

The other important component of the redesign of the batteries involved placing soil in front of the batteries. Large loads of soil were brought, mostly, from Angel Island, and used on Alcatraz to create artificial slopes in front of the batteries. (Hart 1996: 10)

### 3. Circulation

The basic road system from the pre-Civil War era remained in place.

### 4. Major Areas

#### Wharf Area

The wharf located on the southeast side of the island remained the main access point to the island. (A dock located on the northwest side below the quarry operations was only used for loading rock.) At the wharf area, work was undertaken during the mid-1880s to repair the wharf and add additional structures related to the operations of the wharf, such as coals sheds and a boathouse.

Work began on the construction of the Bomb Proof Barracks, located against the hillside on the west side of the wharf area, in 1865 but was suspended in 1867. In the fall of 1874, a new barracks was completed at this location. In 1905-1906, a new concrete block barracks (Building 64) was built on top of the Bomb Proof Barracks. (Martini 1990: 152)

The level area behind (to the west) of the Bomb Proof Barracks is shown as having planting beds in a 1905 map (Daly 1905).

#### Lower Prison

In 1863, a wood-frame, prison building was constructed on the hillside on the west side of the road, just north of the guardhouse. Then in 1867, this building was removed and replaced with a brick building. Over the next decade, a group of buildings were built that housed the various functions of the prison. This complex was known as the Lower Prison after the construction of the Upper Prison complex in 1900. (Martini 1990: 154)

#### New Parade Ground

At the second switchback on the main road, the section of the road that continued to the south end of the island provided access to the Parade Ground terrace. Mendell intended this area to be a parade ground and the site for permanent quarters. This area remained open from ca. 1890-1900. Then in 1900, the Upper Prison complex of buildings was built here since this provided the only large level site available for new construction. It was expanded in 1904. This complex consisted of a collection of wood-frame buildings (three cellblocks, a washhouse, a mess hall and kitchen, and a workshop) surrounded by a 12-foot-high wood stockade fence that had a raised guards' walkway attached to the outside. A guardhouse was located just outside the fence on the southeast edge of the parade ground. (Daly 1905, Turner 1909, Martini 1990: 90-91, and Martini 2002; 44)

#### Southwest Cluster

On the southwest side of the island, the group of clusters of "temporary" wood buildings, from the pre-Civil War construction period, remained in place. Three of these buildings burned (stables, laborers' quarters and laundress's quarters) in 1888. (Thompson 1979: 188)

## Hospital and NCO Quarters

At the third switchback of the main road, a hospital, built in 1882 and expanded in ca. 1900, was located on a terrace below the row of three NCO quarters (Nos. 12-14). The level area around the NCO's quarters was enlarged in the early 1870s, during the excavation work for the masonry fortifications, and by the late 1890s, a gymnasium and house for the hospital steward were located at the north end of this area. A new section of road was built, after 1867 and by 1879 that led up the hill on the west side of these buildings to the northwest corner of the Citadel. (Ernst 1867 and Presidio 1879)

## Officers' Row

During the work for the earthen fortifications, a level area had been created below and east of the Citadel. A row of three officers' quarters was built here in 1881.

## Summit

The lighthouse and Citadel remained in place on the top level of the island. During the 1860s, several small wood buildings (including a bowling alley and bakery) were built on the slope to the southeast of the lighthouse. This slope was removed during the excavation work on the south end of the island between 1870 and 1890.

## North End of Island

In addition to the topographic changes that resulted from the excavations related to Mendell's plan, rock was also quarried from the northwest side of the island. This quarrying operation seems to have been established in conjunction with the "never-ending punishments for the soldier-prisoners" of quarrying and breaking rock rather than in response to any specific plan for construction on the island. After 1876, when construction on the batteries ended, the northwest side of the island had been abandoned. The rock from the quarry was used as crushed rock for paving materials on Alcatraz and on other military posts in the area. Rock was being quarried from this area by 1902, and the operations continued until the 1930s. (Martini 2002: 32-33) (The quarrying in this area probably began after the completion of the excavations of the Parade Ground on the south end of the island when a new location was needed for the prisoners who were assigned to quarry and break up rock.) At some point a dock was built on the northwest side of the island to provide access for the boats that came to the island to be loaded with the rock. This dock is shown on the 1933 map of the island that was prepared just before the Army relinquished control of the island to the Bureau of Prisons. (U.S. Army 1933)

## 5. Garden and Vegetation Features

### General Garden and Vegetation Characteristics During This Era

Gardens and small lawns were created on the flat areas of land that were adjacent to the Citadel and to the various quarters on the island. In order to be able to plant these spaces, pits were blasted or dug out of the rock and soil was brought in. Garden areas also needed to be sheltered from the strong westerly winds, and they had to be convenient to water sources (water from the residences or by canvas hoses from the underground cisterns at the Citadel). Due to the great effort that was required to establish and maintain these gardens, and probably partly due to the prevailing Victorian garden styles, they were generally well defined spaces often delineated by wood picket fences or low walls. The gardens were subdivided by small paths into rectangular planting beds. The beds were planted with grass and with

irregular groupings of plants. Based on photographs from the era, the gardens had plants typical to the Victorian era in San Francisco. Some of these plants probably included agave, heliotrope, mirror plant, roses, and fuchsia. The gardens also had amenities typical to gardens of the era –benches or wood trellises. These were vernacular gardens, created not from a specific design or by a specific designer but in an attempt to create a more hospitable and familiar-looking place to live.

In addition to the planting beds, the garden spaces on the east and south of the Citadel and that to the east of the lighthouse also had large specimen shrubs planted at the corners or entrances. A photograph from this era (Martini 1990: 57) also shows large shrubs pruned into oval, pyramidal, and columnar shapes.

Cannon balls were ubiquitous on Alcatraz and in addition to their functional purpose, they served a decorative function on the post. They were used to define the parade ground space in front (south) of the Citadel and were stacked in long pyramidal rows. (A row of Rodman cannons are lined up behind one of these stacks in one photograph.) These rows are shown in photographs of the era, and the row on the east side of the parade ground was shown in maps from 1867-1894. (Ernst 1867, Presidio 1879, U.S. Army ca. 1870s, Rodgers 1894) The cannon balls were also placed in smaller stacked pyramids next to guns in fortifications. Photographs of the era show the cannon balls lined in rows on the tops of walls, such as in the planter that bordered the west side of the Officers' Row houses and along the low retaining wall that defined the south edge of the garden area in front (south) of the Citadel. They were set individually on the ends of steps or levels of retaining walls (used much like a pot of flowers to define the change of levels and transition from the public to private space of the house or porch). They were used as ornaments in the planting beds, stuck on top of short pipes to create something that resembled a gazing ball.

The introduction of imported soil to cover the face of the new 1870s batteries resulted in the introduction of the seeds of various plants found on Angel Island such as coyote bush, blue elderberry, blackberry, and California poppies and of various insects and rodents. (Hart 1996: 11) In order to help to control erosion, the new slopes of the 1870s fortifications were covered with sod (sod was cut from the vicinity of Fort Point and Lime Point in 1872 [Thompson 1979: 175]), or planted with various herbaceous plants such as clover (Mendell bought 25 pounds of clover seed in 1872 [Thompson 1979: 175]), alfalfa, or barley. (Hart 1996: 11 and Delgado et al. 1991: 12) It was difficult to maintain the sod and grasses on the slopes, with the limited on-site water and during the half-year-long dry season. In an inspection report from January 1887, Mendell reported that the slopes of the batteries did not have sod and that this made it "impossible . . . to maintain lines and surface [of the batteries] in their exact form . . ." (Thompson 1979: 188).

In addition to the attempt to establish grass on the slopes of the fortifications, the Army made periodic attempts to maintain grass and lawns on the island. In 1904, 50 pounds of clover and bluegrass seed was planted around the barracks and officers' quarters. (Thompson 1979: 239) However, the choice of these types of plants for the lawn would have required ongoing irrigation and was probably not very successful.

A description of the garden development on the summit and in the Officers' Row area, the two areas with gardens during this era, is provided below.

### Summit

One of the earliest planted areas on the island was a small area on the east half of the south side of the engineer's office building, that was located on the north end of the old parade ground on the island's summit. (Ernst 1867) (An addition to the engineer's office that was used as a school room was located on the west half of the building.) In a photograph from 1864, this garden area was enclosed by a waist-high

white picket fence and had large shrub (or a small tree) located in the southwest corner. (Martini 1990: 48) This garden area was probably short-lived since, by the late 1870s, the engineer's office building had been moved south closer to the Citadel.

The largest and most public of the island's garden spaces was located on the south side of the Citadel. The garden extended all the way across the south façade of the Citadel. This garden was probably first laid out in the late 1860s. It appeared in Eadweard Muybridge's 1869 photographs and was labeled on maps from the 1870s as a "garden." Thompson made a reference to the "formal flower gardens" being "laid out on top of the water cisterns on the southeast side of the building" after the remodeling of the Citadel in 1881. So it may be that the garden was remodeled or enlarged around 1881. (U.S. Army 1870s; Rodgers 1894; Daly 1905; Thompson 1979: 188)

The area along the east side of the Citadel was also an ornamental space that provided a transition between the Citadel and the row of officers' houses located across the roadway on the terrace below. Cannon balls were stacked into long pyramidal rows on the south third of this space. There were formal planting beds along the middle part of this area and a small square garden with formal planting beds located on the north end. (Rodgers 1894 and Daly 1905)

There was a tennis court located south of the garden on the south side of the Citadel. It was probably installed around the same time as the garden (ca. 1881). (Rodgers 1894 and Daly 1905) Due to the lack of level ground, this was one of the few outdoor recreational facilities on the island. (This lack of outdoor space for sports and for drilling was a concern of the post's surgeons. [Thompson 1979: 222]) When the lowering and leveling of the south end of the island was finally completed in the early 1890s, there was finally enough space for the men to play baseball. (Thompson 1979: 222)

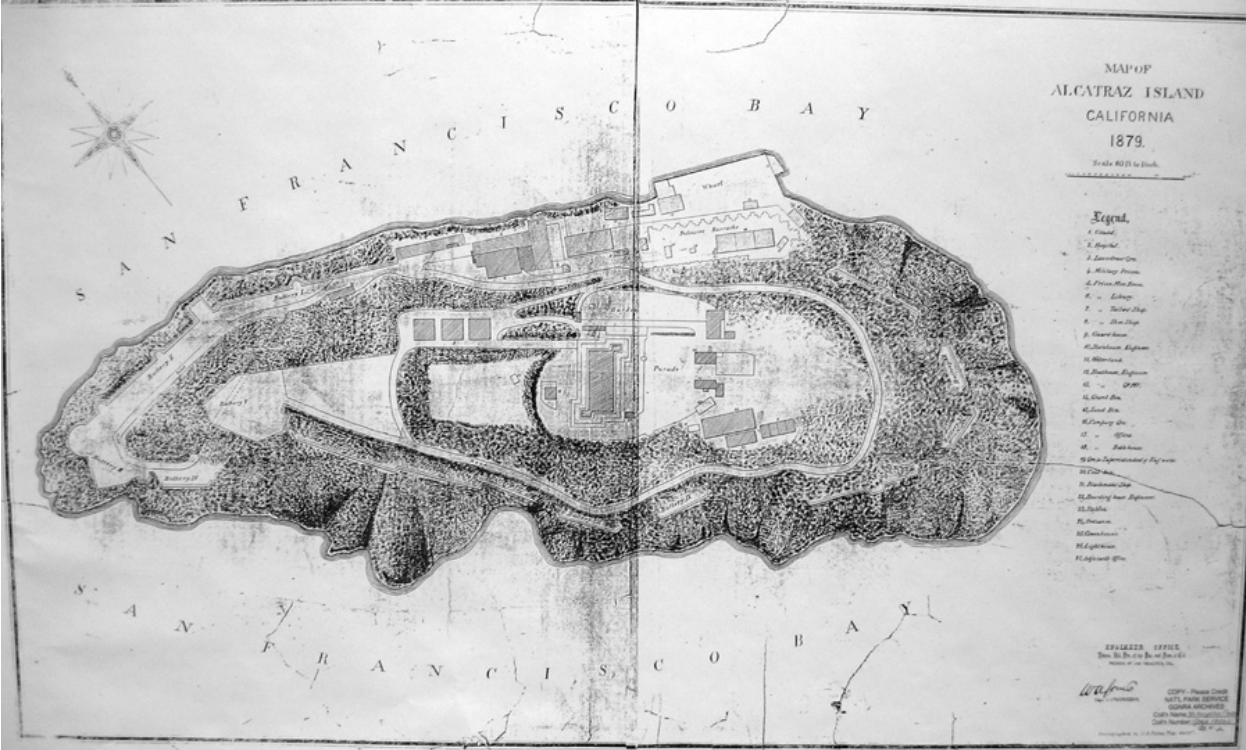
To the southwest of the tennis court was a building that is labeled as either a greenhouse (1870s and 1879) or a conservatory (Rodgers 1894). This structure does not appear on the 1905 map of the post.

The area around the Alcatraz lighthouse was maintained by the lightkeeper. In the mid-1880s, the lighthouse at Alcatraz obtained a long-term lightkeeper, Captain Leeds. He took an interest in developing and maintaining the garden area and put up lattice fencing and planted flower beds. (Martini 1990: 32) This garden space was destroyed when the original lighthouse was torn down and the current one was built in 1909.

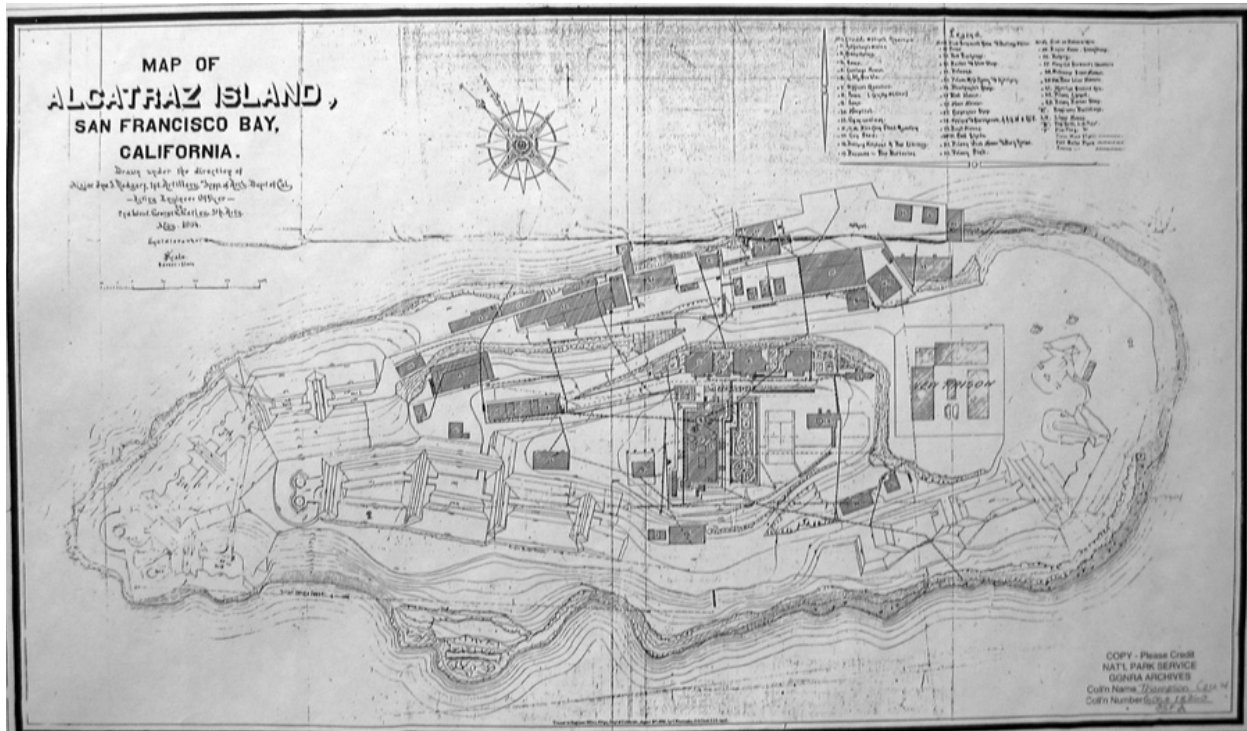
During this era, the location of the parade ground seems to have sifted between the areas north and south of the Citadel. In a photograph from 1864, the parade ground is on the north side (Martini 1990: 48); during the 1870s, it appears on maps on the south side (Presidio 1879, U.S. Army ca. 1870s); after the garden and tennis court were built on the north side, in ca. 1881, the north side of the plateau was again used as a parade ground (Daly 1905).

#### Officers' Row

During the work for the earthen fortifications, a level area was created below and east of the Citadel. This area was labeled as a "Garden" on an 1879 map (Presidio 1879). This garden area was removed when the row of three officers' houses (Nos. 7-9) was built in 1881. However, new garden areas were added on the north and south ends and between each of the three houses in this row. (Rodgers 1894 and Daly 1905) Additionally, these houses had window boxes. There was a wall that bordered the west side of this area and separated Officer's Row from the road. By the early 1900s, pots with flowering plants were placed on top of this wall. (Hart 1996: 10)



Map Of Alcatraz Island California 1879, Engineer Office, Presidio of San Francisco, CAL. (Presidio 1879). See Supplemental Information for larger copy.



Map of Alcatraz Island, San Francisco Bay, California. (Rodgers 1894) (This map shows the features of the island in the mid-1890s during the latter part of the earthen fortifications era [1868—1907].) See Supplemental Information for a larger copy.

## **MILITARY PRISON ERA (1907-1933)**

### Summary of History

The first commander of the Pacific Branch, U.S. Military Prison was Major Reuben B. Turner, who was appointed “because of his abilities as a construction engineer” (Martini 1990: 96). He was charged with designing and building a “state of the art” prison since the existing facilities on the island were inadequate to meet the needs of the military prison. The two prison complexes –the Lower Prison located on the lower east side and the Upper Prison located on the Parade Ground on the southeast end of the island –were separated from each other. Security was compromised. Sanitation was inadequate. Additionally, the wood buildings –some of which dated to the Army’s earliest years at Alcatraz and had been intended to be “temporary” –were a fire hazard.

The actions required to meet the needs of the military prison complex resulted in major changes to the island’s cultural landscape. In addition to the new prison, Turner’s plans included “centralized work facilities for the convicts and an up-dated utility system for the entire island. His plans called for modernizing the island. Old wood frame residences and support buildings (including the Citadel, much of the Lower Prison complex, Upper Prison, 1854 Alcatraz Lighthouse, the carriage shed and stable) were replaced by “concrete structures of a harmonious architectural style” (Martini 1990: 96). New buildings included the new lighthouse (1909), new cellhouse (1912), Post Exchange (1910), Quartermaster Waterhouse and Powerhouse (1912), Commandant’s House (1921), Model Industry’s Building (early 1920s).

Despite the Army’s investment in the prison infrastructure at Alcatraz, “there remained considerable dissatisfaction within the army about this role for the island” (Thompson 1979: 245). The judge advocate general addressed this concern after visit he made to Alcatraz:

“[Alcatraz] lies directly in the path of commerce, and surmounted as it is with the rather conspicuous new prison building is perhaps more prominent in the view of the incoming passenger and more the subject of his inquiry and that of residents and visitors generally than any other object in the harbor. The answer they receive, that it is a prison for the confinement of our military defenders, gives an impression of the character of our enlisted personnel and of the discipline of our Army which is unfair and unjust to the service” (Thompson 1979: 245-246).

In 1913, the Army negotiated with the Department of Labor to transfer the property to the Immigration and Naturalization Service, and a bill was introduced into Congress in October 1913 to authorize this change. However, it was never acted upon, and the Army continued to operate the prison at Alcatraz for another 20 years.

By the early 1930s, the Army was seriously reevaluating its need for a prison at Alcatraz. In May 1933, the Army began negotiations to transfer Alcatraz to the Department of Justice. This transfer satisfied the Army’s desire to rid itself of the costly operations at Alcatraz and the Justice Department’s need for a new maximum security prison. (There had been “a huge increase in the population of the country’s federal penitentiaries during the previous decade, partly resulting from crackdowns on organized crime and bootleggers” [Martini 1990: 120]). On 13 October 1933, Alcatraz was transferred, in an initial five-year lease, to the Federal Bureau of Prisons.

### Changes to the Cultural Landscape (1907-1933)

## 1. Summary

The changes to the cultural landscape features during this era (1907-1933) were related to meeting the needs of the military prison and army post. Major changes included the following:

The Citadel and 1854 lighthouse were torn down to make way for the new concrete cellhouse complex (No. 68) that was built on the island's summit.

The Upper Prison complex, located on the terrace of the Parade Ground, was torn down after the new cellhouse complex was completed, and the Parade Ground remained largely open space during this period.

The north end of the island was developed, and a new powerhouse (No. 67), the quartermaster storehouse (No. 79), shops, and the model industries building (No. 82) were built in this area.

“The island's appearance changed drastically in the early 20th century when permanent concrete buildings replaced earlier [wood] structures’ (Martini 2002: 49). The square corners and high walls of the cellhouse and Recreation Yard dominated the top of the island. “The power house smokestack and lighthouse tower gave the appearance of a ship's masts flanking the ‘superstructure’ of the main prison building” (Martini 1990: 100). The island began to have a more unified look with its new buildings and the addition of amenities such as concrete light posts, (electricity was available after the powerhouse complex was completed) concrete guardrails along the paved roads, and concrete sidewalks.

The garden spaces and many of the plant materials that exist today were added during this era by inmates from Alcatraz's military prison.

The following sections provide a more detailed description of the key cultural landscape features on the island during the military prison era (1907-1933).

## 2. Circulation

The road system basically remained largely unchanged during this era. However, as part of the reconstruction efforts for the new prison, the batteries on the north end of the island were graded down and filled in. This allowed the road to be extended around the north end so that it went completely around the island. By 1909, the roads had been paved with macadam, and there were concrete sidewalks. (Turner 1909) Sometime during this era, the main roads were paved with concrete. However, the roads around the north end of the island and along the west side remained macadam. (U.S. Army 1933 and Martini 1990: 118)

The construction of paths around the lower perimeter of the island was undertaken around 1917-1918. An article in the March 1918 issue of “The Rock” noted that:

“A board walk, a few feet above the water at high tide and encircling the Island, has been in process of construction for sometime and is now nearing completion. Practically all of the lumber used in its construction has been picked up out of the Bay. Part of the walk has been cut out of the solid rock. In some places it overhangs the water and rests on timbers that have been driven deep into the rocks” (Mayer 1918).

The path from the wharf along the south edge of the island and the path up the hillside to the Parade Ground were shown on a map prepared just before the transfer of the facilities to the Bureau of Prisons in



1933 (U.S. Army 1933). The path along the east edge of the island also appears on this same map.

### 3. Major Areas

#### Summit

The changes to the summit of the island were the most dramatic and visible. The Citadel, while highly visible, had occupied only a limited portion of the south end of the summit. “The new prison was a self-contained facility with all of the necessary functions in one structure: cellblocks, kitchen, mess hall, wash areas, hospital, morgue, and recreations yard” (Delgado et al. 1991: 15), and the new building with its walled recreation yard took up most of the ground on the top level of the island. The Citadel was torn down to make way for the construction of this new Cellhouse building; although, the foundations of the Citadel and the dry moat were included in the basement of the new prison building. Work on the new prison began in 1908 and was completed by 1912. When it was completed, the building was the largest reinforced concrete building in the world.

The two 1870s batteries located below and west of the new Cellhouse were filled in to create a level area. The new Recreation or Stockade Yard was built over the foundation of these 1870s earthwork batteries. As a part of this, the traverses between the gun pits were filled and the connecting tunnels were blocked by concrete.

The northwest end of the summit was leveled, and two large, underground water cisterns were built there.

The new prison building was going to be taller than the existing 1854 lighthouse and was going to obstruct its light to the northwest. Also, the existing lighthouse would be visible in front of the new prison building in views from San Francisco, and Major Turner considered this existing complex to be unsightly. He did not want it detracting from the visual statement of the new prison building, and he proposed the relocation of the light to the top of the new prison. Instead, the Lighthouse Board demolished the existing lighthouse and built a new 84-foot-high, reinforced concrete light tower with a new attached quarters, for a lightkeeper and two assistants. The lighthouse was completed in late 1909, and the new light was lit on 1 December 1909. (Thompson 1979: 462)

#### Wharf Area

The main access to the island remained the wharf that was located on the southeast side of the island. (The dock located on the northwest side of the island was used to load rock from the quarry operations located on that side of the island.)

A new barracks was built, on the southeast side of the island, on top of the ca. 1867 Bomb Proof casemates, that had never been completed. The new barracks (Building 64) was completed in 1908. (Thompson 1979: 248)

There was a handball court located to the southeast of the wharf complex. (U.S. Army 1933 and Thompson 1979: 250)

#### Lower Prison Area

By the end of this era, the Lower Prison buildings, along the east side of the road north of guardhouse, had been removed. The Post Exchange, completed in 1912, was built on the east side of the road, across

from the first switchback. This building was constructed of reinforced concrete in the Mission Revival style.

#### East Side of the Island

The area along the east side of the island remained relatively unchanged during this era. The hospital, NCO quarters (Nos. 12-14), and Officers' Row (Nos. 7-9) remained. Between 1919 and 1921, a new house was built for the Commandant, right at the southeast edge of the summit, at the south end of the row of 1881 officers' houses.

#### Parade Ground

After the completion of the new cellhouse, the wooden buildings of Upper Prison complex were torn down. In 1929, a row of four officers' quarters (Nos. 72-75) were built along the southeast edge of the Parade Ground, and a large officer's quarters (No. 83) was built at the south edge of the Parade Ground, on top of "old Three Gun Battery (or Battery Prime and Battery 12). (Thompson 1979: 507-508)

The wall that defines the outer edge of the Parade Ground area (today know as the sea wall) was in place by the end of the era. The road located along the inside of this wall was also in place. (There had been a road here before but the alignment of the road became more distinct or defined after the Upper Prison complex was removed.) There were small lawn areas around the two groups of quarters; a tennis court in the northwest corner; and a playground, in the southwest, for the children who lived on the island. (Turner 1909, U.S. Army 1933, Thompson 1979: 250) At the very end of this period, the Parade Ground was paved. (Eley 1998: 5)

There was a tool house located at the northwest corner of the Parade Ground, at the base of the cliff. The fog signal remained located just below the Parade Ground on the south end of the island.

#### Southwest Cluster

At the beginning of this era, there were still two small clusters of wood-frame buildings on the southwest slope of the island. The corral, stables, and carriage shed (located in the West Lawn area) were present in 1909 but by 1933 had been removed (motor vehicles had replaced the mules on the island). Two buildings (Nos. 15 and 43) remained on a terrace that was below the southwest side of the summit but above the elevation of the Parade Ground; these were used for married officers' and civilian quarters and remained in place in 1933.

#### North End of the Island

The north end of the island was not as visible from San Francisco, as was the south end of the island, and during this era, a complex of industrial buildings was developed that included the Quartermaster Warehouse and Powerhouse complex, completed in 1912, and the Model Industries Building, built during the early 1920s. The new powerhouse was built on top of the 1870s earthen batteries, which had themselves been built on the scarp walls of the 1857 North Battery. (Martini 1990: 98) The Model Industry's Building was built as part of the prison's refocus on rehabilitation of the soldier incarcerated on Alcatraz.

The quarry operations, that supplied rock that was used as paving materials for the island and to other military facilities in the bay area, continued to operate on the northwest side of the island. There was a dock on this side of the island that was used to load the rock onto boats.