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DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
FACILITIES PLANNING DEPARTMENT
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MCAS IWAKUNI MASTER PLAN

I W A K U N I , J A P A N

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MCAS IWAKUNI MASTER PLAN

I W A K U N I , J A P A N

MCAS IWAKUNI MASTER PLAN

I W A K U N I , J A P A N

B. INTRODUCTION

1. Location

MCAS Iwakuni is located in Yamaguchi Prefecture on the island of Honshu, Japan. The Station is located approximately 20 miles south of the City of Hiroshima. See Figure B-1.

MCAS Iwakuni is comprised of two noncontiguous land areas: the main Station and the Monzen Housing area. The main Station is situated on a delta formed by alluvial deposits of the Nishiki River. Two branches of this river, the Imazu and the Monzen Rivers, border the main Station on the north and south, respectively. The Seto Inland Sea forms the eastern border while the City of Iwakuni borders the Station to the west. The Monzen Housing area is located southwest of the main Station, across the Monzen River. See Figure B-1.

MCAS Iwakuni maintains and operates facilities and provides services and material to support operations of the 1st Marine Air Wing (1st MAW) and units designated by the Commandant of the Marine Corps (CMC). Command and support are provided to MCAS Iwakuni by CMC via the Commander, Marine Corps Bases, Pacific (COMMARCORBASESPAC). Facilities utilization, planning, and military or Government of Japan (GOJ) construction at MCAS Iwakuni are coordinated through the Commander Marine Corps Bases, Japan (COMMARCORBASESJAPAN).

2. Scope

This master plan is an update of the previous master plan approved by CMC in March 1983. A Facilities Enhancement Plan (FEP) is included

with this master plan as a supplement to provide general guidance for improving the visual appearance of the Station. The master plan was prepared in accordance with NAVFAC Instruction 11010.63B dated 20 October 1982.

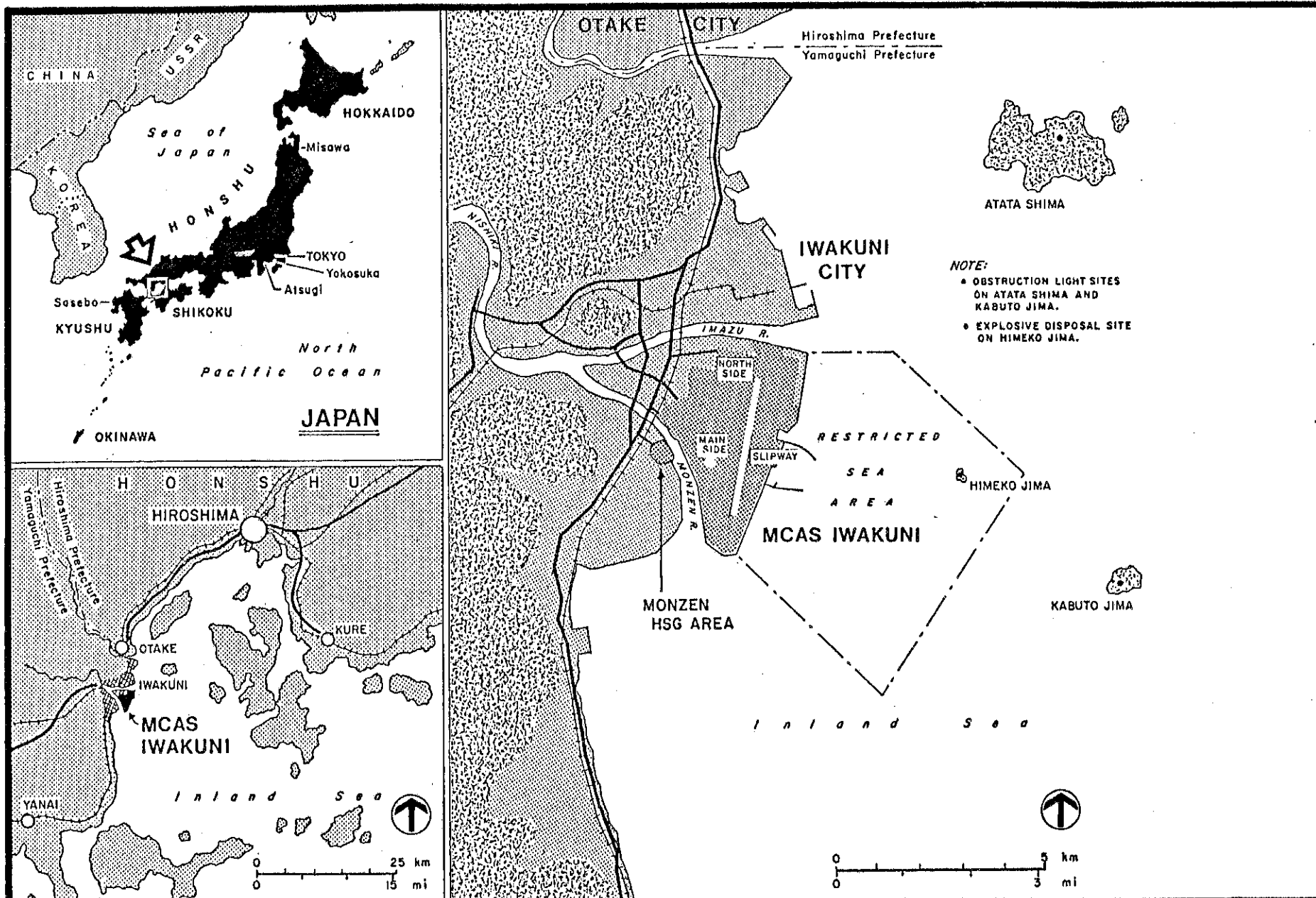
The Plan is based on the requirements validated by the Shore Facilities Planning System (SFPS) documents and prudent planning practice. Data was obtained during the on-site surveys conducted in August and September 1987. The proposed land use plan allocates sufficient area to satisfy all basic facility requirements.

The Plan addresses land use and facilities development on the Station, including proposals which affect the Monzen Housing area. Land use plans and development proposals for areas occupied by the Japanese Maritime Self Defense Force (JMSDF) are included in the Plan, where appropriate.

3. Planning Objectives

The objective of the master plan is to provide a realistic and orderly development scheme for MCAS Iwakuni. The Plan has been developed to:

- Ensure that adequate land area is available for current mission requirements and future expansion;
- Promote orderly and efficient physical development to satisfy requirements in accordance with DOD criteria;
- Enhance the quality of life on the Station through the provision of amenities in a well-planned physical environment;



**MCAS
IWAKUNI**

LOCATION MAP

**Fig.
B-1**

- Minimize environmental impacts by preserving areas with highly valued environmental and cultural resources;
- Consolidate facilities by function to maximize efficient operation and minimize transportation and traffic circulation problems on the Station;
- Promote safety by siting facilities in conformance with DOD airfield safety and other hazard criteria; and,
- Minimize the effects of noise from aircraft operations and maintenance activities on noise sensitive facilities.

4. Methodology

The methodology used to prepare this master plan is shown in Figure B-2 and includes the following steps:

a. Data Collection. Data collection consisted of the accumulation of all available information about the Station and surrounding area. Resource materials included the 1987 Shore Facilities Planning Documents, maps and environmental data. Historical data and land use constraints were also considered. Lastly, the best available projections of future requirements were obtained and analyzed for inclusion in the Plan. All of this data was supplemented by discussions with appropriate personnel at the Station and in the chain of command.

b. Development of Planning Objectives. The planning objectives were developed in

coordination with the Station and chain of command based on review of the basic data.

c. Evaluation and Analysis. An on-site evaluation of existing conditions was made by the planning team with the assistance of Station personnel and major tenants. An analysis was made of the data gathered from the on-site evaluation, existing documents, and through discussions with activity personnel. Conclusions and recommendations were developed to support the Station's mission and planning objectives, giving priority to environmental and safety considerations.

d. Draft and Final Reports. The results of the above steps were synthesized and published as the draft master plan. Distribution was made to all interested commands within the Marine Corps for review, and comment.

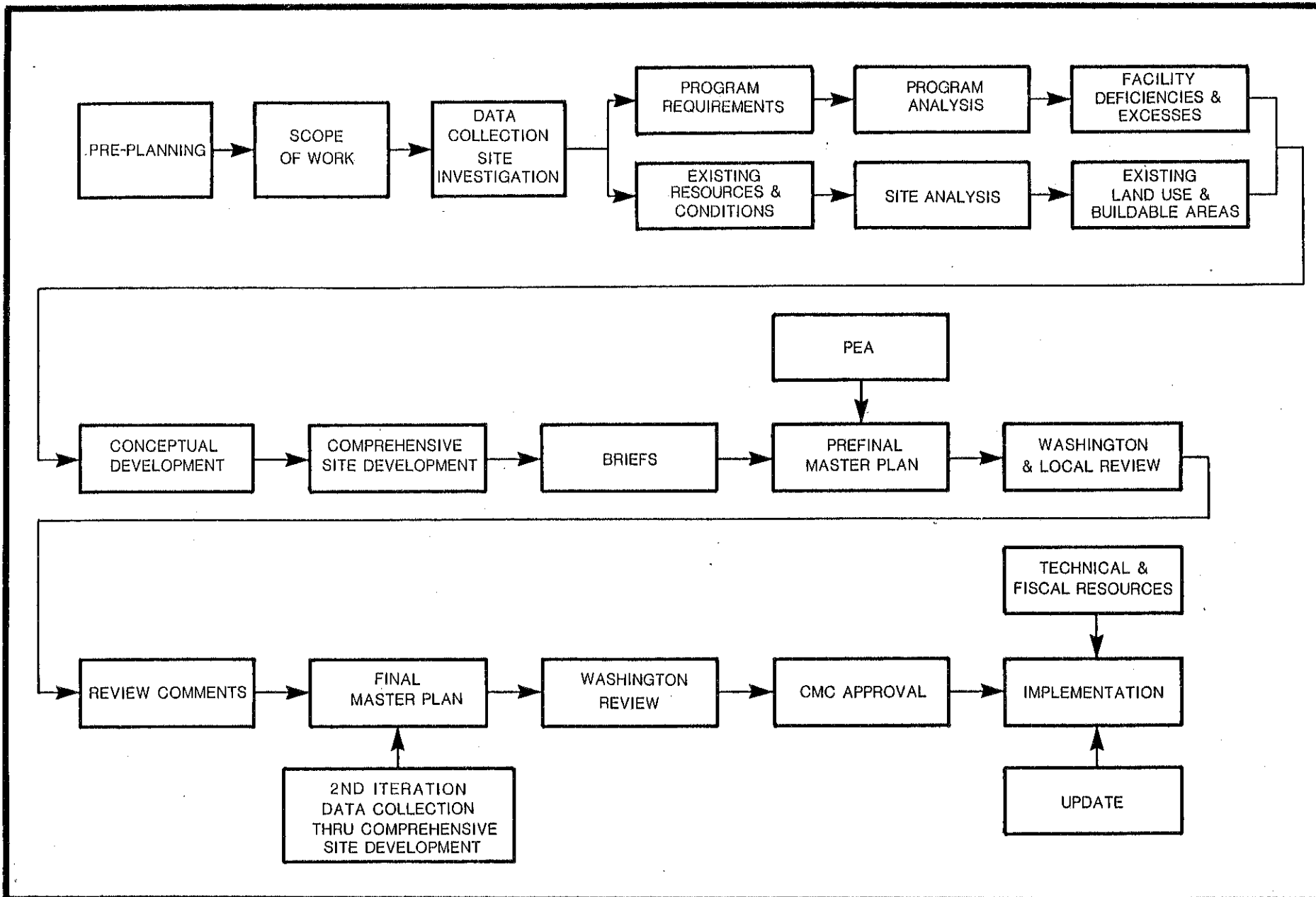
Comments on the draft report have been incorporated into the Plan. Upon approval by CMC, the master plan will become the guide for future development at MCAS Iwakuni.

5. Use of the Master Plan

This Plan is intended to be a viable document which can be adjusted to accommodate changes. The narrative portion of the Plan provides a broad analysis to ensure orderly development of all mid-range and long-range facility projects.

6. Related Publications

The Japan Regional Profile, a companion planning document prepared by PACNAVFACENGCOCM in October 1980, is to be used in conjunction with this master plan. The Regional Profile describes



**MCAS
IWAKUNI**

MASTER PLAN METHODOLOGY

**Fig.
B-2**

the regional setting in which MCAS Iwakuni operates, presents basic data on Japanese history, economy, government, climatology, and profiles the U.S. Marine Corps and Navy installations in Japan.

EXISTING CONDITIONS C

MCAS IWAKUNI MASTER PLAN

I W A K U N I , J A P A N

C. EXISTING CONDITIONS

1. Introduction

This section provides a description and analysis of the existing conditions of MCAS Iwakuni and its environs as they pertain to the development of the master plan. Natural and man-made conditions and constraints along with activity factors affecting operations and facility development are synthesized to determine the development potential of the Station.

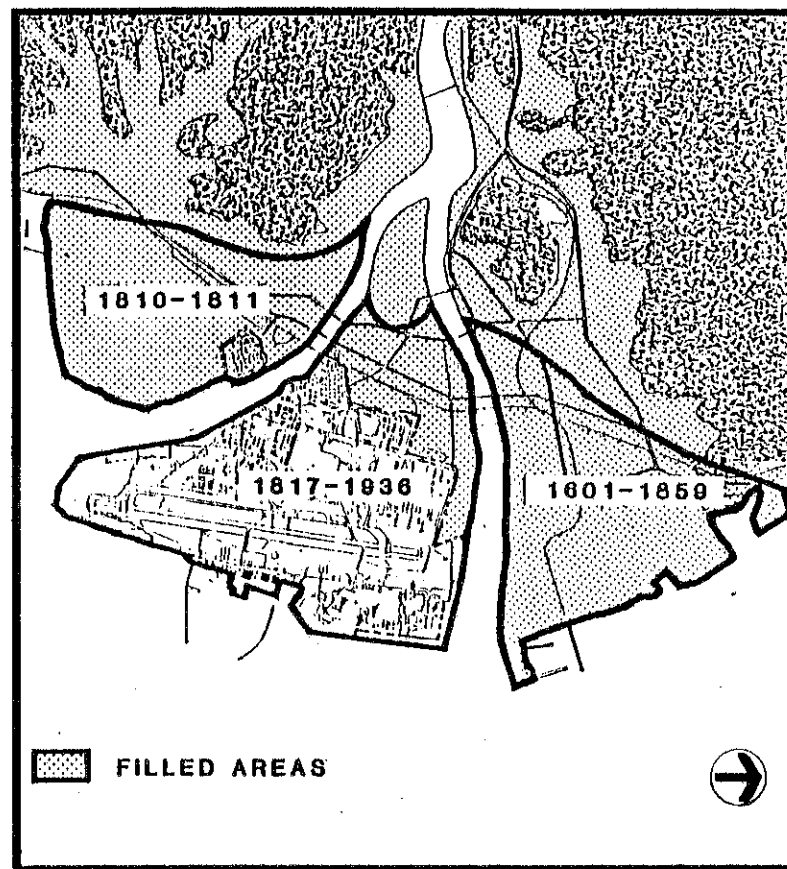
2. Natural Environment

a. Geology. The City of Iwakuni is located in a mountainous region with little level land and almost no beaches. The built-up area of the City is located primarily on the narrow coastal plain, in the Nishiki River Valley, and partially on a delta overlain by a land reclamation project.

The site of MCAS Iwakuni was originally part of the Inland Sea. The Station site, along with other areas adjacent to the mouth of the Imazu and Monzen Rivers, was reclaimed over a period of years to provide additional agricultural land. See Figure C-1.

In 1936, an additional area was filled for a site on which to construct a Japanese naval air base. However, the landfill program was not entirely completed and the eastern portion of the Station, particularly the ordnance operations and storage area and the land south of the runway, remains low and marshy. The lowlands at the end of Runway are separated from the ocean by a concrete channel and seagate. A seawall protects the eastern and

southern boundaries of the Station.



HISTORY OF LANDFILL OPERATIONS

Figure: C-1

MCAS IWAKUNI

b. Topography. The topography of MCAS Iwakuni is generally level, with ground elevations varying from three (3) to ten (10) feet above sea level. High tides often exceed this elevation, but one-way sea gates in the seawall prevent inundation of the Station during these periods. The eastern section of the Station, which includes the ordnance operations and storage area, contains low wetlands and open water areas. Any development in these areas will require filling prior to site preparation work. See Figure C-2.

c. Soils. The typical subsurface soil structure in the area of the Station consists of three general divisions. Bedrock is found at a depth of about 100 feet. On top of the bedrock are layers of gravel, sand, clay, and silt which were deposited as part of the river delta. The top three to four feet of material consist of sand topped by a layer of decomposed granite placed there as part of the land reclamation project.

Existing soil bearing capacity is adequate for pavements and some low-rise structures which have high to moderate foundation loads. However, mid-rise and many low-rise structures, such as the existing four-story bachelor enlisted quarters on the North Side have required special foundation designs. A detailed soil analysis will be required in the low marshy areas to determine their suitability for foundations.

d. Seismic Zones. Seismic zones identify the probability of the severity, frequency, and potential damage from ground shaking in different geographic regions. Those regions with similar hazard factors are identified as

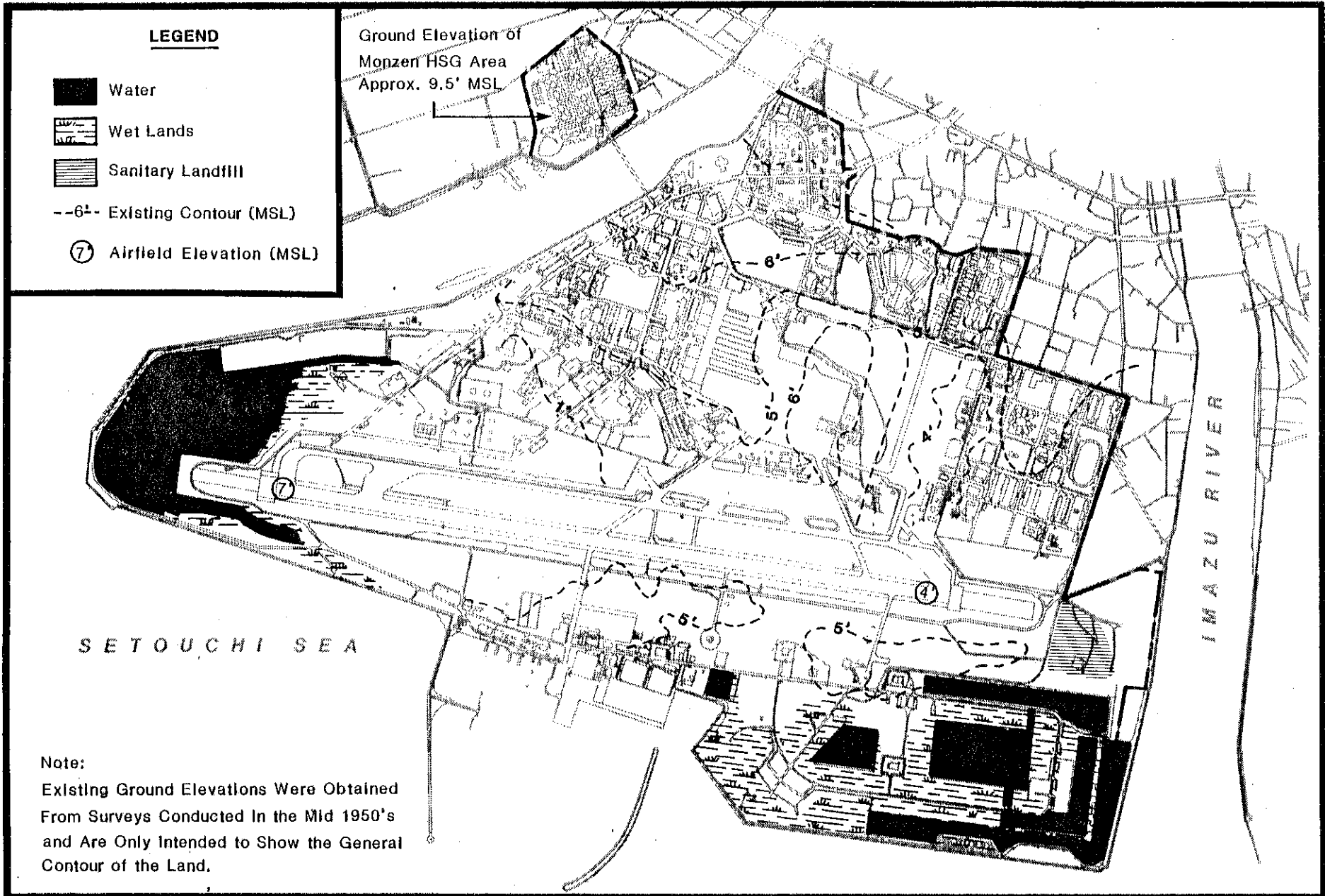
seismic zones. According to the classification system set forth in NAVFAC P-355, Technical Manual for Seismic Design for Buildings, most of Japan, including the island of Honshu has been designated as Seismic Zone 4, the highest rating of the NAVFAC P-355 classification system. The probability of damage in Seismic Zone 4 is "great". Buildings and other structures at MCAS Iwakuni must be designed to the requirements set forth in NAVFAC P-355.

e. Hydrologic Considerations. As previously described, MCAS Iwakuni is located on a low delta protected from the sea by a seawall. High tides often exceed the elevation of the Station. Sea gates are manually operated to allow water to flow out from the Station during low tides and to prevent ocean waters from flowing back and inundating the Station. The tidal range in Iwakuni Harbor is as follows:

Mean Higher High Tide	+9.85
Mean High Water	+7.22
Mode Ground Elevation On-Station	+6.00
Mean Sea Level	0.00
Mean Lower Low Water	-2.62

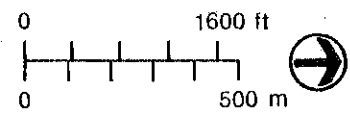
As indicated, the entire Station would be inundated should the seawall be breached during a period of extreme high tide. The top elevation of the seawall varies from 13.5 feet to 16.5 feet.

The Station is responsible for maintenance and repair of the seawall. However, the GOJ is responsible for improvements to the seawall. A GOJ initiated project (JFIP MC-4092-050) has been proposed to repair and reinforce the seawall to improve the structural integrity of



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GEOLOGIC CONSTRAINTS



**Fig.
C-2**

the system. The project will also raise the height of the seawall to 19 ± feet.

Storm water drainage is a serious problem in the main Station area because of the flat terrain, low elevation and an impervious layer close to the ground surface which prevents infiltration of surface water. The problem is compounded by tidal fluctuations which prevent drainage flow to the ocean during high tides. The wetlands areas on the Station are extremely important in this respect because they provide ponding capacity during high tides. The longest period that tidal conditions would prevent storm water from flowing to the ocean is 24 hours.

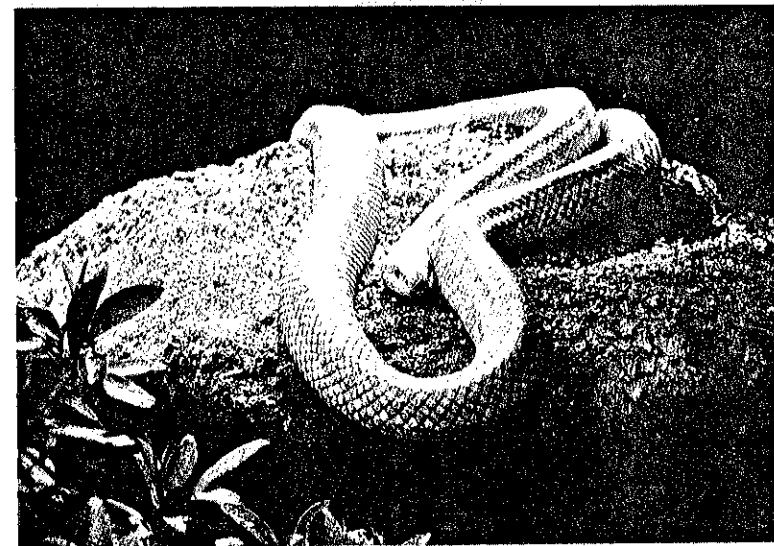
Storm waters from North Side and civilian areas contiguous to the Station flow into the magazine area then out to the ocean through sea gates controlled by the City of Iwakuni. Storm waters from the rest of the Station, except for a small 45-acre area near the family housing area, drain to Penny Lake in the southeast section of the Station. See Figure C-3.

As noted in the 1977 master plan, preliminary drainage estimates indicated that a 100-year storm and a 24-hour retention period will increase the elevation of water to 4.5 feet (mean sea level) and 2.5 feet (mean sea level) in the north and south ponding areas, respectively. These levels would inundate the cryogenics facility, the petroleum, oil, lubricants (POL) storage area, a portion of the runway, and a portion of the North Side of the Station.

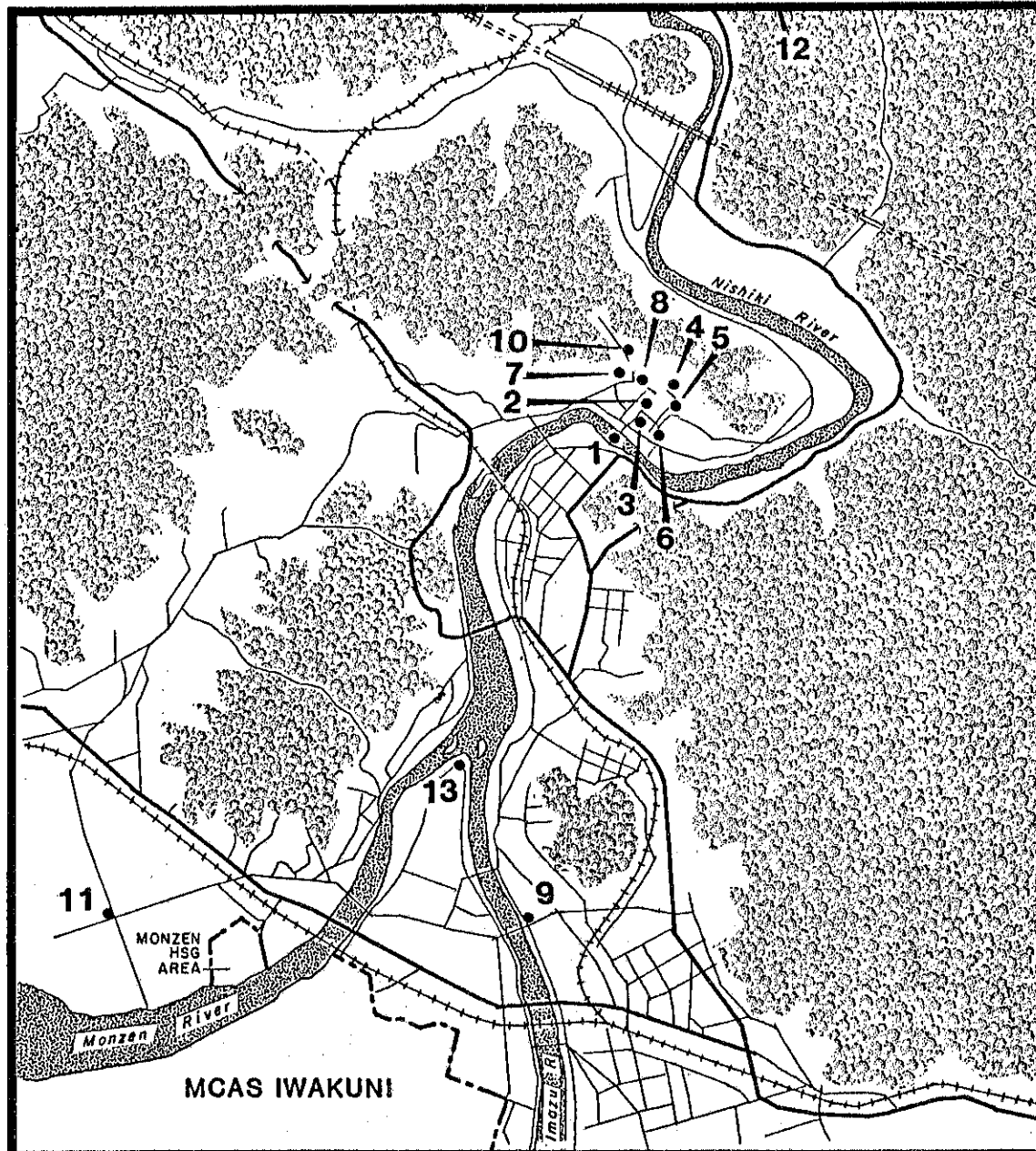
f. Flora and Fauna. The City of Iwakuni has many of the plants commonly found in Japan, including plum and cherry blossom trees, azalea,

wisteria, and iris. Iwakuni also has some of the best lotus root producing fields in Japan. Some of the most productive fields in the area are located southwest of the Station, adjacent to the Monzen Housing area.

The area around Iwakuni has a rare species of white snakes with red eyes and glossy white bodies. The City of Iwakuni has built a facility dedicated to its protection and preservation.



WHITE SNAKE

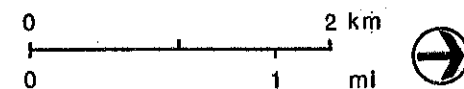


LEGEND

- 1 Kintai Bridge
- 2 Kikko Park
- 3 Nagaya Gate of the Kagawa Family Residence
- 4 Nishimura Museum
- 5 Kinun-Kaku
- 6 Choko-Kan
- 7 Momijidani Park
- 8 Kikkawa Family Graveyard
- 9 White Snake Facility
- 10 Iwakuni Castle
- 11 Lotus Field
- 12 Futashika Falls
- 13 Giant Camphor Tree Grove

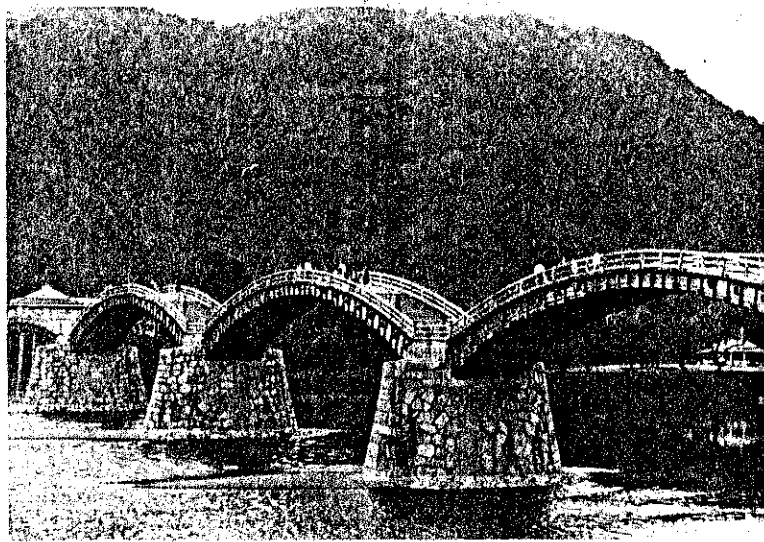
**MCAS
IWAKUNI**

HISTORIC SITES



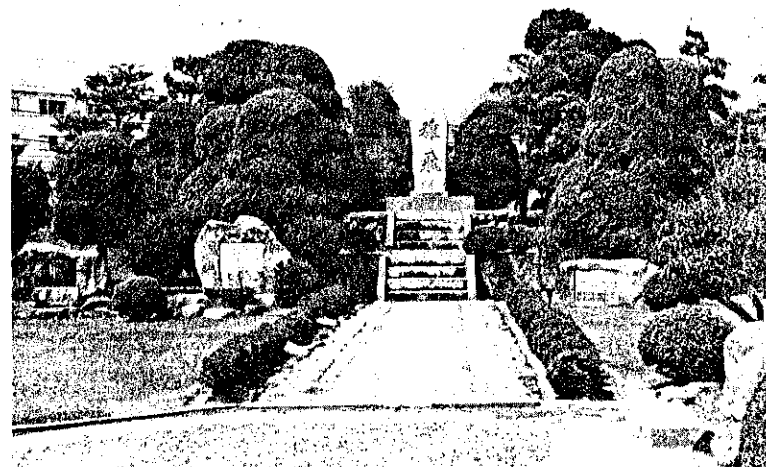
**Fig.
C-12**

Another prominent historic site is the Kintai Bridge. This graceful five arched bridge was designed by an Iwakuni feudal lord, Hiroyoshi Kikkawa, in 1673 to help residents who suffered each time a bridge was washed away when the Nishiki River flooded. The bridge is 210 meters long; 5 meters wide; and was constructed without a single nail, employing only clamps and wire. The original bridge was washed away in 1950 by a typhoon but later reconstructed in 1953 with new materials and construction techniques with the same design.



KINTAI BRIDGE

There are no known historically significant structures on MCAS Iwakuni. However, a few sites of interest on-Station include structures that were part of the original Japanese Naval Air Station commissioned in 1940. A small shrine next to Bldg 360, built during World War II, was replaced with a monument in November 1978 to honor 14 crewmen of the 31st Air Wing, JMSDF, who were killed during flight operations in 1977 and 1978.



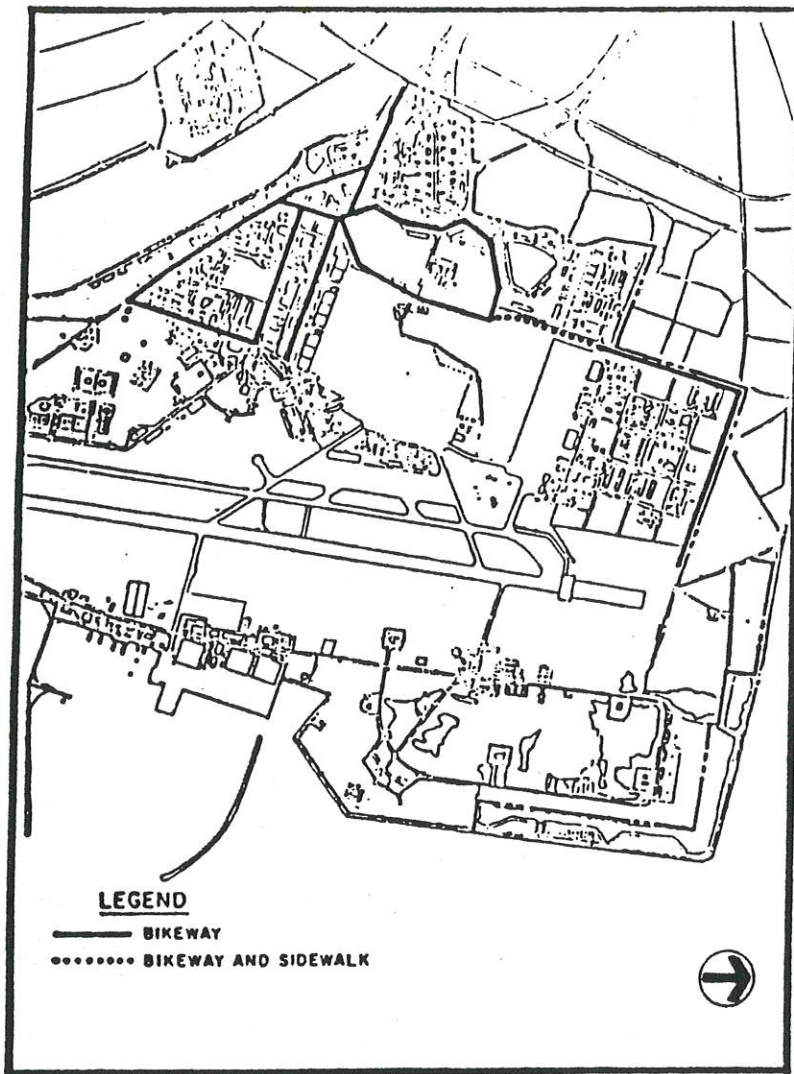
JMSDF MONUMENT NEAR BLDG 360

7. JMSDF Facilities Development Plan

JMSDF, a joint use tenant of MCAS Iwakuni, has maintained an active facilities construction plan and has firm plans to continue this program. Recent projects have included a new dispensary and BEQ on the South Side. JMSDF has also begun discussions with Station to site new facilities west of the runway. See Figure C-22. Under the current agreement regarding joint use of facilities at MCAS Iwakuni, all JMSDF construction requires Marine Corps approval.

The planned development does not reflect any mission changes or personnel increases and would not pose any problems, except that the entire Slipway area is affected by an explosives safety hazard zone generated by the offshore Explosive anchorage Mooring "A", and the ammunition handling wharf, Golf Pier. This master plan recommends that the Explosive anchorage, Mooring "A", handling capacity be reduced to clear all Slipway inhabited facilities. The hazard zone generated by the ammunition handling wharf on the other hand, will continue because there are no plans to replace the wharf. A new ordnance handling wharf was suggested at one time at the tip of the breakwater, but construction would cost about \$6 million (1980 cost). The proposal would, most likely, face strong opposition from the political community as well as the local fishing organization. The ordnance handling wharf is usually used once or twice a month. Regardless, all construction in this area will require waivers to DOD explosives safety criteria.

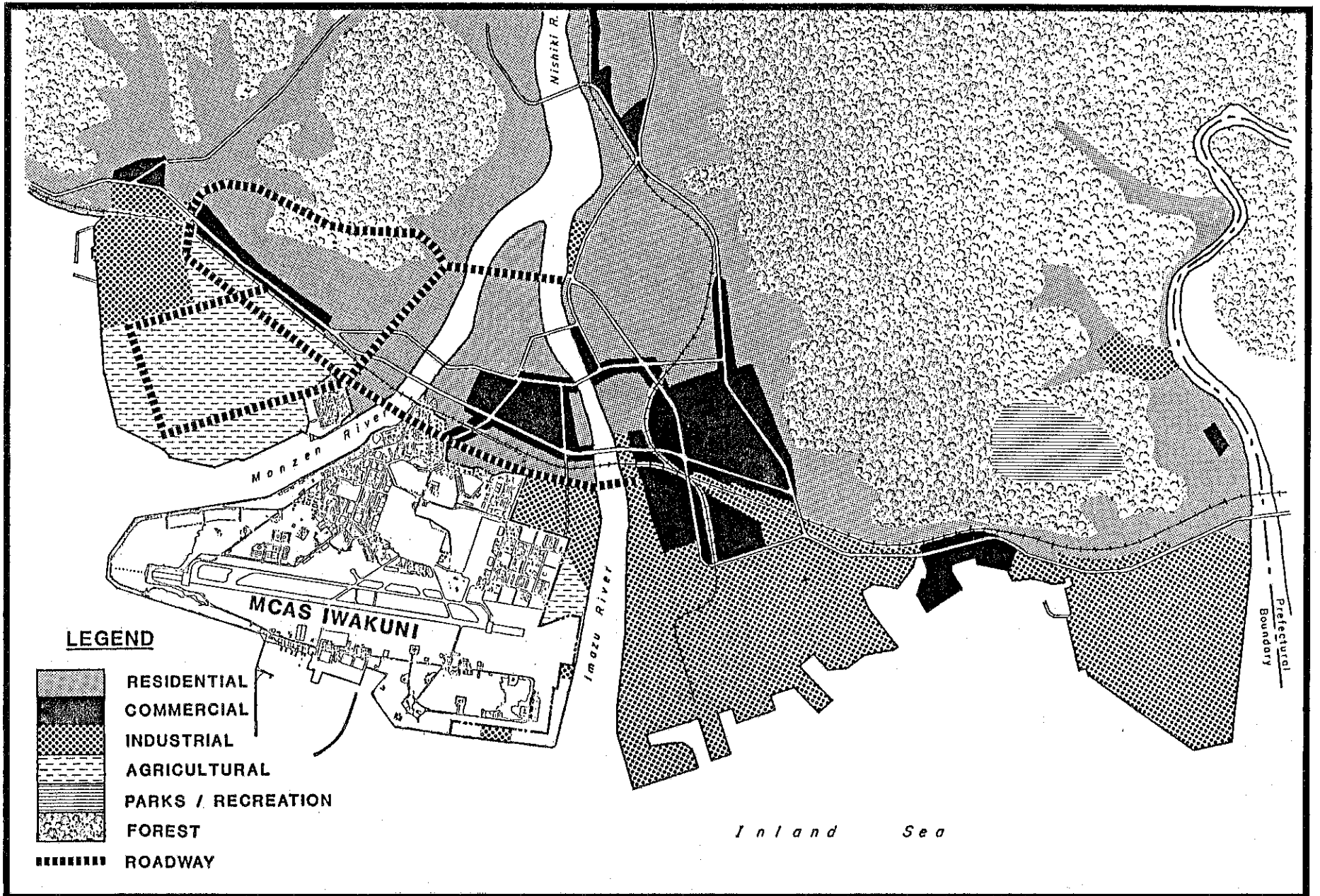
A proposed JMSDF mission change is being discussed at the Commander U.S. Forces, Japan



EXISTING BIKEWAYS

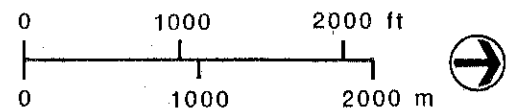
Figure: C-20

MCAS IWAKUNI

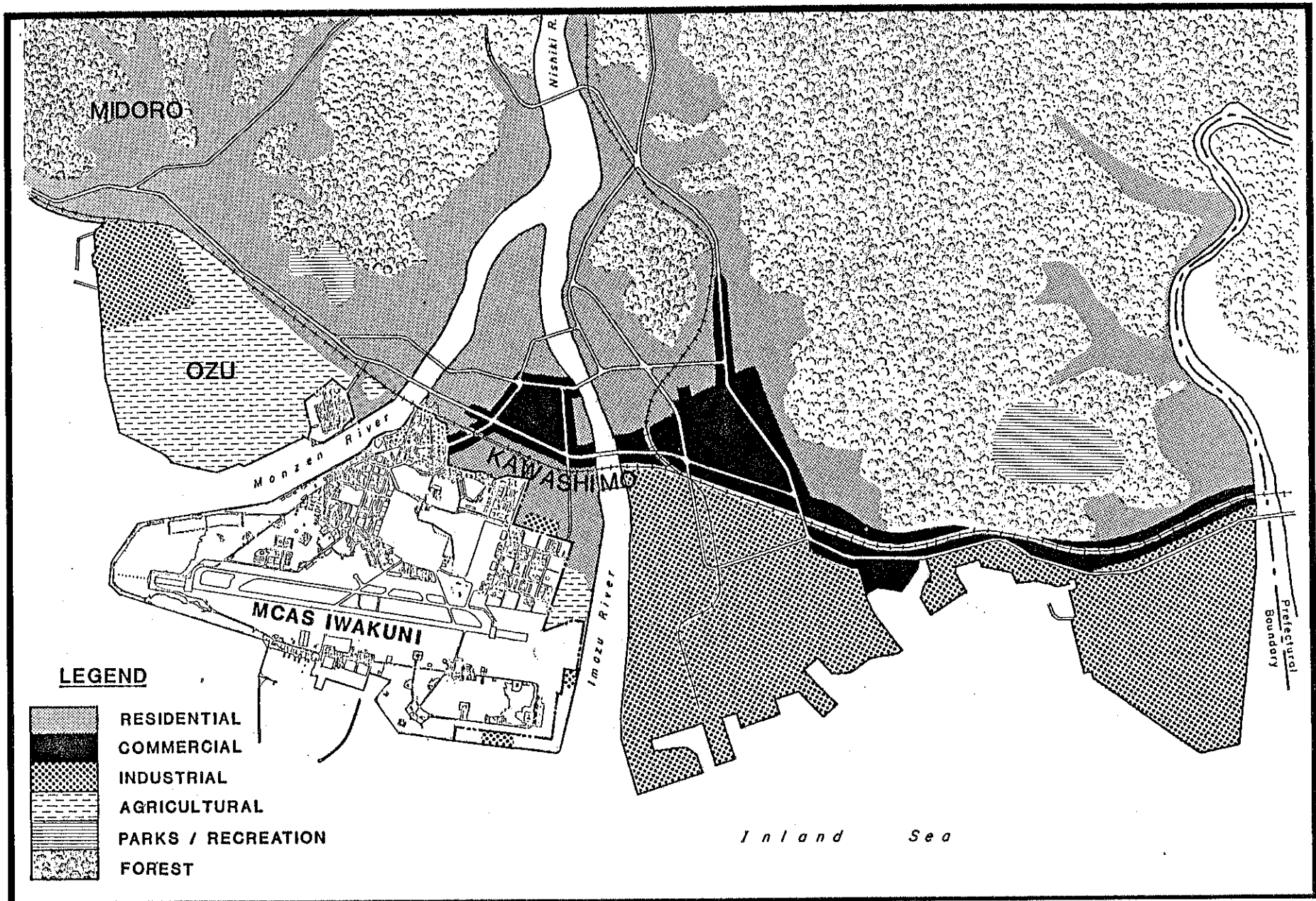


**MCAS
IWAKUNI**

**CITY OF IWAKUNI
MASTER PLAN**

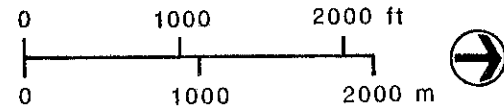


**Fig.
C-25**



**MCAS
IWAKUNI**

**EXISTING OFF-STATION
LAND USE**



**Fig.
C-24**

REQUIREMENTS ANALYSIS D

MCAS IWAKUNI MASTER PLAN

I W A K U N I , J A P A N

D. REQUIREMENTS ANALYSIS

1. Introduction

This section provide an analysis of the mission of the Station, its organization, base loading and facility requirements, assets and deficiencies.

2. Activity Factors

a. Planning Area. The planning area covered in this master plan includes 1,415 acres of land on the main Station and the Monzen Housing Area. The Station controls sites on two islands near Iwakuni (Atata Shima and Kabuto Jima) where obstruction lights are installed. Another small island, Himeko Jima, is used as an explosive ordnance disposal site. No planning proposals are made for these last three locations and the 5,174.47-acre restricted sea surface off the eastern boundary of the Station.

b. History. In 1602, a feudal lord, Hiroie Kikkawa, was awarded lands in Iwakuni by the Tokugawa Shogunate. For the next 300 years, Iwakuni flourished as a castle town. During this period, a large reclamation project was completed to provide additional land in the coastal region. Today, Iwakuni's industrial region is built over this reclaimed land along the Seto Inland Sea.

The history of military activities at Iwakuni dates to 1940 when the Japanese commissioned a naval air station on the site of the present Marine Corps Air Station. In 1943, a branch of the famous Eta Jima Navy Cadet School was established at the base. During World War II, between 1,500 and 3,000 men and 150 Zero fighter

planes were assigned to the base. A Zero fighter hangar, with a full-scale model inside, remains near the Station entrance. Iwakuni was attacked only once during the course of the war, when in July 1945, American B-29 bombers bombed the area, concentrating on the base, nearby oil refinery and railroad offices. Damage done to the Zero hangar during the attack is still visible on the front walls. With the close of World War II, U.S. Marines were the first allies to occupy Iwakuni.

Post-war Iwakuni witnessed a succession of allied forces from countries which have included Great Britain, New Zealand, Australia, India, a United Nations detachment and the United States. The Royal Australian Air Force occupied the Station from 1948 to 1952, when the existing runway was constructed.

When the Korean Conflict began in June 1950, elements of the United Nations Forces arrived at Iwakuni, and military activity at the Station moved into high gear. The U.S. Air Force's 6418th Air Depot Wing commanded the Station from 1952 to 1954. Under U.S. Air Force control, Iwakuni became known as the "Gateway to Korea". U.S. aircraft from Iwakuni flew daily combat missions in support of the front line troops while B-26s flew strikes over North Korea.

In 1954, the U.S. Air Force relinquished command of the Station to the U.S. Navy. In July 1956, U.S. Naval Air Station Iwakuni was greatly enlarged when the 1st Marine Air Wing (1st MAW) moved its headquarters to Iwakuni from Korea. A new area was procured on the north side of the Station to make room for approximately 2,500 incoming Marines.

In 1958, the Marine Corps assumed control of the facility after four years as a U.S. Naval Air Station. On 20 July 1962, the facility was redesignated as a Marine Corps Air Station.

The 1960s were dominated by the Vietnam Conflict and saw a decade of rapid change at MCAS Iwakuni. From 1965 until August 1969, the Station's military population fell from more than 6,000 personnel to a low of about 2,700 personnel. July 20, 1987 marked the 25th anniversary of MCAS Iwakuni as a Marine Corps Air Station.

Since 1 March 1983, MCAS Iwakuni has been one of four Marine Corps installations and one of 28 DOD installations selected to participate in the Model Installation Program (MIP), a program which encourages base commanders to seek innovative ways to achieve excellence in the performance of their assigned mission. The objective of the MIP is to create efficient, effective installations by encouraging innovation, incentives, management flexibility and information sharing.

c. Mission. The mission of MCAS Iwakuni is to maintain and operate facilities and provide services and material to support operations of the 1st MAW, or units, thereof, and other activities and units as designated by the Commandant of the Marine Corps.

d. Organization. MCAS Iwakuni is organized under the line and staff structure shown in Figure D-1. The Commandant of the Marine Corps (CMC) exercises command and provides support to MCAS Iwakuni via the Commander, Marine Corps Bases, Pacific (COMMARCORBASEPAC). Facilities utilization, planning and military or Government

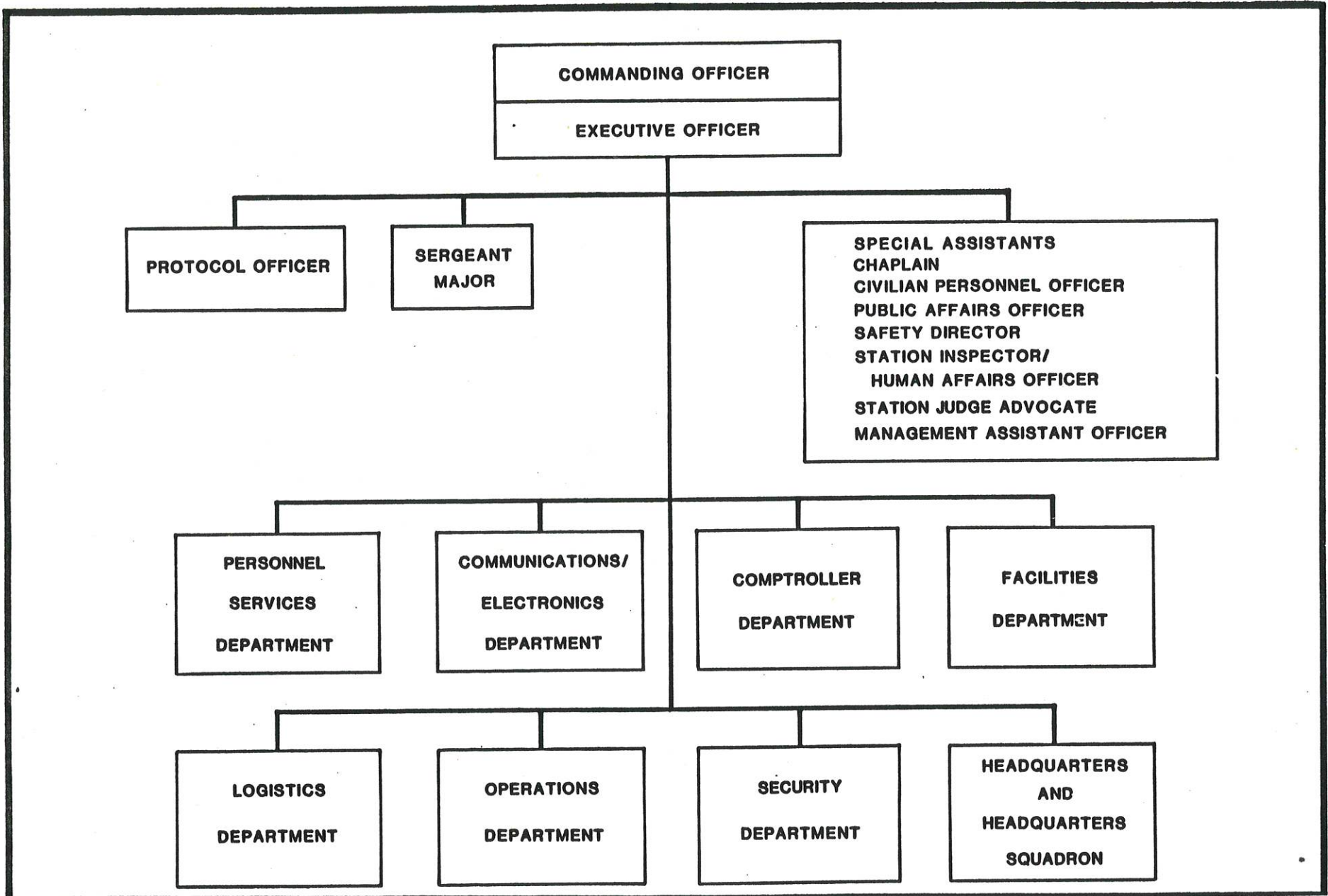
of Japan (GOJ) construction at MCAS Iwakuni are coordinated through the Commander, Marine Corps Bases, Japan (COMMARCORBASESJAPAN). In addition, area coordination is provided by the Commander Naval Forces Japan via COMMARCORBASES JAPAN. Operational support for MCAS Iwakuni is provided by Fleet Marine Forces Pacific (FMFPAC) via the Commanding General 1st MAW (FMAW). Figure D-2 shows the command relationships for MCAS Iwakuni.

e. Base Loading. The base loading of MCAS Iwakuni consists of permanent station personnel and supported personnel. A total of 442 officers, 3,735 enlisted personnel, 314 civilians and 1,171 Japanese National personnel are included in the base loading. The projected base loading at MCAS Iwakuni is shown in Table D-1.

f. Tenants and Supported Commands. Major tenants and supported commands at MCAS Iwakuni are as follows:

- Marine Air Group-12 (MAG-12) is a tactical fixed-wing air group which is part of the 1st MAW. The mission of MAG-12 is to conduct anti-air warfare, offensive air support, and aerial multi-sensor imagery reconnaissance operations in support of Fleet Marine Forces from advanced bases, expeditionary airfields, or aircraft carriers and conduct other operations as may be directed. MAG-15 has been deactivated and consolidated with MAG 12.

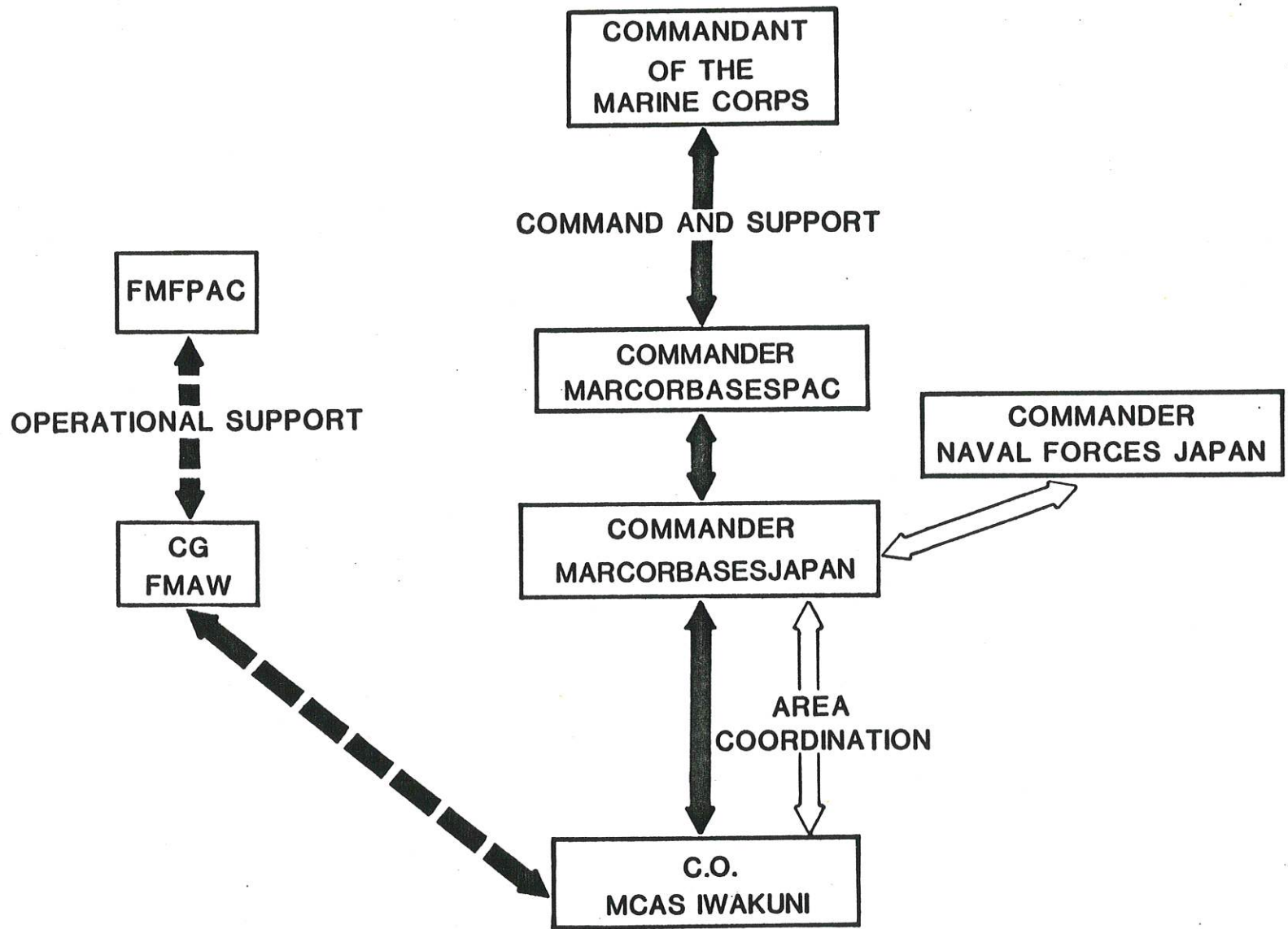
- Marine Wing Support Squadron-171 (MWSS-171) provides all essential aviation ground support requirements and supplemental services to MCAS Iwakuni. It is a subordinate squadron to Marine Wing Support Group 17, headquartered in Okinawa.



**MCAS
IWAKUNI**

ORGANIZATION CHART

**Fig.
D-1**



**MCAS
IWAKUNI**

COMMAND RELATIONSHIPS

**Fig.
D-2**

- 3rd Force Service Support Group Detachment "A", (3rd FSSG, DET "A") provides combat service support in three areas: maintenance, supply support, and automated data processing. In addition, DET "A" supports the Station through the Fleet Assistance Program (FAP) by providing personnel in the areas of disbursing, postal, Marine Corps Exchange, transportation, food services, special services, and administration. DET "A" stationed at MCAS Iwakuni is a detachment of the 3rd FSSG headquartered in Okinawa.

- U.S. Naval Hospital Yokosuka Japan, Iwakuni Branch Clinic is operated by Navy personnel assigned by the U.S. Naval Hospital Yokosuka. The Branch Clinic provides general care medical services for active duty military personnel and their dependents, and qualified civilian and retired personnel.

- U.S. Naval Dental Clinic Yokosuka, Japan Iwakuni Branch Clinic is operated by personnel assigned to the 11th FSSG Dental Battalion. The Branch Clinic provides dental services for active duty personnel, their dependents, qualified civilians, and retired personnel.

- U.S. Navy Calibration Laboratory (NAVCALAB) is a Type III U.S. Navy Calibration Laboratory Annex to the parent laboratory located at Naval Air Facility (NAF) Atsugi, Japan. The annex was established to provide rapid response for in-laboratory and on-site equipment calibration services for all units at MCAS Iwakuni and other DOD activities located in southern Honshu and Kyushu, Japan.

- U.S. Naval Investigative Service Resident Agency (NISRA) provides counterintelligence and criminal investigative services on-Station.

- Far East Network (FEN) operates the Armed Forces Radio and Television Service station at MCAS Iwakuni.

- U.S. Naval Mobile Construction Battalion Detachment (NMCB DET) provides supplementary construction support for MCAS Iwakuni.

- Military Airlift Command (MAC) provides enroute flight support (refueling) for regularly scheduled MAC aircraft transiting MCAS Iwakuni.

✓ - U.S. Naval Aviation Engineering Service Unit Detachment (NAESUDET) provides aviation activities at MCAS Iwakuni with a complete range of field engineering assistance and instruction services on designated aircraft and equipment.

- U.S. Army Veterinary Det Japan, Iwakuni Branch performs subsistence inspections of commercial establishments and military facilities, veterinary health care procedures for government-owned animals, and preventive medicine and public health procedures for all animals.

- U.S. Air Force Troposcatter Iwakuni Site provides connectivity to the Defense Communications System for all U.S. Forces being serviced by MCAS Iwakuni.

- Detachment, 3rd Special Security Communications Team (3rd SSCT) provides Special Intelligence and Sensitive Compartmented Information communications support and special

security administrative support to the Commanding General, 1st MAW, and units assigned to MCAS Iwakuni.

- U.S. Army Engineers District Japan, Iwakuni Resident Office performs inspection and supervision of facilities construction under the Military Construction (MILCON) and Japan Facilities Improvement Program (FIP).

- Defense Reutilization and Marketing Office, Offsite Branch Iwakuni (DRMO-OSB) provides disposal support to all DOD activities located at MCAS Iwakuni, and within Yamaguchi and Hiroshima Prefectures.

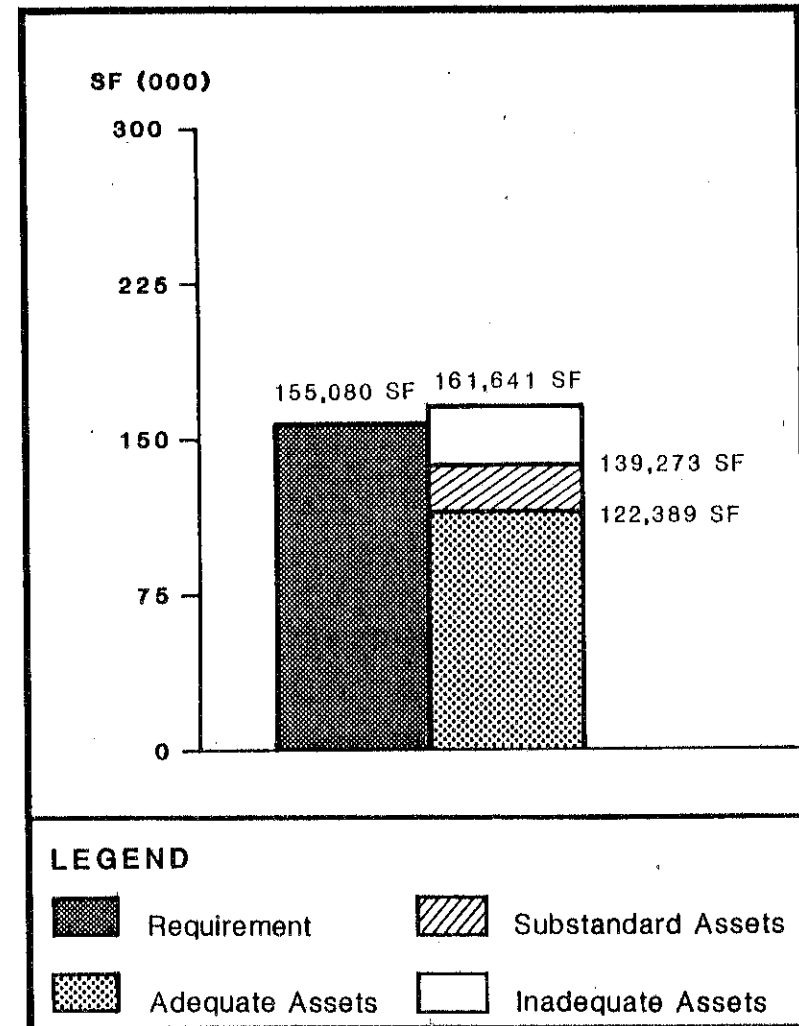
- Matthew Perry School is a Department of Defense Dependent School (DODDS) for eligible dependents of active duty military and civilian personnel. It provides classes from kindergarten through high school.

- 31st Air Wing Japanese Maritime Self Defense Force (JMSDF) operates patrol and search and rescue aircraft from MCAS Iwakuni.

The Station currently has post offices located on South Side (Bldg 261) and North Side (Bldg 1478), and a warehouse/distribution center (Bldg 1239) sited near the warehouse complex. Bldg 261 also contains the MAG-12 supply/storage functions which creates an undesirable mix of different uses. Project MC-4092-044 will provide a required facility to accommodate the post office functions of the Station.

Summary Deficiencies (CCN 730 Series)

<u>CCN</u>	<u>ITEM</u>	<u>DEFICIENCY</u>	<u>ACTION</u>
730-10	Fire Station	8,485 SF	IW634R, MC-4092-032
730-20	Police Station	9,700 SF	Renov.
730-35	Enl Per Locker	7,585 SF	P-849
730-83	Chapel	20,072 SF	Const. as req'd.
730-84	Religious Ed.	3,490 SF	MC-4092-020
730-85	Post Office	10,000 SF	MC-4092-044



FACILITY REQUIREMENTS & ASSETS:

Community Facilities—Personnel Support and Services

CCN 730 Series

Figure: D-15

MCAS IWAKUNI

p. Morale, Welfare and Recreation (MWR)-Interior. The total requirement for this CCN series is 590,809 SF and includes facilities for the exchange and commissary functions, the club system, and all types of interior recreation activities. Figure D-16 shows the facility requirements and assets. Most of the category codes have deficiencies.

The exchange functions on the South Side are currently located in a number of small buildings sited along Freedom Mall. The functions include the retail store (Bldgs 178, 401, and 497), location exchange (Bldg 1469) cafeteria (Bldg 401), auto parts store (Bldg 115), food store (Bldg 497), and service outlets (Bldg 211, 215, 249, 348, 401, 408, 421, 423, 602, 705, 1190, 1468, 1474, 1475, and 1565). A majority of these outlets are located in buildings which have been converted for exchange functions. Project MC-4092-37 is constructing a single facility to consolidate the exchange outlets including the central administrative functions. In addition, a project to construct a location exchange is required to serve the North Side personnel.

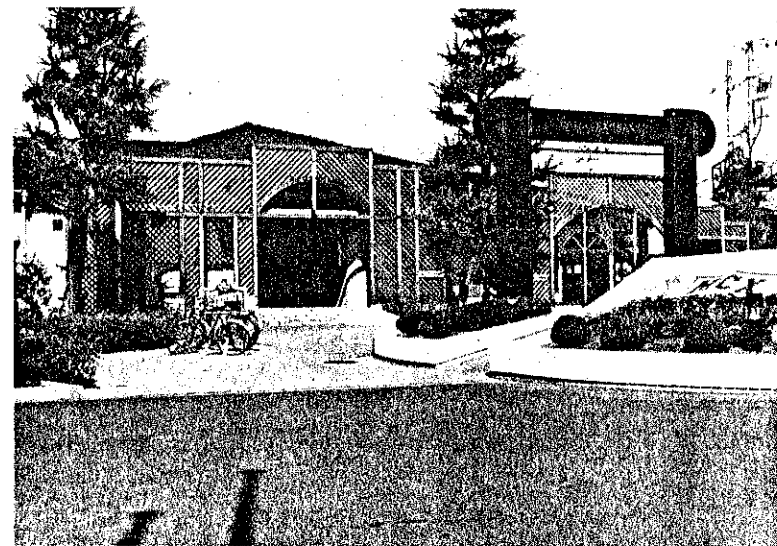
The new Commissary Store (Bldg 450) provides a modern food retail facility to serve MCAS Iwakuni. However, based on the latest SFPS update and the most recent base loading, the Commissary Store is undersized. An addition to the Commissary is required to satisfy this updated requirement.

The Family Services Center is currently located in Bldg 210. Although the facility is adequate, sufficient space is still lacking. MILCON Project P-807, a BEQ conversion project, will provide adequate spaces to relocate the Family

Services Center. Floor space will also be available in Bldg 401, Marine Corps Exchange, when the Exchange functions move to the new facility.

The arts and crafts hobby shops are located in inadequate buildings on the South Side (Bldg 144) and North Side (Bldgs 1462, 1560, 1691 and 1795). Project MC-4092-077 will construct sufficient facilities to meet the requirements of the Station.

Special Services issue facilities are located in buildings on South Side (Bldgs 159, 210), the warehouse area (Bldgs 1230, 1231) and North Side (Bldg 1466). Except for the facility in Bldg 210, all of these facilities are rated inadequate.



MAIN EXCHANGE BLDG 401

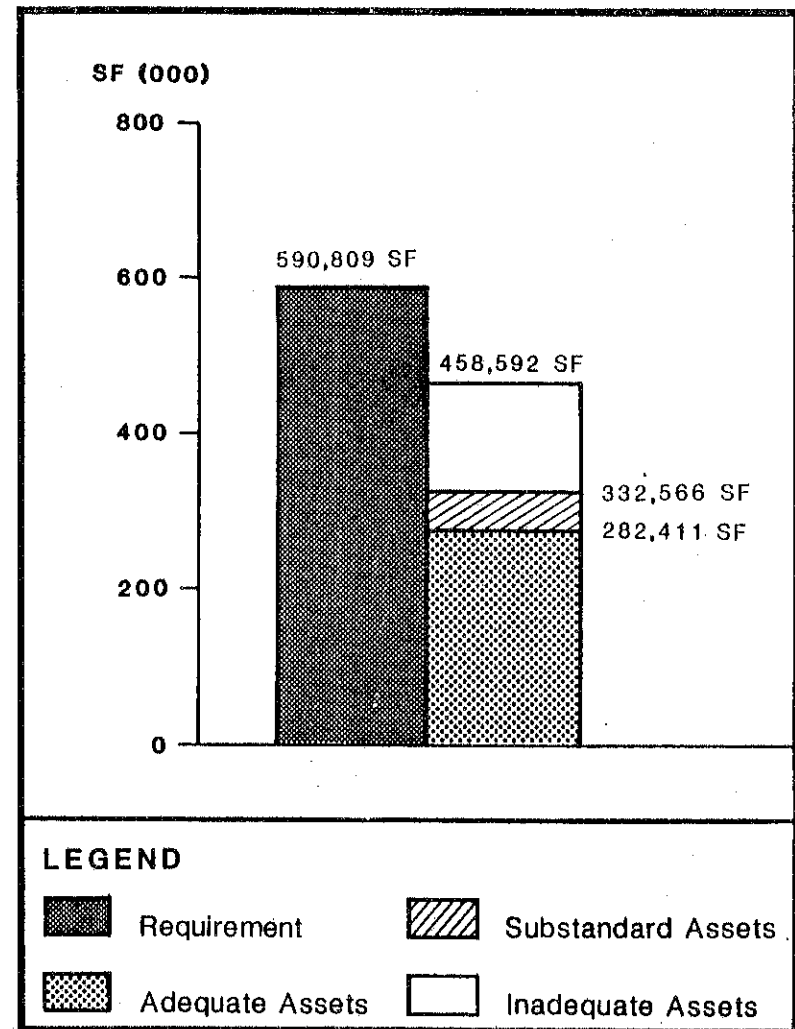
The automotive hobby shop is located in adequate facilities (Bldg 139) sited on South Side. This facility is undersized. MILCON Project P-806 will provide an automotive hobby shop to satisfy this CCN requirement.

In October 1988, the adequate gymnasium on the South Side (Bldg 380) was destroyed by fire. As a result, the Station has two inadequate facilities on North Side (Bldgs 1560, and 1570) to meet the indoor physical fitness requirements of the Station. Project MC-4092-077 will construct a gymnasium, unit fitness center, and indoor training pool on the fill land near Penny Lake. This project will satisfy the gymnasium requirements for the Station.

The skeet shooting facility is located in an inadequate building (Bldg 714) near Penny Lake.

The Station currently does not have an indoor swimming pool for training purposes. The existing outdoor pool can only be used for about four months of the year due to inclement weather conditions. A facility is needed on a year-round basis to satisfy the station training requirements. Project MC-4092-077 will construct an indoor swimming pool thereby providing a facility that is usable throughout the year.

The Station has facilities for youth activities in four buildings on the South Side (Bldg 562, 1110, 1116, 1117). Bldgs 1110 and 1116 are adequate while Bldgs 562 and 1117 are inadequate.



FACILITY REQUIREMENTS & ASSETS:
 Morale, Welfare and
 Recreation-Interior
 CCN 740 Series

Figure: D-16

MCAS IWAKUNI

MILCON Project P-814 (N-810) is constructing a youth center near Matthew Perry School (Bldg 550). An additional facility in the Monzen Family Housing area is also preferred.

Child care facilities are currently accommodated in three buildings (Bldg 635, 639, 670), all located adjacent to the Sakura Theater (Bldg 630). Although the facilities are adequate, they are not large enough for the Station requirements, as many children must wait long periods before enrollment. Project MC-4092-011 will construct a child care facility near the existing facilities.

The golf course and club house are attractive recreational features. They are one of the primary sources of revenue to support various recreation activities on the Station. The club house (Bldg 712) is adequate, although it is undersized. MILCON Project P-817 will construct an addition to Bldg 712 to meet these requirements.

The Station has three adequate indoor racquetball playing courts. However, there is still a requirement for one additional court. Project P-794 will construct an additional indoor racquetball court to satisfy this requirement.

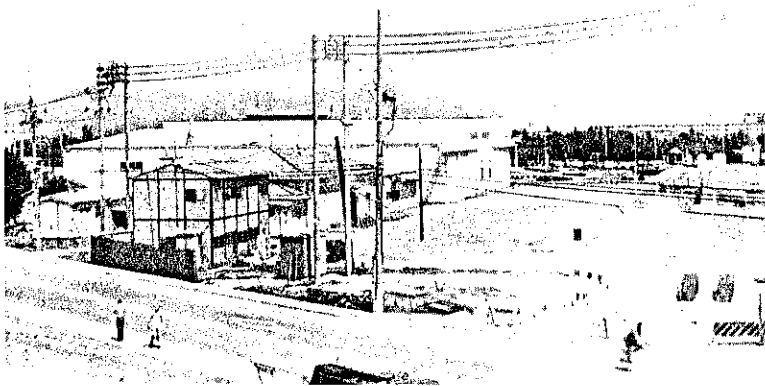
The warehousing function of the Marine Corps Exchange (MCX) is currently located in six buildings (Bldgs 260, 263, 276, 284, 1206 and 1477). About 80 percent of the space is adequate. MILCON Project P-855 will construct an addition to Bldg 276. However, since this project would not construct the total requirement for exchange storage, an additional project must be programmed.

Recreational boating requirements of the Station are currently provided in Bldgs 803 (substandard) and 837 (adequate). MILCON Project P-818 will construct an addition to Bldg 837 to satisfy this CCN requirement.

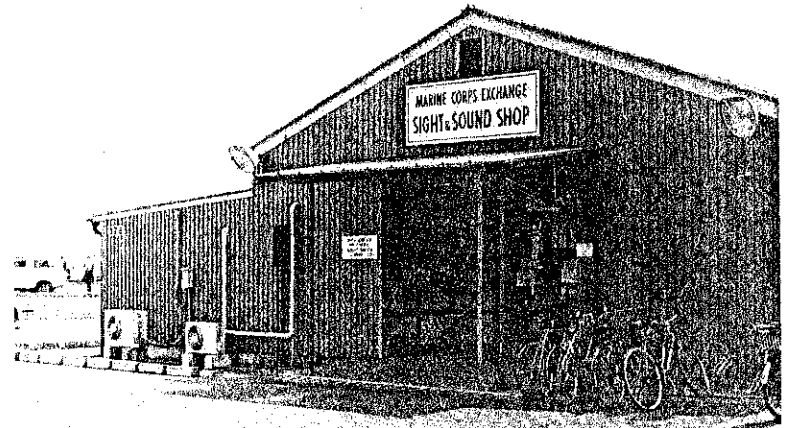
(MWR projects are NAF funded, not MILCON funded. However, they are assigned P-xxx numbers by the Station. Once projects are approved by the NAF Board for funding, a N-xxx number and project year are assigned).



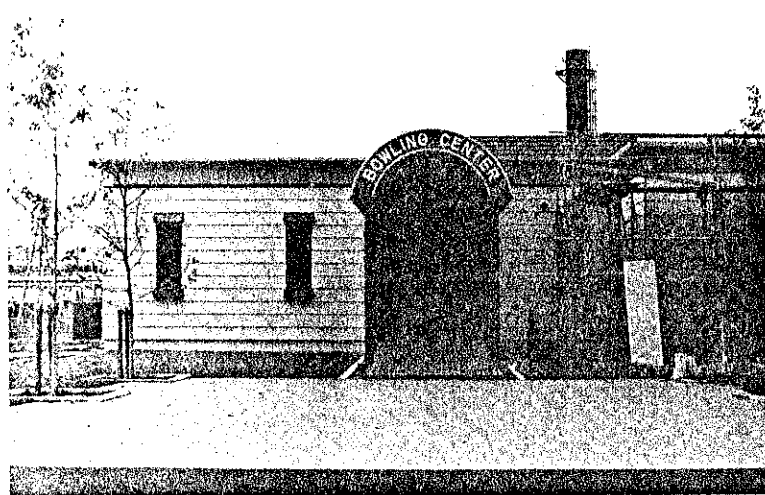
RACQUETBALL COURT BLDG 2160



FUTURE SITE OF MAIN EXCHANGE



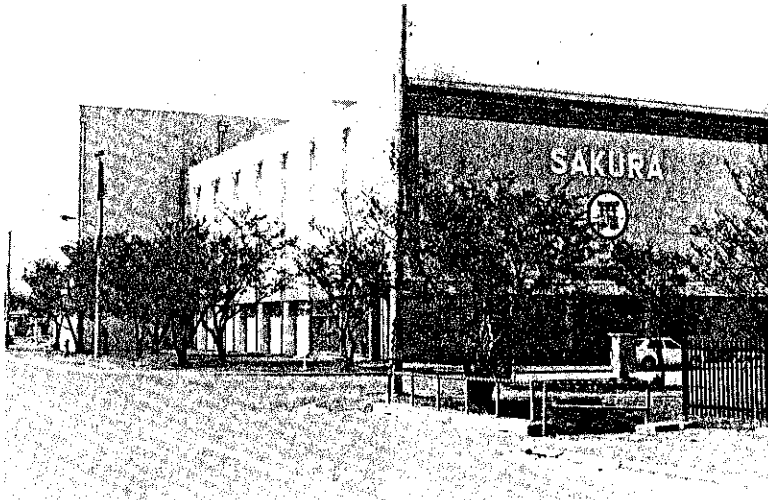
SIGHT & SOUND SHOP BLDG 178



BOWLING CENTER BLDG 1347



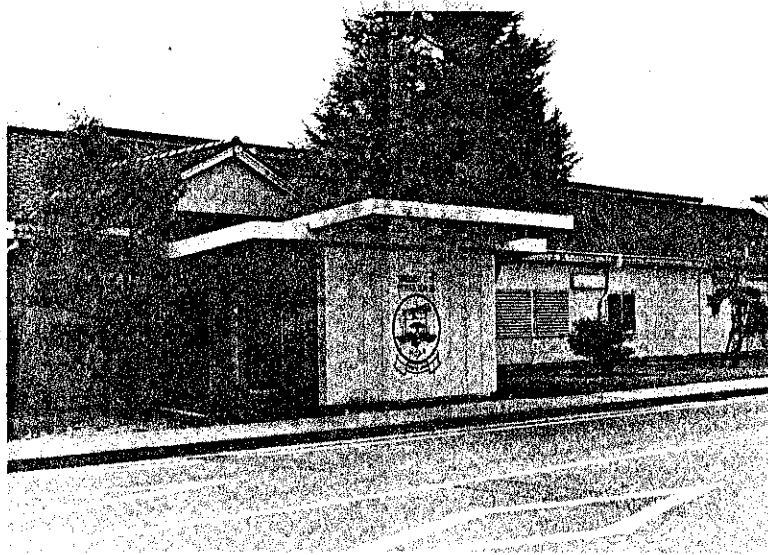
EDUCATION SERVICES BUILDING BLDG 210



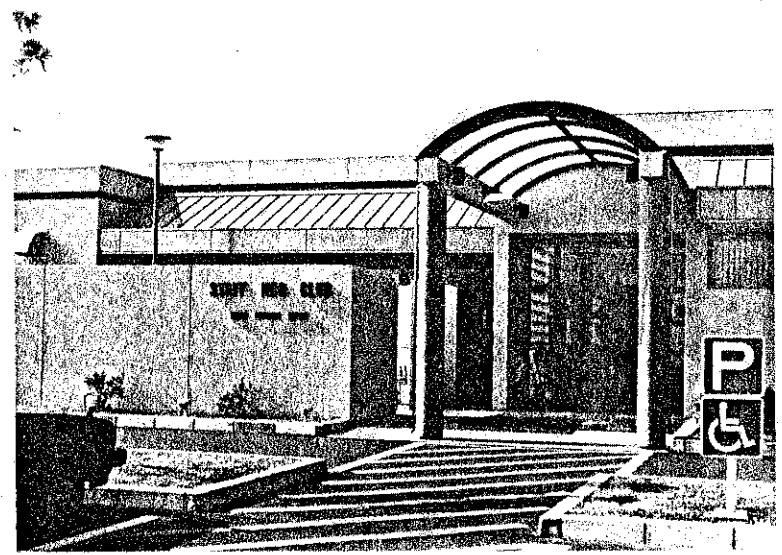
FAMILY THEATER BLDG 630



CHILD CARE CENTER BLDG 635



TOMODACHI CLUB BLDG 175



STAFF NCO CLUB BLDG 443

Summary of Deficiencies (CCN 740 Series)

<u>CCN</u>	<u>ITEM</u>	<u>DEFICIENCY</u>	<u>ACTION</u>	<u>CCN</u>	<u>ITEM</u>	<u>DEFICIENCY</u>	<u>ACTION</u>
740-01	Exchg Ret Stor	26,993 SF	MC-4092-037	740-37	Spec. Serv. Issue	10,001 SF	Const. as req'd.
740-02	Location Exchg	7,000 SF	Const. as req'd.	740-38	Hobby Shop Auto	7,225 SF	P-806
740-03	Exchg Cent Admin	4,650 SF	MC-4092-037	740-43	Gymnasium	19,037 SF	MC-4092-077
740-07	Exchg Auto Parts	3,953 SF	MC-4092-037	740-52	Skeet Bldg.	3,950 SF	Const. as req'd.
740-08	Exchg Food Stor	1,800 SF	MC-4092-037	740-53	Indoor Swim Pool	26,000 SF	MC-4092-077
740-09	Exchg Serv. Out.	14,110 SF	MC-4092-037	740-55	Youth Center	1,920 SF	P-814 (N-810)*
740-23	Commissary	4,973 SF	Const. as req'd.	740-74	Child Care Ctr.	5,364 SF	MC-4092-011
740-25	Fam Serv. Ctr.	1,930 SF	Const. as req'd.	740-80	Golf Club House	1,845 SF	P-817
740-36	Hobby Shop Arts/Crafts	7,500 SF	MC-4902-077	740-85	MCX Cent. Whse	68,004 SF	P-855; Const. as req'd.
				740-87	Boat House	7,160 SF	P-818

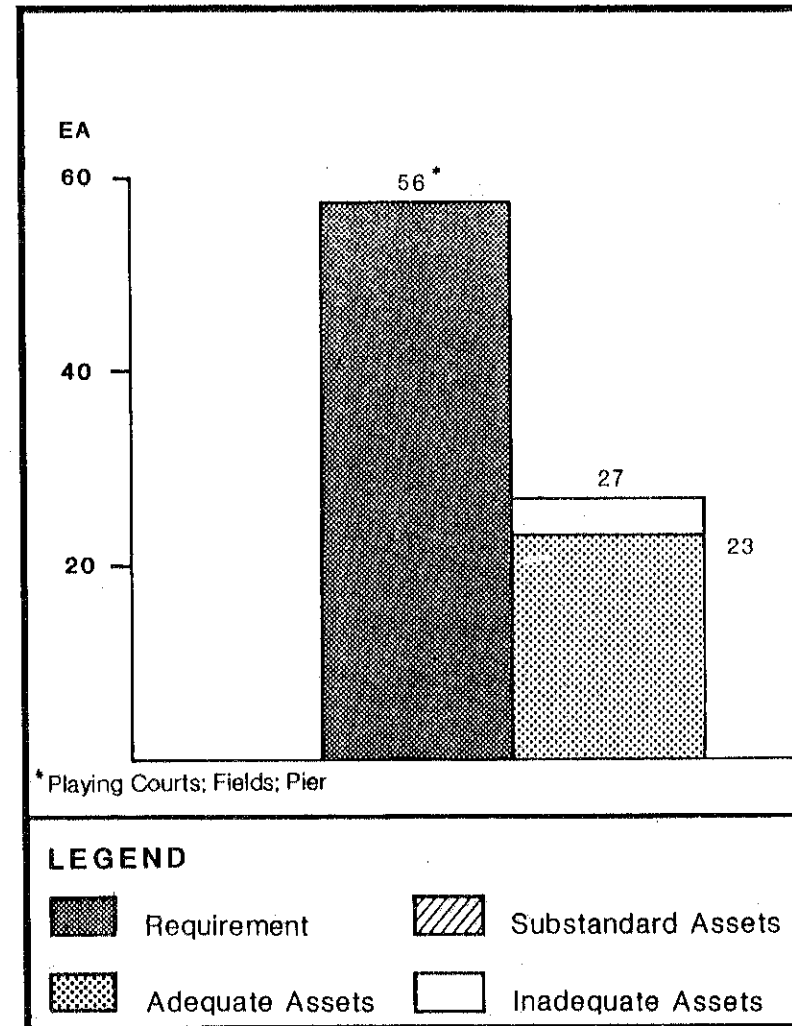
*Complete

q. Morale, Welfare and Recreation-Exterior. This CCN series consists of outdoor playing courts and fields, recreational swimming pools and a number of outdoor recreational facilities. Figure D-17 shows the facility requirements and assets. Most of these facilities are adequate to meet their assigned functions. However, the Station lacks an adequate number of facilities. The lack of sufficient land area effectively limits the number of outdoor recreation facilities on the Station. Although there is a deficiency of 27 outdoor playing courts, only MILCON Project P-804, Monzen tennis courts, and MILCON Projects P-873 and P-874, playing fields on the fill-land area near Penny Lake, have been proposed for programming. Project N-811, one tennis court, is under construction near the Monzen Housing area.

Summary of Deficiencies (CCN 750 Series)

<u>CCN</u>	<u>ITEM</u>	<u>DEFICIENCY</u>	<u>ACTION</u>
750-10	Playing Courts	27 Ea	P-804*; N-811
750-20	Playing Fields	13 Ea	P-873*; P-874*
750-61	Recreational Pier	1 Ea	None

*NAF candidate projects.



FACILITY REQUIREMENTS & ASSETS:

Morale, Welfare and Recreational- Exterior
CCN 750 Series

Figure: D-17

MCAS IWAKUNI

PLANNING ANALYSIS

E

E
ANALYSIS

MCAS IWAKUNI MASTER PLAN

I W A K U N I , J A P A N

E. PLANNING ANALYSIS

1. Introduction

Land use and facility development planning at MCAS Iwakuni is complicated by the need to accommodate several incompatible uses such as, aircraft operations, ordnance storage and operations, personnel support and family housing, all within a limited land area. The noise generated by aircraft operations requires that noise sensitive land uses such as personnel support and family housing be sufficiently separated from the runway and aircraft maintenance areas to minimize noise impacts. Ordnance storage and operation functions must be separated from other land uses due to the potential hazards they create. The limited land area at MCAS Iwakuni and the existing conditions make it necessary, in some cases, to mitigate criteria requirements.

This section provides the rationale for the land use plan proposed for MCAS Iwakuni. The idealized functional relationships for an air station are compared with the existing conditions along with the constraints affecting future development. The basic planning concepts considered applicable to MCAS Iwakuni are discussed in relation to the proposed land use plan and the conceptual development plan.

constraints. The development concepts that form the basis for the land use plan are listed below:

- Minimize the land use limitations imposed by operational constraints. Due to the limited land area, it is necessary to locate facilities that impose restrictions on land use (such as ordnance storage and operations) with like facilities of the JMSDF.

- Improve land use relationships and reduce conflicts with operational criteria through the proper siting of facilities. Explosive storage facilities will also be relocated to eliminate most of the existing ordnance waivers.

- Improve the community support complex at this relatively isolated activity.

- Improve circulation on the Station. Implicit in this concept is to make pedestrian and bicycle traffic safe and attractive as alternatives to the automobile.

- Reserve adequate land area for potential expansion of the air operations, housing, and support functions.

d. Proposed Relocation of Runway. Historically, industrial development across the Imazu River at the north end of the runway has been a source of great concern to Station. In 1955, the U.S. Navy requested the GOJ to restrict development in this area which might be hazardous to airfield operations. Although the request has been reiterated several times, the GOJ has never responded and considerable additional industrial development has continued in this area. The development has resulted in

numerous protrusions, primarily smokestacks, into the runway approach/departure and transition surfaces. Construction of these high structures has continued despite these violations to the airfield surfaces. The amplitude of the air safety hazard is heightened due to the nature of the industrial development which includes chemical factories and refinery operations. An aircraft accident in this area would be potentially disastrous.

The local political attitude towards the Station is currently one of tolerance, but the hazards of the overflight of civilian areas and the adverse effects of aircraft noise remain a great concern. The registration of complaints regarding the noise generated by aircraft operations has increased in recent years. These two factors have caused the Yamaguchi Prefecture and City of Iwakuni governments to lobby the GOJ to relocate the runway to an offshore site. The GOJ has been studying the runway relocation issue since 1973. The following is a chronological listing of the studies performed since that time:

<u>JFY</u>	<u>Description of Survey/Investigation</u>
1973	Existing Facilities Survey Fishery Management Survey Marine Life and Benthonic Life Resources Survey
1974	Air Installation and Flight Operations Compatibility Survey Hydrographic Survey Inspection and Analysis of Surface Soil Material at Potential Borrow Pits

<u>JFY</u>	<u>Description of Survey/Investigation</u>
1975	Aircraft Noise Study Preliminary Survey Based on Hydraulic Simulation Test Sea Sand (for Fill) Supply Availability Survey
1976	Hydraulic Simulation Test Benthonic Life Resources Survey
1977	Project Feasibility Study Execution/Construction Plan Study Land Use Study of Area Vacated After Relocation of Existing Air Base Compilation/Preparation of Preliminary Study Report
1978	Comparative Study of Alternate Plans (other than landfill, such as pier-supported or floating airfield) Investigations/Studies on Safety Measures for Protection of the Chemical Plants/Industries in North Approach Area
1979	Supplemental Study on Effect of Landfill on the Water Quality of the Environment Supplemental Study on Wave Propagation Effect on Ships Navigating Nearby
1980	Optimum Runway Site Location/ Orientation Study

<u>JFY</u>	<u>Description of Survey/Investigation</u>
1980	Airfield Facilities Relocation Study Existing Condition Survey of Hazardous Facilities to Navigation Countermeasures Proposals for Elimination/Relocation/Reduction of Hazardous Conditions
1988	Study on Test Fill of a Site near JMSDF Seaplane Ramp

Concurrent with these studies, the GOJ Defense Facilities Administration Agency (DFAA) in 1976 requested the U.S. Forces to confirm the long-term requirements for MCAS Iwakuni. The DFAA was assured that there was a continuing need for the Station in the foreseeable future.

As a result of the U.S. Forces confirmation of the need for MCAS Iwakuni, a number of plans have been developed to relocate the runway eastward to an offshore site to eliminate approaches and departures over the industrial area and reduce aircraft noise impacts to the civilian community. Three initial plans proposed by DFAA in August 1981 are summarized as follows:

Plan 1. This plan would have relocated the runway to the east approximately 800 meters to 1,000 meters and to the south approximately 2,300 meters with a new direction of 4° to the right.

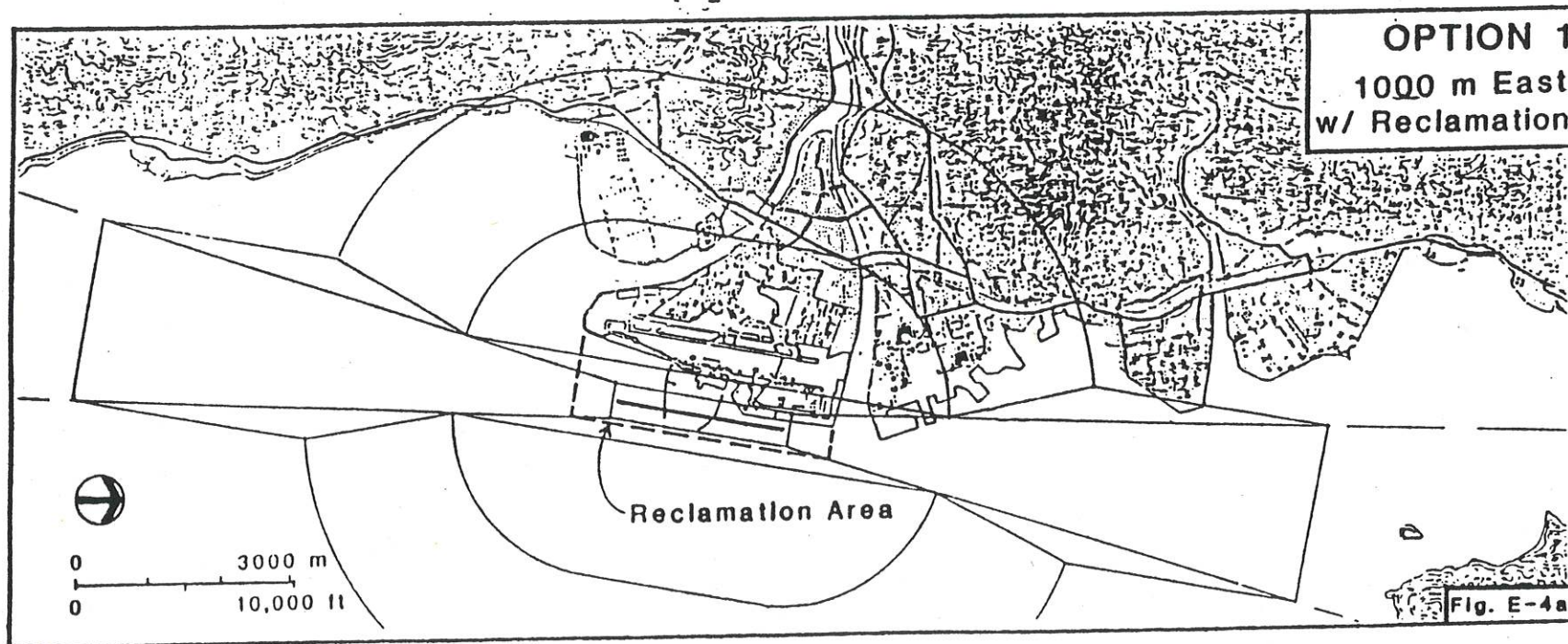
Plan 2. This plan would have relocated the runway to the east approximately 800 meters to 1,000 meters and relocated the existing port facilities.

Plan 3. This plan would have relocated the runway to the east approximately 800 meters and to the south approximately 2,300 meters with construction of two (2) crossing runways.

At that time, the Station considered Plan 2 as the most acceptable of the plans based on aircraft operational procedures and airfield planning criteria.

In April 1987, DFAA again proposed three (3) options for relocation of the runway. All of the runways in the proposed options would be 8,000 LF x 150 LF, as opposed to 10,800 LF x 200 LF required for a Class B runway. The three options proposed by DFAA are as follows:

Option 1. This option would relocate the runway approximately 1,000 meters to the east, reclaim the land between the runway and shoreline, and also relocate certain other facilities, including port facilities. Among the facilities excluded from relocation are: magazines, warehouses, bachelor and family housing, the schools, community support, vehicle maintenance and fuel facilities, and the headquarters building. Yamaguchi Prefecture and City of Iwakuni government agencies have already consented to Option 1. (See Figure E-4a)



ALTERNATIVES FOR PROPOSED OFF-SHORE RELOCATION

Option 2. This option would relocate the runway 1,000 meters to the east and also relocate the port facilities. No other facilities would be relocated under this option. Only the runway and access taxiway would be reclaimed. (See Figure E-4b)

Option 3. This option would construct an additional runway east of the existing one and at an angle approximately 25° to 30°. The new runway and the existing runway will form an "x" for exclusive use of take-off to the north, landing from the south, respectively. The existing port facilities will be relocated to accommodate the new runway. (See Figure E-4c)

The Station has recommended to the Commander, Marine Corps Bases, Japan (COMMARCORBASESJAPAN) that Option 1 be adopted as the long-range proposal to relocate the runway, providing the Class B runway requirements are met. Option 2 was not recommended as it would result in significant separation of aircraft support facilities and the runway. Option 3 was not recommended as it has the potential to cause confusion with pilots and create operational safety problems.

The relocation plan would be an extremely ambitious and costly undertaking. The GOJ has spent over \$5.2 million (based on Y135/\$) on studies which is evidence of a strong commitment to relocation of the runway. Negotiations with the local fishing association over compensation for lost revenue appear to be progressing smoothly.

In view that the runway relocation is a long-range national project and beyond the life of the master plan, it was not considered in

developing the proposals of this master plan. The historical information regarding the proposed relocation options is only presented here as it will continue to be a much discussed issue in the future.

the Monzen Housing area have been constructed after 1982, demolition of units to provide space for new construction would have to occur on the main Station. If the 330 families renting housing in the local economy were located on the main Station, the housing density would more than double, increasing from 6 units per acre to 14 units per acre. Although this increase might create congestion, additional units should be programmed because of the uncertainty in the fluctuating dollar.

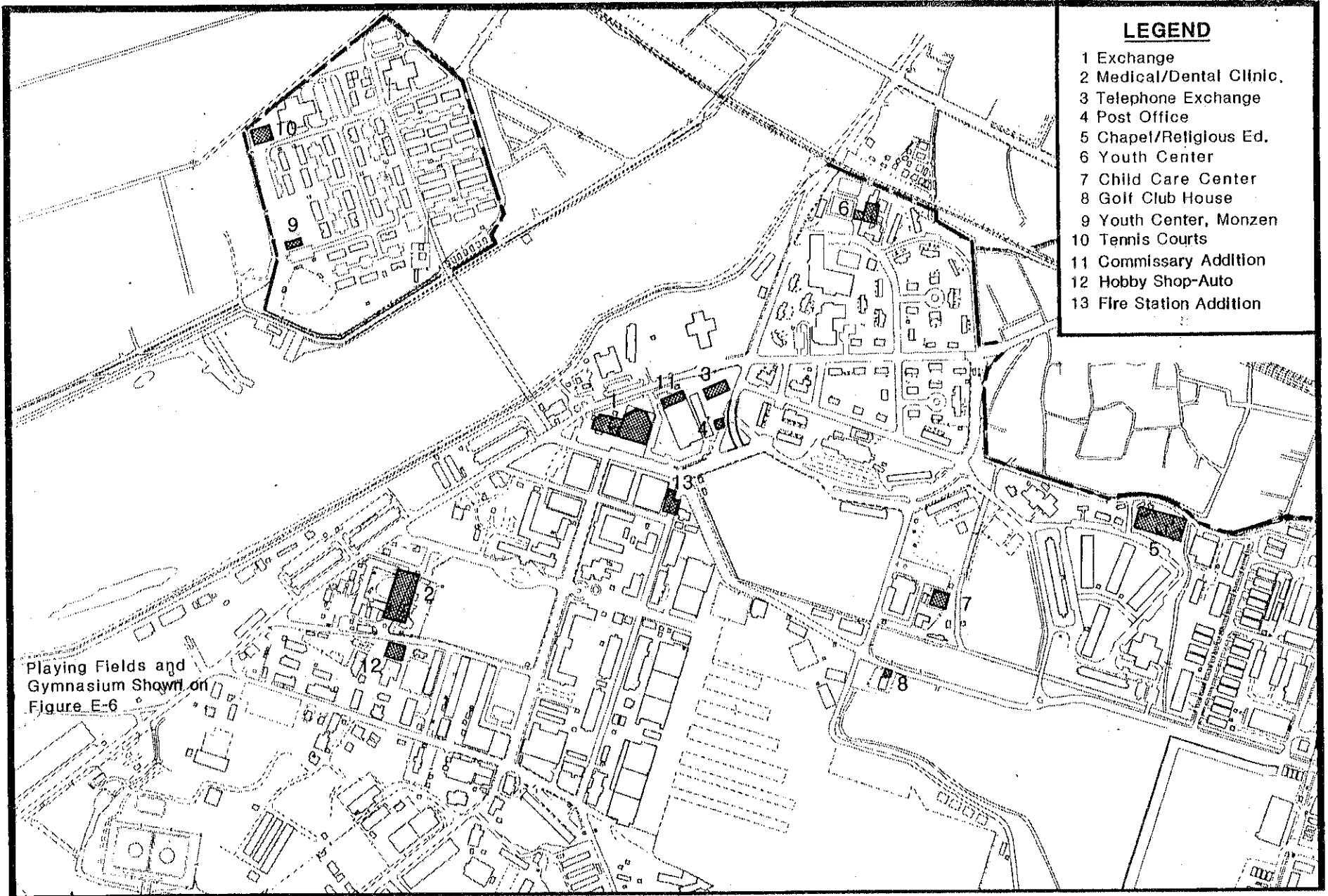
k. Personnel Support Facilities. The major personnel support facility development is planned for South Side. The newly opened Freedom Bridge provides direct access to the proposed projects on South Side from the Monzen Housing area. In addition, support facilities will be provided on North Side to service the personnel living and working in that area.

The main project proposed for the South Side area is the consolidated Marine Corps Exchange, sited adjacent to the Commissary, Bldg 450. The proposed project will consolidate the administrative, retail and service outlet functions of the Marine Corps Exchange into a single facility. Once the new facility has been constructed, the vacated Exchange buildings can be used for other community support functions. The project will displace the administrative and storage facility of the 3rd FSSG DET "A", currently located in Bldg 445. These functions will relocate to Bldg 246, which is near Bldg 244, the existing 3rd FSSG DET "A" vehicle maintenance facility. This consolidation will improve efficiency and enhance operational control of the 3rd FSSG DET "A". See Figure E-14.

The Medical and Dental Clinic is another major project planned for South Side. The project will consolidate all of the functions performed in several inadequate buildings in a two-story building. The project will be constructed on the site of the existing Medical and Dental facilities and the Navy Calibration Laboratory. Construction of the new facility will require phasing of demolition to ensure that medical services are maintained and the calibration laboratory is relocated.

Other projects identified for South Side include a new telephone exchange building, an addition to the fire station, a new Post Office, Chapel, Religious Education Building, Gymnasium with indoor swimming pool unit fitness center, arts and craft hobby shop, and location exchange, Youth Center, Child Care Center, golf club house and two playing fields. The Telephone Exchange building is sited adjacent to the existing facility, Bldg 469. The existing fire station is ideally situated to service South Side, North Side and the Monzen Housing area. The plan proposes closing 6th Street and reconfiguring the four-way intersection. Closure of 6th street has the advantage of making more land available for the fire station addition.

The existing South Side Post Office is located in Bldg 261, which also contains MAG-12's supply/storage functions. This location for the Post Office creates an undesirable mix of privately owned vehicle traffic with aircraft maintenance vehicle traffic. The proposed Post Office has been sited near the Commissary and Marine Corps Exchange facilities and would require re-alignment of a portion of 7th Street fronting the Telephone Exchange, Bldg 469. This



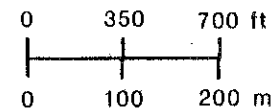
LEGEND

- 1 Exchange
- 2 Medical/Dental Clinic
- 3 Telephone Exchange
- 4 Post Office
- 5 Chapel/Religious Ed.
- 6 Youth Center
- 7 Child Care Center
- 8 Golf Club House
- 9 Youth Center, Monzen
- 10 Tennis Courts
- 11 Commissary Addition
- 12 Hobby Shop-Auto
- 13 Fire Station Addition

Playing Fields and
Gymnasium Shown on
Figure E-6

**MCAS
IWAKUNI**

**CONCEPTUAL DEVELOPMENT PLAN
SOUTH SIDE PERSONNEL SUPPORT**



**Fig.
E-14**

location would reduce traffic into the South Side aircraft maintenance area and would provide a convenient one-stop area for the Post Office, Commissary and Exchange.

The Chapel and Religious Education buildings are located on the site of Bldgs 1112 and 1113, existing 0-6 Officer housing units which will be demolished.

The Youth Center is sited near the school to provide a convenient location for dependent children. A smaller Youth Center is proposed for the Monzen Housing area to serve children living in that area. A Child Care Center is sited near the existing facilities, Bldgs 635, 639, and 670. A construction phasing and demolition plan will be necessary to ensure that child care services are not interrupted.

An addition to the golf club house (Bldg 702) is proposed to satisfy the clubhouse shortfall.

Two playing fields have been sited on the land area created by filling the former sewage lagoons. These fields will be sited adjacent to the area reserved for warehouses and will act as a buffer and open park space.

Community support projects sited on the North Side include a package store, basketball and tennis courts, an enlisted personnel locker facility and a family services center. The package store is sited in the area currently occupied by the former MAG-15 Headquarters, (Bldg 1450). The administrative functions will be eventually relocated to the converted BEQs near the runway. The Family Services Center could be included in the converted BEQs. The basketball, tennis courts and racquetball court

are sited on vacant land adjacent to the existing bowling alley. These community support facilities and the newly constructed athletic field will provide a consolidated recreation complex for the personnel assigned to the North Side. See Figure E-15.

In addition to the Youth Center in the Monzen Housing area, a tennis court has been proposed for families housed there.

5. Circulation Plan

a. Vehicular Traffic. As previously discussed, vehicular traffic is not a major problem on-Station, except during peak morning and evening rush hour traffic. The newly opened Freedom Bridge will allow direct access from the Monzen Housing area and reduce traffic congestion at South Gate. The possibility of starting a voluntary flexible work schedule should be investigated. Varying work start and end times of employees by as little as one half hour should reduce congestion at all the gates. This flexible work schedule should be established on a trial basis for six months, and the Provost Marshal's Office (PMO) should monitor the impact on traffic.

The four-way intersection near the main Fire Station (Bldg 476), needs to be improved. This intersection is congested and unsafe. The Plan proposes to close 6th Street for the block fronting the existing Fire Station and re-route traffic between Bldgs 476 and 490. This will eliminate the four-way intersection and provide a safe T-intersection. See Figure E-16.

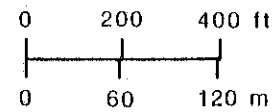
LEGEND

- 1 Package Store
- 2 Enl. Pers. Locker
- 3 Basketball Court
- 4 Tennis Court

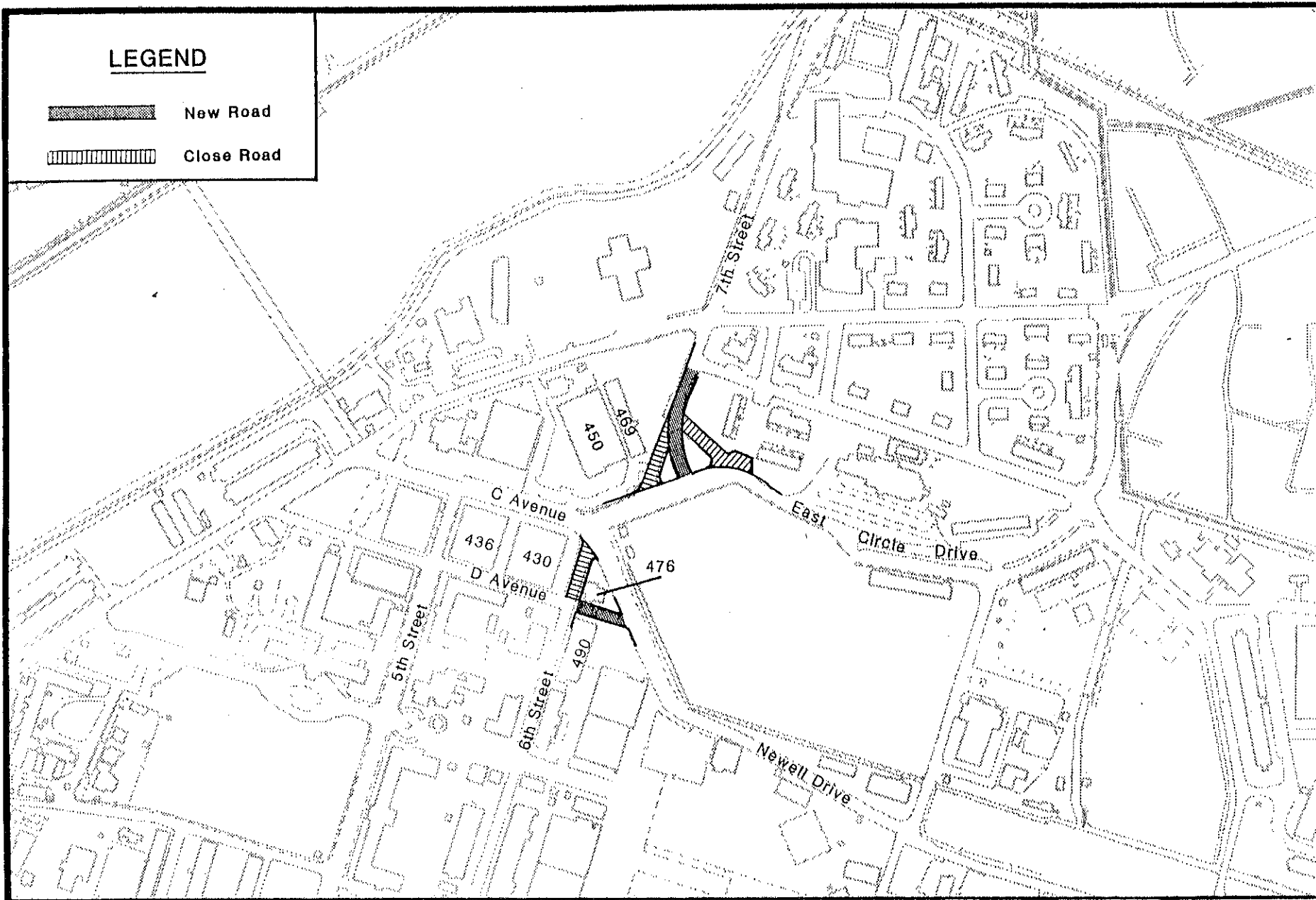


**MCAS
IWAKUNI**

**CONCEPTUAL DEVELOPMENT PLAN
NORTH SIDE PERSONNEL SUPPORT**

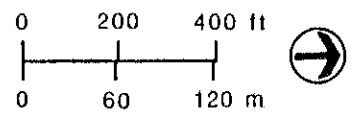


**Fig.
E-15**

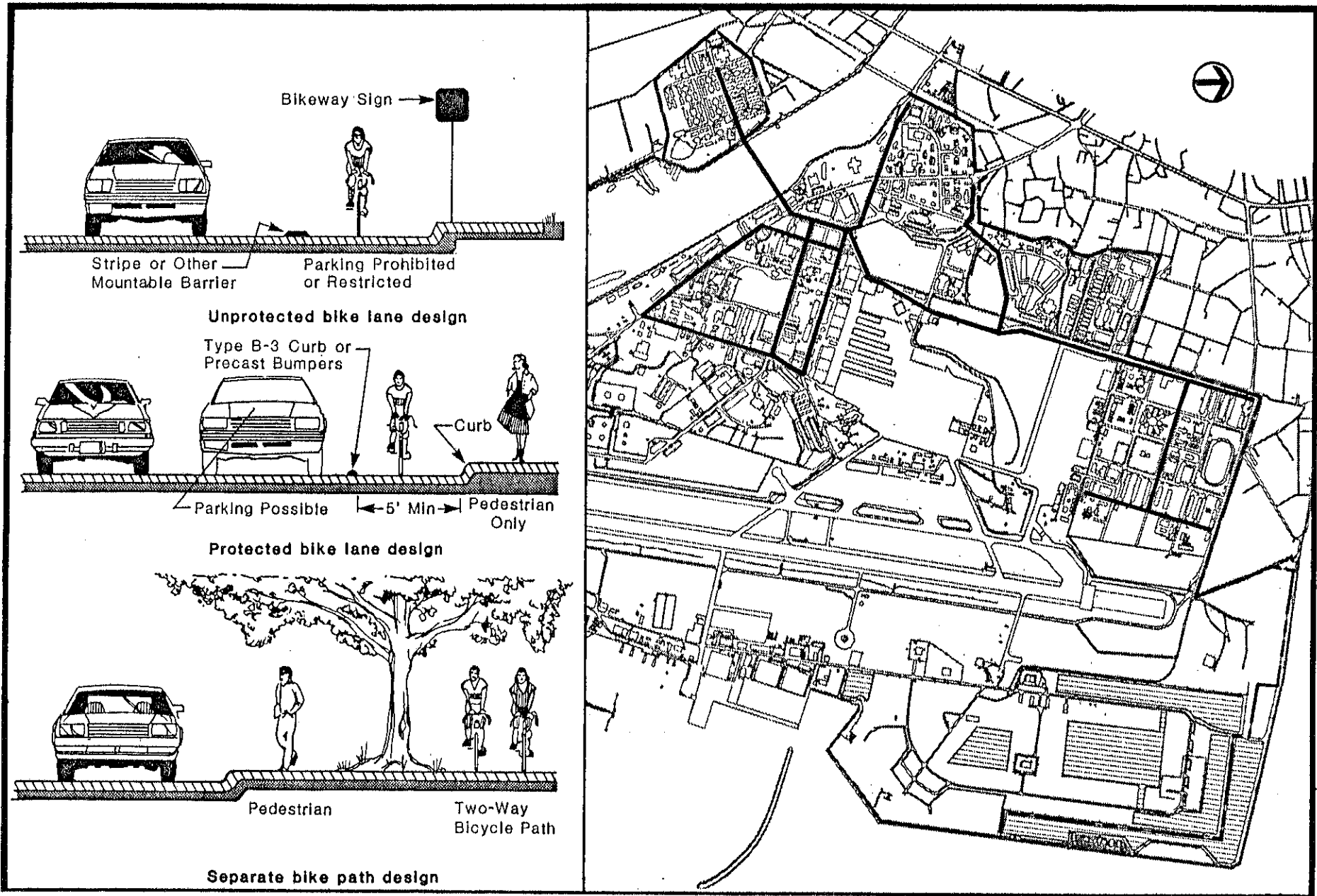


**MCAS
IWAKUNI**

TRAFFIC PLAN



**Fig.
E-16**



**MCAS
IWAKUNI**

BIKEWAY DESIGN/ BIKEWAY PLAN

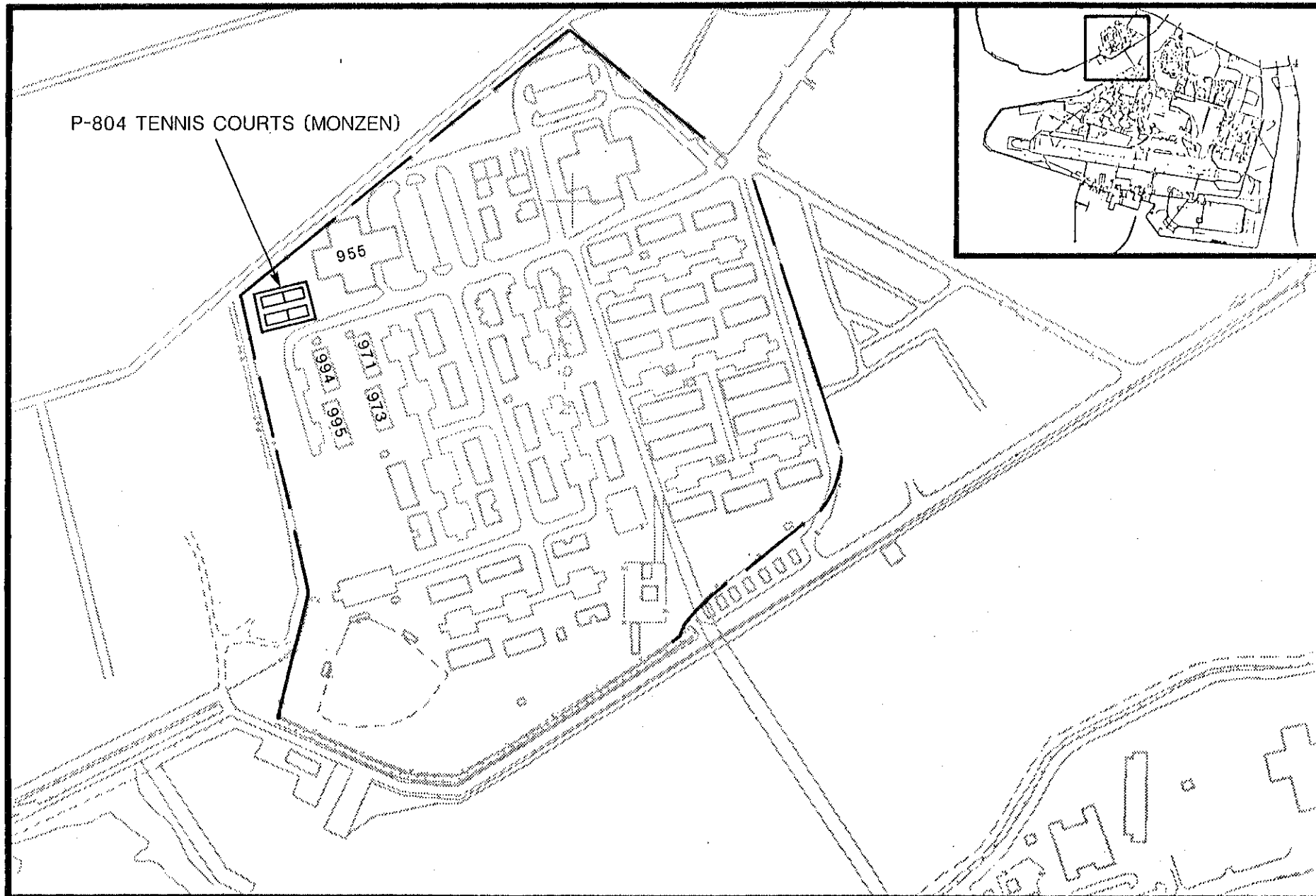
**Fig.
E-17**

CAPITAL IMPROVEMENTS PLAN F

**MCAS IWAKUNI
MASTER PLAN**

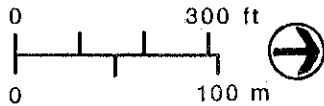
I W A K U N I , J A P A N

IMPROVEMENTS
PLAN



**MCAS
IWAKUNI**

**SITE PLAN P-804
TENNIS COURTS (MONZEN)**



**Fig.
F-19**

TITLE: P-814 (N-810), Youth Center

SCOPE: This project will construct a 7,535 SF, prefabricated, one-story building on reinforced concrete floor, with air conditioning, space heating, and built-in kitchen. The project scope has been established to consolidate various youth functions currently housed in small facilities located near the Main Gate. The project will include one large room with a stage, a game room, administrative and support rooms, lounges, indoor snack area, and an outdoor patio.

REQUIREMENT: An adequate and properly sited youth center is required to provide dependent youths with a facility to conduct indoor social, cultural, and physical activities. The existing facility is inadequately sized to hold many of the activities necessary to provide a diverse environment for youths at MCAS Iwakuni. An on-Station youth center is especially required as off-Station facilities for youths are limited.

SITING CONSIDERATIONS: The project is sited west of the Matthew C. Perry School, and within the family housing area of the Station. This site is also convenient to the youths living in the Monzen Housing area.

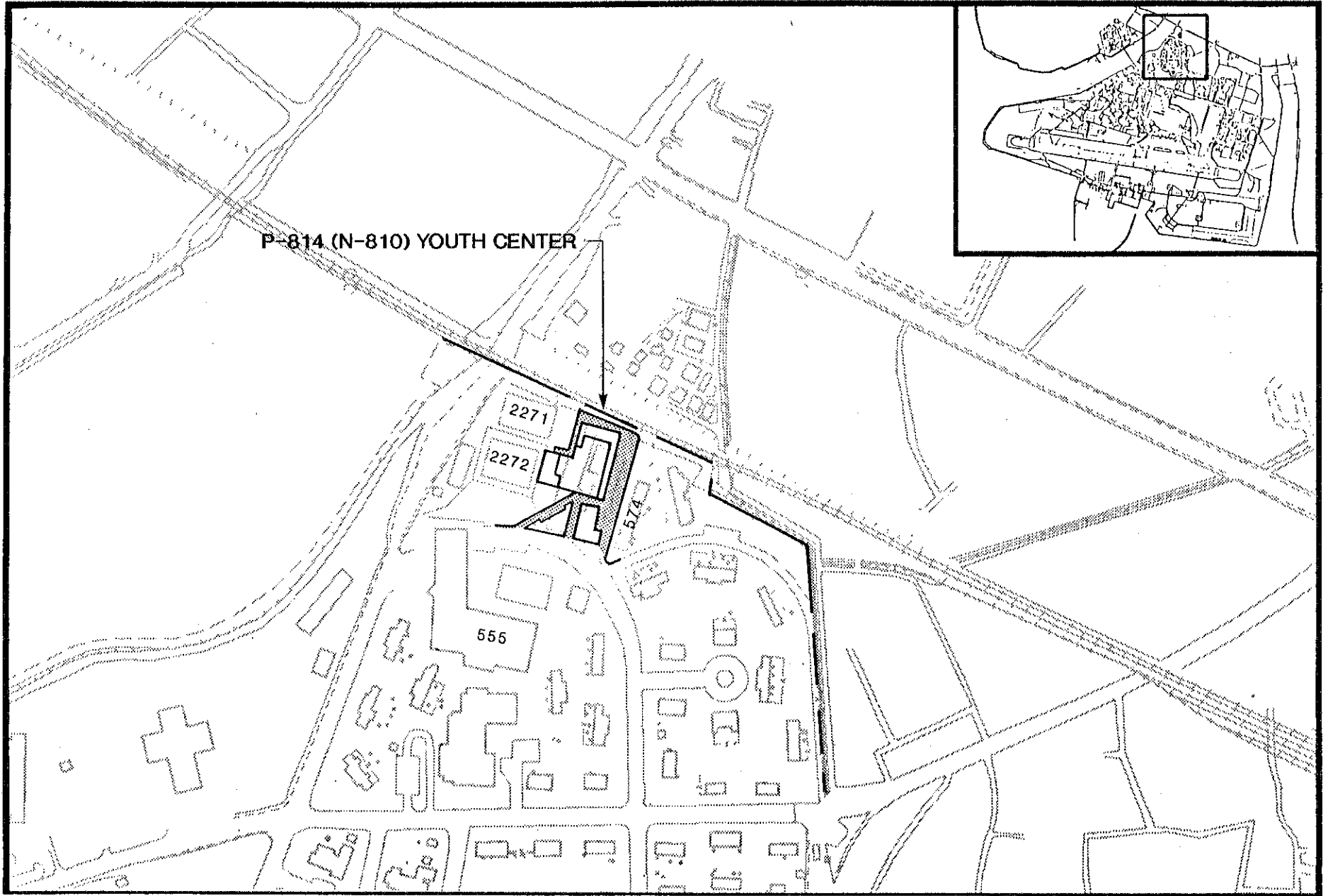
DESIGN CONSIDERATIONS: The project will construct a prefabricated one-story building on reinforced concrete floor. The facility should also be designed to accommodate outdoor activities adjacent to the building. This configuration will increase the effectively available space for youth center activities.

ENVIRONMENTAL CONSIDERATIONS: A PEA for this project should be prepared. However, since the

youth center is sited in an area previously occupied by Bldgs 565 and 567, which have been demolished, the project should not have significant adverse environmental effects.

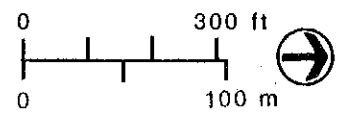
PHASING: There is no construction phasing required to implement this project.

OTHER: The project is an approved FY88 NAF project assigned identification number N-810.



**MCAS
IWAKUNI**

**SITE PLAN P-814 (N-810)
YOUTH CENTER**



**Fig.
F-20**

TITLE: P-810, Sports Field

SCOPE: This project will construct a sports field which can accommodate two (2) softball and soccer fields, restroom facilities, and a parking lot. The softball fields will include back stops and dugouts for team players.

REQUIREMENT: Adequate softball fields are required to accommodate the large number of organized softball teams on the Station. Currently, softball is one of the most popular teams sports on the Station and organized leagues provide a major part of the recreation program at MCAS Iwakuni. However, construction of new projects has recently removed two playing fields. Thus, construction of two new playing fields will be necessary to provide an area to continue the active softball recreation program on the Station.

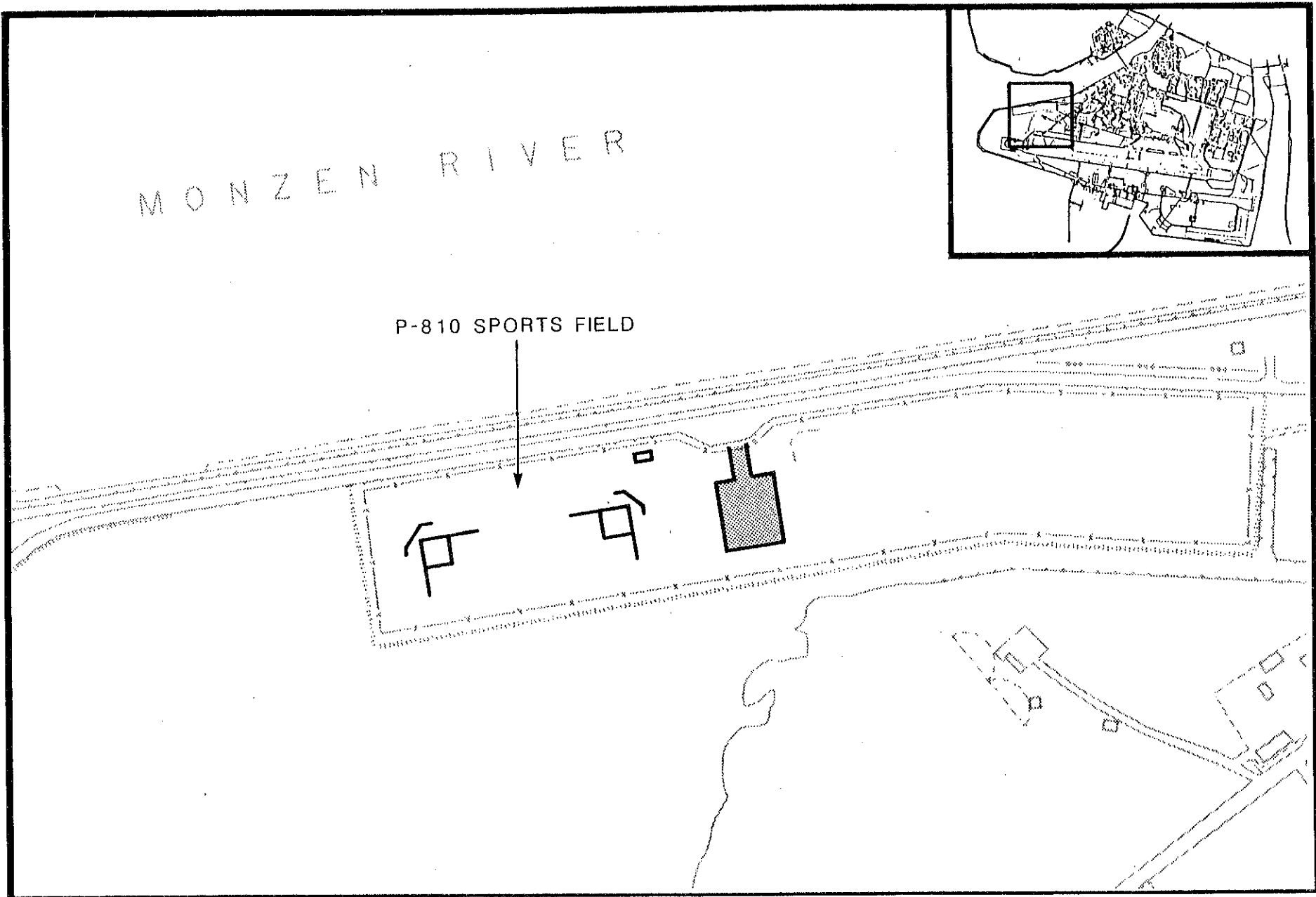
SITING CONSIDERATIONS: The project is sited on fill land near Penny Lake on the southern end of the Station. Although the area is subject to high noise from aircraft operations from Runway 01, the use of the area for outdoor recreation purposes should be acceptable as many of the activities will occur on weekends when the airfield is closed. The project site is the only available area on the Station which can accommodate softball fields.

DESIGN CONSIDERATIONS: The softball fields should be official design for playing organized softball and should be configured to accommodate the soccer field within the outfields.

ENVIRONMENTAL CONSIDERATIONS: A PEA for this project should be prepared. However, since the project is sited on fill land near Penny Lake,

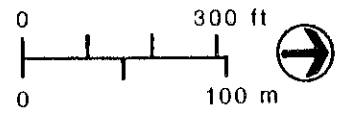
the project should have no significant adverse environmental effects.

PHASING: There is no construction phasing required to implement this project.



**MCAS
IWAKUNI**

**SITE PLAN P-810
SPORTS FIELD**



**Fig.
F-21**

TITLE: P-855 (N-901), Expand Exchange Warehouse

SCOPE: This project will construct a 11,200 SF addition to the existing Marine Corps Exchange warehouse, Bldg 276. The project scope has been established to provide warehouse support for the additional retail floor area available in the new exchange retail store. The project will construct a 40-FT extension to the seven existing 40-FT by 100-FT bays of Bldg 276. The expanded warehouse will consist of seven 40-FT by 140-FT bays. The extension will be a pre-engineered metal frame and siding addition built on concrete slab and will include relocation of two air conditioned warehouse offices, restrooms, and alarm system.

REQUIREMENT: An adequate warehouse is required to support the exchange retail functions of the Station. The recent construction of family housing units at MCAS Iwakuni has caused an increase in the sales volume at the various exchange retail outlets. A new exchange retail store has been proposed to accommodate this increased sales volume. The new store will create the requirement for additional warehouse storage to support the exchange retail functions.

SITING CONSIDERATIONS: The project is an extension of the existing exchange warehouse, Bldg 276. The extension is sited on vacant land on the north side of the building.

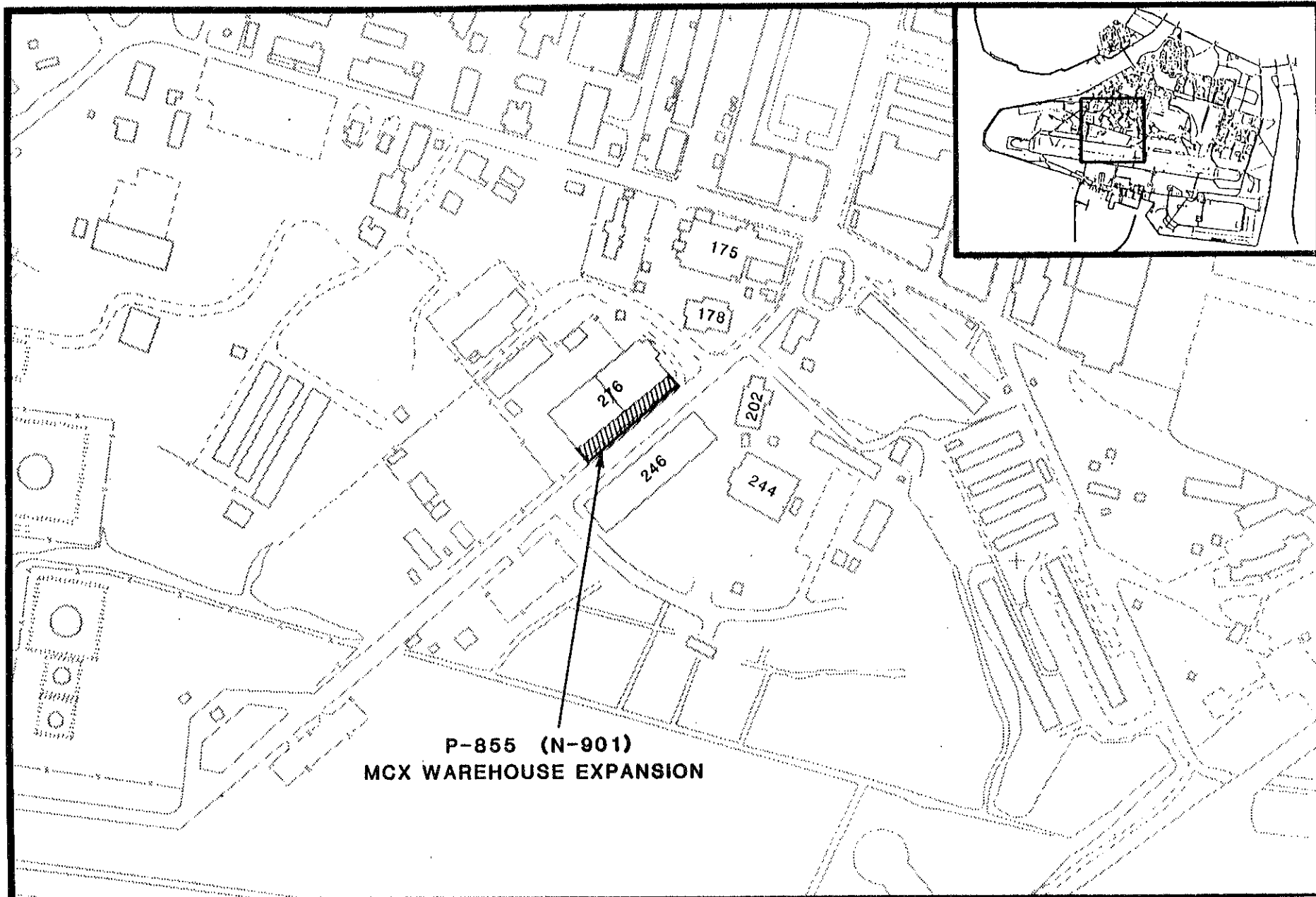
DESIGN CONSIDERATIONS: The project will construct a pre-engineered metal frame and siding addition built on concrete slab. The construction will also include relocation of two warehouse offices which will be air conditioned. The extension should be designed to continue the

basic configuration and roof line of the existing building.

ENVIRONMENTAL CONSIDERATIONS: A PEA for this project should be prepared. However, since the project is sited adjacent to an existing building on developed land, the project should have no significant adverse environmental effects.

PHASING: There is no construction phasing required to implement this project.

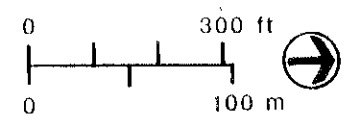
OTHER: The project is an approved FY89 NAF project identified as N-901.



P-855 (N-901)
MCX WAREHOUSE EXPANSION

**MCAS
IWAKUNI**

**SITE PLAN P-855 (N-901)
MCX WAREHOUSE EXPANSION**



**Fig.
F-22**

MCAS IWAKUNI MASTER PLAN

I W A K U N I , J A P A N

DEPARTMENT OF THE NAVY
Pacific Division
Naval Facilities Engineering Command
(Makalapa, HI)
Pearl Harbor, HI 96860-7300

11010
Ser 203A/10286
17 Jan 91

From: Commander, Pacific Division, Naval Facilities Engineering Command

Subj: FINAL MASTER PLAN FOR U.S. MARINE CORPS AIR STATION (MCAS) IWAKUNI, JAPAN

Ref: (a) NAVFACINST 11010.63C
(b) CMC ltr 11010/2 LFL/O-73 of 19 Nov 90

Encl: (1) MCAS Iwakuni Master Plan, Japan

1. The final subject master plan, completed in accordance with reference (a) and approved by reference (b), is forwarded as enclosure (1).
2. Comments from review of the draft master plan have been incorporated as appropriate.



C. SATO
By direction

(See page 2 for distribution)