



**COMMANDER**

**U.S. NAVAL FORCES MARIANAS**

***FY 06-09 CONSTRUCTION PROGRAMS***

***CAPT Kenneth Branch***  
***Commanding Officer NAVFAC Marianas***  
***Navy Region Marianas Regional Engineer***



**COMMANDER**

**U.S. NAVAL FORCES MARIANAS**

*Special Projects*

## Repairs to Gab Gab Beach Seawall

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### Project Description:

Corrects major deficiencies to include: repair undermining of the seawall; replace fractured concrete panels; repair concrete spalls on panels; repair cracks on concrete deck; re-secure ladders to the seawall with new fasteners and perform a field investigation to determine condition of the tie-rods and deadmen. Construct two (2) concrete beach pavilions.

### Mission Impact:

Will correct safety deficiencies per recent safety inspection and will insure safer conditions for the patrons that enjoy water activities. The improved conditions will allow and facilitate more use for recreation opportunities for Sailors & families, improve aesthetics, as well as improve the quality of life for Sailors & families on Guam.

**Est. Cost: \$500K-\$1M**



## Repairs to EOD Facility Seawall

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### Project Description:

Corrects major deficiencies to include: repair a section of the steel sheet pile bulkhead and install new tieback system; another section needs to be demolished and new rip-rap revetment installed; repair areas with depressions & isolated sinkholes; repair spalls on concrete cap, and provide cathodic protection.

### Mission Impact:

Sumay Cove area provide the initial waterborne training area for EOD and diving personnel. The corroded and jagged sheet pile pose a safety hazard to personnel and equipment. The inability to accomplish this project will greatly affect the loading and unloading of small crafts associated with the Explosive Ordnance Disposal (EOD) Mobile Unit Five training operations.

**Est. Cost: \$750K-\$1.25M**



# COMMANDER U.S. NAVAL FORCES, MARIANAS

## *MILCON Projects*



# ***Navy Family Housing***

## FY06 MILCON Projects

- South Finegayan, 99 units, repair & improvements; est. cost \$25M - \$30M
- North Tupalao, 126 units, phase I, replacement; est. cost \$35M - \$45M
- Nimitz Hill, 22 units, bathroom addition; est. cost \$400K - \$500K
- Nimitz Hill & Flag Circle, site improvements; est. cost \$5M - \$6M

## FY07 MILCON Projects

- North Tupalao, 108 units, phase II, replacement; est. cost \$45M - \$50M
- Old Apra, 68 units, phase I, replacement; est. cost \$45M - \$50M
- Naval Hospital, 4 units, repair & improvements; est. cost \$750K - \$800K



# *P-431 Alpha and Bravo Wharf Improvements*

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## • **Project Scope:**

- Dredge the harbor entrance channel to -40'
- Reinforce the entire length of Alpha and Bravo Wharves with new steel sheetpiles
- Dredge the entire length of Alpha and Bravo Wharves along with a turning basin in the inner harbor
- Extend Bravo wharf 170'
- Upgrade existing hotel services on the wharves
- install lightning protection systems at both wharves

## • **Requirement:**

- Supports arrival of the new SSGN class submarine
- Adequate depth to berth submarine at Polaris Point
- Extend wharf to accommodate weapons loads and crew changes



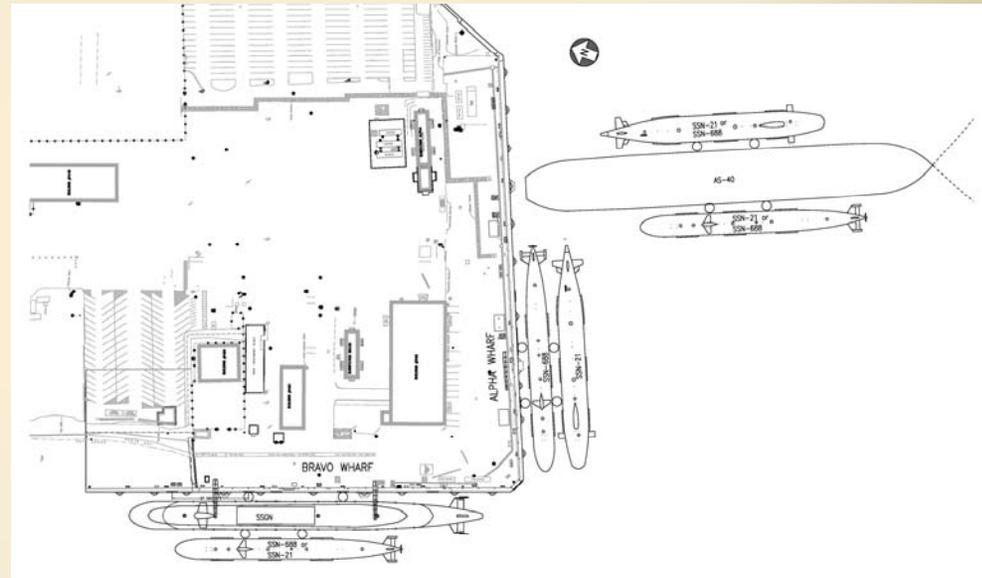


# P-431 Alpha and Bravo Wharf Improvements



## • Current Situation:

- Alpha and Bravo wharves are the ideal location for submarine berthing.
- Bravo Wharf is currently only 500' in length and in its current configuration cannot support the SSGN class submarine
- Due to the insufficient length of KILO Wharf and lack of “hotel” services, it is unable to provide proper support for the new SSGN or continued operations for the 688 Class submarine



## • Project Cost:

- \$40-50 Million



# P-502 Kilo Wharf Extension



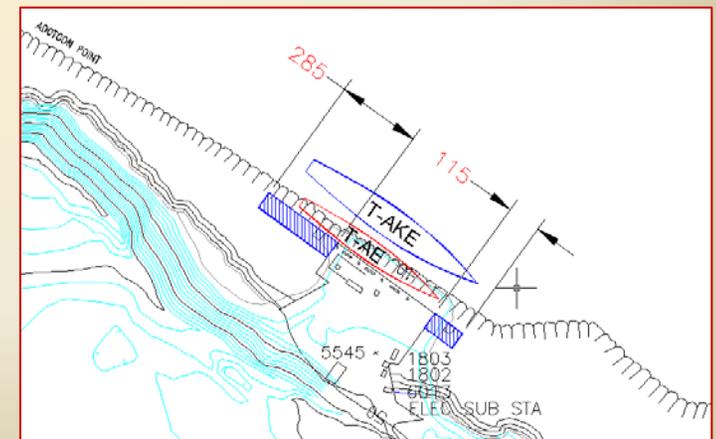
## • Project Scope:

- Extend the existing KILO wharf 121.9 meter (400 ft) including necessary dredging and demolition
- Upgrade electrical service and secondary distribution systems
- Extend shore utilities infrastructure from existing wharf to the new extension
- Provide new fixed rails and support system along entire length of wharf to support a new gantry crane
- Extend fire protection & alarm systems to the new extension



## • Requirement:

- Supports arrival of the new T-AKE class ship
- Needs adequate capability to conduct ship containerization ordnance operations and staging
- Solution: Extend KILO Wharf and provide utility support.
- Arrival of T-AKE scheduled MAR 2010







# P-494 Harden Electrical System

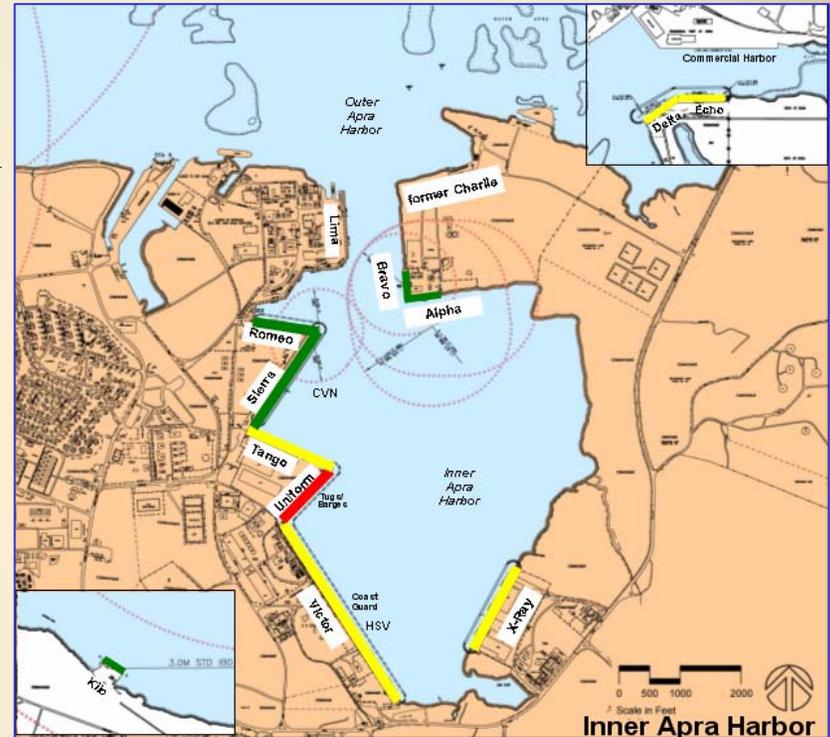


## • Project:

- Replace main base overhead 13.8 KV primary elect distribution system with an underground 13.8 KV system
- Replace overhead secondary electrical service with underground system in concrete encased duct banks
- Upgrade power system with two new transformers, two sets of switchgear, remote switching stations, and underground tie feeders

## • Requirement:

- Need to mitigate future typhoon effects to the electrical distribution system and provide adequate capacity for planned future requirements
- Solution: Replace elect distribution system with underground system & upgrade exist. Substations



## AREAS AFFECTED

1. Marine Corps Drive (Main Base)
2. ROMEO, SIERRA, TANGO, UNIFORM, X-RAY, KILO wharves and Former SRF area.
3. Main Base Community Supt
4. Main Base Sewage Lift Stations

# P-494 Harden Electrical System

## • Current Situation:

- Frequent severe storms occurs in Guam resulting in downed electrical lines and power poles causing power failures severely affecting mission critical facilities
- The 40 MVA Orote substation is inadequate to provide additional electrical loads in support of ships at KILO, ROMEO, SIERRA, TANGO, VICTOR and X-RAY wharves based on the 2010 Berthing Plan
- Lack of isolation switches and long feeder runs result in widespread power outages when short-circuits occur on a primary feeder

## • Project Cost

- \$40-50 Million







# ***P-469 Bachelor Enlisted Quarters***



## **• Current Situation:**

- 80% of sailors reside in substandard/inadequate barracks, diverted family housing or in private rentals
- 233 USS FRANK CABLE sailors live aboard ship
- Substandard facilities have fire suppression, seismic and ATFP issues
- In FY00, diverted 220 originally scheduled for demolition family housing units to BEQs to fulfill FY08 CNO shipboard ashore program
- FY05 HRMA reveals at least 65% of private rentals on Guam do not meet DOD suitability criteria in terms of structure and consistent utilities
- No new private sector construction to alleviate shortfall

## **• Project Costs:**

- \$30-35 Million



**TYPE "D" HOUSING UNIT**



**TYPE "E" HOUSING UNIT**



# QUESTIONS



# MILCON

## Back Up Slides

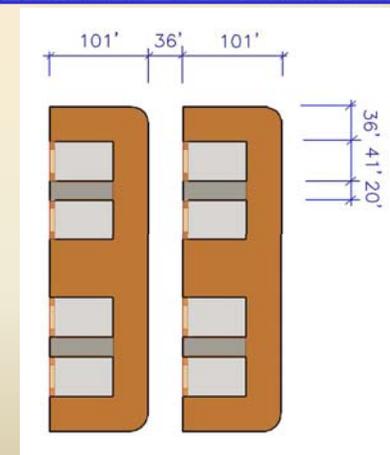
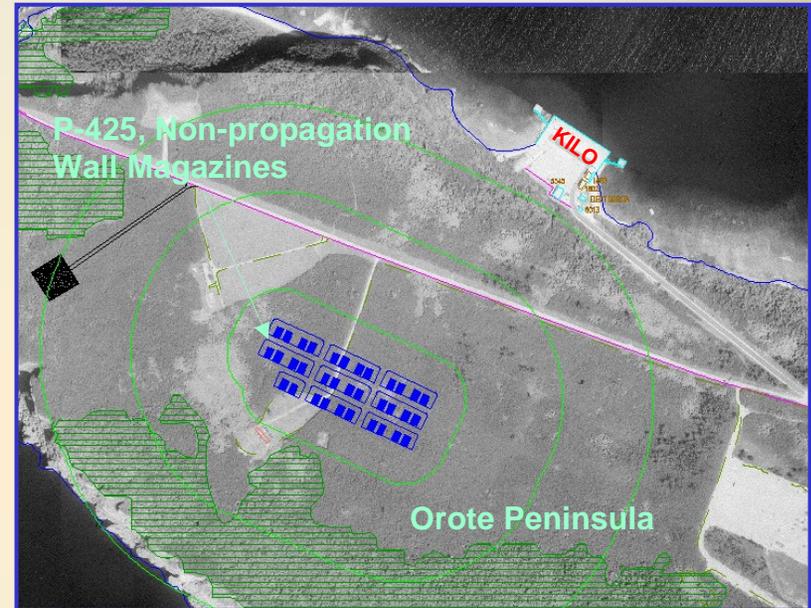
# P-425 Non-Propagation Wall Magazines

## • Project:

- Construct 17 – 557.4 m<sup>2</sup> Non-propagation Wall/Earth covered magazine capable of storing 2 million pounds Net Explosive Weight (NEW) of Class 1, Division 1 ordnance
- Construct 2,000 feet of paved roadway
- Install approx 823 M of perimeter fence, Intrusion Detection Sys and Video Motion Detection System

## • Requirement:

- Provide a storage that can accommodate a complete load of a T-AKE ship (TFIL load)
- Eliminate the need to haul a shipload of ammo (3 wks) from KILO wharf to the Ordnance Annex
- Solution: Construct 17 Non-propagation Wall/Earth covered magazines next to KILO Wharf



Detail – 2 Modules

# P-425 Non-Propagation Wall Magazines

## • Current Situation:

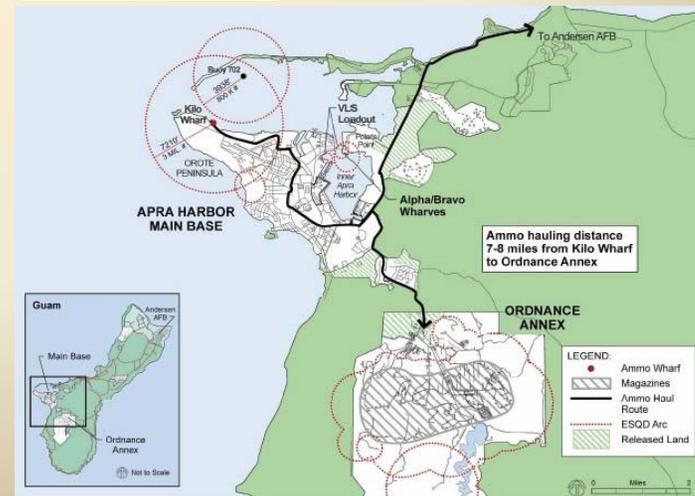
- KILO wharf is the sole point on Guam for all Navy and Air Force ordnance downloads and uploads
- On average, ammo-handling ops are conducted approx 260-270 days each year
- Transport of ordnance from KILO to Ordnance Annex and back for major uploads or downloads takes approx 22 days to complete and utilizes public roads
- Situation above prolongs ammo handling ops at KILO wharf, delays timely delivery to the fleet, increases cost of ammo logistical support, and potentially endangers civilians and personal property

## • Project Costs:

- \$70-80 Million



**STACKS OF AMMO AWAITING TRANSPORT AT KILO WHARF**





# P-436 Dredging Romeo & Sierra

## • Project:

- Dredge approx 173,360 m<sup>3</sup> to a depth of 11.6 m (38 FT)
- Reinforce ROMEO and SIERRA wharves prior to dredging
- Explore alternate disposal sites within the Navy base for the spoil material
- Accomplish wharf structural and fender sys repairs, and improvements to the waterfront facilities

## • Requirement:

- Need to berth combatant ships (T-AKE & CG-47 class ships) when transiting through Guam
- Solution: Reinforce ROMEO & SIERRA wharves and dredge 173,360 m<sup>3</sup> of spoil material





# ***P-436 Dredging Romeo & Sierra***

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## **• Current Situation:**

- ROMEO and SIERRA wharves provide berthing services to Navy ships that visit or homeport in Guam
- Existing depth at the wharves prevents larger ships (i.e., T-AKE & CG-47s) from docking, this reduces the versatility of the wharves in the Inner Apra Harbor
- The ability to berth combatant ships in Guam will increase PACOM's ability to respond to contingencies in the PACOM AOR

## **• Project Costs:**

- \$70-80 Million



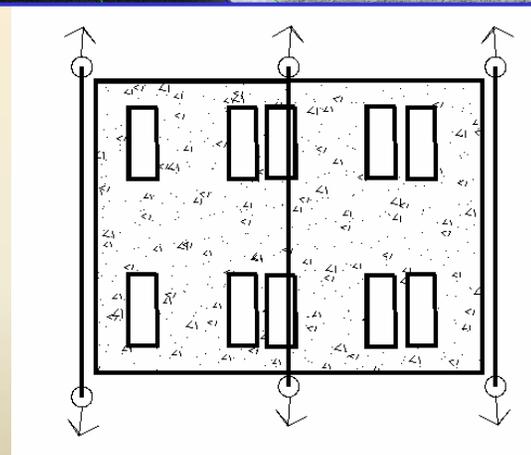
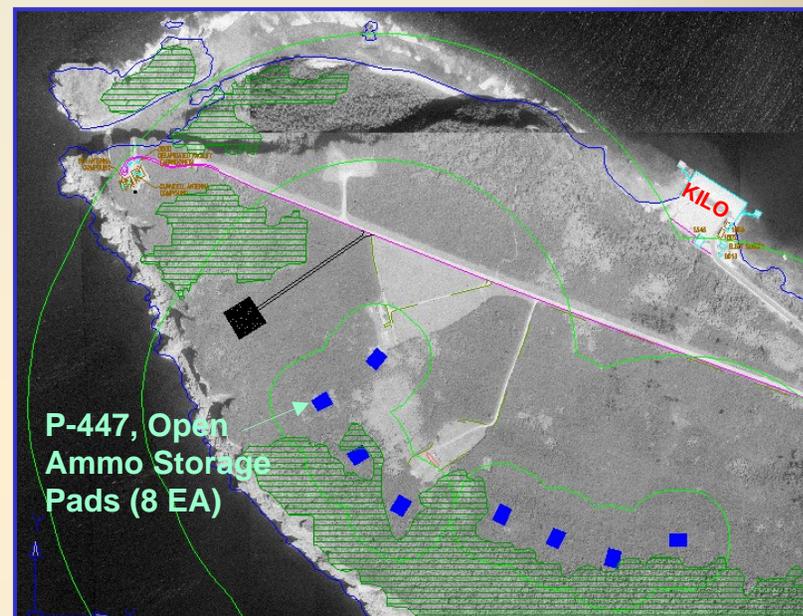
# P-447 Open Ammo Storage

## • Project:

- Construct 8 – 868 m<sup>2</sup> open ammunition storage pads capable of temporarily a total of 1 million pounds Net Explosive Weight (NEW) of Class/Division 1.1 material
- Pave access road, lightning protection system and utility services
- Install approx 2,950 m perimeter fence, Intrusion Detection Sys and Video motion Detection System

## • Requirement:

- Provide adequate and efficient means of temporarily storing ammunitions
- Need to quickly remove ordnance from KILO and relocate to a location that will reduce public exposure to explosive risks.
- Solution: Construct 8 open ammo pads



Detail – Open Pad



# P-447 Open Ammo Storage

## • Current Situation:

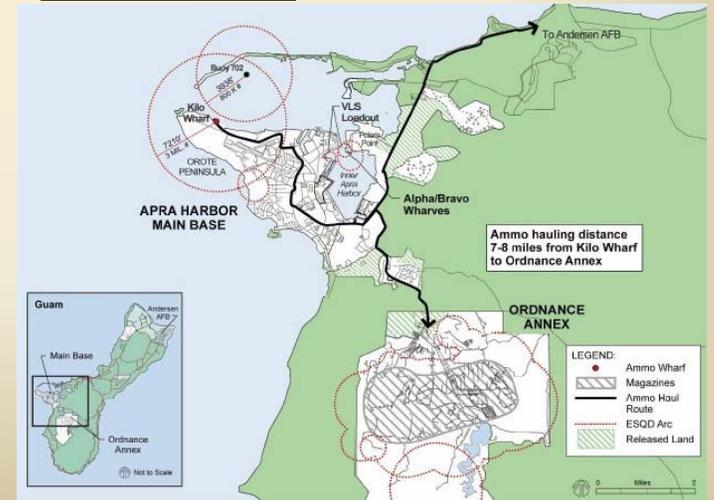
- KILO wharf is the sole point on Guam for all Navy and Air Force ordnance downloads and uploads
- Historically, approx 55 ships per year are on-loaded/off-loaded at Kilo wharf. PACFLT ordnance OPTEMPO requires ordnance ships to remain berthed at Kilo wharf for less than 4-5 days per visit
- Many of the ops require only short-term storage, but material must be transported from KILO to the Ordnance Annex (major upload and download) and takes approx 22 days to complete
- Situation above prolongs ammo handling ops at KILO wharf, delays timely delivery to the fleet, increases cost of ammo logistical support, and potentially endangers civilians and personal property

## • Project Costs:

•\$20-30 Million



**STACKS OF AMMO AWAITING TRANSPORT AT KILO WHARF**





# Special Project Back Up Slides



# Repairs to Tango Wharf

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## Project Description:

Corrects major deficiencies to include: repairs holes on the steel sheet pile bulkhead/pump grout in voids; repair depressions on the pavement; replace several mooring hardware elements; repair fender system; replace existing deteriorated fences and gates and install new tide risers, stainless steel ladders and additional life ring preservers.

## Mission Impact:

Tango Wharf's potential to support visiting warships and foreign vessels has not be fully realized. The poor condition of the pier facilities compels Port Ops to berth ships and submarines at the adjacent Sierra Wharf. However, Tango Wharf enjoys the same benefits of force protection, 35 feet depth, and close proximity to Port Control as Sierra Wharf. Restoration of Tango Wharf, will allow Port Ops greater flexibility to berthing visiting warships of all types to Guam.



**Est. Cost: \$1M-1.5M**

## Miscellaneous Repairs to Victor Wharf



Collapsed Wharf Deck & Boarding Platform



Damaged Fleet Landing Facility

### Project Description:

Repairs identified by AIS inspection & underwater survey include corrosion damage to sheet pilings, repair asphalt concrete surface of wharf, restore utility services, & correct concrete structural deficiencies. Project includes demolition of badly deteriorated fleet landing facility at Victor wharf that is used for small boat operations.

### Mission Impact:

VICTOR wharf is utilized as the primary wharf for visiting combatant ships, Military Sealift Command, foreign navy vessels, and the Coast Guard. The wharf is also in close proximity to the exchange and commissary facility, providing convenient access to QOL/MWR facilities to visiting ship personnel. Wharf is also used to support small boat operations and is near Port Operations office. Due to the material condition of V-1 through V-3 and unavailability of power throughout the wharf, ships cannot receive optimal berthing support.

**Est. Cost: \$1.5M-2.5M**



# Repairs to Sumay Cove Marina Bulkhead

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## Project Description:

Corrects major deficiencies to include: repair severe corrosion of the steel sheet pile bulkhead; repair sections of bulkhead with reinforced concrete cap/installing new tieback system; backfill severe eroded areas in conjunction with the steel sheet piles repair; remove abandoned steel structures and provide cathodic protection.

## Mission Impact:

Sumay Cove Marina would be the ideal location to moor small boats and crafts previously moored at the planned for demo Victor Wharf fleet landing. The shorter distance from the boat ramp and calmer water due to location and configuration would enable the government to cut fuel and typhoon preparation cost.

**Est. Cost: \$2.5M-\$3.5M**



## ***Repair and Alter BEQ 580***

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Deteriorated Sink Cabinets



Doors Will Not Close properly

### **Project Description:**

Repairs all AIS identified deficiencies, upgrades bldg to 1 + 1 standard, and includes typhoon and seismic zone 4 corrections. Project includes kitchen/service area, closets to replace wardrobes, adds fire sprinkler and fire alarm system, and electronic card key system.

### **Mission Impact:**

Inadequate living area, visible signs of deterioration, and substandard living conditions create a negative impact on morale and do not comply with QOL criteria. The lack of adequate fire protection system and non-compliant seismic requirements jeopardize government property and safety of building occupants.

**Est. Cost: \$4M-\$5M**



## Repairs to BQ-18/20 & Breezeways



### Project Description:

Corrects major deficiencies: replace all floor finishes throughout the building; repaint interior; replace ceiling with new humidity resistant acoustical ceiling tiles and aluminum grid; replace gutters and recoat roof surface with elastomeric roof coating and replace deteriorated toilet exhaust fans, light fixtures/electrical devices, plumbing fixtures and repair bathroom walls.

### Mission Impact:

Visible signs of deterioration create a negative impact on morale and does not comply with QOL initiatives. Cost to maintain these old facilities will continue to increase. The safety of the sailors and the public is a risk from falling concrete spalls under the breezeways.

**Est. Cost: \$1.5M-2M**

# Repair and Alter BEQ 584



Different Floor Tiles



Cramped Living Conditions

## Project Description:

Repairs all AIS identified deficiencies, upgrades bldg to 1 + 1 standard, and includes typhoon and seismic zone 4 corrections. Project includes kitchen/service area, closets to replace wardrobes, adds fire sprinkler and fire alarm system, and electronic card key system.

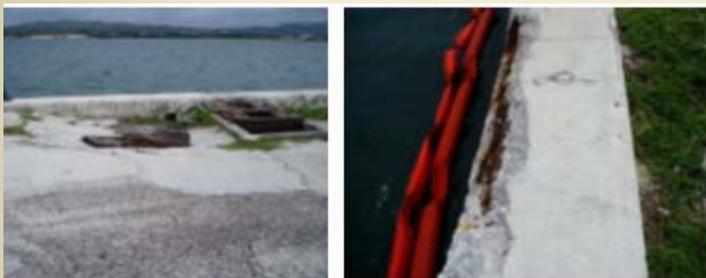
## Mission Impact:

Inadequate living area, visible signs of deterioration, and substandard living conditions create a negative impact on morale and does not comply with QOL criteria. The lack of adequate fire protection system and incompliant seismic requirements jeopardize government property and safety of building occupants.

**Est. Cost: \$3M-\$4M**



## Repairs to Uniform Wharf



### Project Description:

Corrects major AIS deficiencies, investigate condition of the existing tie rods and deadmen; sandblast, paint existing corroded mooring hardware and raise sunken bases of same hardware; replace mooring hardware elements & fender system; repair steel sheet pile bulkhead; repair spalls & cracks on concrete caps and fire alarm system.

### Mission Impact:

Uniform Wharf has not been operational for many years due to significant earthquake damage. Restoration of Uniform Wharf will allow Port Ops to berth amphibious ships, frigates, minesweepers, and the yet-to-be-built Littoral Combat Ship (LCS) at the wharf. Uniform Wharf will afford sailors closer access to the NEX and Commissary compared to other wharves (except Victor). Uniform Wharf also provides closer access to Port Control.

**Est. Cost: \$2.5M-\$3.5M**

# ***Repair and Alter BEQ 581***

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Deteriorated Utility System



Cramped Living Conditions

## **Project Description:**

Repairs all AIS identified deficiencies, upgrades bldg to 1 + 1 standard, and includes typhoon and seismic zone 4 corrections. Project includes kitchen/service area, closets to replace wardrobes, adds fire sprinkler and fire alarm system, and electronic card key system.

## **Mission Impact:**

Inadequate living area, visible signs of deterioration, and substandard living conditions create a negative impact on morale and does not comply with QOL criteria. The lack of adequate fire protection system and incompliant seismic requirements jeopardize government property and safety of building occupants.

**Est. Cost: \$4M-\$5M**



# Repairs to Building 206 NCTS NEX

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Exposed Condensing Unit



Corroded Panel



Damaged Exterior Wall

## Project Description:

Corrects major AIS deficiencies, implements CT upgrades, renovates fire protection system, replace roofing, and hardens building from future typhoons.

## Mission Impact:

Building 206 is a satellite exchange retail store at Naval Computer and Telecommunications Station (NCTS), which is located approximately 45 minutes from CNM. Facility provides convenient retail services for authorized patrons of the Navy Exchange system at NCTS to include active duty personnel and their dependents, military families at the Finegayan housing area, retirees, military personnel conducting training at NCTS. Without this facility patrons would have to travel to CNM or Andersen AFB.

**Est. Cost: \$750K-1.25M**



## ***Repairs to Club Rumors, B-75***

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### **Project Description:**

Corrects major deficiencies: replace two (2) deteriorated main A/C systems and ductwork; replace transformer & construct new pad/enclosure; replace existing power panel; replace soiled carpet; replace damaged ceiling tiles; repaint exterior walls; repair/repaint main roof with elastomeric coating; repair exhaust system in kitchen; renovate bar, dance floor and stage areas and other improvements to the layout of the club.

### **Mission Impact:**

The AIS deficiencies repair would be part of an entire “face-lift” for this old and antiquated facility that is also in dire need of attention (facility was built in 1965). The renovation would include adding “brand-name” food operations, new sound, light and video equipment, improved Internet Café area, and video arcade. The newly renovated facility would provide a multi-use entertainment option, not currently available to our Sailors & families. This project would improve the facility aesthetics and usefulness, per industry standards, as well as improve the quality of life for Sailors & families on Guam.

**Est. Cost: \$1M-\$2M**



## ***Repairs to Building 256 NEX***

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Examples of typical panels throughout Bldg



ACM large boilers occupy approx 400 SF of valuable warehouse space

### **Project Description:**

Corrects all identified AIS deficiencies to include removal of asbestos construction materials, upgrades fire alarm and protective systems, improves building exterior and interior finishes, and upgrades lighting and electrical systems. Also provides CT standoff requirements.

### **Mission Impact:**

Built in 1950, Building 256 is the main furniture and appliance outlet for the Navy families on Guam. Building is not equipped with fire protection or alarm system, threatening lives of patrons and employees. Loss of this facility will force military families to shop on the local economy which is very expensive and does not offer similar quality goods as NEX provides. Building 256 is critical to preserving the quality of life of sailors and their families on Navy Guam.

**Est. Cost: \$1M-\$1.5M**



## ***Repairs to Building 372***

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Comoded Panel



Crack on CMU Wall



Bent Roll-up Doors



Deteriorated Expansion  
Joint Cover

### **Project Description:**

Correct major AIS material deficiencies by replacing deficient and inoperative roll up doors, replaces roof, improves aging lighting sys, implements typhoon hardening, and seismic zone 4 criteria.

### **Mission Impact:**

Building 372 is the only large government automotive repair and maintenance facility on Guam, providing critical services to every Navy command on the island. The shop is consistently backlogged and has difficulty keeping up with demand because of continued deterioration that force maintenance bays to be closed, reducing the overall production capability of this facility. Safety of personnel is threatened by structural deficiencies. Building will also be used to consolidate remaining maintenance and repair functions currently at various locations on the base, which will compound space availability, if current conditions are not corrected.

**Est. Cost: \$3M-\$3.5M**



## ***Repair & Alter BEQ 579***



Cramped living conditions



Damaged/deteriorated shower tiles

### **Project Description:**

Project repairs all AIS deficiencies, upgrades building to 1 + 1 standards, incorporates seismic zone 4 and typhoon hardening corrections. Project includes kitchen/service area, closets to replace wardrobes, adds fire sprinkler and fire alarm system, and electronic card key system.

### **Mission Impact:**

Inadequate living area, visible signs of deterioration, and substandard living conditions create a negative impact on morale and does not comply with QOL initiatives. The lack of adequate fire protection system and incompliant seismic requirements jeopardize government property and safety of building occupants.

**Est. Cost: \$2M-\$3M**

## Repairs To B-3202XR

### Project Description:

Repairs to all AIS identified deficiencies to include the refrigeration equip, roofing systems, misc. structural deficiencies, numerous concrete spalls and cracks on floor slabs & walls, relocate battery charger station for safety, replace A/C and install in-rack fire protection system.

### Mission Impact:

Bldg. 3202XR functions as a general warehouse primarily used by Defense Commissary Agency & DSCP's Subsistence Prime Vendor. Continued deterioration and unsafe conditions will adversely impact the provisions mission of MSC ships of frozen & dry supplies in direct support of 5<sup>th</sup> and 7<sup>th</sup> fleets operating in the PACOM AOR & the Persian Gulf. This situation directly affects services provided at the commissary and the clubs ultimately impacting QOL for sailors and their families on Guam .



Safety Concerns at Charging Station



Cracks all Throughout Facility

Est. Cost: \$4M-\$5M