BENICIA
CALIFORNIA

ARSENAL HISTORIC CONSERVATION PLAN

November 1993

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Cannon Design Group
in association with
Sally B. Woodbridge
Nancy E. Stoltz

November 1993

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Preface

Historic Setting

One of California's oldest cities, Benicia was founded in May, 1847, by Robert Semple, Thomas O. Larkin, and General Mariano Vallejo, the owner of the land on which the town was platted that same year by Jasper O'Farrell. The town grew up along the waterfront on the Carquinez Strait where primary industries—tanneries, canneries, and shipyards—were located and where the first railroad ferry west of the Mississippi River began service in 1879 at the foot of First Street.

Besides being the fourth location of the state's capital, Benicia was a cradle for California's educational institutions. Several schools were established in Benicia in the mid-19th century, including the Dominican College and Mills College, though both campuses were relocated by the century's end. Among its other benchmarks of history, Benicia counts the state's first official Masonic Hall, built in 1850, and the depot and shops of the Pacific Mail Steamship Company, the first large industrial enterprise in California, which was established that same year on the shores of the Carquinez Strait.

The longest lived of Benicia's many "firsts" was the establishment of the U.S. Benicia Arsenal, located on a large tract of land east of the city boundary overlooking the Strait. The site was acquired in 1849 by the federal government for use as a U.S. Military Reservation. Several other army installations preceded and coexisted for a time with the Arsenal, including the Benicia Barracks, home of two companies of the 2nd Infantry, and the Ordnance Supply Depot of the Quartermaster Corps. The Benicia Arsenal itself was established in 1852 as one of five permanent arsenals in the country and the first on the Pacific Coast, and grew to be a major presence in the city employing in its heyday nearly seven thousand people.

While the town grew according to the typical pattern of the "walking city" where the places to work and live were closely knit together, the military reservation was built up according to the more discrete needs of the different sections of the army that used the land. Even the residential areas and quarters of the different installations were scattered about the site and far removed from one another. Thus a unified plan for the whole site like the 1847 plat for the city was never made; nor was there a cohesive physical organization to the overall site as is found, for example, at installations such as the Presidio of San Francisco.

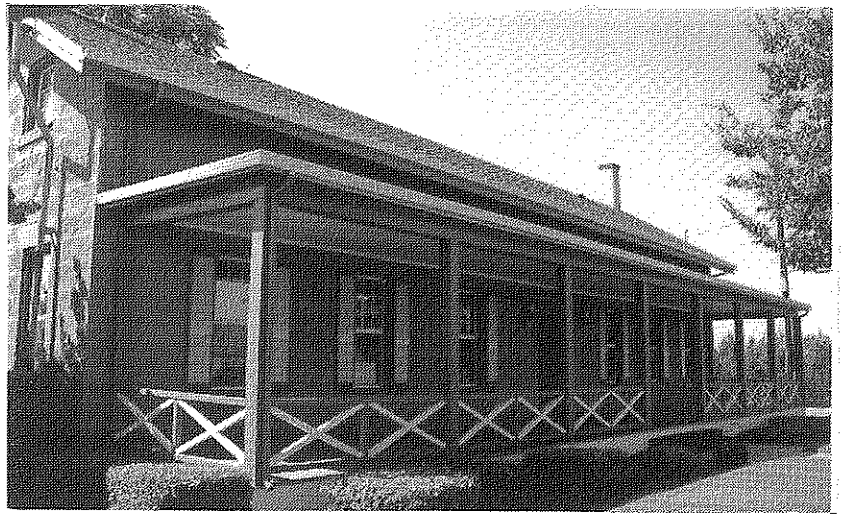
Today, though these two once separate areas of Benicia have grown together, the Arsenal still stands apart from the rest of the city due in part to its continued ties to shipping and warehousing. That the Arsenal retains some of its distinctive character and separation from the rest of the city is both cause for celebration and for planning for its future.

Development of the Arsenal

Before it was deactivated in 1964, the U.S. Benicia Arsenal had played a long and important role in the nation's military history. The site was home to several different U.S. Army divisions spanning over a century of active military use. A timeline of significant dates in the development of Benicia's Military Reservation is found in Appendix A.

Recognizing the potential benefit of a major military installation to the economy of their fledgling town, the founders of Benicia, Robert Semple and Thomas Larkin, were convinced to donate 345 acres of land adjoining Benicia's eastern city limits for a military reservation. The land transfer took place on April 16, 1849, and before the year's end, the site was in active use by two army divisions and the newly appointed commander of the Pacific, who established his headquarters there. So in 1849, two companies of the 2nd infantry made their home on 99 1/2 acres in the northwest corner of the reserve that became known as the Benicia Barracks.

The Barracks was the site of the first permanent buildings on the installation and housed soldiers until the Spanish-American War ended in 1898. Most of these buildings were frame structures which eventually burned, but the Post Hospital (now Arsenal Building No. 1), constructed in 1856 of sandstone, survives to



Former Barracks Hospital - 1856 (Arsenal Building No.1)

this day. Two years after the fire of 1922, the Barracks site was taken over by the neighboring Arsenal installation.

During its first four years of existence, the Pacific Division quartered at the Benicia Barracks rarely numbered more than 1,000 men and often had less than 600. Nevertheless, units of the division conducted Indian campaigns in northern California and southern Oregon and founded faraway military posts such as Fort Vancouver on the Columbia River, Fort Steilacoom on Puget Sound in 1849, and Fort Yuma at the confluence of the Colorado and the Gila Rivers in 1850.

Also in 1849, the first Ordnance Supply Depot in the west was established at Benicia for the Quartermaster Corps. The new depot was established along the shoreline approximately three quarters of a mile south of the Barracks. This installation was short-lived; its site, known as the "General Depot near Benicia" was also taken over by the Arsenal in 1858.

In the spring of 1852, the Benicia Arsenal was named as one of the first major permanent arsenals in the United States. As the last of the three army divisions to locate within the Benicia military reservation, the Arsenal was initially relegated to a site east of the Barracks in the northern portion of the reservation. The more desirable area along the south shore was already occupied by the Quartermaster Corps. Among the first permanent structures built for the Arsenal are two large storehouses known as the "Camel Barns", a smaller engine house and two powder magazines (now Arsenal Buildings No. 2,7,8, 9 and 10). All were built of fine sandstone quarried on site and all but one of them, a powder magazine which is now without a roof, survive today with a high degree of integrity.

In 1856, the decision was made to move the Arsenal to a new site, farther south, so that large ships would be able to dock in closer proximity to storehouses. As this site was still occupied by the Quartermaster's Depot, the Arsenal did not expand southward until 1858. The location of the various installations on the military reservation at around this time can be seen on the map of 1863 (Figure 1). Within a year of the Arsenal's southward expansion, the monumental Main Arsenal Storehouse or "Clocktower Building" (Arsenal Building No. 29) was erected on the bluff overlooking the Carquinez Strait. Though badly damaged by an explosion and fire in 1912, the structure, originally three stories, was rebuilt as a two story building, and is now owned by the City and used as a community facility.

During the early period of Bay Area settlement, the various Army installations housed at the Benicia military reservation were involved in the defense and economy of the region. Military casualties from as far away as the Northwest Territory were cared for in the first military hospital in the west at the Benicia Barracks. A most unusual event in military history was the stabling of the U.S. Army's camels at the Arsenal for a brief period before their sale in 1864.

During World War I, the Benicia Arsenal gave ordnance support to all large Army installations in the Western States and also supplied ordnance material to American expeditionary forces in Siberia. In World War II, the Arsenal was a principal supply point for the campaign areas in the Pacific as evidenced by its physical expansion, from 345 acres to 2,192 acres, and its explosive growth in civilian employment. It reached its peak of production during the Korean War when nearly seven thousand were employed. Among the many famous people associated with the Arsenal are General William Tecumseh Sherman, General Ulysses S. Grant, Commodore Matthew Perry, General J. Pershing, and the Benet family: commander, Colonel James Walker Benet, and his three children, writers Stephen Vincent, William Rose and Laura.

When deactivated in 1963, the Benicia Arsenal contained 24 frame, brick, and stone structures constructed between 1854 and 1911. In addition, the post had many newer buildings, constructed principally during World War II and for the most part intended as temporary structures. In 1965, the Defense Department transferred ownership of the Arsenal to the City of Benicia; within a short time, the city leased both land and buildings to Benicia Industries, Inc. Eventually the city transferred the title to much of the Arsenal land and numerous buildings to Benicia Industries to develop the Industrial Park and operate the port facilities. The city, however, maintains ownership of several of the most significant structures, including the Commandant's house, the Clocktower building, the Storehouses (Camel Barns) and one of the original powder magazines.

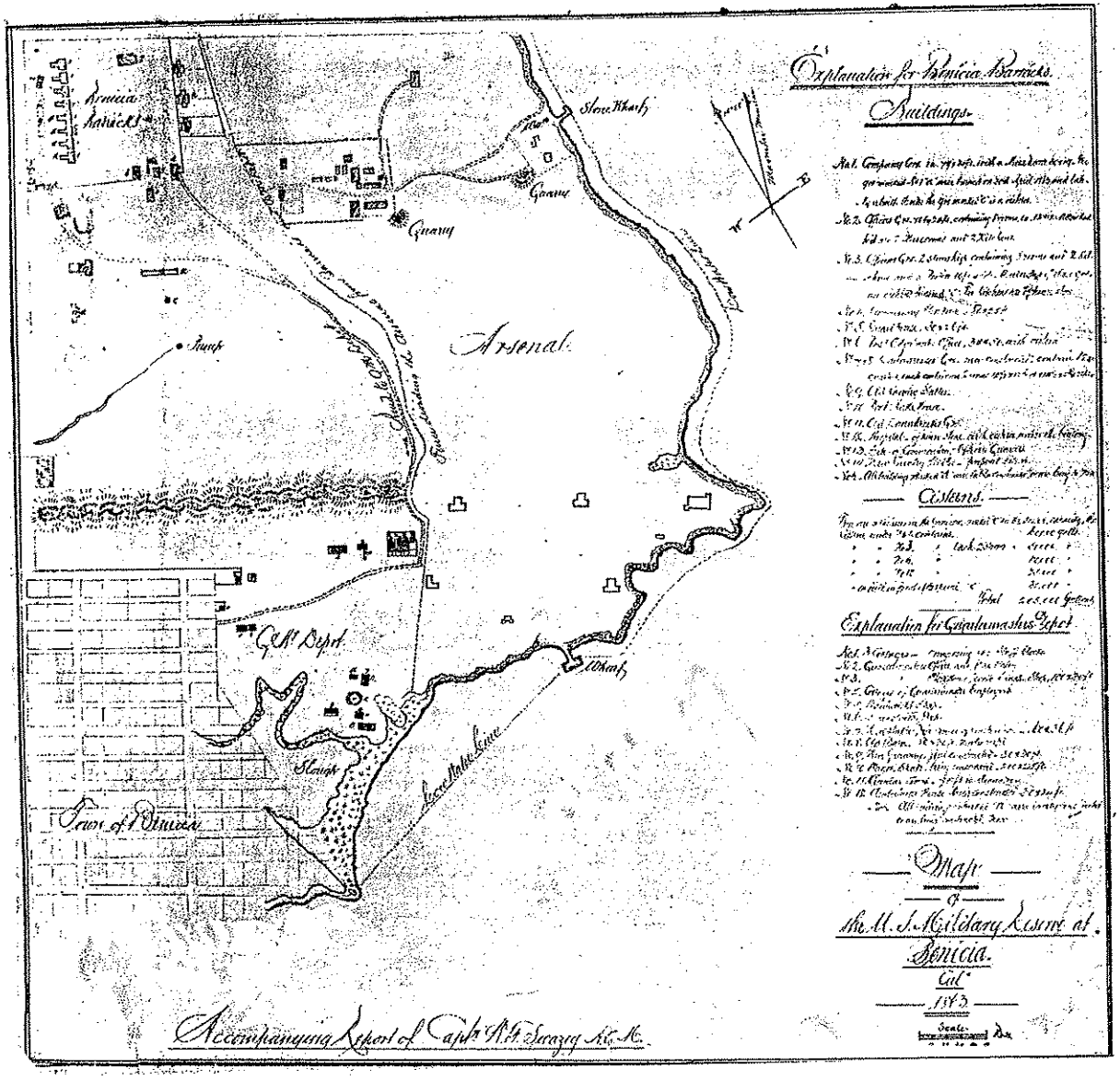


Figure 1

Map of the U.S. Military Reserve at Benicia, Cal. 1863

Source: Bruegmann, Robert, Benicia: Portrait of an Early Town, p.98.

Chapter One
Plan Overview

Introduction

In October of 1987, the City of Benicia enacted a provision within its zoning ordinance for a special historic overlay district that could be combined with any underlying zoning district. This ordinance enables the city or property owners to initiate a process to designate historic districts and/or landmark buildings. As part of the process of designating a historic district, the ordinance requires that a conservation plan be prepared. The conservation plan sets forth the boundaries of the proposed district, states its architectural or historical significance and defines performance and design guidelines for alterations to existing buildings as well as new construction.

In the spring of 1989, the city retained the consultant team to prepare a conservation plan for the city. Prior to that time the city had identified two potential historic districts, one encompassing the downtown commercial and residential area centered along First Street, the other encompassing the original U.S. Military Reservation which housed the former Benicia Arsenal of the United States Army. The city and the consultants, Cannon Design Group, architects and planners, and Sally B. Woodbridge, noted architectural historian, based their work on extensive survey and documentation efforts by dedicated volunteers, historians and other professionals.

The geographic separation of these two potential districts and their distinct histories and building types called for the preparation of a separate conservation plan and set of standards and guidelines for each. The preparation of these plans marks the city's first effort to firmly establish policies to promote the conservation of its historic, architectural and archeological resources through the implementation of the Historic Overlay District. It marks the culmination of many years of effort on the part of its dedicated citizenry without whose efforts and assistance this plan could not have been prepared.

The downtown commercial area had been recognized by the city as an historic district since 1969. However, its boundaries encompassed only the historic commercial spine of downtown Benicia along First Street, omitting much of the surrounding historic residential neighborhood, whose development was inextricably linked to First Street.

The significance of the Benicia Arsenal, now a business and industrial park, has been officially recognized at the federal

level since 1975 when four distinct historic districts contained within 252 acres of the property were identified and placed on the National Register of Historic Places, and at the state level with its designation as State Historical Landmark No. 176. But no local recognition has been in effect to date. However its significance to those who served and worked there has not been forgotten as evidenced by the six biennial reunions of Arsenal personnel held since its deactivation. The on-going efforts of the Camel Barn Museum's Board, staff and volunteers are further indicators of the significance the Arsenal holds for all the citizens of Benicia.

Purpose

This conservation plan is intended to achieve the purposes outlined by the historic overlay zoning district to:

1. Implement the city's general plan,
2. Deter demolition, destruction, alteration, misuse, or neglect of historic or architecturally significant buildings that form an important link to Benicia's past,
3. Promote the conservation, preservation, protection, and enhancement of each historic district,
4. Stimulate the economic health and residential quality of the community and stabilize and enhance the value of property, and
5. Encourage development tailored to the character and significance of each historic district.

To that end, the conservation plan includes goals, objectives, design guidelines and criteria to be used in guiding future development and alterations to existing structures. Their intent is to reinforce the perception of the area as a district and to safeguard the architectural and historic integrity of its contributing structures. By providing design guidelines and standards, the plan will ensure that businesses and homeowners who invest in appropriate rehabilitation and new construction are not damaged by insensitive or incompatible construction which would detract from the historic image and waterfront setting of the Arsenal district. This is particularly important given the broad mixture of uses in the Arsenal, where residential, commercial and institutional uses are included within the proposed boundaries of the historic district, even though it is termed an industrial/business park. This mixture of uses, however, is in keeping with its historic mix of uses during its long period of military use.

In proposing historic district status for the Arsenal area, the City recognizes the significance of other values associated with this area. Presently, the area supports a sizable port operation and other valuable industrial uses. There is also a significant potential for important future economic development in the area. As stated in the General Plan, "Benicia is fortunate to have a regionally competitive industrial facility which not only has room to expand in the future, but which provides a tax and employment base for Benicia."

The City intends to implement this Conservation Plan in a manner consistent with these existing port/industrial uses. The City will also attempt to preserve the ability of private landowners to develop properties within the Arsenal Historic District consistent with those General Plan policies and zoning regulations applicable to the properties, both currently and in the future.

It is the intent of the Conservation Plan to recognize and protect historic resources in a manner which is compatible with existing port and industrial operations, and to preserve and enhance the economic development potential of the Arsenal. Existing port-related and other industrial uses are compatible with Conservation Plan objectives. Furthermore, it is anticipated that major new development will be carried out pursuant to master plans which are consistent with the General Plan.

Background

Preparation of this conservation plan hinged upon the completion of several critical tasks:

1. Review of existing historic resource inventory data, particularly the Historic American Buildings Survey and the National Register historic district nomination and documentation.
2. Field surveys of the areas proposed for district designation.
3. Definition of the historic district's boundaries based on prior inventories and documentation.
4. Drafting of design guidelines for new buildings and alterations to existing ones.
5. Developing recommendations regarding the city's policies relating to design review for alterations, new construction and demolition.
6. Identifying areas of land use policy where flexibility should be allowed in order to promote preservation and appropriate adaptive reuse of historic buildings.

Two neighborhood workshops were held early in the planning process. The purpose of the workshops was to explain the proposal to business and property owners and neighborhood residents and to elicit public input and a clear direction for policy implementation within the framework of the plan. Since that time, the preliminary district boundaries and proposed design guidelines have been modified significantly. Additional meetings with major property owners are anticipated, as well as study sessions with the Planning Commission and Design Review Commission, before a final draft of the plan is circulated for further public review.

The Conservation Plan will form the basis for other decisions, actions and policies relating to historic preservation. For example, the historic buildings identified within this plan, together with any individually designated landmarks outside the district, will be eligible to use the State Historic Building Code with its less stringent requirements.

Furthermore, the conservation plan will enable the city to apply to the State Office of Historic Preservation for two federal certification programs, Certified Local Ordinance/Local District and Certified Local Government. The former program provides investment tax credits to qualified investors as well as tax deductions for donating conservation easements. The latter enables the city to apply for certain federal preservation grant programs for which only Certified Local Governments can qualify.

Organization and Use of the Plan

The conservation plan is intended for use as both a resource document and a design manual. The first section of the plan identifies the district boundaries and classifies the buildings according to their relative historic and architectural significance. The significant buildings within the district boundaries are mapped for easy reference. In addition, the Planning Department maintains a complete list of all significant buildings by street address. If uncertain about a building's classification, property owners should refer to this list.

The remainder of the plan focuses on design issues. Design guidelines and standards are organized by building type as well as location. These will be used by the city in reviewing applications for new construction, alterations to existing buildings, demolition permits, grading, tree removal and sign design. Therefore, it is important for property and business owners to thoroughly familiarize themselves with the organization and content of the design sections before undertaking any work on their buildings or property. A more detailed user's guide is found in Chapter Three.

Chapter Two
Historic Resources

Historic Resources Survey

The survey of historic resources in the city of Benicia undertaken by the consultants has identified the area of the original United States military reservation as one of two potential historic districts within the City of Benicia (Figure 1). The other, the Downtown Historic District, was officially designated with the adoption of the Downtown Historic Conservation Plan in October of 1990. These two areas have the longest continuity of use and the highest concentration of historic buildings. Historic sites which have completely lost their structures are not noted in this report nor were boundaries drawn to include these sites, which are recognized in other state and local programs.

Also identified as part of the historic resources survey were three potential landmark properties which did not fall within the boundaries of either potential historic district. Two of these, St. Dominic's Catholic Church and the Wingfield House, became officially designated as landmarks with the adoption of the Downtown Historic Conservation Plan. The third property, which comprises the original depot, shops and wharf of the Pacific Mail Steamship Company, lies west of the Arsenal area at the southeast corner of H and East 6th Streets. The inclusion of two structures from this important industrial property as landmarks is based in part on the documentation contained within the National Register of Historic Places Inventory Nomination Form prepared by former National Park Service Historian James P. Delgado in 1986.

The survey of the Arsenal Historic District undertaken by the consultants was based in part on the National Register nomination prepared in 1974 under the auspices of the American Association for State and Local History and on the Historic American Buildings Survey of 1976. This prior survey and documentation work was supplemented with field checks by the consultants.

Both the National Register of Historic Places and the Historic American Buildings Survey are Federally sponsored programs conducted by the U.S. Department of the Interior/National Park Service. They are designed to be used by Federal, State and local governments, private groups and citizens as guides in identifying the Nation's historic resources of local, state and national significance and to indicate what properties are worthy of preservation and consideration in the planning process.

The National Register nomination for the Arsenal included 20 of the Arsenal's most architecturally and historically significant structures lying within four distinct districts. These structures and the four districts, as indicated on Figure 2, were subsequently listed on the National Register of Historic Places in 1975. Although listing on the National Register does not provide historic resources outright protection, Federal agencies and communities using Community Development Block Grants and other forms of Federal assistance, are required to consider the effects of their projects, and projects they license or assist, on properties included in or eligible for the National Register. They must also give the Advisory Council on Historic Preservation a reasonable opportunity to comment on such projects. For further information on the National Register and its criteria, see Appendix B and National Register Bulletin No. 24.

Information from these two sources as well as a field survey conducted by the consultants has resulted in the identification of one district with 34 significant buildings (Figure 3). The district includes all 20 structures listed on the National Register of Historic Places and those in HABS, as well as more than a dozen structures over 50 years old which contribute to the character and significance of the district.

Methodology and Criteria

The survey methodology combined field work with research of the above-mentioned secondary sources. The consultant walked and drove the Arsenal area to verify the location of historically significant buildings and other resources which could contribute to an historic district. The criteria for recognizing buildings as historically significant are age, architectural integrity, and architectural/historical distinction.

In respect to age, national and state programs which register buildings of significance require that they be at least fifty years old. Since this age is the result of national consensus, it has generally been adopted as the criterion for the historic buildings in the Arsenal. For example, the former Administration Building (No. 92) which was erected in 1942, though not included in the 1974 National Register nomination, would now be considered eligible and is included in this plan for landmark status. Its significance derives from its architectural design, its prominent siting and its importance to the function of the Arsenal during World War II.

The second criterion, architectural integrity, requires that buildings retain enough of their original materials and stylistic character to convey a strong impression of their period. Those buildings which, through alterations, additions, and deterioration no longer convey a strong impression of their style or period have lost their integrity. However, alterations such as new or different siding or cladding, changes to roofs, windows, and doors, and small additions that do not alter historic character or are not visible from the street generally do not destroy the architectural character of buildings. Such alterations may also be reversed or removed in future restorations.

The third criterion, architectural/historical distinction, recognizes buildings that have unusual or exceptional design quality and/or are historically significant because they are associated with major events or important people.

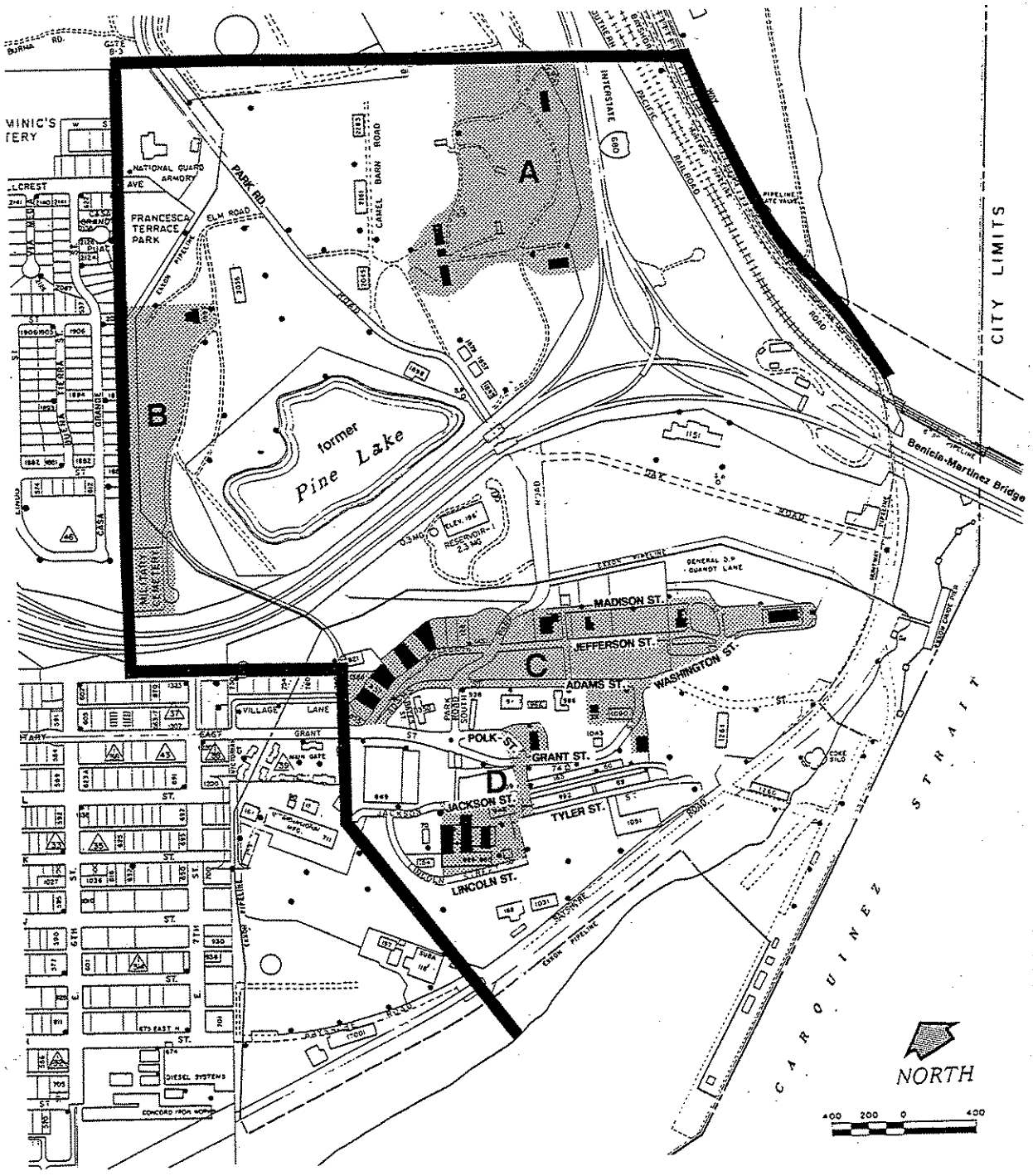


Figure 2

National Register Historic Districts and Properties of the Benicia Arsenal

LEGEND

- Arsenal Park Historic District Boundary
- National Register District
- Building Listed on the National Register

These four districts were listed on the National Register of Historic Places in 1975.

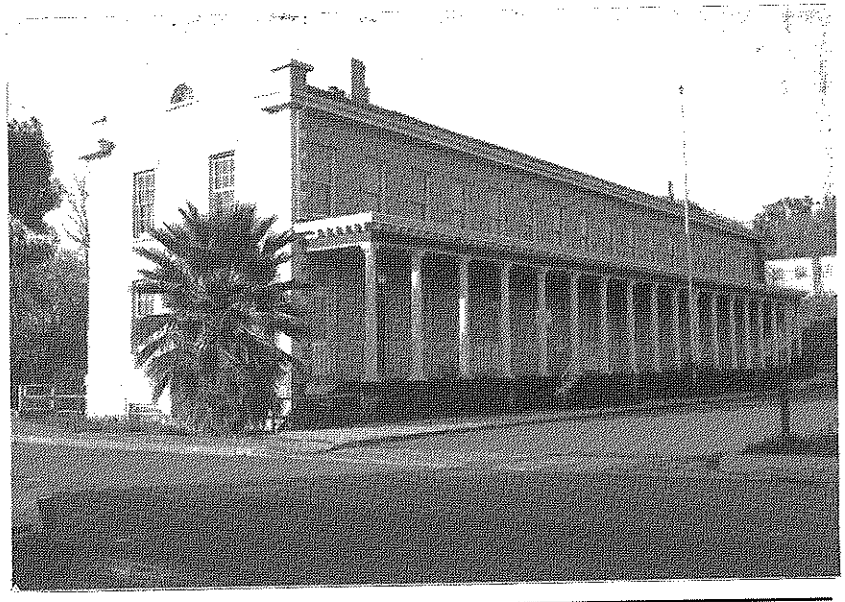
District Boundaries and Significance

In the case of the Arsenal District, the boundary has been drawn to include the 345 acres of land originally donated by the town's founders for use as a military reservation. This original land grant includes all of the surviving pre-World War II structures, as well as the former Administration Building (No. 92) which is the only architecturally significant landmark structure dating from the War era. Although the Arsenal boundaries were greatly expanded during the War, most of the structures dating from that period, unlike those from the earlier eras, were strictly utilitarian in both use and design, and in many cases were intended as temporary structures. Furthermore, a number of these structures are not yet fifty years of age.

The buildings that are judged to have contributed significantly to the history of the Arsenal are included within the proposed district boundaries shown in Figure 3. The period of significance for the Arsenal Historic District is 1849, when the Benicia Barracks were established, to 1964, when the Benicia Arsenal was deactivated. The most recent building of significance is the 1942 Administration Building. The buildings which have not yet reached the age of 50 years cannot be listed as contributing to the district, nor can some utilitarian structures which have achieved 50 years of age, as they do not meet all three of the criteria discussed above. The same is true of some of the World War II era structures which lie outside of the proposed district boundaries on land that was added to the Arsenal installation during the War. Even when those structures reach 50 years of age, they would not likely be judged eligible for inclusion in the district.

Categories of Significant Buildings

The historic buildings located within the district have been placed in three categories as described below. The term **"historic buildings"** as used throughout this plan refers to those structures which meet the three criteria described above and which, therefore, have significance within the district. These buildings are listed individually in Appendix C according to the category and former Arsenal building number.



The Former Barracks - 1872 An Arsenal Landmark

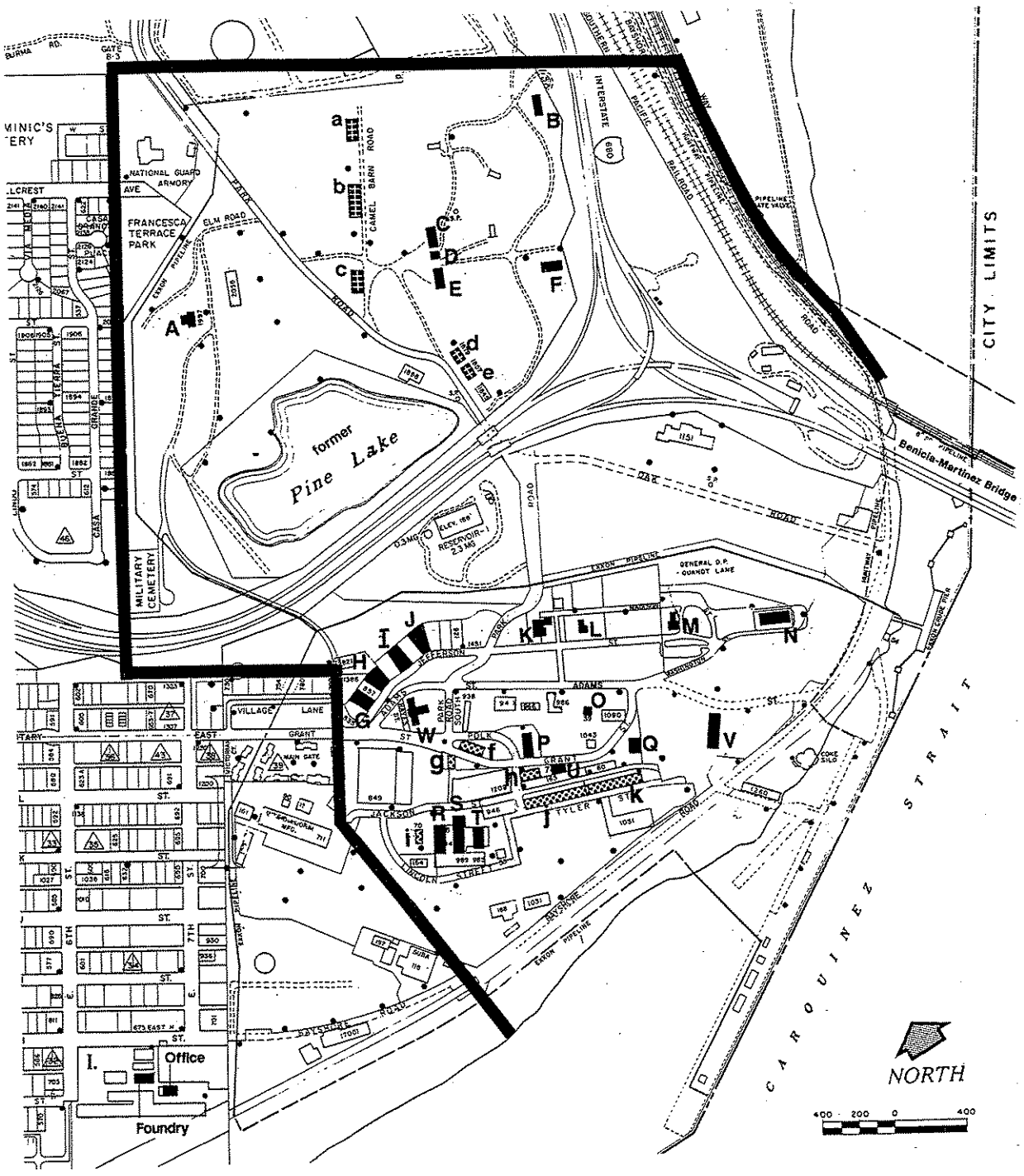


Figure 3

Historic Resources and Arsenal Historic District Boundary

LEGEND

- Historic District Boundary
- Historic Landmark Buildings
- Contributing Buildings to the Historic District
- Potentially Contributing Buildings to the Historic District
- X Building Identification (Refer to Appendix C)

1. **Landmark Buildings:**

   These officially recognized historic buildings are listed on the registers of important national, state and/or local programs: the National Register of Historic Places, the Historic American Buildings Survey, the State Historic Landmarks program, and the Benicia Historical Resources Survey. In addition, the city maintains a card file on the landmark buildings that contains information on their history and architectural significance along with their photographs.

2. **Contributing Buildings to the Historic District:**

   This category includes buildings which contribute to the historic character of the district because of age and because they are representative of common styles and building types of the historic period of the district, but are not architecturally or historically outstanding and therefore do not qualify for individual recognition. These are indicated on the map and listed individually in the city's files.

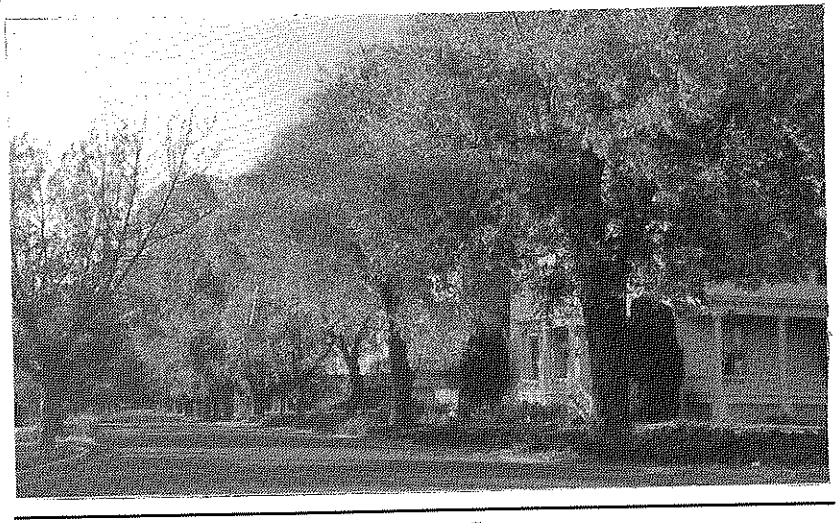
3. **Potentially Contributing Buildings to the Historic District:**

   This category includes buildings which meet the age criterion for historic designation, but for which the historic significance of the structures has not been determined. These buildings are designated as "potentially contributing" to acknowledge that further information on the buildings' significance could become available in the future. For example, as part of the development of a master plan for future development in the area of the buildings, the significance of the buildings should be analyzed and evaluated. Based on the information in the analysis, the City will determine if the buildings should be upgraded to the "contributing buildings" designation, or if the historic designation should be removed.

No category of "potential landmarks" is given for the Arsenal as it was for the Downtown Historic District because all the buildings that merit recognition are included in the "landmark", "contributing building" or "potentially contributing building" categories. The buildings that might have qualified for consideration because of age lack distinction as representative types or outstanding examples of a style.

Landscape Features

The open space, landscape features, and urban design elements recognized as contributing to the Arsenal District include the following: the former Barracks Parade Ground, the Military Cemetery, the rolling hills that form the setting for the Storehouses (Camel Barns), Ammunition Shops, and Magazines on the northern part of the district; and notable trees of great age or size such as the eucalyptus trees near the site of the former



Mature Street Trees along Jefferson Street

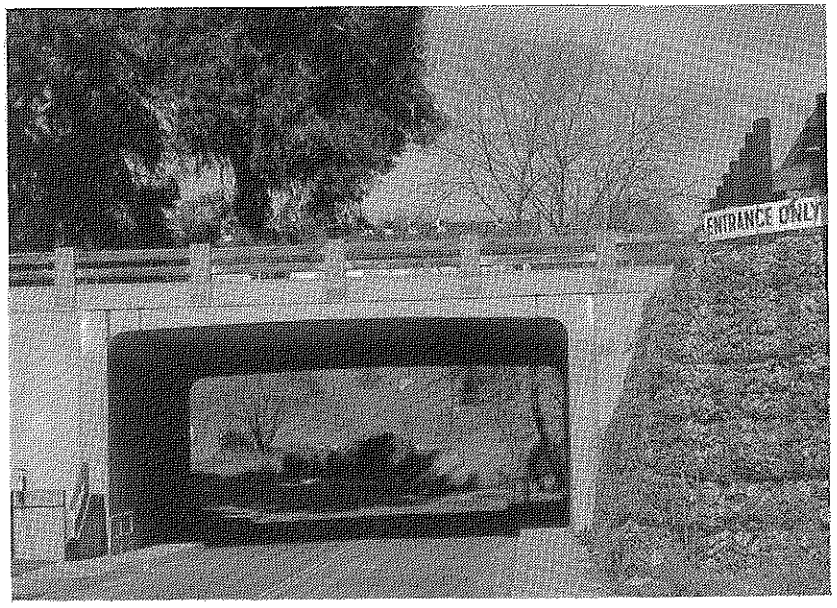
Benicia Barracks north of the old Post Hospital building. The specimen trees and ornamental landscaping surrounding the officer's quarters on the ridgetop have special significance, along with the mature street trees which line Jefferson Street and the ornamental specimen trees which mark the Military Cemetery. Additionally, the embankment above Adams and Washington Streets has been planted with oak trees including the seldom seen cork oak.

The City recognizes the importance of such mature trees by its current policy requiring special approval to remove them. They are integral elements of a building's setting and the historic district and also deserve recognition. As an outgrowth of this Historic Conservation Plan, it would be appropriate for the city to establish a formal program of recognizing such heritage trees.

These landscape features are identified and discussed further in Chapter 4, District-wide Issues and Policies. Specific policies pertaining to these and other urban design issues are also found there.

Urban Design Elements

Although the Arsenal was developed in an incremental fashion without adherence to a formal plan, it does have identifiable clusters of buildings which share important site relationships and a similar architectural character and purpose. In addition certain urban design features contribute to its special character and mark its former function as a military installation. One of the most significant features, the old entry gate, has, unfortunately, been removed. However, other features still remain, including numerous retaining walls, stairways, heavy timber railings and the Polk Street undercrossing at Grant Street.

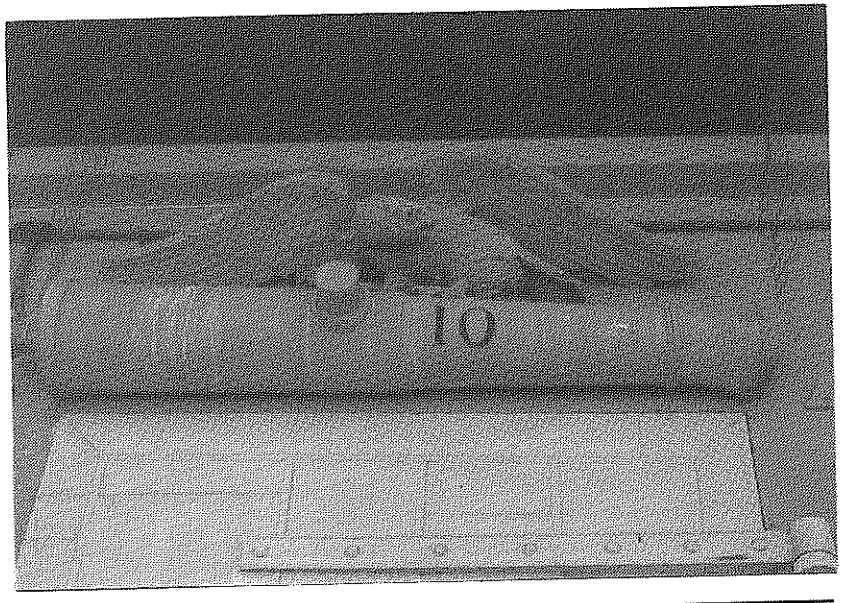


Polk Street undercrossing at Grant Street

The undercrossing and railings and the retaining walls at the shop buildings are simply built of poured concrete and heavy timber as appropriate to their industrial setting. The stairways, though not elaborate in design, are important elements of the pedestrian circulation network especially given the sloping nature of the site. The design guidelines for specific subareas of the district contain guidelines for these and other features appropriate for the historical setting and present use of each.

Architectural Resources of the Arsenal

The Arsenal District has a more limited range of historic building types and architectural styles than the downtown district largely because the buildings were constructed by the federal government on a military reservation. Not only were the buildings' uses more prescribed, but they were built using government issued plans. However, this controlled situation did not mean that the buildings were not well designed and built. In fact, the Arsenal has some of the state's most architecturally distinguished buildings, notably the Storehouse and Ammunition Shop (Camel Barns), Clocktower, Powder Magazine, Shops and the Officers' Residences.



Powder Magazine (Bldg. No. 10) - 1857 Detail

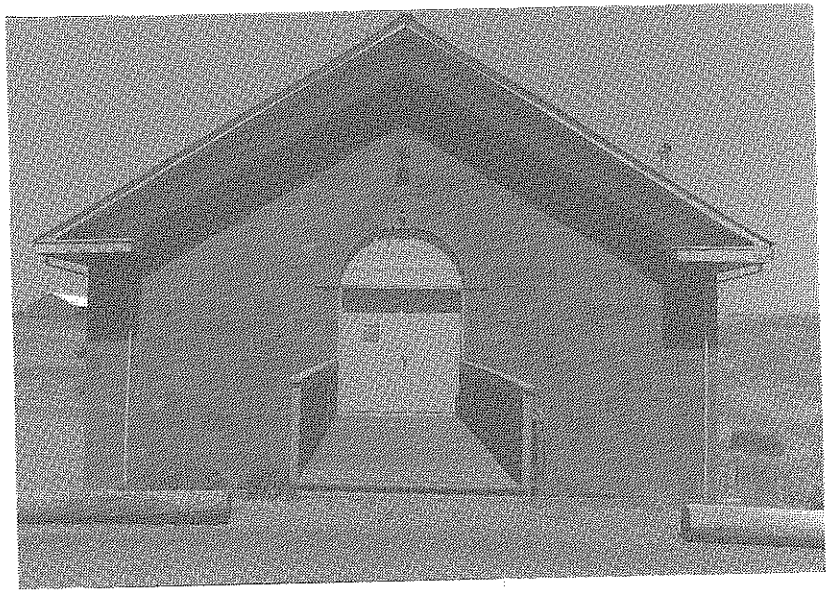
Representative Building Types

The two broad categories or types of historic buildings in the Arsenal Historic District are the military/industrial buildings that comprise most of the district's historic structures and the residential buildings where military personnel were formerly quartered. The latter are concentrated in the middle zone of the district between the Jefferson Street embankment and the freeway. The military/industrial buildings are more scattered over the site. They are located principally in the areas south of Adams Street and north of the freeway.

Architectural Styles

Most of the contributing buildings in the Arsenal District were designed in styles based on the Classical vocabulary of forms and details. Some of the more utilitarian buildings, such as the 1921 Photo Lab building or the 20th century Storehouse buildings are practically a-styler, though they may still employ some simplified classical details to make them stylistically sympathetic to earlier structures. One notable exception to the general Classical styling is the 1942 Administration Building, designed in the Spanish Mediterranean Revival mode.

The first permanent buildings of the Benicia Barracks were wood frames shipped from the east coast and erected around a parade ground to the north of the former Hospital building (No. 1). These and later wooden buildings burned in 1922, leaving the sandstone Hospital of 1856 as the only surviving structure of this installation.



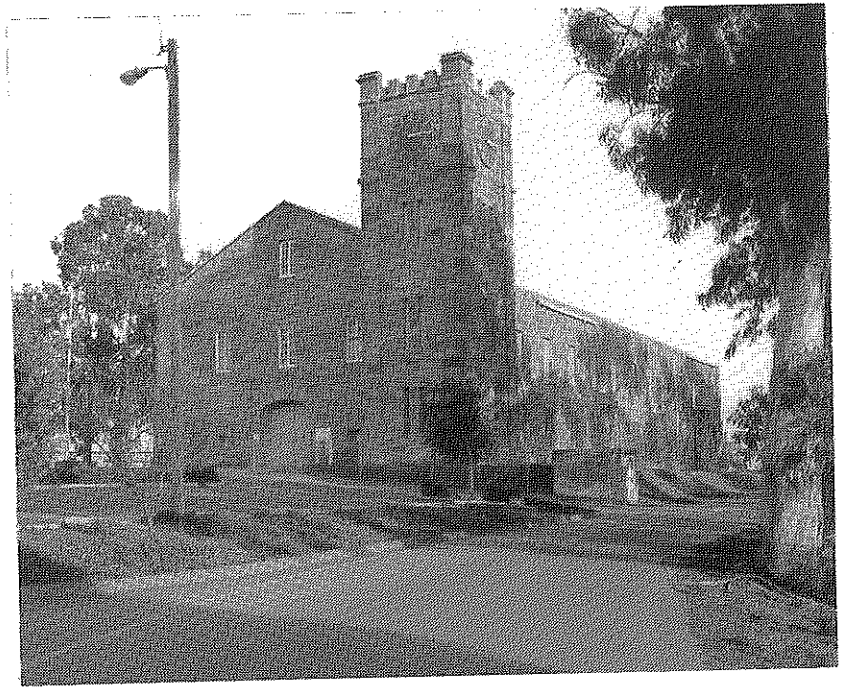
Camel Barn / Storehouse (Bldg. No. 7) - 1855

Classic Revival (1850s)

The early Arsenal buildings, the hospital, shops, storehouses, and magazines, were built from 1855 to 1859 of locally quarried sandstone. The severe Classic Revival style of these sandstone buildings was typical of military architecture of the period and resulted from the standardization of designs on military installations across the country. The buildings have simple, rectangular volumes with gable roofs which in the case of buildings 7, 8, and 9 have boxed cornices with returns on the gable-ends and arched openings with rusticated architraves. Powder Magazine No. 10 has an outstanding vaulted, stone interior with carved decorative detail on the column capitals and an eagle and cannon carved on the exterior above the doorway reputedly by a Frenchman, John Gomo.

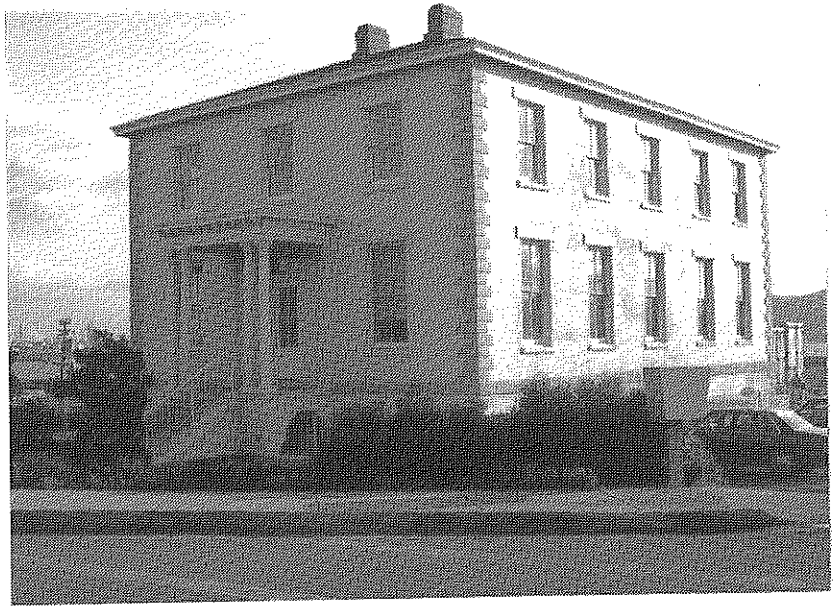
Castellated

The Main Arsenal Building, also called the Clocktower, was a structurally innovative design (the second story space was clear of supports) in a castellated style, built in 1859. Its original design, attributed to the Arsenal's commander, Captain F.D. Callender, was to include towers at all four corners for use in flank defense in case of attack by local citizens. Ultimately only two towers were built. Following an explosion and fire in 1912 which badly damaged it, the structure was rebuilt. In the process the upper story walls were removed along with the top of the northeast tower and the small turrets on the remaining corners.



Clocktower / Main Arsenal Storehouse (No. 29) - 1859/1912

Because almost all the materials except the locally quarried sandstone had to be shipped from the east, the cost of these early buildings, particularly the Main Arsenal Building, increased greatly. When constructed, they were among the most expensive in the region and were only exceeded in price by the 1852 Parrott's Granite Block and the 1853 Montgomery Block in San Francisco. According to architectural historian, Robert Bruegmann, these early sandstone buildings may well be the most architecturally impressive set of structures built before the Civil War in the western United States (Benicia, Portrait of an Early California Town, p. 110).



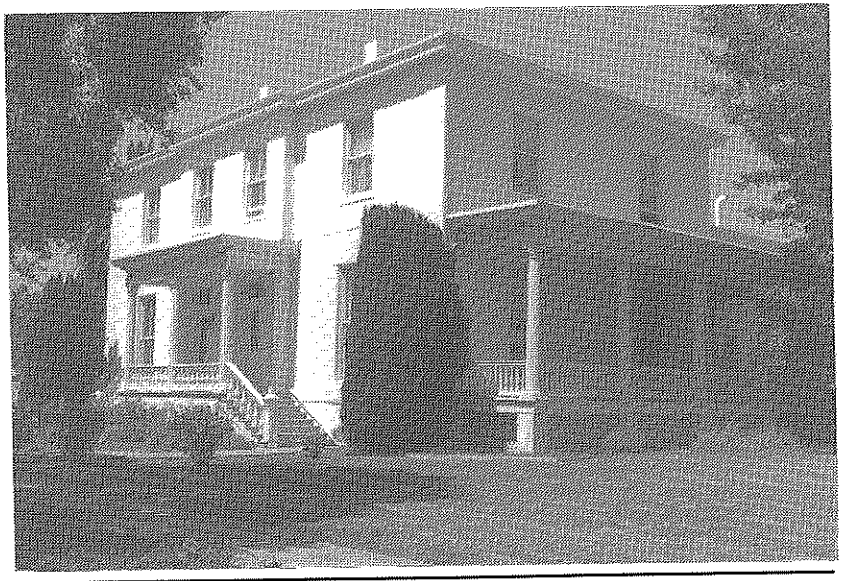
Former Office Building (No. 47) - 1870 Italianate

Classic Revival/Italianate

The Blacksmith, Machine and Carpenter Shop buildings erected in 1876, 1884, and 1877 respectively, are impressive for their Classical styling in the Italianate mode in brick. Their notable features are the bull's-eye windows in the triangular pediments on the gable-ends, the running architrave in raised brick that ties the round-headed windows together around the upper story of the building, and the rusticated architrave surrounding the entrance doors. The Office Building (No. 47) and the Guard and Engine House (No. 39) of 1872 are more residentially-scaled examples of the Italianate style in brick with sandstone trim (the latter building is now stuccoed). The 1872 Barracks Building (No. 45) is the same style and construction as Nos. 47 and 39. These buildings have quoins and porches with Corinthian columns and other Classical details.

Italianate Villa

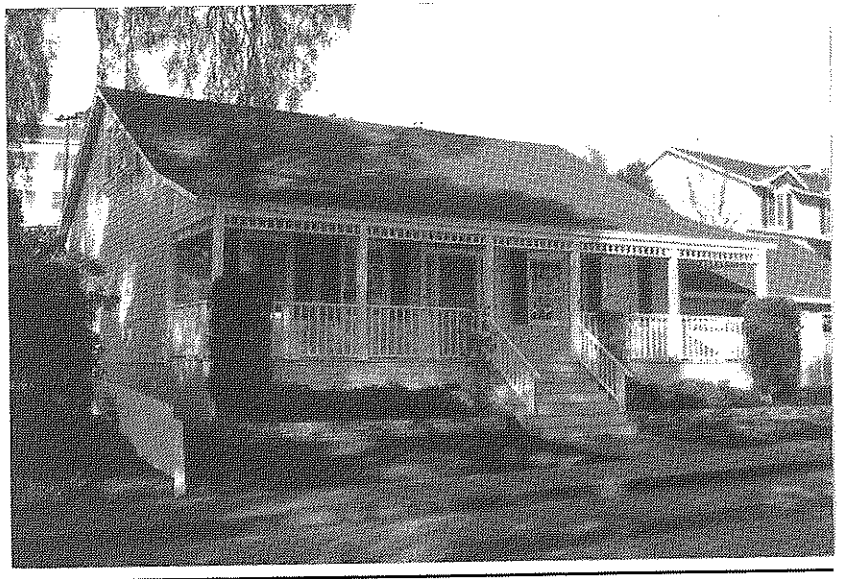
The most imposing residential buildings that remain on the Arsenal property are the Commanding Officer's Quarters (No. 28) of 1860 and the Lieutenant's Quarters (No. 27) of 1861. The Officers' Quarters (Nos. 25 and 26) was built as a duplex in 1874 in the same Classical Revival style, probably from the same standard plans that were provided for the 1860s buildings. Old photographs show that the buildings were originally painted with contrasting trim on cornices, quoins, and parts of the porches; the porches and main roof also had simple parapets that no longer exist. However, the buildings clearly retain the Italianate Villa image that had been so popular in the eastern part of the country a decade or more earlier.



Officers' Quarters (Nos. 25 & 26) - 1874 Italianate Villa

Simplified Classic Revival

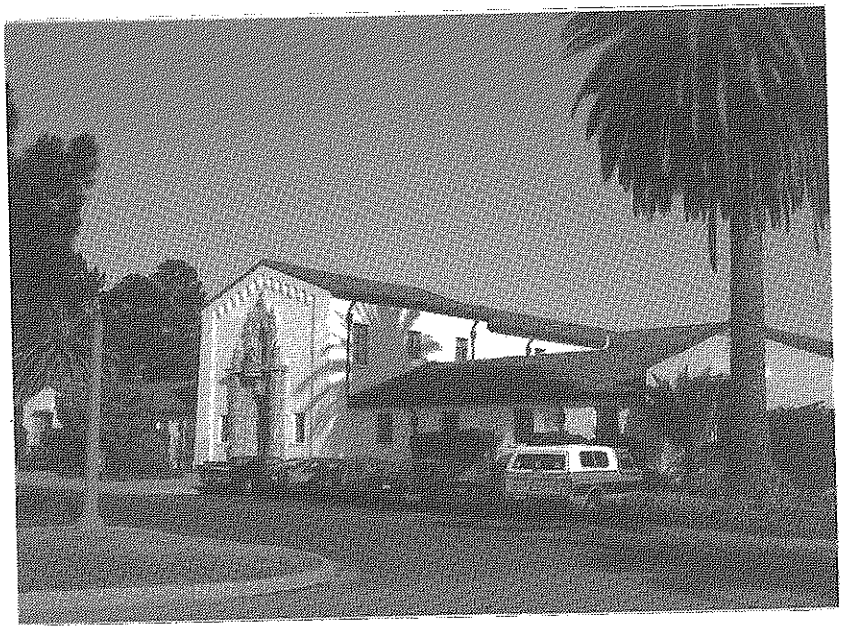
The wooden Officers Quarters buildings (Nos. 24, 33, 34 and 35) to the west of the buildings described above are also in a Classical Revival mode, but are much more modest. Robert Bruegmann thought it likely that the wooden structures had originally been built without porches or rear lean-to sections, but had been enlarged subsequently and provided with decorative trim. The Tuscan porch columns and stick railings are typical of simple Classical buildings.



Officers' Quarters - 1870 Simplified Classic Revival

Spanish Mediterranean Revival

The 1942 former Administration Building is a good example of the Spanish Mediterranean Revival style on a grander scale than is found in the Downtown Historic District. The simple rectangular volumes clad in stucco and painted white to suggest adobe have tiles, gable roofs and are composed to recall the Spanish missions. The elaborate entrance portal composition with cast decorative detail in a contrasting color is typical of the revivals of the Spanish style, called Churrigueresque, that became popular in California in the 1910s and 1920s. As with the Classical Revival buildings in the Arsenal, the style of this building was no longer fashionable when it was built, indicating the use of standard plans.



Administration Building (No. 92) - 1942
Spanish Mediterranean Revival

Individual Landmarks Designation

As part of the overall historic resources survey, two individual landmark structures have been identified which fall outside the logical boundaries of the Arsenal Historic District, but lie in close proximity to it. The structures have strong associations with the growth and development of Benicia and the region. The buildings, as indicated in Figure 3, are located within the original site of the Pacific Mail Steamship Company's Depot and shops southeast of East 6th and H Streets. A nomination form for the National Register of Historic Places was prepared for the site in 1986. According to the nomination form, "the surviving structures and potential archaeological remains of the ...Depot and Shops... are a nationally significant entity." A copy of the nomination form is on file in the Planning Department.

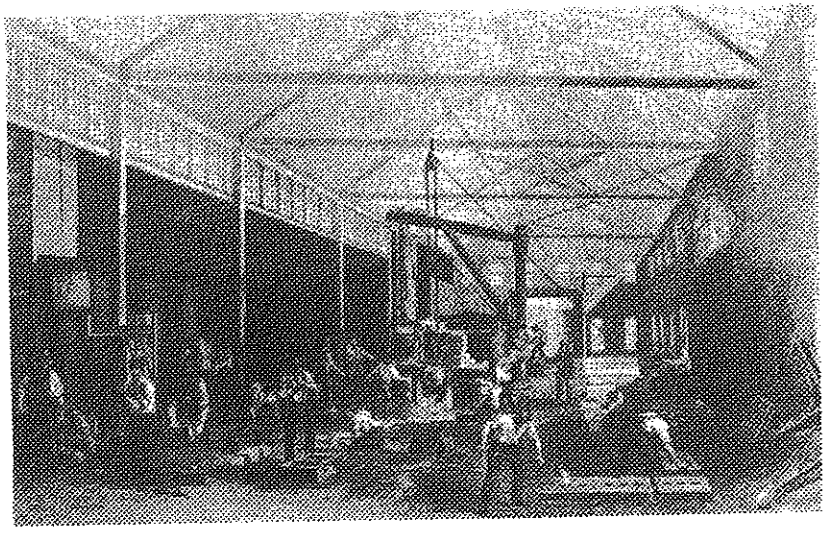
Remaining structures from the Depot era include two 1860s buildings: the office and the foundry. The office retains a very high level of integrity and is the most significant structure or improvement remaining on the entire site. The foundry building has undergone some alterations, but retains in large part its three original brick walls. (See illustration on the following page). In addition to these buildings, the area of the site occupied by the former Depot possesses a high potential for archaeological resources, in particular, the area of the site which contains the remnants of the former shop building, a portion of which is still visible, though largely encased in a later structure. The landmark buildings are listed in Appendix D. The potential archaeological resources of the site, including the remnants of the shop building, are not a part of the proposed landmark designation, but will need to be considered as part of any future development proposal for the site. Alteration of the site, including grading, could potentially trigger a requirement for review of the archeological resources under the provisions of the California Environmental Quality Act.

The Pacific Mail Steamship Company was one of two companies authorized and subsidized by Congress in 1848 to provide the Pacific Coast with a relatively fast and dependable link to the rest of the country by means of steamship service to and from Panama. The company carried passengers and mail from Panama and Mexico to San Francisco and Astoria, Oregon. A similar service was provided linking the Atlantic coast to Panama, thus providing an alternative to the Cape Route. In 1867 the company added service to China via Japan, as well as numerous coastwise routes to link Pacific coast ports of all sizes. Steamship service provided the principal link between California and the Atlantic coast during the Gold Rush and until completion of the transcontinental railroad in 1869.

The company selected Benicia as the site for its depot, shops and wharf in 1850 when the site was acquired and improvements begun. Its significance lies in its association as an integral element of the major American steamship company operating in the United States in the mid to late 19th century and as the first major industrial enterprise in the State of California. For the Benicia Depot and shops were used not to serve passengers or freight, but for maintaining the steamship company's growing fleet. The company found it necessary to build its own shoreside facility for the maintenance, repair and provisioning of its vessels as these services were simply not otherwise available. Furthermore, according to the National Register nomination the Benicia Depot is the "last land-based resource of the Pacific Mail Steamship Company left in the United States."

The Benicia Depot and shops were maintained until 1868 when the company decided to repair its steamers by contract in the future. The property was sold in 1869 and remained vacant until 1879 when it was purchased by L.L. Baker and R.M. Hamilton, two prosperous San Francisco hardware merchants who wished to expand their San Leandro based agriculture implement factory. Thus the Benicia Agricultural Works occupied the site from 1880 to 1914. Although the facilities were remodeled, and new wooden structures added, both the foundry and machine shop remained in their original uses. Subsequent to the Agricultural Works' tenure the property was occupied by the Yuba Construction Company and the structures remained largely intact until the Second World War when a change in manufacturing from basket dredges to 155 mm howitzers evidently necessitated an extensive revision of the plant layout and refitting of its equipment. It is presumably at this time that large portions of the original Pacific Mail shop building were demolished.

The office and foundry buildings have been identified within this Conservation Plan because of their proximity to the Arsenal district, even though they are not included within the district boundary. These two buildings are being designated as individual landmarks in accordance with the procedures outlined under the H Historic Overlay District zoning. The design guidelines for historic buildings found in Chapter Five will apply only to the two designated buildings, not the entire site, given the current use of the site (predominantly industrial) and uncertainty surrounding its possible future use(s). The City's current Industrial Design Guidelines would apply to the site itself, and to any new construction proposed at the site. The design review procedures discussed and presented in the following chapter would apply only to the two designated structures, including review of demolition requests or proposed alterations to the two historic structures on the property.



An Interior View of the Pacific Mail Steamship Company's Foundry - one of two surviving early 1850s buildings (Source: John H. Kemble, San Francisco Bay - A Pictorial Maritime History, p. 60).

Chapter Three
Design Review Procedures

Objectives

The purpose of the policies and design guidelines of this plan is to highlight the important architectural resources of the Arsenal and ensure that the changes that occur serve to preserve, enhance and reinforce them. Specifically, they are intended to achieve the following objectives:

1. Establish and reinforce the distinct qualities of individual subdistricts.
2. Preserve, maintain and promote appropriate adaptive reuse of historic buildings, especially those recognized as being of landmark quality.
3. Preserve important natural features, including hillsides, slopes and vegetation which have been identified as integral to the district's character or to a particular building's setting.
4. Maintain established plantings which are an integral feature of a building's historic setting.
5. Maintain key views of historic structures and the water.
6. Maintain the character of existing site improvements and features such as retaining walls, timber guard rails, and so on, which are appropriate to the scale and design of nearby buildings.
7. Encourage public and private site and urban design improvements which harmonize with each subdistrict's character and clarify key access points and circulation routes.

Design Review Process

In accordance with the H Historic District Overlay regulations, this conservation plan addresses a range of issues relating to design and land use. Among these is a list of alterations and projects which are subject to design review. In the absence of any conservation plan, the city's policy had been to require design approval for all projects except single family residences and demolitions which were outside the Downtown Commercial District. That policy is superseded by the policies contained in this conservation plan. However, the two current procedures for design review will remain in effect. These include administrative review and Design Review Commission review, both of which are summarized below.

Administrative review is presently conducted by the Planning Director for signs and all projects in the IG General Industrial and IW Water Related Industrial districts which comprise much of the land area of the Arsenal Historic District. In addition, the Planning Director is generally responsible for design review of projects involving the construction of less than 2,500 square feet in all other zoning districts except for two: the CD Downtown Commercial and H Historic Overlay districts. However, even in the H district, design review of all duplexes is conducted administratively by the Planning Director; along with review of all signs, sidewalk encroachments, tree removal and non-historic building relocation and demolition. This review process may take up to 30 days before a decision is rendered. No public hearing is involved. At the Planning Director's discretion, requests for design review approval may be referred to the Design Review Commission.

The Design Review Commission is currently empowered to review all projects which are subject to design review in any H district with the exception of those subject to administrative review only, as listed above. The Commission's review of these projects is final and is rendered at a public hearing which is usually held within 60 days of receipt of a completed application. In addition to these responsibilities, the Design Review Commission also reviews development plans for projects in other zoning districts with the exception of the IG and IW districts where design review is administrative. Until recently, the commission's recommendation on certain projects was only advisory to the Planning Commission, not final. However, a recent amendment to the zoning ordinance has shifted responsibility for design review from the Planning Commission to the Design Review Commission. Decisions of the Design Review Commission, however, may be appealed to the Planning Commission. Appeal decisions of the Planning Commission are final.

Design Review in Historic Districts

In accordance with the city's adopted policies regarding the administration of design review, certain projects which were previously exempt are subject to design approval upon enactment of the Historic Overlay zoning designation. In particular, exterior alterations to single family residences in the Historic Overlay District, other than painting, will require design approval. Projects which have been under administrative review may be subject to higher level design review under this new zoning designation.

For the most part, smaller projects and those which do not involve alterations to historic buildings will be reviewed by the Planning Director. These include non-historic single family residences and duplexes, and small additions or alterations to non-historic commercial and industrial buildings. Other projects, even those in the underlying IG and IW districts, will be reviewed by the Design Review Commission. Demolition requests for historic buildings will be considered by the Design Review Commission. Review of demolition requests for non-historic buildings remains an administrative function of the Planning Director. Design review of all signs, awnings, accessory buildings and painting also remains an administrative function.

Projects which have not been subject to any design review in the past will be under this conservation plan. In particular, any proposed exterior alteration to an existing single family residence, except painting, will be subject to design review. According to the city's recently revised Design Review Ordinance, the Design Review Commission should assume responsibility for review of all projects in the H district. Prior to the amendment, the commission was responsible for reviewing

only smaller projects in H districts. Larger projects in the H district were formerly reviewed by the Planning Commission.

However, to streamline the design review process under this Conservation plan, design review of certain projects which do not affect historic properties will be conducted administratively by the Planning Director, rather than by the Design Review Commission. Specifically, all projects involving new or existing non-historic single family residences and existing non-historic duplexes, including relocation and demolitions, will be reviewed administratively, as will certain smaller non-residential projects. Other multi-family projects, new commercial construction, and alterations to or demolition of any historic building would be reviewed by the Design Review Commission.

With respect to industrial projects, the Design Review Commission will have review authority over any such project located in any of the Subdistricts designated in Figure 10, except for projects involving less than 2,500 square feet of new floor area. These smaller industrial projects shall be reviewed administratively along with all industrial projects outside the boundaries of the four subdistricts, regardless of size. In addition, in accordance with existing city policy, pipelines, tanks, and similar operating mechanical equipment and industrial equipment installations are not subject to design review. The plan allows expansion and modification of such equipment within existing properties. The use and expansion of such facilities is consistent with the goals of the historic district, and with those of the General Plan related to the industrial area. **A complete listing of design review responsibilities is provided in Tables 1 and 2.**

Applicability and Exemptions

The policies outlined above with respect to the design review process apply equally to individually designated landmark properties as well as all structures and sites in designated historic districts. Replacement of existing building features or elements with identical ones and routine maintenance are exempt from design review, as are repairs of an emergency nature to rehabilitate an unsafe building. **Specific examples of routine maintenance and repairs which are exempt from design review include the following:**

- Repainting with the same color(s)
- Reroofing with the same material
- Replacement of existing siding or trim with siding or trim of the same material and appearance
- Replacement of existing windows or doors with windows or doors of the same dimension, finish and overall appearance
- Replacement of contemporary materials or details with those originally used on the structure when applied in the original manner
- Other repairs or replacements as determined by planning staff.

Criteria and Application Procedure

The criteria for review are those which are presented in the following sections of this conservation plan. These design review policies take effect upon adoption of the Arsenal Historic Conservation Plan. They supersede any other design review procedures formerly in effect for the area. The application process and materials to be submitted are described in

Chapter 17.108 (Design Review) and 17.112 (Development Plan Review) of the Benicia Zoning Ordinance.

However, under this conservation plan, where review is administrative, the Planning Director will be given discretion in prescribing the materials and documents to be submitted by the applicant in accordance with the scope of the proposed project. For example, a change in exterior paint color for a building might require only a set of paint chips and photographs of the existing and adjacent structures. Furthermore, administrative design review of non-historic single family residential projects should be completed by the Planning Director within 10 working days rather than 30 days. Where review is not administrative, application shall be made as specified in Chapters 17.108 and 17.112 of the Benicia zoning ordinance.

As the design guidelines and regulations contained within this conservation plan will be used by the city staff and commissions in reviewing applications for development and alterations in the historic district, **the first step a property owner should take is to determine what level of review will be required for a given project. The following tables (1 and 2) are provided as a guide.** Table 1 applies to minor projects including single family residences, all duplexes and non-residential projects involving less than 2,500 square feet of floor area. Table 2 applies to major projects including multi-family residential projects of 3 or more units and non-residential projects with 2,500 square feet of new floor area. A number of alterations are listed in the first column followed by a symbol in the appropriate column to designate the level(s) of review which apply. Where the Design Review Commission has final authority, the Planning Director and/or staff will provide advisory review.

It is important to remember that **these guidelines and regulations supplement those of the underlying zoning district (see Figure 4).** Any regulations pertaining to land use and use permit procedures contained therein are still in effect. However, under the Historic Overlay zoning regulations, the Planning Director may grant a use permit for an exception to the land use regulations of the base district. Such exceptions are permitted only where necessary to ensure the preservation or restoration of a historic or architecturally significant building, structure or site.

Review of Demolition Permits

In accordance with the provisions of the H Historic Overlay zoning regulations, design review is required prior to issuance of a demolition permit. The procedure for review shall be as described above and summarized in Tables 1 and 2. This requirement is in addition to any other demolition permits required by the city under building or other codes. Exceptions to the design review requirement may be granted for permit applications of an emergency nature to demolish a structure which has been deemed unsafe by the Building Division, subject to review, if required, by the State Office of Historic Preservation. In addition, the California Environmental Quality Act states that any "project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (Public Resources Code § 21084.1). Under the provisions contained in that section, any historic structure identified within this Conservation Plan, or any historic district listed on the National Register, would be presumed to be a "historical resource", unless the preponderance of evidence demonstrates that the structure is not historically significant.

Except where review of demolition permit applications is performed administratively, all requests for approvals must be reviewed and approved by the Design Review Commission. To assist in evaluating the request, the Planning Director will first submit a report and recommendation to the commission. The report should state the age, condition, structural integrity, historical/architectural/cultural significance of the structure and describe its potential for rehabilitation or adaptive reuse. The structure's seismic safety should be assessed as well as the economic feasibility of rehabilitation. The site's potential for archaeological resources should also be noted. The Planning Director may require the applicant to submit documentation sufficient to allow preparation of this report at the time of application.

The Design Review Commission shall withhold approval of demolition for one hundred eighty (180) days, or until environmental review is completed, unless the preponderance of evidence in the report indicates that the building is not a historical resource. If the Commission determines that the structure is not a historical resource, the permit for demolition shall be issued.

As part of the environmental review process, the city may require engineering studies, cost estimates or other reports to identify any mitigation measures and/or alternatives to demolition, including possible relocation of the structure. If the Commission's review determines that there will not be a substantial adverse impact on the historical resource, the demolition permit shall be issued. If substantial damage may occur as a result of the proposed demolition but specific economic, social or other considerations as determined by the Commission make the mitigation measures or alternatives infeasible, the demolition permit shall be issued. In determining whether to allow the demolition of a historic structure, or to require rehabilitation of that structure as part of any new development, the Commission should also consider the following factors:

- Whether the structure is structurally sound or capable of rehabilitation for the proposed use without an unreasonable cost to the owner;
- Whether the cost of maintaining the structure without allowing the proposed use would be unreasonably burdensome for the owner;
- Whether the location of the historic structure seriously interferes with or precludes the owner's ability to reasonably use and develop the property.

The Commission is also empowered to direct that other organizations and groups be consulted or other measures and alternatives to demolition be investigated and may withhold approval for up to 180 days while this investigation takes place.

The precise review procedures and the criteria for issuance of demolition permits for designated landmarks and structures in an H district are spelled out in more detail in Chapter 17.54 of the Benicia zoning ordinance. The appeals procedure for decisions rendered by the Planning Director or the Commission is described in Chapter 17.124. The determination of a structure's historical, architectural or cultural significance or value should be made by the Design Review Commission primarily on its rating in the historic resource inventory, that is, a landmark structure has a higher degree of significance than a contributing structure; and on whether the structure is listed on or eligible for listing on the National

TABLE 1

Design Review and Approval Process for Minor Projects[1] in the Historic Overlay District

● Advisory Only
✱ Final Review Authority

	Administrative Design Review	Public Hearing by Design Review Commission
EXTERIOR ALTERATIONS - PAINTING ONLY		
• All Single Family Residences	Exempt	
• All Other Structures	✱	
EXTERIOR ALTERATIONS - OTHER MODIFICATIONS OR RELOCATION		
• Non-Historic Single Family Residence or Duplex	✱	
• Historic Single Family Residence or Duplex	●	✱
• Existing Non-Historic Commercial and Industrial Structures	✱	
• All Other Historic and Non-Historic Structures	●	✱
NEW CONSTRUCTION		
• Single Family Residence	✱	
• Duplex	●	✱
• Industrial Structures Outside Subdistrict Boundaries (see Figure 10 - Page 54)	✱	
• All Other Structures	●	✱
DEMOLITION		
• Historic Building (Possible waiting period of up to 180 days may be required)	●	✱
• Non-Historic Building	✱	
SIGN / AWNINGS / ACCESSORY BUILDINGS	✱	
SIDEWALK OR OTHER PUBLIC ENCROACHMENTS	✱	
TREE REMOVAL	✱	
EXCEPTIONS TO LAND USE REGULATIONS OF BASE ZONING DISTRICT	✱	

[1] Projects that involve exterior alterations to existing structures of less than 2,500 square feet or the construction of less than 2,500 square feet of new floor area; all single family and duplex residential units, regardless of size.

Note: Some uses may not be permitted in certain zoning districts.
Other uses may require use permit. Refer to underlying zoning district regulations

TABLE 2

Design Review and Approval Process for Major Projects[1] in the Historic Overlay District

● Advisory Only
✱ Final Review Authority

	Administrative Design Review	Public Hearing by Design Review Commission
EXTERIOR ALTERATIONS (Including Relocation and Painting unless otherwise noted.)		
• Industrial Structures Outside Subdistrict Boundaries (see Figure 10 - Page 54)	✱	
• All Other Structures: Historic and Non-Historic	●	✱
NEW CONSTRUCTION		
• Multi-Family Residence (3 or more units)	●	✱
• Industrial Structures Outside Subdistrict Boundaries (See Figure 10 - Page 54)	✱	
• All Other Structures	●	✱
DEMOLITION		
• Historic Building (Possible waiting period of up to 180 days may be required.)	●	✱
• Non-Historic Building	✱	
SIGNS / AWNINGS / ACCESSORY BUILDINGS	✱	
SIDEWALK OR OTHER PUBLIC ENCROACHMENTS	✱	
TREE REMOVAL	✱	
EXCEPTIONS TO LAND USE REGULATIONS OF BASE ZONING DISTRICT	✱	

[1] Projects that involve exterior alterations to existing structures of 2,500 or more square feet or the construction of 2,500 or more square feet of new floor area; excluding single family and duplex residential units, regardless of size.

Note: Some uses may not be permitted in certain zoning districts.
Other uses may require use permit. Refer to underlying zoning district regulations.

Register. But additional factors such as the building's integrity, its potential to be restored, its role in the district and any new research or information brought to light at public hearings should also be considered. Furthermore, except for applications of an emergency nature, an application for demolition should normally be considered with concurrent design review of the structure or project which will replace it. In that way, the relative merits and feasibility of the proposals can be compared.

It is intended that the historic structures designated in this plan be maintained in good repair consistent with the existing provisions of the Historic Overlay Zoning District. However, it is not the intent of the City to impose an unreasonable economic burden on the owner of the structures by reason of the maintenance requirement. If another use is proposed for a site containing a designated historic structure, and the proposed use requires demolition of a historic structure, the City will review the request for a demolition permit in accordance with the procedures described above.

Application and Intent of Design Guidelines

The area encompassed by the proposed boundaries of the Arsenal Historic District is unique with respect to its location, topography, range of building types and land uses, and its architectural and historical significance. The promontory occupied by the Clocktower building affords panoramic views of the Carquinez Strait, as do the higher elevations of Park Road and the hills surrounding the Camel Barns. At lower elevations, water views, often dramatically framed by historic structures, are numerous. This dramatic setting has never had the benefit of an overall master plan for development, although some clustering of building types (e.g., residences) and land uses, has occurred under both the military and civilian control.

The abandonment of the site as a military installation in 1964 marked the end of unified use and control of the site. Although briefly owned by the city, the site was leased to Benicia Industries for development as an industrial park and ultimately deeded to them in 1975. Since that time portions of the lower Arsenal have been subdivided and sold to other private investors, most notably the site adjacent to the former entry gate where new multi-family housing has been developed. Many of the historic properties found in the lower Arsenal are also under other private ownerships, including a number of as yet undeveloped in-fill sites. The City retained ownership of several landmark buildings, including the Clocktower, the Commandant's Residence and the Camel Barns; however, very little land was retained under City ownership surrounding certain buildings.

Much of the area of the historic district, including the entire waterfront and northern sector, is still owned by Benicia Industries. Here they operate the Port of Benicia, with the waterfront dedicated to port-related industrial uses, principally the importation of automobiles and the off-loading of oil from tankers to the nearby refinery. Because these uses are largely separated from most of the Arsenal's historic buildings, they are not necessarily incompatible and in fact provide the Arsenal's residents and commercial tenants with views of an active, working waterfront.

One of the Arsenal's oldest surviving structures, the Post Hospital has in fact, been converted for use as the administrative offices of Benicia Industries. Other historic buildings, both landmarks and contributing buildings, have been adapted for light industrial uses which are not dissimilar to their original

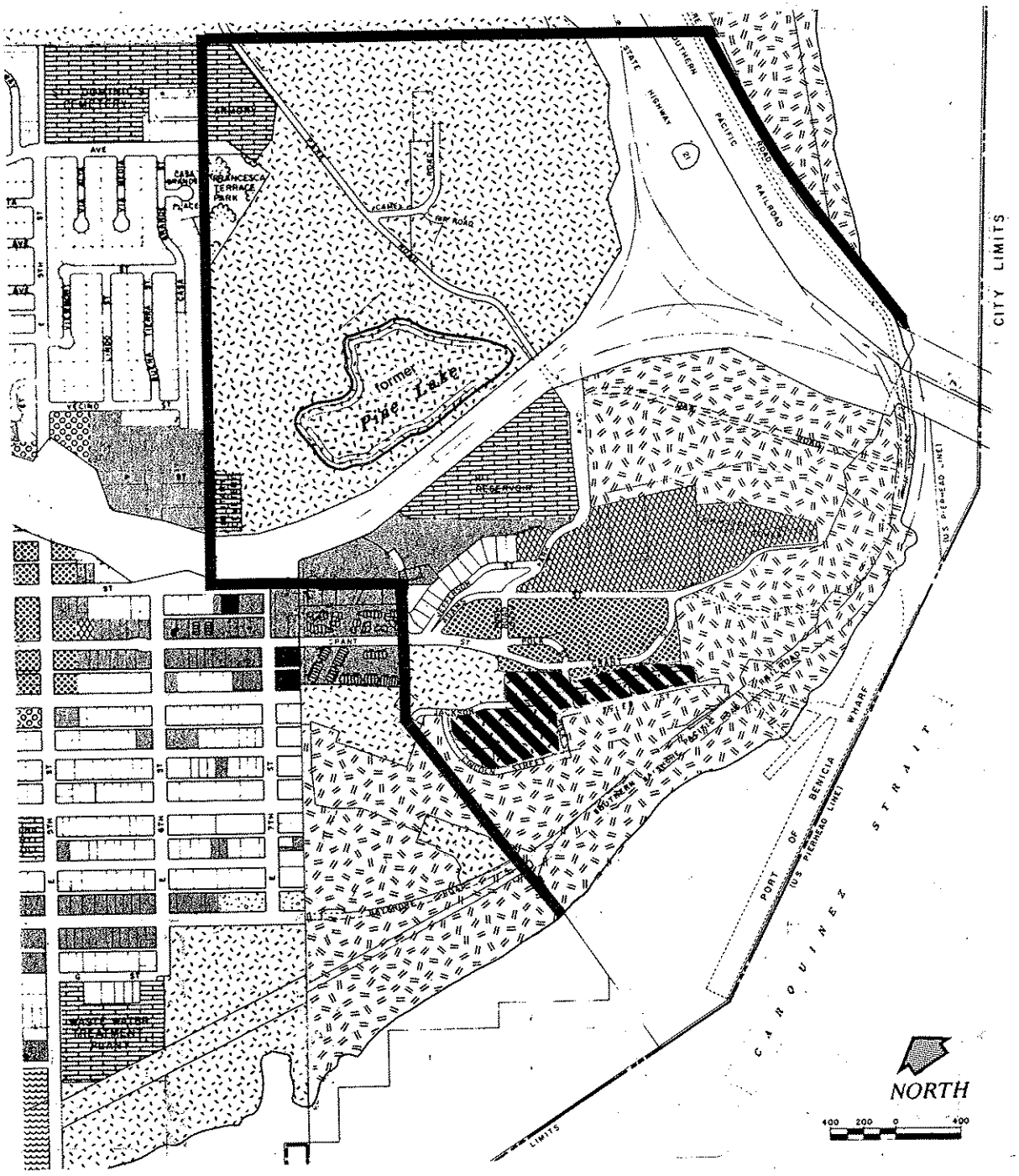


Figure 4

Zoning Map

LEGEND

- RS Single Family Residential
- RM Medium Density Residential
- CO Commercial Office
- CG General Commercial
- IG General Industrial
- IW Water Related Industrial
- PS Public and Semi-Public
- OS Open Space
- PD Planned Development

functions as shop buildings or storehouses.

However, in the future as in-fill development proceeds and the needs of industrial and commercial users change over time, conflicts between the old and new are likely to arise. Maintaining the integrity and dramatic natural settings of certain structures, notably the Camel Barns and the Clocktower building, will become increasingly difficult in the absence of a master plan or Specific Plan for the area. Likewise, infill development in the commercially zoned areas at the core of the southern sector of the district may conflict with maintaining the settings of certain historic structures if development is not carefully sited and compatibly designed.

The lack of an overall plan for the Arsenal and the uncertainty regarding its potential future use, particularly in the more sparsely developed upper areas, has made the framing of guidelines for future development a challenge. It is important to note that this conservation plan cannot take the place of a master plan, but does attempt to provide some interim guidelines for areas where uncertainty is the rule, while ensuring that historic resources throughout the district are afforded the protection warranted by their significance, which extends well beyond the local to the state and national levels. This significance is evidenced by the four districts listed on the National Register of Historic Places and the many landmark structures listed on the National Register as well as the Historic American Buildings Survey.

For these reasons, the approach to preparing design guidelines and policies for the Arsenal District differs from that used in the downtown or in more traditional historic district where land uses tend to be cohesive and development less widely dispersed. In addition to guidelines that address buildings and building types, policies which address broader urban design issues such as building siting, view corridors, landscaping and public area improvements are also provided. **These broad design policies and guidelines apply throughout the historic district. They are presented in Chapter Four.**

Chapter Five contains guidelines for historic buildings of all types. These are intended to guide renovations and additions to those recognized historic buildings identified in Figure 3, including both landmarks and contributing buildings within the Arsenal District and on the adjacent Pacific Mail Steamship/ Yuba site.

Four distinct subdistricts have been identified for the purpose of framing site specific design guidelines. These correspond closely to the zoning district boundaries in which most of the historic resources are located. Maps of these zoning districts and subdistricts follow **(Figures 4 and 10).**

Included within the site specific subdistrict design policies in Chapter Six are guidelines for building and site design and signage within particular subdistricts. These guidelines are more detailed and address specific building types and/or uses, as well as site improvements and signage. The building design guidelines in this chapter are intended principally to guide new construction, including renovations or additions to existing non-historic buildings, whereas the guidelines for site improvements and signage are applicable to historic buildings as well.

There are no specific building design guidelines provided herein for structures in industrially zoned areas or planned development districts with the following exceptions. Historic buildings located in both these zoning districts are

TABLE 3

Application of Design Guidelines and Policies in the Historic District

Designation	Determining Factor	Applicable Design Guidelines or Policies
All Properties	Designated Sight Lines and View Corridors (Figure 6 - Page 37)	View Preservation Policies (Chapter Four - Page 36)
	Location in a Special Review Area (Figure 7 - Page 41)	Strict Adherence with All Applicable Guidelines to Ensure Integrity of National Register Historic Districts and Properties
	Location in one of Four Subdistricts (Figure 10 - Page 54)	Design Policies and Guidelines for Subdistricts (Chapter Six)
Historic Properties	Designated Historic Resource (Figure 3 - Page 9)	Historic Buildings (Chapter Five)
Industrial Zoning	All Properties	Benicia Industrial Design Guidelines (Separate Document)

subject to the design guidelines for historic buildings found in Chapter Five. Those industrially zoned areas which are located within Subdistrict 4 are governed by building design guidelines which are specific to that subdistrict as well. In addition, the design guidelines for commercial properties would also apply to properties in commercial zones which are designated for planned development.

The city has also adopted a separate set of Industrial Design Guidelines which are applicable to industrially zoned properties. These guidelines are more directly applicable to the non-historic industrial properties, however. They are available as a separate document from the city.

Table 3 is provided to assist the user in determining which guidelines and policies apply in a given situation. All of these guidelines and policies will also apply in addition to other regulations outlined in the city's Zoning Ordinance, and the Benicia Industrial Design Guidelines. **In the case of conflict, the guidelines or standards of the conservation plan take precedence.**

Except for certain signage guidelines which specify maximum allowable areas or heights, **application of the design guidelines which follow is intended to be flexible rather than rigid, and to take into account the full scope of goals and policies for the area as set forth in the City's General Plan.** Most of the guidelines are stated in terms of general principles, rather than as absolutes, so that innovation and originality in design are not precluded. Therefore, staff and decision making bodies should use discretion in applying them, allowing exceptions as warranted by the particular circumstances, characteristics or qualities of an individual building or site. In addition, flexibility may also be warranted in the review and approval of proposed development plans to further the restoration or preservation of significant sites, views, or buildings. In certain situations, the city may consider exceptions to development intensity standards to allow the owner or developer of a site to avoid the loss of development rights. In appropriate cases, the economic development potential of private properties may be maintained through a transfer of development rights or other methods.

Chapter Four
District-wide Issues and Policies

This chapter describes issues that are of concern throughout the Arsenal. The policies contained herein are stated in general terms and apply throughout the historic district. More site specific policies relating to these same issues are found in Chapter Six according to four subdistrict locations identified in Figure 10.

Urban Design Issues

In preparing this conservation plan, the consultants conducted a site reconnaissance of the former Arsenal lands to determine appropriate boundaries for the historic district and to identify critical issues that the plan and its design guidelines should address. These issues were touched on in the preceding chapters; they are presented here in more detail to provide an understanding of and rationale for the urban design policies and building design guidelines which follow.

These major issues were presented and discussed at a public workshop which was held early in the planning process specifically for the Arsenal district. They include the following:

1. *Remoteness of earliest structures.*

While most of the Arsenal's historic resources are clustered together in the southern sector, the earliest surviving structures, and some of the most significant, are located in relative isolation northeast and northwest of the former Pine Lake. This isolation reflects in part the progressive uses of the former Military Reservation. Prior to the designation of the site as a U.S. Army Arsenal, the northwest quadrant housed the Benicia Barracks, a series of mostly wooden structures which loosely defined a parade ground in the vicinity of the former Post Hospital (Building 1). The storehouses (Camel Barns) and magazines date from the same era, the early 1850s, but were the first permanent structures built for the Arsenal installation itself. These are the only surviving structures of that era. The wooden frame buildings of the Barracks were destroyed by fire in 1922; two years later, the Arsenal took over the land formerly used for the Barracks.

2. *Isolation of historic building clusters.*

Compounding the problem of the remoteness of the earliest military structures is the bifurcation of the site by Interstate Highways 680 and 780 and the approach to the Benicia-Martinez

Bridge. The freeway construction resulted in the loss of historic resources and natural setting and created a physical, visual and perceptual barrier to the establishment of a unified, visually cohesive historic district. In addition, even within the southern sector where buildings are clustered closer together, significant resources, such as the shop buildings, stand in relative isolation from others, beside mundane or even unattractive structures.

3. *Lack of overall visual cohesiveness.*

This problem has surely been exacerbated by post-military use and development of the site, but it is to a large extent pre-existing. Unlike some other types of military reservations, such as the Barracks with its parade ground, the Arsenal required little in the way of ceremonial or public assembly spaces and monumentally conceived architectural compositions, which would impart a stronger sense of order. Individual structures certainly achieved monumentality, and larger architectural compositions are found in discrete building clusters (e.g., the Camel Barns, the residential row, the shop buildings) but the overall impression is of randomness.

4. *Poor circulation and inadequate directional signing.*

The roadway network which has evolved over time to serve the Arsenal is confusing and frustrating to the first time visitor. Some efforts have been made to improve the situation, such as the designation of Jefferson Street as one way and the creation of new connecting streets; but these are offset in part by the privatization of other streets. Attempts at directional signage, though laudable, have been poorly executed and limited to one or two locations. Also, circulation problems are not limited to vehicles. Certain streets in the commercial districts are not served by sidewalks; stairways are in disrepair or closed and the pedestrian environment is generally poor, despite the outstanding views.

5. *Lack of clearly identifiable entry point.*

Although perhaps a seemingly minor element of the Arsenal's fabric, the old entry gate structure served an important symbolic function, even after deactivation, as it clearly marked the entry to the Arsenal. The loss of this feature, together with the construction of new housing along Grant Street, has blurred the former line between the city and the military reservation. The perceived entry to the Arsenal occurs now at the intersection of Jefferson, Adams and Grant Streets. Though this location marks the original boundary of the military reservation, virtually all traces of the westward expansion which occurred presumably during World War II have been eradicated by new development.

6. *Conflicts between building preservation and future development; and*

7. *Viable uses for and access to certain structures.*

These two issues are closely linked. Although public ownership removes some of the potential for conflicts between preservation and future development, most buildings in public ownership still require viable uses, if only to ensure that the public has access to enjoy them. The use, management, and maintenance of the city-owned buildings is an on-going issue. The recent renovation of the Clocktower building and the hiring of a director for the Camel Barn museum are positive developments, however the city-owned Commandant's House remains vacant. On the private side, future conflicts between preservation and development and land use are likely to arise, particularly in the industrial zones where buildings are sometimes perceived as obstacles to achieving efficient use of a site.

8. Preservation of views of significant structures and water.

The Arsenal affords dramatic views of the Carquinez Strait, the bridges, the water and the port shipping activities that make it a highly desirable location despite its indirect access from the freeway and the poor circulation network within. These features will continue to attract new users, especially commercial and office uses, to the area. As new infill development occurs, conflicts over view preservation are inevitable. New structures in certain areas will partially eclipse views enjoyed by current occupants, even if they are not totally blocked. The relatively sparse development pattern which now exists at the middle and upper elevations also provides clear views of numerous historic structures. The views serve as windows into the Arsenal's past life and, in the midst of the confusing circulation and access patterns, provide a clear and immediate recognition of the area as a historic district. Loss of these critical views would severely undermine the integrity of and rationale for district designation.

9. Lack of access to the waterfront.

This issue is closely linked to the previous one; as virtually the entire waterfront is dedicated to port related activities, public access is extremely limited. Access to the waterfront is available only via private roads which may be subject to closure at certain times. This lack of physical access underscores the need to maintain strong visual connections to the waterfront from inland points within the Arsenal which are freely and publicly accessible. The site's commanding views of the Carquinez Strait and its deep water portage were major factors in its ultimate selection as the site of the U.S. Benicia Arsenal. Therefore, visual connections to the waterfront are a means of maintaining a link to the Arsenal's history.

10. Preservation of natural setting and features - hillsides, slopes, trees, open space, grassland character.

An integral part of the Arsenal's history and reason for being is its dramatic and strategic setting. It includes rolling hills and grasslands, ridgelines, promontories and bluffs, as well as the flat expanse of the waterfront lands. Although some of these features have been altered by man over time, the site still retains many of its original topographic features. Some of these are intrinsically linked to the historic architecture sited thereon. The vegetation, whether native or ornamental, is also a key historical feature of the Arsenal and evokes its specialized function as a military reservation, with manicured landscaping marking the former residential quarters and still-open, rolling grasslands the sites of storehouses and magazines.

11. Deterioration of historic structures.

Although a survey of the condition of the historic structures was not undertaken as part of this plan, it is clear that certain structures have been allowed to deteriorate, some to the point of being left open to the elements. The historic overlay zoning district which goes into effect with the adoption of this conservation plan includes provisions requiring property owners to maintain structures in good repair. However, the city must make a commitment to enforce those provisions, and to set an example for other property owners by continuing to find viable, on-going uses for its own historic structures which will not compromise their integrity or significance. The intent of the plan is that the historic structures identified herein be maintained in accordance with the Historic Overlay Zoning District provisions. However, it is not the intent of the City to impose an unreasonable economic burden on private owners with these maintenance regulations. Furthermore, the City recognizes that any enforce-

ment of the maintenance regulations must be based on evidence of pre-existing conditions. Evidence of any financial burden related to maintenance costs shall be the responsibility of the property owner.

Open Spaces and Landscape Features

Although the Arsenal Historic District boundaries include significant areas of open space, they are seldom formally recognized as such. The only designated open space is the Francesca Terrace Park in the northwest quadrant which serves the residential area to the west and is not accessible from the adjoining Arsenal grounds. The city also owns the property surrounding the reservoir south of the freeway and a small site at Park Road east of Francesca Terrace Park. The former serves as an open space transition zone between the freeway and the lower Arsenal; the latter provides a view corridor to the former hospital building and the park. The Military Cemetery, maintained by the Department of Interior, also serves as open space, in addition to its historical function.

Aside from open spaces, there are other landscape features which contribute strongly to the Arsenal's identity, both now and historically. The most impressive of these is the promontory occupied by the Clocktower building, formerly the main Arsenal storehouse. This strategic site was chosen for its commanding views of the Carquinez Strait and Suisun Bay beyond and for its proximity to docking areas for the large ships required to transport munitions and supplies. These physical features made this site and the surrounding area so desirable that it was decided in 1856 to relocate the quartermaster's depot from that area to allow the Arsenal to expand southward.

Equally significant, though perhaps less impressive, are the rolling hills and grassland surrounding the Camel Barns. This landscape, once characteristic of much of the Arsenal's upper sector, is virtually all that remains there in a near natural state. The beauty and significance of the early storehouses and magazine structures is due in part to the way in which they are situated in the rolling landscape. Their relative isolation from one another and other (long gone) buildings was not accidental but necessitated by their functions as munitions storehouses. Destroying or dramatically altering the land forms and open character of the building sites would severely impair and undermine the historic integrity of these structures which were built in the earliest phase of the Arsenal's development.

Once a significant feature of the landscape, Pine Lake has been drained in recent years. Although clearly a man-made feature, it was sited to take advantage of the original topography and wetlands which drained the area. It came to be associated with the Arsenal and its loss as a symbol and an amenity is significant. This loss will be offset somewhat by an agreement reached by the city and the land owner to create a water feature within the former Pine Lake bed in conjunction with any future development of the site.

Another historically important element of the Arsenal's landscape is, of course, its remaining plantings of mature trees and ornamental vegetation. Trees of great age or size include the eucalyptus trees north of Elm Road between Francesca Terrace Park and Park Road. They are significant not only because of their size, but also because they mark the approximate boundary of the former Benicia Barracks Parade Ground, the southeast corner of which was located near the present day intersection of Park and Elm Roads. As the Barracks structures have long since disappeared, the trees serve an important function as a visual marker of this historic site.

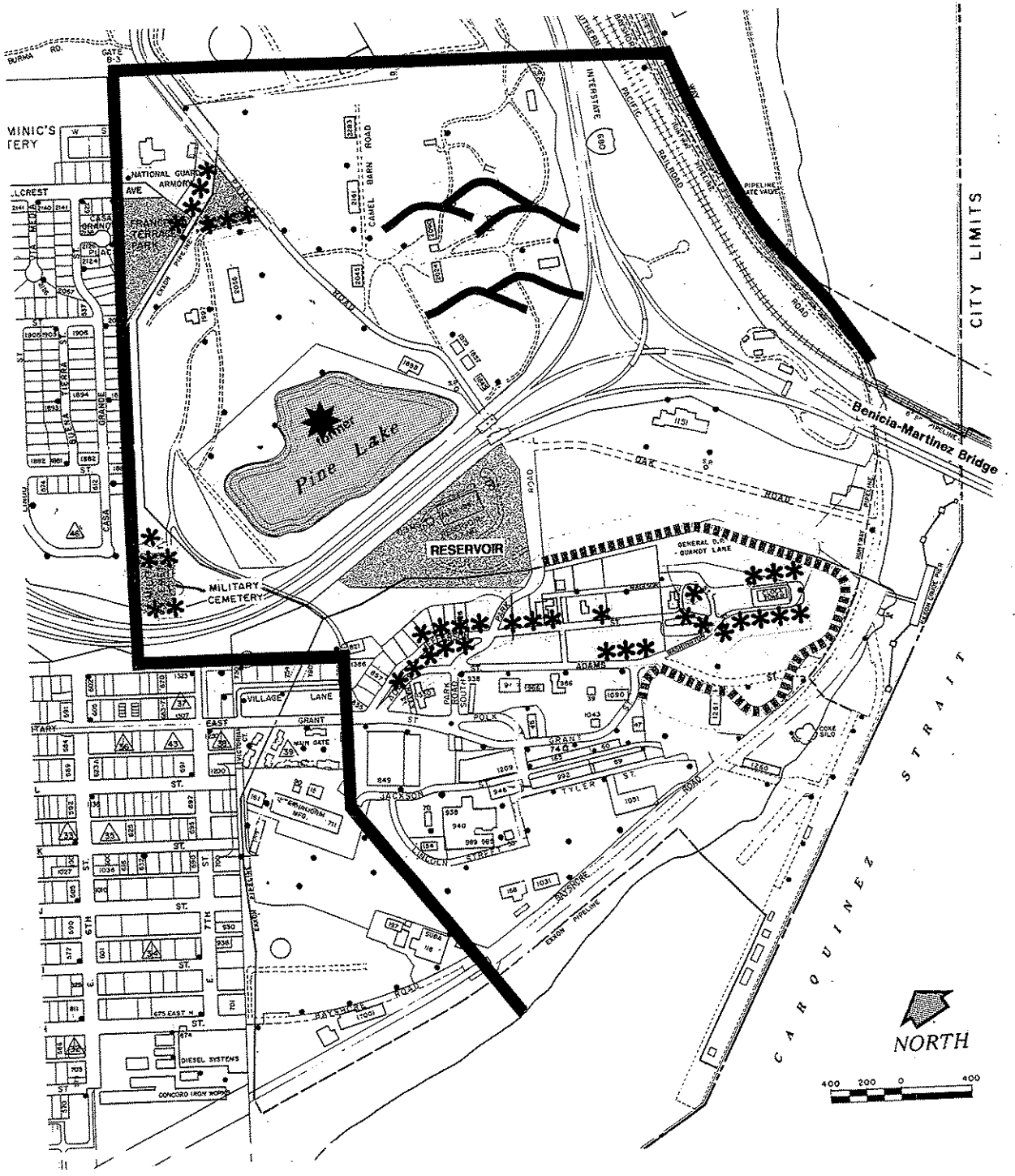


Figure 5

Open Spaces and Landscape Features

LEGEND

- Open Space in Public Ownership
- Major Open Space Feature
- Major Topographic Feature
- Rolling Hills
- **** Significant Trees or Tree Groupings (Locations Approximate)

Ornamental landscape plantings of significance include those within and adjacent to the Military Cemetery and surrounding the officers' quarters along the ridgetop west of the Clocktower Building. These historic landscapes reflect their particular uses and include mature trees as well as lawn, shrubs and other appropriate ornamental plantings. Other stands of mature trees which are significant include the street trees which form a canopy along Jefferson Street; the large oak trees above the Adams and Washington Street embankment, among which are the seldom-seen cork oak; as well as the eucalyptus trees planted along the promontory site of the Clocktower.

Policies governing the maintenance of these open space and landscape features, as shown in Figure 5, are provided in Chapter Six according to the subdistrict in which they are located. The intent of the guidelines is to preserve the natural landforms which remain, to maintain visual open space buffers around significant features and structures and to ensure that landscape treatments are appropriate to the historic context and significance of the site or structure.

View Corridors and Sight Lines

Significant view corridors and sight lines are found both within the Arsenal and from points outside. The view corridors are defined by a cone of vision originating from a specific point along a roadway. The sight lines are narrow corridors defined by a straight line originating from a specific point and terminating at a given feature or building. **These view corridors and sight lines are mapped in Figure 6. A listing and brief description of each is provided in Table 4.** Historic buildings included in these views are identified by their former Arsenal building number.

In the case of sight lines 1 and 2, the purpose of the sight lines shown on the map is to identify existing views to the Hospital building. Upon development in the area, the actual location of the sight lines may differ from the lines shown in Figure 6. The specific location of the sight lines within the subdistrict will be determined upon preparation of a master plan for future development of the site. In addition, the intent of view corridor 3 is to preserve both the view of the Camel Barns, as well as hill and basin landforms around the buildings.

The views and view corridors identified here represent only the most significant ones in relation to framing design guidelines. There are many more which may be equally impressive, especially of the waterfront and the bridge, but only those which would be most susceptible to blockage or loss due to new development have been identified here. These views to historic buildings, natural features, the waterfront and port related activities each contribute to the Arsenal's historic identify and merit preservation under policies of this conservation plan.

In general, the following policies regarding view preservation will apply:

1. *Maintain designated sight lines to landmark buildings.*
2. *Where view corridors are indicated, it is important to maintain a direct sight line to all landmark structures and important natural features which fall within the view angle mapped in Figure 6. New development within a designated view corridor is permitted but should be of a scale that will not overpower or dominate views of landmarks.*
3. *Visual impact studies, such as computer simulation, photo montage or on-site story poles may be required under the design review procedures to document the impacts of a proposed development on views or view corridors.*

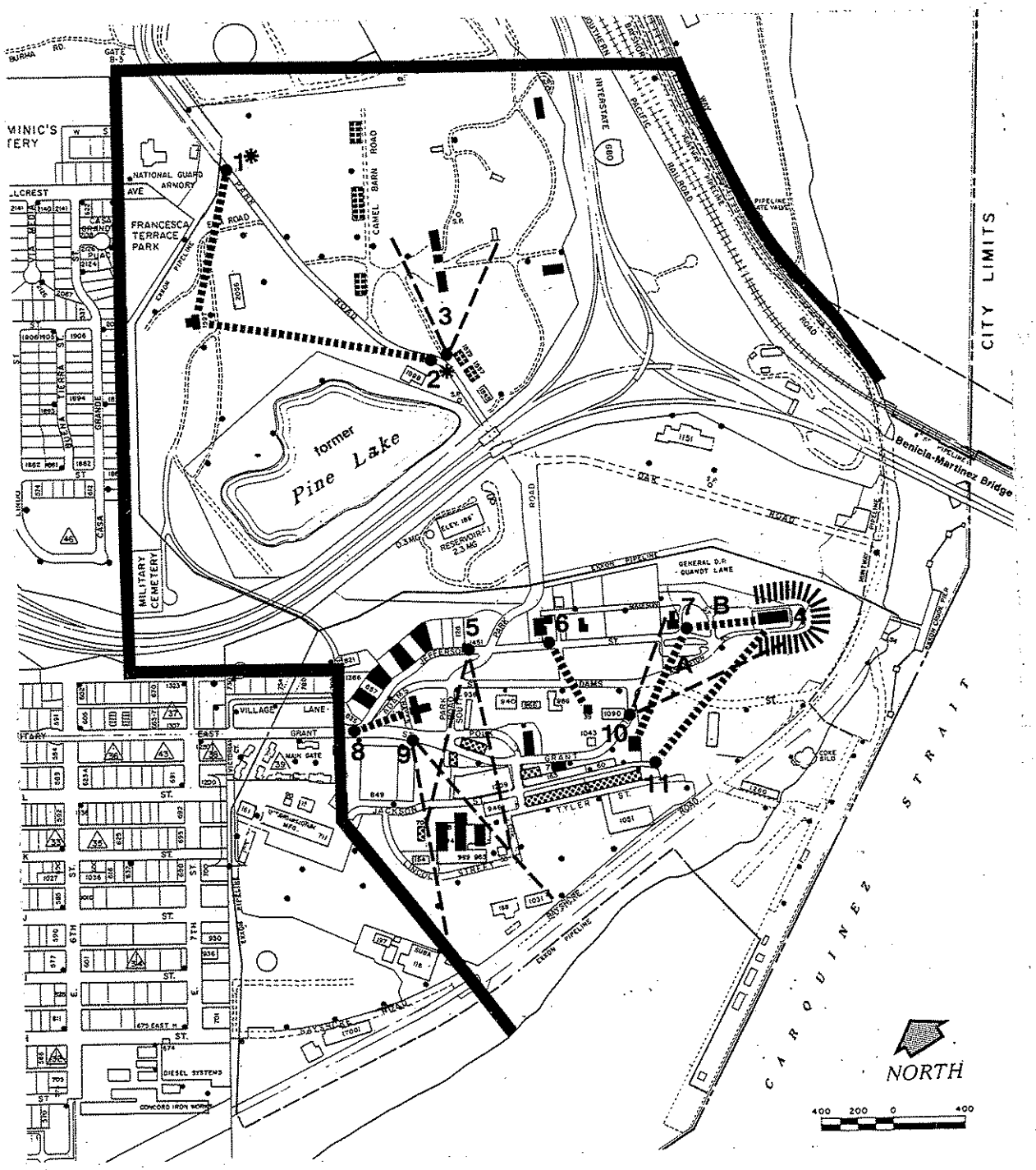


Figure 6

View Corridors and Sight Lines

LEGEND

View Corridor to be Maintained

Sight Line to be Maintained

2 — Vantage Point Key Number (See Table 4)

Panoramic View to be Maintained

* — Denotes Existing Sight Line — Location may shift upon approval of future development

TABLE 4
View Corridors and Sight Lines

No.	Description	Vantage Point
1.	Former Barracks Hospital (No. 1)*	Park Rd. between National Guard Armory and Elm Rd.
2.	Former Barracks Hospital (No. 1)	Park Rd. at Arsenal Building No. 76
3.	Camel Barns, Shop (Nos. 7-9) and Hills beyond	Park Rd. opposite Arsenal Building No. 76.
4.	Panorama of Waterfront and Bridge	Clocktower Building (No. 29) and Promontory
5.	Shop Buildings (Nos. 55-57) and Martinez Hills beyond	Jefferson Street at Park Road
6.	Former Guard House (No. 39) and Water beyond	Jefferson Street at Business Park Entry Road
7A.	Former Office Building (No. 47)	Jefferson Street at Commandant's Lane
7B.	Clocktower Building (No. 29)	Commandant's Lane at Jefferson Street
8	Former Headquarters Building (No. 92)	Grant Street at Jefferson Street
9.	Shop Buildings (Nos. 55-57), Waterfront, Hills beyond	Grant Street at Hayes Street
10.	Commandant's Quarters (No. 28), Clocktower Building (No. 29) and Promontory	Grant Street at northeasterly bend
11.	Clocktower Building (No. 29) and Promontory	Jackson Street at eastern terminus

* Indicates former Arsenal Building Number

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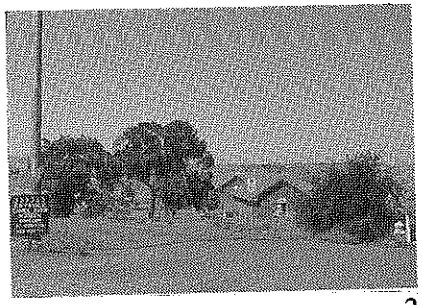
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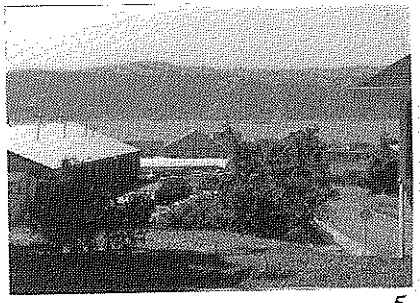
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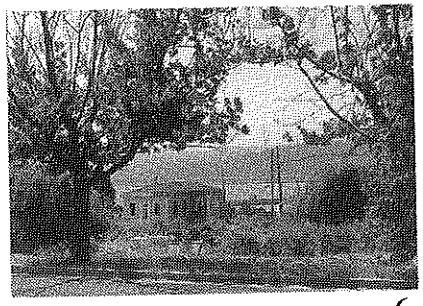
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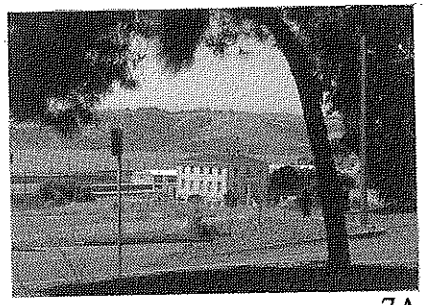
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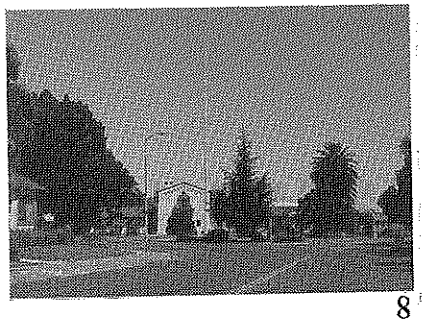
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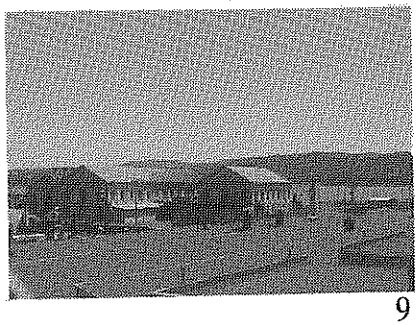
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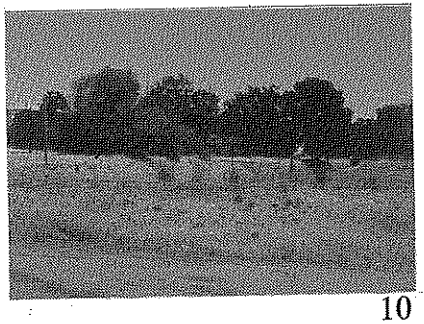
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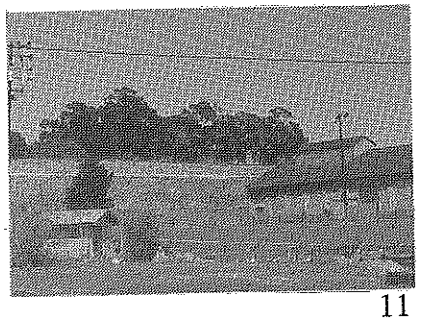
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Special Review Areas

In order to ensure that the landscape features, views and physical settings of historic buildings described previously are maintained to the maximum extent feasible, special review areas are designated under this conservation plan. These areas, shown in Figure 7, are in addition to the designated view corridors and sightlines shown in Figure 6. **The special review areas fall into two categories: critical development sites and National Register Historic Districts.** The critical development sites are indicated with a special symbol. These are sites where new development may disrupt existing views, landscape features and/or historic development patterns if not carefully sited and designed. The National Register districts include four distinct historic districts of national significance which were listed on the Register in 1975. Federal law requires that communities which receive Federal assistance, including Community Development Block Grants, consider the effects of projects on these districts, as well as on all properties included in or eligible for listing on the National Register.

Specific design policies for these areas and sites are provided in Chapter Six. They are organized according to four individual subdistricts as shown in Figure 10. These guidelines, along with the building design guidelines found in Chapter Six, will be used in the design review process as outlined in Chapter Three. **Any new development in these Special Review Areas which qualifies as a "major" project as defined in Chapter Three, Table 2, would go before the Design Review Commission, regardless of type or size.**

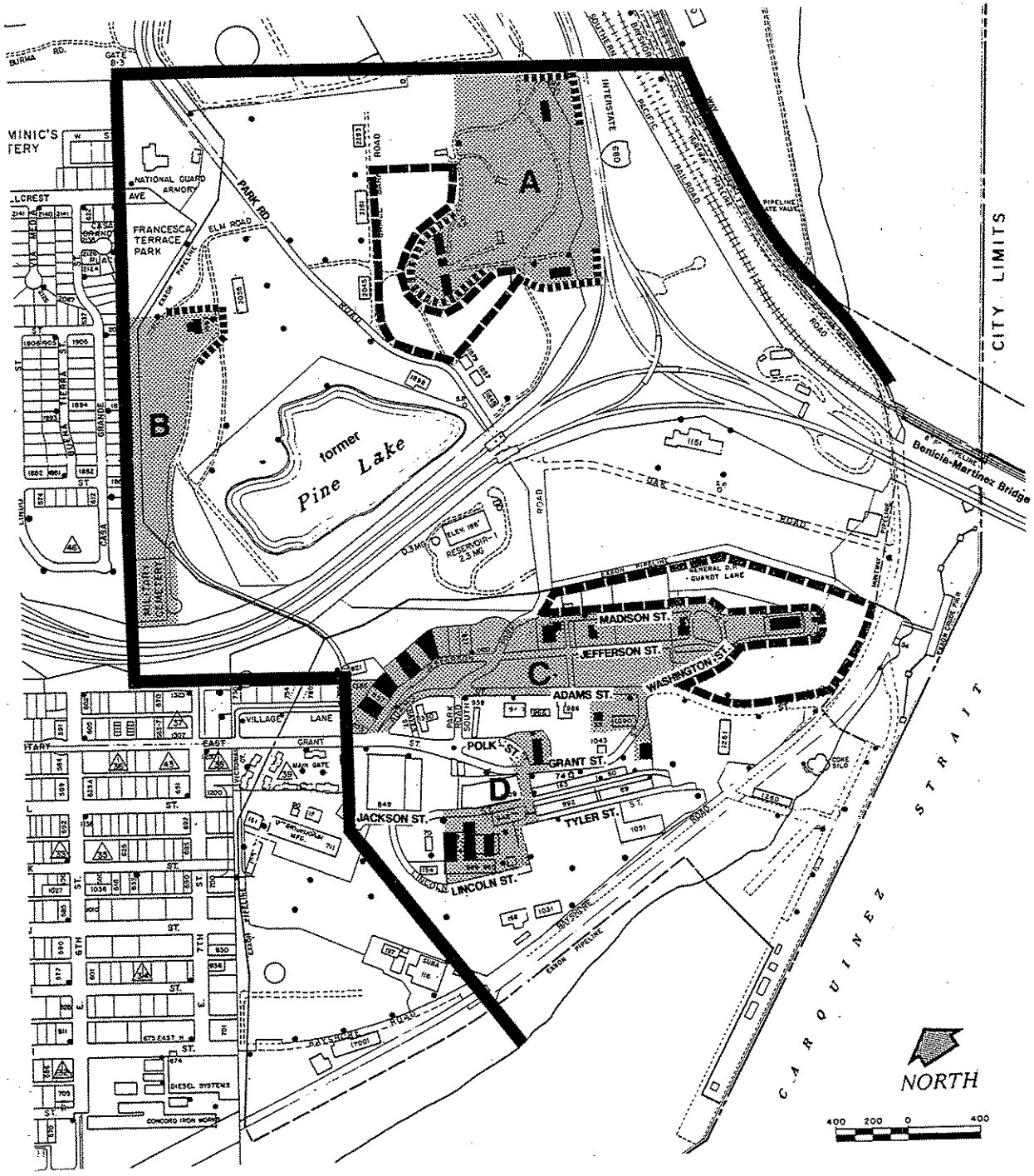


Figure 7

Special Review Areas

LEGEND

- National Register Historic District
- Critical Development Site
- Setback/Buffer Zone Required for New Development

Urban Design Improvements

In order to reinforce the historic district's identity, this conservation plan sets forth a number of urban design improvements that could be implemented over time by both the public and private sectors. **These improvements fall into two categories: comprehensive improvements which will clarify the overall identity of the district and facilitate vehicular circulation, and pedestrian oriented improvements aimed at improving circulation and the overall quality of the pedestrian environment.** These improvements may take a number of years to realize as some will require public funding while others are dependent on future developments and/or changes in land use patterns. Therefore these recommendations should be considered as policies subject to future refinement.

The recommended comprehensive improvements are diagrammed in Figures 8 and 9 and are described below.

1. Subdistrict Identity Program

Efforts should be made to create a distinct identity for discrete areas of the Arsenal which include the four subdistricts identified and discussed in Chapter Six. This will require a joint effort by the city, property owners and tenants to decide on appropriate boundaries and the final names for each. For example the upper Arsenal (Subdistrict 1) might be identified separately from the lower Arsenal (Subdistricts 2, 3 and 4), or subdistricts 2 and 3 might comprise a distinct area of the lower Arsenal. These names could become a basis for directional signage, other environmental graphics and marketing efforts reflective of the unique character and qualities of each subdistrict.

2. Directional Signage

Signs should be placed at a minimum of five locations as shown in Figure 8. The design of these signs could relate to the directional signing program for the Downtown Historic District; for example the format could be similar but with a different logo specifically designed for the Arsenal District. The signs should also reflect the distinct identity and name of each subarea.

3. Historic District Driving Tour

The city, in conjunction with district property owners, should develop and promote a driving and, perhaps, bicycling tour of the historic district. A recommended route is indicated in Figure 9. Although a walking tour along the entire route would not be advisable, motorists should be encouraged to leave their vehicles to walk short segments of the tour. Therefore, parking areas should be made available and posted at major destinations such as the Camel Barns and Clocktower building.

Development of the tour will require directional signage that is distinct from the general directional signage discussed in item 1 above. Ultimately a graphics program similar to that proposed under the Downtown Streetscape Design Plan should be put into place, including identification markers for landmark buildings, pictorial plaques showing historic views at key vantage points and consistently designed thematic street identification signs.

4. Selective Tree Pruning and Thinning

The trees surrounding the Clocktower building, principally eucalyptus, should be thinned and pruned to open up views to

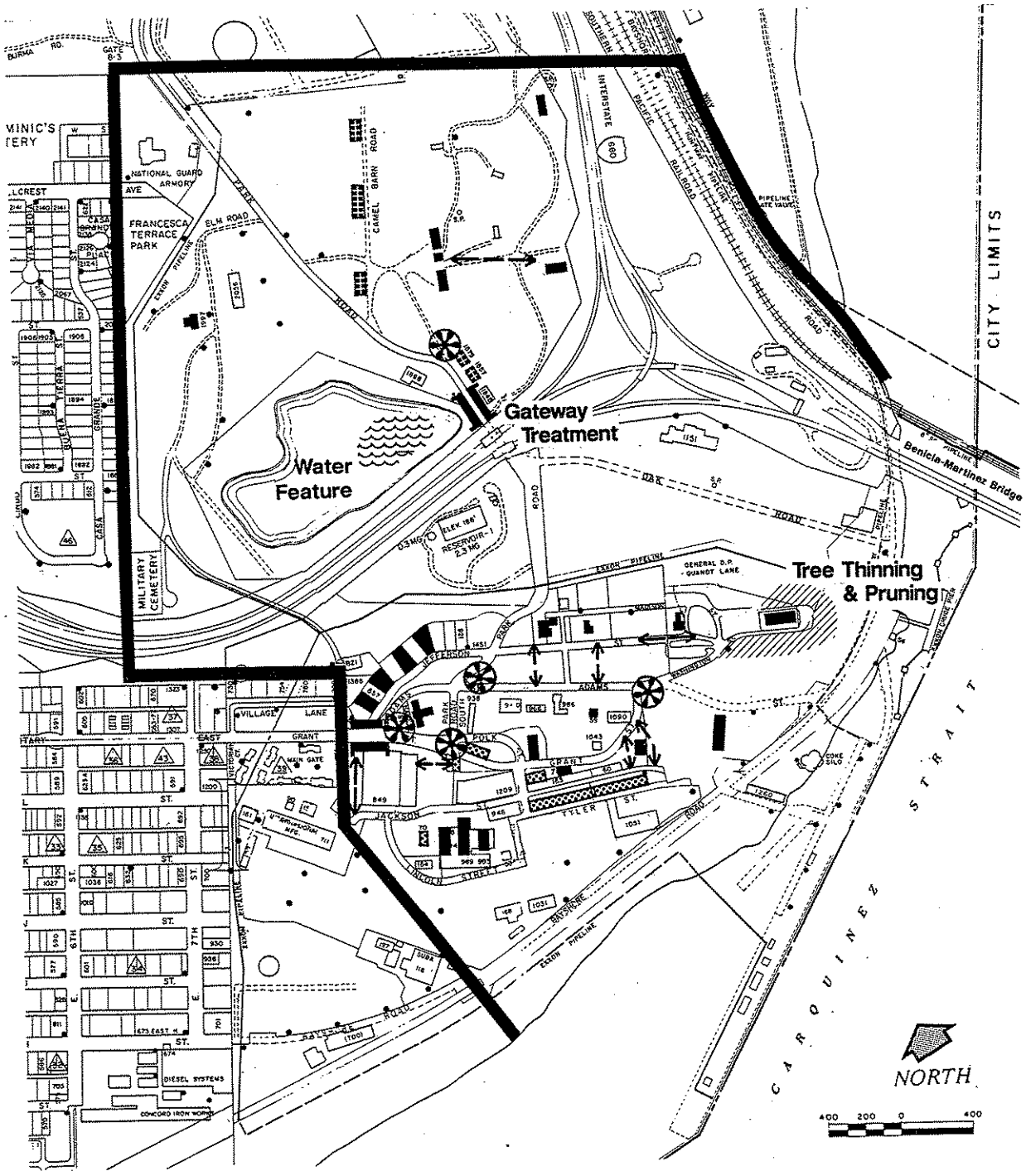


Figure 8

Recommended Urban Design Improvements

LEGEND

- Directional Signage
- Potential Pedestrian Connection
- Gateway Treatment
- Tree Thinning/Pruning

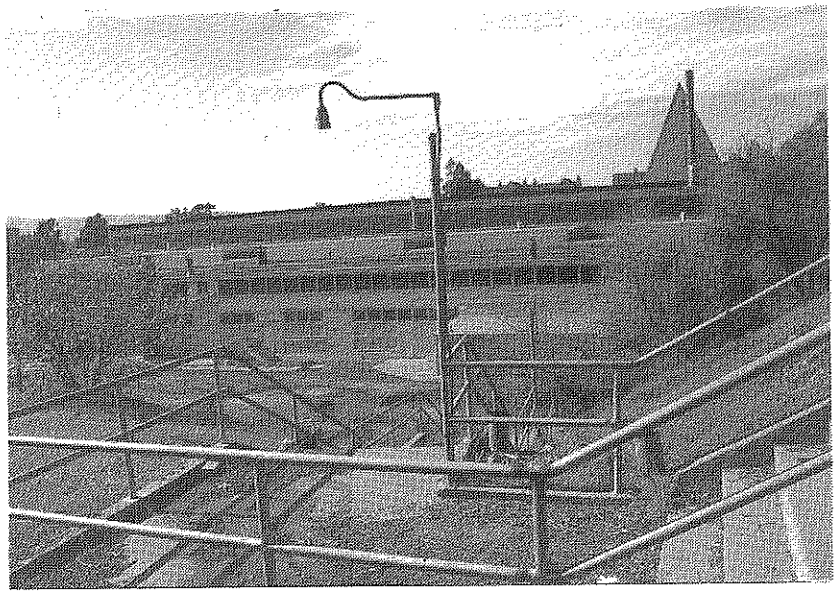
and from the promontory. Further study would be required to determine how many and which trees to thin. Planting on the embankment itself would be appropriate if it does not block views.

5. Designation and Improvements of Pedestrian Ways

There are a number of existing pedestrian ways, principally concrete stairways, which connect different sites and subareas, especially in the lower Arsenal (Figure 8). These stairways appear to be located on private property, for the most part, although a number are publicly accessible. In some cases, even though the stairway may be in good repair, it has been blocked for reasons of safety and/or security. When and if land use changes occur, opportunities to reopen the stairways should be explored. If appropriate, public access easements should be sought as a condition of approval of new permits. These should be considered on a case by case basis, taking into consideration the uses which will occur on site and the adequacy of nearby public sidewalks.

It is not the intent of this Conservation Plan to require public access via existing stairways where such access would result in conflicts with existing private property uses, particularly in the industrial areas. Rather, it is the intent of the plan to recognize that these pedestrian ways are present, and that the potential exists for future public access, depending on changes that may occur in the future in land use or property ownership.

Other opportunities for pedestrian connections exist as shown in Figure 8. Specifically, walkways or stairways could be provided to connect Jefferson and Adams Streets as part of any future development plan for the sites between them. This need for pedestrian circulation is particularly critical as the roadway connecting the streets has no sidewalks. Another potential location for a pedestrian accessway is along Jefferson Street, connecting the Officer's Duplex and Lieutenant's Quarters with the Commandant's Residence and the Clocktower Building, particularly since there is no through access permitted for vehicles. In the upper Arsenal, a walkway should be provided to connect the city owned Camel Barns with the Magazine to the east which is also city owned.



Existing Pedestrian Stairway

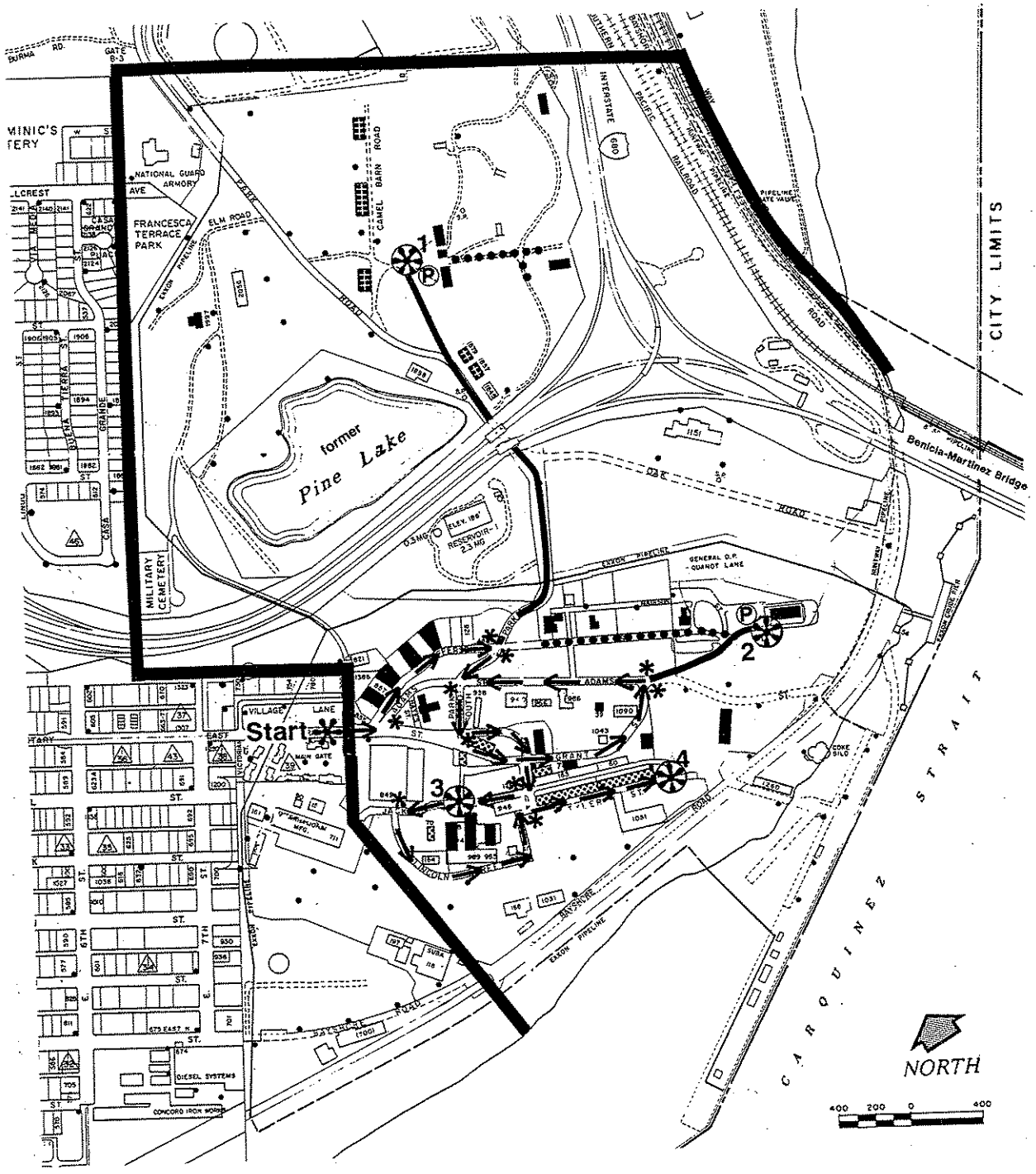


Figure 9

Historic District Driving Tour

LEGEND

- 1 Tour Destination
- * Directional Tour Marker
- (P) Parking Area
- •••••••• Walking Tour Segment
- → Direction of Travel
- ▬ Two-way Travel Segment

6. Open Space and Water Feature at Pine Lake Site

Pursuant to a 1987 development agreement already in effect between the city and the property owner, portions of the Pine Lake site are to be set aside as open space, and a lake or other water feature and landscaping will be developed in conjunction with future subdivision or development of this site. The open space feature would be appropriately landscaped to provide an attractive entry to the city. The water feature would be visible from the freeway. In order to build upon this entry treatment and use it to define the gateway to the upper Arsenal, the water feature should also be visible from Park Road near the freeway underpass.

Chapter Five
Design Guidelines
for Historic Buildings

Included in this chapter are design policies and guidelines which apply only to designated historic buildings. Guidelines for non-residential building types are found in the first section, those for residential building types in the second. **However, additional policies and guidelines for site improvements, landscaping and signage apply to historic properties according to their location.** These are found in Chapter Six and are organized according to the four subdistricts shown in Figure 10. Design guidelines for new development of non-historic properties are found there also.

Historic Non-Residential Building Types

The following guidelines apply specifically to all non-residential designated historic buildings, whether within or outside the historic district. They should be strictly applied to all landmark buildings, while their application to contributing buildings may be more flexible. Whenever feasible, any inappropriate modifications should be reversed and additional modifications should follow these guidelines. The guidelines for Signage and Parking and Site Improvements for commercial properties found in Chapter Six would also apply to historic non-residential properties located in Subdistricts 2 and 3.

Policy 1: Design Integrity

Maintain the design integrity and distinguishing features of historic buildings.

Guidelines

1.1 Locate building additions to the rear of the existing structure whenever possible.

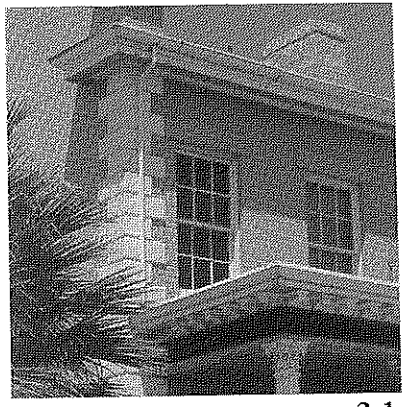
1.2 Upper floor additions are inappropriate, especially for load-bearing masonry structures, and should be avoided altogether.

1.3 Where possible, set additions apart from original construction and clearly distinguish old from new to avoid confusing original historical building elements with later additions.

1.4 Additions should employ the same materials, and similar opening proportions, facade rhythms and horizontal elements as the original.

Policy 2: Facade Elements and Details

Retain the traditional facade elements, proportions and architectural details which give historic buildings their special character and use appropriate replacements where necessary.



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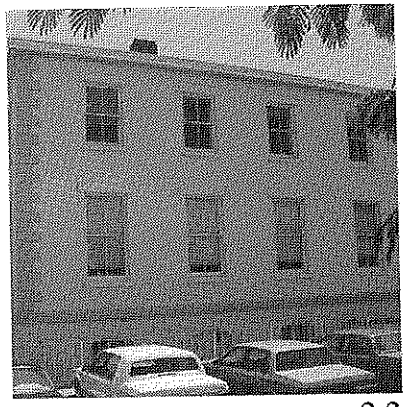


2.2

Guidelines

2.1 Do not remove original architectural elements - cornices, moldings, trim, etc. Replacements should be similar in character to the original.

2.2 Maintain the proportions of existing door and window openings and the pattern and proportions of existing window sash in replacement work or additions.

2.3 New or replacement window sash should match the original sash. Where an original window has been completely removed, the new window should exactly duplicate the original unless a window replacement program for the entire building using the original style sash is undertaken.

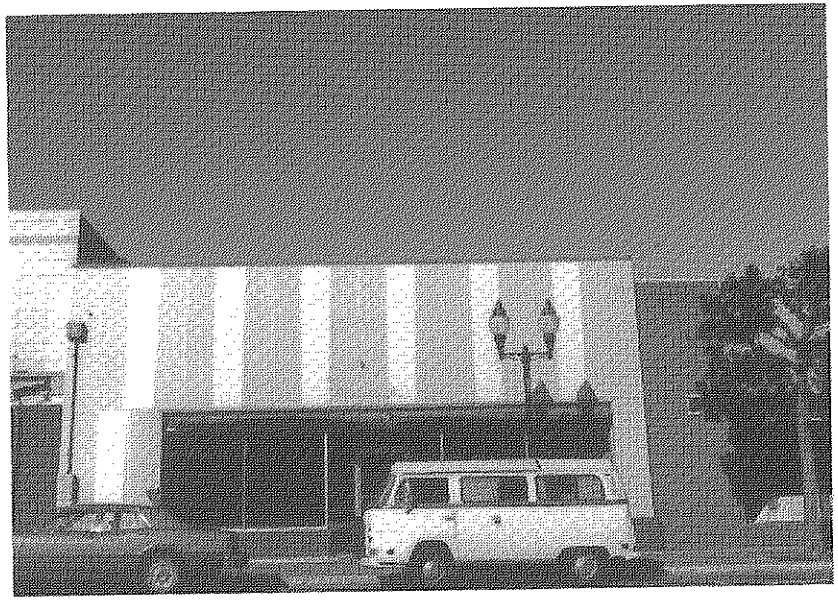
Policy 3: Integrity of Materials

Maintain the integrity of original building materials.

Guidelines

3.1 Do not cover over, clad or replace original siding material with a different material such as stucco, wood or composition shingles, aluminum siding, and the like.

3.2 Where original materials have been covered over, use the gentlest means possible to remove them. Certain claddings such as stucco may be difficult, if not impossible, to remove without destroying the underlying material.

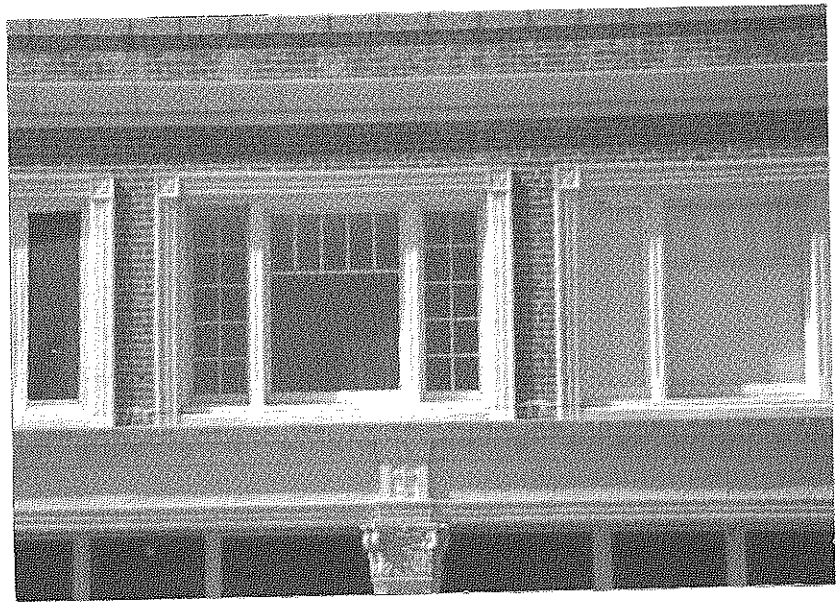


3.1

3.3 Where inappropriate later materials have been removed, the original material(s) or missing architectural elements should be replaced.

3.4 When re-roofing, use the original or a similar material, generally composition shingles.

3.5 Do not paint or seal natural, masonry materials such as brick or stone. Sandblasting of masonry surfaces to remove paint will damage the material. Other methods should be used only under the advice and guidance of an expert. Where masonry has been previously painted, sealed or stuccoed and the original finish cannot be restored, repainting or resealing is permitted.



4.3

Policy 4: Appropriate Materials, Color and Finishes

Promote the use of appropriate materials in restorations, renovations and additions to historic buildings and the use of colors which complement their styles and particular combination of building materials.

Guidelines

4.1 Use original materials whenever possible in restoration, renovation or repair work and use the same materials for building additions.

4.2 For substitute materials, the outward appearance, durability, texture and finish should be as close as possible to that of the original. If the original was painted the substitute should accept and retain a painted finish.

4.3 Wood window sash is preferred for historic buildings. Vinyl clad wood or factory finished (i.e., baked enamel) aluminum frames are acceptable if the original design can be duplicated.

4.4 Materials or colors listed as inappropriate for new commercial construction are also inappropriate for historic buildings. (See guidelines 4.3, 5.2, 6.4, 6.5 and 6.6 for new commercial construction -- Chapter Six.)

4.5 Paint colors and color schemes should be appropriate to the style and design intent of the building and its historic use.

Historic Residential Building Types

These design guidelines apply to all categories of designated historic residential buildings within the historic district. They are intended to guide renovation work as well as building additions. The guidelines for site improvements and landscaping of residential properties in Subdistrict 2, found in Chapter Six, would also apply to historic residential properties, as would the signage guidelines for residential buildings which have been converted to commercial use.

Policy 1: Design Integrity

Maintain the design integrity and distinguishing features of historic buildings.

Guidelines

1.1 Additions or alterations which alter the perceived height, bulk, principal facade elements, distinguishing architectural features or overall architectural character of a landmark building when viewed from the street are inappropriate.

1.2 Building additions should be located to the rear of the existing structure whenever possible.

1.3 When necessary to locate additions to the side of an existing building, the addition should be set back behind the line of the front facade so that facade's original composition and proportions remain intact and legible. If the addition is large, it may be appropriate to provide some visual separation (i.e., narrow link such as breezeway, hallway etc.) between the new and old construction.

1.4 Second floor additions which do not significantly alter roof forms are appropriate except where they will alter the principal facade(s) or character of a landmark building.

1.5 Raised basements, garages or other additions below the first floor level are generally inappropriate.

1.6 Additions to existing buildings should employ the same materials and opening proportions as the original. It is not necessary or even desirable to make the addition look identical, especially if original workmanship or details cannot be matched.

1.1

1.5

Policy 2: Facade Elements And Details

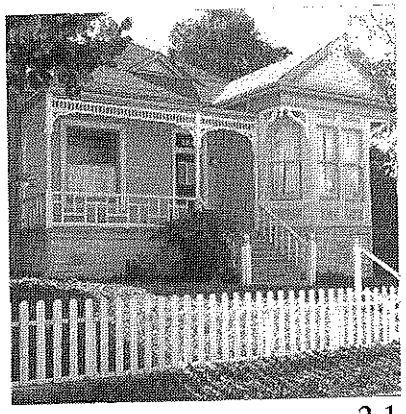
Retain the traditional facade elements, proportions and architectural details which give historic buildings their special character and use appropriate replacements where necessary.

Guidelines

2.1 Architectural elements such as porches, steps and railings should not be removed. Replacements, where required, should be similar in character to the original.

2.2 Maintain the proportions of existing door and window openings and the pattern of existing window sash in replacement work or additions.

2.3 New or replacement window sash should match the original sash in thickness, depth, pattern and finish. Where an original window has been completely removed, the new window should exactly duplicate the existing unless a replacement program for the entire building using the original style sash is undertaken.



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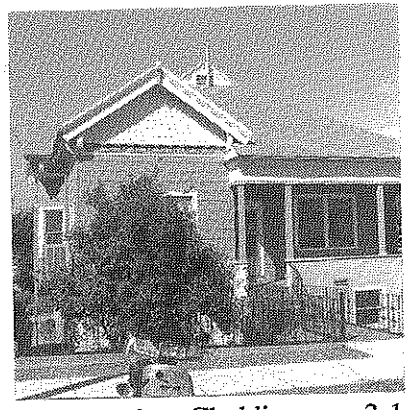


Inappropriate Cladding 3.1

Policy 3: Integrity Of Materials

Maintain the integrity of original building materials.

Guidelines

3.1 Original siding material should not be replaced, covered over or clad with another material such as stucco, wood or composition shingles, aluminum siding, and the like.

3.2 Where original materials have been covered over, use the gentlest means possible to remove them. Certain cladding such as stucco may be difficult, if not impossible, to remove without destroying the underlying material.

3.3 Where inappropriate, later materials have been removed, the original material(s) or missing architectural elements should be replaced.

3.4 When necessary to re-roof, the original or a similar material, generally composition shingles, should be used.

3.5 Integrally colored materials such as brick or stone and stained wood (shingles, rafters, trim) should not be painted over. Sandblasting of masonry surfaces to remove paint will damage the material. Other methods should be used.

3.6 Where necessary to re-build or replace an existing chimney or add a new one, the original material, generally brick, should be used.

Policy 4: Appropriate Materials, Colors And Finishes

Promote the use of appropriate materials in restorations, renovations and additions to historic buildings and colors which complement their styles and particular combination of building materials.

Guidelines

4.1 Use original materials wherever possible in restoration, renovation or repair work and use the same materials for building additions.

4.2 When necessary to use a substitute material, take care that its outward appearance, durability, texture and finish will be as close as possible to that of the original. If the original material was painted, be sure that the substitute will accept and retain the same painted finish.

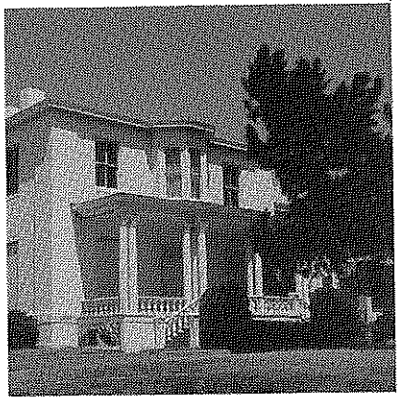
4.3 Wood window sash is preferred for historic buildings. Vinyl clad wood or factory finished (i.e., baked enamel) aluminum frames may be acceptable as long as the original design can be duplicated.

4.4 Materials or colors listed as inappropriate for new residential construction are also inappropriate for historic buildings. (See guidelines 5.3, 5.4 and 5.10 for new residential construction -- Chapter Six).

4.5 Paint colors and color schemes should be appropriate to the style, design intent and historic value of the building as follows:

Italianate Villa (Officers' Quarters)	Monochrome: white or off-white base and window sash. Darker neutral trim for horizontal cornice and major trim elements (optional).
Simplified Classic Revival (Enlisted Men's Quarters)	Light Pastel or earth- toned base color, one or two compatible trim colors.

4.3



Italianate Villa 4.5

Chapter Six
Design Policies and Guidelines
for Subdistricts

Design Policies for Subdistricts

The character of the Arsenal's land forms, uses and architecture changes dramatically from one area to the next. In order to develop meaningful design policies based on all of these factors, it was necessary to divide the area into four subdistricts. These subdistricts, shown in **Figure 10**, include only those areas of the district where historic resources are concentrated. They include all four National Register districts (Figure 2) and correspond closely to current zoning district boundaries. In fact, they are contiguous with them except at the eastern end of subareas 2 and 4 where critical development sites in the Water Related Industrial zone abut commercial zoning districts.

The policies presented in this chapter apply only to each respective subdistrict. Where applicable, they include building design guidelines for new construction as well as guidelines for site improvements, such as parking and landscaping, and signage which apply to new and existing buildings, whether historic or not. The guidelines in Chapter Five apply only to designated historic buildings as shown in Figure 3. The preceding urban design guidelines for open spaces, view corridors and the like found in Chapter Four, however, apply to all properties regardless of age or historic merit.

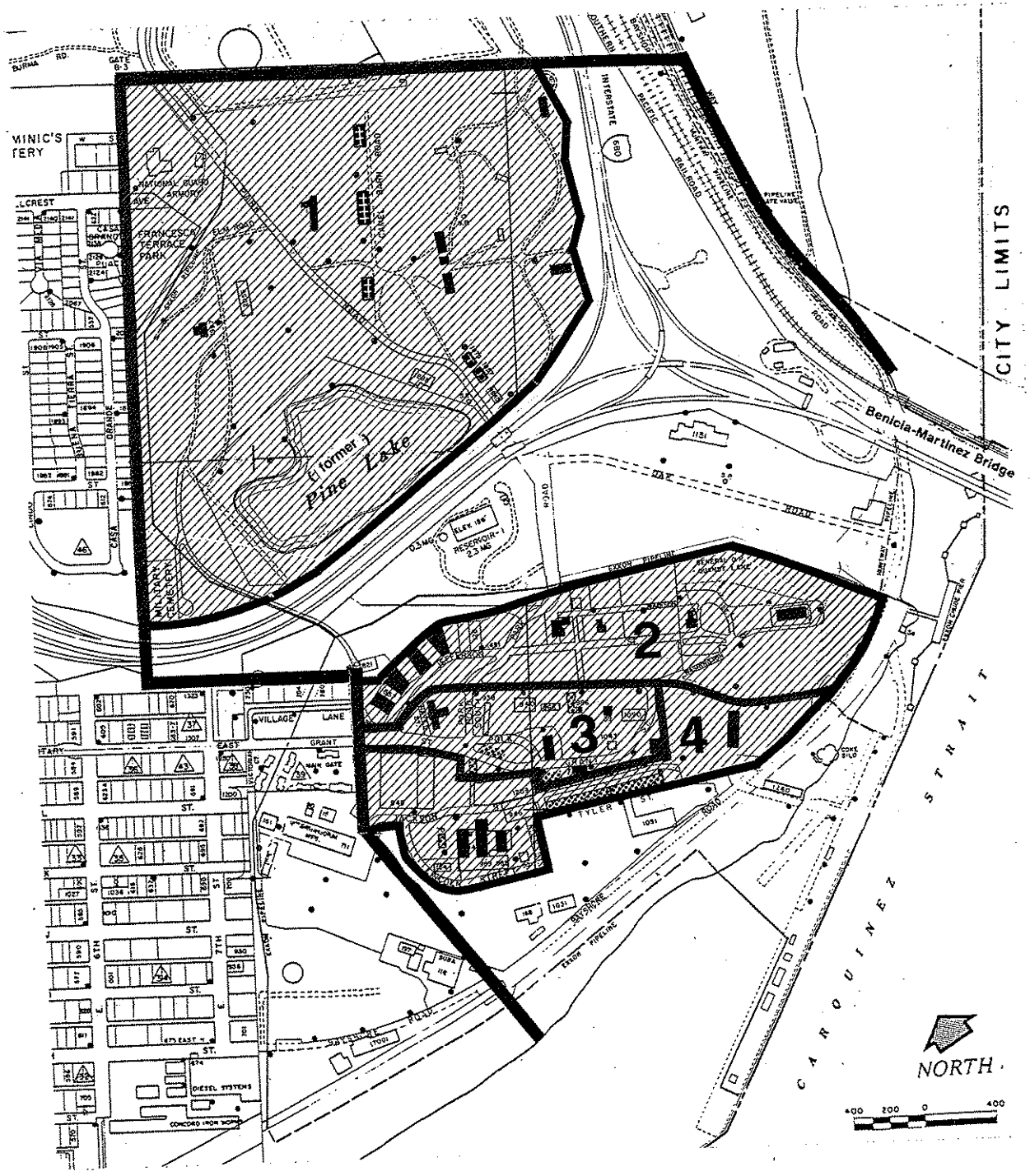


Figure 10

Site Specific Design Guideline Subdistricts

LEGEND

Subdistrict Boundary

Subdistrict Designation:

1. The Hills
2. The Ridge/Officers' Row
3. The Plateau/Headquarters
4. The Flats/Waterfront

Subdistrict 1: The Hills

This subdistrict is characterized by military/special purpose and industrial/storage buildings set in grassy, rolling hills. The area contains the earliest surviving historic structures and includes the only surviving building of the Benicia Barracks complex, the former Barracks Hospital. Two former quarry sites are also located here: one in the vicinity of building No. 9 (South Camel Barn) and one near building No. 10 (Magazine). The quarries provided sandstone to build some of the Arsenal's earliest structures.

The historic buildings are isolated and scattered over many acres, with the most significant historic buildings being the least visible and accessible. Recent construction and some existing older buildings are visually incompatible with the character of historic buildings. The property, though industrially zoned, may be appropriate for other uses due to its location and views afforded by its elevation. Plans to add a new span to the Benicia Bridge could have significant impacts on the subarea, which may be detrimental to the historic resources and landscape surrounding the Camel Barns and Magazines.

The Conservation Plan guidelines (particularly those which affect land use development potential) are broad-based policies which will be utilized until such time as a General Plan amendment is enacted, and a master plan is developed for the area. It is intended that these guidelines be reviewed at the time an amendment is completed, and that the guidelines be modified as necessary to conform with the objectives of the amended General Plan. In addition, the subdistrict guidelines require that any master plan prepared for the area within the subdistrict include the preparation of specific architectural guidelines and standards, based on the broader policies contained in this plan, as they now exist, or as amended in the future as part of a General Plan amendment. In accordance with existing zoning regulations, a master plan would include a site plan; a preliminary development schedule; proposed urban design, architectural and landscaping concepts; and guidelines for the physical development of the site, in addition to the architectural guidelines and standards required by this Conservation Plan.

■ Future Development

1. *Preserve view corridors and sightlines noted in Figure 6, especially to landmark buildings and landscape features, and comply with the view preservation policies of Chapter Four.*

2. *Emphasize a gateway treatment at the freeway underpass, with restoration of a water feature and addition of landscaping at the former Pine Lake site, in accordance with the 1987 development agreement, and more compatible and attractive new development to replace non-historic structures which may be demolished.*

3. *Encourage the removal of non-contributing buildings at the Pine Lake gateway area as part of any major new development proposal.*

4. *Maintain the sight lines to the Hospital building from Park Road and consider developing a new approach drive along one of the sight lines, whether public or private, in conjunction with any future development. The specific location of the sight lines should be determined as part of a master plan development proposal for the area.*

5. *Link the Camel Barns with the Magazine to the east (Building No. 10), by providing pedestrian through access.*

6. *Open up new views to the Camel Barns if/when other buildings are removed and new development is proposed.*

7. *Require the preparation and approval of a master plan for this subdistrict prior to any of the following:*
   - *Application for demolition of an historic building.*
   - *Major grading operations which would alter existing landforms significantly.*
   - *Major access and/or circulation improvements such as roadways, other than maintenance roads requiring minimal grading.*
   - *Development of a new building on a vacant site.*
   - *Development of a new primary building on a previously developed site.*
   - *Any subdivision of five or more lots.*
   - *Any rezoning.*

8. *Require specific architectural design guidelines and standards to be prepared, consistent with these urban design guidelines, as part of a future master plan for this subarea.*

9. *Promote the development of a unified identity, image and name for this subdistrict to distinguish it from others and establish its presence in the public mind.*

10. *Investigate and pursue, if feasible, the formal designation of other historic resources, such as one or more bunkers, the quarry site(s) and the Military Cemetery.*

11. *Consider the use of a transfer of development rights between properties within the subdistrict in order to allow preservation of landforms around landmark structures. The City will investigate the implementation of mechanisms to allow the transfer of development rights to occur.*

■ Site and Landscape Treatment

1. *Promote the retention of existing mature tree plantings, especially the eucalyptus trees adjacent to Elm Road which mark the approximate location of the former parade ground of the Benicia Barracks, and those within and adjacent to the Military Cemetery.*

2. *Encourage new tree plantings to screen visually incompatible uses or buildings.*

3. *Maintain, to the extent possible, the historic landscape with its natural, rolling landform and open grassland character throughout the boundaries of National Register Historic District A, as shown in Figures 2 and 7, where the Camel Barns and Magazines are located. Use native vegetation where possible and avoid the use of exotic plants or ornamental landscape treatments in this area.*

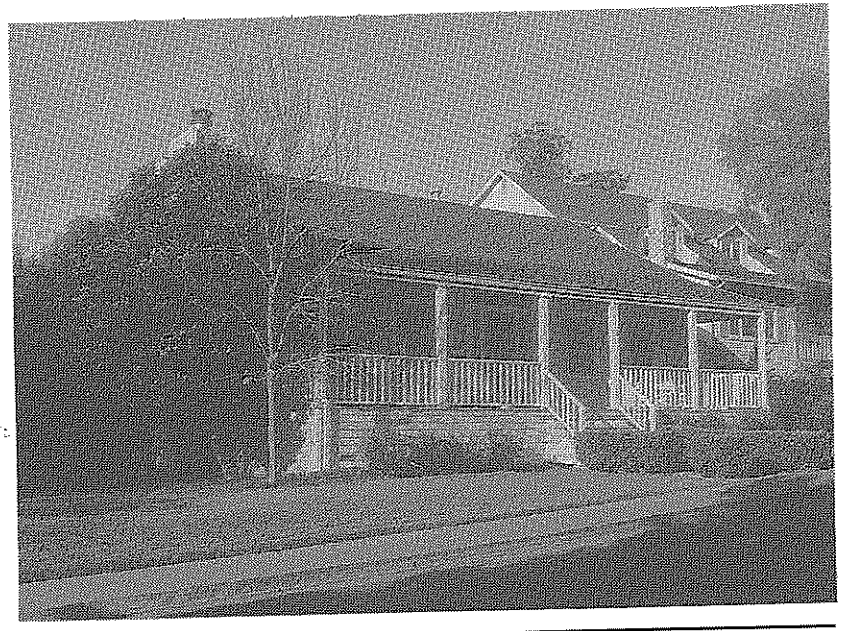
4. *Require a minimum setback of 200 feet for buildings and other structures around all historic structures to provide a buffer zone between historic buildings and new development.*

5. *Permit limited quarrying of sandstone, if necessary, to provide restoration material for historic structures, as long as visual and other environmental impacts can be mitigated.*

6. *Provide area lighting for safety where parking areas abut buildings. Use building mounted down lights or freestanding light standards of a simple utilitarian design. Avoid period style light fixtures unless they are adjacent to and compatible with historic architecture.*

Subdistrict 2: The Ridge/Officers' Row

This subarea, which includes the officers' quarters along Jefferson Street and the original Arsenal storehouse (Clocktower Building), houses the most outstanding ensemble of historic buildings in the district. Though understated in design, the historic officers' residences together with the virtually indistinguishable infill buildings combine to achieve a very strong sense of place, evocative of a much earlier time in the Arsenal's history. The rising road, gracious front lawns, the canopy of street trees and the grassy planting strip below them are integral to achieving this effect.



Officer's Quarters along Jefferson Street

It is a dramatic and fitting approach up Jefferson Street to the ridge area where the more impressive former residences of the higher ranked officers are found. These three buildings are grander, with larger sites and lawns and more elaborate ornamental landscaping. Splendid views, afforded by the ridgetop location, are available from within the buildings and at points along Jefferson Street. The most panoramic views, of course, are found at the site of the Clocktower building which occupies the most strategic and visible site at the promontory.

The remarkable architectural and visual unity of this subdistrict could be severely compromised by inappropriate design or siting of new buildings or additions. Future development on the slope south of Jefferson Street and on the slopes below the promontory is of particular concern. Other concerns include the retention of oak trees on the south slope which may be difficult if the property is developed. Additionally, the building at the northwest corner of Jefferson Street and Park Road interrupts the continuity of the residential officer's row. Pedestrian and vehicular circulation must also be adequately planned for if new development is to occur, given the lack of sidewalks, blocked access and private ownership of portions of Jefferson Street.

■ Future Development

1. *Retain designated major views and view corridors noted in Figure 6, especially to landmark buildings and the water or waterfront areas, and comply with the view preservation policies of Chapter Four.*

2. *Retain significant tree plantings on private sites and along streets, as shown in Figure 5. Permit removal of large trees only if a property is unduly constrained from development by their retention, and they are replaced at a higher ratio elsewhere on site.*

3. *Maintain the general topography which defines this subarea as a ridge, especially the embankment north of Adams Street and the promontory land form of the Clocktower Site.*

4. *Avoid development, grading or parking on steep slopes which would necessitate the use of tall retaining walls to create level building sites.*

5. *Require landscaped setbacks from the street for buildings, parking and loading areas consistent with the pattern of historic buildings on Jefferson Street.*

6. *Encourage joint development, especially of parking and circulation facilities, for adjoining properties.*

7. *Encourage replacement, redesign or visual screening of the structure at the northwest corner of Jefferson and Park Streets.*

8. *Enhance the unified identify of the subdistrict and its image as a former residential officers' enclave.*

■ Site and Landscape Treatment

1. *Locate parking lots to the side or rear of the buildings — wherever they will be least visible and obtrusive.*

2. *For sites south of Jefferson Street, permit vehicular access from Jefferson, not Adams Street, to minimize cuts and grading operations.*

3. *Retaining walls should not exceed four feet in height for any one vertical wall segment and should allow for a minimum planting strip of three feet both above and below them.*

4. *Provide residential type landscaping consisting of a front lawn with accent planting around the building.*

5. *Maintain existing street trees. Provide infill planting along the north side of Jefferson Street with the same species where trees are missing. Street trees along the south side should be chosen and planted so that the views will remain open.*

6. *Continue the pedestrian sidewalk on the north side of Jefferson Street where missing and secure public access easements over private street segments to allow for pedestrian access. Maintain the current linear alignment of the sidewalk and trees, and provide a planting strip between the curb and sidewalk.*

7. *Use dense tree planting to screen parking areas where appropriate, i.e., where views to historic buildings or water won't be obscured.*

8. *Encourage limited night lighting of facades for historic buildings along the ridge top, for example of public buildings while in use, and up-lighting of mature trees to add drama and highlight the district's presence on the horizon.*

9. *Require consistent treatment of the embankment on the north-side of Adams Street -- for example, a continuous low retaining wall of historically appropriate masonry material or poured concrete to resemble dressed stone, with a limited planting palette for the embankment above.*

10. *Provide area lighting for safety in parking areas. Use free-standing light standards and fixtures of a style compatible with the historic architecture of the subdistrict.*

■ Residential Buildings

The building design policies and guidelines in this section apply to new construction of residential buildings in this subdistrict and to any institutional buildings in the residential zoning district. Although intended principally for the design of new buildings, the design principles stated here would apply equally to additions or alterations to non-historic buildings. Additions and alterations to historic buildings are addressed in Chapter Five: Design Guidelines for Historic Buildings. **However, the guidelines on site improvements and signage which follow these building design guidelines would apply to all properties in this subdistrict, whether historic or not.**

Building Design

The following policies and guidelines apply to new residential construction, including additions or alterations to non-historic residential buildings, and to institutional buildings in residential zoning districts.

Policy 1: Siting And Setbacks

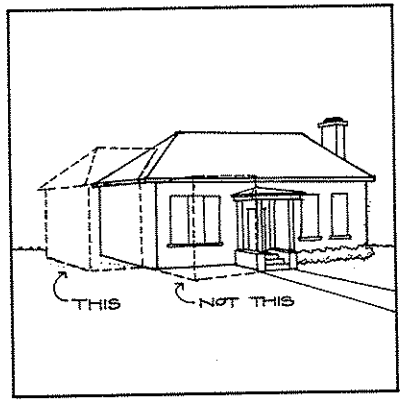
New residential development should maintain the pattern of building setbacks, spacing and siting of the adjoining historic residences and the neighborhood as a whole.

Guidelines

1.1 New buildings should generally be set back at least 20 feet from the front property line. Exceptions may be made if a lesser setback (i.e., the average along a block face or the average of two adjoining properties) would be more compatible with adjacent historic structures.

1.2 Provide side and rear yard setbacks as specified for the zoning district in which the property lies.

1.3 Additions should be sited to complement and balance overall form, massing and composition of the existing building.



1.3

2.2

Policy 2: Scale, Form And Massing

Encourage building forms which are similar in scale, form and massing to neighboring single family residential structures, particularly those of historic merit.

Guidelines

2.1 Ensure that the basic structure and form of the building is balanced and well composed with respect to the placement of room or floor additions, bays, projections, and window and door openings.

2.2 Larger, multi-family buildings should use smaller building modules to reflect the predominant scale and facade rhythms of nearby historic residences.

2.3 Use projecting bays, porches, individual balconies, upper floor setbacks, bay windows and/or variations within the floor plan to provide variation in the building's volume and form.

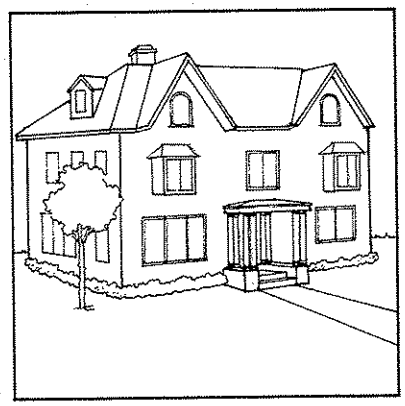
2.4 To minimize the height and bulk of larger buildings, third floor spaces should be partially concealed beneath the building's roof by the use of gables, dormers, and the like.

2.5 Access to upper floor units should be by interior, not exterior, stairs.

Policy 3: Architectural Style And Character

Discourage designs which call undue attention to themselves in favor of those which reflect the architectural qualities that tie the buildings of the district together.

2.3



2.4

Guidelines

3.1 Avoid replicating or mimicking the distinctive architectural features of landmark buildings which set them apart from other historic buildings.

3.2 Avoid the use of architectural styles or stylistic elements which are not represented in the residential types found throughout the historic district (e.g., ranch, colonial and prairie style buildings).

3.3 Where a single architectural style is predominant in a given area or along a street, the use of that style for new residential construction is strongly encouraged.

3.4 Provide a covered entry or entry porch which does not obscure the detail or composition of the facade beyond.

3.5 Use pitched roof forms with overhanging eaves.

Policy 4: Accessory Buildings

Accessory buildings such as garages, storage sheds, studios or workshops should be compatible with the main structure and

detailed in accordance with the structure's visual prominence and function.

Guidelines

4.1 Small sheds and prefabricated buildings should be sited so that they are not visible from the street. They should be the same base color as the main building or a compatible neutral shade.

4.2 Except for prefabricated buildings, accessory structures should be constructed of the same materials and finished in the same colors as the main structure.

4.3 Freestanding garages sited along alleys should generally be simply composed and detailed. Where permitted, garages or other necessary buildings which are visible from the street should be designed and detailed with the same level of care as the main structure.

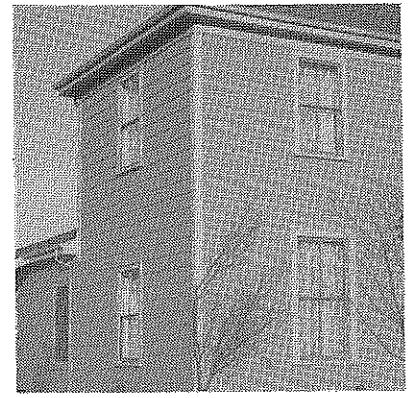
Policy 5: Materials And Color

Encourage the use of materials commonly used for the construction and finishing of historic buildings in the district and colors which complement those materials and styles.

Guidelines

5.1 Horizontal wood siding is the preferred principal building material. Stucco may be appropriate if it is the original or the predominant finish for adjoining buildings and may be used for institutional buildings.

5.2 Wood should generally be painted, not stained or left unfinished.



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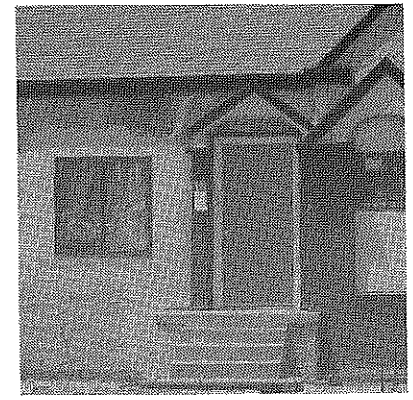

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5.3 Plywood, aluminum or other panel siding products and composition shingles (on walls) are inappropriate building materials.

5.4 Brick, stone, concrete and other types of masonry should not be used as principal residential building materials. They may be considered on a case by case basis for institutional buildings if appropriate to the context.

5.5 Metal or metallic finishes are generally inappropriate including handrails, porch railings, decorative iron work and aluminum canopies or awnings.

5.6 Chimneys should generally be of brick. Where zero-clearance or prefab units are used, avoid the use of plywood or wood sheathing. Stucco or a dark painted metal flue are preferable finishes.

5.7 Set in or "nail-on" aluminum windows with thin frames set close to the exterior wall surface are not appropriate.

5.8 Window frames should be painted or factory-finished. Metallic finishes such as silver or bronze anodized aluminum are inappropriate.

5.9 Colors which are neon bright, shiny, metallic iridescent or otherwise attention grabbing are inappropriate for paint or any other finish.

5.10 Rustic, rough-hewn, or heavily textured materials, such as wood shakes, rough-sawn timber or siding are inappropriate.

5.11 Composition shingles in a similar or darker tone than the building walls should generally be used for roofing. White and black colors which contrast strongly should generally be avoided. Mission style clay tiles or other decorative roofing materials are inappropriate as they are inconsistent with the architectural style of most residential buildings in the Arsenal.

Site Improvements

The policies and guidelines which follow apply to all residentially zoned properties, whether existing or new. The intent of these guidelines is to encourage site improvements that are consistent with the historic character of the residences in the subdistrict and will serve to unify the area into a visually more cohesive district. Additional guidelines relating to signage for residential buildings that have been converted to commercial or institutional use are found in the next section of this chapter under "Signage".

Policy 1: Planting & Paving Materials

Encourage landscape treatments which are appropriate to a residential neighborhood and enhance the character and unity of the historic district.

Guidelines

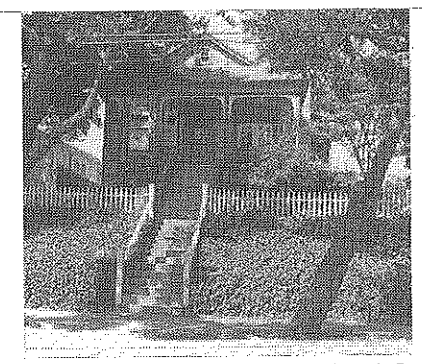
1.1 Landscaping with live plant material shall be the principal treatment of front and exterior side yard areas.

1.2 Mature trees, especially those which have historic associations with the building or the city's development, shall be retained unless diseased, hazardous or located such that development of the property is unduly constrained. "Volunteer" trees, whether mature or not, may be removed, subject to required approvals, if crowding or overgrown conditions exist.

1.3 Paving in front and exterior side yards shall be kept to the minimum area necessary for circulation and maintenance of plant material.

1.4 Decorative rock or gravel as the predominant ground plane treatment is inappropriate.

1.5 Crushed rock may be used for walkways only if it is a of a fine consistency and is contained at the edges by recessed headerboards or brick edging.



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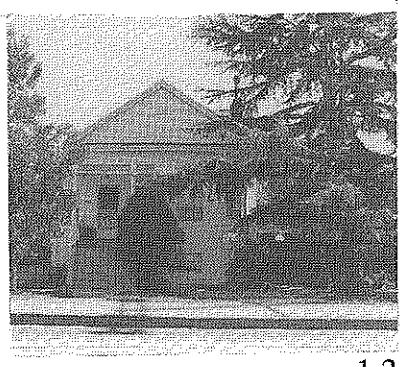

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1.6 Artificial turf or indoor/outdoor carpeting is inappropriate.

1.7 Planting within the public right-of-way shall be subject to the approval of the city. Only approved plant materials - designated street trees, lawn or other approved walkable ground cover - shall be used.

1.8 Property owners shall be responsible for the maintenance and replanting, if necessary, of lawn or ground cover in the curbside planter strip for the full frontage of the property. Street tree planting may be required in conjunction with new development.

Policy 2: Lighting

Encourage the use of residentially scaled light fixtures to supplement street lighting and to highlight and complement the historic and architectural features of residences.

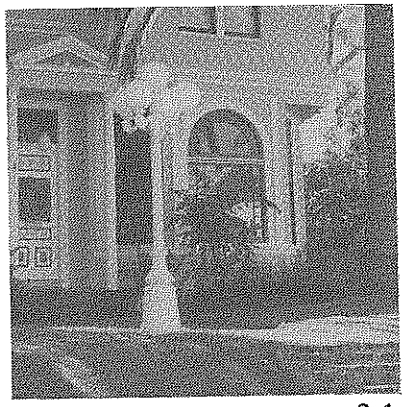
Guidelines

2.1 The use of historic, period style light fixtures is encouraged for exterior illumination.

2.2 The design and style of period light fixtures shall be consistent with that of the building and for the site on which they are placed.

2.3 Freestanding light fixtures should not exceed 8 feet in height, except in commercial parking lot areas or for larger-scaled institutional buildings where a maximum of 20 feet shall be permitted.

2.4 Light fixtures should be residentially scaled. Old street light fixtures intended for mounting on tall poles are generally too large for residential use.



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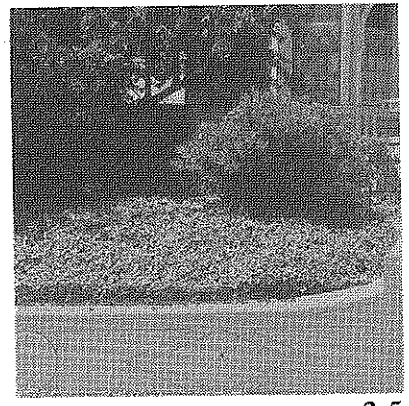

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Policy 3: Fences, Walls, Site Features

Use fences and walls in traditional designs and applications to set off residential buildings and define, but not obscure, their street-front garden areas.

Guidelines

3.1 Fences, walls and other site features associated with historic buildings shall be maintained in good repair. Where already deteriorated, replacement with like materials and designs is encouraged.

3.2 New fences in front yards should not exceed three (3) feet in height and should generally be constructed of wood slats in an open work pattern. Existing higher fences may be maintained if the design is sufficiently open and consistent with these guidelines.

3.3 Chainlink, chicken wire or other prefab metal fencing materials are inappropriate in front and exterior side yard areas.

3.4 Prefab or flimsy wood trellis should not be used as the principal material for fence construction but may be appropriate as a decorative element for higher fences (i.e., in rear or side yards).

3.5 Retaining walls should be constructed of dressed stone, field stone, or textured or split faced concrete block or poured concrete designed to resemble stone. Plain or rough textured poured concrete walls higher than 12 inches or plain cinderblock masonry unit walls are inappropriate.

Signage

These policies and guidelines apply to residential or institutional buildings which have been converted to commercial or public use where signage is required.

Policy 1: Signage Types

Encourage sign types and designs which are compatible with the residential features of the building and which will enhance the character of the district as a whole.

Guidelines

3.1 Three types of signs are permitted for this building type: freestanding, hanging (i.e., "under-marquee") and wall signs. Except for wall mounted directories or name plates, only one such sign shall be permitted for each building.

3.2 Signs shall be carefully designed and detailed with special attention given to framing elements, mounting hardware and color schemes. Decorative detailing using the architectural details typical of the building's style are strongly encouraged.

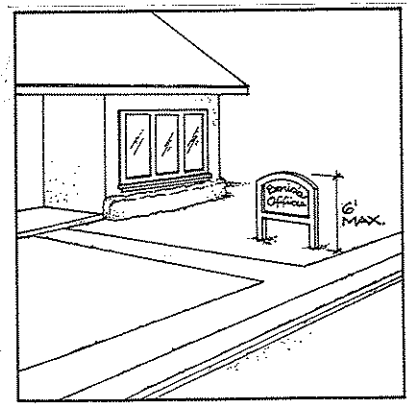
3.3 Freestanding signs should be finished on both sides and mounted close to the sidewalk in the front setback area in a location which is visible to passing motorists but does not obscure critical sight lines to or from the building, access drives or streets.

3.4 Freestanding signs shall be limited to 6 feet in height measured from grade at that point, and shall not exceed 12 square feet in area, as measured on a single side. Monument type bases, pillars or other architectural or structural supports are excluded from this area calculation.

3.5 Hanging or "under-marquee" signs shall be limited to 6 square feet in area and mounted below the roof eaves or porch at the building entry.

3.6 Wall signs shall be limited to 12 square feet in area and shall be mounted on a solid wall surfaces without obscuring architectural details or features.

3.7 Wall mounted directories or name plates shall be mounted adjacent to the entry door and are limited to 3 square feet in area.



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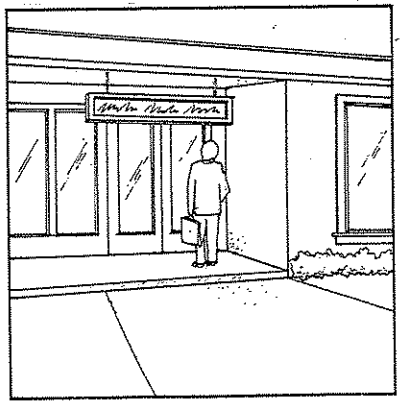

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Policy 2: Signage Materials and Illumination

Use materials and methods of illumination for signs which are compatible with the style and design of the building and historic character of the district.

Guidelines

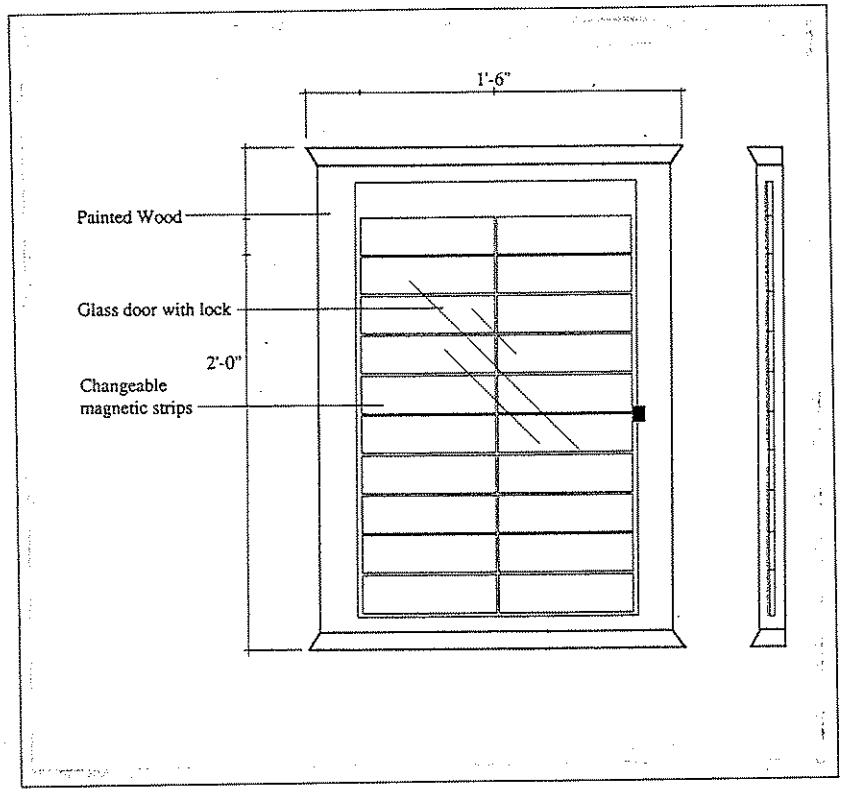
4.1 Wall mounted and hanging signs should be made of wood, either routed or smooth finished, and stained, sealed or painted. Painted metal panels, if well framed, or cast metal plaques may also be appropriate if compatible with the architecture.

4.2 Wall mounted name plates may be of cast or engraved metal, such as bronze, brass or aluminum, as long as the color and finish is appropriate for the style and materials of the building.

4.3 Wall mounted directories may be of wood throughout or of metal frame construction with changeable name plates of metal or matte finish plastic. Changeable nameplates should be well secured to the base or preferably mounted behind a lockable glass paneled frame.

4.4 Freestanding signs may utilize a combination of materials for the mounting base and sign panel. Appropriate sign panel materials are identified above in 4.1. Base elements may be of wood or metal poles and/or frames or masonry piers of a finish and color compatible with that of the building.

4.5 Where desired, illumination of signs shall be by indirect or inconspicuous sources, such as concealed or mini-spot lights.



■ Commercial Buildings

This section includes policies and design guidelines for all commercial properties developed with commercial, rather than residential, building types in this subdistrict. **The first part, Building Design, applies principally to new construction including additions or alterations to existing non-historic buildings.** Historic buildings are addressed in Chapter Five. **The sections on Signage and Parking and Site Improvements which follow, however, apply to all commercial buildings, including historic structures.**

Building Design

These guidelines are intended to promote commercial building forms for new construction that are sympathetic to the historic structures in subdistricts 2 and 3 and, at the same time, meet the needs of contemporary office and limited commercial users. As such, they reflect and are supportive of the current commercial zoning of those areas and predominant uses which occupy both the historic and new buildings. **These guidelines would not apply to the residentially zoned area of subdistrict 2 or to residential buildings which have been converted to commercial use.** However, they would also apply to properties in commercial zones which are designated for planned development.

Policy 1: Siting and Setbacks

Site relationships should respect the prevailing patterns along streets and take into account major view corridors.

Guidelines

1.1 New buildings should be set back from the property line at the street a minimum of 10 to 15 feet as required under the zoning. A greater setback may be required if necessary to match or approximate that of existing buildings along the block, or to ensure that major view corridors remain open.

1.2 For double frontage lots, the rear building setback shall be the same as the required front setback.

1.3 Provide adequate distance between structures to avoid the impression of overcrowding and to allow for views to and from landmark buildings and/or the water. A minimum building separation shall be provided equal to the height, measured at its perimeter walls, of the existing historic building or the proposed structure, whichever is greater.

Policy 2: Architectural Form

Encourage architectural forms which recall those of the adjoining historic structures, particularly where residential building types are close by.

Guidelines

2.1 Buildings should be simply composed of rectilinear forms and moderately pitched roofs with gable or hipped shapes. Terraced or split-level buildings are inappropriate.

2.2 Roof overhangs should be shallow with finished fascias or cornices, rather than exposed eaves. Low parapets, either continuous or located only at gable ends, may be used in conjunction with a cornice in lieu of projecting roof overhangs.

2.2

2.3 3.1

2.3 Provide a projecting covered entry or entry porch for the building's primary entry or entries.

2.4 To minimize the apparent height and bulk of larger buildings, third floor spaces should be set back from the street facade(s) and others as necessary to reduce the mass of the building.

2.5 Two story porches, verandas, second floor balconies and exterior stairs used for building egress or circulation are inappropriate unless located within an enclosed courtyard which is not visible to passers by.

2.6 Smaller buildings should generally adhere to simple square or rectangular shapes and volumes. For larger buildings it maybe desirable to vary the building form to reduce its apparent scale by using simple combinations of rectilinear shapes and plans such as "L", "H", "E" or "C" footprints.

Policy 3: Architectural Character

Commercial and/or institutional buildings should reflect the character and scale of nearby historic buildings, especially where residential buildings are in close proximity.

Guidelines

3.1 Avoid excessive use of glazing in facades. The area of window openings should generally not exceed that of solid wall in any given plane of the facade, with the exception of bay windows. Bay windows should only be used in areas where residential building types predominate, such as the ridgetop area of Subdistrict 2.

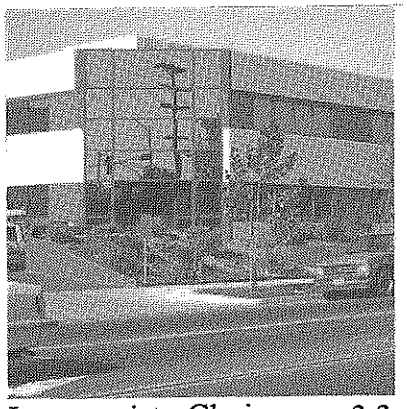
3.2 For buildings located in the ridgetop area of Subdistrict 2, use individually framed window and door openings which are vertically oriented with true divided window lights or double-hung configurations. Individual window frames may be paired or grouped to provide additional window area for ground floor retail or restaurant uses.

3.3 Commercial buildings in the plateau area (Subdistrict 3) may employ larger expanses of glass if glazed areas are enframed both horizontally and vertically by substantial areas of solid walls, pilasters, quoins, cornices, belt courses or other architectural features. Curtain wall systems shall not be used, however.

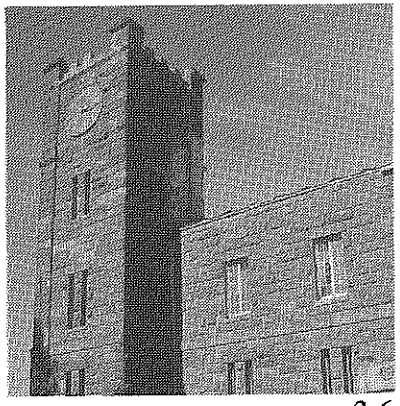
3.4 Window frames should be set in recessed openings to provide depth and shadow. "Nail-on" aluminum windows or others with thin frames set close to the exterior wall surface are not appropriate.

3.5 Avoid the use of styles with strong regional ties, such as Spanish Mediterranean Revival and Monterey, which were commonly used on other military installations but not for buildings in the Arsenal.

3.6 Avoid replicating or mimicking distinctive architectural styles or features of landmark buildings, such as the



Inappropriate Glazing 3.3



3.6

Clocktower, which set them apart from other historic buildings.

3.7 Architectural details, embellishments and projections should be used judiciously. Avoid designs which are overstated or create an indiscriminate mixing of stylistic elements.

3.8 Avoid the use of fabric awnings except in limited areas for retail uses.

Policy 4: Principal Materials and Finishes

Use materials for the principal wall surface of the building facade which have a durable, high quality finish and are compatible with those found on the historic buildings within the commercial districts of the Arsenal today.

4.1 Smooth or lightly textured stucco is the preferred principle building material for commercial buildings. Smooth finished concrete, poured in place or precast, may also be appropriate. Concrete should be painted if the integral finish does not provide a smooth, even color or if the final color is inappropriate.

4.2 Although brick was originally used for many of the historic buildings in the commercial districts, brick walls have been covered with stucco in most cases. Therefore, exposed brick or masonry should generally be avoided as a principle building material, especially adjacent to residential building types.

4.3 Examples of inappropriate principal materials and finishes for wall surfaces include the following:

- Imitation or processed materials, used brick, lava rock, Permastone, grooved plywood, and so on.
- Rustic or rough-hewn materials - rough-sawn wood siding, textured-finish plywood, shakes, field stone, cobblestone, and similar materials.
- Utilitarian or industrial type materials - corrugated or ribbed metal siding, plastic panels, plywood siding, concrete block or slump stone, rough or ribbed concrete and the like.

Policy 5: Accent Materials and Finishes

Secondary or accent facade materials should be compatible with principal facade materials and with those traditionally used on historic Arsenal buildings.

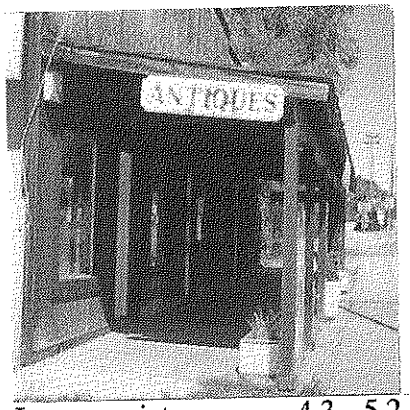
Guidelines:

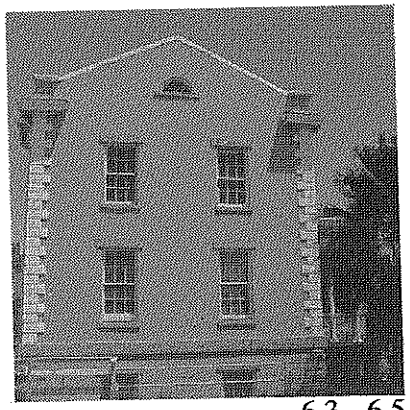
5.1 Appropriate secondary or accent facade materials include the following:

- Concrete, dressed stone, or split-faced concrete masonry units for building bases, window sills and heads, quoins and other detail or accent elements.
- Wood moldings and millwork, stamped or rolled sheet metal (painted finishes only), copper or lead architectural details - cornices, brackets, coping, gutters.
- Milled wood or steel pipe (painted) for railings.
- Tile, terra cotta or stone accents.

5.2 Examples of inappropriate secondary or accent materials are as follows:

- Wrought iron - ornate or spindly-looking.
- Heavy timber





Inappropriate Materials 4.3 5.2 6.3 6.5

- Shakes - wood, concrete or composition
- Clay tile for mini-roofs, parapet coping or other accent applications.

5.3 Use clear or lightly tinted glass in painted or clad wood frames or factory finished aluminum frames in matte finishes. Shiny metallic finishes such as anodized silver or bronze are inappropriate.

5.4 Composition shingles in neutral colors should be used for roofs. Heavily textured, rustic or metallic materials which would give the roof more visual prominence are inappropriate.

Policy 6: Colors and Finishes

Colors and finishes should be appropriate to the nature of the material, the historic character of the district, and the style of building. In times past, the officers' residences have been painted with one base color with only the major, plain horizontal trim elements highlighted in a darker, contrasting color. At present, the buildings are all painted off-white. This color with an optional trim color for the major horizontal elements is recommended.

Most of the non-residential buildings in today's commercial districts were originally exposed brick with light colored stone trim elements. Today the reverse is true - light buildings with darker trim. Either scheme would be appropriate for these buildings.

Guidelines

6.1 Integrally colored materials - brick, masonry, tile and so on - should not be painted if the original finish is still exposed.

6.2 With few exceptions (i.e., stain-grade milled wood doors), wood should always be painted.

6.3 Architectural elements, materials, or design compositions which are meant to suggest traditional masonry construction (i.e., quoins, engaged columns, pilasters, etc.) should be painted in colors which naturally occur in stone or masonry materials.

6.4 Where building facades are painted, the wall color should be light to medium dark, ranging from off-whites and pale neutral pastels to earth-toned neutral colors. Avoid bright whites and deep, dark colors.

6.5 On stucco or painted concrete buildings, architectural trim and detailing may be painted in the same color as the facade or highlighted with lighter or darker colors which complement that of the facade.

6.6 On unpainted masonry or concrete buildings, trim colors may contrast with or closely match the color value of the masonry as long as the trim color is earth-toned or neutral.

Signage

The guidelines which follow shall apply to (non-residential) building types in commercial use, whether existing or new. Although the guidelines are intended to promote a unified appearance within the Arsenal's commercial districts, they acknowledge the difference in scale between the historic structures and some of the newer commercial buildings. Therefore, the allowable sign area differs in accordance with the size of the building.

Policy 1: Signage Types

Encourage sign types and designs which are compatible with the scale and elements of the buildings and which will enhance the character of the district as a whole.

Guidelines

1.1 Two types of signs are permitted: freestanding and wall signs. Individual tenant name plates (Guideline 1.7) and a wall-mounted building directory sign, (Guideline 1.6) are permitted for each property in addition to one freestanding monument type sign (Guidelines 1.8 - 1.9). If additional signage or numbers of signs are permitted under Title 18, up to two wall signs (Guidelines 1.4 -1.5) shall be permitted as well.

1.2 Window graphics or awning signs may be permitted on a case by case basis for retail uses, subject to approval by the Planning Director.

1.3 Signs shall be carefully designed and detailed with special attention given to framing elements, mounting hardware and color schemes. Decorative detailing using the architectural details typical of the building's style is strongly encouraged.

1.4 Wall signs shall be limited to a maximum size of 20 square feet each for structures of 5,000 square feet or less and 40 square feet each for those greater than 5,000 square feet. They shall be mounted below the second floor window sill or cornice line, whichever is lower, and no more than one such sign shall be affixed to any wall of the building. The sign should be mounted on a solid wall surface without obscuring architectural details or features and its scale shall not overpower that of the building facade, even if its size is within the allowable square footage otherwise permitted.

1.8

1.5 The content of the wall sign shall be limited to the name and/or address of the building or that of the building's major tenant only. Large scale exterior wall-mounted building directory signs are inappropriate in this business park setting.

1.6 A small building directory sign, up to 10 square feet in area, may be mounted on the wall at the pedestrian entry to the building.

1.7 For buildings with multiple individual entries, small name plates identifying each occupant will be permitted. The name plate shall be mounted on or adjacent to the entry door and is limited to one square foot in area.

1.8 Freestanding signs should be finished on both sides and mounted close to the sidewalk in the front setback or parking area in a location which is visible to passing motorists but does not obscure critical sight lines to or from the building, access drives or streets.

1.9 Freestanding signs shall be limited to 6 feet in height measured from grade at that point, and shall not exceed 20 square feet in area, as measured on a single side, for structures of 5,000 square feet or less. Larger structures will be permitted 30 square feet of sign area. Monument type bases, pillars or other architectural or structural supports are excluded from this area calculation.

Policy 2: Signage Materials and Illumination

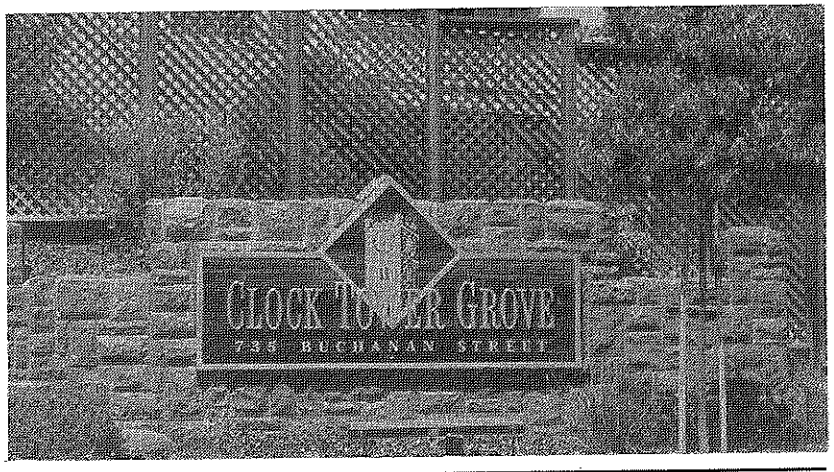
Use materials and methods of illumination for signs which are compatible with the style and design of the building and historic character of the district.

Guidelines:

2.1 Wall mounted signs should be made of wood, either routed and stained, sealed or painted, or smooth-finished and painted. Painted metal panels, if well framed, or cast metal plaques may also be appropriate if compatible with the architecture. Individually mounted letters of non-glossy metal or plastic, or of painted wood, may also be used.

2.2 Wall mounted name plates may be of cast or engraved metal, such as bronze, brass or aluminum, as long as the color and finish is appropriate for the style and materials of the building.

2.3 Free standing signs may utilize a combination of materials for the mounting base and sign panel. Appropriate sign panel materials are identified above in 2.1. Base elements may be wood or metal poles and/or frames or masonry piers of a finish and color compatible with that of the building.



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2.4 Where desired, illumination of signs shall be by indirect or inconspicuous sources, such as concealed or mini-spot lights, rather than internal illumination which is not in harmony with the historic character of the district.

Parking and Site Improvements

These guidelines apply to all commercial properties, existing or new, regardless of historic merit. Their intent is to minimize the intrusion of site improvements, especially those relating to parking and service areas, which can disrupt the visual continuity of the streetscape and the historic district.

Policy 1: Design of Parking and Service Areas

Design and locate site improvements for parking and service areas so that they do not detract from adjacent uses or historic structures, particularly residential ones, or from the historic character of the district.

Guidelines

1.1 Parking areas shall be located beside, behind or in front of the building according to the predominant pattern or requirements of the subdistrict design policies.

1.2 Parking lot setbacks and landscaping requirements are as specified in Section 17.70.190 of the Benicia Zoning Ordinance.

1.3 Parking lots or access drives should be located to avoid steep slopes and minimize grading and paving.

1.4 Parking areas serving 5 or more cars shall be screened from adjoining residential uses by a solid wall or fence of concrete, wood or masonry, not to exceed six feet in height.

1.5 Outdoor lighting sources for parking lots shall not exceed 20 feet in height, whether freestanding or wall mounted. The design of the luminaries shall be appropriate to the building and compatible with the architectural character of the district. Light sources shall be designed with a cut-off angle to avoid producing glare on adjacent properties.

Policy 2: Landscaping

Promote a unified design concept in distinct subareas through the appropriate selection of plant material and the maintenance of mature landscaping.

Guidelines

2.1 Landscaping with live plant material shall be the principal treatment of required front and exterior side yard setback areas. Exceptions for parking in these areas will be considered on a case by case basis.

2.2 Mature trees, especially those which have historic associations with the building or the city's development, shall be retained unless diseased, hazardous or located such that development of the property is unduly constrained. When necessary to remove a mature tree, it shall be replaced with a minimum of two 24 inch box specimens planted on site.

2.3 New commercial development in the ridgetop area shall be landscaped with the same plant palette - lawn, ornamental shrubs, and flowers - as the nearby historic officers' quarters.

2.4 Planting within the public right-of-way shall be subject to the approval of the city. Only approved plant materials - designated street trees, lawn or other approved ground cover - shall be used.

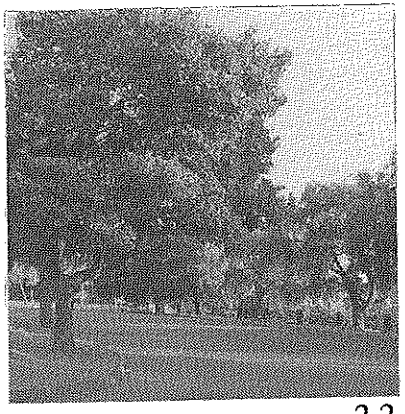
2.5 Property owners shall be responsible for the maintenance and replanting, if necessary, of lawn or ground cover in the curbside planter strip for the full frontage of the property. Street tree planting may be required in conjunction with new development or substantial renovations.

2.6 Require dedicated public easements for pedestrians across private property where necessary to facilitate pedestrian movement, especially between areas which are not served by public sidewalks.

2.7 Where practical, use existing stairways and improve them as required to link areas and buildings at different elevations.

Policy 3: Fences, Walls and Pedestrian Paths

Retain the sense of visual openness and promote pedestrian circulation within and between subdistricts by the judicious use of walls and fences and placement of pedestrian paths.



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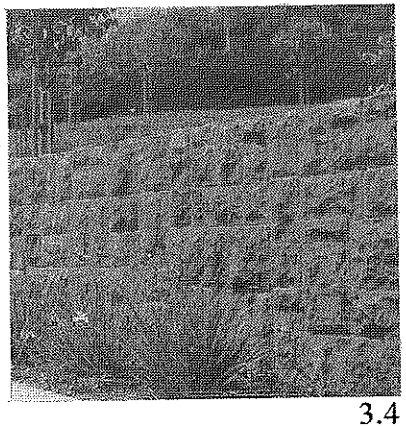

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Guidelines

3.1 Avoid the construction of fences except where necessary to screen service areas or protect public safety.

3.2 Refuse storage areas shall be located in a screened enclosure accessible from the parking lot drives or aisles. Such enclosures shall consist of a 6-foot solid wood or masonry wall, and solid gates and may be covered over with trellis work if appropriate.

3.3 The material, finish and color of fences and enclosure walls shall be consistent with those of the building and appropriate for the building type. Wood fences should generally be used adjacent to residential uses. Elsewhere, stucco, smooth finished concrete or masonry, other than cinderblock, would also be appropriate.

3.4 Retaining walls should be constructed of dressed stone, field stone, textured or split-faced concrete block, or poured concrete designed to resemble stone. Plain or rough textured poured concrete walls higher than 12 inches or plain cinderblock masonry unit walls are inappropriate in areas open to public view.

3.5 Fences and retaining walls should be bordered on at least one side by planting, rather than only paving.

Subdistrict 3: The Plateau/Headquarters

This subdistrict occupies the relatively level ground set on a plateau between the waterfront below and the ridge above. It is serviced principally by a loop road system formed by Grant and Adams Streets. Its western edge marks the perceived entry to the historic district when the Administration Building of 1942 first comes into view.

The historic buildings are predominantly administrative and shop buildings with several special purpose structures such as the Barracks and Guard House. Many of these have been well adapted to office use. New infill office buildings on Adams Street blend in well with the character of the district. Several of the contributing historic buildings are very utilitarian in nature with little in the way of stylistic features. Their significance derives more from their historical function within the Arsenal, rather than from their architectural significance.

Design issues associated with this subdistrict include potential view blockage, circulation and directional problems and the relationship of lot size to building size for historic structures. There are several potential development sites where new construction may impair views of historic structures or the water if not carefully sited. Regarding circulation, several critical intersections require directional signage as most of the traffic destined for the Arsenal area funnels through Grant and Adams Streets. The intersection at Grant and Polk is most confusing and likely to lead first time visitors astray. As to lot size, the city's current standard for this zoning district, 7,500 square feet, may be too large for some existing buildings as the associated land values will drive property owners to consider overscaled or inappropriate additions to smaller historic structures, or even demolition.

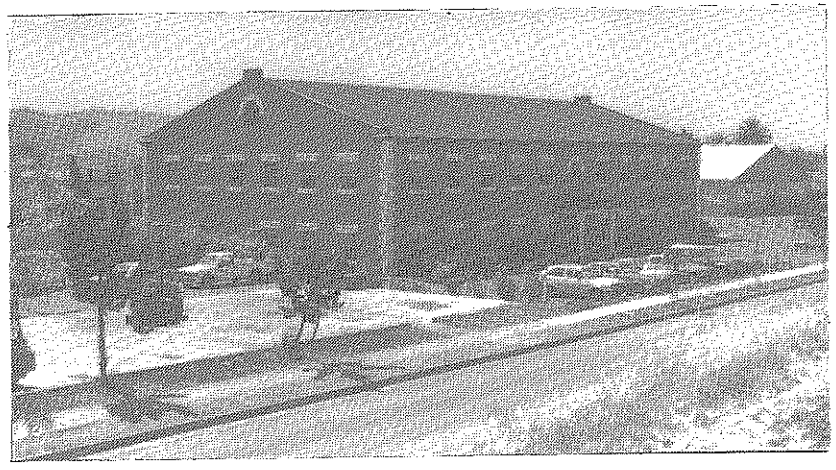
■ Future Development

1. *Maintain views of landmark quality buildings from adjacent streets, and maintain sightlines between the former Barracks, and Headquarters Buildings (Nos. 45 and 47) as noted in Figure 6, and comply with the view preservation policies of Chapter Four.*

2. *Require a uniform landscaped front setback along Adams Street, consistent with recent infill development.*

3. *Require setbacks from all street frontages at the site bounded by Adams Street, Park Road South and Polk Street if new development occurs so that current development patterns and site topography are maintained. Do not allow vehicular access to this site from Park Road South.*

4. *Setbacks along Grant and Polk Streets may be waived due to site and topographic constraints.*



Recent Commercial Development in Subdistrict 3

5. *Allow exceptions to minimum lot sizes where necessary to preserve historic buildings intact — i.e., without additions necessitated by the cost of surplus land on the parcel—as long as the integrity or important views of the historic structure will not be compromised by the new development that results.*

6. *Encourage joint development of adjacent properties with coordinated parking, circulation and access where feasible.*

7. *Require an overall development concept plan where adjacent properties are in joint ownership prior to substantial construction or subdivision.*

8. *Promote the development of a distinct identity for this subdistrict either alone or together with others in the lower Arsenal. Encourage public awareness of this part of the district and simplify access and directional signage where possible.*

9. *Consider installing four-way stop signs at the intersection of Grant and Polk Streets and Park Road South to allow motorists sufficient time to read directional signs.*

10. *Consider nominating the former headquarters Building (No. 92) for listing on the National Register of Historic Places.*

■ Site and Landscape Treatment

1. *For structures fronting along the south side of Adams Street, locate parking adjacent to the street, behind small landscaped setbacks but in front of the buildings.*

2. *Elsewhere, locate parking adjacent to or behind buildings.*

3. *Develop a consistent planting palette for setback areas and street trees, particularly along Adams Street and require new development to install planting which conforms.*

4. *This use of freestanding directory signs for multi-tenant buildings is strongly encouraged especially where buildings are set well back from the street.*

5. *Provide pedestrian connections between adjacent parking areas and discourage the use of fences to separate them.*

6. *Where retaining walls are required, use stone or textured concrete blocks, not cinder block or poured concrete, unless it is scored and textured to resemble dressed stone.*

7. *Provide area lighting for safety in parking areas. Building mounted downlights or freestanding light standards up to 20 feet in height may be used. Avoid ornate period style fixtures, which are more appropriate to residential buildings, in favor of simpler classic styles.*

■ Commercial Buildings

The policies and design guidelines for commercial properties which govern building design, signage and parking and site improvements for Subdistrict 2 shall also apply in Subdistrict 3. Please refer to pages 65 to 73 for these guidelines and policies.

Subdistrict 4: The Flats/Waterfront

This subdistrict is clearly defined along the northern edge by the slope which marks the limits of the plateau area above. Its southern boundary is defined not by topography but by land use and the presence of historic resources. The area houses a number of professional offices, artist's and artisan's studios and even retail operations, particularly in its historic structures. The building type, however is consistently industrial/warehouse, whether built for military or civilian use. The central part of the subdistrict has recently been rezoned from IG - General Industrial to PD - Planned Development. The balance remains in the IG designation.

The only landmark quality structures are the three shop buildings, dating from 1876 to 1884. These, however, are remarkable buildings, imposing and impressive, which form a magnificent complex despite the later, unfortunate additions which encase them. Though few in number, the contributing historic structures represent a large portion of the building mass and square footage in the subdistrict. The later, non-historic buildings, with few exceptions, contribute architecturally to the character of the subdistrict despite their lack of historic significance. Their rectilinear forms and strong linear orientation to the street give a strong visual unity to the central area of the subdistrict.

The location of one of the historic buildings in the waterfront industrial area, the Storehouse (No. 48), may give rise to potential conflicts between buildings and port-related uses, due to its isolation and the expanses of open, paved areas adjacent to it. The issues of maintenance and the deterioration of some historic structures are also of concern, as well as the appropriateness of certain uses for historic structures and the building code issues that arise when heavy industrial uses are found under the same roof with office or light commercial. These issues will have to be addressed on a case by case basis.

An additional factor which bears on the appropriateness of certain land uses, especially retail, is the difficult access and circulation, especially for pedestrians, and the lack of designated and safely accessible parking areas. It is anticipated that some of these issues will be resolved through the recent implementation of Planned Development zoning and anticipated improvements to parking areas planned by the developer.

■ Future Development

1. *Maintain views of landmark buildings and the water from above as noted in Figure 6, and comply with the view preservation policies of Chapter Four.*

2. *Allow uses which are compatible with and promote adaptive reuse of historic structures, even if not permitted under industrial zoning, through the use of PD zoning or by granting exceptions to land use regulations as permitted under the H Historic Overlay District, as long as safety concerns are satisfied.*

3. *Require the removal of inappropriate additions to historic buildings over time.*

4. *Locate new buildings/additions with orientations similar to those of other buildings (i.e., parallel or perpendicular to the street).*

5. *Require submittal and approval of future development plans prior to considering permits for substantial grading, new roadways or demolition of historic buildings.*

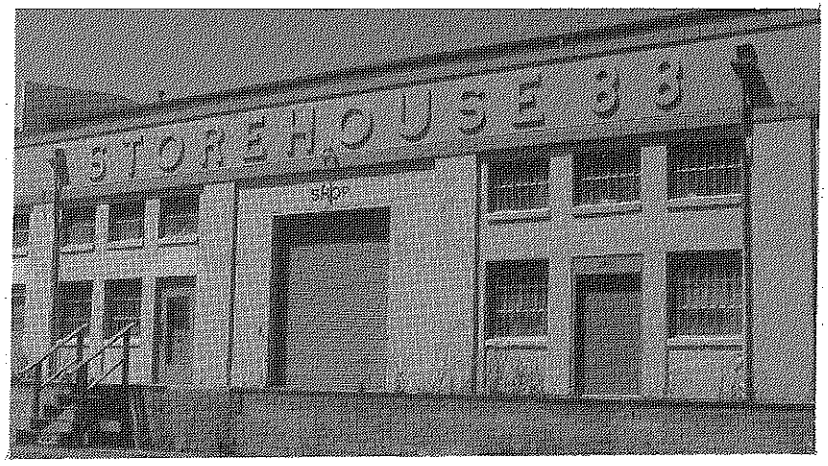
6. *Promote the development of a distinct identity for the subdistrict either alone or as part of the lower Arsenal to encourage public awareness of this area and to simplify access and directional signage.*

■ Building Design

1. *For new construction use form and massing similar to existing buildings—simple rectangular blocks with a consistent pattern of window and door openings.*

2. *Roof forms should be industrial: flat or simple gables, with or without projecting light monitors.*

3. *Building materials should convey a sense of mass and permanence. Avoid those with a flimsy or lightweight appearance, such as standard corrugated metal or wood. Where stucco is used, ensure that building corners and bases are well protected from potential truck traffic, either through the use of stronger materials or corner guards.*



Typical Waterfront Industrial Building in Subdistrict 4

4. *Use minimal ornamentation on buildings, of an appropriate scale for the structure.*

5. *Include scale-giving elements - well proportioned window and door openings, a clear pedestrian entry, simple belt courses or structural bays expressed on the exterior of the building.*

6. *For roofing materials (where visible), use composition shingles, or seamed, but not corrugated, metal.*

7. *Retain existing openings, window sash and other original elements or materials in historic buildings.*

8. *Allow raised docks and loading areas to be visible, rather than screened, if they form a major element of the building's composition. Small service areas and loading docks, however, should be screened.*

9. *Signage should be mounted on the building wall, not free-standing, unless approved as part of a planned development. Allowable sign areas shall be as permitted under Title 18.*

10. *Building addresses should be highly visible, and may be part of an overall graphic design integrated into the paint and design scheme for the facades.*

■ Site and Landscape Treatment

1. *Parking and loading areas should be clearly marked with striping.*

2. *Locate parking where access is clear, safe and visible.*

3. *Site landscaping, especially to screen parking and mark building entries, shall be provided in the P-D zone. Landscaping, however, should not block significant views.*

4. *Provide area lighting for safety, especially where parking areas abut buildings, using building mounted down lights to reduce glare. Use freestanding light standards of a simple utilitarian design only for larger parking areas as required for safety. Avoid ornate period style light fixtures in favor of basic designs appropriate to an industrial area.*

5. *Where security fencing is required, open wire fences are preferred to maintain views out to waterfront. Chainlink fencing is acceptable except on street frontages where black coated wire is required.*

6. *The design of site improvements, such as guard rails, overpasses and the like should be simple in keeping with the industrial character of the area. The use of heavy timber and concrete is encouraged. Older bridges, abutments and rails should be maintained with their original design and materials.*

Appendices

A. Significant Dates in the Development of the Benicia Military Reservation
B. Criteria for Listing in the National Register of Historic Places
C. Historic Resources Within the Arsenal Historic District
D. Historic Resources Outside the Arsenal Historic District
E. Glossary of Terms
F. Historic Conservation Plan Resource Survey Form

Appendix A

SIGNIFICANT DATES IN THE DEVELOPMENT OF THE BENICIA MILITARY RESERVATION

Date	Event
1849	Robert Semple and Thomas O. Larkin donate 345 acres of Benicia land to the U.S. Government for use as a military reservation (April 16).
	General Persifer F. Smith, U.S. Army Commander of the Pacific, moves his headquarters from San Francisco to Sonoma and then to Benicia.
	Benicia Barracks is established on 99 1/2 acres in the northwest corner of the military reservation.
	General Depot for the Quartermaster Corps is established in the southern portion of the military reservation, 3/4 mile south of the Barracks.
1850-51	First wood-frame buildings are erected at the Benicia Barracks.
1852	The Benicia Arsenal is established in the northern portion of the reservation.
1856	The Barracks hospital is constructed along with a parade ground and wood -frame quarters as part of the Benicia Barracks installation.
1857	A new Arsenal site is chosen on the bluff overlooking Carquinez Strait.
	General Smith moves his headquarters back to the Presidio in San Francisco.
1858	Arsenal installation takes over the land occupied by the Quartermaster's Depot.
1870's	Army grants right-of-way to the railroad along the shoreline south of the Arsenal.

SIGNIFICANT DATES IN THE DEVELOPMENT OF THE BENICIA MILITARY RESERVATION

Date	Event
1898	The last soldiers are housed at the Benicia Barracks.
1924	Benicia Barracks land and hospital building are taken over by the Arsenal installation.
1941-2	Arsenal property is expanded from 345 to 2,192 acres.
1960	Decision to close the Arsenal is announced.
1964	The Arsenal's activities are transferred to Tooele Ordnance Depot in Utah.
1962	Arsenal land is transferred to Surplus Property Authority of the City of Benicia.
1975	Arsenal land and most structures are traded to Benicia Industries for a downtown marina site.

Appendix B

THE CRITERIA OF THE NATIONAL REGISTER OF HISTORIC PLACES

The following criteria are designed to guide the States, Federal agencies, and the Secretary of the Interior in evaluating potential entries (other than areas of the National Park System and National Historic Landmarks) for the National Register:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. that are associated with events that have made a significant contribution to the broad patterns of our history; or

B. that are associated with the lives of persons significant in our past; or

C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. that have yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. a religious property deriving primary significance from architectural or artistic distinction or historical importance; or

B. a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

C. a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life; or

D. a cemetery that derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

E. a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

F. a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or

G. a property achieving significance within the past 50 years if it is of exceptional importance.

For further information on the National Register criteria and how to interpret them, contact the National Register office of the National Park Service.

Appendix C

HISTORIC RESOURCES WITHIN THE ARSENAL HISTORIC DISTRICT

		Name/Address	Date	Former Arsenal Building No.[1]	Recognition [2]
LANDMARKS	A.	Post Hospital	1856	1	NRD, HABS
	B.	Magazine	1855	2	NRD, HABS
	C.	Storehouse (Camel Barn)	1853-1855	7	NRD, HABS
	D.	Engine House	1855-1856	8	NRD, HABS
	E.	Storehouse (Camel Barn)	1854-1855	9	NRD, HABS
	F.	Powder Magazine	1857	10	NRD, HABS
	G.	Officer's Quarters	1870	35	NRD, HABS
	H.	Officer's Quarters	1870	34	NRD, HABS
	I.	Officer's Quarters	1870	33	NRD, HABS
	J.	Officer's Quarters	1868	24	NRD
	K.	Officer's Quarters-Duplex	1874	25-26	NRD, HABS
	L.	Lieutenant's Quarters	1874	27	NRD, HABS
	M.	Commanding Officer's Quarters	1860	28	NRD, HABS
	N.	Storehouse (Clocktower Bldg.)	1859	29	NRD, HABS
	O.	Guard House	1872	39	NRD, HABS

[1] Indicates former Army designation number

[2] NRD within district listed on the National Register of Historic Places
HABS Historic American Building Survey
BCRS Benicia Cultural Resources Survey - Highest rating

HISTORIC RESOURCES WITHIN THE ARSENAL HISTORIC DISTRICT

		Name/Address	Date	Former Arsenal Building No.[1]	Recognition [2]
	P.	Barracks	1872	45	NRD, HABS
	Q.	Office (Headquarters) Bldg.	1870	47	NRD, HABS
	R.	Shop	1877	57	NRD, HABS
	S.	Shop	1884	56	NRD, HABS
	T.	Blacksmith Shop	1876	55	NRD, HABS
	U.	Photo Lab	1921	74	HABS
	V.	Shop	1911	48	HABS
	W.	Administration Building	1942	92	BCRS
POTENTIALLY CONTRIBUTING BUILDINGS	a.	Magazine	1930	81	
	b.	Magazine	1929	76	
	c.	Magazine	1929	75	
	d.	Magazine	1930	83	
	e.	Magazine	1930	82	
CONTRIBUTING BUILDINGS	f.	Garage	1919	42	
	g.	Stables	1908	51	
	h.	Storehouse	1920	52	
	i.	Powerhouse	1920	70	
	j.	Storehouse	1919	69	
	k.	Storehouse	1919	68	

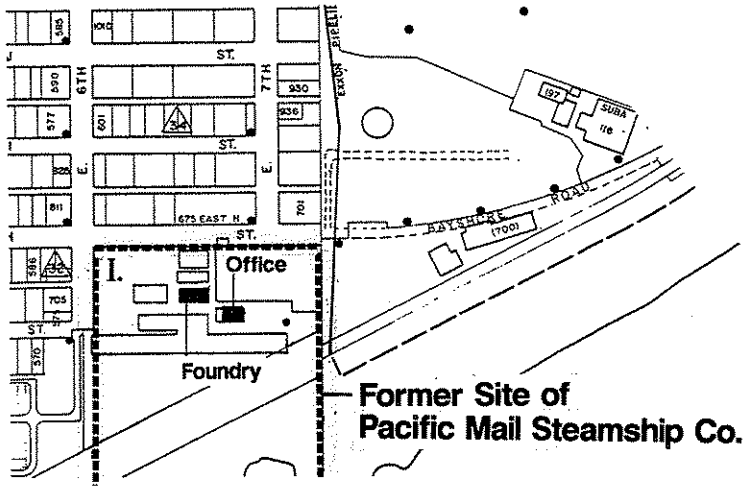
[1] Indicates former Army designation number

[2] NRD within district listed on the National Register of Historic Places
HABS Historic American Building Survey
BCRS Benicia Cultural Resources Survey - Highest rating

Appendix D

HISTORIC RESOURCES OUTSIDE THE ARSENAL HISTORIC DISTRICT

		Name/Address	Date	Recognition
LANDMARKS	I.	Pacific Mail Steamship Co. Depot & Shops Southeast of 6th and H Streets • Main Office • Foundry building	ca. 1853	NR[1] (nomination)



[1] Contained within a site eligible for listing on the National Register of Historic Places

Appendix E

GLOSSARY

Cornice: A molding at the top of an outside wall which overhangs it and has the function of throwing drops of water away from the wall. Cornices also occur at the junction of an inside wall and ceiling. A molded cornice is one that is enriched by a molding. When the ends of a gable roof are outlined by a molded cornice, this is described as a raking cornice. Cornice boards are simply flat boards that cover the edge of the roof eaves to protect them from the weather.

Cover boards: Literally, boards that cover up the joints where walls meet at the building's corners.

Dormer: A vertical window or opening rising through the roof and provided with its own roof.

Entablature: A term used in Classical architecture where it refers to the upper part of the wall usually composed of a series of moldings set out from the wall next to the roof. The entablature is divided into an architrave, frieze, and cornice.

Gable roof: A roof pitched in two directions or having two slopes that meet at a ridge.

Hip roof: A roof pitched in four directions or having four faces that slope toward the center but do not meet in a point as the pyramidal roof does.

Modillion: As small, block-like element that is typically set in a series on the underside of a cornice and is often decorated. Although modillions were originally functional supports for the overhanging cornice, they became non-functional or ornamental in most buildings from the 19th century on.

Parapet: A low wall guarding the edge of a roof, bridge, balcony, etc. on the building, this wall rises above the roofline.

Pediment: Typically the triangle formed by the edges of a gable tied together by a horizontal member at the bottom. Pediments occur on the gable-ends of roofs and over doors and windows. In the case of doors and windows, the pediment, also call a head may be triangular or may have a rounded or segmental top.

Pilaster: A column or pier that is partially embedded in the wall, not free-standing.

Tracery: The use of window mullions to form a decorative pattern in windows in Gothic-style buildings.

Trefoils and Quatrefoils: A decorative motif made up of three-lobes in the first case and four in the second, like a cloverleaf.

Appendix F: Historic Resource Survey Form

BENICIA HISTORIC CONSERVATION PLAN RESOURCE SURVEY

For: City of Benicia By: Sally B. Woodridge and Wurster, Bernardi and Emmons, Inc.

Address: _____

A.P.N.: _____

Historic District: ____ Downtown
____ Arsenal Park
____ None

Date of Photo(s): _____

Date of Construction: _____ ____ Factual ____ Estimated

Common/Historic Name: _____

Architect: _____ **Builder:** _____

Significance: ____ 1 Landmark
____ 2 Recommended Landmark
____ 3 Contributing to District
____ 4 Potentially Contributing

Designation: (include date) _____ National Register
_____ State Landmark
_____ Local Landmark

Significant Features: _____

Historic Associations: _____

Condition: (At time of Survey) _____

Related Features and Surroundings: _____

Alterations: Structure Moved? ____ Yes ____ No Date: _____
Reversible? ____ Yes ____ No ____ Maybe

Description of Alterations: _____