UNIVERSITY OF CALIFORNIA

MONTEREY BAY
EDUCATION, SCIENCE AND TECHNOLOGY CENTER

MASTER PLAN

Monterey Bay satellite photograph by the URISA Journal

FINAL • DECEMBER 1996

This report was prepared by Economic and Planning Systems for the University of California at Santa Cruz under award No. 07-49-04063 from the U.S. Department of Commerce Economic Development Administration
UNIVERSITY OF CALIFORNIA

MONTEREY BAY
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Prepared for the University of California at Santa Cruz by Economic and Planning Systems. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the Economic Development Administration.
UC MBEST Center Master Plan

Errata Sheet

Page 4-2, Figure 4.1, “UC/NRS Fort Ord Natural Reserve,” is replaced with the graphic appearing on the following page, as approved by UC President Janet Napolitano on April 13, 2015.
Fort Ord Natural Reserve and UC MBEST Center

- **FORT ORD NATURAL RESERVE (FONR), MANAGED BY UC NRS SYSTEM**
- **FONR LAND SOLD IN 2001**
- **REPLACEMENT FONR HABITAT** (Replacement authorized by Regents on May 21, 2014 and delegated to the President for implementation.)
- **APPROVED MBEST CENTER LANDS**
- **LAND PROPOSED BUT NOT APPROVED FOR INCLUSION IN THE MBEST CENTER**

Source: Master Plan Study, University of California, Monterey Bay Education, Science and Technology Center, Sedway Cooke Associates (March 1995)
UC MBEST Center Master Plan
Errata Sheet
February 19, 1997

Page 3-10, Figure 3.6, “Promontory Sites” includes lines to parcels E10 and E15 (see Figure 5.6, page 5-12 for parcel numbers). The line to parcel E15 should be shifted to point to parcel E17.

Page 6-12, first full paragraph, first sentence: change beginning of sentence to state, “Reuse planning efforts include a recommendation to site a major intermodal transportation terminal near Fifth Street and First Avenue, in the heart of Fort Ord...”.

Page 7-6, column 1, first full paragraph, first sentence is revised to state, “Because of the excellent percolative capacity of the surficial soils at Fort Ord, the storm water system for individual parcels within the UC MBEST Center will consist of landscaped percolation recharge ponds or recharge vaults capable of retaining the 10-year storm and overflow areas capable of retaining the 100-year storm without inundation of roadways or building pads.

Page 8-2, column 2, third paragraph, second line: Change “Nelson” Road to “Neeson” Road.

Page 8-18, column 2, first paragraph, fifth line: change line to state, "... need to be finalized in an executed MOU between the City and UC and in an agreement between UC and the redevelopment agency of Marina".

Page A-1, immediately under “Permitted Uses by Land Use Category, add the following sentences, “The following uses are permitted within specific land use areas. Other uses deemed by the University of California or permitting jurisdiction to be sufficiently similar to the allowed uses set forth within each land use category shall also be allowed.”

Page A-1, item 4, last line, change “the area of any building” to “the area of all buildings on a single parcel”.

Page A-2, first column, eliminate item 8, as it is redundant with the newly-inserted text at the top of column 1 on page A-1.
UC MBEST Center Phases 1 through 3
Shading indicates areas approved by UC Regents on
March 21, 1997
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PLAN OVERVIEW

INTRODUCTION

The closure of nearly all of the Fort Ord Military Reservation in Monterey County, announced in 1991, resulted in an opportunity for the University of California (UC), under the leadership of its Santa Cruz campus (UCSC), to acquire 1,089 acres of the former base as a site for the University of California Monterey Bay Education Science and Technology (UC MBEST) Center. Approximately 605 acres of this land was incorporated into the UC Natural Reserve System as the UC/NRS Fort Ord Natural Reserve (FONR).

The UC MBEST Center is one of two central anchor activities of the Fort Ord reuse effort. Designated a model by the Secretary of Defense, the reuse of Fort Ord includes the establishment of California State University Monterey Bay (CSUMB), a full-service college campus, and the creation of the UC MBEST Center by the University of California. The activities of the two universities provide a strong centerpiece to Fort Ord and the Monterey region, and will be fundamental to the success of the Fort Ord reuse vision.

The concept for the UC MBEST Center originally emerged from the efforts of the Fort Ord Reuse Task Force, established in 1991 under the leadership of then Congressman Leon Panetta. The intent was to draw upon the existing regional research and educational resources located along the rim of the Monterey Bay research crescent. Programmatic planning for the UC MBEST Center has included the input of nearly 20 regional education and research institutions, drawing upon and linking the talents of these institutions with each other, with public and private sector entities that will relocate to or participate in the newly formed UC MBEST Center, and with national and international regions and institutions. Since 1991, UC has worked diligently to refine and develop the original vision of the Fort Ord Reuse Task Force. This Master Plan represents a major milestone in this planning effort. It provides a framework for the conservation and development of the UC MBEST Center lands in a way that will achieve UC's broad objectives for economic development and environmental stewardship at the former Fort Ord.
Mission Statement

The University of California’s goals at the UC MBEST Center are threefold:

- first, to promote economic growth and environmental stewardship through the integration of science, technology, education and policy;
- second, to contribute to California’s leadership in the emerging environmental and informational economies of the global marketplace; and
- third, to maintain and enhance the unique natural and cultural resources of the Monterey Bay region through sustainable economic development.

The mission of the UC MBEST Center is to promote collaborative interaction and strategic alliances between research and education institutions, private business, and policy makers in the Monterey Bay region to enhance the area’s economic development opportunities. Although the primary focus of this economic development activity will be the Monterey Bay region, it will necessarily entail linkages to statewide, national and global markets.

The UC MBEST Center is first and foremost an organization charged with initiating, coordinating and sustaining the synergistic relationships between UC, other Monterey Bay Area research institutions, and private enterprise. It is a collaborator with local and regional government in harnessing these assets to drive regional economic development and the spinoff benefits it creates for all parties—research, education, business opportunity, and jobs.

The UC MBEST Center site provides a physical location and focal point to leverage the institutional and business activities catalyzed by the UC MBEST Center. The site provides UC: a physical presence in the Monterey Peninsula; the potential to offer centralized services, meeting venues and research facilities; and a location for research-based business enterprises that can benefit from and reinforce the research and economic development activities of the Center and its constituent institutions. It is more than a real estate development in the conventional sense. Though broader in mandate, the UC MBEST Center must conform to the economic imperatives of real estate development to be successful; i.e., it must respond to market needs and meet tests of financial feasibility.

The trend for strategic alliances between universities and other research institutions and private enterprise is growing in importance as economic growth is increasingly tied to knowledge-based resources. University-related research parks have emerged throughout the nation and elsewhere in the world over the last decade, and private business is increasingly involved in supporting research by universities and other academic institutions. These relationships are yielding expanded research funding and educational opportunities as well as intellectual property assets to universities. At the same time, businesses are receiving access to commercially valuable technologies, which in turn generates jobs and income for residents of the region.
An overarching planning principle is to create strong physical and virtual linkages within the UC MBEST Center, and between it and CSUMB, UCSC, the rest of the UC system, and other regional research institutions. High-speed information connectivity among UC MBEST Center tenants and with all participating institutions will be central priority.

The Monterey Bay Area offers significant opportunity to leverage intellectual resources to create a regional competitive advantage. It is home to one of the largest concentrations of marine and environmental scientists and engineers in the country, and has unsurpassed depth in technological knowledge and resources applicable to environmental data management, atmospheric and marine science, and deep sea exploration. It also is the location of one of the most technologically sophisticated agricultural centers in the country, in the Salinas Valley, and is in close proximity to the extensive concentration of computer science, software and biotechnology activities in Silicon Valley and the greater San Francisco Bay Area. Furthermore, the Monterey Peninsula is renowned worldwide as a center for language instruction. Its high-quality environment, recreational resources and beautiful landscape make it an attractive area to both visitors and residents who are able to find jobs within commute distance.

**Plan Scope and Organization**

This Master Plan sets forth a broad vision for the UC MBEST Center. The purpose of the plan is to guide the development of the property in a way that encourages the creation of a coordinated collection of buildings and activities, reflective of UC’s mission and its values and objectives for the stewardship of the property. [Throughout this document, the term “campus” will be used to refer to the proposed physical development; the word is not intended to imply a traditional teaching campus.] The plan recognizes that new development and investment will occur on an incremental basis over an extended period of time, and as such, it is formulated to allow UC to respond to changing conditions and opportunities. At the same time, the plan provides specificity where the fundamental objectives of UC are affected.

Because of its close relationship, this document also includes a recommended development pattern for the adjacent Marina Airport Business Park, as requested by the City of Marina. The recommended pattern is not intended to reflect adopted policies of the City of Marina, only to illustrate a pattern that would be compatible with the UC MBEST Center.

The Master Plan is written in the format of a Specific Plan to enable UC and the relevant local jurisdictions to adopt it as a regulatory document in the future. As such, the plan sets forth:

- the goals of UC in undertaking the project (Chapter 1);
- the existing physical, institutional and regulatory context for development (Chapter 2);
- the planning principles that underlie the policies and standards of the plan (Chapter 3);
- the management of UC Natural Reserve System lands at Fort Ord (Chapter 4);
- the location, mix and intensity of land uses, and the development standards that will guide the physical planning and design of the campus (Chapter 5);

- the transportation systems (vehicular, transit, bicycle and pedestrian) and programs that will support development (Chapter 6);

- the utility systems (water, sanitary sewer, storm drainage, gas, electric and telecommunications) (Chapter 7); and

- the regulatory, management, phasing and financing actions that will be required to implement the plan (Chapter 8).

**Plan Summary**

This Master Plan provides guidance to the University of California for the ongoing management and planning of the 1,089 acres of property transferred or anticipated to be transferred to UC at the former Fort Ord. More specifically, the plan provides for:

- **The preservation of 605 acres of land, or 56 percent of the property, as a natural reserve, the purpose of which will be to preserve and maintain existing habitats and to provide opportunities for teaching and research. This property was incorporated into the University of California Natural Reserve System (UC/NRS) in June of 1996. An Installation-wide Multispecies Habitat Management Plan is being prepared to guide the management of all lands at the former Fort Ord that have been set aside for conservation of endangered species. A specific management plan is being prepared by the UC/NRS to guide the management of the UC/NRS Fort Ord Natural Reserve over an extended period of time.**

- **The creation of a mixed-use campus on 437 acres of land that can accommodate up to 4.4 million square feet of public and private sector educationally related and research-oriented activities and support functions, including hotel/conference, service commercial and light industrial uses. The land use plan identifies unique areas of the property (e.g., the hillside promontory on the South Central Campus, and the bluff edge on the East Campus) for special amenity uses, such as restaurants, conference centers and health clubs, that can serve as gathering places for the campus and surrounding users.**

- **Additional capacity for mixed-use development on 47 acres of property not included in this Master Plan. This property, which is located adjacent to the Eighth Street cutoff and Sixth Avenue near the CSUMB campus, will serve as an adjunct campus for research and development, housing, and other uses complementary to the regional economic development effort. The Fort Ord Reuse Authority Reuse Plan proposes mixed-use development for this property.**

- **The coordinated development of the UC MBEST Center with the Marina Airport Business Park as a visually consistent mixed-use complex sharing the same circulation**
system, amenities and development standards. The City and UC have undertaken their planning in a coordinated manner and envision that the two developments will be closely integrated, with complementary uses and activities.

- **The retention of the rural character and rolling topography of the property through preservation of existing oak woodlands, sensitive site planning and grading, and augmentation of existing landscape with native or ecologically compatible vegetation that further enhances the unique coastal environment.** The alignment of internal roadways within the campus has been carefully planned to limit significant regrading; major existing oak woodland clusters on the West, North and South Central Campuses will be retained as site amenities; and the development standards of the plan will promote development that is compatible in scale and character with the rural landscape.

- **The concentration of activities at strategic locations within the campus to promote intellectual exchange and social interaction among UC MbEST participants.** With activities located within walking and bicycle distance of one another, the need for automobile trips can be reduced, and the ability for transit to efficiently serve development can be enhanced. Several activity centers are planned within the campus, including a Campus Core Quadrangle on the North Central Campus, a quadrangle in the vicinity of the existing Simulator Complex, and a concentration of commercial uses at the Blanco gate to the UC MbEST Center and Marina Airport Business Park.

- **The creation of a continuous system of landscaped bikeways and pedestrian paths, that extends the planned regional and citywide systems and promotes nonvehicular trips.** The internal roadway systems of the campus will include continuous landscaped pedestrian ways as well as exclusive bicycle lanes that connect to the planned regional bike route system.

- **The creation of “virtual” linkages between: the UC MbEST Center and CSUMB; UCSC and the UC system; and other regional research facilities.** Virtual linkages will be facilitated by an onsite fiber optic telecommunications system and broad bandwidth high-speed connectivity to UCSC and the UC system, and other regional research institutions. Onsite communications will be facilitated by installing multiple communications conduits with fiber optic cable under major roadways. External communications will be facilitated by a fiber optic cable to be installed by Pacific Bell by early 1997.

- **An open-ended phasing program that will allow UC and the City of Marina to respond to marketing opportunities as they arise.** The phasing program sets forth a series of infrastructure improvement “packages” each with an associated tract of land that is opened up. The packages can be undertaken in a number of combinations, depending upon demand. The early phase strategy calls for the leveraging of existing public funds to open up substantial acreage on portions of the UC MbEST West and North Central Campuses, as well as the Marina Airport Business Park.
EXISTING CONTEXT

SITE CONTEXT

The UC MBEST Center and UC/NRS Fort Ord Natural Reserve (Reserve) are located on approximately 1,089 acres of land on the former Fort Ord Military Reservation in Monterey County. As shown in Figure 2.1, the land is close to Highway 1, approximately eight miles from downtown Monterey, five miles from downtown Salinas, and approximately 40 miles from the University of California campus at Santa Cruz (UCSC). The property is located within one mile of the coastal shoreline of the Monterey Bay National Marine Sanctuary.

INSTITUTIONAL CONTEXT

The UCSC campus is directing the development of the UC MBEST Center, a multipartner research and development center aimed at developing innovative solutions to emerging issues of the twenty-first century through the development of public and private partnerships. The center will bring together the strengths and resources of private industry, state and federal agencies, policy makers, educational institutions, and other partners to address these issues. Key to the vision of the center are strategic research alliances between and among the regional research and educational institutions and participants in the UC MBEST Center.

In this regard, the UC MBEST Center will benefit from a region world-renowned for its collection of earth, marine and environmental science facilities, programs and scientists. The campuses or research stations of four universities (University of California: Santa Cruz Campus and Long Marine Laboratory; California State University: Monterey Bay Campus and Moss Landing Marine Laboratory; Stanford University: Hopkins Marine Station; and the Naval Postgraduate School: Monterey Campus and Point Sur Underwater Ocean Acoustic Observatory).

Several government agency research facilities (National Oceanographic and Atmospheric Administration, U.S. Naval Research Laboratory, U.S. Navy Fleet Numeric Oceanographic Center, U.S. Fish and Wildlife Service, State of California Department of Fish and Game) and independent research organizations (Monterey Bay Aquarium Research Institute, Elkhorn Slough Foundation) collectively comprise one of the
largest research networks in the nation. Over 1,600 natural and social scientists at these institutions and others actively collaborate to integrate innovative science and technology in areas that directly complement planned UC MBEST Center activities (Figure 2.1). With a regionwide focus on the study of natural systems and measurement, visualization and communication technologies, connected by a high-speed Asynchronous Transfer Mode (ATM) network, the significance of the Monterey Bay Research Crescent as a productive and diverse virtual laboratory is unsurpassed.

In 1993, UC and the California State University (CSU) entered into a memorandum of understanding regarding cooperative planning for Fort Ord reuse. CSU has acquired an adjacent 1,300 acres from the U.S. Department of the Army at Fort Ord under the same economic development conveyance mechanism as utilized for property conveyed to UC. CSU has rehabilitated several structures that serve as the initial campus for CSUMB. UC anticipates the opportunity to share with CSUMB some faculty resources to coordinate future employment of CSUMB students at the UC MBEST Center; and to continue to cooperate in areas of mutual interest including certain physical planning connections.

**Regulatory Context**

The California Constitution and related court decisions provide UC with an exception from many local land use regulations for UC's educational and other public trust activities. Research, development and technology transfer are clearly included within those activities. It is UC's desire to include local jurisdictions in planning and oversight. Activities on UC property that generate revenue for UC, but are not directly related to UC's educational and research mission, may be subject to local regulations.

All of the UC MBEST Center lands lie within Monterey County. In addition, approximately half of the campus is within the city limits of Marina (Figure 2.2). In this regard, consistency will need to be established between the UC MBEST Center Master Plan and the General Plans of Monterey County and the City of Marina. These General Plans may need to be updated and amended to achieve such consistency. Chapter 8, Implementation, provides a discussion of consistency between the UC MBEST Master Plan and these General Plans.

There are numerous local, regional, state and federal agencies that may have opportunities to review proposed development at the UC MBEST Center. These agencies and their responsibilities are also described in Chapter 8.

**The Fort Ord Reuse Plan**

- As part of the Defense Base Realignment and Closure Act (BRAC) of 1991, Fort Ord has been closed and a process initiated to reuse the 44 square mile/28,000-acre military reservation. The Fort Ord Initial Base Reuse Plan (IBRP) was adopted on March 19, 1993 by the Fort Ord Reuse Group (FORG) in a cooperative planning effort that included the participation of six local governments, the University of California, CSU, and numerous other interests at the federal, state, regional and local levels. The formal FORG members
FIGURE 2.2— PLANNING AREAS AND LOCAL JURISDICTIONS

- MARINA
- SEASIDE
- CALIFORNIA COASTAL COMMISSION MANAGEMENT ZONE


Existing Context
included Monterey County and the cities of Marina, Seaside, Del Rey Oaks, Monterey and Sand City. UC and CSU, among others, also participated actively in FORG planning and related reuse efforts.

Following the completion of the IBRP, the State of California passed SB 899 to create and define the roles of a new regional planning entity, the Fort Ord Reuse Authority (FORA), as the Local Reuse Authority (LRA). State Senate Bill 899 became law on May 9, 1994 and established a 13-member board consisting of the following representatives:

- Three appointed by the Monterey County Board of Supervisors;
- Two each appointed by city council members from Marina and Seaside;
- One each appointed by council members from the cities of Carmel, Del Rey Oaks, Sand City, Monterey, Pacific Grove, and Salinas; and
- Several ex-officio members, including the University of California and CSUMB.

FORA's primary responsibilities include: planning, financing and construction of infrastructure and public facilities; formation of special taxes and assessments, and levying of development fees; mitigation of impacts to rare and endangered species of flora and fauna; and the study, evaluation and recommendation for cleanup of toxics within the Fort Ord territory.

FORA is required to prepare, adopt, review and revise as necessary a plan for the future use and development of Fort Ord territories. The UC MBEST Center planning process is linked with the FORA process through a dependency upon the large-scale infrastructure improvements that are to be developed and/or allocated by FORA. Additionally, the UC MBEST Center Master Plan provides information for the local General Plans that are required to be reviewed and approved by FORA. Chapter 8, Implementation provides a more detailed discussion of these relationships.

In December of 1994, the Fort Ord Reuse Authority adopted a set of planning assumptions (Interim Plan), predicated on the IBRP, to guide physical planning. This Interim Plan has provided the basis for the Draft Reuse Plan which is currently under public review. The planning of the UC MBEST Center has been closely coordinated with the overall Fort Ord reuse planning process, and as a result, the Master Plan is consistent with the policies set forth in the Reuse Plan. The IRBP and the Draft Reuse Plan establish five "Strategic Themes" for the reuse of Fort Ord. These include:

- Innovative Opportunities for Collaborative Education and Research, through the creation of the UC MBEST Center and the establishment of CSUMB.
- Support for the military, including the retention of military enclaves within the base (i.e., Presidio of Monterey [POM] Annex) to support the presence of the remaining 16,600 active and retired military personnel and their families.
• **Expansion of the Region’s Parks, Recreation and Open Space,** including the protection of existing natural systems, through a Coordinated Resource Management and Planning Program, of which the UC/NRS Fort Ord Natural Reserve is an integral component.

• **Environmental Cleanup and Enhancement of Infrastructure,** to remediate contaminated portions of the site and to provide services that can attract and support development.

• **Promotion of Economic Development Opportunities,** including agriculture, aquaculture, education, light industrial, commercial, business parks, aviation and tourism.

The Fort Ord Reuse Plan designates the Reserve Parcels 4a, 6b, 7b and 9c as the UC/NRS Fort Ord Natural Reserve and Parcels 7a, 7c, 8b, 8c and 9b as the UC MBEST Center. The land use program of the Fort Ord Reuse Plan is summarized in Chapter 5 of this Master Plan.

**THE HABITAT MANAGEMENT PLAN**

In February of 1994, the U.S. Army Corps of Engineers published an “Installation-Wide Multispecies Habitat Management Plan for Fort Ord, California” (HMP). This established guidelines for the conservation and management of wildlife and plant species and habitats that largely depend on former Fort Ord land for survival. A revised HMP is now being prepared by the U.S. Army Corps of Engineers to respond to changes in the proposed disposal of former Fort Ord lands. The goals and objectives of the HMP are to:

• Preserve, protect, and enhance populations and habitat of federally listed threatened or endangered wildlife and plant species.

• Avoid reducing populations or habitat of federal proposed and candidate wildlife and plant species to levels that may result on one or more of these species becoming listed as threatened or endangered.

• Preserve and protect populations and habitat of state-listed threatened and endangered wildlife and plant species.

• Avoid reducing populations or habitat of species listed as rare, threatened or endangered by the California Native Plant Society (List 1B), or with large portions of their range on former Fort Ord lands, to levels that may result in one or more of these species becoming listed as threatened or endangered.

• Conduct the disposal of land to public and private entities in a manner that is compatible with the preservation of federally listed threatened or endangered wildlife and plants within the HMP conservation area.

• Inform potential recipients of former Fort Ord lands and the general public of methods that provide a suitable mechanism for protecting natural resources while allowing implementation of a community-based reuse plan that promotes economic recovery after closure of the former Fort Ord.

• Provide the basis for recipients of former Fort Ord lands to seek Section 10(a) permits pursuant to the federal Endangered Species
Act and achieve compliance for conservation of state-listed threatened or endangered species and other special-status species recognized by California Department of Fish and Game under the California Endangered Species Act and California Environmental Quality Act.

- Serve as a "pre-listing" agreement between USFWS, DFG and the land owner that reduces the regulatory constraints of future listing in the event that nonlisted species addressed in the HMP become listed during disposal, reuse and implementation of the HMP.

The overall goal of the HMP is to provide for no net loss of populations or important habitat for any of the subject species of the HMP. Provisions of the HMP that relate to the UC/NRS Fort Ord Natural Reserve are described in Chapter 4 of this Master Plan.

**Surrounding Land Uses and Land Use Plans**

The major land uses surrounding the UC MBEST Center include the Marina Municipal Airport, the substantially urbanized lands along the southern boundary (a portion of which have been conveyed to CSUMB), adjacent agricultural lands on the valley floor to the northeast, planned “Habitat Protection” lands, and the planned reuse by the County of Monterey of the East Garrison immediately east along Reservation Road. Figure 2.3 indicates land uses surrounding Fort Ord, and Figure 2.4 provides a description of uses surrounding the UC MBEST Center property.

**The Marina Municipal Airport**

The planning area for the Marina Municipal Airport lies immediately adjacent to the northern boundary of the UC MBEST Center (Figure 2.4). The lands conveyed to the City of Marina total approximately 845 acres. Approximately 400 acres are designated for aviation facilities, including airfield and building areas. The core of the area will accommodate the “general aviation” activities described in Marina’s Airport Master Plan (June 15, 1993). The plan forecasts that, under civilian ownership, the total annual flight operations will range from 39,000 to 61,000 over the 15-year planning period.

1) **Major Airport Features and Improvement Plans:** The airport includes an existing runway 3,000 feet in length. The Airport Master Plan provides for its extension on both ends to a length of approximately 5,240 feet to accommodate larger aircraft. Five existing hangars and several supporting buildings comprise the existing airfield facilities. A large steel water storage tower with a 300,000 gallon capacity is centrally located in the building area of the airport, and is visible from Highway 1 as well as from the city of Salinas.

2) **Nonaviation Activities:** In addition to the general aviation activities, the Airport Master Plan identifies two “nonaviation” revenue-producing areas totaling approximately 265 acres. Approximately 167 additional acres are identified as “habitat protection” areas. A portion of these areas abuts the UC MBEST Center lands (see Figure 2.4).
3) *Air Traffic Operation Impacts on the UC MBEST Center:* Air operations at the airport create restrictions to development within portions of the UC MBEST Center lands. A Runway Protection Zone (RPZ) impacts a portion of the north UC MBEST Center lands. FAA regulations prohibit buildings within this area. A transitional protection zone is established by FAA regulations for an area up to 640 feet in width on both sides of the runway centerline. Within this area, buildings are required to be low occupancy, and building heights are limited to approximately 20 feet above the height of the runway elevation. The area of restriction is indicated in Figure 2.4.

*CSUMB Housing*

At the southern boundary of the UC MBEST Center lands, to the east of Imjin Road, are the residential neighborhoods that have been conveyed by the U.S. Army to CSU. Current CSUMB plans for these units will make them available as a housing resource for educational institutions (and others) in the Monterey Bay region. The ultimate use of these units will be established in the long range plan that is currently in preparation by CSU.

*Other Areas Within the City of Marina*

*Residential Neighborhoods:* Two residential neighborhoods have been developed within the city of Marina adjacent to the UC MBEST Center. The “Southeast” planning area is located across Reservation Road from the UC MBEST Center. This neighborhood is principally single-family residences. The “North Central” planning area, on the north side of Reservation Road, includes single-family residences adjacent to the UC MBEST Center with multi-family housing in the vicinity of Del Monte Boulevard. Only a small portion of the North Central planning area is currently developed. On the west side of Imjin Road are the residential neighborhoods that the U.S. Army will market to the private sector.

*Commercial/Industrial Development Along Reservation Road:* Reservation Road serves as a major arterial through the city of Marina. Several “community commercial” shopping centers are located along Reservation Road between the UC MBEST Center and Del Monte Boulevard. These shopping centers provide a wide range of services, including food markets, restaurants, and convenience retail establishments. Directly adjacent to the UC MBEST Center on the north side of Reservation Road are several one to two-story commercial establishments, including small offices and a self-storage establishment. Access to these businesses is directly from Reservation Road.

*Armstrong Ranch:* To the west of the UC MBEST Center is the approximately 2,400-acre Armstrong Ranch. The Ranch is currently an undeveloped portion of the city generally lying between the Marina Municipal Airport and Highway 1. The area is designated in the City’s General Plan for mixed-use development, including residential, commercial and industrial uses, and recreation and open space subject to the preparation of a Specific Plan.

*Areas Within the County of Monterey*

*The Army Reserve Training Center:* A 12-acre site is retained by the U.S. Army for reserve training activities at the southeast corner of the intersection of Reservation and Imjin roads. This site is presently
developed with several one-story structures that include small office/meeting room facilities and vehicle repair and storage areas. Access to the site is from Imjin Road. Fencing on the other three sides of the parcel separate the facility from the UC MBEST Center lands.

The East Garrison Site: The East Garrison is a 751-acre site generally located at the convergence of Reservation Road and the Intergarrison Road. This planning area includes the Historic Camp Gagling facilities. The County of Monterey is considering development of the East Garrison as an urban village, including an Arts District, a residential neighborhood, a Monterey County Agricultural Showcase, and shared open space features. Monterey Peninsula College District has submitted a public benefit conveyance request for reuse of the East Garrison and Police Officer Safety Training (POST) Center. This request has been approved by the Department of Education. If granted, it would allow MPC to continue the POST-related training services it has been conducting at the East Garrison for some years. The POST center would utilize the existing facilities on the approximately 200 acres of land that have been previously developed. At this time, it is not known which development concept will be built.

Habitat Management Area: Habitat management areas identified in the Reuse Plan and incorporated in the HMP include an area located between the East Garrison site and the CSUMB housing. The area shares a common boundary with a portion of the Southern Reserve and is bounded on the north by Reservation Road. As provided in the Reuse Plan and HMP, these areas are set aside as habitat preserves. The HMP identifies this area as parcel E11a, to be managed to maintain existing habitat values for HMP species; the County of Monterey is responsible for ensuring that all conservation and management requirements of the HMP are met for this parcel.

Development Along the Bluffs: Six occupied residences (homes with outbuildings) are located adjacent to the UC MBEST Center lands and atop the bluffs that separate the UC MBEST Center from the agricultural lands to the north. Access to these residences is currently provided from Blanco Road by a narrow paved road located immediately outside of the East Campus property. In addition, one of the Marina Municipal Airport navigational aids is located on a parcel adjacent to the UC MBEST Center lands and aligned with the airport runway.

Agricultural Lands in the Salinas River Valley: From its northern perimeter, the UC MBEST Center enjoys a dramatic view of the agricultural fields that stretch across the Salinas River valley. These agriculture fields are approximately 400 feet from the University property line and begin at the base of the bluffs that provide the physical limit to the UC MBEST Center lands.

Transportation Context

Existing access to the UC MBEST Center is provided by two major county roadways. Reservation Road provides a link with Highway 1 on the west and with State Route 68 on the east. Blanco Road provides access from Salinas. In addition, Imjin Road, part of Fort Ord's internal circulation network, links the UC MBEST Center with the CSUMB campus.
The Reuse Plan sets forth a comprehensive program of transportation improvements that will be implemented over a 20-year period, significantly enhancing access to the UC MBEST Center. The proposed 2015 roadway network represents a system of regional and localized improvements aimed at improving access and serving planned development. These improvements are described in Chapter 6, Circulation.

**SITE FEATURES**

The following provides a description of existing site conditions on the UC MBEST campus:

**Physiography**

The physiography of the UC MBEST Center lands is characteristic of lands at the higher elevations of the Fort Ord landscape.

**Geomorphology**

Pleistocene stabilized sand dunes underlie most of the site (Figure 2.5). These relic dunes occur in only limited areas of the California coast and support unique biotic relationships, as described in Chapter 4. A small area of Aromas Sandstone crops out at the easternmost portion of the site.

Baywood and Oceano soil series are developed on the dunes underlying the site. The Baywood soil series covers most of the site, while the Oceano series is limited to the easternmost portion of the site and includes the small portion of underlying Aromas Sandstone. Due to low fertility and water-holding capacity, together with the existing coastal climate, these sand dune soils restrict habitat to plant communities of limited range and support special status plant species (U.S. Army Corps of Engineers, Sacramento District 1992a).

1) **Erosion Potential:** The dune lands and the Baywood and Oceano soil series underlying the site are particularly susceptible to wind erosion if vegetation is removed and the surface is disturbed. Organic matter accumulation and the development of soil structure in the surface horizons of the Baywood and Oceano soils retard wind erosion. The loose sand found in the Baywood and Oceano soils has a wind erosion potential of up to 310 tons per acre per year in open, unvegetated areas. This wind erosion potential was the highest of any of the nine soil series identified at Fort Ord. Winds at the UC MBEST Center are generally moderate, coming from the west. Relative to other parts of Fort Ord, this site is not particularly susceptible to water erosion.

2) **Topography:** In contrast to most of Fort Ord, the site is relatively flat, with most slopes ranging from 0 to 10 percent. The easternmost portion of the site, however, terminates in an approximately 100-foot high bluff with slopes greater than 30 percent.

3) **Engineering Implications:** The poorly aggregated, sandy Baywood and Oceano soil series have severe limitations for shallow excavation caving and for piping in embankments. In addition, a severe limitation exists for reservoir construction due
FIGURE 2.5—TOPOGRAPHY, SURFICIAL GEOLOGY, AND MAJOR SOIL SERIES

TOPOGRAPHY
- TOPO LINES AT 10' INTERVALS

SURFICIAL GEOLOGY
- PLEISTOCENE STABILIZED DUNES
- AROMAS SANDSTONE

MAJOR SOIL SERIES AND TYPES
- BAYWOOD
- OCEANO

Source: Master Plan Study, University of California, Monterey Bay Education, Science and Technology Center, Sedway Cooke Associates (March 1993)
to high permeability, seepage, and piping potential in earthen dam embankments. Building design, construction and engineering must address these factors. These soils do not exhibit high shrink-swell potential or low strength.

4) **Seismic Hazards:** Several inferred or concealed faults exist in the vicinity of Fort Ord. The fault closest to the site is the Reliz (or Gabilan) fault, which the FORA Reuse Plan shows as coincident with Reservation Road. Although this fault may have been active in the past 700,000 years, there is no geologic evidence of this fault west of the city of Salinas within 3.5 miles of the UC MBEST Center. Other faults exist further from the site to the south. These faults include the Ord Terrace, Chupines, and Seaside. None of the above-mentioned faults have been active in the last 10,000 years, although the potential for future activity cannot be ruled out (California Division of Mines and Geology, 1992). In addition, the San Andreas and Palo Colorado-San Gregorio faults are located approximately 20 miles from the site. The Monterey Bay fault zone lies directly offshore of Fort Ord and has been active historically.

5) **Agriculture/Horticulture Suitability:** Agriculture is not currently practiced on the site, but has occurred in the past. Sandy soils are more favorable to drought-tolerant ground cover, shrubs and trees. Extensive areas of Oceano soils are considered suitable for agriculture by the State of California (California Department of Conservation, 1993).

**Habitats**

Four habitat types occur on the site. These types are maritime chaparral, coast live oak woodland, coastal scrub, and grasslands. There are also limited areas of developed nonhabitat land existing on the site. The maritime chaparral and coastal scrub are predominant in the western and central portions of the site. Grasslands are predominant in the eastern portion of the site. There are scattered occurrences of inland and coastal coast live oak woodland.

Chaparral and coastal scrub communities are characterized by moderate to low-growing evergreen and drought deciduous shrubs adapted to shallow soils and periodic fires. The maritime chaparral habitat which occurs on the site is the sand hill type. The live oak woodland is an open canopied to nearly closed canopied community with a grass or sparsely scattered shrub understory. Coastal forms are characterized by short, wind-pruned trees which grow on sandy soils. Inland forms usually grow taller, as they are protected from coastal weather influences.

Generalized habitat descriptions for parcels within the UC MBEST Center are based on the “Installation Wide Multispecies Habitat Management Plan for Fort Ord, California” (HMP). The parcels for which the descriptive material applies are indicated in Figure 2.4.

1) **Reserve Area Parcel 7b (408.7 Acres):** Two habitat types exist within this parcel. The most abundant type is maritime chaparral, covering approximately 171 acres. The second type, coastal coast live oak woodland, covers approximately 101 acres.
2) Reserve Area Parcels 9a and 6b (185.7 Acres): Four habitat types occur within this parcel. Maritime chaparral is the most abundant type and covers approximately 102 acres. Coastal coast live oak woodland occupies approximately 65 acres. Seven acres of annual grassland and one acre of coastal scrub also occur on the parcel.

3) Reserve Area Parcel 9c (10.9 Acres): This parcel is dominated by degraded maritime chaparral habitat.

4) Development Parcel 7a (274.5 Acres): The majority of this parcel supports annual grassland. Two small patches of coastal scrub and one small patch of inland coast live oak woodland also occur.

5) Development Parcel 7c (127.0 Acres): Maritime chaparral dominates the western portion of this parcel, while coastal scrub is predominant in the central portion. Grassland and coastal coast live oak woodland occur in small areas in the southern and western sections of the parcel. A small amount of the area is developed.

6) Development Parcel 9b (36.2 Acres): The majority of this parcel supports maritime chaparral habitat. The far eastern end of the parcel is occupied by coastal coast live oak woodland.

**Existing Facilities on the UC MBEST Center Lands**

The existing facilities on the UC MBEST Center lands include several buildings, roads, portions of airfield pavements, and major utilities (see the Final Report for Phase I: General Aviation Feasibility/Airport Master Plan Study for Fritzsche Field, Marina, California, June 15, 1993, now Marina Municipal Airport).

**Flight Simulator Building**

The Flight Simulator Building, with approximately 13,000 square feet, was constructed in 1978 and is the newest structure at the former Fritzsche Army Airfield. It is a single-story structure with concrete block external walls, steel frame and roof. The structure was formerly used to house a helicopter flight simulator. The simulator and associated computer equipment have been removed. The vacant space has been converted to office and assembly space. A series of offices and classrooms is located at each end of the building; the largest classroom has capacity for up to 75 people. The building is rated in good condition in the above-referenced report. It is currently occupied by the University of California, Santa Cruz Extension; a private technology company; a nonprofit education and research program; and the UC MBEST Center Office.
Motor Pool Building

A concrete structure of approximately 5,300 square feet, the Motor Pool Building is located adjacent to the former Fueling Station. The structure has four tall bays with a two-story office space area located at one end. The structure was formerly used to service motor vehicles for the airfield. It was built in approximately 1977, and is rated in good condition by the 1993 report, although soil contamination was discovered under the building subsequent to publication of the 1993 report. As a consequence, the building may be demolished by the U.S. Army.

Other Buildings

There are three small “temporary” buildings with wood frames and siding that have an appearance similar to World War II vintage temporary buildings found on most military bases. They may have some utility for interim low-intensity use, or they may be removed to provide space for a future building.

Paved Areas

Three major paved improvements are located at the UC MBEST Center:

1) Marina Municipal Airport Access Road: One main internal access road (Imjin Road) leads northward from Reservation Road to provide access to the airport and to the UC MBEST Center Flight Simulator Building. The road is two lanes, with asphalt pavement and no curbs.

2) Existing Airfield Pavements: A portion of the airfield pavements constructed to serve the former helicopter activities at the Army’s Fritzche Field are located on the UC MBEST Center lands (see Figure 2.4). These pavements were constructed in 1975 of asphaltic concrete.

3) Parking Areas: A large paved parking area is located adjacent to the Flight Simulator Building and the Motor Pool Building. A smaller parking area is located adjacent to the three wood-frame buildings.

Utilities

Five utility services are present on the UC MBEST Center lands (see also Chapter 7, Utilities).

1) Power: The Salinas-Del Monte 60 kv electric utility line is an overhead transmission line that bisects polygon 7a on the eastern portion of the UC MBEST Center. The line is located along the centerline of a 30-foot wide utility easement. The former Fort Ord area is served by a single electrical substation located near the CSUMB campus.

2) Water: Four existing water wells are located on the UC MBEST Center lands and are the principal source of potable water for the former Fort Ord. This system will remain in place for the foreseeable future.
3) *Sanitary Sewer:* An existing sanitary sewer line connects the Marina Municipal Airport facilities to the regional treatment facility, located at the U.S. Army Reserve outparcel. This line will no longer be needed once a new wastewater pump station and connecting sewer lines are constructed to serve the UC MBEST Center, Marina Municipal Airport and the East Garrison.

4) *Gas:* A three-inch gas line is located adjacent to Imjin Road; this line will soon be transferred to Pacific Gas and Electric, which will maintain it and expand capacity as needed.

5) *Telephone:* The UC MBEST Center and Marina Municipal Airport are currently served by a 300-pair copper cable located in a four-conduit underground bank running parallel to Imjin Road. Once the basewide communications system is transferred to Pacific Bell, high-speed fiber-optic service will be brought to the UC MBEST Center and Marina Municipal Airport.
PLANNING PRINCIPLES

The conveyance of nearly 1,100 acres of Fort Ord from the United States Army to the University of California represents a significant transfer of land that brings with it important responsibilities. The UC MBEST Center undertaking has been identified by both the Army’s Base Closure Plan and the FORA Reuse Plan as the primary job generation opportunity of the basewide reuse effort. UC is very conscious of these responsibilities and has, over a two-year period, undertaken a comprehensive master planning process aimed at creating a sustainable high-quality development. The following seven principles provide the fundamental planning and design framework upon which the UC MBEST Center Master Plan and its land use, conservation, circulation, utility, and implementation policies are based.

1. UC/NRS Fort Ord Natural Reserve. Reserve a majority of the conveyed property for the conservation and ongoing management of habitat resources.

The property conveyed to UC is divided into lands to be developed by the University and lands to be protected by the University of California Natural Reserve System (UC/NRS). The UC/NRS Fort Ord Natural Reserve is a significant element of the Installation-wide Multi-species Habitat Management Plan. By protecting large areas of habitat, development will be concentrated on lands less suitable for conservation. The HMP requires that the final boundary between the developed and protected lands be refined to take into account localized site characteristics. This Master Plan defines the boundaries of the UC/NRS Fort Ord Natural Reserve (Reserve), retaining the areas of the property that have the most valuable habitat resources for conservation (Figure 3.1).

The Reserve lands constitute 605.3 acres, approximately 56 percent of the total Fort Ord lands conveyed to UC. All of these lands are within the boundaries of Monterey County. In addition, the two most westerly pieces, designated as the North Reserve and the Corridor Reserve, are located within the city limits of Marina. The Reserve lands are located within an urbanizing context. They share a common boundary with the Marina Municipal Airport, existing and planned residential neighborhoods, and portions of
PRINCIPLE 1:
Reserve a majority of the conveyed property for the conservation and management of habitat resources.

<table>
<thead>
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<th>UCNRS LANDS</th>
<th>ACREAGE</th>
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<td>North Reserve</td>
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<tr>
<td>Corridor Reserve</td>
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<td>South Reserve</td>
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<th>LANDS FOR DEVELOPMENT</th>
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<td>TOTAL UC MBEST Land Resources (rounded)</td>
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Source: Master Plan Study, University of California, Monterey Bay Education, Science and Technology Center, Sedney Cooke Associates (March 1993)
the UC MBEST Center. A principal objective of the Reserve management will be to control adverse impacts from these urban influences. Consequently, the Conservation Element of this Master Plan (Chapter 4) sets forth broad provisions aimed at protecting the habitat resources and ensuring their responsible management over an extended period of time. In this regard, the role of the Reserve will be to:

- preserve and maintain the habitats and listed species as set forth in the HMP; and
- provide appropriate opportunities for teaching and research in and about the natural systems.

2. Land Uses. Create a University-affiliated mixed-use development focused on research and innovation; promotion of economic growth; environmental stewardship; and the advancement of science, technology, education and policy.

The UC MBEST Center’s Mission Statement calls for private enterprise, government agencies, and public and private educational and research institutions to be drawn together in strategic alliances that promote economic stability and capture technology markets. SB 899, which establishes the regional governing authority for all of the Fort Ord lands, acknowledges UC’s right “to acquire, hold, and use real property at Fort Ord, including locating or developing educationally related or research-oriented facilities on this property.” (Section 67678(d)) UC MBEST Center activities, and the necessary onsite support and commercial services, will play a significant role in the economy of the region as strategic alliances develop between the private sector, government, and the academic community.

After considerable input from regional stakeholders, four broad industry markets—multimedia, information technology, environmental technology, and biotechnology—were selected as the primary focus for the UC MBEST market strategy. These four industries have been subjected to systematic analysis to determine which, if any, of the segments of these industry markets should be the focus for concerted efforts for development. In the course of this market analysis, each of these industries was examined in terms of its competitive requirements, and in terms of what the Monterey Bay area would need to offer in order to form, expand or attract industries in each category. In particular, the analysis examined what attributes of the Monterey Bay area created an advantage for forming, expanding or attracting any segments of the proposed target industries. The results of this analysis and the recommendations are presented in the UC MBEST Center Business Plan, which is a companion document to this Master Plan.

The Land Use Element of the Master Plan (Chapter 4) provides the framework for the activities to be established at the UC MBEST Center. To achieve UC’s mission, the Land Use Element offers flexibility to incorporate a wide range of participants and activities; development flexibility is critical to successfully respond to changing market forces, technological innovations, and the evolving roles of future public and private sector participants. The UC MBEST Center anticipates educationally related and research-oriented endeavors with “overlay” opportunities for support activities, including light industrial and service commercial
uses, retail shops, hotel/conferencing, and other special amenity activities that can occur at specific locations throughout the campus. Figure 3.2 describes the overall land use and parcelization strategy guiding the UC MBEST Center.

In addition to defining the pattern of land uses at the Center, the Land Use Element of the UC MBEST Center Master Plan also provides development standards to guide the physical form of future development. These standards provide a framework within which many activities can occur, but which will ensure that the campus builds out in a sustainable and environmentally responsible manner.

3. RELATIONSHIP WITH MARINA AIRPORT BUSINESS PARK.
Allow for and encourage the coordinated development of the UC MBEST campus and Marina’s Airport Business Park.

The City of Marina operates the municipal airport immediately north of the UC MBEST campus, and has already leased numerous airport structures to private businesses. To support and extend this activity, the City has established the boundaries for an Airport Business Park of approximately 84 acres immediately north of the UC MBEST campus. The City’s objective is to attract light industrial and aviation-related uses that can promote economic development in the community and complement airport activities and the activities planned for the UC MBEST campus. A golf course/resort development to be located north of the airport is also being planned by the City of Marina.

Although the UC MBEST Center industry focus is different from that of the Marina Airport Business Park, Marina and UC have undertaken their physical planning in a collaborative manner and envision that the two developments will be closely coordinated. No physical barriers or divisions are proposed between the two campuses; rather, a visually consistent mixed-use complex sharing the same circulation system and development standards is envisioned. A commons with surrounding high-density development that constitutes the central core of the UC MBEST campus will extend into the Marina Airport Business Park to provide a strong activity linkage, and the Blanco Gate mixed-use corridor will be implemented jointly by UC and Marina. Land uses will be carefully coordinated between the two areas to avoid conflicts and incompatibilities. Light industrial and aviation uses will be concentrated in the northernmost portions of the Airport Business Park, and research/office and commercial uses situated adjacent to the UC MBEST campus (Figure 3.3).

The phasing of the UC MBEST Center and the Marina Airport Business Park needs to proceed in a manner that permits both the City and UC to respond to short and mid-term market opportunities while building toward a cohesive long-term development vision. The Implementation Element of the Master Plan (Chapter 8) sets forth such a strategy, guiding the sequence of activities by both entities in a manner that can achieve the ultimate vision of the area while taking full advantage of the immediate potentials.
PRINCIPLE 2:
Create a university-affiliated mixed use development focused on research and innovation, promotion of economic growth, environmental stewardship and the advancement of science, technology, education and policy.

FIGURE 3.2 - LAND USE STRATEGY
4. **Rural Character.** Retain the rolling topography of the site to preserve the rural character of the area, and to establish a unique image and identity for the development.

The UC MBEST campus shall be designed to extend the natural character of the Reserve lands into the developed portions of the site. Key to achieving this objective is the retention of the site's gently undulating topography. To this end, the roadway system of the UC MBEST campus shall be carefully aligned to complement the existing contours and reduce the need for mass grading (Figure 3.4). Large-scale grading will be limited to the Imjin Road entry, where low areas will be filled; the Commons, where grading of adjacent parcels will be necessary to create a gently sloping public area; and some portions of the East Campus, where grading may be necessary to allow for proper flows in wastewater lines.

Grading will generally occur on a localized site-by-site basis as development proceeds, but shall be coordinated by the University to ensure that a consistent overall approach is achieved. To this end, this Master Plan limits development intensity on the most hilly sites and promotes a sensitive grading approach for development sites, including small-scale terracing of parking lots and buildings.

5. **Landscape.** Retain and augment existing site vegetation to provide continuity with the habitat reserves and establish a distinctive setting for development.

The UC MBEST Center consists of undulating lands that support perennial grasslands, coastal scrub, coast live oak woodlands, and maritime chaparral. This landscape is unique to the Monterey Bay...
PRINCIPLE 4: Retain the rolling topography of the site to preserve the rural character of the area and to establish a unique image and identity for the development.
Peninsula, and provides a strong and distinctive rural identity to the former Fort Ord and the UC MBEST campus. As such, the portions of the campus to be developed shall reinforce and enhance this landscape through:

- preservation of the most significant woodland areas as open spaces within the campus;

- sensitive site planning of individual parcels to reduce the need for removal of existing vegetation;

- augmentation of the existing landscape with additional vegetation that further enhances the rural image and identity of the development;

- selection of drought-tolerant plant materials that can thrive within the local microclimate, and that are native or complementary with the indigenous vegetation (e.g., oaks, pines, cypress, etc.) while minimizing adverse genetic impacts on natural communities; and

- creation of habitat corridors through the developed portions of the site to provide continuity between retained landscapes and the UC/NRS Fort Ord Natural Reserve areas.

The landscape standards for development are provided in Chapter 4 of the Master Plan. Figure 3.5 depicts some of the key aspects of the landscape concept.

6. **Activity Centers.** Encourage the concentration of activities at strategic locations to promote exchange and interaction among UC MBEST participants, and to support transit and alternative modes of transportation.

Although a key precept of this Master Plan is to maintain the rural and natural character and environmental qualities of the site, it is also desirable to encourage the concentration of development in multiple activity centers that can promote synergy and the exchange of ideas among individuals, businesses and institutions. Activity centers can provide focal points of energy within the campus, offering informal as well as organized opportunities for meetings and gatherings. It is this type of exchange that can foster the kind of creativity and innovation that will make the UC MBEST Center a success.

Such concentration of activity is consistent with objectives for the creation of a sustainable development. With activities located within walking and bicycle distance of one another, the need for automobile trips can be reduced, and the ability for transit to efficiently serve development can be enhanced. Within the UC MBEST Center, several activity centers are envisioned. As shown in Figure 3.6, these include seven distinct centers:

- The **Campus Core** consists of public and private sector activities organized around a two-acre quadrangle at the shared core of the UC MBEST Center and the Marina Airport Business Park campuses. The Core is envisioned as the ultimate
PRINCIPLE 5:
Retain and augment existing site vegetation to provide continuity with the natural reserves and to establish a distinctive setting for development.

FIGURE 3.5—LANDSCAPE
- Preservation of existing woodlands as open space
- Preservation of woodlands within private sites encouraged
- Additional site landscaping
PRINCIPLE 6:
Encourage concentration of activity at strategic locations to promote exchange and interaction and to support transit and alternative modes of transportation.
location for a broadly supportive use, such as a UC MBEST Foundation building, and the principal meeting place of the campus; its location at the key entry points from Blanco and Reservation roads will give it high visibility and accessibility from surrounding areas. At the edges of the quadrangle, transit stops will offer visitors and employees the opportunity to transfer from the regional bus system to a campus shuttle.

- The Simulator Complex at the northwestern corner of the campus represents the birthplace of the UC MBEST Center, where much of the early activity of the campus is taking place. Already, the Simulator Building is the home of educational, technological and entrepreneurial activities, and as such, is a microcosm of the future campus. The Master Plan calls for the concentration of future development immediately to the east of the existing Simulator Building, around a one-acre quadrangle that can serve to focus activity in this area and enhance the destination identity of the UC MBEST Center in the early phases of the project.

- The Four Corners at Imjin Road and the planned east-west internal roadway will be an important gateway to the UC MBEST campus, and as such, development in this area will be oriented to the intersection. The plan provides for a small cluster of commercial and professional office uses that can provide convenient support to surrounding development sites, as well as a convenient destination for pedestrians and bicyclists. This intersection could be an early location for a UC MBEST Foundation and/or a leasing office.

- The Blanco Gate, linking Blanco Road with the Campus Core Quadrangle, is envisioned as the principal commercial mixed-use center within the UC MBEST campus. Its orientation along this key roadway provides the opportunity for a pedestrian-oriented promenade of activities that will be easily accessible from surrounding uses, from the regional roadway system, and by regional transit. Professional offices, retail shops, restaurants and a business hotel are all potential uses that could occur within this area.

- The Hillside Retreat, located in the southernmost portion of the UC MBEST campus on the highest prospect of land, is envisioned as a desirable location for a hotel/conference center or special institutional use that can take advantage of the highly vegetated site and panoramic views. Pedestrian trails linking to the Campus Core across Reservation Road will enhance the significance of this site as a unique gathering place.

- Promontory Sites. The promontory sites of the East Campus, like the hillside site in the Central South Campus, offer unique opportunities to create public-oriented gathering places that can take advantage of the expansive views of the verdant Salinas River Valley and the Gabilani Mountains beyond. Two such centers are envisioned along the bluff edge for special amenity activities, such as restaurants, conference centers, small hotels, and recreational facilities.

- Major Campus Sites. Within major development sites targeted for the East Campus, the Master Plan provides for the creation
of additional activity centers developed by individual businesses or institutions. Through the concentration of development and a site planning approach that fosters linkages to the larger UC MBEST campus environment, individual businesses can create sub-campus spaces that are complementary and that offer shared common facilities (e.g., assembly areas, exhibition space, dining facilities, etc.).

7. Pedestrian and Bicycle Circulation. Create a continuous system of landscaped bikeways and pedestrian paths that extends the planned regional and citywide system, and that encourages nonvehicular trips.

The activity centers of the UC MBEST campus will be connected by a comprehensive system of pedestrian and bicycle routes that will reduce the need for automobile trips both within and external to the campus (Figure 3.7) and provide the pedestrian and cyclist with a diversity of spatial experiences. In-tract roadways will be designed as multimodal corridors capable of supporting pedestrians, bicycles and transit vehicles, as well as automobiles. A continuous east-west bike route (Class II) will be provided within the planned roadways of the campus, and all roads will include landscaped pedestrian walkways. Exclusive pedestrian trails will be provided within the planned multimodal corridor along Blanco Road and along the eastern escarpment overlooking the Salinas Valley. These linkages will connect to the larger Fort Ord circulation system to facilitate connections with CSUMB, the City of Marina, and the East Garrison.

8. Linkages. Create strong virtual linkages within the UC MBEST Center, between the UC MBEST Center and CSUMB, and between the UC MBEST Center and UCSC, the rest of the UC system, and other regional research institutions.

Virtual linkages will be facilitated by an onsite fiber optic telecommunications system and broad bandwidth high-speed connectivity to UCSC and the UC system, and other regional research institutions. Onsite communications will be facilitated by installing multiple communications conduits with fiber optic cable under major roadways. External communications will be facilitated by a fiber optic cable to be installed by Pacific Bell by early 1997.
PRINCIPLE 7:
Create a continuous system of landscaped pedestrian paths and bikeways to encourage non-vehicular trips and interaction between users.
CONSERVATION OF UC NATURAL RESERVE LANDS

This section is intended to provide the basis for management of the UC/NRS Fort Ord Natural Reserve lands. Specific policies that include, but are not limited to, those presented below will be adopted at a later date by the UC Natural Reserve System.

The mission of the UC Natural Reserve System (UC/NRS) is to contribute to the understanding and wise management of the earth and its natural systems by supporting university-level teaching, research and public service at protected natural areas throughout California. Consistent with this mission, the UC/NRS has accepted and will protect and maintain viable populations of listed and proposed species on three properties (totaling approximately 605 acres) adjacent to the UC MBEST Center. These lands are formally named the UC/NRS Fort Ord Natural Reserve (Natural Reserve). Under the terms of the land transfer from the Army, and as specified by the Basewide Multi-species Habitat Management Plan (HMP), the University is obligated to hold and manage these three properties as habitat preserve in perpetuity. The Natural Reserve lands are identified as the North Reserve (HMP parcels S2.1.2, S2.1.3, and S2.1.5), South Reserve (HMP parcel S2.3.2), and Corridor Reserve (HMP parcel S2.4), as shown in Figure 4.1. These properties act as important habitat corridors or have high concentrations of species that are listed as threatened, rare or endangered, or which have a likelihood of becoming listed in the foreseeable future.

EXISTING CONDITIONS

NORTH RESERVE

This relatively isolated property, located to the west of the UC MBEST Center, is approximately 408 acres in size, consisting of one large parcel that has been transferred to the University of California and two small parcels that are expected to be transferred soon. Vegetation consists primarily of well-developed maritime chaparral and coastal live oak woodland, with incursions of coastal scrub and grasslands. Although there is a network of dirt roads and trails, a former fuel burn pit (under remediation) and a small landfill (under investigation) on the parcel, the native habitats remain relatively undisturbed, with only minor colonization by exotic, invasive species. The North Reserve
FIGURE 4.1—UC / NRS FORT ORD NATURAL RESERVE

LANDS TO BE MANAGED BY THE UNIVERSITY OF CALIFORNIA NATURAL RESERVE SYSTEM (696.3 acres)

LANDS FOR DEVELOPMENT (436.5 acres)

Source: Master Plan Study, University of California, Monterey Bay Education, Science and Technology Center, Sedway Cooke Associates (March 1995)

Conservation of UC Natural Reserve Lands
supports habitat for several special status plant and animal species. This property has the most value for traditional NRS purposes. Any need for restoration will be limited to relatively small areas affected by exotic species or surface disturbances. Approximately seven acres within this area are degraded habitat either dominated by invasive ice plant or devoid of vegetation due to Army earthmoving operations.

**South Reserve**

The South Reserve is approximately 186 acres, with the same principal elements of maritime chaparral and oak woodland as the North Reserve, but with more disturbance. It is smaller with a larger perimeter-to-area ratio, adjacent to a developed residential area and more accessible to human use and resulting damage than the North Reserve. Numerous dirt roads, trails and a utility easement traverse the area, forming large disturbed tracts in some sections. There is more cover by invasive exotic forbes and grasses than in the North Reserve. Furthermore, the draft FORA Reuse Plan proposes an extension of Blanco Road through a portion of this reserve. This will impact the reserve’s value as a habitat corridor unless proper mitigations are applied. Nonetheless, the primary chaparral and oak woodland species, including special status plants and animals, are well represented. There is a trend toward predominance of oak woodland as one proceeds easterly through this parcel. Restoration is probably feasible if soil compaction problems can be solved.

**Corridor Reserve**

The HMP designates the 11-acre Corridor Reserve as a habitat corridor between the North and South reserves. The parcel is small and heavily affected by past disturbance and adjacent uses. It therefore does not meet normal NRS criteria as a reserve. While the viability of this parcel as a truly functional ecological connection is uncertain, the remnant vegetation and potential habitats are characteristic of the area (primarily maritime chaparral) and restoration is feasible, as soil conditions are good.

**HMP Requirements**

The HMP is the instrument that enabled the U.S. Fish and Wildlife Service to issue the Army a non-jeopardy Biological Opinion under Section 7 of the federal Endangered Species Act (ESA). In a sense, the HMP is the basis for the Army’s “permit” for incidental take of federally listed species under the ESA. Conformance with the requirements of the HMP is a requirement that will accompany the transfer of land from the Army to other parties, including UC.

A primary goal of the HMP is to promote preservation, enhancement and restoration of special status plant and animal species and their habitats at Fort Ord while allowing economic recovery following
realignments of the base. To achieve this goal, some parcels to be disposed of by the Army are designated for development with no habitat management restrictions, others have certain management guidelines or prescribed set-aside areas, and still others are designated specifically as habitat preserves with little or no development allowed. The UC Natural Reserve lands fall in this latter category. The following HMP policies apply to the Natural Reserve:

**Resource Conservation:** Research and teaching activities for the study of existing natural resources will be conducted on Natural Reserve lands, and natural habitats will be preserved and protected. Development within the Natural Reserve will be limited to that needed to support scientific research and teaching and to manage the habitat, with priority given to HMP plant and wildlife species. Development will not affect more than one percent of the total natural habitat within the Natural Reserve.

**Baseline Inventory and Mapping:** The UC/NRS will conduct detailed, site-specific inventory and mapping of species and habitats on Natural Reserve lands with an emphasis on special status species that have significant habitat on those lands.

**Environmental Monitoring:** The UC/NRS will design and implement an ongoing environmental monitoring program for both abiotic (e.g., climate and hydrology) and biotic (e.g., special status species) components of Natural Reserve lands. Monitoring data will be used to guide species and habitat management programs.

**Active Management:** The UC/NRS will actively manage species and habitats, with an emphasis on maintaining viable populations and habitats of listed, proposed and candidate species on Natural Reserve lands, including the maintenance of necessary disturbance regimes and ecosystem processes, as appropriate.

**Management-Oriented Research:** The UC/NRS will foster targeted research to address species and habitat management issues, and to provide a basis for informed management.

**Land Use Monitoring:** As a trustee agency under the California Environmental Quality Act (CEQA), UC is required to be notified when land use activities on adjacent lands have the potential to adversely affect environmental resources managed by the UC/NRS in the public trust. UC will require early consultation with project proponents, identify significant impacts on public trust resources, and recommend mitigation and mitigation monitoring requirements for project approval.

**Natural Reserve Management Goals**

A Reserve Management Plan consistent with the HMP is now being prepared by the UCNRS. The plan will be consistent with the following management goals:
**Actively Manage to Support Special Status Species**

The Natural Reserve will be actively managed to protect federally listed and other special status plants and animals (notably sand gilia and Monterey spineflower) associated with the maritime chaparral habitat. Periodic disturbance by fire is considered an important factor in maintaining the biodiversity of the maritime chaparral community. Allowing some form of controlled burning or developing a suitable alternative may be necessary to meet HMP goals.

The need for and frequency, intensity, or patch size of prescribed fires in the North Reserve is unknown at this time. A study is planned to evaluate future controlled experimentation with fire as a management tool. Such experimentation is in keeping with the intent of the HMP. Such activity will be coordinated through the Coordinated Resource Management and Planning (CRMP) process with the federal Bureau of Land Management (BLM) and other agencies actively engaged in local fire management efforts.

**Minimize Disturbance from Adjacent Land Uses**

The Natural Reserve will be protected from disturbance as much as possible. UC MBEST Center parcels adjacent to the North Reserve will include the following design features to minimize disturbance to the Natural Reserve: transitional (native indigenous) landscaping and buffer zones; the use of cut-off features on light fixtures to limit nighttime illumination of the periphery of the Natural Reserve; and internal drainage systems on development parcels. UC will request that similar features be incorporated into Marina Municipal Airport facilities adjacent to the North Reserve.

The South Reserve has natural barriers along the north (Reservation Road) and the south (CSUMB housing). UC MBEST Center facilities will also be located directly adjacent to the South Reserve parcel along its north-west boundary. A multimodal transportation corridor will traverse the parcel, extending Blanco Road through the westerly end of the preserve, creating an additional barrier along the south-west boundary, and connecting with Imjin Road to the southwest. It is recommended that this roadway be designed to mitigate its potential to divide the habitat corridor provided by this part of the Natural Reserve. To the east of the South Reserve, adjacent to Reservation Road, is County open space (also designated as habitat reserve by the HMP). Uncontrolled access from residential areas to the south potentially poses the most difficult management problem. Fencing, berms, dense vegetation, or other barriers in association with the multimodal corridor along the southern boundary will be considered (see below). The roads will become "mortality sinks" unless the Natural Reserve is well buffered and fenced from their impacts. The UC MBEST Center facilities located adjacent to the South Reserve could be oriented to benefit from the educational and research opportunities associated with this reserve area. Unregulated physical access will be discouraged.

The Corridor Reserve is surrounded by other (nonreserve) land uses and roads. This parcel has potential to be an accessible area that engages the public and fosters an awareness of the area's natural history, both on and off this parcel. Traffic along adjacent roads poses problems (noise,
road kills, trespass). Signs may be posted along adjacent roads to reduce disturbance. Wildlife underpasses beneath (a future reconstructed) Reservation Road and drift fences to direct small animals (primarily reptiles and small mammals) will also be considered here, as well as for any future road developments on or adjacent to Natural Reserve lands.

**INSTALL AND MAINTAIN ADEQUATE FENCING AND SECURITY**

A secure type of perimeter fence is proposed for the North Reserve wherever it is bounded by a nonhabitat land use. Along major roads, the fence would be designed to reduce the potential for roadways becoming a "mortality sink" for animals living in the reserve. The fence would also be high and substantial enough to discourage human trespassers (and their off-road vehicles). Access to the reserve area would be controlled with well-defined points of access and egress.

Fencing is also proposed for the South Reserve and the Corridor Reserve. As noted above, human encroachment and wildlife mortality (road kills) are as much a potential problem with this parcel as with the North Reserve. Fencing types will vary with location and severity of anticipated impacts. Access will be carefully controlled and directed (trails, specific access points, limited access in certain areas). Experimentation with fencing, enclosure techniques and access is compatible with the research and education goals for this reserve area.

**ENGAGE IN ACTIVE RESEARCH**

All of the Natural Reserve lands lend themselves well to ecologically oriented research, which is consistent with the HMP. Basic research should begin with a comprehensive baseline analysis and monitoring program, and could include ecosystem studies in the areas of hydrology, plant-soil-water relationships, population biology/demography of rare plants and animals, vegetation-soil-geology relationships, fire ecology, and landscape ecology as a function of land use history.

Restoration ecology and land use management will be the emphasis on Natural Reserve lands. Possibilities include, but will not be limited to, experimentation with outplanting of rare plants and relocation of sensitive wildlife if suitable areas are available. Research and education on the use of native plant species for landscaping may occur, especially on the South and Corridor reserves. The overall integrity of the habitat will be maintained and improved in keeping with the requirements of the HMP.

**PROVIDE INTERPRETIVE OPPORTUNITIES WHERE APPROPRIATE**

Because of the limited access permitted on UC/NRS lands, displays and active public education are not encouraged. However, a directed, scientifically oriented research and educational program could be
considered in cooperation with CRMP efforts. Researchers, graduate and undergraduate students, and other interested parties will be allowed access to the reserve area under controlled conditions for approved study and research in all fields of study suited to this reserve, including education and interpretation.

Focused interpretive activities and access, perhaps associated with UC MBEST Center facilities along Reservation Road, might be developed and could introduce interested UC MBEST Center participants and local residents to the ecological characteristics of the area and to the concepts and practical applications of restoration ecology and land management. General access by the public to the Natural Reserve will not be encouraged through elaborate displays or visitor programs, but passive use (hiking through the area) by a limited public will be anticipated, managed, and controlled appropriately (with signs, designated trails, plant labels, etc.).

Locate Facilities to Limit Disturbance

Facilities development within any of the three Natural Reserve properties is limited to one percent of the total land in the reserve. New access or maintenance roads, utility easements, buildings or other structures will be located outside of the reserve boundaries. Relatively minor facilities such as utility improvements may be accommodated within the reserve area through cooperative planning with the UC/NRS to assure that all appropriate measures will be taken to ensure sensitive placement, design and maintenance to protect the long-term integrity of the reserve.

The main facility that is proposed for the Southern Reserve is the multimodal transportation corridor. Other infrastructure improvements that may be located in the South Reserve include a possible electrical substation at Reservation Road along the existing overhead Salinas-Del Monte 60 kv transmission line, improvements to water mains located within the Southern Reserve, and a possible sanitary sewer line to complete the utility backbone system proposed in the Fort Ord Reuse Infrastructure Study (FORIS).

Other Potential Reserve Activities

A propagation facility may be constructed and operated that could provide local native plant species for use by regional landscaping businesses. The advantages of association of such a facility with the directed research in this parcel are substantial. Working cooperatively with the City of Marina to identify a suitable location for a native plant cultivation area on the adjacent habitat parcel to the north of the reserve boundary could provide a feasible solution.

The North Reserve will be the site of an approximately seven-acre sand gilia restoration effort in an area invaded by ice plant at the time the property was transferred to UC. This project, now envisioned as one involving active research as well as restoration, will provide valuable information on restoration practices.
INTRODUCTION

On the basis of the planning principles set forth in Chapter 3, the Land Use Element of the UC MBEST Center Master Plan establishes the location, extent and intensity of land uses within the 437-acre portion of the planning area targeted for development. (This does not include Parcels 8b and 8c, which are not addressed in this Master Plan.) It also establishes the policies and standards which will guide the configuration and design of development sites, buildings and landscapes within the UC MBEST campus.

The land use policies provided in this chapter are consistent with the broad land use policies and programs set forth in the draft 1996 Fort Ord Reuse Plan. The Fort Ord Reuse Plan establishes an overall framework of land uses for the 28,000-acre former base; it reserves approximately 85 percent of the lands for public uses, including: environmental preserves (61 percent); parks and open space (8 percent); educational facilities (5 percent); and other public facilities, including the Marina Municipal Airport, municipal corporation yards, military enclaves, and public rights-of-way for roadways and transportation facilities. The remaining 15 percent of the lands at Fort Ord are planned for a range of private uses aimed at promoting economic development, including commercial (5 percent), residential (7 percent), visitor-serving (2 percent), and retail (1 percent). Table 5.1 provides a breakdown of planned land uses within the Fort Ord Reuse Plan, the land resources that will be devoted to each, and the expected development yields. Figure 5.1 describes the overall location and pattern of land uses established by the Fort Ord Reuse Plan.

The draft 1996 Fort Ord Reuse Plan designates the UC/NRS Fort Ord Natural Reserve as “Habitat Management” and the UC MBEST Center as “Planned Development Mixed-Use,” a designation intended to encourage the creation of pedestrian and transit-oriented centers that can support a wide variety of commercial, residential, retail, professional service, cultural and entertainment activities. To maintain consistency with the UC MBEST Center Master Plan, the final Fort Ord Reuse Plan will also need to permit office, research and development, and business park/light industrial uses under this land use designation. The following
### Table 5.1
**Fort Ord Reuse Plan**

**Summary Land Use Capacity: Ultimate Basewide Development**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acres</th>
<th>Percent (Total Area)</th>
<th>Dwelling Units/Rooms</th>
<th>S.F. (000's)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitat Management</td>
<td>17,179</td>
<td>61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parks and Open Space</td>
<td>2,014</td>
<td>8</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Residential</td>
<td>2,042</td>
<td>7</td>
<td></td>
<td>12,449</td>
</tr>
<tr>
<td>Business Park/Light Industrial/Office/R&amp;D</td>
<td>909</td>
<td>3</td>
<td></td>
<td>7,636</td>
</tr>
<tr>
<td>UC MBEST Center¹</td>
<td>437</td>
<td>2</td>
<td></td>
<td>4,400</td>
</tr>
<tr>
<td>CSUMB (25,000 FTE)²³</td>
<td>1,292</td>
<td>5</td>
<td>8,193</td>
<td>N/A</td>
</tr>
<tr>
<td>Public Facilities (incl. military)</td>
<td>1,072</td>
<td>4</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>POM Annex⁵</td>
<td>782</td>
<td>3</td>
<td>1,590</td>
<td>N/A</td>
</tr>
<tr>
<td>Visitor Serving⁶</td>
<td>808</td>
<td>2</td>
<td>1,750</td>
<td>7</td>
</tr>
<tr>
<td>Retail</td>
<td>183</td>
<td>1</td>
<td></td>
<td>1,968</td>
</tr>
<tr>
<td>Areawide ROWs</td>
<td>1,161</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>27,879</td>
<td>100</td>
<td>24,022</td>
<td>14,004</td>
</tr>
</tbody>
</table>

Notes:
1. Does not include parcels 8b and 8c.
2. FTE: Full-Time Equivalent student enrollment.
3. Assessment generated on employees and students, not square footage.
4. Assessment generated on basis of facilities, not square footage.
5. Existing retail assessed on basis of existing employees.
6. Accommodates one new 18-hole golf course and the redevelopment of one 18-hole golf course to industrial use. (The plan also identifies two additional golf opportunity sites to be able to respond to market conditions.)
7. Assessment generated on basis of rooms, not square footage.

*Source: EDAW, Inc. and ROMA Design Group, modified by ROMA for the UC MBEST Center Master Plan.*

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**Land Use and Development Standards**
FIGURE 5.1 - FORT ORD REUSE PLAN LAND USE CONCEPT - ULTIMATE DEVELOPMENT

RESIDENTIAL
PLANNED DEVELOPMENT
MIXED USE DISTRICT
BUSINESS PARK / LIGHT INDUSTRIAL / OFFICE / R&D
NEIGHBORHOOD / REGIONAL RETAIL
OPEN SPACE / RECREATION / VISITOR SERVING
HABITAT MANAGEMENT
SCHOOL / UNIVERSITY
PUBLIC FACILITY / INSTITUTIONAL
MILITARY ENCLAVE
GOLF COURSE OPPORTUNITY SITE
HOTEL OPPORTUNITY SITE
EQUESTRIAN CENTER OPPORTUNITY SITE

policies are intended to provide greater specificity to guide development within the UC MBEST Center and to achieve the planning principles outlined in the preceding chapter of this plan.

**Policy 5.1: Establish a Mixture of Uses Which Helps to Achieve UC’s Vision for the Creation of a Center Devoted to Innovation in Science, Technology, Education and Policy.**

The land use plan for the UC MBEST Center (Figure 5.2) provides a framework for the achievement of the University’s vision of an educational, science and technology center consisting of private businesses and public institutions committed to innovation and research. The land use plan is aimed at creating a mixed-use district with a range of public and private activities. It is flexible to allow the UC MBEST Center to respond to changing market conditions and opportunities that may occur in the future. Based on consultations with the City of Marina, the plan also provides a recommended distribution of land uses for the adjacent Marina Airport Business Park, intended to enable optimal coordination and synergy between the two developments.

Six land use categories have been established within this Master Plan for the UC MBEST Center, each emphasizing the most appropriate use of the land relative to: the natural features of the site, adjacent land uses, and urban design objectives for the creation of an interactive campus environment. Table 5.2 provides a summary of the allowable land uses and the corresponding land acreage devoted to each designation.

Educationally related uses shall be permitted on all portions of the UC MBEST Center property where development is allowed.

**Research and Development (R&D).** The predominant use within the UC MBEST Center shall be research and development and educationally related activities, including public institutions and private businesses that have research, administration, and limited manufacturing components. The term “R&D” is used to refer to a broader group of uses than has traditionally been considered to be research and development. All development sites within the UC MBEST Center will have an underlying R&D designation, except those designated for Open Space, those located in the Runway Protection zone, or those designated for Special Amenity uses along the bluff edge. Appendix A provides a listing of permitted uses within the R&D land use designation. It is recommended that the Marina Airport Business Park be given an underlying land use designation of R&D.

**Light Industrial and Service Commercial (LI/SC).** This land use designation is intended to provide opportunities for businesses that support the primary research and development activities of the UC MBEST Center and the Marina Airport Business Park, as well as the aviation role of the Marina Municipal Airport. Light industrial and service commercial uses (which includes service and repair, fabrication and assembly, and warehousing activities) are permitted on sites with the LI/SC designation. Appendix A provides a more complete listing of permitted uses. These activities are permitted within the Marina Airport Business Park to the south and east of the airfield, and in the West Campus of the UC MBEST Center.

**Commercial Mixed-Use (CMU).** This land use designation is intended to provide opportunities for retail, professional office, institutional, hotel/conference and guest-serving residential uses which support the primary research and development activities of the planning...
Table 5.2
UC MBEST Land Utilization and Buildout Program by Land Use

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Development Area</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>West</td>
<td>Central North</td>
<td>Central South</td>
<td>East</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
<td>Acres</td>
</tr>
<tr>
<td>Research and Development (R&amp;D)</td>
<td>9.7</td>
<td>39.3</td>
<td>18.6</td>
<td>213.0</td>
<td>280.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Industrial/Service Commercial (LI/SC)*</td>
<td>29.7</td>
<td>331,405</td>
<td>N/A</td>
<td>N/A</td>
<td>29.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Mixed-Use (CMU)*</td>
<td>4.0</td>
<td>18.7</td>
<td>8.9</td>
<td>N/A</td>
<td>31.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Special Amenity Uses</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>13.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Runway Protection</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>7.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Space</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>34.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-TRACT Roads</td>
<td></td>
<td>8.2</td>
<td>2.6</td>
<td>25.4</td>
<td>40.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total Development</td>
<td>56.0</td>
<td>71.3</td>
<td>36.7</td>
<td>272.6</td>
<td>436.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Educationally related uses are permitted on all development sites.

*Research and Development uses may also be developed on sites designated for Light Industrial/Service Commercial and Commercial Mixed-Use.

Area, and which can promote public-oriented activity and gathering.

Appendix A provides a more complete listing of permitted uses within this designation. The location of these uses has been targeted to areas that enjoy good access and visibility from regional transportation systems (e.g., Blanco Road frontage and Four Corners gateway) and/or areas which have unique environmental conditions suitable for commercial-recreational, hotel/conference or temporary housing uses (e.g., South Central Campus).

Special Amenity Uses (SA). Along the bluff edge of the East Campus, several development sites have been designated for Special Amenity uses that can take advantage of the unique views to the Salinas River and the Gabilan Mountains beyond. The ultimate land use of these development sites must comply with the conditions outlined in Appendix A. These conditions emphasize the importance of public-oriented uses (e.g., restaurants, athletic clubs, conference centers, etc.) that allow the bluff edge of the UC MBEST campus to be enjoyed by all.

Runway Protection (RP). This land use designation is assigned to development sites which are located within the Marina Municipal Airport Runway Protection zone. Uses within these areas will be limited to low-intensity activities that do not require permanent onsite
employees or residents, including storage and service yards, agriculture, open space, etc. Appendix A provides a listing of permitted uses. The Runway Protection zone is located in the northernmost portion of the UC MBEST Center and the Marina Airport Business Park, adjacent to Blanco Road.

**OPEN SPACE (OS).** In addition to the UC/NRS Fort Ord Natural Reserve areas described in the Conservation Element of this Master Plan, open space areas have been designated within the UC MBEST Center (Figure 5.3). These open space areas serve a range of roles and needs, including: the provision of gathering places for activities (e.g., Central Core and Simulator Complex quadrangles), the preservation of existing oak woodlands (e.g., West Campus Glade and Reservation Road Grove), scenic overlooks (the Bluff Trail), and the promotion of continuity and connections between habitat areas.

**Policy 5.2: Allow for interim uses that are compatible with the principal goals of the UC MBEST Center.**

Much of the UC MBEST property will remain undeveloped during the early years of the project. In order to encourage productive use of the property prior to full development, interim uses will be permitted. Such uses must comply with the conditions outlined in Appendix A. These conditions emphasize the need for interim uses to be: compatible with the long-term land use designation of the site; environmentally advantageous or neutral to the property; and visually unobtrusive. All interim uses shall be subject to renewal by the University of California or the governing jurisdictions.

**Policy 5.3: Establish a character of development that complements the natural setting of the site.**

The UC MBEST Center is envisioned as a complex that respects the character and environmental qualities of the surrounding landscape. Building height and intensity have been established to promote appropriate transitions to the UC/NRS Fort Ord Natural Reserve areas and areas with unique environmental features, and to encourage a concentration of activity at the campus core and in areas that will be served by transit. Figure 5.4 describes the maximum densities for the UC MBEST Center and recommended densities for the Marina Airport Business Park. Generally, development sites adjacent to the Reserve areas and/or in environmentally sensitive areas (e.g., the bluffs and woodlands) are limited to a maximum Floor Area Ratio (FAR) of 20 percent; development sites abutting the Campus Core Quadrangle and the Simulator Complex are permitted to build to a FAR of 40 percent to encourage a concentration of activity. All other development sites will have a maximum FAR of 30 percent except for the northern Marina Airport Business Park, which will have a FAR of 35 percent.

Building heights within the planning area shall not exceed two stories, or 35 feet, except buildings adjacent to the Central Core Quadrangle and within the Simulator Complex area, which will be permitted to a height of three floors, or 50 feet. No structures will be permitted within the Runway Protection zones or in areas designated for Open Space, except the Campus Core Quadrangle open space, as provided for in the development standards below. Maximum building heights are illustrated in Figure 5.5. These heights are in compliance with FAA height limits imposed on the Marina Municipal Airport (FAR Part 77).
FIGURE 5.3 - OPEN SPACE

- Active Recreational/Gathering Spaces
- Visual Landscaped Entry Spaces
- Major Landscape Corridors
- Key Landscape Linkages to Natural Reserve Areas

Land Use and Development Standards
FIGURE 5.4—MAXIMUM INTENSITY (NET F.A.R.*):

- 0 NET F.A.R.
- 20% NET F.A.R.
- 30% NET F.A.R.
- 35% NET F.A.R.
- 40% NET F.A.R.

*FLOOR AREA RATIO IS A PERCENTAGE CALCULATED BY DIVIDING FLOOR AREA INTO THE TOTAL SITE AREA.
Policy 5.4: Allow for the subdivision of the UC MBEST Center into a range of parcel sizes that are responsive to market opportunities and compatible with the landscape character of the site.

A wide range of parcel sizes will be required within the UC MBEST Center to fully support the diversity of uses envisioned. The configuration of parcels needs to be carefully considered in relation to the intended form of the center and the desire to maintain the rural character and topography of the site. Figure 5.6 provides a map of the parcelization for both the UC MBEST Center and the Marina Airport Business Park, and Table 5.3 describes a corresponding development program that could occur on these parcels given the maximum density allowed for each. At full buildout, assuming maximum intensity of development, the UC MBEST Center could result in approximately 4.4 million square feet of development. Table 5.2 provides a summary of this buildout program by land use. In general, the parcelization of the UC MBEST Center shall be guided by the following parameters:

The West Campus. The West Campus is generally designated for smaller parcels one to three acres in size that allow for light industrial and service commercial businesses that are supportive of the primary research and development activities of the UC MBEST Center. Along Reservation Road parcels are approximately five acres in size to allow for a suitable landscaped setback. Aggregation of parcels to create larger sites is permitted; parcels smaller than one acre are not permitted. Parcels adjacent to Reservation Road and the UC/NRS Fort Ord Natural Reserve are subject to the setback requirements described below.

The Central North Campus. The northern part of the Central Campus between Imjin and Blanco roads can support a range of parcel sizes from approximately one to six acres, with larger parcels oriented to Blanco and Reservation roads and smaller ones to the Central Core Quadrangle and open space. The largest parcels (CN3, CN6, CN16, CN17) are located where there is the greatest concentration of existing oak woodland vegetation to promote preservation. Smaller parcels are situated adjacent to designated open spaces, where they can benefit from the adjacent amenity. Aggregation of parcels to create larger sites is permitted; parcels smaller than one acre will not be permitted.

The Central South Campus. The southern part of the Central Campus is targeted for intermediate-sized parcels of approximately 10 acres to maintain the hilly and wooded character of this area and to allow for a suitable transition to the natural reserve areas to the south. Parcels of less than five acres will not be permitted within this area.

The East Campus. The East Campus is generally envisioned for larger users requiring sites up to 40 acres or more in size. Several such sites have been designated within the internal loop road. Intermediate-sized parcels of 5 to 10 acres for R&D and commercial users are envisioned along the Blanco and Reservation Road frontages to the south and west of the loop road. Along the bluff, several small parcels one to five acres in size are provided for specialty and amenity uses that can take advantage of the unique views. Except for these special sites, parcels less than five acres will not be permitted within the East Campus.
## Table 5.3
**UC MBEST Buildout Development Program by Parcel**

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</tr>
</thead>
<tbody>
<tr>
<td>Central North Campus</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Central South Campus</td>
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<td></td>
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<td>CS1</td>
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</tbody>
</table>

*Wellheads located on or in the vicinity of these sites will need to be incorporated into the site plan as per requirements outlined in Chapter 7.
THE MARINA AIRPORT BUSINESS PARK. Figure 5.6 and Table 5.4 provide an illustrative parcelization plan and development program for Marina Airport Business Park, taking into consideration the same principles as described for the UC MBEST Center. As shown, the Airport Business Park could support approximately 949,000 square feet of development at full buildout. The northern “leg” of the business park along Blanco Road is recommended for smaller service-oriented businesses, with parcels approximately 1.0 to 3.0 acres in size. The smallest sites should be situated along the internal roadway and the airport edge; the larger ones should be oriented to Blanco Road. Along the east-west leg of the area, larger mixed-use parcels of five to seven acres are envisioned at the shared Blanco Road entry to the park (i.e., Parcels M7 and M8). In the event that the City of Marina finds it necessary to subdivide Parcels M8 and M10 into smaller parcels, this can be accommodated, provided that the action is jointly planned with the UC MBEST Center. Surrounding the Campus Core Quadrangle, small and intermediate parcels of one to three acres, similar to the corresponding sites in the Central North Campus, are proposed. To the west of this area, the existing tarmac of the helicopter landing area is maintained as a single parcel of approximately 13 acres (i.e., Parcel M2), and the Hiller Helicopter site is defined as a discrete parcel of approximately six acres (Parcel M1).

Policy 5.5: Establish development standards that promote a coordinated high-quality campus environment.

The configuration of development and the design of buildings, open spaces and streetscapes should be carefully coordinated to ensure the creation of a cohesive campus that maintains the landscape character

<table>
<thead>
<tr>
<th>Parcel No.</th>
<th>Net Acres</th>
<th>Net Dev. (S.F.)</th>
<th>Land Uses</th>
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<td>M1</td>
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<td>172,890</td>
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<tr>
<td>M8</td>
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<td>M17</td>
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</tr>
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<td>M18</td>
<td>1.0</td>
<td>15,246</td>
<td>R&amp;D / SC/LI</td>
</tr>
<tr>
<td>M19</td>
<td>1.2</td>
<td>18,295</td>
<td>R&amp;D / SC/LI</td>
</tr>
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<tr>
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<td>In-Tract Roads</td>
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<tr>
<td>Open Space</td>
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<td></td>
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<tr>
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<tr>
<td>Dev. Eff. (Percent)</td>
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</tbody>
</table>
of the site, promotes interaction and the exchange of ideas through the concentration of activities, and results in a comfortable and attractive physical environment for walking and biking. The following development standards are established to provide a basis for the planning and design of development sites, buildings and landscapes.

**Development Standards**

**A. Site Planning and Building Design**

The site planning standards are intended to guide the configuration and layout of development sites, including buildings, landscaped areas, parking facilities and driveways. In addition, the standards include provisions for building design and signage.

**Setbacks.** In order to promote a continuous landscape and streetscape character along the major roadways that abut and pass through the UC MBEST Center, landscaped setbacks are established from parcel property lines. No buildings or parking facilities will be permitted within landscaped setback areas. Landscaped setbacks are to be used only for landscaping, walkways, driveway access to public streets, connections to public utilities, underground utilities, topographical transitions to existing grades at the property line, and signage. All landscaped setbacks shall be installed during or prior to building construction; maintenance shall be the responsibility of the owner or lessee (long-term) of the parcel. Required landscape treatments within these setback areas are described under Landscape Standards below. In addition to landscaped setbacks, buildings should be set back from property lines to ensure a comfortable spacing of development and to allow the landscape to predominate. Surface parking lots will be permitted between landscape and building setback areas. Figure 5.7 and Table 5.5 describe the minimum landscaped and building setbacks that are required within development sites. These can be summarized as follows:

- On parcels that abut the UC/NRS Fort Ord Natural Reserve, a 50-foot landscaped setback shall be provided from the adjoining property line; buildings shall not be permitted within this 50-foot setback;

- On parcels that abut Reservation or Blanco roads, a 50-foot landscaped setback shall be provided from the adjoining property line; however, buildings shall be required to be set back 100 feet from the property line.

- Along internal roadways within the West Campus, within the Marina Airport Business Park, and along limited frontages in the North Central and East Campuses, a continuous 25-foot landscaped setback shall be provided along all property frontages; along these frontages, buildings will also be required to be set back by 25 feet. Along the remainder of the internal roadways, a landscaped setback of 25 feet shall be provided, and buildings shall be set back by an additional 25 feet, or 50 feet from the property line adjoining the street (see Figure 5.7).

**Build-to Lines and Building Orientation.** Buildings should be located so that the approaches to visitor parking and entries are easily discernible. Buildings should typically be located parallel or
Table 5.5
Required Setbacks

<table>
<thead>
<tr>
<th>Property Lines Adjacent To:</th>
<th>Minimum Landscaped Setback</th>
<th>Minimum Building Setback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservation Road</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Blanco Road</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>Natural Reserve Areas</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Imjin Road</td>
<td>25¹</td>
<td>25¹</td>
</tr>
<tr>
<td>Onsite Roadways</td>
<td>25¹</td>
<td>25 to 50²</td>
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<tr>
<td>Transmission Line ROW</td>
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<td>50</td>
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<tr>
<td>Side Yards³</td>
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<td>25</td>
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<tr>
<td>Rear Yards³</td>
<td>10</td>
<td>25</td>
</tr>
</tbody>
</table>

Notes:
1. Not applicable to build-to lines established in the Campus Core or at the Four Corners.
2. Building setback varies depending on parcel and frontage (see Figure 5.7).
3. Adjacent properties sharing common property lines shall provide a 10-foot landscaped setback and a 25-foot building setback, except for the property line between Parcels CS2 and CS3, which shall provide a 25-foot landscaped setback and a 50-foot building setback from shared property lines to create landscape continuity between the Natural Reserve and retained oak woodlands along Reservation Road.

perpendicular to the street, particularly on parcels of five acres or less. Exceptions will be considered for purposes of solar orientation.

In certain situations, it is desirable for buildings to be oriented closely to streets and/or open spaces to reinforce spatial qualities, encourage activity and pedestrian interest, and concentrate development in a manner that is supportive of efficient transit service. To this end, the following build-to lines are required:

- Within the Central Core of the UC MBEST Center and Marina Airport Business Park, at least 50 percent of building frontages adjacent to the quadrangle (i.e., Parcels CN10, CN11, CN12 and CN13, as well as M3, M4, M5 and M6) and to the east-west street connecting it with Blanco Road (i.e., Parcels CN15 and CN17, and M7 and M8) shall be built to a line 10 feet from the property line adjacent to the quadrangle (Figure 5.8).

- Similarly, 50 percent of the development frontage on Parcel W3 east of the Simulator Building shall be built to a line 10 feet from the property line of the Simulator Complex Quadrangle (Figure 5.7).

- Along the “East Campus green,” 50 percent of the development frontage shall be built to a line 10 feet from the property line.

Within these areas, building entries should be oriented to the build-to lines, and buildings should be designed to promote pedestrian activity and interest along open spaces and streetscapes. To this end, surface parking lots will not be permitted within 25 feet of these frontages.

Landscaped Area Adjacent to Buildings. In addition to the landscaped setbacks required along property lines and public rights-of-way, each parcel shall contain additional minimum landscaping adjacent to building facades. Along the front of buildings, a minimum landscape edge of 15 feet shall be provided; along the sides of buildings, a
FIGURE 5.8—DEVELOPMENT PATTERN: CENTRAL CORE QUADRANGLE AND BLANCO GATE
minimum width of 10 feet shall be provided. For buildings constructed along the prescribed build-to lines within the Campus Core, 6 feet of landscaping and a 4-foot sidewalk shall be provided within the 10-foot setback zone to supplement the 4-foot sidewalk and landscaping within the public right-of-way. In these areas, which are expected to have more pedestrian activity, an integrated 8-foot wide sidewalk (half in the public right-of-way and half within the parcel) will be provided (Figure 6.3).

Central Core Quadrangle. The Central Core Quadrangle is envisioned as the principal gathering place and focus for both the UC MBEST and Marina Airport Business Park campuses. An open space of approximately two acres straddles the property line between the two developments in order to promote a strong relationship between the two campuses and to encourage a synergy of activity. While the quadrangle is envisioned primarily as an open space, a single building will be permitted within the space, provided that the following conditions are met:

- The building accommodates an important function that provides common services to UC MBEST and Marina Airport Business Park users (e.g., conference space, research laboratories, dining facilities, recreational amenities, etc.);

- The building does not exceed: a height of two floors, a total floor area of 20,000 square feet, or a footprint of 10,000 square feet;

- The building is positioned within the space to enhance the open space character of the quadrangle and views from the quadrangle;

- No parking facilities are permitted within the quadrangle; parking shall be accommodated along the curbside perimeter of the quadrangle and/or in other locations; and

- The building is designed as an appropriate landmark, befitting its role as an important gathering place for both the UC MBEST Center and the Marina Airport Business Park.

Large Campus Sites. The site planning of large campus sites 10 acres or greater should offer linkages to the remainder of the campus. Such sites are particularly encouraged to provide common spaces and facilities (e.g., open space, conference, exhibit, laboratory, dining, recreational) that can be shared by other UC MBEST users or by visitors to the campus. To this end, campus site planning should avoid the creation of inward-looking facilities surrounded by large expanses of surface parking in favor of layouts that are inviting and inclusive. The configuration of entry and common area buildings should be oriented to the in-fract roadways of the UC MBEST campus; pedestrian and bicycle linkages should be provided from the roadway corridors to the front entries of these buildings.

Driveways and Curb Cuts. Primary access to a development site must be from one of the dedicated streets of the UC MBEST
FIGURE 5.9—DEVELOPMENT PATTERN: SIMULATOR COMPLEX QUADRANGLE.
Center. Access easements may cross adjacent parcels, but are not to be designated for primary access.

Driveway curb cuts shall not be permitted along Reservation Road, Blanco Road, or Imjin Road south of the Marina Airport Business Park property line shared with UC MBEST. In addition, no driveway curb cut shall be constructed within 150 feet of street intersections. Multiple curb cuts along a single property may not be located closer than 100 feet. Driveways should be at least 40 feet apart on adjacent parcels.

The minimum driveway width shall be 24 feet; the maximum driveway width shall be 30 feet. Driveways with medians are permitted, provided that the total curb cut, including the radii, does not exceed 80 feet.

Parking Requirements. Onsite parking shall comply with City of Marina Zoning Ordinance requirements or County of Monterey Zoning Ordinance requirements if development occurs on unincorporated land. Sufficient and conveniently located visitor parking is required. Disabled persons parking should be clearly signed and conveniently located in accordance with state and local regulations.

Parking lot dimensions shall also comply with City or County standards as applicable. Parking lot circulation shall be contained within each development parcel, except for sites with common driveways. In no case shall an adjacent street be used as a drive aisle for parking lot circulation.

Parking location and layout should facilitate convenient and safe pedestrian circulation. If parking areas exceed one double row in depth, it is preferable that the alignment of the aisles be in the direction of the pedestrian movement.

At least one tree pocket with a minimum dimension of five square feet shall generally be provided for every six parking spaces. These trees shall be evenly distributed through the parking areas to provide a continuous canopy. Tree species and sizes shall comply with the landscaping standards described below.

Grading and Drainage. Each development site shall be graded in a manner that conforms to the existing topography to the fullest extent possible and avoids excessive topographic cuts and fills. Outside of buildings, proposed grades shall not vary more than five feet from existing grades, to the extent feasible. In general, buildings and parking lots shall be laid out with their longest dimension parallel to existing contours to avoid excessive cuts and fills. Exceptions will be considered where optimal solar orientation requires a building and site layout that does not correspond with existing contours. Where appropriate, buildings and parking lots shall be stepped and/or terraced to assist in conforming the buildings and parking lots to existing slopes. Grade changes within buildings shall be carried into the landscape with the use of low (less than four feet high) retaining walls with landscaping above and below the walls, or landscaped slopes no greater than 3:1 (horizontal to vertical). Grade changes between parking bays can be accommodated with low retaining walls with landscaping above and below the walls, or landscaped slopes no steeper than 3:1 (horizontal to vertical). The maximum gradient of parking lots shall not exceed five percent (5 percent). Terraced parking lots should step every parking bay (60 feet) with landscaping between terraced parking bays. Landscaping
of terraces will not diminish the requirements for parking lot landscaping.

Newly constructed slopes (either cut or fill) shall not exceed 3:1. Where slopes greater than one foot in height attributable to cut or fill occur adjacent to property lines, a level toe (for fill conditions) or shoulder (for cut conditions) shall be constructed adjacent to the property line. Level areas shall be a minimum of five feet in width at the toe or shoulder of slopes adjacent to property lines.

Artificial berms are discouraged, except where necessary to screen parking lots from predominant offsite views or to keep drainage from crossing the boundary of the Natural Reserve. Berms shall not exceed a 3:1 slope and should include understory shrubs to assist in the screening of automobiles (refer to Landscape Standards).

Onsite Storm Drainage: All sites shall provide an onsite storm drainage collection system which conveys storm drainage to onsite percolation ponds or swales capable of retaining a 100-year storm. Existing preliminary studies (i.e., Infrastructure Planning, Costing and Financing Study, Reimer Associates, January 1995) indicate that 3 cubic feet of onsite percolation ponds will be required for every 43 square feet of building area. However, prior to the development of individual sites, additional soils analysis and engineering calculations will be required to finalize sizing of detention facilities. Percolation ponds and retention basins shall be aesthetically integrated into each site area. Sheet drainage across property lines is prohibited. Drainage must meet City of Marina or County of Monterey standards for nonpoint discharge.

Existing Vegetation. Site planning and grading of development should be designed to preserve and incorporate existing oak trees and other vegetation to the extent possible. Existing vegetation shall be retained within 50 feet of Reservation Road, Blanco Road, and the UC/NRS Fort Ord Natural Reserve. On designated parcels, it is important to preserve existing vegetation as a means of creating continuity between Reserve areas and retained landscaping. This is particularly important in the Central South Campus, where a significant stand of oak woodland is targeted for preservation along Reservation Road, around which three development sites are arranged. Within Parcels CS2 and CS3, development should be configured in a manner that provides for the retention of a single continuous landscape corridor at least 50 feet in width connecting the retained landscape with the South Reserve. This corridor could occur along the property line between the two parcels and/or within each site. Existing vegetation may be thinned within development parcels if required for reducing dangerous fuel loads.

Well Head Protection. Several existing well heads provide a critical water supply to the Fort Ord reuse area, as well as to the UC MBEST Center (see Chapter 7). These wells are situated on or in the vicinity of Parcels E8, E13 and E19, as well as in the UC/NRS Fort Ord Reserve. All potential sources of contamination, including sewer lines and industrial or stormwater mains, shall be separated from well heads by a minimum distance of 50 feet. Where, in the opinion of the enforcing agency, adverse conditions exist, the above separation distance shall be increased or special means of protection shall be provided. Lesser distances may be acceptable where physical conditions preclude compliance with the specified minimum separation distance.
and where special means of protection are provided. Lesser separation
distances must be approved by the enforcing agency on a case-by-case
basis. Grading of sites shall be undertaken to ensure that groundwater
flows away from well heads.

**Architectural Treatment.** It is not the intent of the
UC MBEST Master Plan to establish a singular architectural theme
for buildings within the campus. However, it is important that buildings
contribute to the creation of a high-quality campus environment that
complements the natural features of the site, creates an attractive and
interesting visual environment, and promotes interaction and exchange
among the campus population. The following principles should be
applied to the design of buildings within the UC MBEST campus:

- **Consistent Treatment of All Facades.** Buildings shall be designed
  with a high-quality visual image, with consistent architectural
  features and materials on all sides.

- **Relation to the Topography of the Site.** Buildings should establish
  a strong relationship with site topography which exceeds a vertical
  grade change of eight feet, through stepping and terracing as
  practicable.

- **Complementary Materials and Colors.** Buildings shall be
designed with materials and colors that are complementary with the
surrounding landscape. Masonry, wood, plaster, and stone utilizing
a light and warm color palette in the earth tones is encouraged.
The use of metal clad or reflective glass buildings is not permitted.

- **Articulation of Roof Form.** Buildings are encouraged to
  incorporate sloping roof forms that are complementary with the
  rolling topography of the site and provide visual interest in the
  landscape. Roof materials can include masonry tile, slate, and
  lightly colored metal roofs that avoid glare.

- **Ground-Level Treatment.** Ground-level areas facing key
  open spaces and activity centers (e.g., Central Core Quadrangle,
  Simulator Complex Quadrangle, Four Corners) should be designed
  in a manner that promotes a comfortable and interesting pedestrian
  environment. Public-oriented activities (e.g., lobbies, recreational
  facilities, dining areas, etc.) that promote an extension of indoor
  activities to the exterior and/or provide a sense of activity from
  the pedestrian’s viewpoint should be included along these frontages.
The use of weather-protected arcades, colonnades or canopies is
encouraged; generous provision of storefront windows and frequent
building entries are encouraged, as appropriate.

- **Facade Treatment.** Visual interest and diversity are encouraged
  through variations in building profile; the use of accent materials
  and colors; overhanging roofs and recessed windows and openings,
  which create distinct shadows; and the use of moldings, belt
  courses, and other architectural features to provide interest
  on the facade.

- **Service Areas.** Service areas, which may include truck facilities,
  materials, supplies, and exposed mechanical and electrical
  equipment, must be screened with visual barriers so they are not
  visible from public streets or open spaces. In addition, materials
  and supplies must be screened from adjacent parcels.
Mechanical Equipment. All major systems requiring large components (e.g., air conditioners, storage tanks, etc.) shall be located in mechanical rooms completely within the building. Alternatively, systems might include an exterior location at or below ground level as necessary to limit heights to a maximum of eight feet above grade, or be fully recessed into roof wells with allowances for future equipment. Mechanical equipment located in this manner must be screened on all sides. Roof-mounted equipment must be screened in an architecturally integrated manner with the overall architectural design of the building. Auxiliary buildings housing mechanical equipment must be in full compliance with all development standards and architectural guidelines. Portable storage containers will be permitted on a temporary basis only.

Site Lighting. Site lighting shall utilize cut-off luminaires to minimize offsite glare. Light sources shall be high-pressure sodium or color-corrected metal halide lamps.

Walls and Fences. No walls above three feet in height are permitted within front yard landscape or building setbacks. No side or rear yard wall may exceed eight feet in height. Trash enclosure walls may not exceed six feet in height and shall be of a suitable material and finish, such as wood, stone, decorative metal or iron; chain link fencing is not permitted. All walls are to be constructed of materials and finishes compatible with adjacent buildings. No fencing, including security fencing, is permitted within the front setback. Where sloping conditions exist, the tops of all fences should be stepped to carry level.

Signage. As with the other physical elements of the UC MBEST Center, signage will play an important role in the overall visual appearance of the campus. Signage objectives are as follows:

- Clearly delineate the intended path of travel within the UC MBEST Center for motorists, bicyclists, and pedestrians;
- Provide clear linkages between surrounding arterial roads and the campus; and
- Present a consistent and hierarchical design theme throughout all levels of signage which is compatible in design, size, proportion, color and materials with the buildings and landscaping.

General guidelines for UC MBEST Center signage are addressed in this Master Plan. A signage master plan should be prepared at a later date to establish a consistent graphic vocabulary; establish the system of pathfinding signs within and leading to the campus; and establish minimum standards for the durability, safety, quality and type of materials used in the construction of signs. In addition, the Signage Master Plan should regulate temporary signage identifying future building occupants, design consultants, construction contractors, real estate brokers, lending institutions, etc., and the types of buildings to be constructed.

The major gateway sign for the UC MBEST Center should be located on the northern side of the planned intersection along Reservation Road.
between Imjin and Blanco roads. This intersection will be the primary entry for UC MBEST-bound visitors and employees, and will provide a direct connection to the Central Quadrangle and the potential foundation building. The design of the sign should create an appropriate gateway statement that is compatible with the landscaped open space that will surround it. It should be less than six feet in height and incorporate special lighting.

Secondary UC MBEST identification will also be incorporated on signs located at Imjin and Reservation roads and the planned intersection on Blanco Road just north of Reservation Road; at these locations, signage should be designed to provide identification for both the UC MBEST Center and other activities, including the Marina Municipal Airport and the Marina Airport Business Park. Additional entry signs for the UC MBEST Center will be situated at roadway entries along Reservation and Imjin roads.

Signs are generally located in two areas: the streetscape zone, and the interior zone of each parcel.

- **Streetscape Zone.** The streetscape zone includes the landscaped setback and extends to the property line at the street right-of-way. Signs within the streetscape zone shall be limited to tenant identification or monument signs. Only one sign shall be located at each driveway curb cut. All signs shall be ground-mounted and shall not exceed five feet in height (above grade), 12 feet in length, and 36 square feet in area. If signs are located on landscaped berms, their overall height above the closest roadway should not exceed six feet. Signs located at driveway entrances shall not interfere with the visibility of motorists, bicyclists and pedestrians. Building address numbers shall be displayed as close as possible to a building’s main entrance, and signs, including numerals, should always face the main vehicular or pedestrian approach. General or advertising signs shall not be allowed.

- **Interior Zone.** The interior zone includes the parking, landscaping and building areas. Signs included within this zone include the following:

  1. Tenant directory signs. Ground-mounted, no greater than five feet in height (above grade), 12 feet in length, and not exceeding 36 square feet in area.

  2. Pedestrian entry signs. Wall-mounted, located a maximum of six feet above grade, with a maximum width of four feet and a maximum area of three square feet.

  3. Building wall signs. Wall-mounted, no higher than the roof parapet. Maximum dimensions are 3 feet high and 20 feet wide, with a maximum sign area of 60 square feet.

  Lighting of all signage shall be accomplished through the use of adjacent pole lights or uplights; signs should not be internally lit or utilize neon. Additionally, signs should not employ any devices that rotate, gyrate, blink, flash or move in any manner.
B. Landscape Concept

The UC MBEST Center lies within a unique coastal environment comprised of California woodland, coastal chaparral, and grassland plant communities. Coast live oak woodlands are found along the north-facing slopes and on the bluffs above the Salinas River in the northeastern area of the site. Scrub oak stands are found in distinct areas throughout the remainder of the Center, particularly along Reservation Road in the North Central and South Central campuses and in the western portions of the site adjacent to the Northern Reserve.

The underlying intention for future planning is to build upon the native and indigenous landscape, and thus reinforce local identity and a sense of place. Therefore, an emphasis is placed upon the selection of species endemic to the area; in other words, those which have adapted to the sandy dune environment, the prevailing coastal winds and salt-borne air. With the exception of the existing oaks (which are less than 20 to 30 feet in height), the indigenous plants are medium to low growing, tend toward grey-green in coloration, and encompass wide stretches of terrain. Plants tend to cluster in large masses, forming patterns that are complex and irregular, indicating specific changes in soil, water, or microclimatic conditions.

Those general characteristics of the existing landscape warrant emulation at the UC MBEST Center, with some notable exceptions. As development occurs, buildings, streets and parking lots will replace the natural, open landscape. These changes will make it necessary to rely upon cultivated species as well as native and indigenous plant materials that can provide shelter and create a more livable environment and that can focus and help structure the urban experience. More specifically, new landscaping within the UC MBEST Center should:

- Establish a strong sense of place and a recognizable hierarchy of streets and spaces;
- Provide visual interest through the use of naturalistic plantings which are compatible with the natural environment; and
- Direct views and define spaces through use of a combination of berms, shrubs and smaller trees.

Non-native plants may be used, providing that they are not invasive and are commonly used in naturalistic landscaping found in the Monterey Bay Area. They should be drought-tolerant and compatible with the conditions typically found along the coast. In addition, complementary plants should be used to create a setting that resembles locally found plant communities, blending the UC MBEST Center more sensitively into the Monterey Bay and Fort Ord landscape. An objective of this landscape approach is to avoid the manicured and groomed appearance of typical business parks, and to create a distinctive identity while reducing overall irrigation and maintenance costs.

Landscaping should appear informal and naturalistic. While new landscaping should be planted in groups containing the same species to develop recognizable landscape forms and masses, the use of a single species over extended areas should be avoided. This approach will allow a diversity of plants that will enhance the overall fitness of the landscape while minimizing the loss of extensive amounts of a single plant species attributable to a species-specific plant mortality.
Table 5.6 provides a range of plant materials that meet the criteria of drought tolerance, non-invasiveness, compatibility with coastal climate and sandy soils, and visual compatibility with native vegetation of the Monterey Peninsula. These plant materials have been reviewed by a local naturalist and are recommended for use in the key landscape areas of the UC MBEST Center based on the soil type and climatic conditions of the site, including streetscapes, campus open spaces, and onsite landscaping. The recommended plant materials include species typically found in the California chaparral and woodland communities as well as within the coastal strand, and they include landmark trees, small to large trees, shrubs and perennial grasses. Final selection of plants should be based upon availability, cost, plant health and suitability. Plant materials not included in Table 5.6 may be used if they meet the selection criteria mentioned above.

The landscape standards of the UC MBEST Master Plan are intended to guide both private users and public entities in the design of key landscape areas. As such, the standards are organized into the following three categories:

- **Streetscapes**, including major arterial streets (e.g., Blanco and Reservation roads) which abut the site; and "in-tract" streets and entry roads, including Injin Road and other internal loop roads, which provide access to individual parcels of the UC MBEST Center, the Marina Airport Business Park, and the Airport.

- **Campus open spaces**, including the Central Core and Simulator Complex Quadrangles, the West Campus Glade, open spaces along Reservation Road, within the East Campus, and the bluffs above the Salinas River.

- **Onsite landscaping** within development sites, including the landscaped setbacks, areas adjacent to Natural Reserve areas, building surrounds and parking lots.

**Streetscapes.** The landscaping of the streets within the UC MBEST Center includes the adjacent arterial roads (Reservation and Blanco), entry roads, and in-tract roadways. In general, the landscaping of the streets should achieve the following:

- Reinforce the hierarchy and pattern of the roadways;

- Reduce the overall scale of the roadways;

- Provide visual interest to motorists, bicyclists and pedestrians; and

- Promote a seamless landscape between the medians, shoulders, and adjacent parcel setback areas.

**Reservation and Blanco Roads.** Reservation Road and Blanco Road traverse and abut the UC MBEST Center, and as such, their landscape treatment must be considered an integral part of the overall design. As recommended in the Fort Ord Reuse Plan, these roadways are planned for widening. Reservation Road west of Blanco Road, and Blanco Road north of Reservation Road are expected to be widened to six lanes with a median; Reservation Road east of Blanco will be widened to four lanes. Reservation Road is bounded along a substantial part of its length by the UC/NRS Fort Ord Natural Reserve. In order to promote an integrated visual appearance, it is recommended that the Reservation and Blanco road frontages include drought-tolerant trees primarily indigenous to the Monterey Peninsula with a low to medium.
### Table 5.6

**UC MBEST Center**  
**Recommended Plant List**

#### Landmark Trees:
- Aesculus californica – California Buckeye*
- Arbutus menziesii – Madrone*
- Cornus nuttallii – Pacific Dogwood
- Fraxinus latifolia – Oregon Ash
- Juglans hindsii – California Black Walnut
- Lyonia floribunda – Catalina Ironwood
- Pinus pinea – Italian Stone Pine
- Pinus canariensis – Canary Island Pine
- Pinus muricata – Bishop Pine
- Pinus halepensis – Aleppo Pine
- Platanus racemosa – Western Sycamore*
- Populus alba – White Poplar
- Populus fremontii – Fremont Cottonwood
- Populus trichocarpa – Black Cottonwood
- Quercus agrifolia – Coast Live Oak*
- Quercus ilex – Holly Oak
- Sequoia sempervirens – Redwood
- Umbellularia californica – California Bay*

#### Small to Medium Trees (continued):
- Rhamnus alaternus – Italian Buckthorn
- Rhododendron macrophyllum – Rhododendron
- Rhus integrifolia – Lemonade Berry
- Schinus molle – California Pepper

#### Shrubs:
- Artemisia californica – California Sagebrush*
- Artemisia lactifolia – White Manzanita
- Baccharis pilularis – Coyote Brush*
- Ceanothus species – Wild Lilac*
- Callistemon citrinus – Lemon Bottlebrush
- Convovulus cneorum – Bush Morning Glory
- Dendromecon species – Bush Poppy*
- Dodonaea viscosa – Hopseed Bush
- Echium fatusum – Pride of Madeira
- Eleagnus pungens – Silverberry
- Eriogonum species – Buckwheat*
- Eriophyllum confertiflorum – Golden Yarrow*
- Fremontodendron species – Flannel Bush
- Garrya elliptica – Coast Silk Tassel
- Heteromeles arbutifolia – Toyon*
- Juniperus species – Juniper
- Lantana camara – Lantana
- Leptospermum scoparium – New Zealand Tea Tree
- Lonicera involucrata – Twinberry
- Lupinus albilans – Lupine*
- Mahonia repens – Creeping Mahonia
- Mahonia aquifolium – Oregon Grape
- Melaleuca species – Melaleuca
- Prunus species – Cherry
- Rhamnus californica – Coffeberry*
- Rhus ovata – Sugar Bush
- Ribes sanguineum – Red Flowering Gooseberry
Table 5.6 (Continued)
UC MBEST Center
Recommended Plant List

Shrubs (continued):
- Ribes speciosum – Fuchsia Flowering Gooseberry
- Romneya coulteri – Matilija Poppy
- Rosa californica – Wild Rose
- Santolina species – Santolina
- Salvia species – Sage*
- Xylosma congestum – Shiny Xylosma

Ground Cover—A. Low-Growing Native Mix:
- Abronia umbellata – Pink Sand Verbena
- Arcostaphylos hookeri – Monterey Manzanita
- Ceanothus griseus – Carmel Ceanothus
- Collinsia heterophylla – Chinese Houses*
- Encelia californica – Bush Sunflower
- Eriophyllum confertiflorum – Golden Yarrow*
- Eschscholzia californica – California Poppy*
- Fragaria chiloensis – Sand Strawberry
- Lotus scoparius – Deerweed*
- Lasthenia chrysostoma – Dwarf Goldfields*
- Lupinus hirsutissimus – Hairy Lupine*
- Lupinus nanus – Sky Lupine*
- Linanthus grandiflorus – Phlox
- Mesembryanthemum crystallinum – Ice Plant
- Oenothera cheiranthifolia – Beach Evening Primrose*
- Mimulus longiflorus – Southern Monkeyflower
- Mimulus puniceus – Mission Red Monkeyflower
- Sisyrinchium bellum – Bluety-eyed Grass*

Ground Cover—B. California Native Wildflower Mix:
- Achillea millefolium – White Yarrow*
- Clarkia amoena – Farewell-to-Spring
- Collinsia heterophylla – Chinese Houses*

Ground Cover—B. California Native Wildflower Mix (continued):
- Eschscholzia californica – California Poppy*
- Gilia capatata – Globe Gilia
- Gilia tricolor – Bird’s Eye
- Layia platyglossa – Tidy Tips*
- Linum lewisii – Blue Flax
- Lupinus densiflorus var. aureus – Golden Lupine
- Lupinus succulentus – Arroyo Lupine
- Mimulus puniceus – Mission Red Monkeyflower
- Nemophila maculata – Five Spot
- Nemophila menziesii – Baby Blue Eyes*
- Phacelia campanularia – California Bluebells

Ground Cover—C. Coastal Sage Scrub Mix:
- Collinsia heterophylla – Chinese Houses*
- Encelia californica – Bush Sunflower
- Eriodictyon crassifolium – Thick-leaf Yerba Santa
- Eriogonum fasciculatum – Buckwheat
- Eriophyllum confertiflorum – Golden Yarrow*
- Eschscholzia californica – California Poppy*
- Lotus scoparius – Deerweed*
- Lasthenia glabrata – Dwarf Goldfields
- Lupinus succulentus – Arroyo Lupine
- Mimulus puniceus – Mission Red Monkeyflower
- Oenothera cheiranthifolia – Beach Evening Primrose*
- Salvia apiana – White Sage
- Salvia mellifera – Black Sage*
- Sisyrinchium bellum – Bluety-eyed Grass*

Vines:
- Lathyrus latifolius – Perennial Sweet Pea
- Lonicera hispidula – California Honeysuckle
height in keeping with the scale of the reserve areas (e.g., Coast Live Oak, Madrone, California Buckeye). At key intersections and entries, it is further recommended that taller landmark trees (e.g., Monterey Cypress, Monterey Pine, Catalina Ironwood, Redwood, Sycamore) be incorporated. All trees along these street frontages should be planted in an informal manner to resemble natural groupings.

**Entry Roads.** Entry roads to the UC MBEST Center from Reservation and Blanco roads are key elements in the overall framework of the Center. While serving to distribute traffic between the Center and surrounding roads, the entry roads should assist in establishing a proper transition in scale to the individual parcels as well as providing specific areas of interest. As such, distinctive entry roads with landscaped medians and shoulders are proposed at the key gateways to the campus (see Figure 6.3). Entry roads include Imjin Road, the central entry road to the north and south central campuses from Reservation Road, and entry roads from Blanco and Reservation roads to the north central and east campuses.

The landscaping of the entry road medians should utilize a wider range of types and scales of plant materials than suggested for Blanco and Reservation roads. Emphasis upon more distinctive and colorful plants should be considered. Beyond the four-foot wide landscaped parkway strips and walkways is the 25-foot wide landscape area (shoulder) which will transition directly into the landscaped setbacks within the individual parcels. The parkway, shoulder and parcel setbacks should be a seamless landscape utilizing a range of plant materials similar to the medians. Larger landmark trees should be used more frequently in the 25-foot shoulder areas, due to the greater amount of available land and the adjacent parcel setbacks which will also utilize landmark trees. Understory trees and shrubs should be used for screening and accent within the shoulders. Ground plane planting within the medians, parkway strips and shoulders should also include a mix of low shrubs, ground cover and perennial grasses.

**In-Tract Roadways.** Landscaping of in-tract roadways occurs within parkway areas between the curbs and sidewalks, and is visually extended by landscaping within the parcel front yard setbacks which abut the sidewalks within the road right-of-ways. Landscaping of in-tract roadways should be limited to those trees which are suitable as street trees. Trees should be selected to both reduce the scale of the in-tract roadways and assist in the formulation of a recognizable and distinct circulation system. Similar to the relationship between the entry roads and the parcel setbacks, landscaping between the in-tract roadways and parcel setbacks should achieve the appearance of a seamless landscape through the use of plants which are common to both areas. Ground plane planting within the parkway strips should be limited to low shrubs, ground cover and perennial grasses.

**Campus Open Spaces.** The open spaces within the UC MBEST campus serve several purposes, including the following:

- Extend and/or preserve onsite vegetation and natural features;
- Create a landscape continuity between UC/NRS Fort Ord Natural Reserve areas; and
- Provide common areas for gathering and/or recreation.
Open space areas within the UC MBEST Center recognize both stands of existing vegetation and nonvegetated areas identified as open space activity areas. Open space parcels which include existing trees are located primarily in the West Campus adjacent to the Natural Reserve, in the north and south central campus adjacent to Reservation Road, and in the East Campus adjacent to Reservation Road and along the bluffs above the Salinas River. The following provides a description of the treatments for five key open spaces:

**Central Core Quadrangle.** The Central Core Quadrangle is intended to serve as the principal gathering place of the UC MBEST campus and the Marina Airport Business Park. It will be surrounded by a two-lane roadway with curbside parking, and will be spatially defined by two to three-story buildings oriented to the open space. As such, the landscape treatment of the open space will be designed to support group events (e.g., concerts, picnics, lectures, etc.) as well as informal enjoyment (e.g., brown bag lunches, sunning, people watching, etc.). The quadrangle should be planted with a blended grass mixture consisting of a native wildflower mix for erosion control and special interest, and drought-tolerant turf grass for durability in anticipation of pedestrian usage. The Central Core Quadrangle should also be planted with trees along the edges, similar in scale and appearance to the street trees planted in the four-foot pathway strips along the in-tract roadways. The Campus Core trees should assist in defining the quadrangle without adversely impacting the ability to use the quadrangle for campus-related activities. Campus Core Quadrangle trees should be selected for their ability to create scale and a strong sense of place. While the Central Core Quadrangle area will be designed as a more active open space, the emphasis remains upon the use of native, intrinsic and/or compatible plant materials.

**Simulator Complex Quadrangle.** An additional quadrangle is planned in the West Campus as a common open space for gatherings and events. This open space of approximately 1.5 acres is sited immediately to the east of the existing Simulator Building and the planned north-south roadway serving the West Campus. The quadrangle will be spatially defined by the existing building as well as new structures along its north and east sides (Parcel W3). The intent is to promote a subsidiary activity center to the Central Core Quadrangle at the westernmost edge of the UC MBEST campus in a location that can serve existing activities at the Simulator Building and the Airport. In addition to its gathering function, the quadrangle is envisioned as a visual extension of the West Campus Glade, and should be landscaped as such. The treatment of the Simulator Complex Quadrangle should include plants which are compatible with the West Campus Glade, including oak trees and perennial grasses. Similar to the Central Core Quadrangle, this quadrangle should utilize a blend of perennial grasses and fescue for durability in anticipation of pedestrian usage.

**West Campus Glade.** South of the Simulator Complex Quadrangle, an existing stand of oak trees is targeted for preservation and the creation of a continuous glade linking the quadrangle with the Natural Reserve areas. The intent of this open space is to preserve significant clusters of oaks and provide an attractive visual and recreational amenity to the campus. Landscaping within this area will be primarily limited to native species that would normally be associated with the oak clusters (e.g., Coast Live Oak, Madrone, California Buckeye). Due to the sensitivity of the existing stands of oaks, irrigation systems should not be introduced. New plantings should be hand watered only to allow plant establishment. Regrading of the land should not occur within the canopy of the oak trees. Surface drainage from adjacent parcels will not be
allowed. The use of native perennial grasses along the edges of the West Campus Glade is recommended to mitigate the impacts of regrading due to adjacent roads and parcel development. Otherwise, the ground plane of the West Campus Glade should remain undisturbed and unplanted.

Central Campus Open Space along Reservation Road. Along Reservation Road between Blanco and Imjin roads, a significant stand of existing oaks is targeted for preservation. This vegetation north and south of Reservation Road will create a distinctive entry to the central campus, and as such, will be important in establishing the rural character of the UC MBEST Center. The alignments of the in-tract roadways have been carefully considered to minimize disruption of the existing topography and vegetation. The introduction of new landscaping in the central campus open space should be guided by the same approach as described for the West Campus Glade: preserve the oaks, minimize ground plane disturbances, avoid introduced irrigation, and use care in the selection of introduced plant materials to ensure compatibility with the existing oaks.

Bluff Edge. The northern edge of the East Campus is defined by a 100-foot high promontory, providing dramatic views to the Salinas River Valley and Fremont Peak and the Gabilan Mountains beyond. The Master Plan calls for a continuous open space approximately 50 to 100 feet wide along this edge with a pedestrian and bicycle trail and continuous landscaping. Similar to other areas of existing oaks, great care should be exercised in the introduction of new plantings, irrigation, surface drainage and regrading in the area of existing oaks. Ground plane plantings should primarily consist of native perennial grasses augmented with native shrubs and ground covers in special areas, including overlooks, seating areas and rest stops.

ONSITE LANDSCAPING. Landscaping within development parcels should be designed to extend the character of the UC/NRS Fort Ord Natural Reserve, streetscape and open space areas of the campus, and to appear as a seamless naturalistic landscape extending across the entire campus. Landscape guidelines and objectives raised in discussion of the other areas of the campus apply equally to onsite landscaping.

Landscaped Setbacks Adjacent to Streets. Landscape setbacks adjacent to streets vary from 25 feet along Imjin Road and onsite roadways to 50 feet along Reservation and Blanco roads. Landscaping within these setbacks should primarily extend the character of the adjacent streetscape directly through the parcel landscape setback to create a seamless, naturalistic landscape. Larger landmark trees should be planted in the parcel setbacks. Understory trees and shrubs should be used for screening and accent, and ground plane planting should include a mix of low shrubs, ground cover and perennial grasses. Barning is acceptable provided the intent is to screen parking lots or other objectionable views, such as building service areas, and that such barning is undertaken in a manner that complements and extends the existing topography. Overall, the intent of the parcel setback landscaping is to establish a cohesive campus environment, to strengthen and reinforce the roadway landscaping, and to serve as a seamless transition between the roadways and development parcels.

Landscaping of Percolation/Retention Ponds: The landscape treatment of percolation/retention ponds shall be integral with surrounding landscapes and overall site design in order to promote the appearance of a cohesive site. If situated within setback areas, percolation/retention ponds shall be designed to extend the streetscape landscaping; ponds shall be landscaped with the same ground cover
materials utilized in the adjacent landscape, and the configuration of the depressed area shall be carefully composed to appear as a natural extension of the surrounding landscape. Slopes in excess of 3:1 shall not be permitted. Within setback areas, the maximum width of a swale shall be 10 feet as measured from existing grade. If percolation ponds are situated on other portions of the site, they shall be designed to appear as attractive elements of the landscape and site design.

Landscaped Setbacks Adjacent to Natural Reserves. The landscaped setback adjacent to the UC/NRS Fort Ord Natural Reserve is 50 feet. Due to the sensitivity of the Reserve, parcel landscaping within the setback will be limited to indigenous native species. Regrading of the land within the parcel setback should not occur within the overhead canopy of any existing oak trees. As described earlier, it will also be important to avoid the introduction of any new surface drainage from the parcel setback into the Natural Reserve areas.

Parking Lot Treatment. Landscaping should be designed to mitigate the visual impact of parking lots while also providing shade. Parking lots are to be planted with one tree for every six parking spaces. Trees are to be planted in five-foot (minimum) square pockets or in curbed planting islands, distributed throughout the parking lot to achieve a continuous canopy. Tree pockets and parking islands shall be planted with low ground cover. Parking lot trees should be selected for deep root growth, avoiding shallow rooting trees which could disrupt parking lot pavements. Deep root growth should be enhanced through the use of root control barriers and deep water irrigation techniques. Of special importance will be the soil preparation within the tree wells in advance of the tree planting. Soil preparation, if done properly, will greatly aid in the general health of the tree, particularly for trees in parking lots, where growing conditions can often be adverse. Parking lot trees should be of medium texture and evergreen, although other tree types should be considered. Additionally, in selecting parking lot trees, avoid the use of trees that contain flowers, fruits, sap, etc. which could adversely affect vehicles parked below. Parking lot trees should be selected to assist in achieving the goal of a seamless, naturalistic landscape across the entire campus. This will be of critical importance since, depending on the size of the facilities they serve, parking lots can be quite large.

Building Surrounds. The primary intent of the landscaping associated with the building surrounds is to complete the seamless, naturalistic landscape established in the streetscapes, open spaces and setbacks. Landscaping should be smaller in scale and more refined to reflect the smaller spaces and proximity of the buildings. The building surrounds should be designed as pedestrian-oriented environments and landscaped as such. Landscaping in these areas should be scaled to provide a graceful transition from the larger trees found in the streetscapes and setbacks to the smaller parking lot trees and the more intimate building surrounds.

The emphasis in the building surrounds should be upon the use of more finely textured plants which assist in drawing the viewer's focus inward. Trees should be selected for their inherent leaf, branching or bark characteristics; low shrubs and ground covers should be selected for various unique characteristics, such as flowers and/or fruit. Trees should also be selected to enhance the buildings from the surrounding area and from within the building to the outside, while also enhancing the quality of the pedestrian environment.
**Interior Courtyard Landscaping.** Interior courtyards or open spaces that are predominantly enclosed may be landscaped with plants not on the list (Table 5.6), provided that the landscaping is water-conserving and specimens do not grow substantially above the roof line of buildings surrounding the courtyard.

**Retention of Oak Clusters.** To the extent possible, existing clusters of oak trees should be incorporated as part of the site landscaping concept. The removal of any oak or other tree with a diameter greater than six inches will require the replacement planting and maintenance of new trees such that the sum of the diameters at base height (DBH) of the new trees equals the sum of the DBH of trees removed. Locations for replanting shall conform with the Landscape Master Plan concept described in Figure 5.10.

**Removal of Invasive Exotic Species.** Existing stands of invasive exotic species such as ice plant, French broom and pampas grass will be removed as part of any landscaping treatment. Owners and tenants will be required to maintain parcels free of invasive exotic species. The UC MBEST Center and Marina Airport Business Park will implement a program to control invasive exotic species in all public areas and on all parcels not transferred to third parties.
6

CIRCULATION

INTRODUCTION

This chapter of the Master Plan describes plans and policies for vehicular, transit, bicycle and pedestrian circulation and transportation demand management (TDM) within and adjacent to the UC MBEST Center. The transportation improvements established for the UC MBEST Center have been carefully considered in relation to planned regional and basewide improvements proposed in the Fort Ord Reuse Plan. The goal of this Circulation Plan is to create a multimodal system of vehicular, transit, bicycle and pedestrian circulation facilities that supports the activities of the UC MBEST Center and complements and extends the regional transportation system, and that can provide alternatives to automobile dependency. The following provides a description of existing conditions, Fort Ord Reuse Plan policies, and Master Plan policies for each of the key transportation facilities. (The funding and phasing of these improvements are described in Chapter 8, Implementation.)

STREETS AND ROADWAYS

Streets and roadways form the primary structure of the transportation system, consisting of local-serving streets as well as regional roads that provide access to and from the UC MBEST Center. This regional network includes Highway 1, which extends across the former Fort Ord in a north-south alignment approximately one mile west of the UC MBEST Center, and Highway 68 and Reservation Road, which provide major east-west linkages. State Highway 68 provides access along the southern and eastern sides of the base, connecting Salinas with the Monterey Peninsula; while Reservation Road extends through the city of Marina, connecting the UC MBEST campus with Highway 1 and the East Garrison. Blanco and Davis roads intersect with Reservation Road, providing connections with Salinas and Highway 101. Blanco Road provides the most direct access to the UC MBEST campus from the city of Salinas. Imjin Road, a major north-south arterial roadway through the base, connects CSUMB and Highway 1 with the UC MBEST Center and the Marina Municipal Airport.
FORA Reuse Plan Recommendations

The Fort Ord Reuse Plan establishes a comprehensive framework of roadway improvements for the 2015 planning horizon and for buildout conditions. The proposed 2015 roadway network (Figure 6.1) represents a system of roadways, both outside and within Fort Ord, that serves the 2015 development in the area. From a regional perspective, the proposed network includes a number of major improvement projects with varying levels of relationship to the reuse of Fort Ord. In some instances, these improvements are aimed at addressing existing system deficiencies; others are proposed with the intent of improving access to Fort Ord. Key regional improvements include the widening of State Highway 1 north of Castroville, State Highway 156, State Highway 183 and State Highway 218, and the construction of the State Highway 68 Bypass Freeway and the Prunedale Bypass. Of most direct transportation planning relevance to the UC MBEST Center are the Reuse Plan’s recommended improvements to Reservation and Blanco roads. More specifically:

Reservation Road: By 2015, the Reuse Plan calls for the widening of Reservation Road to six lanes between Highway 1 and Blanco Road, and to four lanes between Blanco Road and Highway 68.

Blanco Road: The Reuse Plan proposes that Blanco Road north of Reservation Road be widened to four lanes by 2015, and to six lanes at buildout. South of Reservation Road, the plan identifies the need to extend Blanco Road to Imjin Road as a four-lane roadway to serve buildout conditions. The plan also designates the Blanco Road corridor as a multimodal transit corridor.

UC MBEST Center Street and Roadway Policies

The publicly dedicated system of streets within the UC MBEST Center is intended to provide safe and efficient circulation for planned development within the UC MBEST campus and provide an integrated system with the adjacent Marina Airport Business Park. The roadway system (Figure 6.2) is guided by the following policies:

6.1: Establish new signalized intersections along Blanco and Reservation roads.

In order to provide access to the UC MBEST campus, new signalized intersections will be required along Blanco and Reservation roads. The new intersections shall be located and designed to minimize conflicts and congestion along these key regional corridors, and shall be installed in a phased manner to serve development as it proceeds (see Chapter 8, Implementation). More specifically, four new signalized intersections are planned along Reservation and Blanco roads; these new signalized intersections do not include the signal that is already planned for Reservation and Blanco roads to serve existing traffic volumes:

- A new intersection approximately midway between Blanco and Reservation roads to provide access to the Central North and South campuses;

- Two additional signalized intersections along Reservation Road east of Blanco spaced at approximately 2,500 feet to provide access to the East Campus; and
- A new intersection on Blanco Road approximately 1,000 feet north of the Reservation Road intersection to provide access to the Central North and East campuses, and to the Marina Airport Business Park.

In addition to these four new intersections, a fifth signalized intersection is proposed along Blanco Road approximately 2,300 feet north of the Reservation Road intersection to provide access to the Marina Airport Business Park and the East Campus. However, this signal will ultimately be replaced by an urban interchange when the Armstrong Ranch Road is implemented to serve the City's mixed-use development (see Policy 6.6 below).

6.2: CREATE AN ONSITE ROADWAY SYSTEM THAT ALLOWS FOR THE COORDINATED DEVELOPMENT OF THE UC MBEST CENTER AND MARINA'S AIRPORT BUSINESS PARK.

It is the University's intention to create a research and development campus with linkages to the Marina Airport Business Park. To this end, the roadway system of the UC MBEST Center shall be configured in a way that allows for the simultaneous and coordinated development of the two areas, and for the creation of a single roadway circulation system that provides for efficient access from the regional arterial network. UC and the City intend to cooperate with regional agencies and the County to implement the roadway system to optimize development opportunities for both areas while minimizing impacts on the external roadway system.

The UC MBEST Center and the Marina Airport Business Park will share a system of internal public roadways dedicated to the City or County, with access from signalized intersections along Blanco and Reservation Roads. The internal access roads shall be configured to permit circulation between all of the UC MBEST campuses (West, Central North and South, and East) and the Marina Airport Business Park without utilizing the adjacent arterials.

The internal roadway will traverse the Central North Campus and the eastern "leg" of the Airport Business Park. An additional secondary road is envisioned from this primary loop along the City of Marina/UC MBEST property line and through the Central Campus Core. A single roadway is planned through the Central South Campus, connecting Imjin and Reservation roads.

The West Campus of the UC MBEST Center shall be served primarily from the existing signalized intersection at Reservation and Imjin roads, and shall include an internal roadway connecting Imjin Road to the Simulator Complex and the Marina Airport.

The East Campus of the UC MBEST Center will be served by the Blanco Road intersections and by two new signalized intersections along Reservation Road. An internal loop road within the East Campus will distribute traffic to each of the parcels and provide for future regional access between Armstrong Road and Reservation Road (see Policy 6.6 below).
6.3: Configure the internal roadway system in a manner that allows for the preservation of the existing topographical features of the site and efficient access and parcelization.

The roadway alignments for the UC MBEST Center have been carefully configured to minimize onsite grading, allow for preservation of major vegetation clusters, and provide for efficient parcel access and subdivision. To the extent that the roadway plan is modified or amended in the future, adjusted alignments should strive to maintain topographical characteristics of the site and reduce the need for major cutting or filling of the site.

6.4: Establish roadway standards that provide for efficient circulation of vehicles.

Figure 6.3 illustrates the standards for onsite roadways within the UC MBEST Center. These standards are based upon those provided in the Fort Ord Reuse Plan, but are specifically designed to serve the needs of the UC MBEST Center. With the exception of the roadway surrounding the Central Quadrangle and pull-out parking bays along the bluff road, the West Campus Glade and the Reservation Road Grove, parking along internal streets is not permitted, since individual development sites will be responsible for providing all parking. This arrangement will help reduce conflicts between bicycles and parked cars and will limit the amount of impervious surface throughout the UC MBEST Center. As shown, five such roadway types are established:

Entry Roads: These roads are located at the key gateways to the UC MBEST campus to provide a distinctive sense of entry, and to provide for gateway elements and signage. They include: the Imjin entry from Reservation Road; two new entry roads from Reservation Road (east and west of Blanco Road); and a new entry road from Blanco Road. The typical right-of-way for entry roads is 100 feet, with two 20-foot carriageways (one lane of traffic and one bicycle lane) separated by a 20-foot landscaped median and bordered by 20-foot landscaped parkways.

Primary In-tract Roadways: The majority of the onsite roadways shall be three lanes in width, with the center lane providing for left turns into individual parcels. The right-of-way for such streets shall be 60 feet, including a carriageway of 44 feet (three vehicular lanes and two bicycle lanes) and 8-foot parkway/sidewalk zones on both sides.

Secondary In-tract Roadways: Two-lane/two-way secondary roadways are proposed within the Central North Campus (along the UC MBEST/Marina property line and around the Central Quad) and within the Central South Campus. These roadways shall have a right-of-way of 50 feet, including a 34-foot carriageway (two vehicular lanes and two bicycle lanes) and 8-foot parkway/sidewalk zones on both sides.

In-tract Collector Roadway: As described below (Policy 6.6), the UC MBEST Center shall provide for the creation of a collector roadway connecting the future Armstrong Ranch Road to Reservation Road through the East Campus along the bluff edge. This roadway shall
SECTION C-C
SECONDARY INTRACT ROADWAY (50' R.O.W.)

SECTION D-D
INTRACT COLLECTOR ROADWAY (74' R.O.W.)

SECTION E-E
CENTRAL CORE QUADRANGLE

FIGURE 6.3 - ROADWAY STANDARDS
have a right-of-way of 74 feet, including a 58-foot carriageway (four vehicular lanes and two bicycle lanes) and 8-foot parkway/sidewalk zones on both sides. Along the bluff top, a sidewalk will not be required along the outer side of the roadway.

Central Quadrangle Road: Surrounding the Central Quadrangle, the plan calls for a two-lane roadway with parallel curbside parking along the outside edge. The 50-foot right-of-way includes 8-foot parkway/sidewalk zones on both sides and a 34-foot carriageway including two moving lanes, one bike lane (counterclockwise around the quadrangle), and one curbside parking lane. Adjacent development would provide an additional 4 feet of sidewalk area and a landscaped setback of 6 feet adjacent to the right-of-way to promote a pedestrian-intensive environment.

6.5: Employ traffic-calming devices which discourage through-movement of vehicles and promote a safe pedestrian/bicycle environment.

Since the UC MBEST Center is located at the intersection of two major regional arterials—Blanco and Reservation roads—the design of the onsite roadway system should avoid “shortcut” conditions which encourage through-movement within the campus environment. The only exception to this policy will be for the extension of Armstrong Ranch Road across the East Campus, which is intended to help reduce vehicular congestion along Reservation Road. Devices which discourage shortcutting and also slow traffic speeds are encouraged. These could include the use of traffic circles or rotaries at key onsite intersections, curved alignments, and median treatments aimed at promoting the safety and comfort of pedestrians and bicyclists.

6.6: Provide for a future east-west regional roadway linkage between Highway 1, Armstrong Ranch, Blanco Road and Reservation Road.

The potential development of the Armstrong Ranch and future regional access needs will rely upon the improvement of a collector road from Highway 1 along the northern edge of the Marina Airport to Blanco Road, and eastward along the bluff edge of the UC MBEST East Campus to Reservation Road. The UC MBEST Center and the Marina Airport Business Park projects shall retain a 74-foot right-of-way to provide for this new collector roadway, and they shall be configured to allow for the future construction of an urban interchange across Blanco Road to serve regional access needs.

This interchange would provide controlled access between Blanco Road and the Armstrong Ranch Road, with an overpass (approximately 2,700 feet north of Reservation Road) over Blanco Road, and with onsite roadways providing full vehicular movements (Figure 6.4). Upon implementation of this interchange, the proposed signalized intersection 2,300 feet north of the Blanco/Reservation road interchange will be removed and the intersection will function as a right-in/right-out intersection, providing access to Armstrong Ranch Road from the south and northbound lanes of Blanco Road. If traffic volumes at the time of implementation warrant, additional land shall be provided by the UC MBEST Center within Parcel E1 to provide for a ramp connection between northbound Blanco Road and Armstrong Ranch Road. The University of California will work with the City of Marina to seek regional funding for the urban interchange.
**Interim Condition**

**Ultimate Condition**

**Figure 6.4**—Blanco/Armstrong Road Interchange
6.7: Provide appropriate traffic signal coordination.

Existing and proposed traffic signals and traffic throughput along Reservation and Blanco roads will be coordinated. Signal timing and coordination settings will be maintained and updated as new development occurs. Improvements will be scheduled to provide a level of service of “D” or better.

Transit Facilities

Although vehicular access will continue to be the primary mode of transportation within Fort Ord and the UC MBEST Campus for the foreseeable future, the design of the roadway system and the configuration of land uses should be supportive of transit as a viable alternative to the automobile. The UC MBEST Campus is currently served by Monterey-Salinas Transit (MST), which provides local bus service throughout the Monterey Peninsula. Service originates from the downtown areas of Salinas and Monterey, with connecting service via Fort Ord.

Fort Ord Reuse Plan Recommendations

The Fort Ord Reuse Plan calls for the enhancement of transit service along two key transit corridors: the Salinas-Fort Ord corridor along Blanco, Davis and Reservation roads and the Fort Ord-Seaside-Monterey Peninsula corridor along Highway 1 and Del Monte Boulevard. The plan designates a multimodal transportation corridor along Blanco Road, Imjin Road, Eighth Street and First Avenue for a high-capacity transit corridor (Figure 6.5). The precise program for this


Figure 6.5—Fort Ord Transit Activity Centers and Corridors

- Freeway
- Key Transit Corridor
- Multimodal Corridor R.O.W.
- High Density / Mixed-Use Areas
- Activity Center

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transit corridor and the modes that will traverse it are still undetermined, and the facility is not projected for implementation within the 2015 planning horizon.

The Reuse Plan also calls for the siting of a major intermodal transportation terminal along Eighth Avenue in the heart of Fort Ord, and for additional transit stops and transfer points to be situated within major activity centers, including UC MBEST, CSUMB, and the mixed-use villages of the plan. The Reuse Plan requires each jurisdiction to identify bus routes and transit stops that will serve to enhance transit service at Fort Ord.

**UC MBEST Center Transit Policies**

As shown in Figure 6.6, the UC MBEST Center will provide for regional as well as local transit access. The following policies are intended to guide transit planning for the UC MBEST campus:

6.8: **Provide a pattern of internal roadways that will allow for regional bus access to serve future UC MBEST Center employees.**

As an important employment center within the region, the UC MBEST Center should provide convenient transit service and access. To this end, the internal roadways of the UC MBEST campus will be aligned and configured to accommodate major bus routes along the Salinas-Fort Ord transit corridor. Roads should be configured to allow bus routes along Reservation and Blanco roads to pass through the North Central and East campuses without causing significant delays in scheduling (Figure 6.6). Appropriate rights-of-way will be dedicated to allow for bus pull-outs and shelters. Appropriate traffic impact fees will be collected for the construction of bus shelters and bus stops. These will be identified during detailed engineering of the roadways.

6.9: **Establish a UC MBEST/Marina Airport Business Park shuttle system that provides an alternative to internal automobile trips.**

Within the UC MBEST Center and Marina Airport Business Park, a shuttle system should be established to provide employees and visitors with a convenient means of circulating around the campus. The shuttle system could be managed by the UC MBEST Center, the City of Marina, or both, and implemented as demand warrants. The routing of the shuttle system and the location of transit stops should be designed to provide access to significant users. Shuttle stops should also be located at key MST stops along Blanco and Reservation roads to provide for transfers to the regional system. A property owners' association, assessment district, or other appropriate mechanism will be established to fund the shuttle system.

6.10: **Create a multimodal transfer station at the heart of the UC MBEST campus.**

The Campus Core Quadrangle at the heart of the UC MBEST campus should be designed to serve as a multimodal transfer stop. Two bus stops for MST buses and two additional shuttle stops for UC MBEST Center shuttles should be located along the curb edge of the quadrangle to provide for convenient transfers and a central transit station within
the campus. Buses will circulate around the quadrangle in a clockwise direction, allowing for passenger dropoff and pickup from the open space. Adjacent to each bus stop, a transit shelter and bench should be provided, with posted information related to bus schedules and routing.

**BICYCLE AND PEDESTRIAN CIRCULATION**

Bicycle and pedestrian circulation within the UC MBEST Center will provide employees and visitors with an alternative means of travel within the campus; and as such, will contribute to the reduction of vehicular trips and air quality deterioration. A key goal of the plan is to establish land use patterns that promote attractive destinations and activity centers, and to provide appropriate facilities that will encourage bicycle and pedestrian movement.

Currently, there is little provision within Fort Ord and the UC MBEST campus for pedestrian and bicycle circulation. No sidewalks exist along Imjin, Reservation and Blanco roads, and there are no bicycle lanes or trails. The Transportation Agency of Monterey County has developed a General Bikeways Plan (January 1994) which describes current and proposed bicycle facilities in Monterey County. This plan recommends the development of a regional bicycle map and the creation of a Fort Ord bicycle and pedestrian plan. The plan identifies a number of bicycle improvement projects on the base.

**FORT ORD REUSE PLAN RECOMMENDATIONS**

The Fort Ord Reuse Plan establishes a proposed bicycle network (Figure 6.7) for the base, with linkages to the regional system. This
network includes a recreational bicycle trail to be established along the
Blanco, Reservation and Imjin road corridors, and an arterial bicycle
trail within the UC MBEST campus connecting the West, Central and
East campuses.

6.13: CREATE A CONTINUOUS SYSTEM OF LANDSCAPED
PEDESTRIAN WALKWAYS ADJACENT TO ROADWAYS WITHIN
THE UC MBEST CAMPUS.

All roadways within the UC MBEST campus shall be lined with
continuous landscaped walkways (Figure 6.3 and Figure 6.8) to
provide a continuous network of pedestrian ways. Walkways shall
be a minimum of four feet in width, and shall be separated from the
carrigeway of the road by a landscaped parkway of at least four feet.
Sidewalks that meander slightly through the landscape setback may be
appropriate in some settings. Along segments of street frontage where
pedestrian access is expected to be limited, the City and UC may choose
to provide sidewalks on only one side of the street; in these cases, the
opposite side of the street will retain an eight-foot landscaped zone,
permitting the construction of a sidewalk in the future.

6.14: PROVIDE FOR PEDESTRIAN TRAILS WITHIN THE
UC MBEST CAMPUS WHICH CAN PROVIDE LINKAGES TO
INTERNAL AND ADJACENT ACTIVITY CENTERS.

In addition to the pedestrian ways along the roadways of the
UC MBEST Center, the plan identifies several key corridors that
are appropriate for dedicated pedestrian trails. These trails would
provide convenient linkages within the development, and at the same
time, provide opportunities for recreational jogging or walking, as well
as biking. These include:

- A pedestrian trail linking the Central North and South campuses
  across Reservation Road. This trail could include a grade-separated
pedestrian bridge over Reservation Road within the existing oak woodland (OS6 and OS7), taking advantage of the existing grade and providing connections to the proposed hotel/conference center (Parcel CS2).

- A pedestrian trail within the multimodal corridor along Blanco Road connecting to a dedicated pedestrian trail along the bluff edge of the UC MBEST campus.

- A pedestrian trail within the West Campus oak woodland connecting development parcels with the Simulator Complex.

**Transportation Demand Management**

The principal goal of transportation demand management is to minimize and manage the demand for vehicle trips as an alternative to increasing roadway capacity. TDM attempts to reduce the number of people who drive single-occupancy vehicles and increase the number of people who use alternate modes of travel, including carpools and ridesharing, vanpools, transit, bicycles and walking. The Fort Ord Reuse Plan establishes policies that promote the establishment of TDM programs and coordination of land use planning and transportation facilities.

The land use and development patterns of the UC MBEST Center plan have been devised to encourage the creation of activity centers that can serve as transit-oriented nodes. In addition, the system of walkways and bicycle routes will promote the creation of a pedestrian/bicycle-friendly environment. In addition to these measures, the plan calls for the establishment of a TDM program.

**6.15: Establish a UC MBEST Center Transportation Demand Management program.**

A Transportation Management Association (TMA) should be established for the UC MBEST Center. The TMA would be responsible for establishing and enforcing TDM goals and incentives for the project, consistent with City and County trip reduction ordinances. In so doing, the TMA would provide development coordination, monitoring and, if appropriate, transportation management services to the employment centers. The primary role of the TMA will be to oversee TDM performance of individual property owners and to work with the City, the County, and other public agencies concerning local and regional transportation issues that affect the planning area.
The goal of the UC MBEST Center utility plan is to provide for the orderly and cost-effective construction of onsite utilities in conjunction with the development of the property. Where feasible, utility systems will be designed to facilitate sustainable use of resources. The Implementation Element of the Master Plan (Chapter 8) describes the potential phasing and “packaging” of utilities as well as their potential funding. This chapter of the Master Plan describes policies for the improvement and/or establishment of onsite infrastructure systems for water, sanitary sewer, storm drainage, gas and electric, and telephone and communication systems to support the activities of the UC MBEST Center. The utility plan for the UC MBEST Center is based upon the most current assumptions and planning undertaken as part of the Fort Ord Reuse Plan. As more finalized offsite utility plans are prepared, additional analysis will be necessary to coordinate the development of the UC MBEST Center with the overall reuse of Fort Ord.

WATER

The long-term challenge facing development within Fort Ord and the UC MBEST Center is water supply. The Fort Ord Reuse Plan proposes a phased water delivery system that includes improvements to existing wells, construction of a disinfection station prior to the year 2000, and the provision of distribution mains as required by development. Four wells, located in the East Campus area on the UC MBEST Center property and in the UC/NRS Fort Ord Natural Reserve, are the primary water source for Fort Ord; as currently configured, they can provide up to 5,400 acre-feet of potable water per year from the 400-foot aquifer. If a new well is drilled into the 900-foot aquifer, an additional 1,200 acre-feet of water will be available. In the event that use of the existing wells must be discontinued, the Monterey County Water Resources Agency will provide replacement water. FORA has allocated the
available water supply to individual landholdings across the base, reserving a pool of 780 acre-feet per year to be available on a first-come, first-served basis for users that develop early. The UC MBEST Center allocation is 165 acre-feet per year. If the UC MBEST Center is one of the first users to exceed its allocation, it will be able to draw upon the 780 acre-feet per year reserve.

Based on projections, current sources of water will allow for development of approximately 50 percent of the projected buildout of the priority parcels designated in the Initial Base Reuse Plan, including the UC MBEST Center. Further development will require better conservation, water reuse, or additional sources of water. The Fort Ord Reuse Plan suggests that importation of water or desalination may be necessary to accomplish the full buildout of Fort Ord.

Current onsite infrastructure includes a 300,000-gallon elevated water tank adjacent to the Marina Municipal Airport. The existing water supply is extended from the tank north to the airfield area in Imjin Road by means of an eight-inch water main. A water distribution system also extends from this source to all existing buildings within the airfield area, and provides a significant fire protection system at the existing helicopter tie-down area.

7.1: Provide for the cost-effective extension of water service to development sites within the UC MBEST Center property.

UC MBEST Center tenants are likely to use an average of 0.1 acre-feet per year per 1,000 square feet of built space (FORA Business Operations Plan). The FORA initial allocation of 165 acre-feet per year for the UC MBEST Center would be adequate to serve 1,650,000 square feet of built space, which is close to the amount of development projected for the UC MBEST Center by the year 2015.

The initial phases of the development will utilize the existing 300,000-gallon water storage tank in the vicinity of the airfield. A new water main will be constructed from this source to serve the initial phases of development in the West and Central North campuses. In the future, basewide water system improvements will eliminate the need for this existing water tower. The East Campus may be initially served from this system or a proposed new water main in Reservation Road that would serve the East Garrison. At buildout, a system of looped water mains (Figure 7.1) with stub-outs within the in-tract roadway system will provide water to each development site. If improvements to the on-base water supply system are postponed, arrangements for service from the adjacent Marina Coast Water District will be explored.

7.2: Protect well heads from urban contaminants.

All potential sources of contamination, including sewer lines and industrial or storm water mains, shall be separated from well heads by a horizontal distance of at least 50 feet. Where, in the opinion of the enforcing agency, adverse conditions exist, the above separation distance shall be increased or special means of protection shall be provided. Lesser distances may be acceptable where physical conditions preclude compliance with the specified minimum separation distances and where special means of protection are provided. Lesser separation distances must be approved by the enforcing agency on a case-by-case basis.

7-2
Grading of sites where well heads are located (Parcels E8, E13, E19) shall be undertaken to ensure that groundwater flows away from well heads.

**Sanitary Sewer**

The former Fort Ord is served by the Monterey Regional Water Pollution Control Treatment Plant located north of Marina. The Army owns and is expected to transfer to FORA rights to 3.3 mgd of the plant’s treatment capacity. A 2-1/2 inch sanitary sewer force main currently extends north along Imjin Road from the Army Reserve property to the existing development at the airfield. Once it is pumped to the high point, the effluent then gravity flows by means of a 10-inch sewer line to a sewage lift station north of the runway, at which point it is pumped into the Salinas interceptor sewer line. Capacity constraints in this interceptor sewer line limit the discharge to 20,000 gallons per day (gpd), or service to a combined total of approximately 208,000 square feet of development within the Marina Municipal Airport, the Marina Airport Business Park, and the UC MBEST Center. While this system can provide interim service to the early phases of the UC MBEST Center, a primary system will be required to serve any additional development. When the UC MBEST Center and Airport are connected to a new primary wastewater collection system, the existing service will be abandoned.

7.3: Establish a comprehensive wastewater system for the UC MBEST Center, in coordination with the overall upgrade of sanitary sewer systems for Fort Ord.

The UC MBEST Center will create a sanitary sewer system in close coordination with the upgrade of backbone infrastructure for Fort Ord. To this end, a new lift station will be constructed on UC MBEST property (at the southwest corner of Parcel W18) to accept flows from the UC MBEST Center, the City of Marina Airport and Business Park, and from the East Garrison. This lift station will be implemented and funded as part of the overall Fort Ord infrastructure system. It shall be accessed by means of a service driveway connecting to Reservation Road along the western boundary of the West Campus. A gravity sewer trunk main traversing the UC MBEST property from east and north will service these external development areas as well as UC MBEST development, and will drain to the planned lift station. Effluent will be pumped from this lift station along Reservation Road, then south along Imjin Road to the regional wastewater treatment plant.

Additional sanitary sewer lines shall be constructed within the rights-of-way of onsite streets. Based upon preliminary grading assumptions, all areas of the property can be served by gravity flow, with sewer lines connecting to the lift station. Figure 7.2 shows a conceptual layout for the sanitary sewer system.

**Storm Drainage**

The existing developed portions of the UC MBEST Center and the southern portions of the airfield are drained by means of existing pipes which collect the storm water from around the buildings and paved areas and discharge into adjacent depressions in the terrain, where the storm water percolates into the highly permeable sandy soil. The
Figure 7.2—Proposed Sanitary Sewer Facilities

Source: Raggen-Jensen and Associates, Engineers/Planners Surveyors (July 1996)
northern portions of the airfield are drained to a series of pipes that lead to a 36-inch line that discharges to the Salinas River.

7.4: MAINTAIN PRECONSTRUCTION LEVELS OF STORM WATER PERCOLATION ONSITE WHILE COMPLYING WITH ENVIRONMENTAL AND WATER QUALITY REGULATIONS.

Because of the excellent percolative capacity of the surficial soils at Fort Ord, the storm water system for individual parcels within the UC MBEST Center will consist of landscaped percolation recharge ponds or recharge vaults capable of retaining the 100-year storm. Drainage of roadways will be achieved through subsurface collection lines leading to percolation ponds along the roadway right-of-way (Figure 7.3). The precise location of these ponds will be finalized during the engineering of the roadways, but they will be distributed throughout the four campuses in a manner that permits storm water to gravity flow to low points. The percolation ponds shall be carefully designed as an integral extension of the landscape treatment of the roadways.

Onsite ponds shall be located and engineered in a manner that extends and enhances the landscape design of the development, and that ensures gravity flow from all portions of the site to the pond. Based upon an interpolation of the percolation ponds proposed in the Infrastructure Planning Costing and Financing Study prepared by Reimer Associates in January 1995, approximately 3 cubic feet of percolation pond capacity will be required for every 43 square feet of building area. According to the Reimer report, the sizing of the percolation ponds is based upon a 100-year design storm and a percolative capacity of one foot per hour.

However, each individual parcel will require additional soils analysis and engineering calculations to determine feasibility and detention basin size.

GAS AND ELECTRIC

A 16-inch high-pressure gas line paralleling Highway 1 and a 10-inch east-west transmission main crossing Fort Ord along Intergarrison Road south of the UC MBEST Center provide sufficient natural gas for existing and future development. These two supply routes provide a framework from which the existing three-inch service to the UC MBEST Center and Marina Airport Business Park can be expanded.

Electrical supply is provided from PG&E's power supply grid. Crossing the UC MBEST Center is a 60 kv Salinas/Del Monte transmission line within an existing 40-foot easement. The easement also accommodates a section of line that is part of a system tie-in between the Fort Ord substation, located on Gigling Road between Sixth and Seventh Streets, and the North Salinas substation, located on Boranda Road south of Madison.

7.5: COORDINATE WITH PG&E FOR THE PROVISION OF GAS AND ELECTRIC SERVICE TO THE UC MBEST CENTER.

Gas and electric service will be provided by PG&E, which will develop its own electrical and gas infrastructure plan for the UC MBEST Center. The University shall coordinate with PG&E as development
proceeds to ensure that service is provided in a cost-effective manner. All in-tract roadways will include underground electrical and gas service.

**Telephone and Communications**

The UC MBEST Center's goal is to have high-speed wide band width communications services available to serve all tenants. The existing telephone system in the planning area is based on a 30-year-old cabling and switching technology and is in need of replacement. The existing system has the capability to service current telephone demand, but lacks the ability to expand and provide service to proposed growth. At this time, there is no high-speed communications system serving Fort Ord.

**7.6: Install Telecommunication Infrastructure Systems that Minimize Up-Front Investment and Provide Maximum Flexibility and Independence.**

Given the speed at which communications needs and technologies change, the UC MBEST Center should not make any substantial investments in providing telecommunications facilities or services unless they are specifically related to needs expressed by prospective tenants, preferably as part of the agreement for the sale or lease of development sites. At each stage of development, however, the UC MBEST Center should make the necessary investments in fundamental infrastructure required to maintain independence and flexibility in the provisioning of telecommunication services to future tenants. Regarding the construction of basic infrastructure, the University shall pursue the following two policies:

**7.6.1: Ensure that a fiber optic link to the Public Switched Telephone Network (PSTN) reaches the UC MBEST Center as soon as possible.**

In July of 1996, an agreement was reached between the U.S. Army and the Fort Ord Reuse Authority to allow for the interim operation by Pacific Bell of the existing 300-pair copper cable and the supporting conduit system serving the airport area. Within the next few months, this system will be transferred to UC and the City of Marina. Also within the next few months, Pacific Bell will install fiber optic cable that will reach the site via Reservation Road, terminating at a point near the water tower on Imjin Road. From this point, copper or fiber optic cable will be used to provide service to existing and future buildings at the UC MBEST Center and the Marina development. The availability of this fiber optic facility will ensure that prospective tenants will be able to receive any type of service they need, from basic voice connections to high-speed data transmission.

**7.6.2: Install and maintain ownership of an underground system of interbuilding communications conduit sized to meet future needs without additional construction.**

At each successive stage of development, an internal network of underground conduit and structures will be installed within the in-tract roadways. This system should include a total of twelve 4-inch ducts to provide for public telephone service (2 ducts), cable television (1 duct), public electric service (2 ducts) and lighting (1 duct), and an additional six 4-inch ducts for use by Pacific Bell, UCSC, or other competitive service providers. The UC MBEST Center should retain ownership of these facilities regardless of the entity using them. In addition to
FIGURE 7.4- TYPICAL UTILITY CONFIGURATION BENEATH STREETS
the conduit systems, the UC MBEST Center will install underground communications vaults at selected points on the campus. These vaults will be located where main conduit banks make a significant change in direction, or where a “feeder” system leaves the “trunk” system to enter a building.
This chapter of the Master Plan provides an overview of project phasing and financing, and sets forth the regulatory steps that will be required to implement the UC MBEST Center development. The UC MBEST Center Business Plan, a companion document to this Master Plan, provides more detailed discussion and recommendations related to phasing, financing, management and marketing issues.

**Phasing**

The phasing strategy for the UC MBEST Center is intended to provide UC and the City of Marina with maximum flexibility in response to future market conditions and opportunities. It is the intent of the Master Plan to allow both entities to respond opportunistically to development offers, and to open up segments of the property in an orderly and efficient manner. Several basic assumptions underlie the phasing strategy:

- Approximately 1.3 million square feet of development can be built prior to the year 2012 within the UC MBEST Center; this level of development corresponds with market absorption projections and basewide levels of development assumed in the Fort Ord Reuse Plan.

  - Development within the UC MBEST Center prior to the year 2012 will most likely occur in the West and North Central campuses, as these portions of the site provide for the most logical and cost-effective extension and construction of infrastructure. It is assumed that approximately 100 net acres of land will be opened up during this period of development.

  - The rolling topography and oak groves of the South Central Campus provide an opportunity for clustered development carefully configured in relation to the unique setting. Special uses, including a conference center and/or hotel, should be considered for this campus.

  - The East Campus, east of Blanco Road, provides excellent opportunities for larger users, and should be reserved for uses
that cannot easily be accommodated in the remainder of the project area. Although, the phasing strategy targets this area for the final phases of the UC MBEST Center project, it is possible that such users will come forward prior to buildout of the West, North Central and South Central campuses.

- The phasing of infrastructure for the UC MBEST Center needs to be closely coordinated with development of the adjacent Marina Airport Business Park. For this reason, phasing strategies for the UC MBEST Center property will need to be developed in cooperation with the City of Marina.

Given these assumptions, a preliminary phasing strategy has been developed for the portion of the UC MBEST Center within the city of Marina. This strategy represents the 1.3 million square feet of development that is projected to be constructed within the UC MBEST Center over the next 15 years. It also incorporates a strategy for the phasing of the 949,000 square feet of development within the adjacent Marina Airport Business Park over the same period. Figure 8.1 shows the three phases of development projected for this period.

**Phase One: 1997–2000**

The first phase of development is aimed at opening up portions of the property to provide a wide range of development opportunities. A key challenge in this early phase is to maximize the amount of developable land while minimizing infrastructure costs and leveraging available funding resources. To this end, the strategy focuses on the development of three areas: the West Campus, with light industrial and service commercial opportunities; the North Central Campus, with research and development sites; and the Marina Airport Business Park, with aviation-related and service commercial sites (Figure 8.2). In total, approximately 17.6 net acres of UC MBEST property (Package 1) and 9.2 net acres of Marina Airport Business Park property (Package 1M) could be made available for development in the first phase.

This initial phase of development is intended to establish an image and identity for the UC MBEST Center, to create improved land available for development, and to facilitate future phases of development. The recommended strategy is to locate the first UC MBEST building in the North Central Campus to establish distinct project visibility and identity along the well-traveled Reservation Road. This first building can serve several purposes, including administrative offices, a marketing center for site development, meeting/event space, research and technology-related services, and lease space for small businesses. UC should make minor improvements (e.g., resurfacing, signage, lighting) to the Imjin Road corridor to enable the West Campus to accommodate initial tenants served by the existing infrastructure.

Within the West Campus, sites already served by Imjin Road and Neeson Road are targeted for development. These include Parcels W2, W3 and W8. Parcels W10, W13, W17 and W19 are deferred to Phase Two to allow for the demolition of the Motor Pool Building and environmental remediation (see Figure 5.6, Parcelization Map). In the North Central Campus, Parcel CN1 along Imjin Road is targeted for development. This site includes the existing wood frame structures, which are expected to be demolished or relocated. Together, these sites provide potential for approximately 100,000 square feet of development.
FIGURE 8.1— PHASING CONCEPT 1997–2012

- PHASE 1: 1997-2000
- PHASE 2: 2001-2008
- PHASE 3: 2009-2012

UC MBEST Master Plan—Draft
The first phase strategy also calls for the opening up of the North Central Campus, including the construction of the new entry road from Reservation Road between Imjin and Blanco roads. It is proposed that this road be improved to serve the frontages of Parcels CN11, CN13 and CN14 (approximately 1,200 linear feet of roadway in a "T" configuration). This improvement will establish a distinct gateway identity for the UC MBEST Center and provide potential for approximately 140,000 square feet of new development within the first five years of the project.

The Master Plan recommends that the first phase of the Marina Airport Business Park also establish a separate identity by constructing a segment of roadway connecting to Blanco Road (approximately 1,100 linear feet in a "T" configuration). This road would open up Parcels M12 through M17 and offer the potential for approximately 120,000 square feet of new development.

In order to support these three areas of development, several key infrastructure improvements will be required. These improvements, which are shown as "Package 1" and "Package 1M" on Figure 8.2 (for the UC MBEST Center and Marina Airport Business Park, respectively), include:

- Intersection improvements along Reservation Road at the new entry road to the UC MBEST Center project, including a 150-foot long left-turn lane for eastbound traffic along Reservation Road. No signal would be warranted at this intersection during the first phase.

- Intersection improvements along Blanco Road at the new entry road to the Marina Airport Business Park, including a 150-foot long left-turn lane for northbound traffic along Blanco Road. No signal would be warranted at this intersection during the first phase.

- Minor improvements to Reservation Road to allow for development of adjacent sites.

- Extension of 12-inch water lines from the existing water tank south along Imjin Road and along the internal roadway of the North Central Campus and Marina Airport Business Park.

- Extension of 12-inch sanitary sewer lines from the Reservation Road lift station through the West and North Central campuses to the Marina Airport Business Park.

- Extension of underground electricity, gas and communications through the North Central Campus and the Marina Airport Business Park.

In addition to these infrastructure improvements, UC will also implement the fencing of the Fort Ord Natural Reserve as part of the first phase.

Once the critical first phase is underway, subsequent development patterns and pacing will depend on the type and magnitude of market demand. Within the second and third phases, development of the UC MBEST Center can proceed in several ways, depending upon the opportunities that present themselves. Five "packages" of infrastructure and site improvements (Figures 8.3 through 8.7), in addition to the first package described above, are set forth as potential subsequent increments of development in the first three phases. Although multiple
FIGURE 8.3 - PACKAGE 2/2M (UC MBEST/CITY OF MARINA)

- MBEST PARCEL
- CITY OF MARINA PARCEL
- PREVIOUS PHASE OF DEVELOPMENT
- MBEST STREET IMPROVEMENT
- CITY OF MARINA STREET IMPROVEMENT
- SANITARY SEWER
- WATER

IMPLEMENTATION
combinations of infrastructure packages could be implemented, the following sequence provides one cost-effective scenario:

**Phase Two: 2001–2008**

As the project begins to build critical mass and identity and the regional market continues to develop, it is anticipated that the project will attract more medium-scale users. During this phase, a mix of small, medium and larger users can be accommodated on the remaining sites within the West Campus (Package 5) and on Parcels CN15 through CN17 at the northwest corner of Blanco and Reservation roads (Package 2). Both of these areas are easily improved based on the presence of existing infrastructure and the improvements made during Phase One. Within the UC MBEST property, Phase 2 would open up approximately 54 net acres of land and result in approximately 650,000 square feet of additional development.

It is anticipated that the second phase of development within the Marina Airport Business Park will also open up Parcels M7 through M11 (Package 2M) and proceed south to meet the UC MBEST Center development. A shared roadway connecting to Blanco Road would provide an additional entry road and frontage for planned retail development in both areas. This phase of development would make approximately 20 net acres of land available within the Marina Airport Business Park, with the potential for approximately 260,000 square feet of development.

Key infrastructure improvements required for the development of Phase Two include the following:

**Package 2/2M (UC MBEST/Marina Airport Business Park)**

- Extension of internal roadways to provide an internal loop between Reservation Road and Blanco Road, and a new shared entry road to Blanco Road along the UC MBEST/Marina boundary (Figure 8.3).
- Extension of utility lines beneath roadways.
- Installation of a signalized intersection at the shared entry road along Blanco Road if warranted.

**Package 5 (UC MBEST)**

- Improvement of Imjin Road between Reservation Road and the airport (Figure 8.6). (Costs to be shared by UC MBEST Center and the Marina Municipal Airport.)
- Construction of internal roadways within the West Campus.
- Construction of water and sanitary sewer lines beneath the roadways.
- Installation of a traffic signal at the “Four Corners” intersection, if warranted.

**Phase Three: 2009–2012**

During the third phase, the remainder of the North Central Campus—approximately 27 acres—will be made available for development. In
FIGURE 8.6—PACKAGE 5 (UC MBEST)

- MBEST PARCEL
- PREVIOUS PHASE OF DEVELOPMENT
- MBEST STREET IMPROVEMENT
- TRAFFIC SIGNAL
- SANITARY SEWER
- WATER
total, approximately 360,000 square feet of development could be supported in this area. These parcels will be ideal for accommodating a wide variety of high-profile R&D office and ancillary users. The completion of the Central Quadrangle is anticipated during this phase. At its completion in 2012, the UC MBEST Center is expected to comprise 100 acres of developed land, with building space totaling 1.3 million square feet. R&D and educationally related uses are expected to comprise two-thirds of this total amount.

This phase could also allow for the remainder of the Marina Airport Business Park to be developed north to Armstrong Ranch Road and westward around the Central Quadrangle. Key infrastructure improvements anticipated during this phase of development include:

**Package 3M (Marina Airport Business Park)**

- The construction of onsite roadways to serve Parcels M18 through M24, including below-street utility lines (Figure 8.4).

**Package 4/4M (UC MBEST/Marina)**

- The extension of the internal loop roadway in the North Central Campus from Imjin Road eastward to the new entry road at Reservation Road, and the construction of a secondary roadway along the Marina/UC MBEST property line around the Central Quadrangle and south to the Reservation Road entry road (Figure 8.5).

- The extension of utility lines along the secondary roadway.

- Installation of traffic signals at the UC MBEST Center entry road at Reservation Road and at the entry to the Marina Airport Business Park along Blanco Road, if warranted.

** potential Future Phases: 2013 and Beyond**

As the West and North Central campuses build out, subsequent development will be directed to the South Central and East campuses, which are currently under the jurisdiction of Monterey County. Three packages of infrastructure construction are set forth:

**Package 6 (UC MBEST)**

- The construction of an internal roadway within the South Central Campus, linking Imjin Road with Reservation Road (Figure 8.7).

- The construction of utility lines beneath this roadway.

**Package 7 (UC MBEST)**

The early development of the East Campus (e.g., Parcels E4, E5, E8) could be accomplished with:

- The eastward extension of the internal loop road from Blanco Road along the frontages of these three parcels, and the corresponding construction of below-street utility lines (Figure 8.8).
FIGURE 8.7- PACKAGE 6 (UC MBEST)

- MBEST PARCEL
- MBEST STREET IMPROVEMENT
- SANITARY SEWER
- WATER

PREVIOUS PHASE OF DEVELOPMENT
Package 8 (UC MBEST)

- The construction of the remainder of the East Campus roadways and utility lines (Figure 8.9).

Infrastructure Financing

The financing and development of backbone infrastructure, including roads, sewer, water, utilities and storm drainage, will be a critical function of the UC MBEST Center as the master developer of the project. Initial improvements will need to be funded in large part from grants and other funding sources not tied specifically to project development. Subsequent improvements will rely principally on revenues generated through project development, and will need to be driven by market activity and land transactions to the maximum extent possible.

Funding of offsite sewer, water and roadway improvements will be accomplished through cooperation in FORA’s basewide financing program. It is anticipated that a one-time Mello-Roos special tax will be utilized to contribute towards these improvements on a per-acre basis as development occurs. This Mello-Roos levy is estimated to be $1.49 per square foot of land based on preliminary Fort Ord Reuse Authority analyses. The amount of the Mello-Roos tax might be reduced by FORA to the extent that land sales elsewhere on the former Fort Ord provide revenues to fund some of the offsite improvements or that FORA receives government grants for infrastructure.

Given the need to tie infrastructure development to (1) the availability of outside grants or other revenues, and (2) actual land transactions and development, the construction of infrastructure will necessarily be an opportunistic process that will require the ongoing oversight and management by UC MBEST staff. The purpose of this financing strategy is to set forth the framework for infrastructure financing in terms of the improvements to be funded, the available financing resources, and the mechanisms that should be employed.

More detailed analyses will be needed to establish financing districts or prepare for any debt issuance that may be necessary. These more detailed analyses will have to occur after more definitive cost estimates, based on engineering design of improvements and more certainty regarding the timing of development, are available.

The cash flow and financial feasibility of the infrastructure financing and land development program are presented in the UC MBEST Center Business Plan. The financing strategy outlined in this Master Plan reflects the cost and value relationships and financing mechanisms incorporated in the cash flow and feasibility analysis.

Improvements to be Funded

Both onsite and offsite improvements need to be funded in order to facilitate development at the UC MBEST Center. The categories of infrastructure improvements that will need to be funded include the following:
• UC MBEST Headquarters Building
• Roadways
• Signalized Intersections (onsite)
• Signalized Intersections (offsite)
• Sewer Lines
• Water Lines
• Storm Water Retention Basins
• Telecommunications Conduit
• Onsite Gas and Electric Lines
• Street Grading
• Landscaping
• Basewide/Offsite Improvements (Roads, Water, Sewer)
• Habitat Management Facilities

As described above, the phasing of these improvements will be tied closely to the rate of development dictated by market absorption. Initial investment will be required to open up the first phase of land available for development.

Sources of Funding

Potential funding sources and financing mechanisms are described below. The actual amount of funding available will depend on a number of factors, including the outcome of negotiations with the federal government, the availability of grant funds, market conditions and the success of the development program, and policy decisions regarding the allocation of FORA and City funds. For example, property tax increment is shown as a potential funding source; however, this will require creation of a (planned) redevelopment area and a determination that the property tax revenue is best utilized for infrastructure investment.

There are five principal sources of funding for the infrastructure development program:

Lease Revenues and Land Disposition. These funds include lease revenues generated from the existing buildings and the sale or lease proceeds from the disposition of land. The objective of UC is to maximize land leases versus land sales. As discussed in the financing strategy below, some land sales may be necessary to accomplish the infrastructure financing.

The value that private development can pay to lease or purchase the land for new development is the principal source of revenue to support development of UC MBEST Center. The revenues derived from the leasing of existing buildings are less significant, because there are few such buildings, but these funds will still be important.

The value that is created from these sources, after providing for the funding of UC MBEST Center operating and maintenance costs (which will also be funded initially to some degree by UC), can be applied directly to improvements on a cash basis, or by requiring developer construction in lieu of land payment, or it can be leveraged through various financing mechanisms, including:

• Lease Revenue Bonds
• Public Enterprise Revenue Bonds
- Certificates of Participation (COP)

- Landscape and Lighting Maintenance Districts

The financing of improvements on a cash basis or through in-lieu construction by developers is the most cost-effective means of financing, and should be pursued to the maximum extent possible.

**Project-Generated Property Tax Increments.** If FORA does not exercise its special legislative authority to utilize basewide tax increment financing, the City of Marina may adopt a redevelopment plan to enable tax increments generated by UC MBEST Center development to be used to help finance required infrastructure improvements. If FORA does elect to utilize its tax increment authority, tax increment revenues are still likely to be available for the UC MBEST Center, but would probably be lower than if Marina adopts a redevelopment area.

Under a redevelopment plan, the incremental property taxes generated by development at the UC MBEST Center can be used to support bonded indebtedness for infrastructure and land improvements. The bond proceeds would be based on the value of development in each phase, assuming that the public capital improvements for each phase can be constructed simultaneously with development; otherwise, additional short-term gap funding may be required. Such gap financing might take the form of a revenue anticipation note, or perhaps a loan from the UC Regents.

**Basewide Financing.** FORA is implementing a financing program for basewide infrastructure improvements. By far the most important and expensive infrastructure items are basewide and offsite transportation improvements necessary to improve access to Fort Ord from other regions via U.S. 101, as well as providing for efficient traffic flow within the base. Three principal mechanisms are available to FORA to finance basewide infrastructure:

- **Mello-Roos.** It has been proposed that properties within Fort Ord pay one-time Mello-Roos special taxes to FORA, which would use this revenue on a cash basis to finance infrastructure. The UC MBEST Center project would pay approximately $64,900 per acre to FORA for this special tax, payable at the time building permits are obtained from the City of Marina. Other basewide R&D projects would pay similar rates.

- **Tax Increment.** At this time, FORA's consultants have recommended that tax increment financing not be used, as the Base Reuse Plan is estimated to have sufficient funds for capital items but insufficient annual operating revenues. Local jurisdictions would have access to property taxes to pay for services if basewide redevelopment is not implemented by FORA.

- **Land Sales Proceeds.** FORA is expected to use land sale proceeds throughout the base to pay for capital funding. Due to the separate mechanism used to convey land to UC, the UC MBEST Center project will not share land sale proceeds with FORA.

**Outside Funding.** A number of funding sources not tied to development on the site or other areas of the base may be utilized as part of the UC MBEST Center financing program. These include grants, such as EDA and CDBG funds, private donations, Regents'
loans, and other sources yet to be identified. In some cases, such as with grants or donations, these funds can be applied directly to improvements without any debt encumbrances. In other cases (e.g., Regents’ loans), funds may need to be paid back out of project proceeds at a later date.

**User Charges.** It is assumed that user charges will be a source for capital investment in utilities, including offsite sewer, water, gas, electricity and telecommunications improvements. Additionally, it has been assumed that UC will install telecommunications conduit as part of the backbone infrastructure for the UC MBEST project and that the cost of the conduit will be offset by user charges.

**Regulatory/Administrative Actions**

**UC MBEST Organization and Staffing.** The initial staffing and operations funding level for UC MBEST has been established with a budgetary allocation from UCSC. This staffing, with some outsourcing of tasks, will allow for the project to continue moving through the entitlement process, initial marketing efforts, and the first phase of improvements. It is recommended that staff explore an organizational framework for a quasi-independent organization that could work within the UC system to bring the UC MBEST Center into being as soon as resources allow.

Regardless of the organizational structure being used, the outsourcing of tasks, including development management, property management and marketing assistance, will allow the UC MBEST Center to retain knowledgeable specialists in key areas while preserving maximum discretion and flexibility in allocating resources.

**Memorandum of Understanding (MOU).** The roles and responsibilities of the City of Marina and UC in the financing of infrastructure to serve their joint projects, as well as the terms under which entitlements will be secured for UC MBEST Center properties, need to be finalized in an executed MOU between the City and UC. A similar process should be followed with the County of Monterey, where development is anticipated on unincorporated land.

**UC Regent Process.** The completed Master Plan will need to be approved by the Regents of the University of California prior to any significant commitments to development of the site.

**Agreements with Local Jurisdictions or Similar Vehicles.** It will be advantageous in marketing the UC MBEST property for UC to enter into development agreements with the City of Marina and County of Monterey to confirm the level of entitlement for the property, financial commitments, and other issues pertaining to how development will be carried out. The scoping, drafting and negotiation of these agreements should occur after the UC MBEST Master Plan is accepted by the Regents.

**Subdivision and Tentative Map.** As a next step in securing development entitlements for the property, it will be necessary to file appropriate subdivision and tentative maps for approval by the City of Marina or County of Monterey. This should occur after UC Regents’ approval of the Master Plan.

**Adoption of a Master Plan as Specific Plan.** It is recommended that this Master Plan be packaged as a Specific Plan
consistent with the State of California’s Specific Plan legislation. Specific Plans are intended as a “bridge” between general plan policies and individual development proposals. Specific Plans direct all facets of future development: from the distribution of land uses to the location and sizing of supporting infrastructure, from methods of financing public improvements to standards of development.

**CEQA Documentation.** The FORA EIR and the City of Marina Airport EIR (February 21, 1995) may serve as program EIRs for the UC MBEST Center project. At such time that a specific development application is made and/or at the time of adoption of the Specific Plan, it will be necessary to determine whether the program EIR is sufficient or if additional CEQA review will be necessary.

**Other Regulating Actions.** In addition to the development standards (which become an overlay of the zoning ordinance upon adoption of the Specific Plan), UC may impose additional restrictions on its land through: covenants, conditions and restrictions (CC&Rs) pertaining to operational, management and financial issues; lease provisions and/or deed restrictions.

**Natural Reserve System.** The fencing improvements and annual maintenance program reflected in the operating assumptions and costs for the UC MBEST Center are being implemented. The HMP and the HMP Implementing Agreement are expected to be finalized in the near term.

**Conformance with the Fort Ord Reuse Plan**

The UC MBEST Center Master Plan has been prepared simultaneous with the Fort Ord Reuse Plan. As a major stakeholder and participant in the basewide reuse planning process, UC has carefully coordinated its Master Plan with the Fort Ord reuse planning process. As a result, the Master Plan is expected to be consistent with the final adopted policies of the Reuse Plan. No amendments to the final adopted Reuse Plan are expected to be required by the implementation of this Master Plan.

**Conformance with Existing General Plans**

As described in Chapter 2 of the Master Plan, the UC MBEST Center lies within the jurisdiction of both the City of Marina and the County of Monterey. The Marina Airport Business Park and the portions of the UC MBEST Center west of Blanco Road and north of Reservation Road (i.e., the West and North Central campuses) are governed by the City of Marina General Plan (August 1995), which designates the properties as “Industrial-Research and Development/Professional Office.” This land use designation encompasses all of the planned land uses described by this Master Plan for the UC MBEST Center within the city of Marina and the Marina Airport Business Park. No amendments to the City of Marina General Plan’s Land Use Element will be required. The UC MBEST Center Master Plan is also consistent with the policies of the Conservation, Open Space, Noise, Scenic Highway, and Seismic Safety elements of the City’s General Plan.
The only amendment that would be required to make the City’s General Plan consistent with the UC MBEST Center Master Plan pertains to roadway standards in the Circulation Element. The roadway standards of the General Plan would need to be expanded to allow for special roadway standards for the UC MBEST Center project. More specifically, the amendment would need to allow for the removal of on-street parking and the creation of local streets with 50-foot rights-of-way (instead of 54 feet as set forth in the General Plan).

The portion of the UC MBEST Center east of Blanco Road (i.e., the East Campus) is governed by the Monterey County General Plan. Since this General Plan has not been updated since 1993, no land use designation has been assigned to the UC MBEST Center. The land use plan indicates the area as “Fort Ord Military Reservation.” Assuming that the County’s General Plan is amended to be consistent with the Fort Ord Reuse Plan, no amendments to the County’s General Plan will be required for the UC MBEST Center.

Coordination and Review by Other Agencies

The UC MBEST Center development will require close coordination with other agencies to ensure consistency with existing policies and to obtain key permits. The key agencies that may have regulatory authority over portions of the project include: the Fort Ord Reuse Authority, the City of Marina, and the County of Monterey. In addition, permits from the following agencies will be required for development:

- Monterey Bay Unified Air Pollution Control District
- Caltrans
- State Fish and Game
- Regional Water Quality Control Board

Appendix B provides a listing of all agencies that will be required to review or comment on the UC MBEST Master Plan and/or the EIR. The following describes key relationships with the lead agencies:

Coordination with Fort Ord Reuse Authority

FORA is charged with guiding the reuse and development of the Fort Ord base as a whole. While much of the development and operating activity of the UC MBEST Center will be carried out independently, it will be necessary to coordinate and cooperate with FORA in a number of key areas, including the following:

Tax Increment. If FORA undertakes tax increment financing under special legislation SB 1600, it will be critical to work with FORA as well as the City of Marina and Monterey County to ensure that UC MBEST Center financial requirements are addressed to the maximum extent possible.

Mello-Roos. The FORA financing plan calls for the creation of a Mello-Roos Community Facilities District to fund basewide infrastructure. UC MBEST Center staff will need to work with FORA representatives on the formation of the district, reviewing tax rate
formulas and other aspects of the financing to ensure they are consistent with project financing needs. Additionally, it will be important for the UC MBEST Center to have a voice and an ongoing role in the allocation and phasing of improvements to ensure that investment priorities are consistent with the development requirements of the UC MBEST Center.

**Utilities Conveyance.** A coordinated utilities conveyance strategy will be very important in the short term. Specific considerations include:

- **Roads.** Imjin Road will be owned by UC and the City of Marina. As such, permanent easements can and should be negotiated as part of any agreement conveying those roads to City or County jurisdiction as public roads. Those easements should preserve the University’s right to place conduit and cable under the roadway or cable over the roadway at specific points.

- **Power.** The Army and PG&E are nearing completion of negotiations regarding transfer of the power system to PG&E. It will be important for the UC MBEST Center to ensure that PG&E provides reliable power to the project, which may require bolstering the local power grid to stabilize the system—a very important consideration for large-scale R&D users.

- **Wastewater.** It is expected that FORA will request a “public benefit conveyance” of the basewide wastewater system to the Marina Coast Water District. Currently, the UC MBEST Center benefits from capacity already purchased by the Army. It will be important to ensure that the UC MBEST Center can assume continued use of this capacity (20,000 gallons per day) without paying connection fees. This capacity is estimated to be sufficient to serve about 208,000 square feet of development. For future development at the UC MBEST Center, UC should continue to push for use of basewide rate-based financing for major system upgrades.

- **Water.** It is expected that FORA will request a public benefit conveyance of the basewide water system to Marina Coast Water District. At this time, the conveyance application has not been submitted, nor has the FORA board authorized such an application. As with wastewater, UC should push for implementation of rate-based financing for major water system upgrades.

- **Telecommunications.** As of July 10, 1996, an agreement was reached with the U.S. Army to allow for the ownership transfer of the existing 300-pair copper cable and the supporting conduit system. As part of that agreement, Pacific Bell will install a fiber-optic cable that will reach the site via Reservation Road. The UC MBEST Center will accept ownership of a single four-inch underground conduit which will run from the existing Flight Simulator Building down Imjin Road to the south side of Reservation Road. In the short term, this conduit will provide for the possibility of a high-speed local data network serving UC MBEST Center tenants.

**Marketing.** FORA has been designated as the principal organization responsible for marketing Fort Ord as a whole. It will be important for UC MBEST Center staff to work with FORA representatives to help craft the marketing message and strategy that relates to the UC MBEST
Center and the aspects of regional economic development that relate to the UC MBEST program. It will also be appropriate to share marketing materials with FORA, as well as utilize FORA resources to augment the marketing efforts of the UC MBEST Center.
APPENDIX A
PERMITTED USES BY LAND USE CATEGORY

教育相关

所有最近得到开发的地块可能包括教育相关的用途，这些用途符合教学和为大学提供公共服务的使命。这些包括：教育或培训设施、会议设施，以及执行/管理层使用和管理支持教育相关的活动。

研究和发展

研究和发展（R&D）是主要的用地用途，适用于在UCMBEST Center。允许在此指定下进行的用途包括：

1. 用途包括：主要参与研究、开发和控制生产高科技电子、工业或科学产品的企业。用途可能还包括小型规模的轻工业制造、加工、装配和治疗特殊货物的环境，旨在测试的可行性。这些用途可能包括但不限于，以下类别：
   - 农业
   - 生物化学
   - 化学
   - 遗传
   - 发展设施用于国家福利
   - 土地、海洋、空气或太空
   - 环境保护与自然资源

2. 主要参与生产、装配、测试和修理组件、设备、系统和包括但不限于以下类别的：
   - 线圈、管子、半导体
   - 通信、导航控制、传输和引导设备
   - 数据处理设备和系统
   - 环境和环境生物材料
   - 图形和艺术设备
   - 渡过测量仪器
   - 光学设备、设备和系统
   - 电话、音频设备、无线电和电视设备

3. 办公室应被允许，前提是办公室用途与主要研究和发展活动相关。

4. 仓储和分发设施应被允许，前提是这些活动是完全在封闭的建筑物内进行的，并且不占用商业区总面积超过50%的区域。

5. 员工休闲和餐饮设施，以及会议和公共装配设施，应被允许作为主要用途的辅助用途。

6. 以下商业用途应被允许作为辅助用途，以方便员工。此类用途应位于建筑物内，并提供主要客户访问内部区域：
   - 咖啡厅
   - 孩子日间托儿所
   - 组群护理中心
   - 理发店
   - 美容美发
   - 银行服务
   - 商业服务
Appendix A
Permitted Uses by Land Use Category (continued)

Research and Development (continued)

7. Open storage of materials, goods, parts and equipment, including company owned or operated trucks and other motor vehicles, is allowed only as an accessory use incidental to the primary use of the parcel, provided that adequate screening is provided.

8. Other uses deemed by the University of California to be sufficiently similar to the allowed uses set forth above shall also be allowed.

Light Industrial/Service Commercial

Light Industrial/Service Commercial (LI/SC) is the land use designation applied to certain development sites within the West Campus of the UC MBEST Center. Sites with this land use designation will be allowed to develop any land use listed under the Research and Development land use designation, and the following:

1. Uses primarily engaged in the fabrication, manufacturing, assembly or processing of materials that are generally already in processed form and which do not in their maintenance, assembly, manufacture or plant operation create smoke, gas, odor, dust, noise or other objectionable influences which might be obnoxious to persons conducting business or residing in the surrounding area.

Manufacturing and Fabrication Uses:
• Garment manufacture
• Machinery shop, including cabinet, carpenter, electrical motor rebuilding, machine, sheet metal, welding, plumbing

2. Uses including the warehousing, storage and wholesale sale to retailers from the premises of finished goods and foodstuffs typical of electronic and pharmaceutical businesses, as well as semi-refined products requiring further processing, fabrication or manufacturing (e.g., agricultural or mineral products).

Storage and Warehouse Uses:
• Wholesaling and warehousing
• Moving and storage
• General storage

3. Service uses including the following will also be permitted:
• Janitorial
• Pest control
• Disinfecting and fumigating
• Delivery service
• Laboratory, materials testing
• Laboratory, research, experimental
• Appliance, radio, television, computer and other electronics equipment repair
• Blueprinting, photostating services
• Drafting services

Commercial/Mixed-Use

Commercial Mixed-Use is the land use designation applied to certain parcels within the East, Central and West campuses. Sites with this land use designation will be allowed to develop any land use listed under the Research and Development land use designation, and the following:

• Hotel
• Bed and breakfast inn
• Serviced apartments (for lease up to one month)
• Retail shops (up to 25,000 square feet)
• Professional and medical offices
• Government offices
• Restaurants
• Coffee houses
• Delicatessens
• Laundromats
• Shoe repair
APPENDIX A  
PERMITTED USES BY LAND USE CATEGORY (CONTINUED)

Commercial/Mixed-Use (continued)
- Travel agency
- Art galleries
- Museums
- Theaters
- Athletic clubs
- Social halls, clubs
- Photocopying
- Financial services
- Communications/data processing services

Special Amenity
The Special Amenity land use designation applies to certain development sites situated along the bluff overlooking the Salinas River. Uses within these sites shall be subject to approval by the City of Marina or County of Monterey Planning Director, as applicable, and the University of California, and shall be limited to uses that meet the following conditions:
- The use has a public orientation, and takes advantage of the unique amenity of the bluff. Such uses would include, but not be limited to, restaurants, athletic clubs, conference centers, small hotels and inns, etc.
- The use is configured in a manner that allows views through the site from inland parcels.
- The use is compatible with the existing vegetation of the bluff.
- The use is compatible with the existing residential dwellings located north of the East Campus.
- The use complies with the density provisions and development conditions of the Marina Airport Comprehensive Land Use Plan’s Approach Protection Zone (as applicable).

Runway Protection Zone
The Runway Protection Zone as designated in the Marina Municipal Airport Comprehensive Land Use Plan is restricted to very low-density land uses, including:
- Parks
- Golf courses
- Agriculture
- Open space
- Storage (subject to screening from public view)
- Other uses deemed by the City of Marina Planning Director and the University of California to be similar in intent and in compliance with the Marina Municipal Airport Comprehensive Land Use Plan

Interim Uses
Interim uses not described in the above categories shall be permitted on a conditional basis to allow for the property to be productive prior to its ultimate development. Permitting of interim uses shall be undertaken by the applicable jurisdiction (City of Marina or County of Monterey) and the University of California. Criteria for permitting interim uses shall include the following:
- Uses are compatible with and/or not in conflict with designated uses for the property;
- Activities do not pose a negative visual image; and
- Activities do not pose any negative environmental effects.

All interim uses shall be subject to renewal by the University of California and the applicable jurisdiction at three-year intervals.
## APPENDIX B

**Supplemental List of Reviewing Agencies and Ongoing Studies**

*See Chapter 8 for a discussion of the roles and responsibilities of FORA, Monterey County, and the City of Marina.*

<table>
<thead>
<tr>
<th>Agency</th>
<th>Review or Permitting for Review of Master Plan</th>
<th>Subsequent Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Agencies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cities of Seaside, Sand City, Del Rey Oaks, Monterey</td>
<td>Interest Only—comment on EIR and Master Plan</td>
<td>No Permit Authority</td>
</tr>
<tr>
<td><strong>Regional Agencies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monterey Bay Unified Air Pollution Control District</td>
<td>Interest Only—comment on EIR for consistency with Air Quality Management Plan</td>
<td>Permit Authority for all Point Source Air Emissions</td>
</tr>
<tr>
<td>Monterey County Airport Land Use Commission</td>
<td>Interest Only—comment on EIR and Master Plan for consistency with regional plans for airport facilities to ensure orderly development and compatible land uses</td>
<td>Review of all airport-related development for consistency with state and federal noise and safety standards and compatibility with adjacent land uses</td>
</tr>
<tr>
<td>Association of Monterey Bay Area Governments (AMBAG)</td>
<td>Interest Only—comment on EIR for consistency with Regional Transportation and Population Forecasts</td>
<td>No Permit Authority</td>
</tr>
<tr>
<td>Monterey County Transportation Agency</td>
<td>Interest Only—comment on EIR for consistency with Regional Transportation and Congestion Management Plans</td>
<td>No Permit Authority</td>
</tr>
<tr>
<td>Monterey County Water Resources Agency</td>
<td>Interest Only—comment on EIR for consistency with overall Fort Ord groundwater allocation agreement for Salinas Valley Groundwater Basin</td>
<td>No Permit Authority</td>
</tr>
<tr>
<td><strong>State Agencies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>California Coastal Commission</td>
<td>Interest Only—comment on EIR for consistency with local coastal program and potential effects on coastal resources (scenic, access, etc.)</td>
<td>No Permit Authority</td>
</tr>
<tr>
<td>Caltrans</td>
<td>Interest Only—comment on EIR for consistency with regional transportation plans' effects on state highways</td>
<td>Permit Authority over all state highways (should be a FORA issue and not affect individual projects)</td>
</tr>
</tbody>
</table>
**APPENDIX B**

**Supplemental List of Reviewing Agencies and Ongoing Studies**

<table>
<thead>
<tr>
<th>Agency</th>
<th>Review or Permitting for Review of Master Plan</th>
<th>Subsequent Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State Agencies (continued)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>California State Resources Agency</td>
<td>Interest Only—comment on EIR for consistency with overall Fort Ord groundwater allocation agreement for Salinas Valley Groundwater Basin</td>
<td>No Permit Authority Interest Only</td>
</tr>
<tr>
<td>California State Fish and Game</td>
<td>Interest Only—comment on EIR for consistency with overall Fort Ord Habitat Management Plan and effects on endangered species and biological resources</td>
<td>Consultations with Fish and Game to protect rare and endangered species</td>
</tr>
<tr>
<td>California State Regional Water Quality Control Board</td>
<td>Interest Only—comment on EIR for consistency with Regional Water Quality Plan</td>
<td>NPDES Permit (storm water discharge permit—required for construction areas greater than 5 acres)</td>
</tr>
<tr>
<td><strong>Federal Agencies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Army Corps of Engineers</td>
<td>Interest Only—comment on EIR</td>
<td>No permit authority on UC MBEST Center lands</td>
</tr>
<tr>
<td>Bureau of Land Management</td>
<td>Interest Only—comment on EIR for consistency with Habitat Management Plan</td>
<td>No permit authority on UC MBEST Center lands</td>
</tr>
<tr>
<td>Fish and Wildlife Service</td>
<td>Interest Only—comment on EIR for consistency with overall Fort Ord Habitat Management Plan and effects on endangered species and biological resources</td>
<td>Ongoing federal oversight of endangered species issue</td>
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<tr>
<td>Environmental Protection Agency</td>
<td>Interest Only—comment on EIR for consistency with toxic cleanup plans and efforts</td>
<td>Permit authority on all toxic cleanup sites (however, work is expected to be complete prior to development of UC MBEST Center)</td>
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</tbody>
</table>
## APPENDIX C
### ACRONYMS

The following is a list of acronyms used in the UC MBEST Master Plan:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>ATM</td>
<td>Asynchronous Transfer Mode</td>
</tr>
<tr>
<td>BLM</td>
<td>Bureau of Land Management</td>
</tr>
<tr>
<td>BRAC</td>
<td>Base Realignment and Closure Act</td>
</tr>
<tr>
<td>CDBG</td>
<td>Community Development Block Grants</td>
</tr>
<tr>
<td>CEQA</td>
<td>California Environmental Quality Act</td>
</tr>
<tr>
<td>CMU</td>
<td>Commercial Mixed-Use</td>
</tr>
<tr>
<td>COP</td>
<td>Certificates of Participation</td>
</tr>
<tr>
<td>CRMP</td>
<td>Coordinated Resource Management and Planning</td>
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<tr>
<td>CSU</td>
<td>California State University</td>
</tr>
<tr>
<td>CSUMB</td>
<td>California State University Monterey Bay</td>
</tr>
<tr>
<td>DBH</td>
<td>diameter at base height</td>
</tr>
<tr>
<td>DFG</td>
<td>Department of Fish and Game</td>
</tr>
<tr>
<td>EDA</td>
<td>Economic Development Administration</td>
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<tr>
<td>EIR</td>
<td>Environmental Impact Report</td>
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<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
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<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
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<td>FAR</td>
<td>Floor Area Ratio</td>
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<tr>
<td>FORA</td>
<td>Fort Ord Reuse Authority</td>
</tr>
<tr>
<td>FORG</td>
<td>Fort Ord Reuse Group</td>
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<tr>
<td>FORIS</td>
<td>Fort Ord Reuse Infrastructure Study</td>
</tr>
<tr>
<td>HMP</td>
<td>Habitat Management Plan</td>
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<tr>
<td>IBRP</td>
<td>Initial Base Reuse Plan</td>
</tr>
<tr>
<td>LI/SC</td>
<td>Light Industrial and Service Commercial</td>
</tr>
<tr>
<td>LRA</td>
<td>Local Reuse Authority</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MPC</td>
<td>Monterey Peninsula College</td>
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<tr>
<td>MST</td>
<td>Monterey-Salinas Transit</td>
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<tr>
<td>NRS</td>
<td>Natural Reserve System</td>
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<tr>
<td>OS</td>
<td>Open Space</td>
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<tr>
<td>PG&amp;E</td>
<td>Pacific Gas and Electric</td>
</tr>
<tr>
<td>POM</td>
<td>Presidio of Monterey</td>
</tr>
<tr>
<td>POST</td>
<td>Police Officer Safety Training</td>
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<tr>
<td>PSTN</td>
<td>Public Switched Telephone Network</td>
</tr>
<tr>
<td>RP</td>
<td>Runway Protection</td>
</tr>
<tr>
<td>RPZ</td>
<td>Runway Protection Zone</td>
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<tr>
<td>SA</td>
<td>Special Amenity Uses</td>
</tr>
<tr>
<td>TDM</td>
<td>Transportation Demand Management</td>
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<tr>
<td>TMA</td>
<td>Transportation Management Association</td>
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<tr>
<td>UC</td>
<td>University of California</td>
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<tr>
<td>UC/NRS</td>
<td>University of California Natural Reserve System</td>
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<tr>
<td>UC MBEST</td>
<td>University of California Monterey Bay Education, Science and Technology</td>
</tr>
<tr>
<td>UCSC</td>
<td>University of California at Santa Cruz</td>
</tr>
<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
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</tbody>
</table>