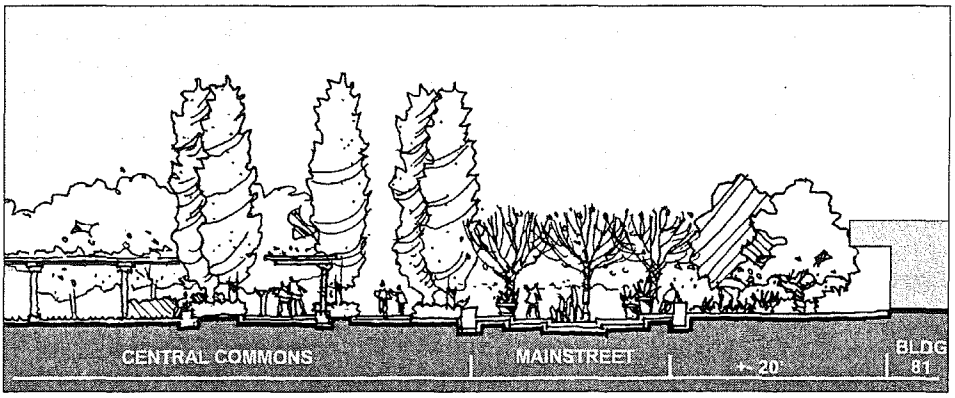


FIGURE 6.11
Section of the Pedestrian "Mainstreet" at the Central Commons

KEY PLAN





3. Courtyards and Amenity Plazas

a) Small courtyards/pedestrian gathering areas will be provided along the "Mainstreet" corridor and other appropriate locations throughout the campus. See Figure 6.1. Plazas, special entry treatments, or other special landscaped areas will be provided at each of the amenities described in the program.

b) Fountains or other water features may be provided as focal points to activate these important areas.

c) Specially colored and textured paving will be used to designate pedestrian courtyards, plazas, and building entries.

d) Attractive, durable site furnishings (benches, trash receptacles, planters, etc.) and other site amenities will be provided along pedestrian paths and within courtyards, plazas, or other pedestrian gathering areas.

4. Recreation Areas

a) Attractive, durable field equipment will be provided for outdoor sports activity areas, such as volleyball and basketball courts and exercise stations.

b) Final courtyard and plaza designs will be reviewed and approved by the Sunnyvale Director of Community Development.

6.4 PARKING AREAS

a) All surface parking areas will receive special landscape treatments to visually integrate these areas with the adjacent buildings and open space environment. All surface parking areas will be adequately landscaped to provide a shaded, visually buffered condition. See Figure 6.13.

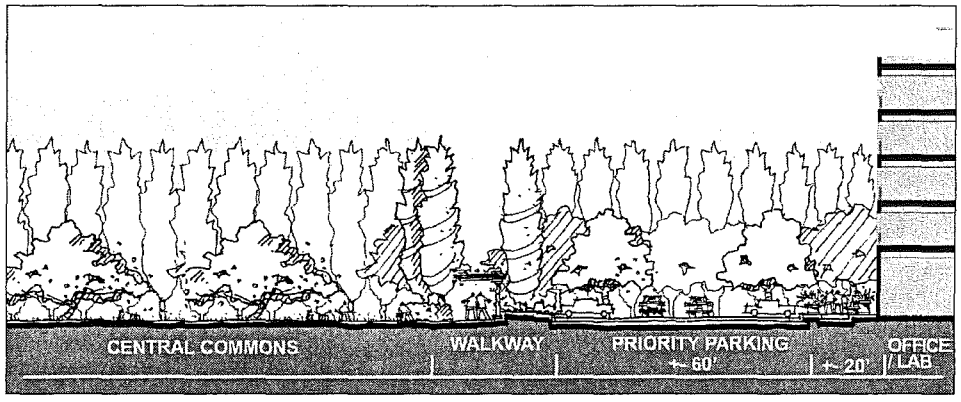


FIGURE 6.12
Section at the Walkway between the Central Commons and Priority Parking

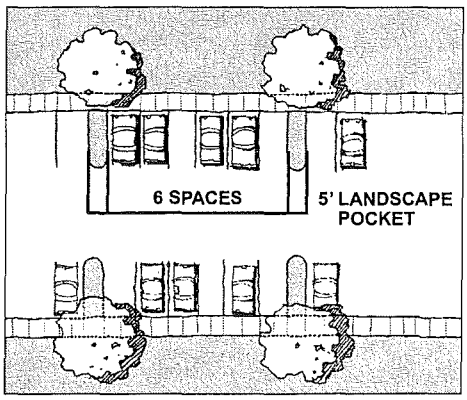


FIGURE 6.13 (NEAR RIGHT)
Typical Parking Orchard Layout

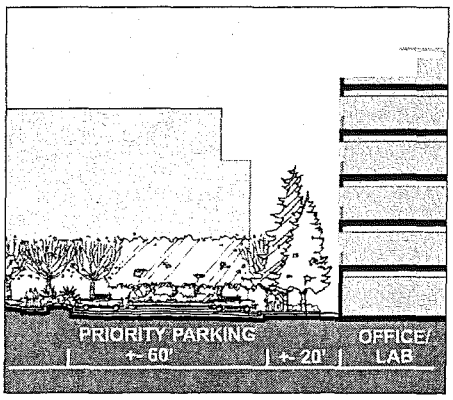
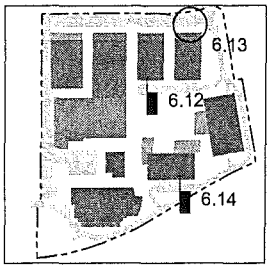


FIGURE 6.14 (FAR RIGHT)
Section at Priority Parking at Southern Office/ Prototype Lab Building

KEY PLAN



b) Surface parking areas will include pedestrian pathways designed to move pedestrians efficiently and safely from their automobiles to building entrances.

c) The Priority Parking areas will have a distinctive paving material to distinguish them from the standard surface parking. Five foot wide planting pockets will be located after every sixth space for all visitor and Priority Parking areas.

d) A landscaped planter, sidewalk, or other means of separation will divide driveways and parking stall rows.

e) Where a vehicle overhang extends over landscaping areas, the landscaped area will be increased two feet.

f) Tree locations will be coordinated with parking area luminaries to ensure that desired light levels are maintained.

6.5 GENERAL LANDSCAPE STANDARDS

a) Landscape plans will be prepared by a landscape architect registered in the State of California.

b) Landscaped areas along sidewalks containing trees will be a minimum width of four feet.

c) All new trees will be supported with at least two stakes to prevent wind damage. Tree stakes will be placed perpendicular to the prevailing wind direction.

d) Minimum tree container size will be 15 gallons except for Arques Avenue street trees, the "Mainstreet" promenade, and the Central Commons, which will have 24-inch boxes (minimum).

e) Low shrubs and large ground covers will be planted at a spacing that allows a uniform and dense coverage at maturity.

f) Berm plantings will be low water use or ground covers with mulch to minimize irrigation needs and control erosion. Plant material selection will be consistent with all local and state water use and conservation ordinances.

6.6 PLANT PALETTE

a) The plant palette reinforces the physical organization of the site, enhancing the campus identity. The palette has been chosen to complement the existing tree species. Existing tree species include: Canary Island Pine, Aleppo Pine, Coast Live Oak, Chinese Elm, Coast Redwood, Plane Tree, Ash, Olive, Magnolia, and Carob.

b) The tree palette delineates various site components and different use areas. A canopy shade tree, such as a London Plane, will be planted along the perimeter road and used along with Evergreen Ash for pedestrian walkways and parking areas. Smaller scale accent trees such as Japanese flowering cherries, carobs, and ornamental pears will highlight site and building entries and plazas. A mix of evergreens, such as cypress, eucalyptus, poplar, and redwood, will screen and reinforce east and south site boundaries. Some areas of the site perimeter along Central Expressway will be screened with a mix of deciduous and evergreen trees that permit views into the site at the "Corporate Window."

c) The plant palette may be amended with the approval of the City of Sunnyvale Community Development Director. Plant substitutions may be recommended for horticultural reasons, or following analysis of specific soil and microclimate conditions. See Table 6.1.

6.7 TREE PRESERVATION AND PROTECTION

a) There are approximately 446 trees of various species and size located throughout the Arques Campus (see Existing Trees Survey, dated September 9, 1998, located in the Appendix). The majority of trees are located within existing parking areas, along the East Arques Avenue and Central Expressway frontages and along the southeast perimeter of the campus.

b) The Land Use Master Plan anticipates removal of all trees located within and immediately adjacent to buildings and vehicular roadways. Trees located within pedestrian and landscape areas will be protected and incorporated into the landscape design to the extent feasible, subject to the recommendation of a certified Arborist.

c) Approximately 60 percent of the trees located around the perimeter of the campus (about 100 trees) are located within landscape areas and will be retained to the extent feasible. Within the interior of the Campus, approximately 37 percent of existing trees (about 103 trees) are located within future pedestrian and landscape areas. Approximately one-third of these trees are located within the existing parking lot at the location of the Central Commons and will likely require removal due to

TABLE 6.1
Approved Planting Table

Trees for Campus Drive, Pedestrian Walkways and Parking Areas	
Fraxinus uhdei	(Shamel Ash/Evergreen Ash)
Platanus acerifolia 'Yarwood'	(Yarwood London Plane Tree)
Platanus racemosa	(California Sycamore)
Populus nigra 'Italica'	(Lombardy Poplar)
Quercus agrifolia	(Coast Live Oak)
Quercus suber	(Cork Oak)
Trees for Buffers/Screens	
Aesculus californica	(California Buckeye)
Cedrus atlantica	(Blue Atlas Cedar)
Cedrus deodara	(Deodar Cedar)
Cupressocyparis leylandii	(Leland Cypress)
Eucalyptus rudis	(Swamp Gum)
Pinus canariensis	(Canary Island Pine)
Pinus pinea	(Italian Stone Pine)
Populus fremontii	(Fremont Cottonwood)
Populus nigra 'Italica'	(Lombardy Poplar)
Quercus virginiana	(Southern Live Oak)
Sequoia sempervirens	(Coast Redwood)
Accent Trees for Building and Site Entrances, Plazas, Pedestrian Walkways	
Ceratonia siliqua	(Carob/St. John's Bread)
Liquidambar styraciflua	(American Sweet Gum)
Melaleuca quinquenervia	(Cajeput Tree)
Prunus serrulata 'Kwanzan'	(Kwanzan Flowering Cherry)
Pyrus calleryana 'Aristocrat'	(Aristocrat Ornamental Pearl)
Shrubs	
Arctostaphylos densiflora	(Vine Hill Manzanita)
Buxus microphylla japonica	(Japanese Boxwood)
Callistemon, sp.	(Bottlebrush)
Ceanothus 'Joyce Coulter'	(Wild Lilac)
Ceanothus horizontalis 'Santa Ana'	(Wild Lilac)
Cistus salvifolius	(Sageleaf Rockrose)
Cistus purpureus	(Orchid Rockrose)
Coprosma repens	(Mirror Plant)
Cotoneaster lacteus	(Parney Cotoneaster/Red Clusterberry)
Escallonia rubra	(Escallonia)
Escallonia compacta	(Dwarf Escallonia)
Escallonia rubra	(Red Escallonia)
Grevillea 'Noellii'	(Grevillea)
Hebe 'Blue Elf'	(Blue Elf Hebe)
Lantana montevidensis	(Trailing Lantana)
Ligustrum japonicum	(Japanese Privet)
Nandina domestica	(Heavenly Bamboo)
Raphiolepis indica 'Clara'	(Pink India Hawthorne)
Raphiolepis indica 'Pink Lady'	(Pink Lady India Hawthorne)

damage during demolition of the parking lot, future grade changes, and conflicts with the proposed site plan.

d) A certified Arborist will be retained to complete a Tree Condition Report prior to protection and removal of site trees. The Tree Condition Report will assess each tree according to species, size, and condition.

e) The City of Sunnyvale defines a protected tree as any single tree 38 inches or greater in circumference, or any multi-trunk tree which has at least one trunk 38 inches or greater in circumference, or in which the measurements of the circumferences of each of the multi-trunks added together equal at least 38 inches. Tree circumference will be measured at 48 inches above grade.

f) When protected trees must be removed from the site, the minimum size for replacement of a protected tree will be at least a California Association of Nurserymen's standard 24-inch box size. Such trees will be replaced on a one-for-one basis. The mitigation requirements for trees on the site to be removed that are between 4 and 12 inches in diameter will be determined by the City's Arborist. Each tree will be inspected for structural integrity, general health, and the presence of insect or disease problems.

g) Replacement trees will be selected and purchased in advance and stored at the nursery to ensure a sufficient quantity of large, uniform specimens.

h) It is intended that all required mitigation planting will be done on-site. Existing trees that are healthy and in good condition will be saved wherever feasible.

i) Each tree displaced by the development process will be replaced. Existing trees that will not be removed will be protected during construction using tree preservation methods recommended by a certified Arborist.

6.8 IRRIGATION

a) All plant material will be irrigated by an automatic underground sprinkler or drip irrigation system. Water use will be low level, except at high-use areas.

b) Irrigation systems will be designed to provide adequate coverage while at the same time utilizing water-conserving methods. Irrigation design and maintenance will discourage over-spray and wasteful consumption.

c) All landscaping will conform to the general development standards and related ordinance requirements of the City of Sunnyvale.

d) Planting design will conform to the City's most recently adopted Water Efficient Landscape Ordinance and the City of Sunnyvale Municipal Code, as well as applicable State of California water use requirements.

e) All planted areas will utilize automatic irrigation systems with the ability to monitor and adjust individual planting zones.

6.9 LANDSCAPE MAINTENANCE

a) All required landscaping will be permanently maintained in a healthy and vigorous condition, free from weeds, trash, and debris.

b) Maintenance agreements may be necessary for certain stormwater quality management features. These will be identified when the final landscape plan is submitted.

6.10 PHASING OF LANDSCAPE IMPROVEMENTS

See Chapter 9, Implementation.

6.14 LIGHTING STANDARDS

Lighting is one of the landscape elements that contributes to the overall design character and cohesiveness of the campus. The intent is to establish a hierarchy of lighting for the project that clearly delineates different use areas while reinforcing a strong overall campus character.

1. Roadways

   Campus Drive lighting standards will meet Illuminating Engineering Society (IES) Standards.

2. Parking Lots

   Lighting for parking areas will provide adequate illumination for safe use of parking areas after dark. Parking lot lighting fixtures will be located to minimize obstruction or shading from landscape objects. Lighting will be designed to direct light down onto parking areas so as to not spill over into adjacent areas.

3. Pedestrian Walkways and Open Space

   a) A pedestrian-scale lighting fixture will be used along pedestrian paths, sidewalks, in plazas, and in open space areas to provide adequate illumination for pedestrian movement.

   b) Fixtures will be placed at regular intervals to provide continuous illumination for safe pedestrian movement.

   c) Bollard lighting fixtures may also be used to light pedestrian paths near parking lots and plazas and provide separation between pedestrian and vehicular circulation.

4. Lighting Associated with Buildings

   a) Lighting associated with buildings will be functional while highlighting building entries and architectural details. Overhead downlights are encouraged for building entries.

   b) Area lighting will be contained within service area boundaries and enclosure walls. Light spill-over outside service yards will be minimized. All lighting fixtures will enhance the architectural and landscape character of the campus as well as provide safe and efficient usage of the site after dark. Lighting standards and fixtures will meet energy efficiency requirements.

6.15 ARTWORK

The Arques Campus will incorporate a significant work of outdoor art visible to the public. This artwork assists in defining the Campus and provides an amenity. Additional artwork may be incorporated into plazas, building entries, courtyards, or other appropriate pedestrian areas. In addition to sculpture or other more conventional artistic expressions, campus artwork may include special site elements such as arbors, gates, walls, furnishings, water features, or other unique yet functional elements. The artwork will conform to the requirements of Title 19 of the City of Sunnyvale Zoning Code.

7. ACCESS CIRCULATION PARKING

7. ACCESS, CIRCULATION, AND PARKING

INTRODUCTION

This section describes the regional access to the Arques Campus, proposed transportation demand management programs, on-site circulation, and parking within the campus.

7.1 REGIONAL ACCESS

The Arques Campus is uniquely situated to provide direct regional access from U.S. 101 and Highway 237 to the north, and Central Expressway, El Camino Real (Highway 82), and Interstate 280 to the south. These regional connections are made by way of Wolfe Road and Commercial Street to the west and Lawrence Expressway to the east. The Caltrain station located off Lawrence Expressway between Reed Avenue and Central Expressway is approximately one-half mile from the Arques Campus. Applied Materials provides direct shuttle service between the campus and this commuter rail facility. See Figure 7.1 and Figure 7.2.

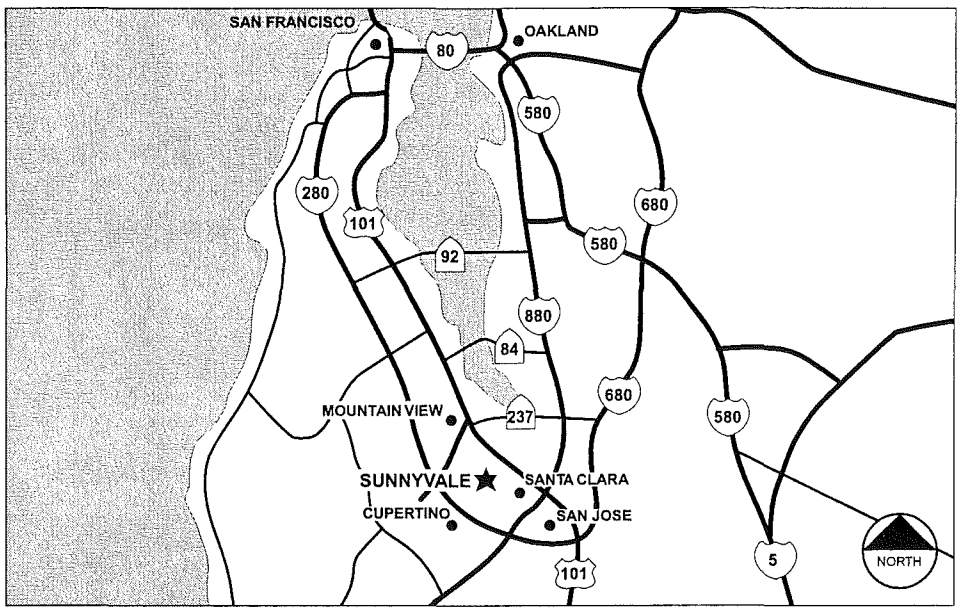


FIGURE 7.1
Regional Vicinity Map

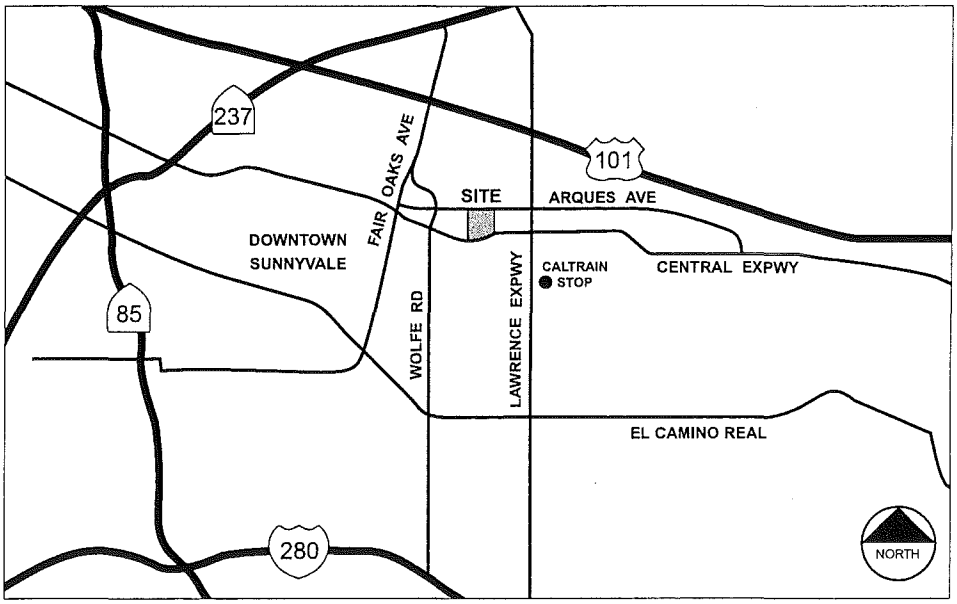


FIGURE 7.2
Site Location Map

7.2 OFF-SITE VEHICULAR CIRCULATION

A complete traffic impact analysis has been prepared to determine estimated local, sub-regional and regional traffic and circulation impacts of the project. An executive summary of the analysis is found in Appendix E.

7.3 ON-SITE VEHICULAR CIRCULATION

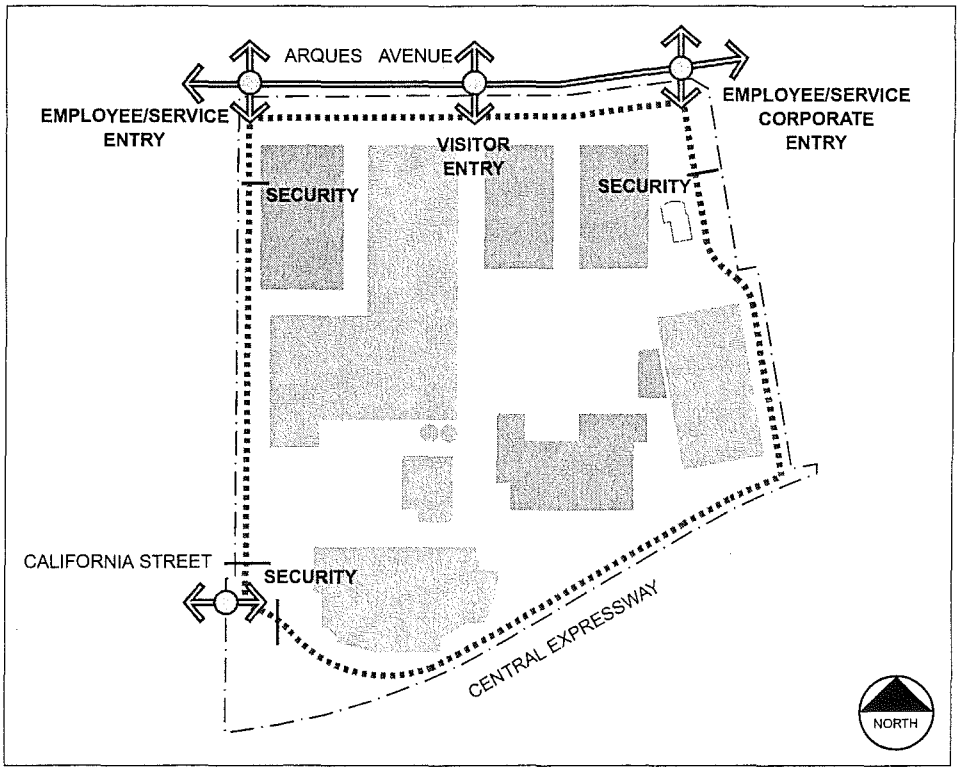
The campus is bounded on the north by Arques Avenue and on the south by Central Expressway. The primary access to the site is from Arques Avenue, the public "front door" of the campus. There are two employee/service entrances and one visitor entry. These entry points also act as visual gateways providing views into the site from Arques Avenue. The entry gateways are marked with special paving and landscape treatments, while parking areas are screened from public view with trees and shrubs to provide an attractive blending with the community.

Additionally, the employee/service entrance to the site at California Street receives westbound traffic from Central Expressway.

A private campus loop road (Campus Drive) provides access to all parking areas and drop-off points near main entries. Traffic calming devices, such as surface and color changes and speed bumps, are used throughout the project. The main "corporate" entrance and exit is designed with two entrance and exit travel lanes, along with a raised central median. This four-lane configuration will continue for a minimum distance of 125 feet from the Arques Avenue frontage. Past the 125-foot distance, the road will transition to a two-lane configuration with a 28-foot minimum width. The security guard station will be located at least 125 feet from Arques Avenue.

The other employee/service entrance from Arques Avenue exits has two lanes, and includes a queuing distance of 125 feet between the entrance point and the security guard station. The California Street guard station is located at the intersection of California Street and Campus Drive. See Figure 7.3.

FIGURE 7.3
Vehicular Access Diagram



7.4 ON-SITE PARKING

Parking is designed to serve three user groups:

- Employees,
- Emergency Response Team Members, and
- Visitors.

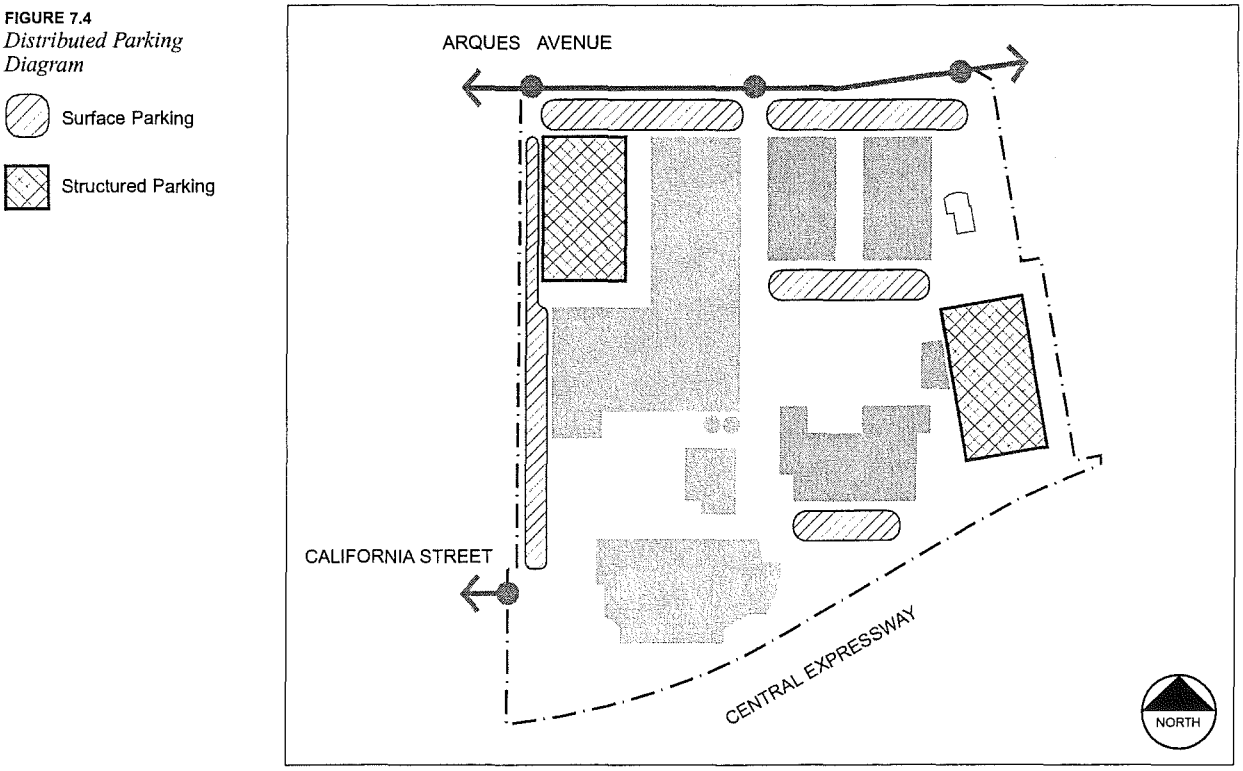
The employee parking is evenly distributed throughout the site. Parking garages on both the east and west portions of the site assist in dispensing traffic flows and allow queuing to take place on the site. Surface parking is equally dispersed to provide easy access to building entries. See Figure 7.4.

Priority parking areas have been established to provide a benefit to those employees who volunteer for the Emergency Response Team (ERT). The Priority Parking Areas are strategically located near main entrances to buildings. Where these areas adjoin the Central Commons, they are distinguished by special pavement treatment.

The visitor parking is distinguished by its location along the Arques Avenue frontage, outside the security gates. Visitors will be required to register inside the entry lobby to be located in the Office/Prototype Lab Building.

To monitor site access, there is a secured perimeter around the campus with a gatehouse at each of the three employee/service entrances.

FIGURE 7.4
Distributed Parking Diagram



1. Surface Parking

   All surface parking will receive special landscape treatment designed to complement the adjacent built and open space environments. Surface parking lots include pedestrian pathways designed to move pedestrians from their automobiles to building entrances efficiently and safely. See Figure 7.5.

   Surface parking lot designs will conform to the City's standards for parking stall width and depth, back-up spaces, and aisle widths.

2. Structured Parking

   In order to maximize the portion of the site that can be preserved as open space, the majority of campus parking will be located in two parking structures consisting of an existing facility of 1,300 spaces and a new facility of 1,300 spaces. The new parking structure will be located on the opposite side of the site from the existing parking structure in order to enhance circulation and convenience. The new parking structure will incorporate a non-parking component of Campus Training Rooms along the Arques Avenue frontage. This layer of meeting space will enhance the appearance of the building's facade along Arques Avenue. Additional screening will be incorporated in the design of the new garage, either by landscaping or architectural treatment. Pedestrian routes within the parking structure will be clearly designated. See Figure 7.6.

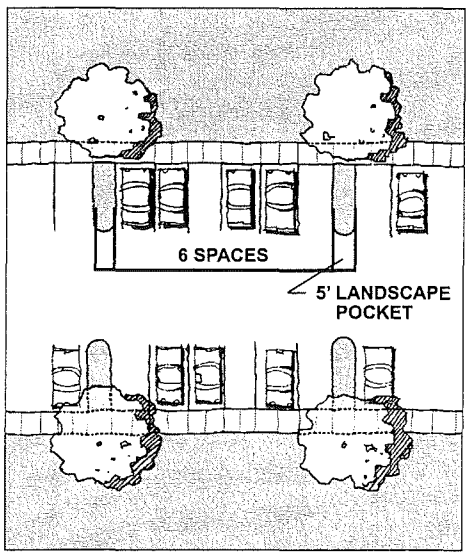


FIGURE 7.5
Surface Parking Diagram

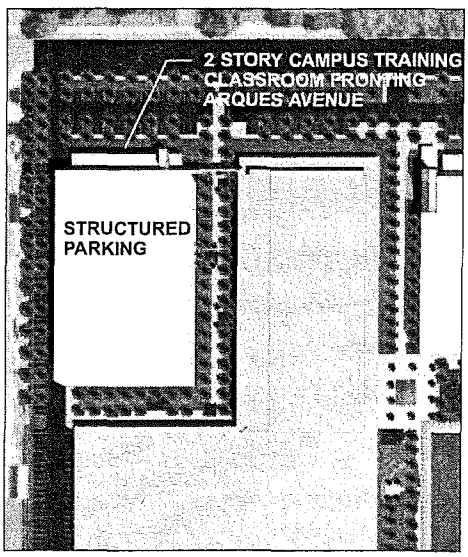


FIGURE 7.6
Structured Parking with Amenity Feature

7.5 CAMPUS PEDESTRIAN CIRCULATION

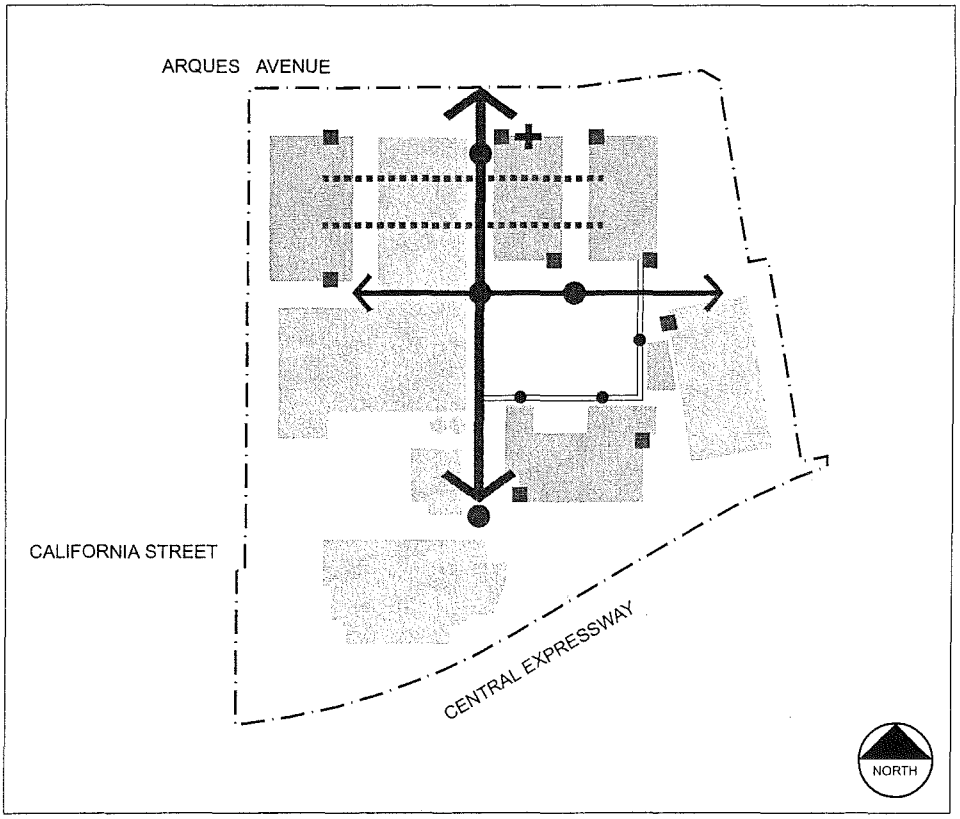
The Arques Campus Specific Plan organizes pedestrian circulation through use of a comprehensive network of walkways, which feeds off and ties into the Central Commons. See Figure 7.7. The purpose of the circulation system is to ensure:

- Orientation,
- Accessibility,
- Campus Cohesion, and
- Safety.

The Arques Campus pedestrian network features a "Mainstreet" promenade—a wide, paved pedestrian walkway that connects the entry plaza near Arques Avenue with the landmark Technology Center to the south. Circulation is designed to be safe, efficient, attractive, and varied. The pedestrian orientation facilitates access to all parts of the campus. Building elevator and stair lobbies are tied directly into the ground level pedestrian circulation system at the building entries. By linking the site circulation to the building circulation, a sense of the whole campus can be understood from any point within the site, creating a cohesive campus identity.

The "Mainstreet," protected from the weather by a canopy of trees, passes through a variety of outdoor gardens and provides a pleasant pedestrian environment. There is also a protected circulation route featuring a canopy of trees and/or a man-made element around the Central Commons that allows pedestrians to move comfortably between the office buildings and the parking garages. Safe lighting levels and clear visibility throughout the site establish a secure environment.

FIGURE 7.7
Campus Pedestrian Circulation Diagram



7.6 BICYCLE FACILITIES

As part of the overall circulation plan for the Arques Campus, bicycle racks will be installed at strategic locations throughout the campus. The number and location of bicycle racks will be shown on a Miscellaneous Plan Application (MPA) submittal. Employees will have access to on-site showers and other facilities to encourage bicycle use.

7.7 TRANSPORTATION DEMAND MANAGEMENT

The Arques Campus Specific Plan incorporates a Transportation Demand Management (TDM) program that includes a range of measures to reduce single-occupant vehicle use, including but not limited to: carpooling, vanpooling, public and/or private transit, bicycling, walking to work, alternative work hours, and telecommuting. See Appendix D.

FIGURE 7.8
Inter-Campus Shuttle

8. INFRASTRUCURE AND PUBLIC UTILITIES

8. INFRASTRUCTURE AND PUBLIC UTILITIES

INTRODUCTION

Public facilities, such as water, sewer, storm drainage, and utilities, must be provided to support site development, and integrated with the roadway system. This section of the Specific Plan details how this will be accomplished.

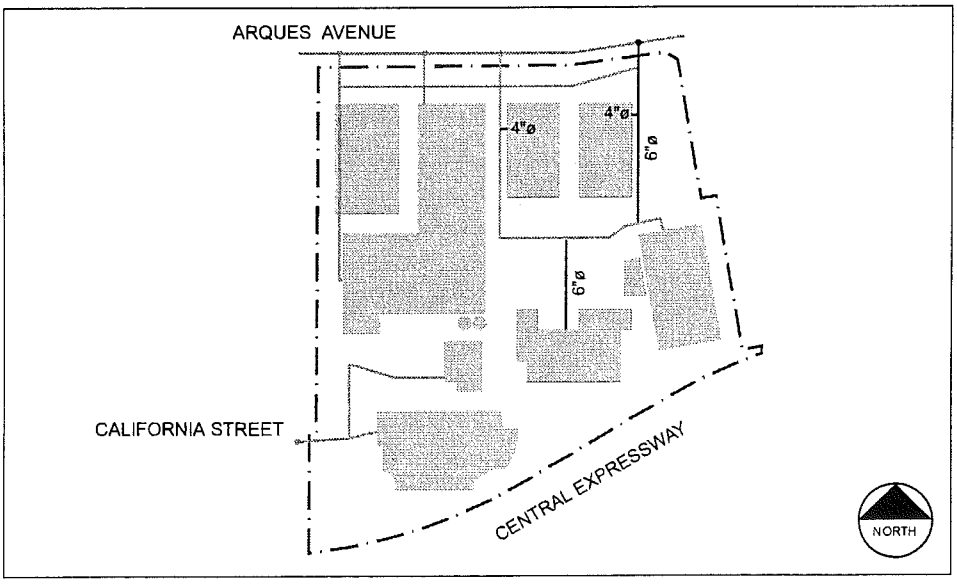
8.1 WATER SERVICE

The Arques Campus is located within the City of Sunnyvale water service area. City mains in Arques Avenue and California Street will supply domestic and industrial water. These mains have adequate capacity to serve the full project build-out.

- Projected domestic water demand is approximately 61,600 gallons per day (2800 people x 22 gallons per day per person).
- City mains and an on-site system of privately maintained tanks and pumps will provide adequate fire service.

Adequate water supplies are currently available to serve the type and amount of development programmed for the site at full project build-out. See Figure 8.1.

FIGURE 8.1
Proposed Water Service Diagram

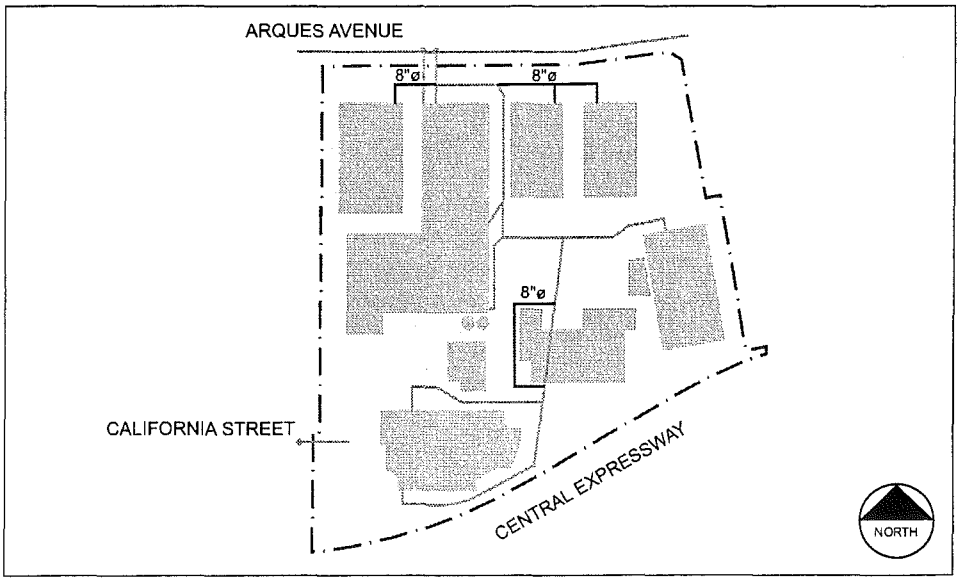


8.2 WASTEWATER DISPOSAL

The Arques Campus will generate approximately 371,900 gallons of wastewater (domestic and industrial) on a daily basis at build-out of the Specific Plan. Wastewater will be treated at the City of Sunnyvale Water Pollution Control Plant. The on-site wastewater lines will be designed with adequate capacity to serve the campus at full project build-out. The City of Sunnyvale wastewater lines in Arques Avenue are adequate to accommodate the future flows expected from the service area, but with less than 10 percent factor of safety. The City has prepared plans to modify the sanitary sewer system to increase trunk sewer capacity. The Arques Campus project will contribute to the cost of system improvements on a fair share basis. Wastewater treatment capacity presently exists for the proposed development. See Figure 8.2.

FIGURE 8.2
Proposed Wastewater Diagram

— New Service Line
— Existing Service Line



8.3 SOLID WASTE DISPOSAL

The proposed project is anticipated to generate a total of approximately 700 cubic yards (cy) of solid waste per month. This solid waste includes: 275 cy of compacted waste from the compactors, 250 cy of uncompacted waste from the cafeteria, 75 cy of uncompacted recycled wood pallets, and 100 cy of uncompacted wood pallets with non-wood materials attached. With implementation of a recycling program at the proposed project site, generation of solid waste by the project will be minimized. The capacity of the City of Sunnyvale's solid waste disposal system is adequate to accommodate the Arques Campus proposed development. A project specific recycling program will be prepared and approved by the City of Sunnyvale prior to the issuance of the first building permit for new construction.

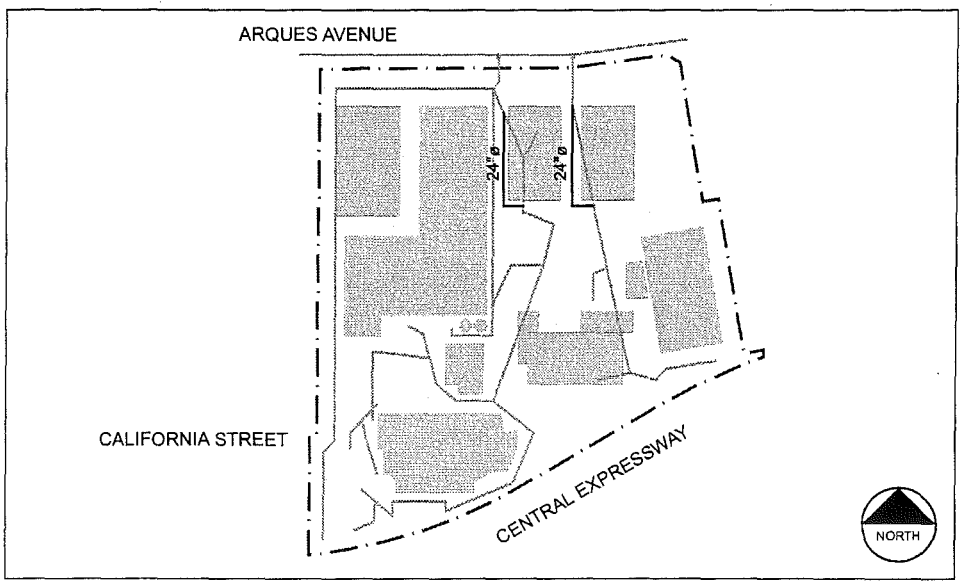
The Arques Campus will also generate hazardous wastes. The hazardous wastes will be controlled and monitored by the Owner's Hazardous Waste Management Plan and Hazardous Materials Management Plan.

8.4 STORM WATER DRAINAGE

The Drainage Plan for the project incorporates a backbone drainage system to collect and transport storm water from the site in a safe and efficient manner. New construction proposed as part of the Specific Plan is required to meet the National Pollutant Discharge Elimination System (NPDES) requirements as well as City Standards to ensure protection of surface water quality. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and approved prior to any site grading or construction pursuant to this Specific Plan. The on-site drainage system will be privately maintained. See Figure 8.3.

FIGURE 8.3
Proposed Storm Water Drainage Diagram

— New Service Line
— Existing Service Line



8.5 ELECTRICITY

The utility plan describes the system of electric distribution to the site. Adequate energy resources are available for the Specific Plan area from PG&E. See Figure 8.4.

8.6 NATURAL GAS

PG&E provides natural gas for the Specific Plan area. PG&E has adequate capacity for the proposed development. See Figure 8.5.

FIGURE 8.4
Proposed Electrical Service Diagram

— New Service Line
- - - Existing Service Line

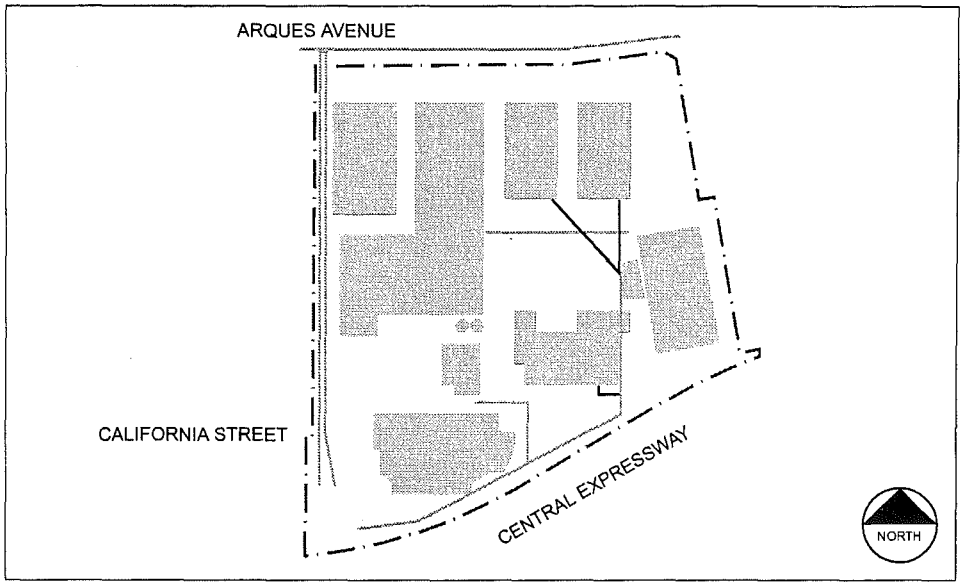
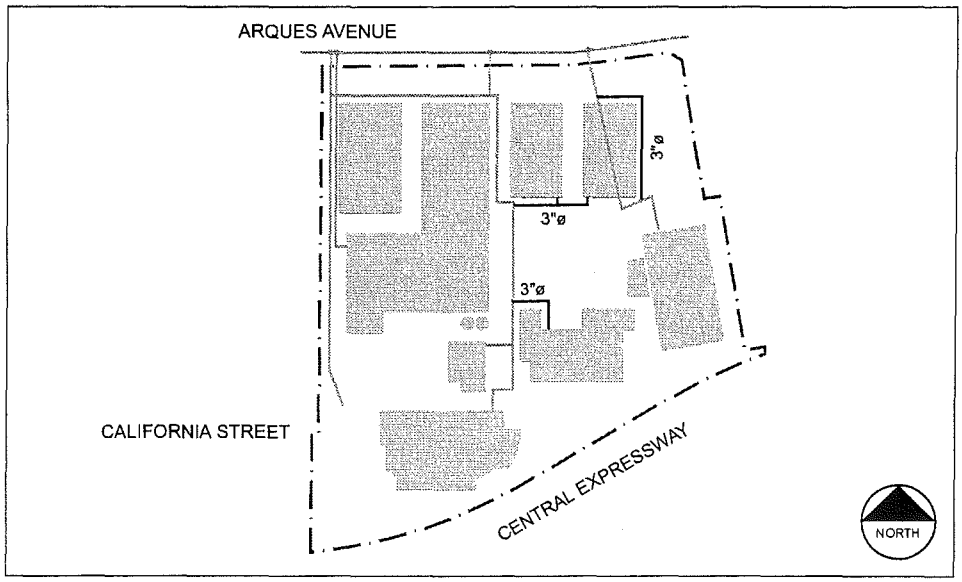


FIGURE 8.5
Proposed Natural Gas Service Diagram

— New Service Line
- - - Existing Service Line



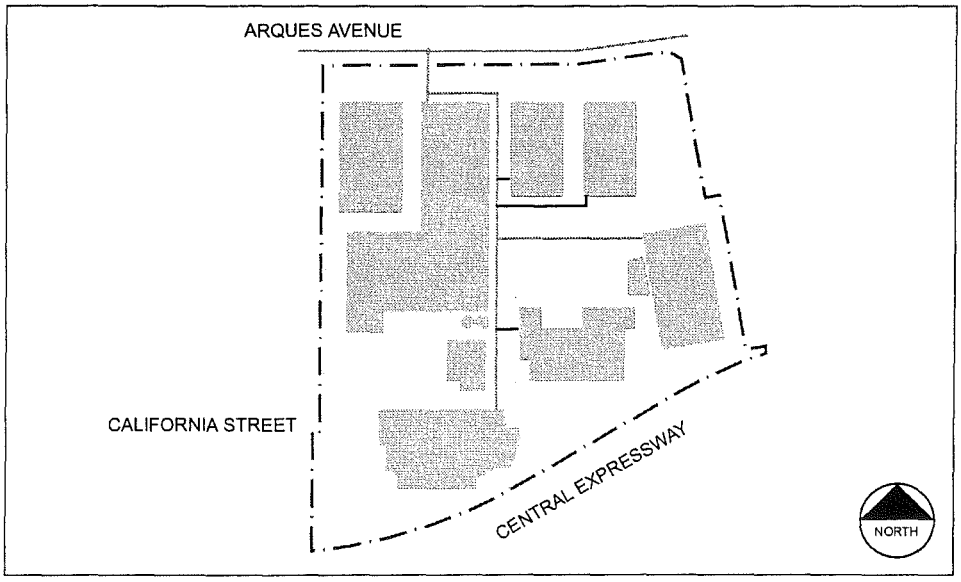
8.7 TELEPHONE

Pacific Bell will provide telephone service. Telephone facilities will be located within the street right-of-way. No overhead telephone facilities will be permitted. See Figure 8.6.

8.8 POLICE PROTECTION

The City of Sunnyvale's Department of Public Safety will continue to provide police and security services to the site. Future construction will comply with non-residential security requirements as may be imposed by the City as the project is implemented.

FIGURE 8.6
Proposed Telephone Service Diagram



8.9 FIRE PROTECTION

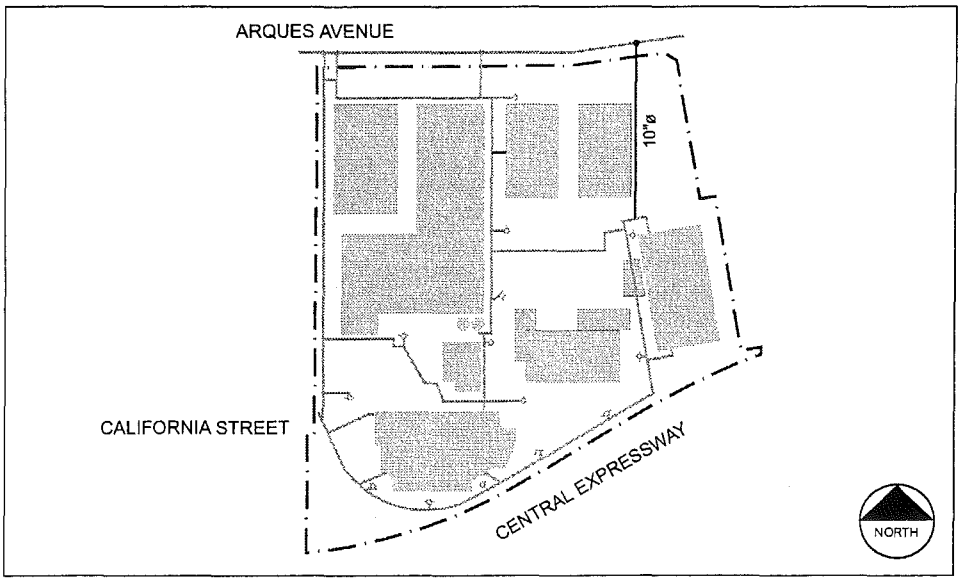
The City of Sunnyvale will continue to provide fire and emergency medical response services to the project site. Future development will comply with the latest Uniform Fire Code and Uniform Building Codes as well as other requirements for fire and life safety. See Figure 8.7.

8.10 MAINTENANCE

The Property Owner will maintain all on-site infrastructure improvements within the Specific Plan Arques Campus area except as follows:

- PG&E will maintain natural gas lines within the project site.
- PG&E and Enron will maintain project electrical facilities.
- Pacific Bell will maintain telephone facilities.

FIGURE 8.7
Proposed Fire Protection Service Diagram



9. IMPLEMENTATION

9. IMPLEMENTATION

INTRODUCTION

This section sets forth guidelines and direction for transforming the vision of the Arques Campus Specific Plan into reality. Topics covered include major and minor amendments to the Specific Plan, procedures for submitting and reviewing Site Plan applications and parcel maps, Design Review procedures, financing of improvements, phasing, and similar items.

9.1 AMENDMENTS TO THE SPECIFIC PLAN

Specific Plan Amendments require the review and approval of the City of Sunnyvale Planning Commission and City Council. Amendments are governed by Sections 65500 et seq. of the California Government Code. These sections specify public notification, public hearing and similar requirements. Specific Plan Amendments shall conform to all submittal, review and application fee requirements established by the City of Sunnyvale at the time such applications are made.

9.2 MINOR ADJUSTMENTS IN SUBSTANTIAL CONFORMANCE TO THE SPECIFIC PLAN

A substantial conformance process has been included to provide a mechanism for minor adjustments to the Specific Plan, subject to the approval of the Sunnyvale Director of Community Development. Under the substantial conformance procedure, the following are permitted:

1. Minor modifications of up to ten (10) percent for any numerical standard or requirement contained in Section 4.0, excepting permitted uses, building heights, and maximum building intensity. Minor modifications for setbacks or lot coverage may be approved by the Director of Community Development on an administrative basis when it can be found that approval of the request is consistent with the remainder of the Specific Plan.
2. Minor changes to the location of the central loop road and sizing and location of infrastructure improvements, so long as the prior approval of the Sunnyvale City Engineer, Sunnyvale Traffic Engineer, and any applicable service provider is first obtained.
3. Such other adjustments, modifications, or changes as are determined by the Community Development Director to be consistent with the intent and basic provisions of the Arques Campus Specific Plan.

9.3 SITE PLANS, SUBDIVISIONS, LANDSCAPE PLANS, AND IMPROVEMENT PLANS

All new buildings within the Arques Campus area, including building remodels and expansions, shall be subject to review and approval by the City of Sunnyvale. Site Plans and architecture shall be subject to review and approval as set forth in Section 9.4.

If the property owners desire to subdivide the site into smaller lots, a subdivision map shall be reviewed for approval by the City of Sunnyvale. Applications for subdivision maps shall conform to submittal requirements of the City of Sunnyvale and shall be reviewed in accordance with the review procedures in place at the time such submittals are made.

Following review and approval of a Site Plan, the applicant shall prepare building plans in conformance with the Uniform Building Code (UBC) as enforced by the City of Sunnyvale. Building permits shall be issued by the City when building plans are deemed consistent with the UBC and this Specific Plan, including Implementation Conditions (see Appendix E).

Precise improvement plans for utility and infrastructure extensions shall also be submitted for approval by the City following Site Plan approval. Minor modifications to approved plans, as well as landscaping, parking, and lighting plans, may be reviewed and approved by the Director of Community Development.

Following review and approval of a tentative subdivision map, the applicant shall prepare and file final subdivision maps in accord with the State Subdivision Map Act and City of Sunnyvale subdivision requirements.

9.4 DESIGN REVIEW

Concurrently with applications for Site Plans, applications shall also be filed with the Community Development Department for Design Review. Applications shall include the following:

1. Architectural elevations of all sides of all buildings
2. Floor plans of all buildings
3. Exterior wall sections
4. Exterior details of windows, doors, eaves, balconies, and similar features
5. Massing models or perspective drawings, if required by the Director of Community Development
6. Complete color and material board
7. Photographs showing streetscape of adjacent properties or areas.

Design Review applications are subject to review and approval by the Planning Commission following a public hearing. Planning Commission decisions may be appealed to the City Council.

Minor modifications to approved plans, as well as landscaping, parking, and lighting plans, may be reviewed and approved by the Director of Community Development.

9.5 IMPLEMENTATION CONDITIONS AND EIR MITIGATION MEASURES

The City of Sunnyvale requires that implementation of the Arques Campus Specific Plan comply with Implementation Conditions of project approval, which are included, in full, in Appendix E. Implementation Conditions also list all measures adopted as part of the certified Environmental Impact Report for the project to reduce environmental impacts.

9.6 TREE REMOVAL

Trees may be removed from the site only after obtaining a tree removal permit from the City of Sunnyvale in accordance with the provisions of Chapter 19.91 of the Sunnyvale Zoning Ordinance, Tree Preservation.

9.7 STORMWATER QUALITY MANAGEMENT

The project will comply with construction and post-construction Best Management Practices to promote surface water quality through stormwater management.

9.8 FINANCING OF INFRASTRUCTURE IMPROVEMENTS

It is anticipated that all of the necessary infrastructure and public services necessary to support the maximum amount of development on the Arques Avenue site will be provided and financed by the property owner. Improvements include extensions of water and wastewater lines, on-site drainage improvements, and extensions of telecommunications and energy facilities.

9.9 PHASING

The first phase of the Arques Campus transformation is currently underway with construction of the Technology Center and Parking Structure. The second phase, including the campus and building improvements contained within this Specific Plan, is to be constructed in two stages: an initial Stage I and a "build-out" Stage II. See Table 9.1. The timing of project implementation is flexible in order to accommodate the market uncertainties of the high technology industry. The proposed staging is an estimated sequence of development, based on anticipated business needs. Actual development needs may vary.

Stage I development involves construction of one of the three new 205,000 gsf Office/Prototype Lab Buildings planned for this campus. Construction of the Stage I Office/Prototype Lab Building, in turn, will trigger development of the pedestrian "Mainstreet"; the critical framework of the Central Commons, including landscaping of the ground plane; and landscaping improvements to the Arques Avenue frontage between the existing east primary entrance and the west site boundary. The relocation of the Campus Cafeteria will also be completed as part of Stage I.

Stage II will involve construction of the additional two 205,000 gsf Office/ Prototype Lab Buildings. The construction of these buildings will trigger the partial demolition of Building 81 to make way for the Parking Garage and Campus Training Rooms. It will also trigger the relocation of the entrance to Campus Drive to the far northwestern portion of the site. The relocation of the Campus Recreation Center and building of the Campus Conference Center may happen in either Stage I or Stage II depending upon which of the three new Office/Prototype Lab Buildings is constructed in Stage I. All other site improvements will be completed as part of Stage II. See Figure 9.1.

FIGURE 9.1
Proposed Arques Campus Master Plan

1. Building 81– Research Office/ Prototype Lab
2. Technology Center
3. Employee Parking Structure 1300 cars/6 levels
4. Amenity Buildings– Campus Cafeteria Campus Recreation Center Campus Conference Center Campus Training Rooms
5. Central Utility Building
6. Service Yard
7. Electrical Substation Yard
8. Visitor Parking (Surface)
9. Employee Priority Parking (Surface)
10. Employee Parking (Surface)
11. Employee Parking Structure 1300 cars/7 levels
12. Building 81– Area of demolition
13. Research Office/ Prototype Lab Building 2-5 levels
14. Central Commons
15. Pedestrian "Mainstreet"

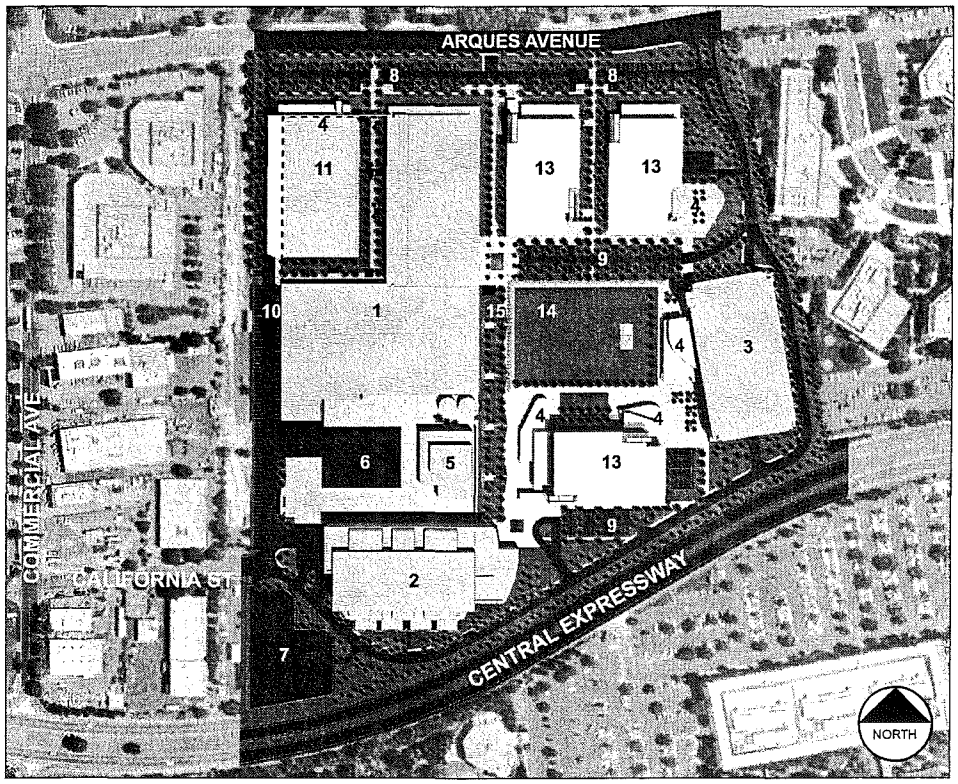


TABLE 9.1
Staging Summary

(For building locations, refer to Figure 9.1.)

BUILDING PROGRAM	Stage I (gsf)		Stage II (gsf)	Total Proposed (gsf)
Office/Prototype Lab	205,000		409,400	614,400
(Office/Prototype Lab—Partial B81 demolition)	0		(72,000)	(72,000)
Total Office/Prototype Lab Program	205,000		**337,400	542,400
Campus Cafeteria	20,000		0	20,000
(Campus Cafeteria—Partial B81 demolition)	(9,800)		0	(9,800)
Total Cafeteria Program	10,200		0	10,200
Campus Recreation Center	8,000	-OR-	8,000	8,000
(Campus Recreation Center—demolition)	(4,000)	-OR-	(4,000)	(4,000)
Total Campus Recreation Program	4,000	-OR-	4,000	4,000
Campus Conference Center	30,000	-OR-	30,000	30,000
Campus Training Rooms	0		7,000	7,000
Total Floor Area	215,200–249,200		345,000–379,000	593,600
Parking Spaces	(350)		1,300	950
ON-SITE IMPROVEMENTS				
Open Landscape/Space	Central Commons (50% Developed)		Central Commons (Fully Developed) Campus Edge Buffers (Fully Developed)	
Roadways	Arques Avenue Landscaped Frontage		Campus Drive (Relocate East Entrance)	
Walkways	Mainstreet (Fully Developed) Walkways immediately adjacent to development (Fully Developed)		All walkways (Fully Developed)	
OFF-SITE IMPROVEMENTS				
Road	See Traffic Impact Analysis		See Traffic Impact Analysis	
Sewer	Contributions to off-site upgrades		Contributions to off-site upgrades (if needed)	
Water	None Required		None Required	
Drainage	None Required		None Required	

** Includes two 204,700 gsf buildings minus 72,000 gsf demolition of existing Building 81

10. APPENDICES

APPENDIX A

LEGAL DESCRIPTION

REAL PROPERTY in the City of Sunnyvale, County of Santa Clara, State of California, described as follows:

Parcel A as shown on that certain Parcel Map filed in the Office of the Recorder of the County of Santa Clara, State of California on January 17, 1984, in Book 524 of Maps, pages 6 and 7.

APN: 205-36-006, 007, 008.

APPENDIX B

SUNNYVALE GENERAL PLAN GOALS / POLICIES MATRIX

The following is a comparison of the Arques Campus Specific Plan with the Land Use and Transportation Elements of the City of Sunnyvale General Plan.

TABLE B.1
Comparison Matrix

SUNNYVALE GENERAL PLAN GOAL / POLICY	ARQUES CAMPUS SPECIFIC PLAN
Goal R.1: Protect and sustain a high quality of life in Sunnyvale by participating in coordinated land use and transportation planning in the region.	The Specific Plan includes integrated land use and transportation planning prepared in coordination with regional transportation providers.
Policy R.1: Advocate City's interest to regional agencies that make land use and transportation system decisions that affect Sunnyvale.	The Specific Plan represents a project that Sunnyvale officials may use as a model to regional agencies.
Policy R1.2: Support coordinated regional transportation system planning and improvements.	The project applicant has agreed to participate in regional transportation system fee program.
Policy R1.3: Promote integrated and coordinated local land use and transportation planning.	The Specific Plan includes an integrated implementation section linking land use and transportation improvements.
Policy R1.4: Achieve an operating level of service E or better for all regional roadways and intersections.	A level of Service E will generally be achieved. Mitigation fees will be paid to offset traffic impacts to U.S. 101.
Policy R1.5: Preserve the option of extending Mary Avenue to the industrial areas north of U.S. 101.	The Arques Campus Specific Plan would not preclude the extension of Mary Avenue.
Policy R1.7: Contribute to efforts to minimize region-wide average trip length and single occupant vehicle trips.	The Specific Plan includes an aggressive trip reduction program for employees.
Policy R1.8: Support state, regional, and subregional efforts to provide an effective transportation system.	This policy is not applicable to the Arques Campus Specific Plan.
Policy R1.9: Support flexible and appropriate alternative transportation modes and TSM programs that reduce reliance on the auto and serve changing regional and city needs.	The Specific Plan incorporates a TSM program as an integral element of the Plan.
Policy R1.10: Support land use that complements the regional transportation system.	The types of uses allowed in the Specific Plan are consistent with the Sunnyvale General Plan land use designations and provide an increase in local employment. Local transportation improvements made under the auspices of the Specific Plan contribute to improving the regional and subregional transportation system.
Policy R1.11: Protect regional environmental resources through local land use practices.	One of the primary purposes for the Specific Plan is to congregate currently dispersed activities from around the region to a centralized location that has no identified significant environmental resources. This would avoid endangering significant environmental resources on other sites.
Policy R1.12: Protect the quality of life for residents and businesses by participating in discussions regarding future uses of Moffett Field.	This policy is not applicable to the Arques Campus Specific Plan.

APPENDIX C

EXISTING TREES SURVEY

See the attached fold-outs.

EXISTING PLANT LIST

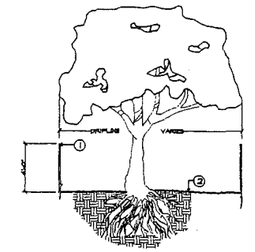
BOTANICAL NAME (COMMON NAME)

TREES.

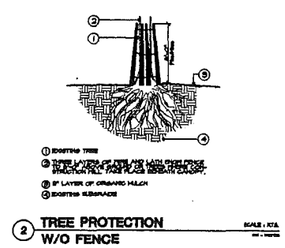
- Alnus rhombifolia (WHITE ALDER)
- Betula sp. (BIRCH)
- Cercis occidentalis (WESTERN REDBUD)
- Ceratonia siliqua (CAROB TREE)
- Dodonaea viscosa (HOPSEED BUSH)
- Heteromeles arbutifolia (TOYON)
- Eucalyptus species
- Fraxinus uhdei (SHAMEL ASH)
- Gleditsia triacanthos (HONEY LOCUST)
- Liquidambar styraciflua (AMERICAN SWEET GUM)
- Liriodendron tulipifera (TULIP TREE)
- Magnolia grandiflora (SOUTHERN MAGNOLIA)
- Olea europea (OLIVE)
- Pinus canariensis (CANARY ISLAND PINE)
- Pinus halepensis (ALEPPO PINE)
- Pinus radiata (MONTEREY PINE)
- Pistacia chinensis (CHINESE PISTACHE)
- Platanus acerifolia (LONDON PLANE TREE)
- Prunus sp. (FLOWERING CHERRY)
- Prunus lyonii (EVERGREEN PEAR)
- Schinus terebinthifolia (BRAZILIAN PEPPER)
- Sequoia sempervirens (COAST REDWOOD)
- Quercus agrifolia (COASTAL LIVE OAK)
- Ulmus parvifolia (CHINESE ELM)
- Ulmus pumila (SIBERIAN ELM)

LEGEND

- EXISTING TREE REMOVED
- EXISTING TREE TO REMAIN AND PROTECTED BY FENCE.
- EXISTING TREE TO REMAIN AND PROTECTED W/O FENCE.



① TREE PROTECTION WITH FENCE SCALE: N.T.S.



② TREE PROTECTION W/O FENCE SCALE: N.T.S.

N

0' 15' 30' 60' 120'

APPLIED MATERIALS

Arques Campus – Sunnyvale, California

DATE: 9/10/98

MASTER PLAN - TREE SURVEY AND PROTECTION PLAN

GRAEBER • HATHAWAY • OBAYASHI

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TREE SURVEY

Tree No.	Species	±Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"- in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
1	Canary Island pine	5.5	90	None.				
2	Canary Island pine	5.7	75	Poor structure. Prune (remove the secondary trunk).				
3		6.9	95	None.				
4		1.9	85	None				
5	Southern magnolia	5.3	80	Recently pruned.				
6		5.4	90					
7	Aleppo pine	10.8	75	Leans.				
8		3.9	70	Restricted by the cyclone fence. Leans.				
9	Canary Island pine	8.8	90	None.				
10	Southern magnolia	4	85	Recently pruned.				
11	Canary Island pine	6.3	50	Top broke out. Replacement is advised.				
12		5.8	50	None.				
13	Southern magnolia	5.6	85	None.				
14	Aleppo pine	2.8	90	Too close to Tree No. 15.				
15	Monterey pine	4.5	90	See No. 14, above.				
16		6.7	70	Poor architecture, will interfere with Tree No. 15. Removal is advised.	●		●	
17	Southern magnolia	5.4	80	Basal wound, treated.				
18		8.9	90	None.				
19	Coast live oak	3.6	80	None.				
20		6	85	None.				
21		5.7	90	None.				
22		6.3	90	None.				
23	Canary Island pine	3.4	85	Leans. Competition with No. 24. Removal is suggested.		●		
24	Hoo kouh Endemanni	14.9 (3.7, 3.8, 4.2, 3.8	40	Black scale, trunks damage. Prune and spray.				●
25	Canary Island pine	6.2	85	Remove the ivy from the trunk.				
26		6.5	75	Remove the stakes and the girdling ties.				
27R	Coast live oak	4.4	75	Crossing limbs, Excessive growths.				
28		4.2	75	Will compete with No. 29. Cut back and relate as an understory tree.				
29	Canary Island pine	8.4	95	See No. 28.				
30		6.8	85	None.				
31	Coast live oak	7.2	60	Dying. Chlorotic. High soil chloride suspected. Removal is advised.	●		●	
32	Canary Island pine	5.6	90	None.				
33		6.3	85	None.				
34	Coast live oak	4.8	80	See No. 31.	●		●	
35	Canary Island pine	6.8	90	None.				
36	Coast live oak	1	90	None.				
37	Aleppo pine	15.8 (3.3, 10.5)	75	Co-dominant trunks.			●	
38		9.9	80	None.			●	
39		6.6	75	Poor architecture. Require pruning.			●	
40		9.3	75	Poor architecture. Require pruning.			●	
41	Coast live oak	8.1	80	None.			●	
42		6.8	70	Poor architecture. Bleeding canker.				
43		9	85	None.				
44	Canary Island pine	10.7	85	None.			●	
45	Coast live oak	1	90	Single canary with No. 44			●	
46		12.1	90	See No. 45.				●
47	Canary Island pine	8.8	80	None.			●	
48		7.8	80	None.			●	
49	Coast live oak	8.1	80	Codominant top.			●	
50	Canary Island pine	8.8	80	None.			●	
51		8.9	85	None.			●	
52		10.2	85	None.				
53		9.2	90	None.				
54	Aleppo pine	8.2	90	Slight lean.				
55		2	0	Dead tree.	●	●		
56	Live oak	7	80	Codominant top.				
57		6	80	Prune.				
58	Brazilian pepper	2.2	50	Poor form. Remove.	●	●		
59	Liquidambar	2.8	75	Prune.				
60	Tarpa	3.7	80	None.				
61	Live oak	3.2	80	Remove stakes.				
62	Canary Island pine	5.3	80	None.				
63		4	85	None.				
64		7.3	93	None.				
65		7.2	90	None.				
66		6.7	95	None.				
67	Live oak	8.8	75	Slightly poor structure.				
68		9.4	70	Poor structure. Girdling limbs.				
69	Canary Island Pine	5.7	60	Thin.				
70	Siberian elm	9.1 (1.0, 3.3, 1.8, 4.4, 4.8	60	Sprouts from old stump.	●			●
71	Canary Island pine	5.7	90	None.				
72		7.6	90	None.				
73	Shamel ash	10.3 12.2, 2.5, 2.6, 3.01	50	Sprouts. Remove tree.	●		●	●
74	Hop tree	6.8 3.8, 1.7, 3.3)	70	None.				
75	Shamel ash	5.8 4.7, 1.8, 2.3	50	Sprouts. Remove tree.	●		●	
76		3.9	75	Stability poor top structure.				
77	Honey locust	5	70	Lighter.			●	
78	Aleppo pine	8.5	70	Girdling (root, poor form. Thin.				
79		9.0	70	Poor crotch.				
80	Shamel ash	3.2	80	Poor structure. Remove tree.	●		●	
81		10.1	65	Poor structure. Remove tree.	●		●	
82	Live oak	6.2	85	Cross rot. Limit water at trunk. Possible removal.				
83		10.3	65	Chlorotic. Possible alkali soil.				
84	Shamel ash	5.3	60	Poor structure. Topped.				
85	Live oak	7.1	80	None.				
86	Ash	6.2	70	Poor form.				
87	Live oak	8.1	80	None.				
88	Ash	2.0	40	Dead trunk, basal sprouts. Remove tree.	●	●		
89	Aleppo pine	12.8	60	Deformed trunk.	●			●
90	Honey locust	3.0 2.4, 1.61	80	Double trunk. Remove.	●	●		
91	Aleppo pine	10.2	70	Leans.				
92		12.0	60	Severe lean. Nice canopy.				
93		8.0	45	Horizontal lean. Remove tree.	●		●	
94		7.8	60	Girdling roots, lean. Poor structure. Nice canopy.				
95	Honey locust	6.2 3.8, 2.1, 2.3	60	Poor structure. Can remain.				
96	Live oak	3.0	0	Dead.	●	●		
97		8.2	80	Chlorotic. Tie dieback. Soil problem, fertilize.				
98	Ash	6.3	60	Thin to help offset poor crotches.				

TREE SURVEY

Tree No.	Species	±Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"- in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
99	Live oak	5.7	30	Severe chlorosis. Remove.	●		●	
100	Ash	6.5	60	See No. 98.			●	
101	Live oak	4	10	Severe chlorosis, nearly dead. Remove.	●		●	
102		10.8	65	Slightly chlorotic. Fertilize.				
103	Ash	2.5	60	Dead trunk. Other trunk is a sucker.				
104	Carob	6.8	70	Tie dieback.				
105		6.3	75	None.				
106		4.8	50	Chlorotic. Fertilize. Poor form, trunk centers.				
107	Aleppo pine	9.5	60	Leans, girdling roots.				
108		13.2	60	Leans, girdling roots.				
109	Chinese elm	13.9 9.1, 1.3, 1.5, 2.0, 6.01	50	Valuelaver sprouts.	●			●
110	Ash	8.8	60	Poor upper form. Many sprouts. Thin.				
111		8.9 12.4, 2.7, 5.8	60	Poor form and structure.				
112		5.2 3.7, 3.5)	50	Remove.	●		●	
113		3.4 (3.8, 5.2)	50	Remove.	●		●	
114	Live oak	2.8	20	Nearly dead. Remove.	●	●		
115	Ash	5.8	90	Poor structure.				
116	Live oak	5.8	20	Nearly dead. Remove.	●		●	
117	Ash	3.2	60	None.				
118	Monterey pine	7.7	60	Slightly deformed trunk. Scale- spray.				
119	Tarpa	2.1	70	None.				
120	Ash	3.8	60	Leans.				
121		4.7	60	Leans.				
122	Aleppo pine	12.6	70	Leans. Thin.				
123	Chinese elm	9.8 12.7, 3.3, 3.48	70	Multiple trunks. Prune.			●	
124	Ash	3.7	70	None.				
125		6.3	65	Poor structure.				
126		1.9	50	Remove.	●	●		
127		4.5	65	Prune to help offset poor structure.			●	
128	Canary Island pine	10.1	90	None.				
129		10.8	88	None.				
130		9.8	85	None.				
131		12.1	85	None.				
132		10.8	85	None.				
133	Honey locust	3.4	70	None.	●	●		
134	Honey Locust	8.0	70	Thin.				
135	Canary Island pine	10	80	None.				
136		10.2	70	Trunk bend.				
137	Tarpa	9.2 2.4, 2.3, 2.6, 2.8	80	None.				
138	Myoporum	14.0 (2.6, 2.8, 3.3, 3.5, 3.8	70	Prune.				
139	Live oak	6.1	20	Severe chlorosis. Restore.	●		●	
140	Canary Island pine	8.7	70	None.				
141	Live oak	5.8	30	Chlorosis. Remove.	●		●	
142	Canary Island pine	9.1	80	Double top. Remove north top.				
143	Live oak	7.8	70	None.				
144	Honey locust	4.8	70	None.				
145		7.0	70	Prune.				
146	Live oak	8.9	60	Slight asbestos. Fertilize.				
147	Canary Island pine	10.8	90	None.				
148		8.2	70	Leans.				
149		7.8	90	Double trunk. Remove northerly top.				
150		10.4	90	None.				
151		13.5	95	Clear light.				
152		10.8	90	None				
153		10.0	90	None				
154		8.3	90	None				
155		7.7	75	None				
156		8.1	90	None				
157		9.7	90	None				
158		10.8	90	None				
159		8.8	90	None				
160		9.8	75	Trunk bend.				
161		8.8	90	None.				
162		10.4	75	Trunk bend.				
163		12.8	85	None.				
164		7.9	70	None.				
165		1.8	68	Trunk bend.				
166		10.9	90	None.				
167		12.8	85	None.				
168		9.4	90	None.				
169		9.8	80	None.				
170		6.9	80	None.			●	
171	Ash	13.7	65	Poor structure.	●			●
172	Canary Island pine	9.2	85	Slight lean.			●	
173		8.6	88	None			●	
174	Ash	7.2	75	None.			●	
175		5.9	70	Thin.			●	
176	Canary Island pine	8.3	90	None.			●	
177	Western redbud	Multi	90	None.			●	
178	Canary Island pine	10.7	95	None.			●	
179	Ash	13.8	75	Fair structure. Prune.				●
180		10.3	75	Fair structure. Prune.			●	
181		3.9	60	Remove.	●	●		
182		8.1	70	Fair structure. Prune.			●	
183	Canary Island pine	8.1	90	None.			●	
184		12.5	90	None.				●

TREE SURVEY

Tree No.	Species	±Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"- in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
185		3.5	70	Top dieback.			●	
186		3.7	90	None.			●	
187		10.9	90	None.			●	
188		9.9	90	None.			●	
189		8.3	85	None.				
190	Ash	3.5	75	None.				
191	Canary Island pine	9.5	85	None.				
192	Ash	1.8	70	Thin.			●	
193		7.2	70	None.			●	
194		6.0	70	None.			●	
195	Canary Island pine	5.4	90	None.				
196		5.1	90	None.				
197	Western redbud	Brave	90	None.			●	
198	Canary Island pine	9.8	90	None				
199		8.4	70	Stressed. Fertilize				
200		9.2	85	None.				
201		7.3	65	Double top. Shelled. Fertilize.				
202		10.3	85	None.				
203		12.6	85	None.				
204	Flowering cherry	3.9	85	Remove stakes.				
205		2.9	85	Leans. Remove stakes.				
206	Ash	13.3	75	Thin, poor structure. Top at sprouts.				●
207		13.1	75	Thin, poor structure. Top at sprouts.				●
208		10.1	70	Thin, poor structure. Top at sprouts.			●	
209		14.8	75	Thin, poor structure. Top at sprouts.				●
210		5.8	80	None.			●	
211		4.7	80	None.			●	
212		15.5	55	Obscures light. Poor structure. Thin and clear light.				●
213		5.3	75	None.			●	
214		16.4	75	Severe surface roots. Poor structure. Thin.				●
215	Honey locust	3.5	70	Leans.		●		
216	Ash	10.3	55	Poor structure. Thin.			●	
217		1.5	55	Poor structure. Thin.			●	
218		14.5	65	Poor structure. Thin. Surface roots.				●
219		3.8	40	Remove.	●	●		
220		13.0	65	Poor structure. Thin.				●
221		12.8	65	Poor structure. Thin.				●
222		7.2	75	None			●	
223		8.9	65	Poor structure. Thin.			●	
224	Honey locust	5.1	75	None.			●	
225		4.7	75	None.				
226	Ash	8.4	60	Poor structure. Thin.			●	
227		7.4	65	Poor structure. Thin.			●	
228		15.6	60	Very poor structure. Surface roots. Thin.				●
229	Honey locust	5.6	75	None.			●	
230	Chinese pistache.	3.7	80	Wood wacker damage.		●		
231		3.9	80	None.		●		
232		3.2	70	Girdling root. Wood wacker damage.		●		
233		5.1	80	Wood wacker damage.			●	
234		3.6	80	None.		●		
235		3.1	70	Thin. Wood wacker.		●		
236		3.4	70	Leaning.		●		
237		5.5	80	None.			●	
238		3.1	70	None.		●		
239		3.3	70	Sapsucking on trunk.		●		
240		4.9	80	None.			●	
241		6.8	70	Unbalanced. Needs thinning.			●	
242		4.4	70	Thin.			●	
243		8.4	70	None.			●	
244		5.2	70	Girdling roots.			●	
245		5.3	70	None.			●	
246		7.2	60	Dieback.			●	
247		6.7	70	None.			●	
248		5.8	65	Girdling roots.			●	
249		7.0	70	Thin.			●	
250	Cherry	3.9	60	Gummosis at base.		●		
251		5.4	70	None.			●	
252	Cherry	3.6	70	None.		●		
253		6.0	70	Shallow roots in turf.			●	
254		3.3	70	None.				
255		3.6	70	Girdling roots.		●		
256		2.8	70	None.		●		
257		3.7	70	None.		●		
258		4.2	70	None.			●	
259		4.1	70	None.			●	
260		4.8	70	None.			●	
261	Aleppo pine	2.5	60	Remove stakes.		●		
262		2.8	60	Leaning.		●		
263		4.2	70	None.			●	
264		4.8	65	None.			●	
265		5.1	60	Leaning.			●	
266		6.9	70	None.			●	
267	Canary Island pine	6.3	65	None.			●	
268		5.9	85	None.			●	

APPLIED MATERIALS

Arques Campus – Sunnyvale, California

DATE: 6/10/88

MASTER PLAN - TREE PROTECTION AND REMOVAL MATRIX 1

GRAEBER • HATHAWAY • OBAYASHI

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TREE SURVEY

Tree No.	Species	±Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"+ in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
269		5.6	90	Chlorotic.			●	
270		6.9	90	None.			●	
271		9.0	85	None.			●	
272		9.7	85	None.				
273		12.5	90	None.				
274		9.7	90	None.				
275	Canary Island pine	7.7	90	None.				
276		10.6	90	None.				
277		8.5	90	None.				
278		10.8	90	None.				
279		9.0	90	None.				
280		9.7	85	None				
281		10.8	85	None.				
282		7.4	85	None.			●	
283		8.6	85	None.				
284		7.3	75	Remove stake.				
285		10.5	75	None				
286		6.3	75	None.				
287		6.4	75	Remove stake.				
288	Olive	40.1 (6.2, 7.0, 7.1, 9.8, 9.9)	75	Recently stabbed.				
289		37.7 (7.2, 8.5, 10.3, 8.7)	75	Recently stabbed.				
290	Western redwood	10.4	90	None.				
291	Birch	7.5	90	None.				
292		6.8	70	Upper limb out.				
293		6.5	70	Slight lean.				
294	Olive	32.4 (5.3, 8.5, 10.3, 8.7)	75	Recently stabbed.				
295	Magnolia	5.2	90	None.				
296	Liquidambar	12.3	85	Prune.				
297	Tulip	8.1	85	Possible aphid problem.				
298	Siberian elm	73.2 (13.4, 9.0, 12.0 12.8, 14.0, 20.0)	45	Tip dieback, green pale leaves, heavy poorly attached limbs, Recommend removal.	●			●
299	Redwood	28.1	90	None.				
300		52.6 @ 24"	85	Forks at 6'. Remove the 2 smaller secondary trunks.				
301	Red ironbark eucalyptus	19.2	80	Poor structure. Prune. Foliage a bit.				
302	Eucalyptus red-spotted gum	18.8	80	Leans. Past freeze damage.				
303		8.8	70	Leans. Past freeze damage.				
304		19.0 (7.7, 8.2)	80	Leans. Past freeze damage.				
305	Tulip	4.4	80	None.				
306		4.1	75	None.				
307	Eucalyptus red-spotted gum	18.8 (4.2, 7.6)	80	None.				
308		12.1	40	Significant dieback. Remove tree.	●			●
309	Tulip	6.9	70	Slight lean.				
310	Siberian elm	22.0 @ 24"	75	Slime flux. Remove.	●			●
311	Tulip	18.8	75	Trunk bent.				
312	Alder	7.7	60	Chlorotic. Fertilize.				
313		4.2	60	Chlorotic. Fertilize.				
314		7.3	75	Slight lean.				
315		7.0	75	Slight lean.				
316		12.9 @24"	75	Slightly poor structure.				
317		8.4	70	Leans. Poor structure. Prune.				
318		10.3 (6.8, 8.8)	70	Leans. Poor structure. Prune.				
319		17.7	70	Leans. Poor structure. Prune.				
320	Tulip	7.2	90	None.				
321		12.0	75	Double top. Prune and cable.				
322		6.7	75	None.				
323		8.8	75	Prune.				
324		8.2	85	None.				
325		9.3	75	Double top. Prune.				
326	Chinese elm	8.9	85	Basal wound, too thick with deadwooding limbs. Prune. Also some.				
327		8.0	80	Basal wound. Too thick with deadwooding limbs. Prune. Also some.				
328		8.7	85	Remove girdling wires and prune.				
329		7.9	85	Remove girdling wires and prune.				
330	Alder	23.8 (8.0, 7.9)	75	Prune and cable.				
331		12.3	70	Three trunks above 4.5. Prune.				
332		15.0	70	Many tree trunks above 4.5'. Prune.				
333		12.0	70	Many tree trunks above 4.5'. Prune.				
334		2.6	50	Stacked. Remove.	●	●		
335		7.0	50	Trunk cut. Remove.	●		●	
336		14.6	65	Leans. Double tops. Heavy. Prune and cable.			●	
337		28.1 (8.5, 8.6, 10.7)	70	Double top. Prune.			●	
338		9.6	65	Poor structure. Possible removal.	●		●	
339		7.7	65	Double tops. Possible removal.	●		●	
340		14.0		Multiple tops. Prune.				
341	Tulip	4.9	65	Remove small secondary trunk				
342		6.4	90	None			●	
343		13.0	80	Slight poor structure. Prune.				
344		6.9	80	Poor root structure. Ashlan.				
345		12.3	85	Leans. Prune.				
346		12.8	80	Poor structure. Prune and cable.				
347		13.8	80	Upper trunk wound. Codominant tops. Prune.				
348		18.0	75	Codominant trunks. Cable. Fertilize.				

TREE SURVEY

Tree No.	Species	±Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"+ in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
348		18.0	75	Codominant trunks. Cable. Fertilize.				
349		13.7	75	Fertilize.				
350	Jacaranda	9.5	60	Fertilize.			●	
351		7.7	60	Fertilize.			●	
352		9.4	60	Fertilize.			●	
353	Chinese Elm	10.0	85	Slight lean. Prune.				
354		0.1	85	Slight lean. Prune.				
355	Canary Island pine	1.8	95	None.				
356		13.4	90	Slight trunk bend.				
357		17.1	60	Double tops. One has been topped. Prune.				●
358	Plum	5.5	85	Fruit problem on walkway.			●	
359	Strawberry trees	Mult	65	None.				
360	Carob	8.2	85	Severe crossing limbs. Thin and prune.				
361		6.5	85	None.				
362		9.8	85	Deadwooding limbs. Prune.				
363		7.4	85	Deadwooding limbs. Prune				
364		7.8	85	Deadwooding limbs. Prune.				
365		4.9	85	Leans.				
366		8.3	85	Deadwooding limbs. Prune.				
367	Canary Island pine	8.8	70	Girdling roots.			●	
368		6.3	30	Topped. Poor form. Remove.	●		●	
369		13.0	90	None.				●
370		8.1	90	None			●	
371		8.7	85	None				
372		10.5	90	None				
373		8.5	80	None				
374		6.8	90	None				
375		5.8	50	Leaning. Scar from limb breakage.				
376		10.7	85	None.				
377		9.9	85	None.				
378		9.7	85	None.				
379		8.9	80	Leaning.				
380		10.0	80	None.				
381		6.3	80	None.				
382		8.0	90	None.				
383		8.7	80	None.				
384		2.1	10	Very poor. Remove.	●	●		
385		6.3	85	None.				
386		6.6	85	None.				
387		12.4	90	None.				
388		10.7	90	None.				
389		10.6	90	None.				
390	Monterey pine	7.8	60	Severe pitch moth. Leans.				
391	Canary Island pine	12.8	90	None.				
392		8.1	60	Chlorotic.				
393		10.7	90	None.				
394		10.7	90	None.				
395		8.9	95	None.				
396		7.7	75	Unbalanced.				
397		8.8	85	None.				
398		8.9	85	None.				
399		9.2	95	None.				
400		13.8	90	None.			●	
401		14.0	90	None.			●	
402		14.4	90	None.				●
403		14.4	90	None.				●
404		16.3	90	None.				●
405	Cherry	8.8	55	Poor form.			●	
406		7.3	55	Poor form.			●	
407		5.5	60	None.			●	
408	Canary Island pine	10.8	85	None.			●	
409		13.69	90	Remove deadwood.				●
410	Cherry	10.8 (3.1, 3.3, 4.2)	65	Multi-stemmed @ 2'.			●	
411		8.6 (3.2, 4.2)	20	Poor form. Possible removal.			●	
412		5.4	0	Dead. Remove.	●		●	
413	Canary Island pine	13.8	90	None.				●
414		14.7	90	None.				●
415	Liquidambar	5.9	40	Dieback.			●	
416	Canary Island pine	12.3	85	None.			●	
417	Chinese elm	8.4	90	Leans, crowded by sweetgum.				
418	Eucalyptus	31.9	70	Lighten NW tree.				
419		28.0	65	Remove crossing limbs.				
420		9.1	60	Quite thin.				
421		23.8	60	Topped and suckering.				
422		17.9	70	None.				
423		18.9	68	Leaning.				
424	Liquidambar	5.9	60	Leaning.			●	
425	Canary Island pine	8.2	90	None.			●	
426		13.6	90	None.				●
427		6.2	85	None.			●	
428		7.3	85	None.			●	
429		0.1	90	Needs thinning.				●
430	Canary Island pine	14.9	85	Needs thinning.				●
431	Liquidambar	6.4	50	Chlorotic. Fertilize.			●	
432		8.8	70	Needs thinning.			●	

TREE SURVEY

Tree No.	Species	±Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"+ in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
432		8.8	70	Needs thinning.			●	
433	Canary Island pine	9.9	85	Needs thinning.				●
434	Cherry	5.4	0	Dead. Remove.	●		●	
435	Chinese elm	8.8	90	Tarbrack moth cocoons.			●	
436		3.9	90	Tarbrack moth cocoons.			●	
437		8.1	90	Tarbrack moth cocoons.			●	
438		8.6	90	Tarbrack moth cocoons.			●	
439		5.8	80	Deadwood. Chlorotic.			●	
440		13.7	90	Tarbrack moth cocoons.				●
441		6.7	85	Remove deadwood.			●	
442		8.8	75	Poor crotch formation.				
443		12.1	75	Needs thinning.				●
444		8.8	70	Thinning a limb.			●	
445		12.4	85	Included bark. 2 1/2 " log rode in bark. Double crotch.				●
446		8.8	90	None.			●	
447		10.1	90	Tarbrack moth cocoons.			●	
448		12.7	60	30" side crotch. 2 1/2" hardbark and cabling.				●
449		5.1	0	Dead. Remove.	●		●	
450		10.7	0	Dead. Remove.	●		●	
451		15.0	90	None.				●
452		12.4	90	Remove crossing limbs.				●
453		10.3	90	Possible weak crotch.			●	
454		9.6	90	Remove poor crotch.			●	
455		10.7	50	Last half of the top, but will fill in.			●	
456		13.1	60	Cankers and poor form. Cankers can be treated.				●
457		12.2	80	Cankers which can be removed.				●
458		12.0	80	Remove deadwood. Lighten heavy end.				●
459		10.0	70	Cankers some treating.			●	
460		10.4	70	Large rubbing limbs and scars on trunk.			●	
461		10.6	90	Needs thinning.			●	
462		9.9	80	Possible weak crotch.			●	
463		8.1	95	None.			●	
464	Hackberry	5.2	100	None.			●	
465	Chinese elm	8.5	95	Slight vehicle damage.			●	
466		10.1	75	Limb loss and possible poor crotch.			●	
467	Prunus sp.	6.0	80	None.			●	
468	Canary Island pine	14.7	85	None.				●
469	Prunus sp.	4.2	80	None.			●	
470	Canary Island pine	8.4	85	None.			●	
471	Chinese elm	8.4	90	Remove deadwood.			●	
472		7.1	90	Crossing limbs			●	
473		5.8	90	Possible weak crotch.			●	
474	Hackberry	9.4	90	None.			●	
475	Chinese elm	10.7	90	Possible crotch weakness.			●	
476		9.3	90	None.			●	
477		10.3	90	None.			●	
478		12.8	80	Cankers and crossing limbs.				●
479		12.8	90	Remove deadwood.				●
480		8.5	85	Crossing limbs and scars.			●	
481	Chinese elm	10.8	75	Basal scar and cankers.			●	
482		12.8	80	Poor crotch, some cankers.				●
483		8.2	85	Slightly thin.			●	
484		10.1	75	Thin and has included bark.				
485		8.8	85	Slightly thin.				
486		8.3	90	None.				
487	Prunus sp.	5.4	80	Poses mechanic.			●	
488	Canary Island pine	14.8	85	Slightly thick.				●
489	Chinese elm	12.2	75	Canker. Damaged limb.				
490		10.9	75	Cankers heading at base.				
491		9.2	85	Large canker and broken limb. Treat canker.				
492		8.0	95	Slight thinning.			●	
493		13.9	80	Large canker. Heavy low limbs. Treat and topping.			●	
494		10.4	90	Needs thinning. Small canker.			●	
495		12.1	80	Treat two large cankers. Remove	●			●
496		9.4	90	Limb scar on trunk.				
497		9.7	90	Needs thinning.				
498		10.2	90	Remove stub and limb.				
499		7.7	90	Remove deadwood.				
500		7.7	90	Remove deadwood.				
501		8.7	90	Remove deadwood.				
502	Canary Island pine	15.7	85	Needs thinning.				●
503		10.3	80	Slight lean.			●	
504		13.4	90	None.				
505		5.9	90	None.				
506	Canary Island pine	8.4	90	None.				
507		13.8	90	None.				
508		8.1	85	Remove stubs.				
509		17.7	85	Needs thinning.				
510		14.5	90	None.				
511		16.4	90	None.				
512		15.8	90	None.				
513		12.8	85	Remove broken limb.				
514		14.9	70	Topped. Bad form.				
515		8.0	90	None.				

APPLIED MATERIALS

Arques Campus – Sunnyvale, California

DATE: 9/10/98

MASTER PLAN - TREE PROTECTION AND REMOVAL MATRIX 2

GRAEBER • HATHAWAY • OBAYASHI

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Tree No.	Species	*Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"- in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
516		12.6	90	None.				
517		7.3	75	Crowded by No. 516.				
518	Pyrus sp.	6.6	90	Remove suckers.				
519		6.7	90	None.				
520		7.5	80	Needs thinning				
521		6.3	85	Needs thinning				
522	Canary Island pine	6.0	80	Chlorotic.				
523		10.6	90	None.				
524		5.4	70	Stunted growth.				
525		5.6	80	Thin and chlorotic.				
526		6.0	70	Thin. Chlorotic. Missing a limb.				
527		4.2	80	Thin and chlorotic.				
528	Pyrus sp.	5.0	85	Thin.				
529		6.5	70	Gall at base needs thinning.				
530		7.1	85	Needs thinning				
531	Canary Island pine	8.3	90	None.				
532		9.2	90	None.				
533		7.5	90	None.				
534		10.4	90	None.				
535		10.8	70	Topped. Poor form.				
536	Canary Island pine	9.5	80	Thick.				
537		12.8	80	Thick.				
538		8.7	80	Thick.				
539	Pyrus sp.	9.4	75	Leans. Needs thinning.				
540		8.5	80	Leans.				
541	Canary Island pine	7.2	90	Slight chlorosis.				
542		5.1	65	Topped. Chlorosis.				
543		6.2	90	None				
544	Honey Locust	4.2 (2.0, 2.2)	85	Remove stakes.				
545	Western redbud	6.0 (3.0, 3.0)	90	None.				
546	Carob	7.7	80	Duplicating limbs. Prune.				
547		7.0	80	Duplicating limbs. Prune.				
548		7.4	80	Duplicating limbs. Prune.				
549		5.5	80	Woodpecker damage.				
550		5.8	75	Leans. Duplicating limbs. Prune.				
551		7.0	75	Unbalanced. Duplicating limbs. Prune.				
552		4.9	80	None.				
553		3.4	60	Chlorotic. Fertilize.				
554		3.7	70	Trunk wound. Fertilize				
555		2.5	60	Stunted. Fertilize.				
556		4.1	60	Stunted. Fertilize.				
557		4.2	60	Stunted. Fertilize.				
558		3.1	60	Stunted. Fertilize.				
559		7.8	75	Prune.				
560		10.8	75	Prune.				
561	Canary Island pine	14.2	90	None.				•
562		13.3	90	None.				•
563		8.4	90	None.			•	
564		17.5	90	None.				•
565		7.0	80	Trunk twist.			•	
566	Evergreen pear	8.5	80	Shape.			•	
567		6.0	75	Shape. Leans.				
568		7.1	0	Dead. Remove.	•		•	
569		4.2	0	Dead. Remove.	•		•	
570		9.6	75	Thick and heavy. Prune.				
571	Canary Island pine	8.7	70	Triple top. Prune.				
572		10.2	90	None.				
573		8.9	90	None.				
574		9.2	75	Leans.				
575		9.9	90	None.				
576		10.1	90	None.				
577	Evergreen pear	6.9	85	Shape.				
578		5.9	85	Shape and fertilize.				
579		6.2	85	Shape				
580		8.5	85	Shape				
581		4.8	80	Shape and fertilize.			•	
582	Canary Island pine	8.4	90	None.			•	
583		12.2	85	Slight bend.			•	•
584		9.3	90	None.			•	
585		7.7	85	Slight bend.			•	
586		8.2	85	Slight bend.			•	
587		15.0	90	None.				•
588	Evergreen pear	5.7	80	Shape.				
589		8.0	85	Shape.				
590		9.1	85	Prune.				
591		6.1	80	Shape and fertilize.				
592		9.0	85	Prune.				
593 / 594	Canary Island pine	[illegible]	70 / 85	Topped. Poor structure. / None.				
595		10.9	85	None.				
596		12.2	90	None.				
597		9.8	90	None.				
598		8.0	90	None.				
599	Evergreen pear	8.8	80	Lighten and shape.				
600	Fruiting pear	7.2	80	Prune.				

Tree No.	Species	*Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"- in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
600	Fruiting pear	7.2	80	Prune.				
601	Evergreen pear	5.5	80	Shape.				
602		11.1	70	Trunk wounds. Broken limb.				
603	Canary Island pine	12.6	75	Trunk wound.			•	
604		13.3	90	None.			•	
605		16.3	85	Trunk wound, leans				•
606	Geijera	2.6 (8.8, 5.3)	70	Poor structure. Prune.				
607		13.7 (6.4, 7.3)	60	Limb girdled, leans. Drought-stressed. Deep water.				
608		5.2	70	Prune.				
609	Canary Island pine	11.1	90	None.				
610		12.4	85	Trunk bent.				
611		13.0	95	None.				
612		13.3	90	None.				
613	Myoporum	4.5 (1.6, 2.2, 2.7)	75	None.			•	
614	Liquidambar	4.5	40	Chlorotic. Remove.	•		•	
615		8.3 (2.6, 3.0, 2.7)	50	Chlorotic. Fertilize.			•	
616		3.6	20	Severe chlorosis. Remove.	•	•		
617		3.6	30	Severe chlorosis. Remove.	•	•		
618		4.2	50	Chlorotic. Fertilize.			•	
619	Canary Island pine	12.8	90	None.				
620		12.8	90	None.				
621		12.3	90	None.				
622	Geijera	2.6 (7.2, 4.8, 3.9)	68	Prune.				
623		13.5	70	Forks above 48". Prune.				
624		15.4	70	Forks above 48". Prune.				
625	Canary Island pine	11.2	90	None.				
626		1.8	80	Unbalanced.				
627	Geijera	12.6	70	Unbalanced. Rebalance.				•
628		6.2 @24"	70	Forks at 48. Prune.			•	
629		8.4 (8.3, 10.8)	70	Slight, poor structure.			•	
630		10.1	60	Poor structure. Prune. Deep water.			•	
631		10.6	70	Prune.			•	
632	Canary Island pine	18.4	90	None.				•
633		13.2	85	None.				•
634		12.9	85	None.				•
635		14.1	90	None.				•
636		12.5	85	None.				•
637		13.6	90	Lighten low long limb.				•
638		15.0	90	Head back on upper big limb.				•
639		13.3	90	Head back on upper big limb.				•
640		14.4	75	Double top. Stressed. Fertilize.				•
641		15.4	90	None.				•
642		13.5	75	Multiple tops. Prune.				•
643		9.7	70	Slight chlorosis. Fertilize.				•
644		8.2	70	Slight chlorosis. Fertilize.			•	
645		4.4	0	Dead, remove.	•		•	
646		5.6	20	Nearly dead. Remove.	•		•	
647	Eucalyptus	79.8 (9.5, 13.0, 7.8, 0.7, 8.4, 8.8, 7.2, 5.4)	80	Recently pruned.			•	
648	Olive	18.7 (2.8, 2.9, 4.4, 3.2, 5.8)	80	None.				•
649	Hollywood juniper	5.0	85	None.			•	
650		7.6 (4.0, 3.6)	88	None.			•	
651	Olive	7.8 (4.8, 8.5, 5.3)	80	None.		•		
652	Hollywood juniper	5.2	75	None.			•	
653	Black walnut	23.8 @2"	60	Trunk swelling at 48". Recently pruned.		•		
654		2.6	60	Trunk cavity.		•		
655	Olive	9.0 (4.8, 3.8, 6.0, 4.7)	70	Poorly pruned. Thin.		•		
656	Hollywood juniper	4.5	75	Leans.			•	
657		4.5	75	Leans.			•	
658		3.9	75	Leans.		•		
659	Liquidambar	5.3	0	Dead, remove.	•		•	
660	Olive	-	75	On fence line.			•	
661	Tulip	6.1	70	Slight, poor form. Chlorotic. Fertilize.				
662		5.6	65	Slight, poor form. Chlorotic. Fertilize.				
663	Tree of Heaven	3.6	80	Growing through fence. Remove.	•	•		
664	Tulip	6.3	65	Poor structure. Prune.			•	
665	Canary Island pine	14.9	90	None.			•	
666	Canary Island pine	10.2	20	Very poor structure. Remove	•		•	
667	Tulip	11.1	70	Prune.				•
668		5.0	60	Drought-stressed. Fertilize.			•	
669		4.2	50	Severely drought-stressed. Remove.	•		•	
670	Cherry	7.1	0	Dead, remove.	•		•	
671		3.9	0	Dead, remove.	•	•		
672	Liquidambar	3.6	0	Dead, remove.	•	•		
673	Olive	27.7	60	Dead bark tissue. Recently topped.				•
674	Canary Island pine	11.4	80	Trunk twist.			•	
675		13.7	70	Topped.				•
676		12.9	90	None.			•	
677	Olive	38.2 (7.7, 8.4, 10.0, 9.8)	75	Recently topped.				•

Tree No.	Species	*Diameter	Condition	Remarks	Tree recommended for removal per Arborist report	Trees 4"- in diameter to be removed	Trees 4"+ in diameter to be removed	Trees 12"+ in diameter to be removed
678		29.3 (12.5, 7.5, 9.3)	70	Recently topped. Some bark damage.				•
679	Canary Island pine	12.8	85	None.				•
680		15.3	[illegible]	None.				•
681	Cherry	4.2	80	None.			•	
682	Canary Island pine	9.9	85	None.			•	
683		9.8	85	None.			•	
684		19.7	70	Topped for wire clearance.				
685		16.0	70	Topped for wire clearance.				
686		15.2	70	Topped for wire clearance.				
687		15.1	85	Leans.				•
688	Cherry	4.1 (2.2, 1.9)	80	None.			•	
689	Canary Island pine	15.6	90	None.				•
690	Monterey pine	16.8	--	Double top. Sequoia pitch moth. Deep water.				
691	Magnolia	4.8	85	Slight lean.				
692	Liquidambar	12.8	70	Slight chlorosis. Fertilize. Prune.				
693		11.1	--	Slight chlorosis. Fertilize. Prune.				
694	Xylosma	17.0 (4.2, 2.9, 6.2, 3.7)	65	None.				
695	Magnolia	3.3	80	Shape.				
696		6.0	80	Fertilize				
697		2.4	80	Shape.				
698		9.5 (4.0, 5.5)	80	None.				
699	Olive	33.5 (6.5, 5.2, 4.2, 6.3, 4.6, 6.7)	85	Recently topped.				•
700	Olive	37.1 (6.9, 7.1, 6.9 (8.0, 8.2)	85	Recently topped.				•
701		19.2 (6.7, 11.5)	85	Recently topped.				•
702	Plum	7.9 (2.5, 3.8, 1.6)	85	Duplicating limbs. Prune.				
703		10.8 (2.9, 1.7, 2.7, 3.5)	85	Duplicating limbs. Prune.				
704		8.1 (3.0, 3.2, 1.9)	85	Duplicating limbs. Prune.				
705		9.1 (4.4, 2.7, 2.0)	85	Duplicating limbs. Prune.				
706		9.3 (3.0, 2.9, 3.4)	85	Duplicating limbs. Prune.			•	
707		8.5 (3.6, 2.8, 2.8)	85	Duplicating limbs. Prune.			•	
708		8.5 (3.0, 3.5, 2.0)	85	Leans. Duplicating limbs. Prune.				
709		10.8 (12.6, 3.1, 2.8, 2.4)	85	Leans. Duplicating limbs. Prune.				
710		8.5 (3.5, 2.5, 2.5)	85	Leans. Duplicating limbs. Prune.				
711		14.9 (2.0, 3.0, 2.1, 2.9, 2.6, 2.3)	85	Leans. Duplicating limbs. Prune.				
712	Oleander	2.2	80	None.		•		
713		2.2	80	None.		•		
714		3.0	80	None.		•		
715		2.9	80	None.		•		
716		2.9	80	None.		•		
717		2.9	80	None.		•		
718	Carob	27.4 (15.8, 8.6)	75	Decay at base. Fallen in past, laying on ground. Lighten and thin.				•
719	Olive	30.9 (8.3, 10.4, 9.2)	60	Recently topped and shaped.				•
720		30.6 (6.6, 11.1, 12.9)	60	Recently topped and shaped.				•
721		33.8 (6.6, 9.6, 6.5, 11.1)	60	Recently topped and shaped.				•
722	Magnolia	4.0	80	Fertilize.				
723		2.7	80	None.				
724		2.9	80	None.				
725		2.1	75	Fertilize.				
726		5.6	80	None.				
727	Liquidambar	12.9 (6.0, 6.9)	75	Slightly poor structure.				
728	Tulip	8.0	80	Prune.				
729		8.2	80	Prune.				
730	Jacaranda	6.9	50	Drought-stressed. Possible removal.				
731	Tulip	10.7	75	Unbalanced.				
732		13.4	60	Double lea, split in crotch. Prune, cable and bolt.				
INSIDE COURTYARD								
733		8.9	80	Leans. Recently pruned.				
734		9.1	80	Leans. Recently pruned.				
735		6.3	70	Leans severely.				
736	Olive	Multi 1 - 2	90	Newly planted.				
737		Multi 1 - 2	90	Newly planted.				
738		Multi 1 - 2	90	Newly planted.				
739		Multi 1 - 2	90	Newly planted.				

*diameter in inches, 4.0 feet high

	Tree recommended for removal per Arborist report	Additional trees to be removed	
TREES 4" + IN DIAMETER TO BE REMOVED	32	173	
TREES 12" + IN DIAMETER TO BE REMOVED	8	80	
TOTAL TREES FOR REMOVAL (4" and 12" dia.)	40	253	293
TOTAL TREES ON SITE			739

APPLIED MATERIALS

Arques Campus – Sunnyvale, California

DATE: 8/10/98

MASTER PLAN - TREE PROTECTION AND REMOVAL MATRIX 3

GRAEBER • HATHAWAY • OBAYASHI

SMITH & SMITH
Landscape Architects
Environmental Planners
Inc.
507 Howard Street
San Francisco, CA 94105
tel 415 · 543 · 0332
fax 415 · 543 · 5740
smith2@smith2lasp.com

APPENDIX D

TRAFFIC DEMAND MANAGEMENT PLAN

The following Applied Materials Arques Campus TDM Plan, dated June 8, 1999, was prepared by The Hoyt Company.

TABLE OF CONTENTS

INTRODUCTION

While local and regional traffic mitigation and air quality goals move forward, the Applied Materials Arques Campus project is incorporating design factors, transportation demand management, and parking plans that support these goals.

Applied Materials has long been committed to reducing traffic congestion through supporting the use of alternative modes of transportation and the operation of several shuttle routes. The expansion of their current Arques facility and the creation of a true campus, rather than building a separate facility(s) at a different locations, is a strategic move in traffic management and traffic reduction.

Applied Materials' comprehensive approach to consolidating their employees in a campus setting breeds success and will contribute to the economic growth of Sunnyvale by providing approximately 2,800 jobs (at build out) at one consolidated work site. As of November 1998, 1,084 employees are employed at the Arques Campus. By balancing air quality with economic growth, the Arques Campus will help Sunnyvale grow as a community. It is projects like this that can contribute to Sunnyvale's livelihood.

Applied Materials supports the City of Sunnyvale's policy of focusing clustered development along transportation corridors. This project is located near and served by the Central Expressway and Highway 101, Caltrain stations, Santa Clara Valley Transportation Authority light rail (VTA) train stations and bus stops, and several high occupancy vehicle (HOV) lanes.

In order to be part of the transportation solution, Applied Materials must maintain the requested density to provide the critical mass necessary to continue to encourage and enhance the use of all alternative modes of transportation including carpooling, vanpooling, bicycling, and public transit. Applied Materials must work closely with VTA, Caltrain, and adjacent employers such as Hewlett Packard and Intel to maximize ridership on shuttle buses and fixed rail lines.

Two elements are essential to realizing the trip reduction potential of the Applied Materials project: maintaining the requested density and single employer focus, and the comprehensive plan of trip reduction measures identified in this report. The combination of these critical factors will provide the synergism to maintain a 15% trip reduction level for this project.

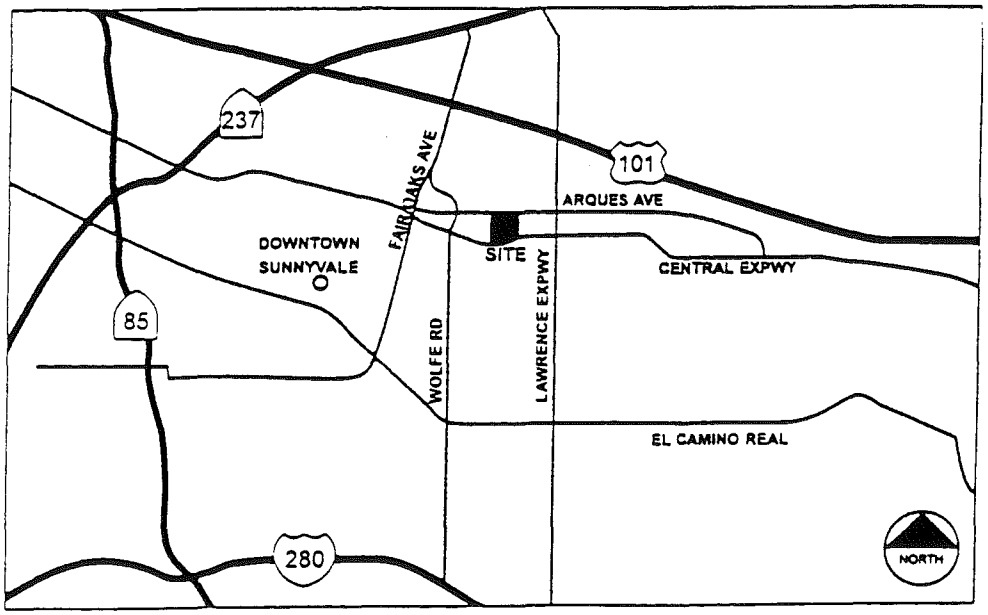
Through monitoring efforts such as an annual survey of employees to determine transportation mode split, Applied Materials will be able to better focus transportation coordination efforts and encourage employees to use alternative transportation. The modal split survey results will be submitted to the City of Sunnyvale.

1.0 PROJECT DESCRIPTION

Applied Materials proposes to expand Arques Campus from the current 521,000 sq. ft. to 1,114,600 sq. ft. at full build out. The Campus at full build out would include office work space, related prototype lab work space, tool testing/demonstration space, central utility, materials storage, campus cafeteria, recreational facility, conference center (primarily for internal use), a training facility, and a parking structure. Currently, 2,025 parking spaces exist at the site; at full build out 2,975 spaces will be on the Campus.

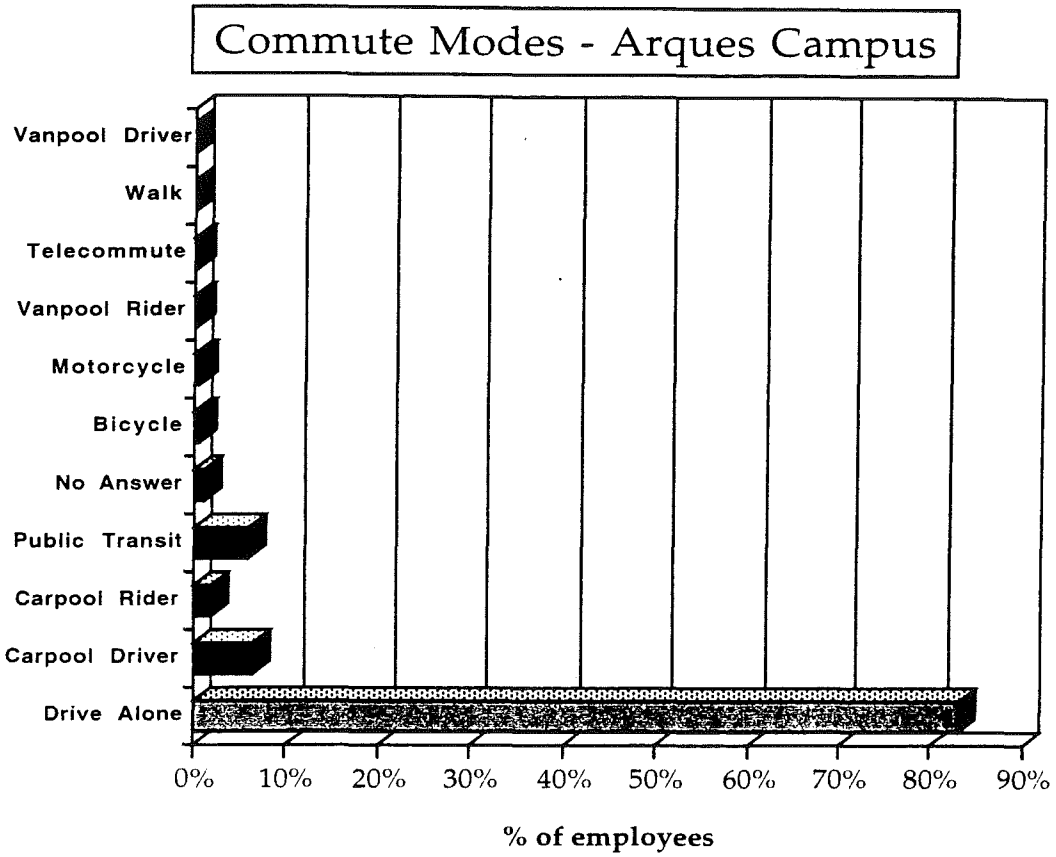
The development is intended to be as self sufficient as possible in order to reduce the number of trips made daily to and from the Campus. A full service cafeteria, recreational facilities, automatic teller machine, and on-site conference and training facilities are all important components which will help ensure that significant numbers of lunch hour or midday trips will be eliminated. See location map below.

LOCATION MAP



2.0 EMPLOYEE MODE SPLIT

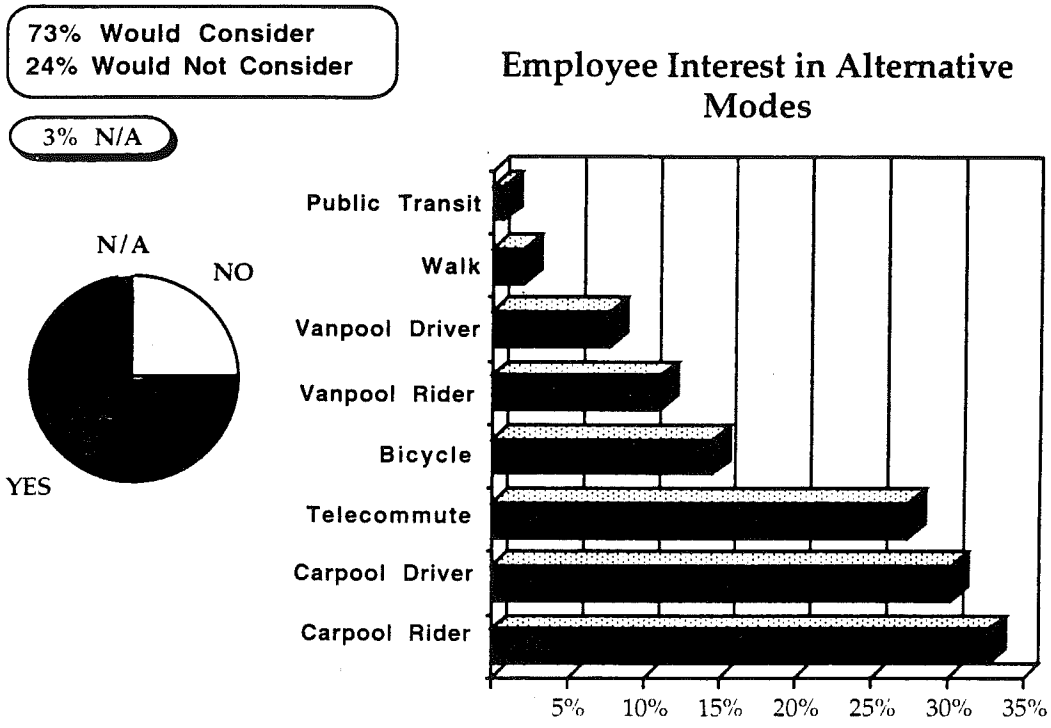
Applied Materials proposes to expand Arques Campus from the current 521,000 sq. ft. to 1,114,600 sq. ft. at full build out. Fifteen percent is an impressive percentage given the Congestion Management Plan's assumption of 5% alternative mode use.



Commute Mode	% of Employees
Drive Alone	83%
Carpool Driver	6%
Public Transit	6%
Carpool Rider	2%
No Answer	1%
Bicycle	1%
Motorcycle	1%
Vanpool Rider	0%
Telecommute	0%
Walk	0%
Vanpool Driver	0%

Carpooling and public transportation were more common alternative commute methods than vanpooling, bicycling, or telecommuting.

Employees who normally drive alone but would consider commuting via alternative transportation



Seventy three percent of employees who normally drive alone would consider using alternative transportation on an occasional basis. The opportunity exists to increase the number of employees who use alternative transportation to commute to Arques Campus due to the high percentage of interest. Employees are especially interested in carpooling to the Arques Campus.

The employee survey was distributed via email to 835 Arques Campus employees. A 61% response rate was achieved over a five day period from December 7 - 11, 1998.

3.0 PARKING MANAGEMENT

Parking Supply

The existing level of development (521,000 gsf) provides 2,025 parking spaces. At full build out (1,114,600 sq. ft.), 2,975 parking spaces will be provided in total.

The ability and willingness to rideshare is directly linked to parking availability. By not providing an overabundant supply of parking lot spaces at full build out, Applied Materials is laying the groundwork for successful promotion of alternative transportation.

4.0 TRANSIT

The project site has strong transit access when the Applied Materials inter-campus shuttles are taken into account. Currently, 6% of the Arques Campus employees commute via public transportation. Employee comments on the 1998 Employee Commute Survey show that the use of public transportation may be increased if the daily running times of Applied Materials' shuttles are lengthened.

Caltrain

Caltrain operates frequent, fixed route rail service from San Francisco, Gilroy, San Carlos, and San Jose, seven days a week. The service, known as Caltrain, operates weekdays from 4:38 a.m. to 10:30 p.m., with service every 15-30 minutes in the peak periods (5:00 a.m. - 9:00 a.m. and 3:00 a.m. - 6:00 p.m). Midday service operates hourly; service after 6:00 p.m. operates hourly. Service is less frequent on Saturdays, Sundays, and Holidays.

The Arques Campus is approximately one mile from the Lawrence Caltrain station and approximately two and one-half miles from the Sunnyvale Caltrain station. In addition to Santa Clara Valley Transportation Authority (VTA) bus connections, Applied Materials operates their own extensive shuttle bus program to provide employees with excellent access to Lawrence Caltrain service.

Altamont Commuter Express (ACE)

On October 19, 1998, a new rail service known as ACE began operations between Alameda/San Joaquin Counties and San Jose. Free shuttles will be provided by VTA to/from the closest ACE rail station at Great America.

Santa Clara Valley Transportation Authority (VTA)

VTA light rail--VTA operates light rail service between the Great America industrial area and South San Jose (with an extension planned to Mountain View). Light rail service is provided 7 days a week, 24 hours a day. Weekday service operates every 10 minutes, and weekend and holiday service operates every 15 minutes.

In addition to VTA bus connections, Applied Materials operates a shuttle for their employees between the Bowers Campus and the Orchard light rail station at 1st Street and Montague Express.

VTA Bus Service--VTA operates a comprehensive bus system throughout Santa Clara Valley. Service to the Arques Campus includes VTA routes 304, 140, and 41. The Santa Clara Valley Transportation Plan (T2010) calls for an expansion of the VTA bus fleet, new routes, and an increase in existing service. Please refer to page 8 for a map of rail and bus service to Arques Campus.

Applied Materials Shuttle System

Applied Materials operates an impressive fixed route and demand responsive (on-call) shuttle bus program. Their program is anchored by 2 dispatchers or call takers on a 5 phone line system. Applied Materials shuttle program includes:

1 Caltrain shuttle
1 light rail shuttle
1 Arques/Bowers shuttle
1 joint Caltrain shuttle shared with Hewlett Packard and Intel

When requested, specific shuttles for transporting groups of employees to Central Campus to receive badges (as part of new hire orientation classes) is available.

Arques Campus opened in June 1997, and by October 1997, it was apparent that shuttle ridership was high. In November 1997, a dedicated Arques/Bowers shuttle was implemented. It runs continuously from 7:30 a.m. to 6:00 p.m. Shuttle ridership from March to June of 1998 has averaged 2,146 riders per month. The Arques/Caltrain shuttle operates between 7:30 a.m. - 8:30 a.m. and 4:30 p.m. - 6:00 p.m.; the Arques/Bowers shuttle operates between 8:30 a.m. - 4:30 p.m.

In October 1997, total ridership on all Applied Materials shuttles was 11,125 riders.

One very impressive aspect of the Applied Materials program is the effort to reduce construction related trips as the Campus expands. The construction contractor, E.A. Hathaway, for the Arques Technology Center and parking structure contracted with the Applied Materials' service provider (ABM Facility Service) to provide construction shuttle services to the Arques Construction sites through August 1998. E.A. Hathaway's ridership averaged 5,000 riders per month to and from the Kern Avenue parking lot and the Arques construction sites.

On-Site Sales

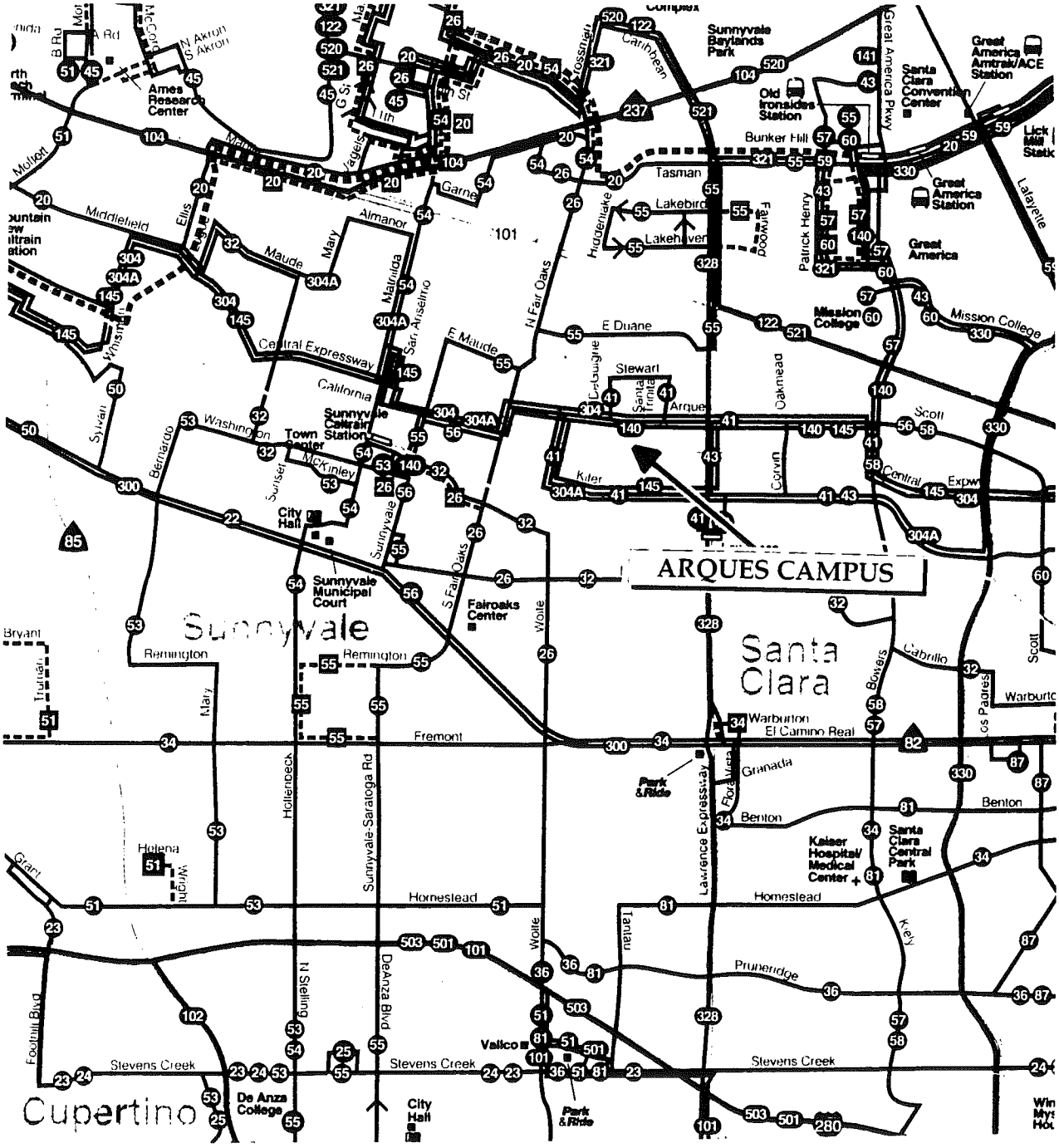
VTA's Flash Pass, tickets, and Caltrain passes are available for purchase on-site six days each month. Transit route maps and schedules and any information on special promotions or discounts will also be available on-site.

Transit Subsidy Program/Commuter Check

Applied Materials currently offers a $20/month subsidy per employee, for all bus and rail transit options to employees through the Commuter Check program. This program encourages non-drive alone commute trips and supports the City of Sunnyvale's transit policies included in the General Plan.

Transit pass subsidies by employers of as little as $15 per month have shown a 63% increase in monthly pass sales in other jurisdictions. A higher subsidy encourages more employees to use transit.

RAIL AND BUS SERVICE TO APPLIED MATERIALS' ARQUES CAMPUS



Source: Valley Transportation Authority Map (July 1998)

5.0 DESIGNATED CARPOOL SPACES/PREFERENTIAL PARKING

Currently 8% of Arquez Campus employees carpool to work. There are no designated spaces for carpools or vanpools at this time.

One effective means of encouraging employees to rideshare and/or use clean fuel vehicles is to reserve most preferred parking spaces for the exclusive use of carpools and vanpools. These preferred parking spaces would be designated with either signage or pavement striping.

Upon completion of this project, a minimum of 10% of employee parking will be designated for carpool, vanpool, and clean fuel vehicles as demand warrants. As demand warrants, Applied Materials will provide these spaces in premium, convenient locations (i.e., near parking garage elevators, close to buildings, in the shade, etc.)

6.0 ON-SITE AMENITIES

On-site amenities provide employees with a full service work site. Eliminating the need for an automobile to make midday trips increases non-drive alone rates. Many times employees perceive that they are dependent upon the drive alone mode because of the number of errands and activities that must be carried out in different locations. By reducing this dependence through the provision of services and facilities at the work site, an increase in alternative mode usage for commute-based trips should be realized.

Cafeteria Services

Applied Materials will expand the existing cafeteria to a full service central cafeteria with hot and cold food service. This expanded food service facility will allow employees greater flexibility to stay on-site for lunch and will contribute to reducing the need for an employee to drive alone to work in anticipation of a mid-day trip off-site to get lunch.

Recreational Facilities

Applied Materials is expanding the existing recreational facilities for employees who wish to workout on-site during their lunch hour, or before or after the workday. These recreational facilities help to support alternative transportation by reducing the extra work/off-site gym (or vice versa) trip that most people make via a Single Occupant Vehicle (SOV).

The showers and clothing lockers in the gym facility are also available as an amenity to employees who bicycle or walk to the Arques Campus. Employees who want to bicycle, walk, or run to work can take a shower and store clothing and toiletries in the lockers. Having access to showers and lockers will help encourage employees to use alternative transportation modes since they can clean up after the commute by bicycle or on foot.

Automatic Teller Machine

Applied Materials is currently in negotiations with a financial institution to provide an automatic teller machine (ATM) on-site and located in a central location. This measure would better enable employees commuting via alternative modes of transportation to complete banking transactions on their lunch hour or break without needing an automobile to make an off-site trip.

7.0 PERSONALIZED MATCHING ASSISTANCE

Carpooling has the highest alternative mode usage with Applied Materials employees, and will likely continue to be so at the new consolidated site. Results from the 1998 Employee Commute Survey carried out at the Arques Campus show that employees who drive alone (but would consider occasionally using alternative transportation) are especially interested in carpooling. The Transportation Coordinator will establish a Personalized Matching Assistance (PMA) program for their employees. Employees will be given a list of fellow employees who live in the same general area, who travel to work at the same time and would be willing to carpool. The Transportation Coordinator (TC) will assist Applied Materials' employees with carpool formation. This can be done through Rides for Bay Area Commuters; Applied Materials supplies the application, which is then sent to Rides.

Currently, employees often advertise on the company e-mail for carpool and vanpool riders. The PMA program will build on this informal system to formalize and expand the program.

8.0 SHOWER AND CLOTHES LOCKERS

The expanded on-site recreational facility will include showers and clothing locker facilities. The lockers will be divided equally between male and female employees. The project includes the provision of some 1/2 length lockers so that bicycle commuters can maintain a small business wardrobe at their work location. The showers and lockers will serve as an incentive for employees to walk or bicycle to the site.

9.0 BICYCLE STORAGE FACILITIES/BICYCLE MATCHING

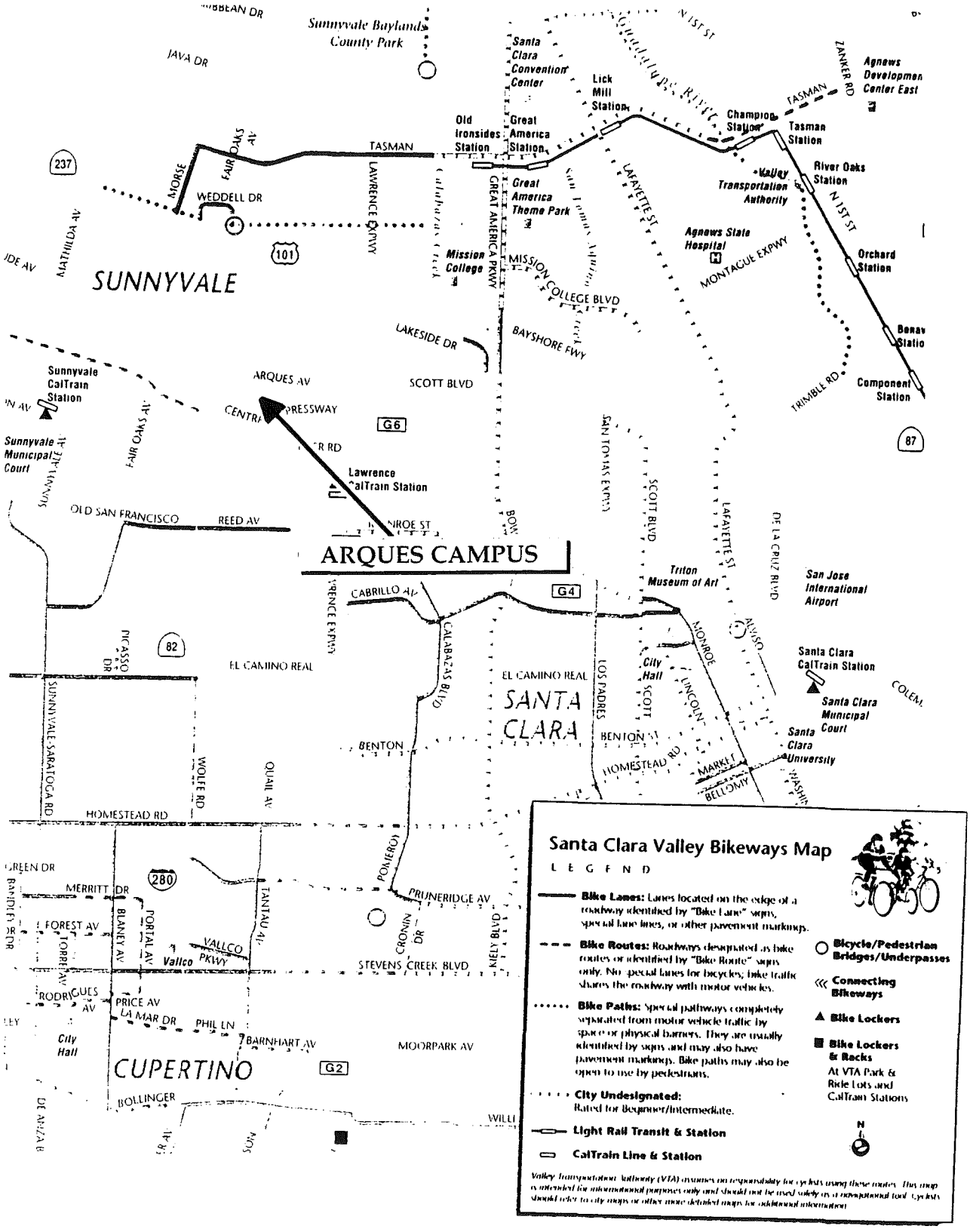
The Applied Materials Arques Campus is located at the terminus of the Central Expressway bicycle path, which is completely separated from automobile traffic by space or physical barriers. Several other bike lanes and bike trails are located in the nearby area. Through bike commuting assistance

offered as part of their rideshare program, Applied Materials will provide information to employees who choose healthful commuting (at least in the good weather months). The Bicycle Matching program also includes a safety information component. Please refer to the bicycle map included on the following page.

In addition to bicycle matching, Applied Materials will provide ample locked, secure bicycle storage to all employees at no cost.

Currently only two racks (with the potential to hold 8 bicycles) are provided for employee use. The 1998 Employee Commute Survey showed that only 1% of Arques Campus employees bicycle to the site, but that employees who currently drive alone to the site have an interest in occasionally using a bicycle during their commute trip. Bicycling is a viable commute option for at least 20% of the Arques Campus employees who live within five miles of the site.

BICYCLE MAP


Sunnyvale Baylands County Park
JAVA DR
Santa Clara Convention Center
Lick Mill Station
Champion Station
Tasman Station
Agnews Development Center East
ZANKER RD
TASMAN
Old Ironsides Station
Great America Station
Great America Theme Park
River Oaks Station
Valley Transportation Authority
Agnews State Hospital
Orchard Station
MONTAGUE EXPWY
N 1ST ST
237
101
MORSE
FAIR OAKS AV
WEDDELL DR
LAWRENCE EXPWY
MATHILDA AV
SUNNYVALE
Mission College
MISSION COLLEGE BLVD
GREAT AMERICA PKWY
LAKESIDE DR
BAYSHORE FWY
SCOTT BLVD
ARQUES AV
Sunnyvale CalTrain Station
Sunnyvale Municipal Court
Lawrence CalTrain Station
G6
OLD SAN FRANCISCO
REED AV
ARQUES CAMPUS
TRIMBLE RD
Component Station
87
SAN TOMAS EXPWY
LAFAYETTE ST
DE LA CRUZ BLVD
Triton Museum of Art
San Jose International Airport
CABRILLO AV
G4
PICASSO DR
82
EL CAMINO REAL
CALABAZAS BLVD
SANTA CLARA
LOS PADRES
MONROE
ALVISO
City Hall
Santa Clara CalTrain Station
Santa Clara Municipal Court
Santa Clara University
BENTON
HOMESTEAD RD
MARKET
BELLOMY
SUNNYVALE-SARATOGA RD
WOLFE RD
QUAIL AV
GREEN DR
MERRITT DR
280
POMEROY
PRUNERIDGE AV
FOREST AV
BLANEY AV
PORTAL AV
TANTAU AV
VALLCO PKWY
Vallco
CRONIN DR
STEVENS CREEK BLVD
RODRIGUES AV
PRICE AV
LA MAR DR
PHIL LN
BARNHART AV
MOORPARK AV
City Hall
CUPERTINO
G2
BOLLINGER
DE ANZA B
Santa Clara Valley Bikeways Map
LEGEND
Bike Lanes: Lanes located on the edge of a roadway identified by "Bike Lane" signs, special lane lines, or other pavement markings.
Bike Routes: Roadways designated as bike routes or identified by "Bike Route" signs only. No special lanes for bicycles; bike traffic shares the roadway with motor vehicles.
Bike Paths: Special pathways completely separated from motor vehicle traffic by space or physical barriers. They are usually identified by signs and may also have pavement markings. Bike paths may also be open to use by pedestrians.
City Undesignated: Rated for Beginner/Intermediate.
Light Rail Transit & Station
CalTrain Line & Station
Bicycle/Pedestrian Bridges/Underpasses
Connecting Bikeways
Bike Lockers
Bike Lockers & Racks
At VTA Park & Ride Lots and CalTrain Stations
N
Valley Transportation Authority (VTA) assumes no responsibility for cyclists using these routes. This map is intended for informational purposes only and should not be used solely as a navigational tool. Cyclists should refer to city maps or other more detailed maps for additional information.

10.0 GUARANTEED RIDE HOME PROGRAM

One of the primary reasons commuters refuse to try carpooling or public transit is the loss of the ability to leave work unexpectedly due to an emergency or the fear of being stranded should they have to work late. Employers in Southern California and Seattle who have guaranteed their employees a ride home in the case of an emergency or having to unexpectedly work late have found it a tremendous incentive to get employees to try ridesharing and get them to stay in a ridesharing program.

An attitude survey of 1,650 employers in Southern California showed that a Guaranteed Ride Home (GRH) program was the #1 incentive for employees to rideshare. A similar survey in Seattle, Washington showed that having access to a GRH program was an important factor for 70% of those who chose to rideshare and was an important factor for 50% in continuing to rideshare.

The GRH program provides the employee with a security blanket, a feeling of reassurance that if a child becomes ill or injured during the day the employee can get to them quickly. If an employee has to work late and misses their bus or carpool, or if their vanpool breaks down, they are guaranteed a ride home.

Employers in Southern California have shown an increase in ridesharing of 15-20% when a GRH program is available to them.

Applied Materials currently provides a Guaranteed Ride Home program (through Rides for Bay Area Commuters) for employees who use non-drive alone modes of transportation and need a ride home in an emergency. It appears from the 1998 Employee Survey that employees are not generally aware of this employer sponsored benefit. Increased on-going promotion of the program is necessary to continually attract alternative transportation commuters.

11.0 ANNUAL TRANSPORTATION FAIRE AND AUCTION

Each year during Rideshare Week Applied Materials holds a Transportation Faire and Auction to promote alternative modes of transportation. The October 1997 Faire and Auction enrolled 1,079 members in the Frequent Commuter Program and gave away or auctioned off $5,000 worth of prizes.

12.0 FREQUENT COMMUTER PROGRAM

Employees at Applied Materials are awarded points each day they commute using alternative transportation. The points are redeemable towards goods such as televisions, radios, etc., at the annual Transportation Faire and Auction.

13.0 TRANSPORTATION COORDINATOR

Applied Materials currently has two individuals working as a "full-time" Transportation Coordinator whose responsibility includes the shuttle and transit pass subsidy programs. The Transportation Coordinator(s) will have expanded duties and primary responsibility for transportation demand management (TDM) issues and for implementing this TDM Plan.

The Transportation Coordinator duties are currently filled by:

Name:	Ms. Tammi Hersrud Administrative Manager ABM Facility Services	Ms. Karyn Diaz Transportation Coordinator ABM Facility Services
Address:	Applied Materials, Inc. 974 E. Arques M/S 81-252 Sunnyvale, CA 94086	Applied Materials, Inc. 974 E. Arques M/S J84-1170 Sunnyvale, CA 94086
Phone:	(408) 584-1178	(408) 584-1170

The Transportation Coordinator(s) (TC) will provide the following services and functions:

1. Catalog all existing incentives that encourage employees to utilize alternative transportation programs and aggressively market programs to employees.

2. Develop and maintain liaison with employees, neighboring employment centers, regional and local ridesharing programs.

3. Coordinate and manage various aspects of the Plan that require periodic update or monitoring, such as carpool and vanpool registration, parking assignment and enforcement, (locker assignment and enforcement and flextime work schedules).

4. Coordinate the transportation needs of the project with other area projects, specifically related to alternative modes of transportation such as vanpooling.

5. Provide information and resource materials on the full range of transportation choices available to employees of the development.

6. Provide up to date transit information.

7. Provide direct on-site sale or disbursement of Commuter Check.

8. Provide information to bicyclists regarding designated bike routes in the Santa Clara Valley Bikeway Master Plan, and on-site support facilities.

9. Post informational materials, specific to commute alternatives, within via e-mail and lobby posting.

10. Conduct an annual survey of employee commute methods and submit summarized results to the Sunnyvale Planning Department as part of the annual reporting process.

11. Evaluate survey results for alternative transportation potential.

12. Encourage flextime and other work schedule adjustments to accommodate employee's chosen alternative mode.

14.0 TELECOMMUTING

Currently, Applied Materials informally allows but does not encourage telecommuting. Due to the nature of the work preformed on the Arques Campus--Research and Development and equipment testing and demonstration--it is important to have on-site employee interaction to foster the synergism of ideas and concepts. Since telecommuting from home or a telecenter would take employees away from the project site, telecommuting is not considered an appropriate measure for the Campus for the majority of the employees.

15.0 FLEXIBLE WORK HOURS

Applied Materials provides a formal flextime policy in order to encourage and accommodate ridesharing to the work site. A wide flextime window allows employees to arrive at work from 6:00 a.m. to 10:00 a.m. and leave between 3:30 p.m. and 7:30 p.m. This policy allows flexible schedules for ridesharing purposes and helps reduce traffic congestion by flattening out the peak period. On-going promotion of this program is necessary to continually attract alternative transportation commuters.

A June 2, 1999 access study conducted by Applied Materials found that a maximum of 12-15% of employees entered or exited the Campus in the busiest half-hour period.

16.0 ANNUAL REPORT

An Annual Report written by the Transportation Coordinator will be an important part of a monitoring process to determine the success or failure of TDM measures. This report, via results from an employee survey distributed and collected by the Employee Transportation Coordinator, will provide quantitative data (e.g., mode split) and qualitative data (e.g., employee perception of the alternative transportation programs). This data may then be used to focus TDM marketing and the efforts of the Transportation Coordinator. TDM programs could be retooled, if necessary, to maintain Applied Materials' 15% total trip reduction commitment at the Arques Campus site.

The Annual Report will be submitted to the City of Sunnyvale.

17.0 CONCLUSION

Applied Materials' comprehensive approach to consolidating their employees in a campus setting breeds success and will contribute to the economic growth of Sunnyvale by providing approximately 2,800 jobs (at build out) at a consolidated work site. By balancing air quality with economic growth the Arques Campus will help Sunnyvale grow as a community. It is projects like these that can contribute to Sunnyvale's livelihood.

The Applied Materials project supports the policies of focusing clustered development along transportation corridors (Central Expressway and Highway 101), HOV corridors and transit corridors (Caltrain and Santa Clara Valley Transportation Authority).

In order to be part of the transportation solution, Applied Materials must contain the density to provide the critical mass necessary to encourage the use of all alternative modes of transportation including bicycling, carpooling, vanpooling, and public transit. It must maintain the currently proposed mix of office uses, recreational facilities and food services. It must also work closely with Santa Clara Valley Transportation Authority (VTA), Altamont Commuter Express (ACE) and Caltrain to maximize employee ridership on bus and light rail lines.

Two elements are essential to realizing the trip reduction potential of the Applied Materials project--maintaining the density and single employer focus, and the comprehensive plan of trip reduction measures identified in this Plan. The combination of these critical factors will provide the synergism necessary to maintain the significant trip reduction required for this project. A 15% alternative mode split already exists at the Arques Campus primarily due to Applied Materials' on-going efforts to support alternative transportation. Applied Materials is committed to continuing support of alternative transportation and hopes to increase the alternative mode usage.

APPENDIX E

IMPLEMENTATION CONDITIONS

The following conditions were adopted for the Arques Campus Specific Plan by the Sunnyvale City Council.

All new construction on the site shall comply with these conditions.

Final Implementation Conditions per City Council Hearing of June 15, 1999 (RTC 99-273) and August 10, 1999 (RTC 99-369) PC 1998-1196 - Applied Materials Arques Campus Specific Plan

Implementation Conditions: 1998-1196: Arques Campus Specific Plan

General Implementation Conditions

The Draft Arques Campus Specific Plan (April, 1999) will be modified and finalized to reflect the Implementation Conditions, including those related to Mitigation Measures identified in the Environmental Impact Report. In addition to complying with applicable City, County, State and Federal Statues, Codes, Ordinances, Resolutions and Regulations, Permittee expressly accepts and agrees to comply with the Implementation Conditions:

1. All development shall implement the Arques Campus Specific Plan Program goals and objectives.
2. The Implementation Conditions shall be reproduced on one page of the plans submitted for a Building Permit for this project**.** The Conditions of Approval of Design Permit 9415 for the subject site remain in effect in addition to the Implementation Conditions of the Arques Campus Specific Plan.
3. Permitted uses include: research and development laboratories, equipment testing and demonstration, administrative, professional and corporate offices and related support and amenity facilities.
4. Any expansion or modification of the approved use shall be approved by a separate application at a public hearing by the Planning Commission. Minor modifications may be approved by the Director of Community Development.
5. Permanent out-of-door loud speakers are prohibited. Temporary use of loudspeakers may be considered subject to review and approval by the Department of Community Development through the Miscellaneous Plan Application process at least one-month prior to the event.
6. Comply with all requirements of the SMC Noise Regulations.
7. Obtain a Development Permit from the Department of Public Works for all proposed off-site improvements.
8. Post labor/material bond and faithful performance bond for the full cost of all off-site public improvements (MCS 12.08.020) prior to issuance of building permits for improvements necessary for completion of Stage 1 and Stage 2.

9. Incidental and accessory storage, mechanical equipment or appurtenances shall be permitted if it does not exceed five percent of the net site and it is fully screened by building or sight-proof screening from public streets and adjacent properties.
10. Consult with the Crime Prevention Division of the Public Safety Department for crime prevention measures appropriate to new structures and the upgrade and additions to the existing buildings on the site prior to the issuance of a Building Permit. Incorporate features recommended by crime prevention or explain why the features cannot be incorporated, subject to review and approval of the Director of Community Development.
11. Obtain appropriate permit from the Bay Area Air Quality Management District prior to the demolition of any existing buildings on the site.
12. Comply with Housing Mitigation Policy, which includes an estimated Housing Mitigation Fee ($7.19/s.f. above 35% FAR) of $3,177,815 prior to issuance of a Building Permits or at a time mutually agreed upon by the applicant and the City of Sunnyvale.
13. Any proposal for telecommunication antennas shall conform to the Sunnyvale Municipal Code. At no time shall telecommunication antennas including dish antennas be visible above the roof parapet. All antennas shall be stealth and incorporated in the design of the buildings except for those exempt by the Sunnyvale Municipal Code.
14. Comply with Art in Private Development requirements by the provision of artwork at least 3 locations with at least one located along the Arques Avenue frontage Artist and artwork are subject to review and approval of the Arts Commission in accordance with the Sunnyvale Municipal Code. Artwork locations shall be approved by the Director of Community Development. Artist and artwork are subject to review and approval of Arts Commission in accordance with Sunnyvale Municipal Code. If an artwork application has not been submitted prior to issuance of a building permits for Stage 1, applicant shall provide a bond equal to 1% of the construction or the estimated cost of the artwork, whichever, is greater, to ensure satisfaction of this requirement. This artwork requirement for the Arques Campus Specific Plan supercedes the art requirement in conjunction with Design Permit 9415.
15. Obtain approval of a trash collection and recycling plan (including the design and location) from the Department of Community Development and the Department of Public Works. All trash enclosures will be a minimum of 6 feet high and enclosed on all four sides, approved by the

Director of Community Development and the location approved by the Director of Public Works prior to issuance of a Building Permits.

Site Design Concept

16. The site design will be in conformance with the Site Design Concepts (Chapter 3) of the Arques Campus Specific Plan. The Site Design Concepts include: community compatibility, central commons, interactive campus environment, campus circulation, unified architectural design, and integrated landscape design.

Land Use and Development Standards

17. The development standards for the Arques Campus Specific Plan will be in accordance with the development standards noted in Table 4.1 of the Plan or as may be modified or approved by the Director of Community Development.
18. The phasing of project development will be in accordance with the Implementation Chapter (Chapter 9), Section 9.7 and the Staging Summary (Table 9.1), or as may be modified and approved by the Director of Community Development.

Architectural Design Guidelines

19. All architecture and design for the campus will be in conformance with the Architectural Design Guidelines (Chapter 5) of the Arques Campus Specific Plan and the City of Sunnyvale Industrial Design Guidelines.
20. Provide detailed plans and elevations with adequate architectural design, including articulation and details for each building for review and approval by the Planning Commission prior to applying for building permits. The applicant may appeal the decision of the Planning Commission to the City Council within 15 days of the Planning Commission action. The following information shall be submitted to the Director of Community Development in conjunction with each design review:
    a) Architectural elevations of all sides of all buildings
    b) Floor plans of all buildings
    c) Exterior wall sections
    d) Exterior details of windows, doors, eaves balconies, etc.
    e) Mass building model or perspective drawings if required by the Director of Community Development.
    f) Complete color and material board.

g) Photographs showing streetscape of adjacent properties.

22. Provide refined site plans, for review and approval by the Director of Community Development, that demonstrate use of curvilinear features, including but not limited to architectural elements, pedestrian pathways and decorative pavement to soften the angularity in the conceptual site plan.

23. Any major site and architectural plan modifications shall be treated as an amendment of the original approval and shall be subject to approval at a public hearing before the Planning Commission, except that minor changes of the approved plans may be approved administratively by the Director of Community Development.

24. Design the parking garage façade with features compatible with the buildings along Arques Avenue.

25. All signage, "street furniture" (benches, planters, bicycle racks, garbage cans, etc.) shall be designed and constructed in accordance with the approved Industrial Design Guidelines. A comprehensive plan for these elements is subject to review and approval by the Director of Community Development.

Landscape Design Guidelines

26. All landscaping for the site will be done in accordance with the Landscape Design Guidelines (Chapter 6) of the Arques Campus Specific Plan.

27. The landscaping and irrigation plans shall be submitted to the Director of Community Development for approval prior to issuance of a building permit. The landscaping plan shall include the following elements:

    a) The site landscaping and open space on campus shall be at least 28% of the net site area and may include areas of decorative paving as part of the landscaping requirement.
    b) The minimum landscape area data noted in the Development Standards (Table 4.1 of the Arques Campus Specific Plan) needs to be revised to accurately reflect the square footage of landscaping for the site.
    c) All areas not required for parking, driveways or structures shall be landscaped.
    d) All landscape areas shall have an appropriate irrigation system.
    e) Consult with the Trees and Landscaping Division of the Pubic Works Department regarding the provision of street trees along the Arques Avenue frontage of the subject property

f) Every effort shall be made to save all existing healthy mature trees.
g) Provide trees at minimum 30 feet intervals along side and rear property lines, except where mature trees are located on the subject site or immediately adjoining on neighboring property.
h) Any modifications to landscaping along street frontages shall include undulating mounds up to 3 feet in height.
i) Ground cover shall be planted so as to ensure full coverage eighteen months after installation.
j) All areas not required for parking, driveways or structures shall be landscaped.
k) The landscape plan will accommodate Best Management Practices (BMPs) to promote post-construction stormwater quality standards.
l) Prior to issuance of a Demolition Permit, a grading Permit, or building Permit which ever occurs first, obtain approval of a Tree Protection Plan from the Director of Community Development. Utility Plan and Site plans shall be adjusted to ensure that healthy mature trees are preserved.

Lighting Plan

28. The lighting plan will be in conformance with the lighting standards of the Landscape Design Guidelines. Submit exterior lighting plan, including photometrics, fixture and pole designs, for approval by the Director of Community Development prior to issuance of a Building Permit. Driveway and parking area lighting shall include the following:

a) Sodium vapor (or illumination with an equivalent energy savings).
b) Pole heights (including the base and fixture) shall not exceed 16 feet.
c) Provide photo cells for on/off control of all security and area lights.
d) All exterior security lights shall be equipped with vandal-resistant covers.
e) Wall packs shall not extend above the roof or parapet of the building.

Access, Circulation and Parking

30. Submit a revised parking and circulation plan to the Director of Community Development for review and approval prior to the issuance of a Building Permit. The plan shall include:

a) A total of 2,975 parking spaces.

b) Designate on-site parking, including designated areas for employees, visitors, emergency response team members, handicapped parking, vanpool, and carpool spaces. All such areas shall be clearly marked on Building Permit plans prior to the issuance of Building Permits

c) A total of 10 percent preferential parking spaces shall be reserved and so marked in the closest possible rows adjoining the building or near parking structure elevators for exclusive use by carpool vehicles carrying at least two employees per vehicle. In addition, provide parking for visitors, disabled, and pool vans in similar areas.

d) Specify compact parking spaces on Building Permit plans. All such areas shall be clearly marked prior to occupancy, as approved by the Director of Community Development.

e) Provide a continuous pedestrian sidewalk (5 ft. minimum width) on the campus side of the Campus Road.

f) Provide bicycle storage and sufficient bicycle support facilities (e.g. showers and lockers) for a minimum of 150 bicycles (secured and temporary) in accordance with plans approved by the Director of Community Development and the Director of Public Works. Plan may include phasing proportional to development. At least 100 spaces shall be secured parking and at least 15 of the secured bicycle parking spaces shall be provided outside the building for visitors.

31. Submit a Transportation Demand Management Plan prior to occupying project facilities, and provide progress reports annually (January 1st) to the City of Sunnyvale.

a. In the event an annual progress report is not received by the City by January 1st, the City will notify responsible party in writing. If an annual TDM report is not filed within 30 days of the date of notification, the project sponsor will be charged a late fee of $20,000 payable to the City of Sunnyvale. In the event that the project sponsor does not meet the 15% goals, a remedy period of one year will be allowed. The Director of Community Development may require the applicant to post a bond for the estimated total non-compliance fee determined in the annual report. In addition, the Director of Community Development will determine schedule of submittal of the periodic updates to the City regarding the corrective actions taken by the project sponsor to achieve the 15% TDM goal. If at the end of the calendar year, the corrective actions do not result in a TDM of 15%, the applicant will pay the City the non-compliance fee. Fees shall be levied consistent with the fine

structure contained in paragraph 31b of the Implementation Conditions, up to the level of non-compliance with the 15% TDM goals demonstrated in the annual report submitted at the end of the one-year remedy period.

b. In order to underscore the significance of non-compliance with meeting the 15% TDM threshold, graduated fines will be imposed related to the degree of non-compliance with the annual 15% TDM alternative mode share goal. The fine per each percentage point below 15% would be determined on the following basis:

   1. A level of 10-14% alternative mode use would be fined at $20,000 for each percentage point below the 15% level (including the actual rate) multiplied by the percentage of the total potential employee population of 2,800.

   2. A level of 5-9% alternative mode use would be fined at $30,000 for each percentage point below the 10% level multiplied by the percentage of the total potential employee population of 2,800.

   3. Maximum annual fine for alternative mode use of 5% or below is $450,000.

The total penalty fee would be cumulative depending upon fines accrued based on the degree of non-compliance with the TDM goals.

32. Design landscaping and parking surfaces to contribute to effective storm water management.

33. Include storm water management in the design of the new parking garage.

34. Provide continuous walkways along the project frontage with wheelchair curb ramps at all street driveway intersections per Americans with Disabilities Act pedestrian access standards.

35. All traffic mitigation measures will be funded and implemented as noted in the Arques Campus Specific Plan EIR Mitigation Monitoring Plan and the Development Agreement between Applied Materials and the City of Sunnyvale.

<u>Infrastructure and Public Utilities</u>

36. All public facilities, such as water, sewer, storm drainage, and utilities must be provided to support full site development through each stage of project phasing. A Utility Plan will be prepared for the site in

accordance with City standards and requirements prior to issuance of Building Permits for Stage 1 and Stage 2.

37. All existing on-site, overhead utilities shall be undergrounded in accordance with the Sunnyvale Municipal Code (19.46.060). A copy of an agreement with PG&E for undergrounding of existing overhead utilities which are on-site or within adjoining rights-of-way shall be provided to the Director of Community Development prior to issuance of a Building Permit or a deposit in an amount sufficient to cover the cost of undergrounding shall be made with the City.

38. Obtain Public Works approval of plans for utility line extensions, utility connections, meter locations, driveways, sidewalks, etc.

39. The applicant shall comply with all provisions of National Pollutant Discharge Elimination System (NPDES) permit, including preparation and implementation of a Storm Water Pollution Prevention Plan for construction of this project.

40. Water pollution control measures (related to sanitary and storm sewer discharges) to be incorporated into the project construction, design and operation.

41. Comply with City of Sunnyvale Industrial Pre-treatment Program Standard Conditions for Plan Checks.

42. All waste water mitigation measures will be funded and implemented as noted in the Arques Campus Specific Plan EIR Mitigation Monitoring Program and the Development Agreement between Applied Materials and the City of Sunnyvale.

43. Contact the City's Environmental Division prior to the issuance of a Building Permit regarding water pollution control measures (related to sanitary sewer and storm discharge) to be incorporated into the project construction, design and operation. Incorporate features recommended by the environmental division or explain why the features cannot be incorporated, subject to review and approval by the Director of Community Development.

44. Provide separate irrigation systems to accommodate future recycled water connections for the site

45. Provide separate meters for irrigation.

46. Construct all public improvements prior to occupancy in accordance with approved staging plan.

47. Consult with Public Works staff for use of recycled water in buildings (excluding domestic use). Prior to issuance of Building Permits, incorporate features recommended by Public Works staff or explain why features cannot be implemented.

48. All waste water services mitigation measures will be funded and implemented as noted in the Arques Campus Specific Plan EIR Mitigation Monitoring Plan.

Implementation Conditions Related to Mitigation Measures

In conformance with the certified Final Environmental Impact Report, the following actions shall be taken to mitigate the environmental impacts that could be caused by development of the site as proposed in the Arques Campus Specific Plan. These mitigation measures are included as Implementation Conditions for the Arques Campus Specific Plan. A mitigation monitoring program is an attachment to the accompanying report on the Certification of the Environmental Impact Report.

Transportation

M1. Contributions to Northbound U.S. 101 Traffic Improvements. Make a fair share monetary contribution to the City of Sunnyvale (for the VTA Congestion Management Program) of 1.9% of the unfunded portion of the SR 85/U.S. 101 improvement project as mitigation of impacts on northbound U.S. 101 traffic. Payment to the City of Sunnyvale (the fair share contribution is $253,000).

*M2. Contribution to Southbound U.S. 101 Traffic Improvem*ents. Make a fair share monetary contribution of 3% to the VTA Congestion Management Program for the I-880 widening project (which affects the performance of U.S. 101). Payment to the City of Sunnyvale (the fair share contribution is $90,000).

M3. Transportation Demand Management. Project sponsor currently implements transportation demand management programs. Continue to implement TDM measures to achieve a minimum 15% reduction of automobile trips. Techniques that can be continued, enhanced, or initiated include informing employees of transit options; eliminating free parking or implementing parking cash-out at the Arques Campus; subsidizing transit passes; participating in VTA's Eco Pass program, commuter checks, or other alternative mode subsidies; providing shuttle services to bus and rail stops and transit centers; promoting vanpooling and ridesharing; and promoting bicycle use. Submit

Transportation Demand Management Plan and progress report to City Community Development Department on an annual basis.

M4. Lawrence Expressway and Arques Avenue Intersection Improvements. Contribute total project funds to the City to lengthen the northbound dual left-turn lanes from approximately 320 feet to approximately 560 feet. Project sponsor and City or County using funds from project sponsor. Payment of funds to the City for construction of intersection improvements (the fair share contribution is $213,000).

M5. Fair Share Contribution for Lawrence Expressway and Duane Avenue Improvements. Make a fair share monetary contribution to the City to finance a traffic interchange at the intersection of Lawrence Expressway and Duane Avenue. Payment of funds to the City of Sunnyvale for future construction of interchange. (The fair share contribution is $812,000).

Air Quality

M6. Vehicular Trip Reduction Measures. Same as M3.

M7. Construction Best Management Practices. Implement on-site measures for dust control during construction:

a. provide temporary erosion protection with mulches, fiber mats, dust palliatives, etc.,

b. schedule timely plantings to permanently abate wind erosion,

c. wash or sweep access roadways and prevent mud from accumulating on area streets during construction,

d. when there is a substantial amount of exposed earth, have a water truck on site or other means of readily watering exposed surfaces.

The following other measures or conditions would have a favorable effect on dust and could be performed instead of watering some portions of the site during some phases of construction:

(1) seed and water inactive portions of the site until grass growth has taken hold;

(2) refrain from grading, earth-moving, or excavation during periods of high winds unless the earth is too damp to give off dust that could become airborne;

(3) cover, in some way, piles of loose material that could blow away in the wind;

(4) cover the beds of trucks hauling any sands or soils; and,

(5) provide stations for washing truck wheels and for wetting down truck beds.

Wastewater Services

M7. Regulation of Industrial Processes. Conduct industrial processes such that release of industrial wastewater does not coincide with weekday peak flows in the Lawrence trunk sewer, from 6 AM to 10 AM.

M8. Collection System Upgrade. Contribute funds to the City to make available capacity improvements to the 10-inch sewer line in Arques Avenue, the sewer force main diversion facilities, the proposed Fair Oaks Avenue sanitary sewer extension, or other facilities, as determined appropriate by the City Public Works Department, to mitigate the peak flow impacts from buildout of the Arques Campus. The payment shall be determined on the basis of the equivalent cost for on-site storage of a volume equal to four hours of the differential between the peak flow at buildout and the peak flow from the existing facility, including the Technology Center. (The fair share contribution is $197,600).

Hydrology and Water Quality

M9. *Preparation of SWPPP*. Have a construction Storm Water Pollution Prevention Plan (SWPPP) prepared by, or under the direction of, an individual who is qualified as a Certified Professional in Erosion and Sediment Control or a Registered Civil Engineer. Project sponsor.

M10. *Review and Approval of SWPPP*. Consult with the City of Sunnyvale in identifying exact locations, extent, nature and details of erosion controls and in developing Best Management Practices (BMP). The SWPPP shall conform to City requirements for pollution prevention in construction contracts. The SWPPP shall be submitted to the City of Sunnyvale for review and approval prior to issuance of grading or construction permits.

M11. *Minimize Use of Pesticides and Fertilizers*. Use the minimum amount of pesticides and fertilizers necessary to properly maintain landscaping at the Arques Campus. Do not apply pesticides and fertilizers to grounds if rain is imminent. Project Sponsor. Report pesticide use to City Community Development Department annually.

Health and Safety

M11. *Environmental Safety and Health Plan*. Revise, update or amend Environmental Safety and Health Plan prepared for the construction of the new Technology Center, parking garage, and recreation center to address the worker, public and environmental health and safety issues related to the potential for project-related construction to disturb existing contamination or interfere with ongoing remediation activities. Submit revision, update, or amendment to City Community Development Department and the San Francisco Bay Regional Water Quality Control Board and implement the plan.

M12. *Hazardous Materials Survey*. Have existing buildings inspected by a qualified environmental specialist for the presence of as yet unidentified asbestos, PCBs, mercury, lead, or other hazardous materials. If found, these materials shall be managed as required by law and according to federal and state guidelines. Health and safety measure to address possible building contaminants discovered through this process shall be incorporated into the revised, update, or amended Environmental Safety and Health Plan described in M11, or into a new plan implemented to address these issues.