



# Virgin Islands Army National Guard



## PROJECT PLANNING DOCUMENT CHARRETTE

CIVIL SUPPORT TEAM (CST) AND  
MEDICAL COMMAND UNIT (MEDCOM)  
ST. CROIX, US VIRGIN ISLANDS

**FINAL DRAFT**

CONTRACT NUMBER: W9133N-04-D-0001  
TASK ORDER No. 9B01

17 FEBRUARY 2006

**JACOBS**

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# **Project Planning Document Charrette**

**Civil Support Team and Medical Command Unit  
Spratt Hall Building and Hams Bluff Building  
St. Croix, Virgin Islands**



**VIRGIN ISLANDS ARMY  
NATIONAL GUARD**

**FINAL REPORT**  
17 FEBRUARY 2006

Contract Number – W9133N-04-D-001  
Task Order No. 9B01

Prepared by

**JACOBS**

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Arlington, Virginia

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### CHARRETTE PARTICIPANTS

The following tables list all participants in attendance at the Virgin Islands Army National Guard (VI ARNG) Project Planning Document Charrette (PPDC) for the Joint Force Headquarters / Readiness Center (JFHRC), Regional Training Institute (RTI), and the Civil Support Team (CST) and Medical Command Unit.

The charrette was held at St. Croix on 11-15 July 2005.

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## EXECUTIVE SUMMARY

The Virgin Islands Army National Guard (VI ARNG) is in the planning phase for the addition/alteration of two facilities —Sprat Hall and Hams Bluff—to accommodate its 23<sup>rd</sup> Civil Support Team (CST) unit and Medical Command (Medcom) unit. Both these facilities are located on the west side of St. Croix Island, with Sprat Hall located along the western coast on Route 63, about two miles north of Frederiksted, and Hams Bluff located two miles northwest facing Hams Bay.

Sprat Hall is programmed to undergo addition/alteration in FY 2006 to accommodate these two units housed together. This is discussed in this report as the **move-in** scenario. Thereafter, in FY 2012, the Medcom unit will transfer to Hams Bluff, which will undergo appropriate addition/alteration for its staff, and the CST unit will fully occupy Sprat Hall which will again undergo addition/alteration for their staff. This is discussed in this PPDC report as the **addition/alteration** scenario.

The Project Planning and Documentation Charrette (PPDC) for VI ARNG was held on 11-15 July 2005 at the Estate Bethlehem Armory in St. Croix. Subsequently, on 31 August 2005, a meeting was held between Jacobs and Mr. Bill Pulket, the Facilities Management Engineer (FME) of the National Guard Bureau (NGB) in charge of VI ARNG projects. The discussion was focused on funding outlays between FY06 and FY12 and the consequent phasing of the alteration/move-in projects for Sprat Hall and Hams Bluff. The outcome of this meeting led to the phasing of projects.

In summary, the three project layouts are as follows (also see graphics and timeline shown later in this section):

1. CST and Medcom move-in together into Sprat Hall in FY06 – requires some alterations/tenant improvements to interiors. This will be referred to as a '**move-in**' project.
2. Medcom moves out of Sprat Hall and transfers to Hams Bluff in FY12 – requires addition/alteration for interiors and site-work at Hams Bluff. This will be referred to as an '**addition/alteration**' project.
3. CST annexes the space left behind by Medcom in Sprat Hall in FY12 – requires addition/alteration for interiors and site-work at Sprat Hall. This will also be referred to as an '**addition/alteration**' project.

There were no initial DD Forms 1390/91 for these projects. Jacobs worked with the stakeholders in developing completely new forms.

### Area Program and Project Cost:

The planning program analysis discussed both during and post-Charrette resulted in the following breakdown of areas and cost:

- Sprat Hall Move-in FY06 – Alteration of 11,211 net square feet (NSF) at a cost of **\$0.56 M.**
- Sprat Hall Addition/Alteration FY12 – Addition of 4,500 NSF and alteration to 4,333 NSF at a total cost of **\$2.37 M.**
- Hams Bluff Addition/Alteration FY12 – Addition of 3,095 NSF and alteration to 4,638 NSF at a total cost of **\$2.24 M.**

**Note:** The cost estimates are based on Master Plan (MP) Preferred Concepts for Sprat Hall and Hams Bluff along with inputs from VI ARNG (refer to Sections G, H and I for MP Concepts). Summary of cost estimates can be found in sections D, E and F, respectively, for the three projects. Parametric cost estimate details are appended in Appendix J9 of this report.

**TABLE 1: Program Summary**

**VI ARNG CST/MEDCOM**

**SCENARIO PLANNING FY06 - FY12**

Sprat Hall FY06	Available 11,211 NSF	Authorized (NSF)	Assigned (NSF)	Shortfall (NSF)	Alteration (NSF)	Addition (NSF)	Remarks
1.0	CST	9,366	6,878	2,488	6,878	0	FY06 CST assigned around 70% of their Auth space.
2.0	CST Vehicle Bay	4,500	0	4,500	0	0	FY06 No Vehicle Bay for CST
3.0	MEDCOM	6,965	4,333	2,632	4,333	0	FY06 MEDCOM only assigned 55% of their Auth space.
	<b>Total</b>	<b>20,831</b>	<b>11,211</b>	<b>9,620</b>	<b>11,211</b>	<b>0</b>	
Sprat Hall FY12	Available 11,211 NSF	Authorized	Assigned	Shortfall	Alteration	Addition	Remarks
1.0	CST	9,366	11,211	-1,845	4,333	0	FY12 CST assigned total of existing (FY06) + Medcom area in FY06
2.0	CST Vehicle Bay	4,500	4,500	0	0	4,500	FY12 CST assigned Vehicle Bay Addition (new const.)
	<b>Total</b>	<b>13,866</b>	<b>15,711</b>	<b>-1,845</b>	<b>4,333</b>	<b>4,500</b>	
Hams Bluff FY12	Available 4,638 NSF	Authorized	Assigned	Shortfall	Alteration	Addition	Remarks
1.0	MEDCOM	6,965	4,638	2,327	4,638	3,095	FY12 MEDCOM Addition includes 33% for Gross-up
	<b>Total</b>	<b>6,965</b>	<b>4,638</b>	<b>2,327</b>	<b>4,638</b>	<b>3,095</b>	

**General Notes:**

1. All areas are in NSF. Available areas are a reflection of net area only. It does not include circulation and toilets/showers.
2. 'Authorized' areas are based on criteria and outcome of discussions during charrette.
3. 'Assigned' areas refer to what each unit 'gets' in that phase or year.
4. 'Shortfall' refers to area that was authorized but not assigned to units.

**TABLE 2: Cost Summary**

<b>VI ARNG CST/MEDCOM</b>		<b>PARAMETRIC COSTS FY06 - FY12</b>		
<b>Sprat Hall FY06</b>	<b>Available 11,211 NSF</b>	<b>Alteration (NSF)</b>	<b>Addition (NSF)</b>	<b>Total Costs</b>
1.0	CST	6,878	0	
2.0	CST Vehicle Bay	0	0	
3.0	MEDCOM	4,333	0	
	<b>Total</b>	<b>11,211</b>	<b>0</b>	<b>\$558,231</b>
<b>Sprat Hall FY12</b>	<b>Available 11,211 NSF</b>	<b>Alteration</b>	<b>Addition</b>	<b>Total Costs</b>
1.0	CST	4,333	0	
2.0	CST Vehicle Bay	0	4,500	
	<b>Total</b>	<b>4,333</b>	<b>4,500</b>	<b>\$2,372,000</b>
<b>Hams Bluff FY12</b>	<b>Available 4,638 NSF</b>	<b>Alteration</b>	<b>Addition</b>	<b>Total Costs</b>
1.0	MEDCOM	4,638	3,095	
	<b>Total</b>	<b>4,638</b>	<b>3,095</b>	<b>\$2,246,000</b>

**General Notes:**

1. Detailed Parametric Cost Estimate developed by Jacobs can be found in the Appendix of this report.
2. Only 'Additions' and 'Alterations' shown on table above in order to illustrate the scope for each phase/year.
3. Unit costs (see detailed estimate) includes escalation factor for FY12.

**Project Cost and Timeline:**

The following pages illustrate graphically the phasing of the area program for CST and Medcom and related layouts of Sprat Hall and Hams Bluff with cost summaries for these scenarios.

**FY06**

**PROJECT OVERVIEW**

**Move-in Scenario in FY06**

- Existing Sprat Hall building has 11,211 NSF available
- Both CST and Medcom move-in together to share the available 11,211 NSF
- Neither CST nor Medcom get their total authorized area in FY06
- CST occupies only 6,878 NSF
- Medcom occupies remainder of 4,333 NSF.
- All of the 11,211 NSF at Sprat Hall undergoes tenant improvements (T.I.) or minor alterations to fit the needs of the two units.

**FY07**

**FY08**

**FY09**

**FY10**

**FY11**

**Total FY06 Move-in Costs:**

**\$558,000**

**FY06**

**CST and MEDCOM move into Sprat Hall**

Existing Sprat Hall Building

**Sprat Hall**



**CST and MEDCOM to move into shared facility at Sprat Hall**



**FY12**

**Addition/Alteration Scenario in FY12 – Hams Bluff & Sprat Hall**

- As Medcom moves to Hams Bluff, CST transitions into 4,333 NSF left behind. CST also gets Vehicle Bay.
- Sprat Hall undergoes 4,333 NSF of alteration and adds a new Vehicle Bay for 4,500 SF

**Total FY12 Sprat Hall Add/Alt Costs:**

**\$2,372,000**

**FY12**

- Medcom transfers out of Sprat Hall to occupy 4,638 NSF available at Hams Bluff
- Medcom gets total authorized of 6,965 NSF in Hams Bluff with 4,638 NSF as altered space and remainder as new construction/addition

**Total FY12 Hams Bluff Add/Alt Costs:**

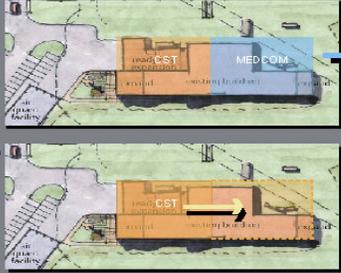
**\$2,246,000**

**FY12**

**Addition/Alteration at Sprat Hall**

CST to fully occupy Sprat Hall

**Sprat Hall**



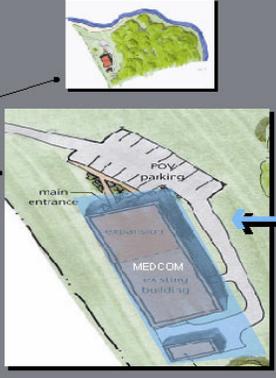
**FY12**

**Addition/Alteration at Hams Bluff**

Existing Hams Bluff Building

**MEDCOM to move into Hams Bluff**

**Hams Bluff**



# FY06

## Sprat Hall

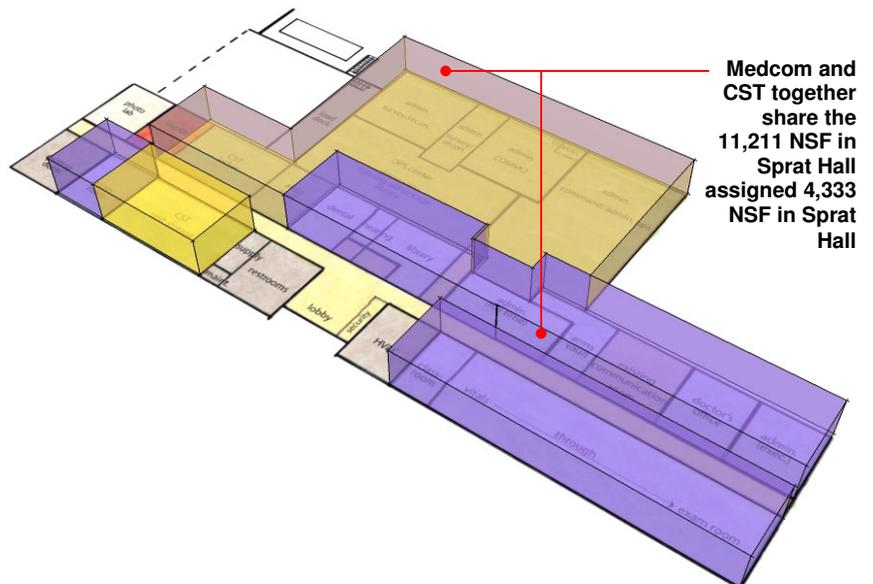
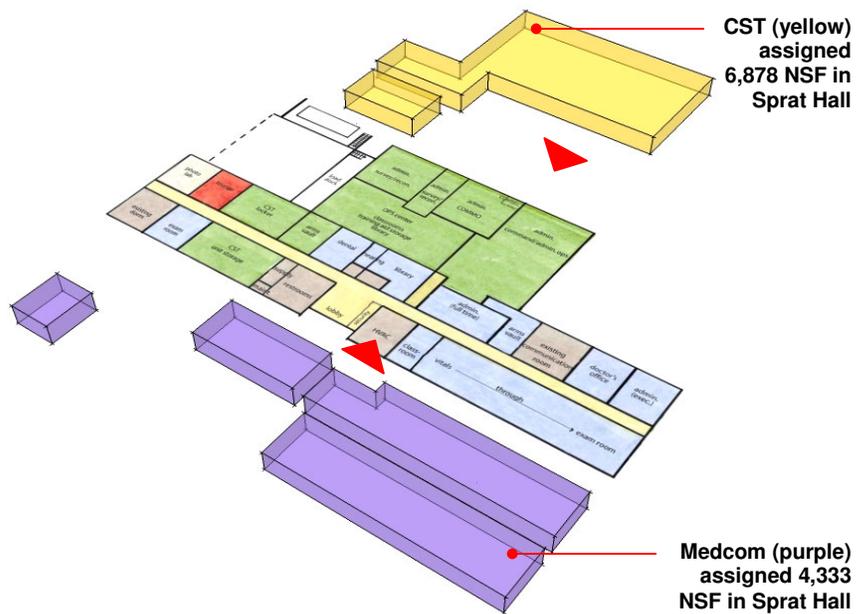
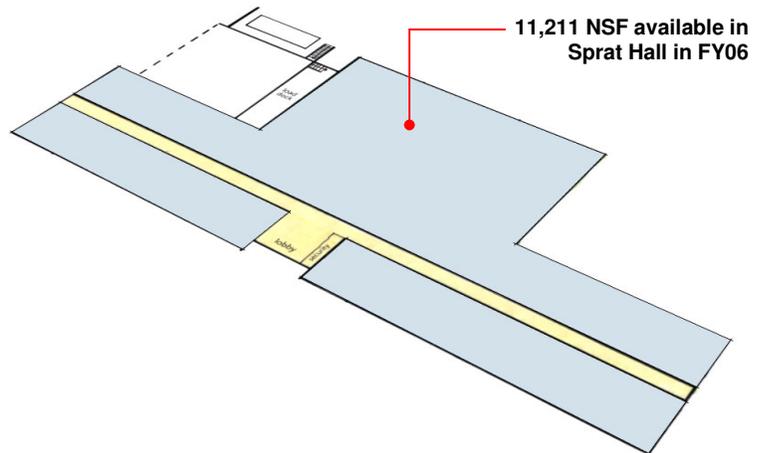
1. Sprat Hall has only 11,211 NSF available for Medcom and CST.

2. CST total requirement is 13,866 NSF.

Medcom total requirement is 6,965 NSF.

Since Sprat Hall only has 11,211 NSF, CST assigned 6,878 NSF and Medcom assigned 4,333 NSF.

3. 11,211 NSF in Sprat Hall undergoes internal modifications and alterations to fit the needs of CST and Medcom.

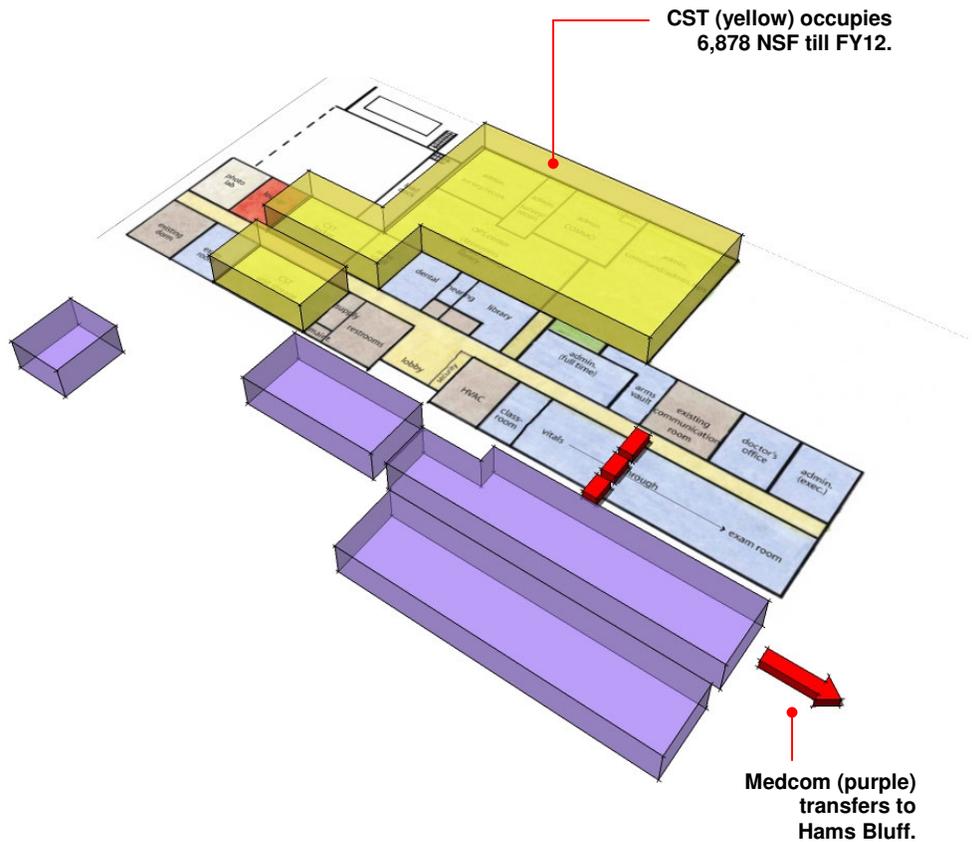


**FY06 Move-in Graphic Representation:**  
Illustrates the nature of development, transfers, alteration and addition that mark this phase of VI ARNG CST Medcom project.

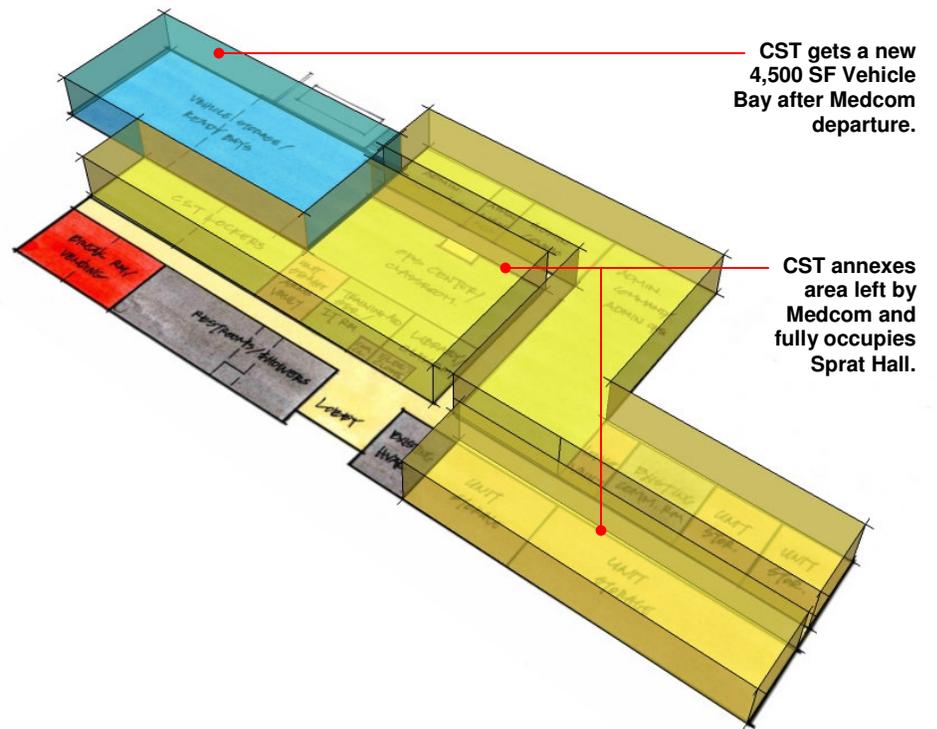
# FY12

## Sprat Hall

1. Medcom transfers out of Sprat Hall and moves to Hams Bluff. This leaves Sprat Hall with an extra 4,333 NSF that CST could move into.



2. Based on CST unit's full requirement, Sprat Hall undergoes alterations and additions. This allows CST to completely occupy the 11,211 NSF available at Sprat Hall and then build a new Vehicle Bay (shown in blue on graphic) at 4,500 SF.



**FY12 Addition/Alt Graphic Representation:**  
 Illustrates the nature of development, transfers, alteration and addition that mark this phase of VI ARNG CST Medcom project.





Photographs from the Planning Charrette held between 11 and 15 July 2005, in St. Croix, VI.

### Jacobs Scope of Services and the Planning Charrette:

Jacobs Facilities Inc. (Jacobs) was contracted by VI ARNG to provide program and planning services to validate the programmatic requirements for the CST and Medcom units, establish new 1390/91s for addition/alteration for Sprat Hall and Hams Bluff buildings, test these preferred sites with the appropriate blocking diagram and master plan concepts, and develop parametric cost estimates in FY12 dollars. For the move-in scenario for Sprat Hall, a simplified NGB Form 420-R was discussed to provide the parametric cost estimated in FY06 dollars.

In addition, Jacobs was contracted to recommend standard criterion for CST/Medcom facilities based on the input of CST, Medcom and CFMO representatives in attendance at the PPDC. Information from the various stakeholders on how the current proposed criteria meets the operational and training needs of the CST and Medcom staff were evaluated and incorporated in the DD Form 1390/91. All program requests in addition to areas authorized in the criteria were documented as *Exceptions to Criteria* (ETC).

The PPDC process included five intensive days of work sessions with the stakeholders from VI ARNG at the Estate Bethlehem Armory in St. Croix, VI between 11 and 15 July 2005. Various participants representing the VI ARNG, National Guard Bureau, and Jacobs, attended the PPDC. LTC Aubrey Ruan, the CFMO of VI ARNG, and Lennie Jave, Facilities Program Management Facilitator from NGB, were also in attendance.

The Charrette began with an in-brief presentation (refer to Appendix J1) on 11 July 2005. Subsequent work sessions involving site planning, facility programming, and review of the DD Form 1390/91 occurred the same week. The Charrette concluded with an out-brief presentation (refer to Appendix J2) for The Adjutant General (TAG), the CFMO and other VI ARNG representatives on 15 July 2005.

### Key PPDC Findings:

The facility construction criteria for the National Guard WMD-CST program was established in the Information Paper dated 08 June 2005. Based on the criteria and the specific requirements for CST and Medcom, the revised program changes are summarized as follows:

- Total population for move-in scenario in FY06 is 62 (CST has 22 soldiers, whereas Medcom has a strength of 40).
- Military Vehicle parking to cater to 10 wheeled and 2 trailers.
- Total administrative staff established at 23 (CST has 12 and Medcom has 11).

- Detailed discussion with CST and Medcom user groups led to layout of functional relationships and adjacencies.
- Existing buildings at Sprat Hall and Hams Bluff have available 11,211 NSF and 4,638 NSF, respectively. Modifications to interiors, sites, etc. will be required to facilitate move-in.
- Total area authorized for CST and Medcom exceeds available 11,211 NSF in FY06. Decision was made to transition the project into three phases – FY06 Move-in, FY12 Addition/Alteration to Hams Bluff and FY12 Addition/Alteration to Sprat Hall.
- Based on the PPDC findings, three master plan concepts were discussed and presented in this report. Each responds to the needs of the CST and Medcom user groups for (refer to sections G, H and I).

### **Site Analysis:**

Section B of this report provides a detailed analysis of the Sprat Hall site which will accommodate CST and Medcom units in FY06 and will be altered for CST needs in FY12. The section also discusses the Hams Bluff site which will undergo addition/alteration for the proposed Medcom transfer in FY12.

During the PPDC, analysis of existing constraints and opportunities at Sprat Hall were taken into the consideration and a blocking diagram was generated (refer to section G). Thereafter, the addition/alteration of Hams Bluff and Sprat Hall were discussed and master plan concepts were generated for both facilities (refer to sections H and I).

### **NGB Form 420-R and DD Form 1390/91:**

Please refer to Sections D, E and F of this report for the NGB Form 420-R and DD Form 1390/91. These forms capture the program and cost information based on the PPDC and Jacobs parametric cost estimates. Per NGB guidelines, all estimates under the budget of \$750,000 need the form NGB 420-R. Major projects including new construction and addition/alterations above \$750,000 are programmed using DD Form 1390/91.

### **Exceptions to Criteria:**

During the Charrette, the VI ARNG representatives and Jacobs discussed several requirements and changes to the facilities program for their CST and Medcom units. The consensus was that there were no significant changes that will impact the program in order to be listed as exceptions to criteria. All areas quoted in this report are based on the authorized quantities and there are no exceptions listed.

### **Action Items:**

Looking ahead, the planning focus of VI ARNG will shift to the addition/alteration designs for Sprat Hall and Hams Bluff. To support this effort, the VI ARNG will need to address the following action items resulting from the PPDC:

- VI ARNG to submit DD Form 1390/91 and request MILCON funding for FY12 to complete addition/alteration of Sprat Hall for CST and Hams Bluff for Medcom.
- Coordination/review with FME, Bill Pulket (completed on 31 August 2005).
- Present draft VI ARNG CST/Medcom PPDC report to user groups (on 10 October 2005).
- Provide Jacobs with comments from VI ARNG and proceed to document Final CST/Medcom PPDC report (on 19 October 2005).
- Final PPDC report along with final Forms 1390/91s and 420-R to be presented to NGB for approval (on 21 November 2005).

## **A. PROJECT OVERVIEW**

### **A1. Introduction**

In FY 1999, the 23<sup>rd</sup> Civil Support Detachment of the VI Army National Guard was activated and a Medical Emergency Response Team was later added. They are part of National Guard units that are activated during catastrophic events like huge hurricanes that hit the Virgin Islands and continental US to render emergency evacuations, search and rescue operations.

CST teams consist of firefighters, law enforcement, and medical personnel that could be deployed rapidly to assist local first responders from local, state, and federal civil authorities primarily in incidents that involve weapons of mass destruction (WMD). Each team consists of highly skilled, full-time members of the Army and Air National Guard who are federally-resourced, and specifically trained on hazardous and WMD materials handling. They practice hazardous-material and WMD detection on a daily basis working with their equipment. During each incident, they get deployed with two key pieces of equipment: a mobile lab used to analyze chemical and biological agents, and a communications suite capable of linking responders and their local, state, federal and military headquarters.

The Project Planning Document Charrette (PPDC) process conducted by Jacobs with the VI ARNG addressed the requirements for the addition/alteration of Sprat Hall. VI ARNG officials wanted to make use of this building to accommodate the current and projected staff and equipment of 23<sup>rd</sup> CST unit and Medcom unit. The PPDC provided an opportunity for National Guard Bureau (NGB) representative and CST and Medcom user groups to review their operational requirements that will serve as a guide for NGB in establishing national programmatic standards for future CST facilities.

A typical CST building is like a modified "firehouse" wherein the "bell" would sound in the event of an attack or incident involving chemical, biological or radiological agents, nuclear hazards or high-yield explosives. The Sprat Hall and Hams Bluff facilities will be required to store the CST and Medcom teams equipment and ensure that such equipment is prepared to support their mission on a 24/7 basis. Allocation of administrative space will also be provided in addition to storage and vehicle bays for the CST and Medcom units. These two facilities are expected to be undergoing addition/alteration or renovation and have 60-70 year life spans. Both will operate on a full-time five-day workweek with 24 hours a day/ 7 days a week rapid deployment capability, at the request of the Governor per Title 32 of the U.S. Code.

## **A2. Jacobs Scope of Services**

Jacobs was responsible for preparing and conducting of the PPDC, the preparation of associated documents that includes a record of the charrette, developing the NGB Form 420-R and DD Form 1390/91, and parametric cost estimates in FY12 dollars.

Jacobs conducted the PPDC for the VI ARNG in the East Bethlehem Armory located in St. Croix from 11-15 July 2005. Throughout the charrette process, the Jacobs team met with the CST and Medcom stakeholders to identify and apply the appropriate authorizations, test and evaluate their needs, space requirements, site constraints and opportunities, operational workflow and adjacencies. Various master plan concepts and block diagrams were considered and evaluated.

In addition, the team identified the necessary additions/alterations for Sprat Hall and Hams Bluff to accommodate the spaces for the administrative offices, work bays, and work areas. During the PPDC, data was collected, recorded and organized using analysis/snow cards. The cards are reprinted throughout this report as representative examples and to illustrate concepts.

The CST and Medcom criteria development portion of the program included soliciting inputs from the Adjutant General (TAG), VI ARNG's CFMO and NGB's Technical Support representative who attended the Charrette.

This report documents the program changes, decisions, and direction given to Jacobs by the VI ARNG personnel attending the PPDC. This report serves as the record of the charrette proceedings and the decisions made during the charrette.

## **A3. Charrette Overview**

As presented during the PPDC, an overview of the following information is provided in this section.

- Charrette Objectives and Expectations
- CST and Medcom Facilities Goals
- Charrette Agenda
- Charrette and Documentation Schedule

### **Charrette Objectives**

- To gather/confirm scope requirements and criteria relevant to the Sprat Hall and Hams Bluff facilities.
- To establish a NGB Form 420-R in FY06 dollars and DD Form 1390/1391 in FY12 dollars.

<b>CHARRETTE EXPECTATIONS</b>
<b>BUILD CONSENSUS AMONGST ALL CHARRETTE STAKEHOLDERS</b>
<b>FULLY UNDERSTAND THE NEEDS + DOCUMENT THEM WITH APPROPRIATE JUSTIFICATION</b>
<b>ADDRESS ISSUES RELATING TO THE SITE AND ENVIRONMENTAL CONDITIONS</b>
<b>ESTABLISH A THOROUGH UNDERSTANDING OF FACILITY COMPONENTS AND THEIR IMPACT ON OVERALL DESIGN</b>



Charrette cards were used to keep a tally of issues pertaining to the project. Here they show Charrette Expectations.

- To ensure the planning concepts of the CST and Medcom support the VI ARNG mission and vision.
- To develop Master Plan Concepts including Block Diagrams to describe adjacencies between functional relationships.
- To solicit inputs from the CST and Medcom teams stakeholders and VI CFMO representative in attendance regarding how well the current proposed criteria meet real operational/training needs of the users.
- To translate stakeholder input into suggestions for revised national CST criteria.
- To make the necessary decisions for moving the project forward.

### Charrette Expectations

The following expectations were established at the start of the charrette and were used to guide decisions throughout the process:

- To achieve consensus with all charrette stakeholders.
- To fully understand the needs and document them with appropriate justification.
- To establish site opportunities, constraints and any additional requirements.
- To lay the foundation for the addition/alteration designs for Sprat Hall and Hams Bluff buildings.
- To meet federal and state safety requirements and AT/FP Guidelines.
- To understand the impact of CST activities on renovated Sprat Hall.
- To optimize business processes.

### CST and Medcom Facilities Goals

The mission of the Virgin Island National Guard is to prepare CST and Medcom units to execute their state and federal missions.

Some of the primary mission goals for CST are:

- Assess a suspected nuclear, biological, chemical, or radiological event in support of the local Incident Commander;
- Advise the Incident Commander regarding appropriate actions; and
- Facilitate requests for assistance to expedite arrival of additional state and federal military assets to help save lives, prevent human suffering, and mitigate greater property damage.

The CST provides support to civil authorities and first responders at any domestic chemical, biological, radiological, nuclear or high-explosive (CBRNE) incident by identifying CBRNE substances, assessing current and projected consequences, and advising on response measures. The Medcom provides support to civil authorities on their medical support and emergency response needs.

The following goals were confirmed at the charrette and were used to guide decisions throughout the process.

- To renovate Sprat Hall and Hams Bluff facilities to accommodate the missions of the CST and Medcom units. The renovated facilities will improve current and projected staff and improve efficiency in their operations.
- To serve the full-time administrative staff.
- To assume a minimum of 60 to 70 year life spans for these two facilities.

	Monday 11-Jul-05	Tuesday 12-Jul-05	Wednesday 13-Jul-05	Thursday 14-Jul-05	Friday 15-Jul-05
0730 - 0800					
0800 - 0830	Charrette Set-up	JFHQ Jacobs Team Work Session		Jacobs Work Session	Jacobs Work Session
0830 - 0900					
0900 - 0930	Kickoff, Goal Setting, Expectations & Project Discussion	JFHQ SPIRiT Checklist Review	JFHQ, RTI and CST/MedCom ATRP Discussion	CST/MedComm Facility Organization & Relationship Discussion	
0930 - 1000					
1000 - 1030	RTI & JFHQ/RC Site Overview Discussions	RTI Site Visit	CST/MedComm Site Visit and Building Walk Through	Jacobs RTI Site Team Work Session	RTI Facility Organization & Space Relationship Diagrams
1030 - 1100					
1100 - 1130	JFHQ Site Breakout Infrastructure & Access	Working Lunch	Working Lunch	CST/MedComm Jacobs Site Team Work Session contd.	Out Brief Setup
1130 - 1200	JFHQ 1390 / 91 Scrub & Validation Manning Docs				
1200 - 1230					JFHRC, RTI & CST/MedComm Senior Leadership Out Brief
1230 - 1300	Working Lunch	Working Lunch	Working Lunch	Working Lunch	
1300 - 1330	JFHQ Site Breakout Environmental, Topography, Drainage, Access, etc.	RTI Site Breakout Environmental, Topography, Drainage, Access, etc.	CST/MedComm Site Breakout Infra, Access, Environ, Topography, Drainage, Security / ATRP	CST/MedComm TDA / MTOEs & Exceptions to Criteria	CST/MedCom, RTI & JTHQ Pre-Brief for CFMO & Key Users
1330 - 1400	JFHQ 1390 / 91 Scrub & Validation Schedule I & II, ATRP, Safety, IT, Telecom, CWHF, POL, etc.	RTI 1390 / 91 Scrub & Validation Manning Docs			
1400 - 1430	JFHQ/RC Site Breakout Security / ATRP	RTI 1390 / 91 Scrub & Validation Billeting, Dining, Education & Admin/Office Areas	CST/MedComm Site Breakout POV, MVP & Ancillary Facilities	CST/MedComm 1390/91 Scrub Schedule I & II	Jacobs Work Session
1430 - 1500	JFHQ/RC Facility Organization & Space Relationship	RTI Site Breakout Security / ATRP			
1500 - 1530	JFHQ/RC Site Breakout POV, MVP & Ancillary Facilities				
1530 - 1600					
1600 - 1630					
1630 - 1700	Monday's Work Sessions Review	Tuesday's Work Sessions Review			
1700 - 1730					

### Charrette Agenda

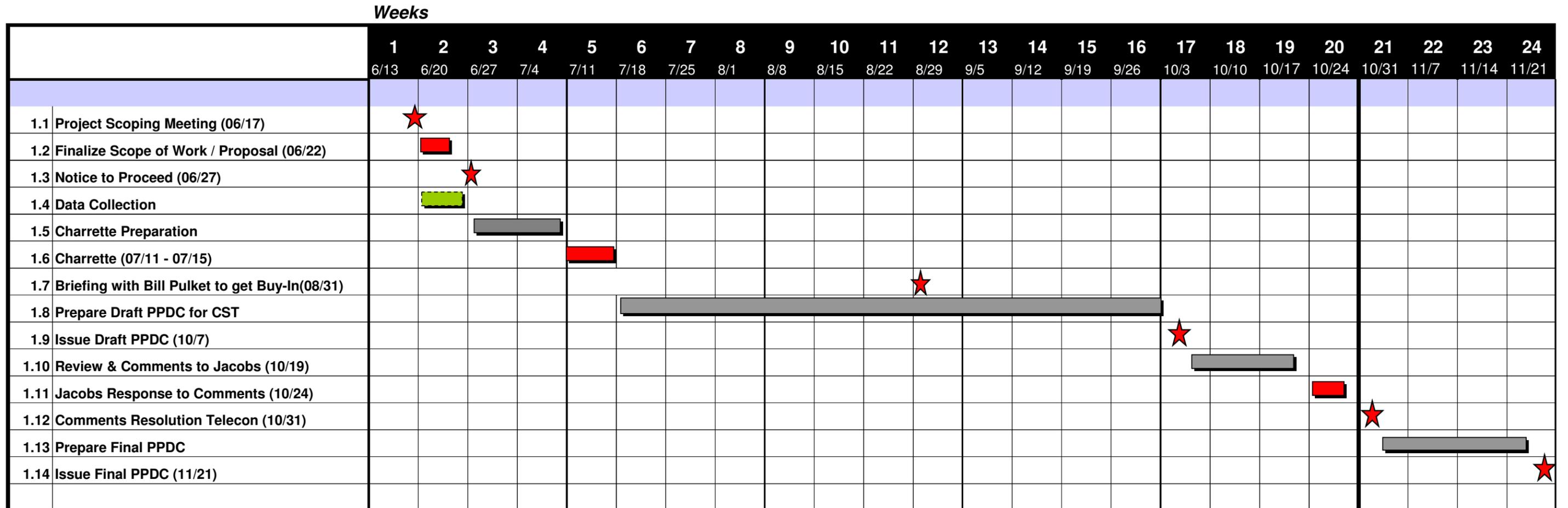
The schedule for the VI ARNG CST and Medcom PPDC was combined with the sessions for the Joint Forces Headquarters and Regional Training Institute. The charrette was conducted in ARNG Armory at East Bethlehem and shown to the left.

### Project Schedule

The bar chart shown in the next page and table below show the project milestones and agreed upon delivery dates.

<b>Milestones</b>	<b>Dates</b>	<b>Status</b>
CST and Medcom PPD Charrette	11-15 July 2005	<input checked="" type="checkbox"/>
Preliminary PPDC Document	07 October 2005	<input checked="" type="checkbox"/>
Anticipated completion date for VI ARNG Review	19 October 2005	<input checked="" type="checkbox"/>
Final PPDC	21 November 2005	<input checked="" type="checkbox"/>

## VI ARNG CST PPDC SCHEDULE



## **B. SITE ANALYSIS**

This section outlines the process of collecting site-specific data, analysis of the information and presentation of findings as they pertain to renovation of the Sprat Hall facility for the Civil Support Team (CST) and Hams Bluff for the Medical Command Unit (Medcom).

The objectives of this site analysis section are to identify the proper locations at Sprat Hall and Hams Bluff for the future renovation of CST and Medcom facilities, respectively. This section will also identify any existing conditions on these sites which may impact the project costs, schedule, or final outcome. Hams Bluff is currently being used by VI ARNG as the Regional Training Institute (RTI) site, but being re-programmed for Medcom due to the incompatibility with the RTI facility site requirements. The Site Analysis will prove that the Hams Bluff site is the best location for the Medcom unit. Since no initial Form DD 1390/91s were given to Jacobs by VI ARNG, Jacobs had to create new Forms DD 1390/91 and 420-R for both facilities to be included in the funding and authorization of military construction projects.

Regional context maps and aerial photography (refer to Section B1 and Section B2 in this report) are provided to depict the geographic relationship between the Sprat Hall and Hams Bluff sites located in the St Croix, Virgin Islands.

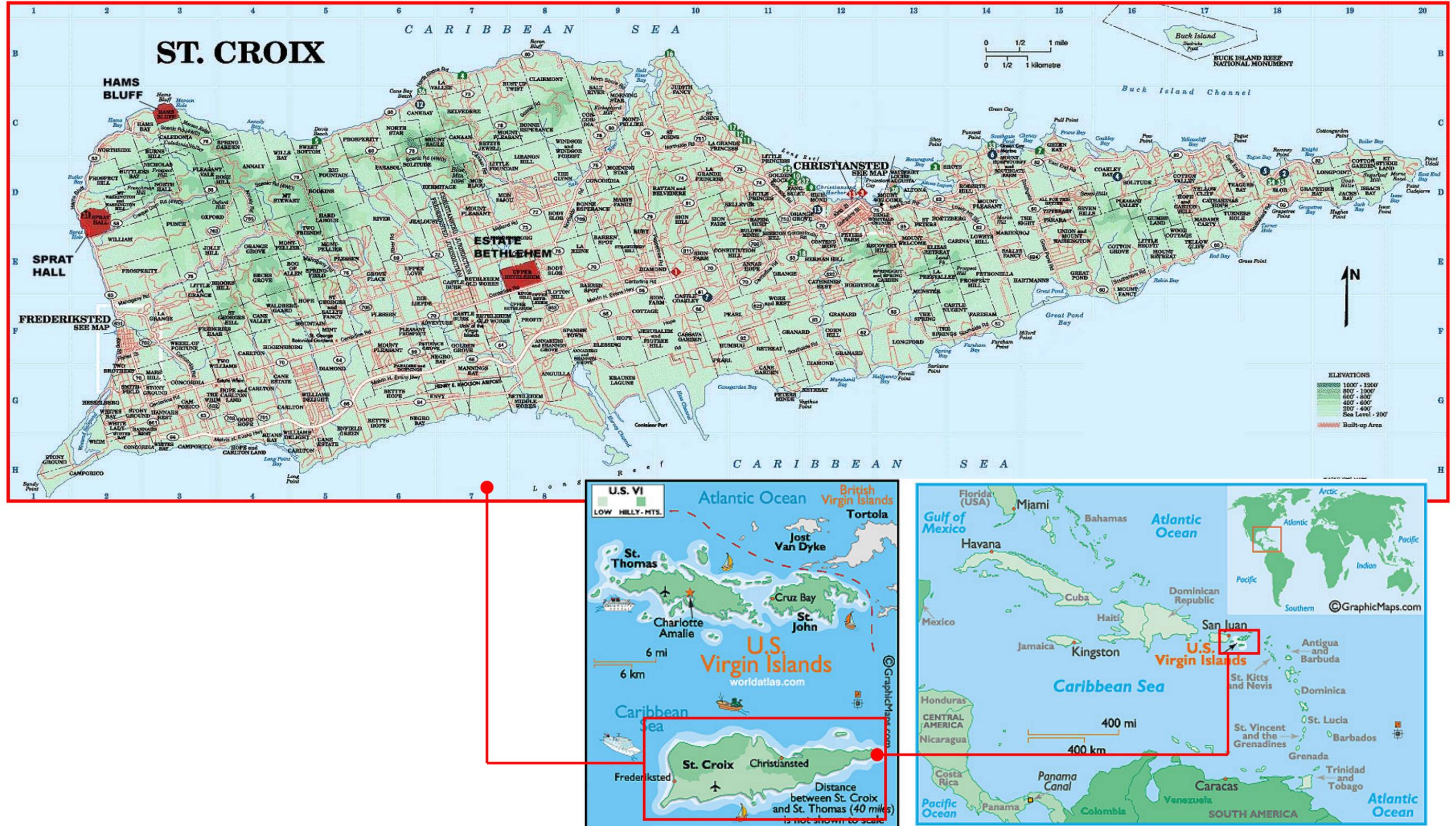
During the PPDC, the analysis of site conditions supports the use of the proposed sites at Sprat Hall for the CST facility and Hams Bluff for the Medcom facility. The analysis is presented in the following sections. VI ARNG personnel provided the Jacobs team with electronic files of these two sites and inputs during the PPDC.

Diagrams were generated to communicate the information categorized as follows:

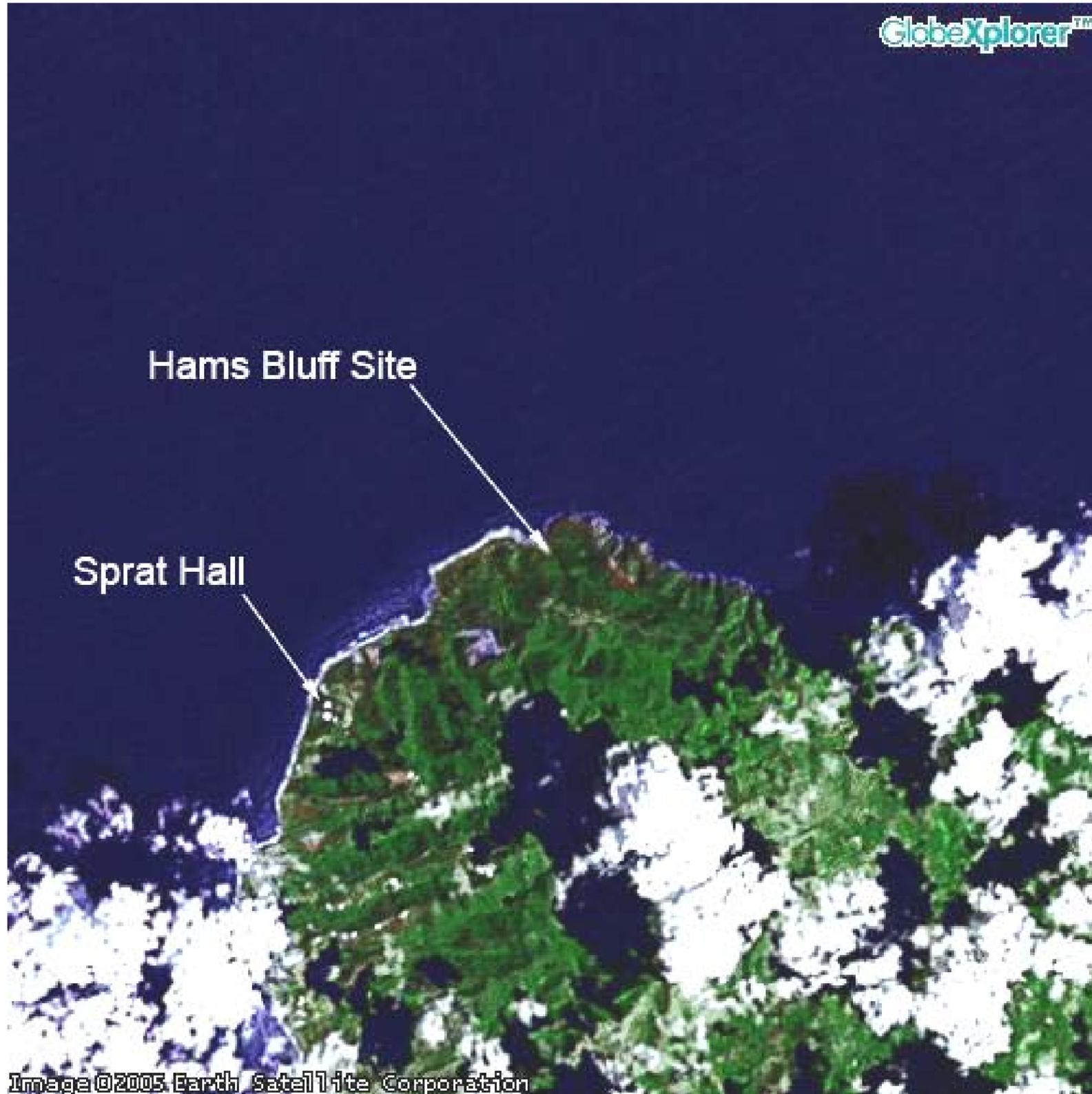
- Site Conditions for Sprat Hall (refer to B3) and Hams Bluff (refer to B10)
- Existing Site Utilities for Sprat Hall (refer to B4) and Hams Bluff (refer to B11)
- Site Access and Circulation for Sprat Hall (refer to B5) and Hams Bluff (refer to B12 )
- Site Environment for Sprat Hall (refer to B6) and Hams Bluff (refer to B13)
- Site Topography and Slope for Sprat Hall (refer to B7) and Hams Bluff (refer to B14 and B15)

- Security Requirements for Sprat Hall (refer to B8) and Hams Bluff (refer to B16)
- Site Opportunites and Constraints at Hams Bluff (refer to B17).
- Time-series climate data documented for the St. Croix, Virgin Islands (refer to B18)

**B1. Regional Context Maps**



## B2. Aerial Site Photograph – Hams Bluff and Sprat Hall



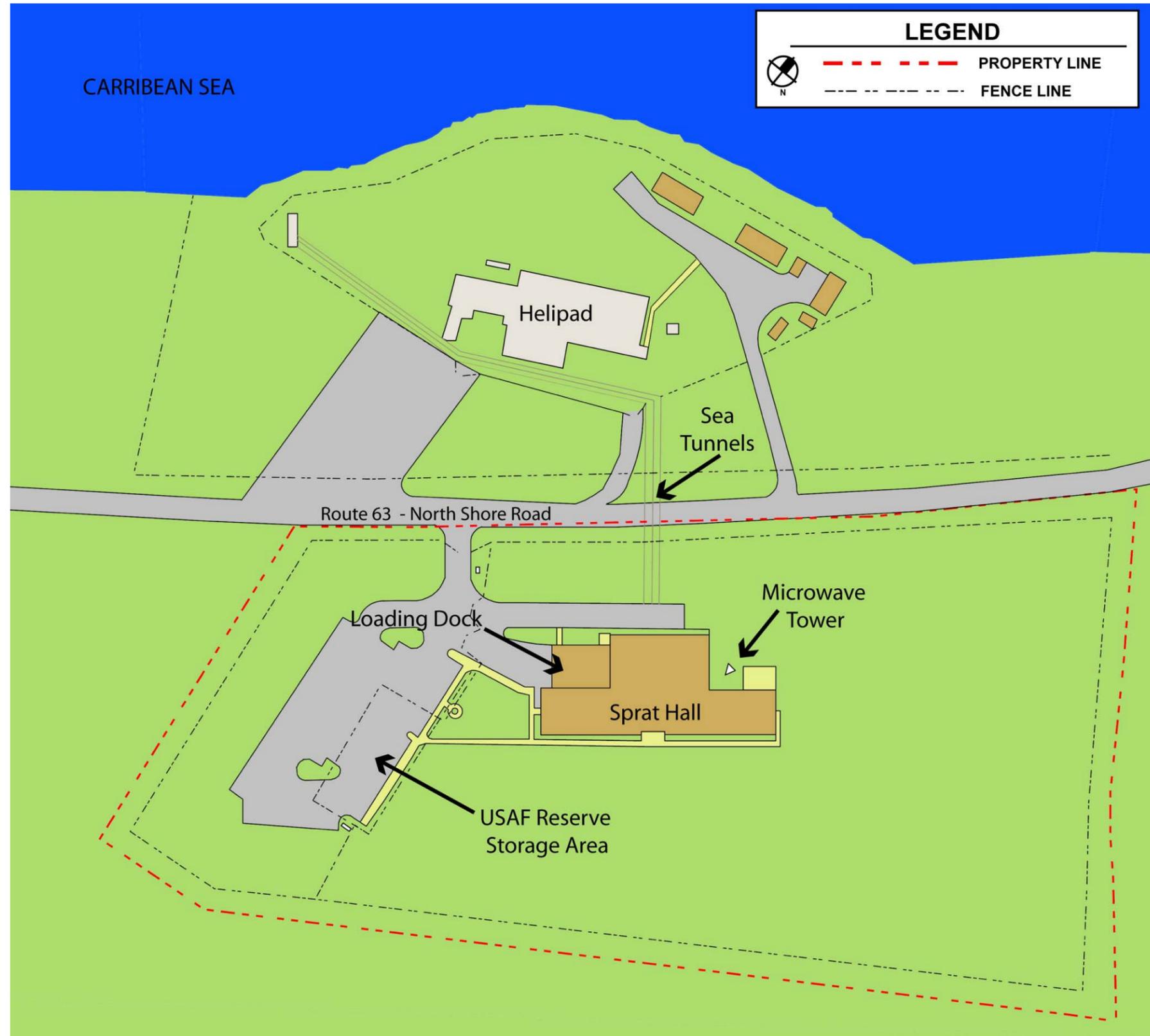
The satellite photo to the left was provided during the charrette to assist in the definition of the two sites in relation to St. Croix Island. Sprat Hall is located on the western coast of the island, about two miles north of the city of Frederiksted, one of two major cities on the island. Hams Bluff is located along the northwest coast of the island, approximately 2 miles north of the Sprat Hall site.

Hams Bluff is the current location of VI ARNG Regional Training Institute. The original option was to increase the size of the existing RTI to meet the current needs of the National Guard. Due to site constraints it was decided to move the RTI to the Estate Bethlehem site with the Joint Forces Headquarters facility. It was further decided to move the Medcom to Hams Bluff site as an addition to the existing building.



**Aerial view of both sites and photographs of Sprat Hall and Hams Bluff:** Satellite image showing approximate location of the two sites. The photographs of Hams Bluff (top two) and Sprat Hall (bottom two) illustrate the vicinity of these sites.

**B3. Site Conditions – Sprat Hall**



The Sprat Hall facility is situated on 12.24 acres overlooking the Caribbean sea on the western shore of St. Croix. The site is divided into two pieces, separated by Route 63, North Shore Rd. The north parcel located adjacent to the Caribbean Sea was used as a helicopter landing pad and storage area and is connected to the main facility through sea cable tunnels. The future use of this parcel will not change.

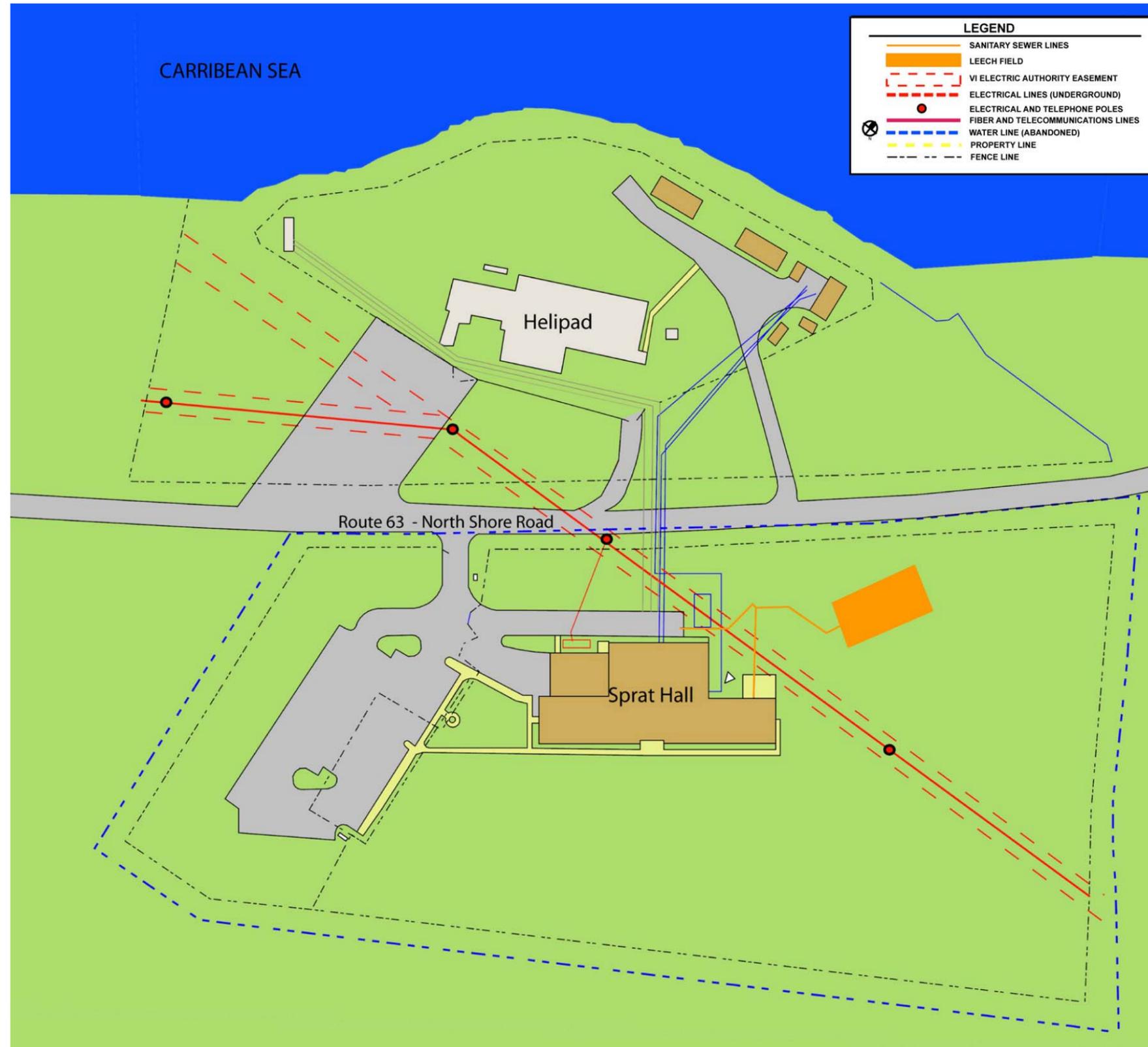
The Sprat Hall facility is currently owned by the VI ARNG. It was formerly used by the United States Navy as a command and control facility for anti-submarine warfare operations. A microwave tower located adjacent to the building is still used for this function.

No major site conditions exist that will restrict the development of the Sprat Hall site as the shared facility the VI CST and Medcom units for the FY06 move-in scenario. Drainage patterns within the site should be addressed but are not considered "show stoppers".



**Site Conditions:** Plan of Sprat Hall site illustrates existing facilities, circulation and property lines. Photograph above shows view from the site looking northwards to the sea.

**B4. Existing Site Utilities – Sprat Hall**



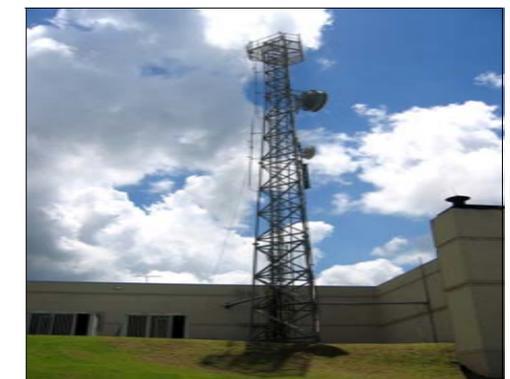
Potable drinking water is obtained through the use of cisterns incorporated into the design of the facility. The catchment system is self sustaining and collects and stores water for use through downspouts incorporated in the roof design.

Telecommunication fiber runs throughout the site serving all of the existing facilities. There is excess capacity within the fiber system to support the development. Overhead phone lines support all of the facilities and run directly to the east of the site.

Electric service is provided by a combination of overhead and underground 460 volt 3-phase lines running through the proposed site. The VI Electric Authority have a 10 foot easement along either side of these lines for maintenance and upgrade access.

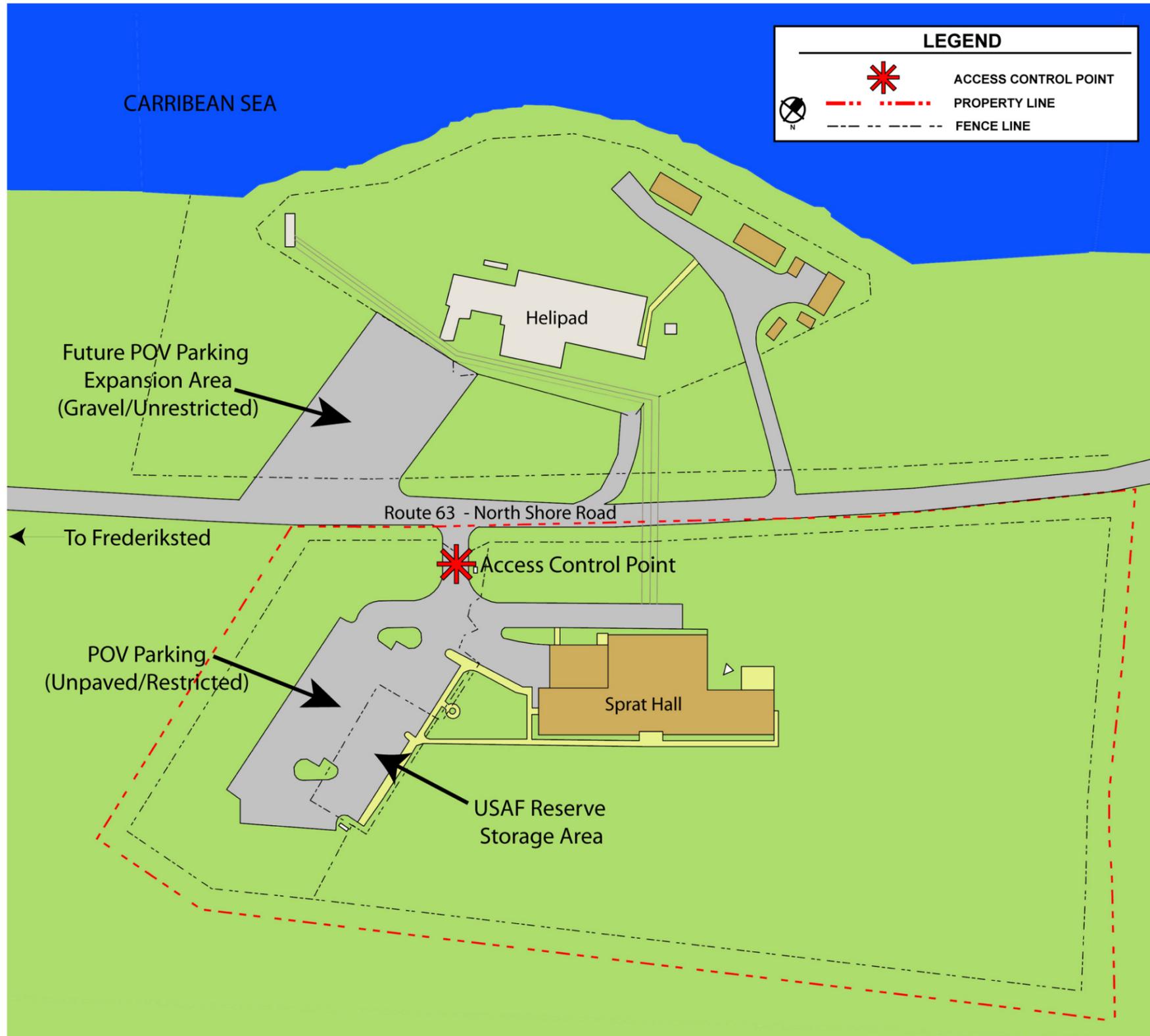
Sanitary sewer facilities are provided to the facility through a septic system. This system drains into a leech field located northeast of the building. A through inspection for this systems should be undertaken to ensure proper function due to proximity to the Caribbean Sea.

Existing site utilities have capacity to support the proposed development of the combined CST and Medcom facility in FY06 scenario and renovated CST facility in FY12.



**Site Utilities:** Plan of Sprat Hall site illustrates existing facilities. Photograph above shows communications tower.

**B5. Site Access and Circulation – Sprat Hall**



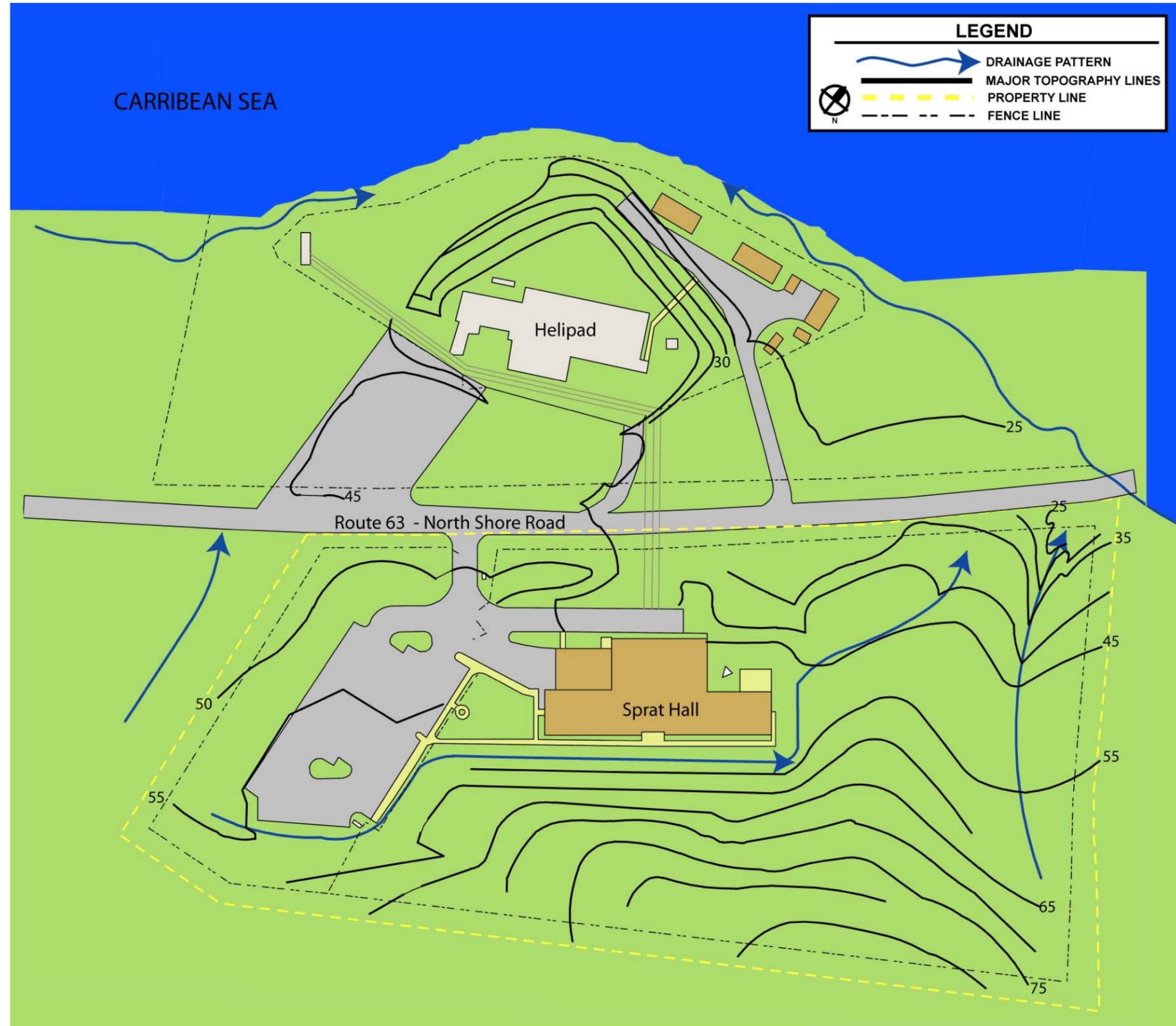
The Sprat Hall facility is readily accessible, due to its siting along on Route 63 or North Shore Rd. This two-lane road connects the facility to Frederiksted, two miles south. Future developments planned in the area may lead to the expansion of the roadway.

Access to the existing facility is through a six foot barbed wire fence which is gated at the entrance to the loading dock. Existing parking areas are restricted due to the USAF Reserve storage area which consumes a large portion of the existing unpaved parking lot. This area is fenced off from the parking area and will not be relocated. POV parking expansion is proposed across North Shore Rd. for visitors and overflow. An access control point should be located at the perimeter of the site to restrict all access to the site.



**Site Access and Circulation:** Plan of Sprat Hall site illustrates existing access points and parking. Photograph above these perimeter fence facing the North Shore Road.

**B6. Site Environment – Sprat Hall**



The entire Sprat Hall site has been disturbed through previous development. Due to development, there are no wildlife habitats or surface waters located within the property line.

Sprat Hall is located directly adjacent to the Caribbean Sea. The impacts on this coastal zone should be considered during alteration/addition of the proposed facility.

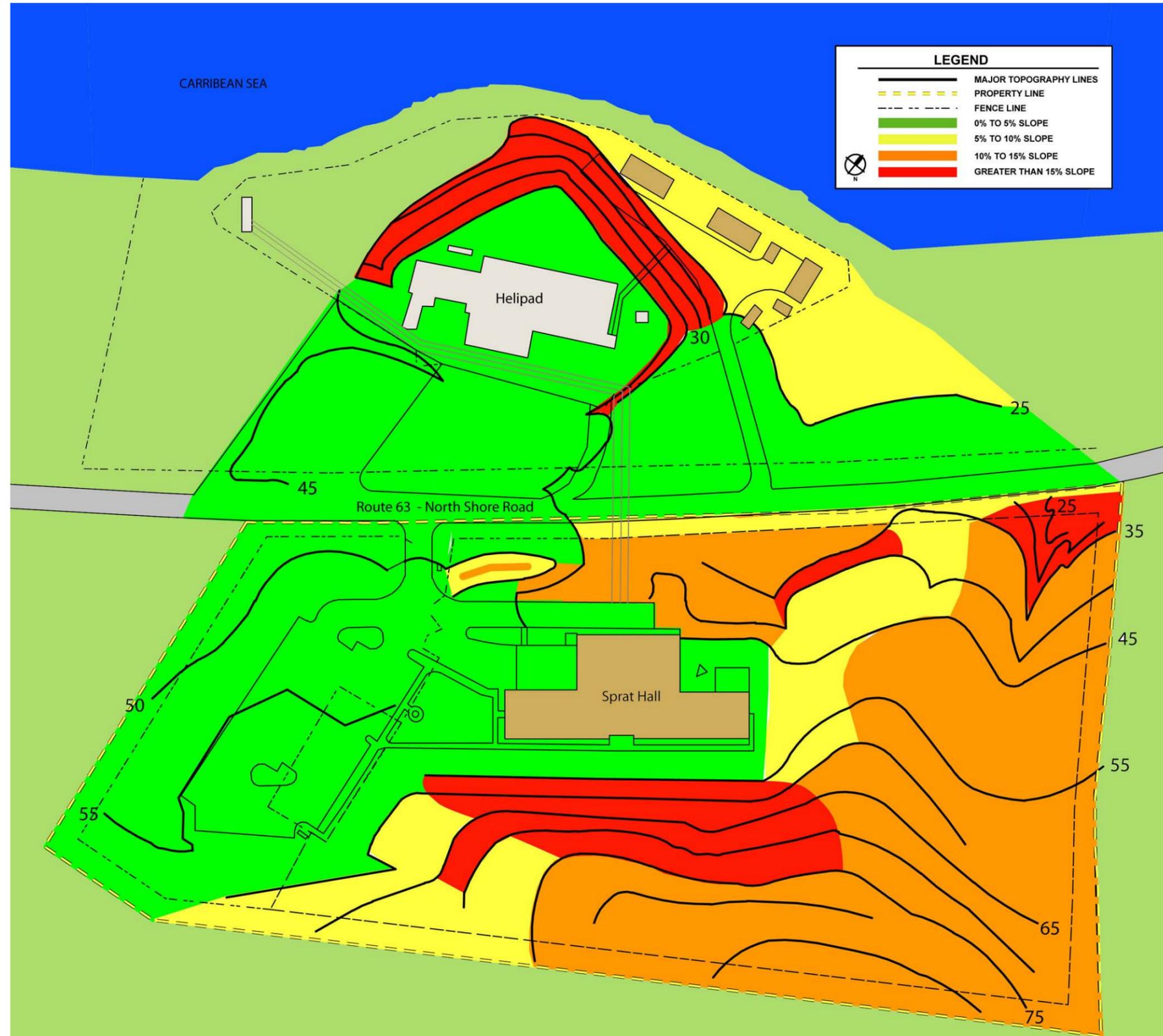
A major drainage swale, running parallel to the south face of the facility, is located 5 feet off the facade. This shallow swale poses the potential to introduce storm water into the facility through doorways. This swale would need to have increased holding capacity to accommodate the maximum level of runoff for area based upon new additions to the site. The total runoff for the site should not exceed the existing levels of runoff.

Soils at the site consist of sand and clay silts with a bedrock of volcanic, volcanoclastic, and sedimentary rock. Groundwater is located ten feet below the surface.



**Site Utilities:** Plan of Sprat Hall site illustrates existing drainage and topography. Photograph above shows rolling terrain.

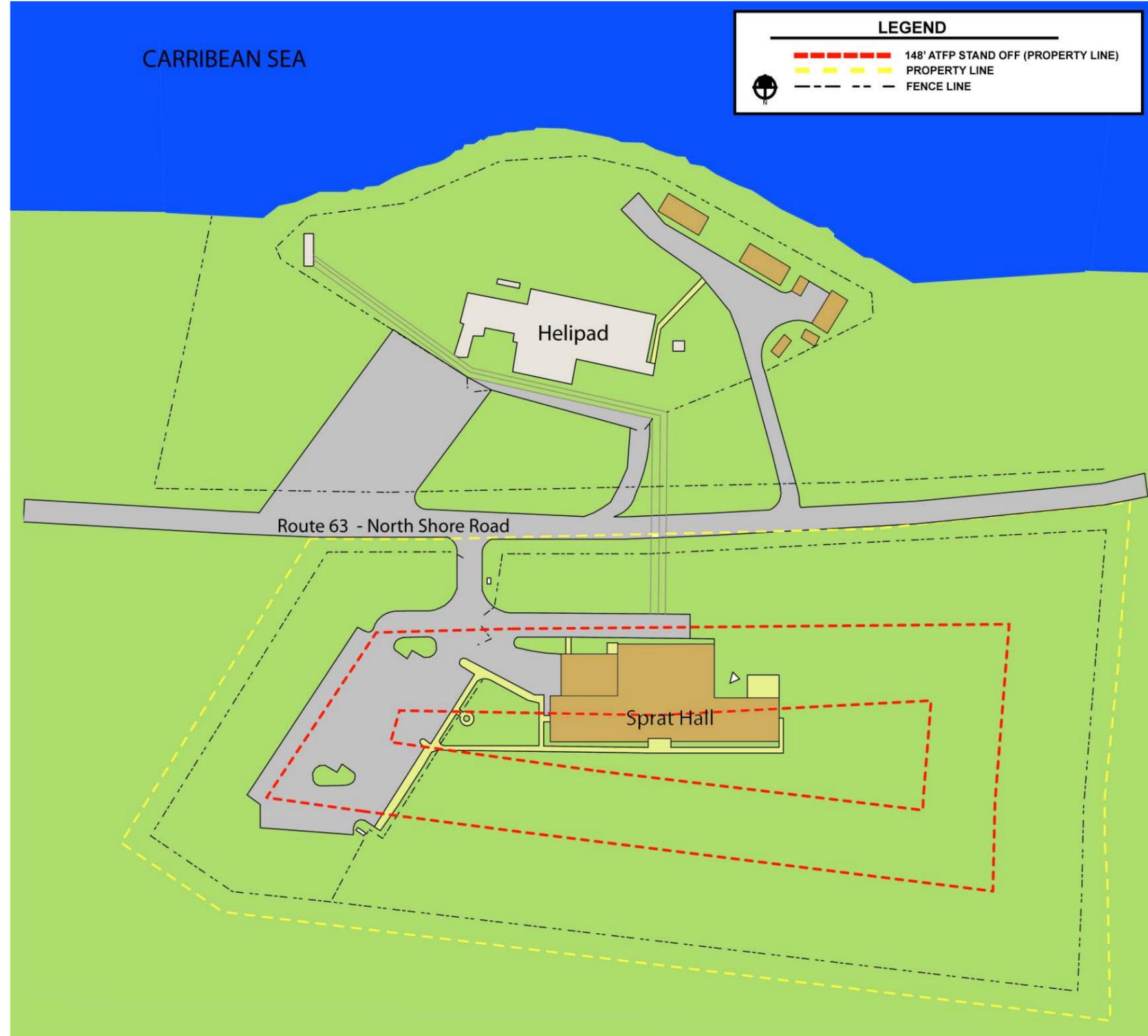
**B7. Site Topography and Slope – Sprat Hall**



The Sprat Hall facility is located between 30 to 85 feet above sea level. The existing facility is sited on a plateau carved out of the hillside leading to the Caribbean Sea. The routing of North Shore Road, the Sprat Hall facility, and other surrounding structures have modified the terrain of the plateau site. The facility and adjacent parking areas were cleared and graded with little to no slope, as shown in green shaded area in the graphic shown to the left.

The Sprat Hall site slopes sharply to the southeast due to drainage swales cut into the site. The site is marked by drops in elevation, primarily south of the facility due to grading and filling undertaken during the construction of the facility. Site drainage follows these patterns.

**B8. Security Requirements – Sprat Hall**



The existing threat assessment is being revalidated by VI ARNG Force Protection specialists but is currently assessed at low to medium. This threat level could increase with formal assessment and the inclusion of additional assets on site.

The existing fence line will be moved in 10' from its location on property line. This shift allows for an obstruction free area on either side of the fence. Dense vegetation around the fence should be removed.

The sea cable tunnels connecting the two Sprat Hall parcels allows for uncontrolled access to the facility from the Caribbean Sea. Measures such as locking metal grates should be put in place to restrict unauthorized use.

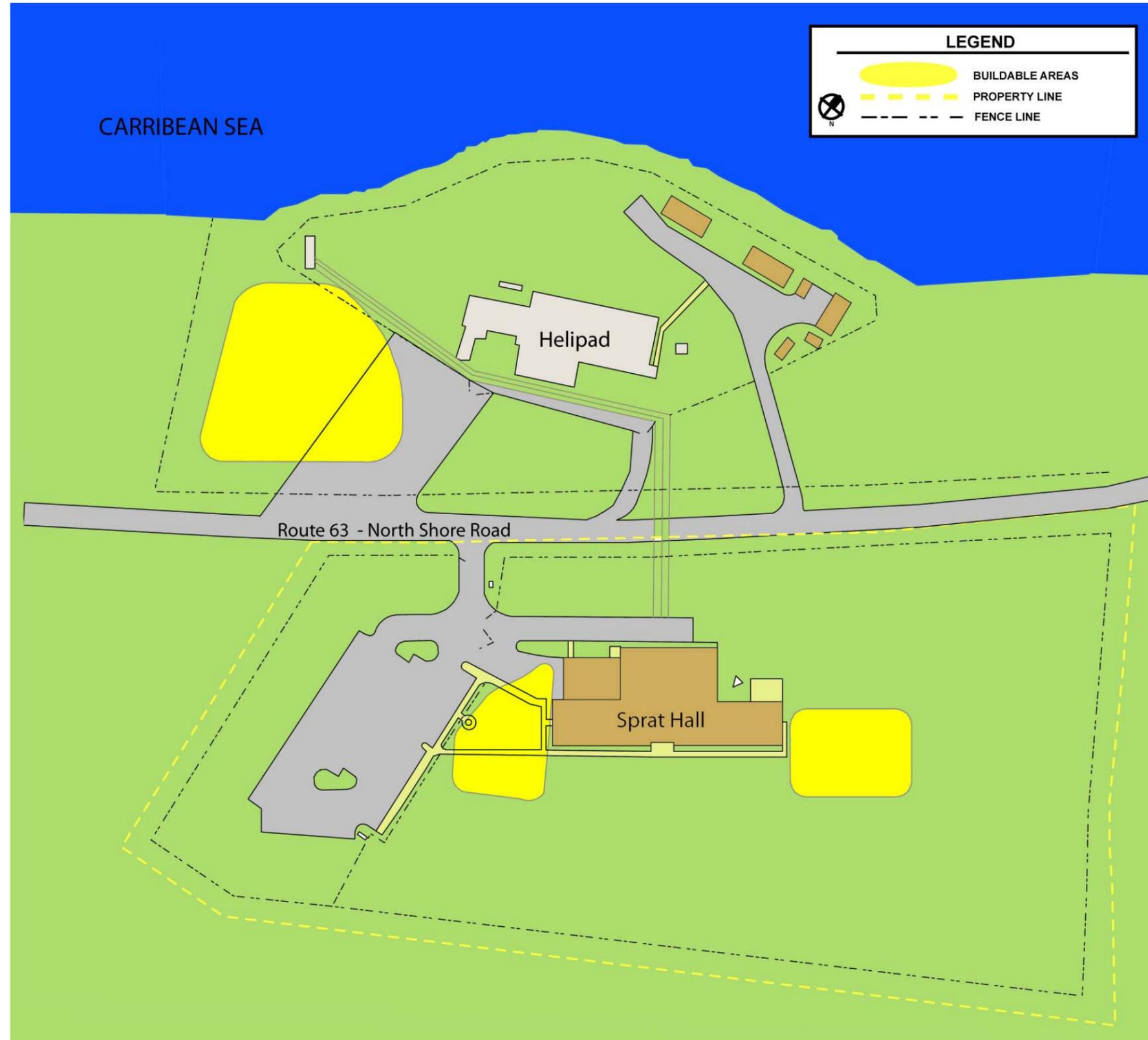
Security lighting on site should be standard street lighting with emergency back up generators at the facility and the access control point. Site security and force protection requirements applicable to the Sprat Hall site are outlined in the following documents:

- TM5-803-14 Site Planning and Design, published by Headquarters, Department of the Army, 14 October 1994
- Uniform Facilities Criteria (UFC) 4-010-01 DoD Minimum Antiterrorism Standards for Buildings, published by the Department of Defense, 8 October 2003



**Security:** Plan of Sprat Hall site illustrates existing security using fences. Photograph above reinforces secured site.

### B9. Buildable Areas, Site Opportunities and Constraints—Sprat Hall



The overlay of the collected site information creates defined areas for future development. These areas, shown in yellow, are available for the renovation of the Sprat Hall for the FY06 move-in scenario for both CST and Medcom teams. Care should be used to develop this facility in a land conserving manner to allow for any future required expansion.

At this stage of analysis, the following site issues are identified that could potentially constrain or be opportunities for development of the CST at Sprat Hall.

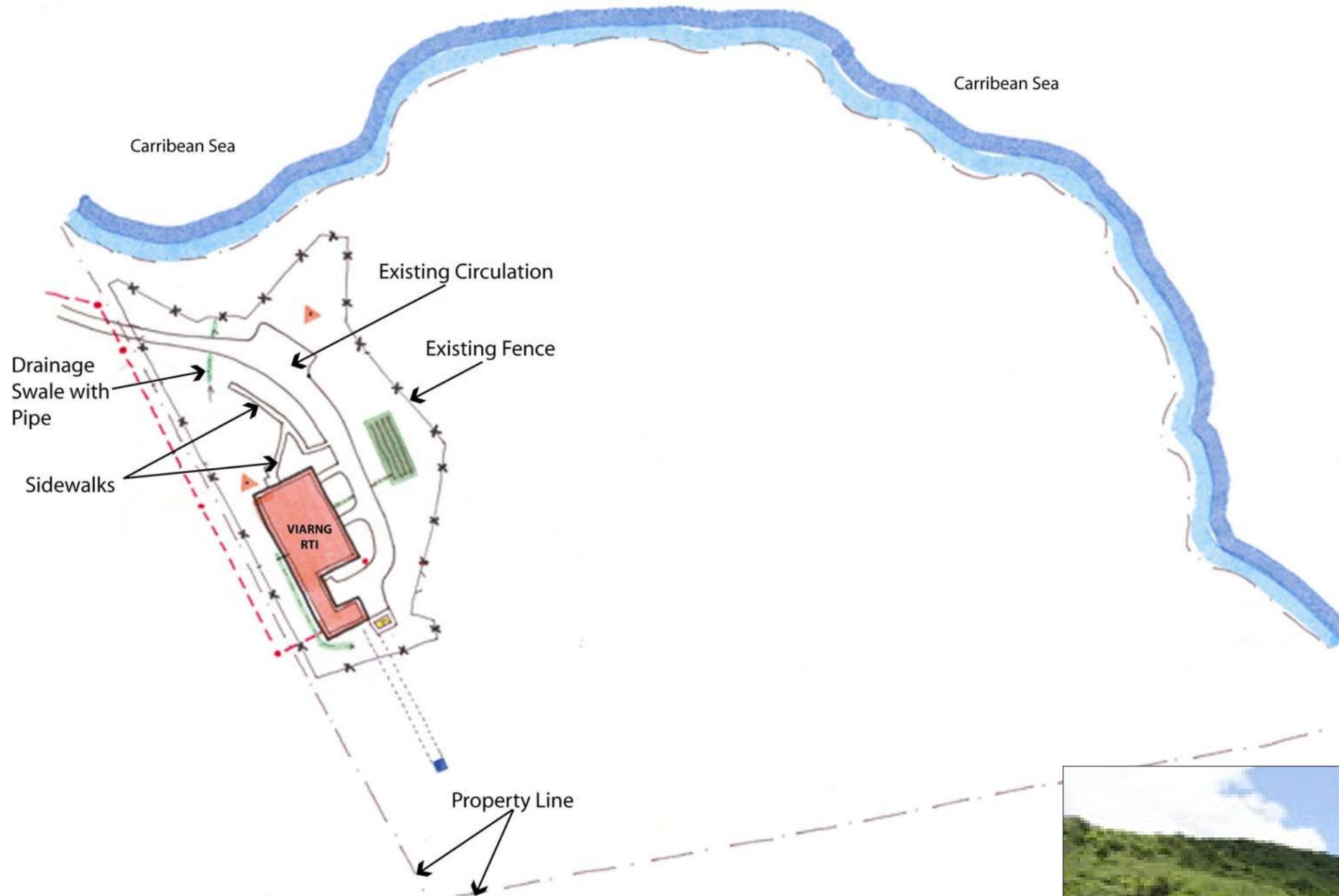
#### Opportunities:

- Adequate land for expansion to the east and west of Sprat Hall to support CST functions
- Good site access via existing road network
- Existing utilities have capacity to support the facility
- Views of the Caribbean Sea provide scenic setting

#### Constraints:

- Expansion beyond proposed area is constrained due to private land ownership and /AT/FP requirements
- Parking areas are insufficient and will require the use of land across the street to accommodate all allowed POVs

### B10. Site Conditions – Hams Bluff



General site conditions information captures high-level facts as they pertain to the Hams Bluff site in its current state.

The Hams Bluff site covers some of the most beautiful and difficult terrain to build upon. Only a small portion of the site can support construction of a facility. This small portion is the location of the existing RTI facility.

The site is mostly covered by dense tropical vegetation up to 12 feet high. Some of the types of vegetation include bannana trees, flamboyant trees, and various other types of tropical vegetation. The site resides in a coastal ecology zone.

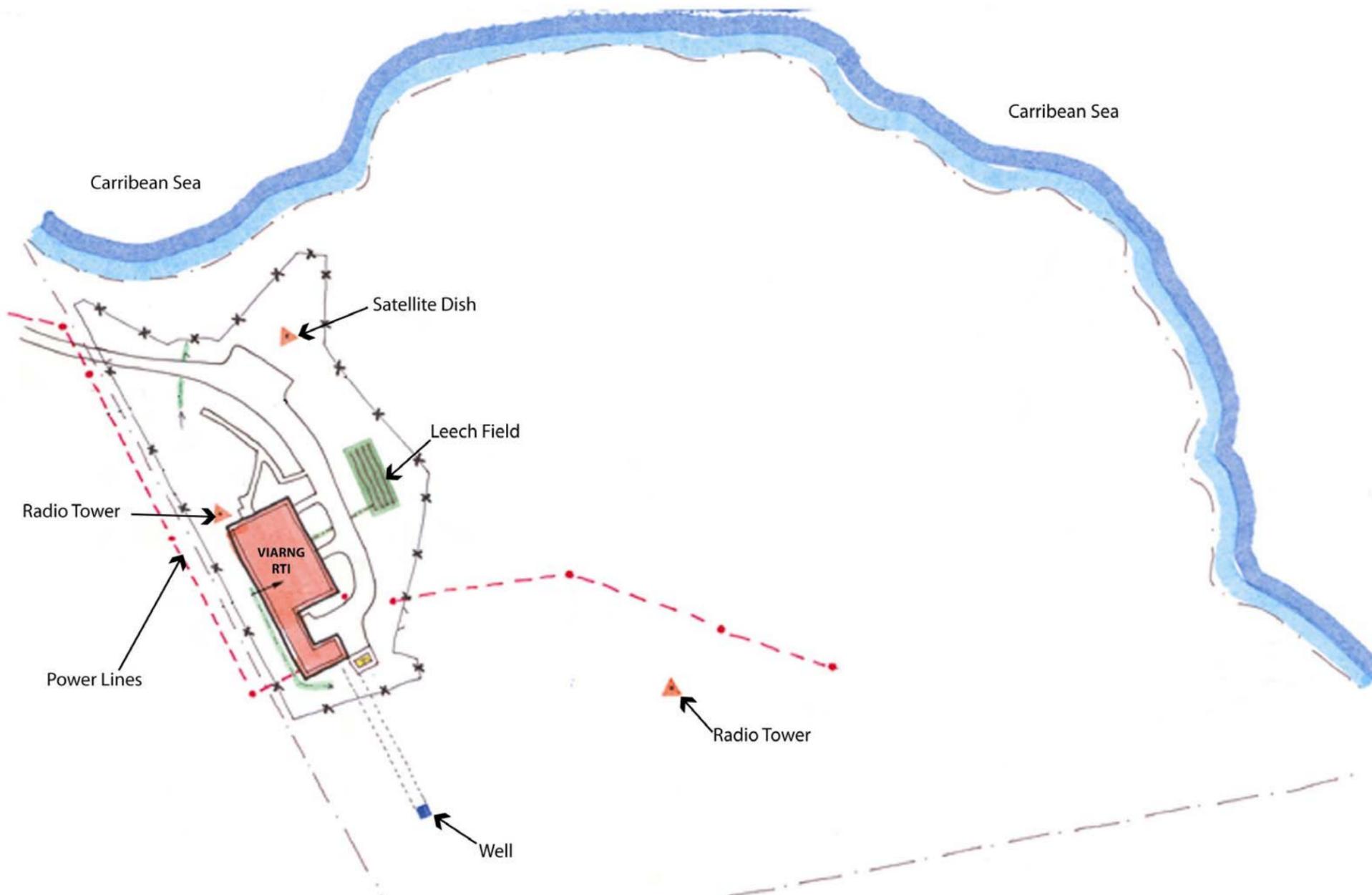
The sites topography is the most challenging aspect of the entire site. The only level portion of the site has the existing RTI facility. The site sit inside what is basically surrounded on three sides by high coastal cliffs with a small flat area then drops 100 feet to the ocean below.

There is really no surrounding landuse due to the steep topography of the site. There is nothing that will interfere with the use of the site. The only constraint with using the Hams Bluff site is the buildable envelope.

Site access is by a single road and a single point of entry. This is created by the rising of the crest of the hill to the south and the ocean cliff to the north.



**Site Conditions:** Plan of Hams Bluff site illustrates drainage patterns, existing facilities, circulation and property lines. Photograph to the right shows view of site.



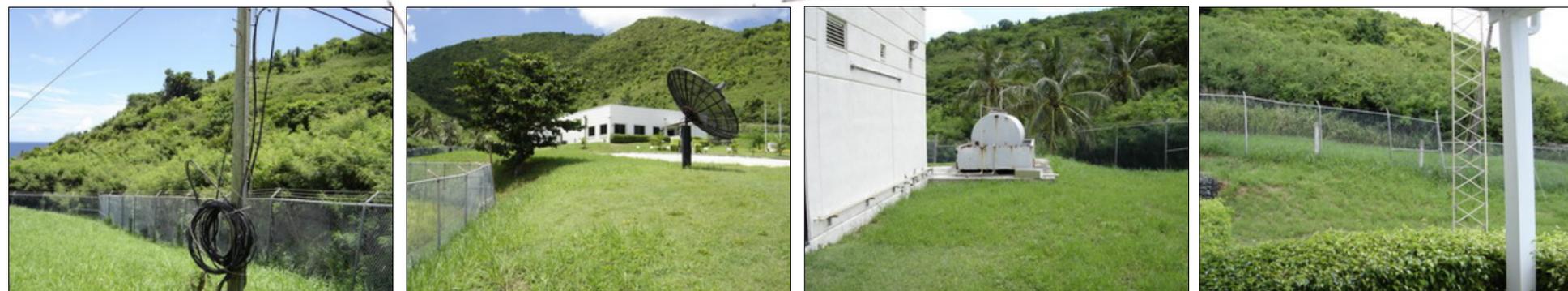
The main source of electricity is provided by overhead power lines which run along the coastal road. The power lines continued off site and up the hill to the south towards an existing Coast Guard lighthouse. The assumption was made that it was powered through this line. The incoming power is sufficient to meet the power requirements of the Medcom facility. In case of emergency, there is an existing generator to supply the Hams Bluff Facility with sufficient power to remain functional until normal power can be restored.

Primary communication is provided via the overhead electrical lines which run into the site. Secondary communication is through the use of radio which utilizes a several radio towers located adjacent to the RTI Building. An existing satellite dish and secondary radio tower are located on the site. It was unclear at the time of this study whether these utility elements were functioning.

Storm water is not managed by man-made means and is left to drain naturally with the slope of the land. A large, natural swale, located approximately 200 feet east of the existing RTI Building, drains a majority of the sites storm water runoff to the ocean. Rainwater from the roof was channeled through a downspout pipe to an existing cistern located behind the existing RTI structure.

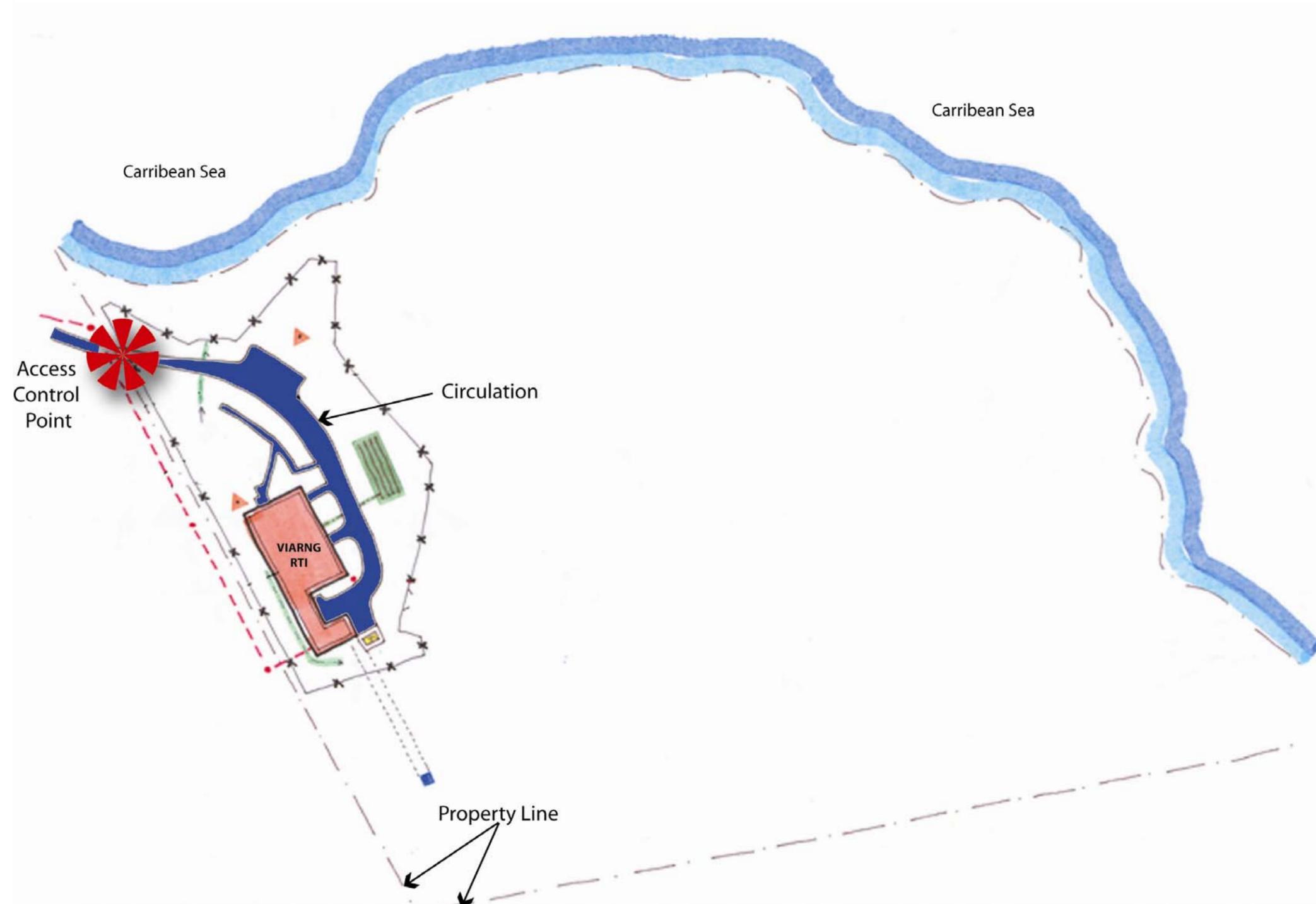
Potable water is provided through the collection of rainwater from roof runoff which is captured by downspouts and pipes then stored in a cistern. The existing cistern is considered sufficient for future capacity demand although this statement should be verified during the design phase. There is no piped water through a main which serves the site.

Black water from the sinks and toilets is currently dealt with through an existing leech field onsite. There is no sanitary sewer for this site due to its remote location. It was not verified during the PPDC discussions whether the leech field has sufficient capacity for future development, therefore, it will need to be determined during the design phase the strategy for black water disposal. All environmental permits should be cleared and addressed with all State agencies during design phase. This was stipulated by the acting State Agency during data collection for this charrette.



Photographs of the VIARNG RTI infrastructure at Hams Bluff

### B12. Site Access and Circulation – Hams Bluff



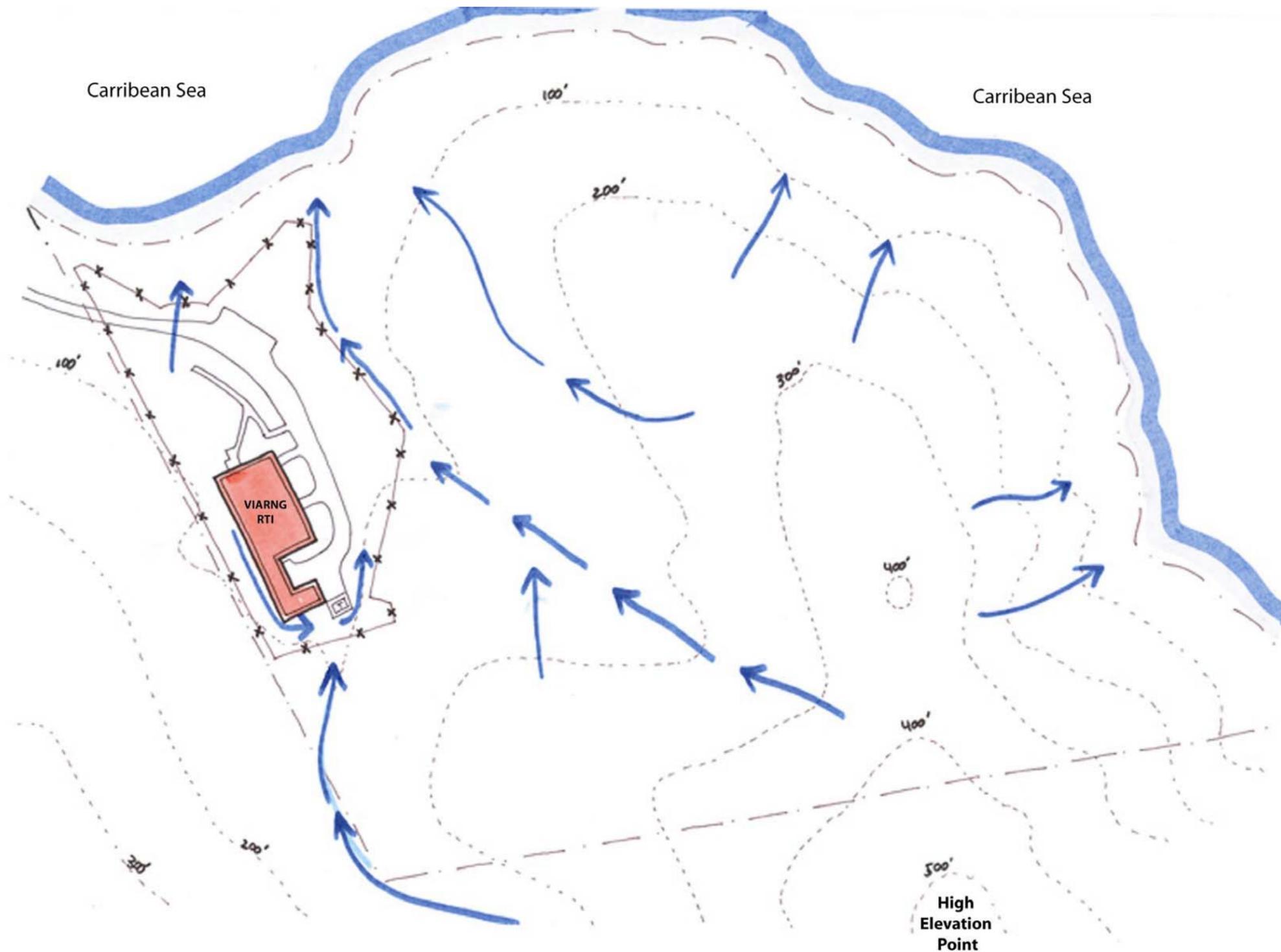
Site access is extremely limited due to challenging slopes and the close proximity of the building to the ocean. Site access is sufficient to the site although it should be stipulated that the entry road is one lane only and should be enhanced if possible to accommodate higher traffic counts. The main site access is via a one-lane road which appears to be sufficient for the existing traffic volume but may need to be modified to accommodate future traffic demand. The main entry into the site is through a card activated, chain driven gate which is monitored by a security officer and CCTV for visual surveillance. This is the only Access Control Point (ACP) to the site.

The only internal roadway is a narrow, two-lane access road that runs around the existing building to the rear loading dock facility. There is minimal space for turning around of large delivery trucks or military vehicles (MV). Currently, there is only four parking stalls onsite for duty personnel. The access onsite is two-lanes, but very narrow.



**Site Access and Circulation:** Graphic of site showing the different points of access and circulation within the site.

### B13. Site Environment – Hams Bluff



Hams Bluff is part of the coastal ecology zone of St. Croix, Virgin Islands. As defined by the VI Department of Natural Resources a coastal management zone, is "the coastal waters (including the lands therein and there under), and the adjacent shorelands (including the waters therein and there under), strongly influenced by each other and in proximity to the shorelines...and includes islands, transitional and intertidal areas, salt marshes, wetlands and beaches. The zone extends... seaward to the outer limits of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to control shorelands the uses of which have a direct and significant impact on the coastal waters". The Virgin Islands coastal zone is composed of two parts, a first tier and a second tier." All necessary permits and requirements should be verified during the design phase of the project.

Runoff from the site drains either to the east off the slopes of the hill into the ocean or into a natural swale to the west of the ridge. Drainage is not captured in any man-made elements or natural ponds or basins. It flows directly into the ocean.

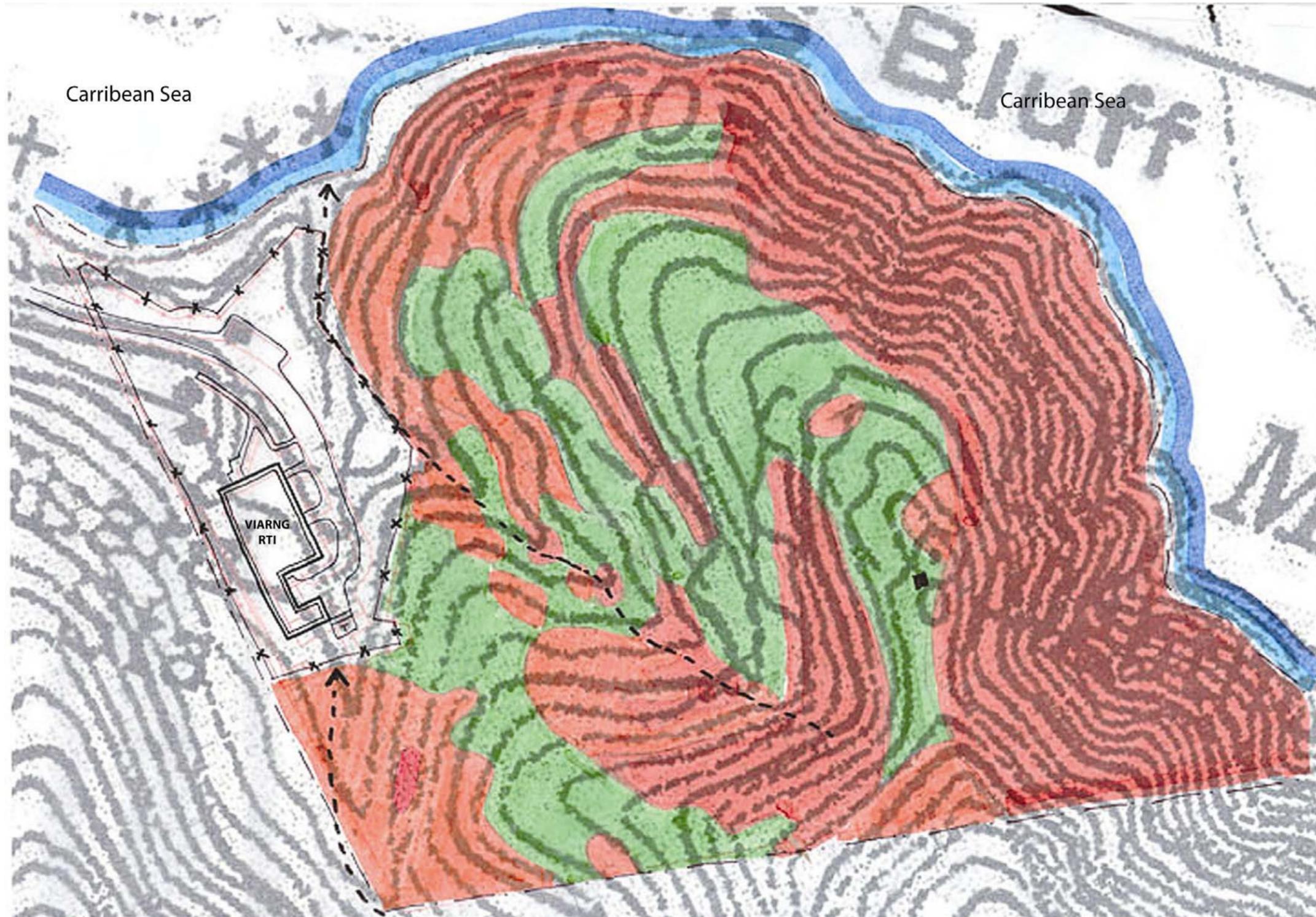
Site soils consist of heavy humus layers followed by volcanic rock. The rock layer is very near the surface and will make construction difficult. Sloughing off of the cliff is occurring rapidly and steps should be taken to shore up the cliff stability. Erosion is a serious condition and all steps should be taken to minimize the effects of construction.

The site is mostly covered by dense tropical vegetation up to 12 feet high. Some of the types of vegetation include bannana trees, flamboyant trees, and various other types of tropical vegetation. The site resides in a coastal ecology zone.



**Site Environment:** Graphic of site showing drainage patterns in detail in relation to the site contours.

#### B14. Site Slope and Topography – Hams Bluff



#### Slope and Topography

The graphic to the left indicates both topography and slope of Hams Bluff. The topography of the site is extremely steep. Elevations of the surrounding hills reach above 500 feet. The existing facility takes advantage of the most suitable area of the site for development.

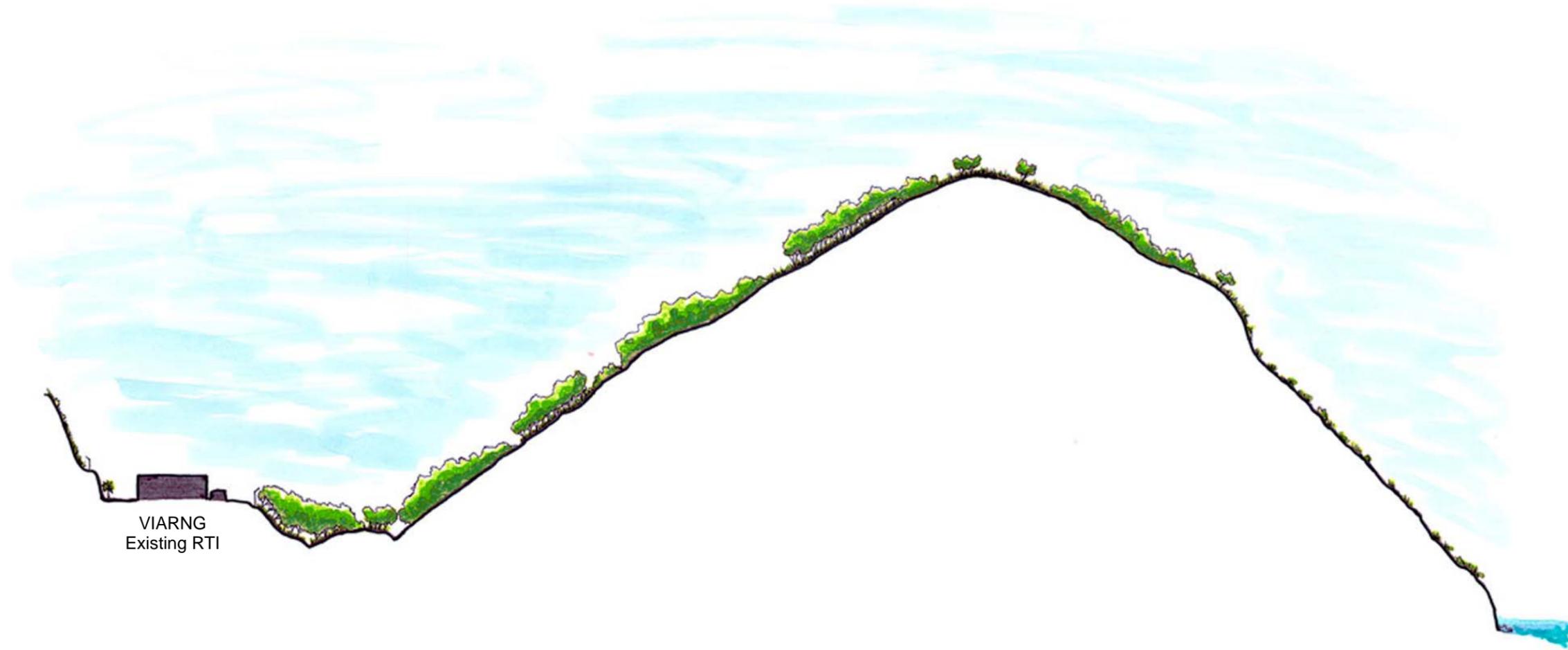
The colors on the map to the left indicate different slopes of the terrain. Green represents 0 – 5%, orange indicates 5 – 10%, and red indicates 10 - 15% slopes. The green areas on the map indicate plateaus between extreme elevations. These plateaus may create an opportunity to build upon, but the extreme conditions to reach these plateaus limit the ability to build. Therefore it is best to stay within the current building envelope that the RTI facility uses.

The following page is a section that was cut through the site using the map in this page. It is used to illustrate the vertical change between sea level and the site as well as the surround hills.



**Site Slope and Topography:** The different color rendering show the gradation and topography that is prevalent on the Hams Bluff site. Evidently, this site is very uneven and the range of elevation could be anywhere between 20' to 120'.

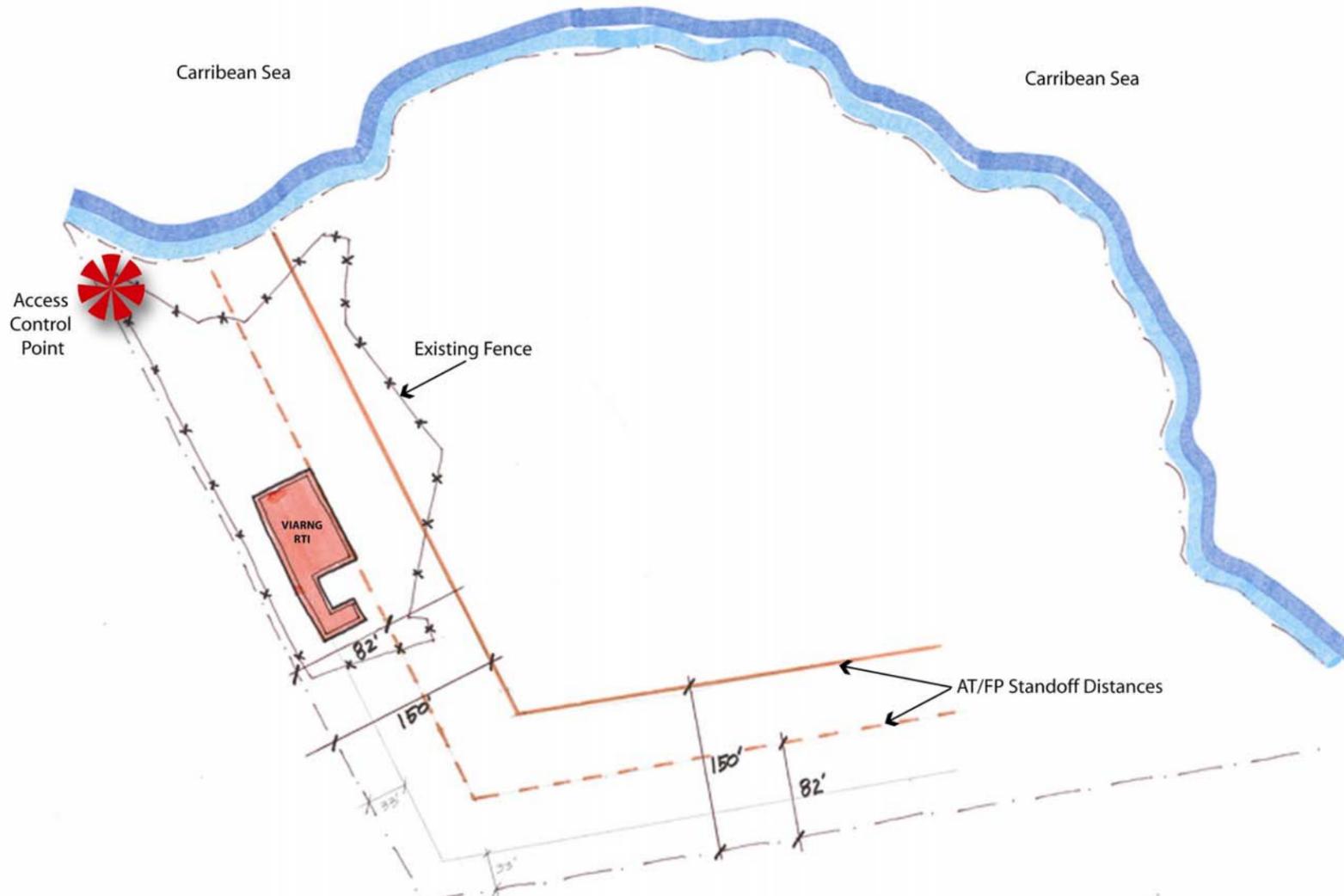
### B15. Site Section – Hams Bluff



**Site Section:** Section of the Hams Bluff site illustrates the steep gradation. The photographs to the right show different views from the site illustrating the steep nature of the topography.



### B16. Security Requirements – Hams Bluff



The security requirements for the Hams Bluff site are very unique due to the surrounding conditions. To the north of the site is a shear cliff, which drops 100 feet to the Caribbean Ocean below. A 6' chain link fence with barbed wire protects this side of the site from outside intruders as well as provides a deterrent for people inside the perimeter from getting too close to the slope. Surrounding the remaining three quarters of the sites perimeter are extremely steep hills that reach 500 feet in elevation and slopes reaching upwards of 20%. At the base of these hills just outside the perimeter of the site is a 12 foot tall chain link fence topped with barbed wire.

The only access point is the roadway into the site for vehicles which is protected by an Access Control Point (ACP). Any pedestrians would also need to utilize this ACP to enter the site. Therefore due to the natural barriers to the site, the only Anti-terrorism and Force Protection requirements that need to be met are those for the ACP. The standoff distance for this ACP is 148 feet from the entrance. This was verified through the VI ARNG security and AT/FP expert.



**Site Security Requirements:** Graphic of site showing AT/FP and security stand-off distances.

### **B17. Site Opportunities and Constraints—Hams Bluff**

The following site issues are identified that could present opportunities or pose constraints for development of the renovation of the Hams Bluff site for Medcom unit when it moves in FY12 .

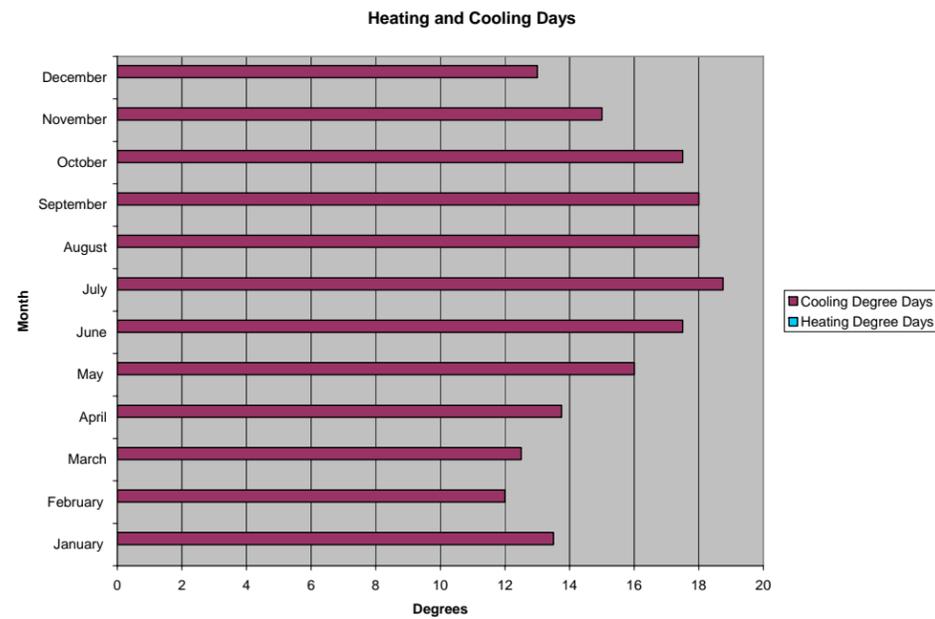
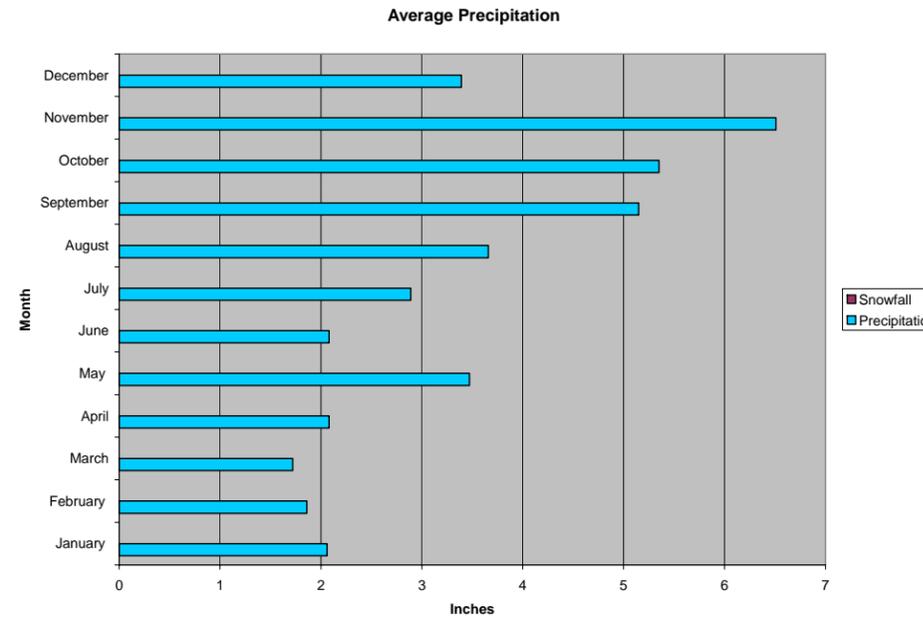
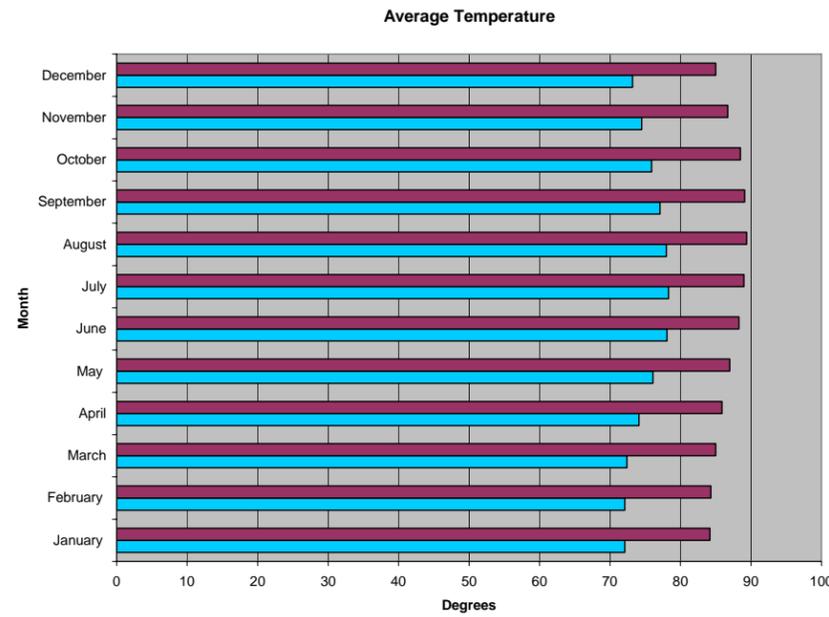
#### **Opportunities:**

- There is adequate acreage for construction of the Medcom addition on the site.
- Natural site security barriers will increase the Medcom site security and reduce the costs for upgrading security measures.
- There are adequate utilities for the Medcom addition.
- There is a spectacular view from site.
- Good cross ventilation of the facility depending on the orientation of the footprint.

#### **Constraints:**

- There is limited development acreage for expansion outside the existing building envelope.
- Drainage through the area crosses the proposed site.
- Site is heavily covered in vegetation and mature trees except for exiting building area.
- The rock substrate is close to surface and may make construction difficult.
- The seaside cliff is eroding and sloughing off into the ocean.

**B18. Climate Data**



Wind		
Month	Avg Wind Speed (mph)	Wind Direction
January	14	E
February	13	E
March	14	E
April	14	SE
May	13	SE
June	14	SE
July	14	E
August	14	SE
September	13	SE
October	13	SE
November	13	E
December	13	E

As the planning and development stages of the CST and Medcom facilities advance, it is necessary to provide climate data that could impact facility design and building system requirements. While further research may be warranted to indicate climate conditions local to St. Croix, Virgin Islands; the following climate data for the Sprat Hall and Hams Bluff sites is presented graphically:

- Normal Daily Mean Temperature
- Normal Monthly Precipitation
- Average Wind Speed
- Monthly Average Snowfall
- Heating and Cooling Days

All climate data was gathered from National Climatic Data website on September 11, 2005. The website address is: <http://www.ncdc.noaa.gov>



**Climate Data:** Graphic analysis of climatic data generated from the NOAA website for St. Croix, VI.

## **C. FACILITY REQUIREMENTS**

During the Charrette, Jacobs met with officers and staff of VI ARNG to understand and analyze how they will function when the CST and Medcom units move-in and share spaces in Sprat Hall. This critical step will result in minor renovation of this facility which will require VI ARNG to complete the DD Form 420 to justify programming of funds for FY 2006 (See Section D). Six years later, the addition/alteration scenario programmed for FY 2012 will require new DD Forms 1390/91 for Hams Bluff and Sprat Hall (See Sections E and F).

After a site visit, the team began assimilating the VI ARNG data of authorized personnel projections and equipment needs per the latest MTOE and TDA enlistments. This exercise was followed by generation of space requirements, functional relationships and validation of needs for a CST/Medcom facility as identified in the *8 June 2005 Information Paper subject: Facility Construction Criteria for National Guard Weapons of Mass Destruction (WMD) CST Program*.

This section captures all pertinent facility related data that directly or indirectly drives space requirements. The first part briefly describes the Sprat Hall and Hams Bluff buildings, followed by discussion of the 23<sup>rd</sup> WMD-CST and Medical Command units that will be housed in these facilities. Detailed tables illustrate their projected staffing and equipment needs. The final part of this section presents a description of all the facility components and the functional relationships that exist between these components.

The sub-categories covered in this section are as follows:

- Existing Facilities
- User Groups
- Facility Components
- Facility Organization

### **C1. Existing Facilities**

Sprat Hall is located along the northwest coast of St. Croix, about two miles north of Frederiksted on Route 63 (North Shore Road) and sits towards the base of a gentle sloping hill adjacent the oldest plantation on the island. This building is approximately 16,500 SF, which includes a 4,000 SF basement.

Sprat Hall facility is now vacant and property ownership has transferred to the VI National Guard. It was formerly owned by the Department of the Navy, which served as the Atlantic Fleet

weapons training facility that included underwater tracking range and operational control center. The land base of what used to be the Underwater Tracking Range consists of upper and lower sites separated by Route 63.

Sprat Hall was constructed in 1984 and remains in good condition, but will require some minor renovation before it can be utilized by the VI ARNG for their CST and Medcom units. The site is also in good condition, with the exception of the parking lot that has been overgrown and will require repair and renovation. (See Section G1 for proposed scope for the renovation or addition/alteration). The site utilities were sized for the intensive 24-hour operating Navy facility, therefore utility capacity appears more than adequate for the new CST/MedCom program.

Hams Bluff is also located along the coast of Hams Bay on Route 63; approximately 2 miles north of the Sprat Hall site. The existing building at Hams Bluff is 5,400 SF and was constructed in 1991/92 as a Navy Sonobuoy Research station. Currently, the VIARNG utilizes the facility as their Regional Training Institute.

The existing building at Hams Bluff is constructed of load bearing cast-in-place concrete wall with steel interior columns and steel joist and metal deck roofing. The exterior finish is a rubbed concrete with cast-in-place reveals. The interior is in good condition consisting of painted gypsum board partitions, a suspended acoustical ceiling, and a combination of resilient tile, carpet, sealed concrete flooring.

By FY 2006 Move-in Scenario, the CST and Medcom units of the VI ARNG will be assigned to occupy and share Sprat Hall after it goes through remodeling/renovation. By the FY 2012, MedCom will move into an Addition/ Alteration at the Hams Bluff to meet their fully authorized program (MedCom Add/Alt FY 2012 scenario). Subsequently, the Sprat hall site will be renovated, along with a ready bay addition to house the fully authorized program for the CST (CST Add/Alt FY 2012 scenario). The sequencing of these moves are discussed in more detail in Sections G, H and I.

## C2. User Groups

In FY 2006, the 23<sup>rd</sup> WMD-CST and Medical Command (Medcom) units are earmarked to occupy the Sprat Hall facility after its renovation. In particular, the 23<sup>rd</sup> CST unit for VI ARNG requires that the facility helps meet its mission goals. These goals are as follows:

- Assess a suspected nuclear, biological, chemical, or radiological event in support of the local Incident Commander;
- Advise the Incident Commander regarding appropriate actions; and
- Facilitate requests for assistance to expedite arrival of additional state and federal military assets to help save lives, prevent human suffering, and mitigate greater property damage.

With CST and Medcom collocated together, Sprat Hall will need to cater to a total population of 62 soldiers consisting of 38 enlisted and 24 officers during a simultaneous largest drill weekend. Table 3 below lists the personnel.

**Table 3: Total Population**

UNIT	GUARD/ RESERVE						TOTAL
	OFFICERS		WARRANT		ENLISTED		
	AUTH	ACTUAL	AUTH	ACTUAL	AUTH	ACTUAL	
23rd WMD - CST	7		0		15		22
ARNG MEDICAL COMMAND	17		0		23		40
<b>Total</b>	<b>24</b>		<b>0</b>		<b>38</b>		<b>62</b>

There is no requirement for an Assembly or Drill Hall for these two units. However, a central control room is needed for the CST unit.

Nine enlisted officers and seventeen enlisted staff are authorized as under permanent duty assigned to these two units. Twenty three administrative staff support these two units. The following table (Table 4) shows the breakdown of full-time and administrative staff by unit.

**Table 4: Full-time and Administrative Staff**

UNIT	PERMANENT								TOTAL	ADMIN
	OFFICERS		WARRANT		ENLISTED		CIVILIAN			
	AUTH	ACTUAL	AUTH	ACTUAL	AUTH	ACTUAL	AUTH	ACTUAL		
23rd WMD - CST	7		0		15		0		22	12
ARNG MEDICAL COMMAND	2		0		2		0		4	11
<b>Total</b>	<b>9</b>		<b>0</b>		<b>17</b>		<b>0</b>		<b>26</b>	<b>23</b>

Military Vehicles (MV) parking requirements at the Sprat Hall will include 10 wheeled, including one ambulance for the Medcom unit, and 2 trailers. Some of the authorized parking area may already be available at the existing Sprat Hall premises. However, minor modification may need to be made to the parking area to accommodate the MV. Table 5 below tallies of equipment by unit:

**Table 5: Military Vehicle Count**

UNIT	MAJOR EQUIPMENT											
	WHEELED		TRAILERS		TRACKED		EQUIPMENT > 30-FT		FUEL & M977 HEMMT		HEMTT PLS/HET	
	AUTH	ASSIGNED	AUTH	ASSIGNED	AUTH	ASSIGNED	AUTH	ASSIGNED	AUTH	ASSIGNED	AUTH	ASSIGN
23rd WMD - CST	9		2		0		0		0		0	
ARNG MEDICAL COMMAND	1		0		0		0		0		0	
<b>Total</b>	<b>10</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>	

### C3. Facility Components

During the Charrette, the Jacobs team facilitated the process wherein officers and staff of CST and Medcom units prioritized and ranked important elements that were most important to them when they move in and share spaces in Sprat Hall building in FY 2006 as well in FY 2012 when .

The following items were discussed:

**WMD-CST  
PROGRAM  
CHANGES**

	AUTH.	REQ'D.	DELTA (AUTH-REQ'D)
SCHEDULE I	4,790	1,590	3,200
SCHEDULE II	9,736	8,609	1,127
<b>TOTALS</b>	<b>14,526</b>	<b>10,199</b>	<b>4,327</b>
	NSF	NSF	NSF

	AUTH.	REQ'D	DELTA (AUTH-REQ'D)
LIBRARY	250	282	-32
OFFICES	1,430	2,050	-620
UNIT SUPPLY	1,200	1,200	0
HEATED STOR. VAULT	1,000	153	847
MED COMMAND	400	350	50
DOCTOR'S OFFICE	320	288	32
OTHER*	1,315	1,764	-449
HENRING TEST	210	124	86



Charrette cards were used to outline discussion of Facility Components.

#### a) AT/FP

##### Required Setbacks

- 82' off RDS/Buildings
- 148' Buildings off of primary secure perimeter

##### Relocate entry/gate to boundary of site

- card/guard access
- gate house median
- fencing to be relocated

#### b) Sea cable tunnels require mitigation

#### c) Site drainage

##### Major drainage line 15' off main facility entry

- along entire building face
- should be deepened with gravel or rock to maintain depth and reduce flow off of steep terrain

#### d) Site Conditions

##### Supporting Facilities

- diesel storage tank
- septic system/drain field
- microwave tower
- sea cable tunnels
- HVAC
- helipad
- electrical transformer
- drainage swale
- Air National Guard mobile radar

**e) Topography**

-slope varies from 1% at facility level to 20%

-high point: 85'

-low point: 25'

**Utilities**

-Existing site utilities are adequate for CST/MEDCOM functions

**Parking**

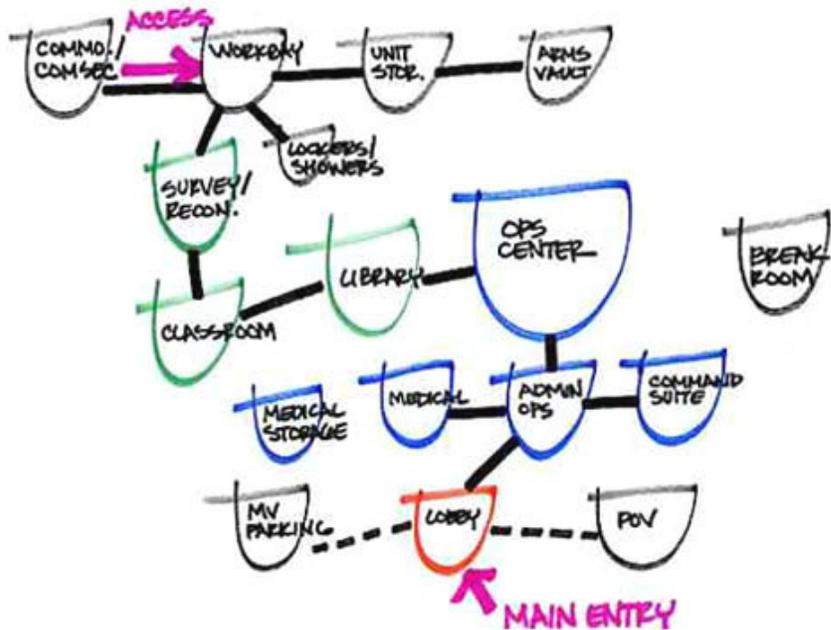
-55 POV required for visitors

-MV (includes one Ambulance)

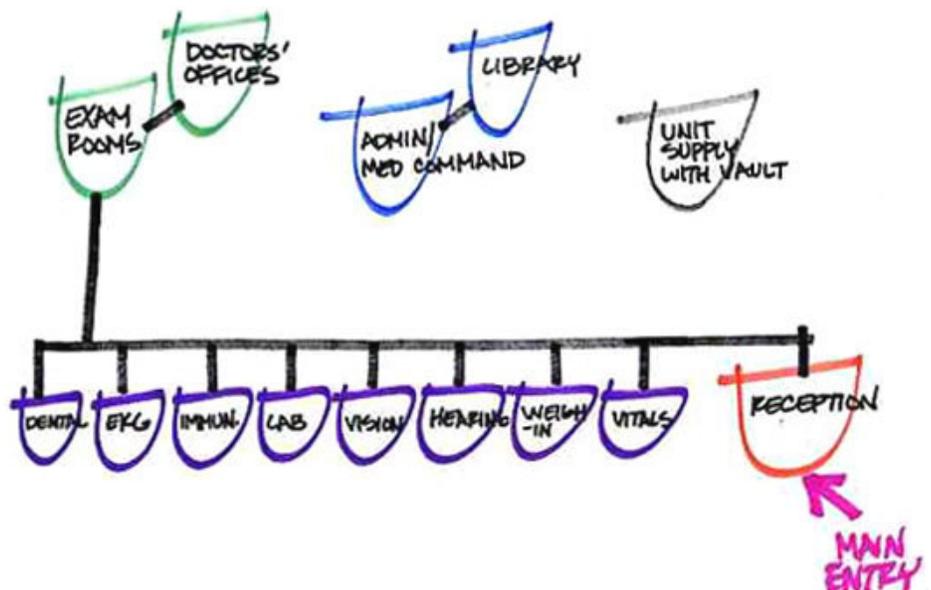
Overflow parking to be located across Route 63 (North Beach Road

### C4. Facility Organization

The following diagram depicts relationships between the WMD-CST and MEDCOM functional spaces.



The following diagram depicts functional relationships within the MEDCOM organization.



## **D. REVIEW OF NGB FORM 420-R FOR FY06 - SPRAT HALL**

### **D1. Introduction**

The review of the Form 420-R for the VI ARNG CST and Medcom units was developed after the Charrette and was completed with reference to the parametric cost numbers. During the Charrette, the Jacobs team met with the two user groups and validated their staffing, equipment and special needs. The review of the WMD-CST Criteria from June 2005 was coordinated with Mr. Lennie Jave, Facilities Programs Management Facilitator, for CFMO Technical Support.

During the work session, the authorized and required space requirements were reviewed and updated, and technical and operational needs were identified. The goal of the work sessions was to produce an area program for the CST and Medcom units which could be budgeted using a parametric estimate. In addition, the works sessions also helped generate the NGB Form 420-R that accurately portrays the project description and justification. It is anticipated that the Move-in project in FY06 will be a 100% federally funded project.

The work sessions at the Charrette revealed the need for several modifications to the interior space of Sprat Hall. The details of these requirements are discussed later in Sections G – Master Plan Concepts. This particular section pertains only to programmatic, area and cost analysis for moving into Sprat Hall in FY06.

The area program and NGB Form 420-R is followed by a cost estimate summary for the Move-in scenario based on the square footages quoted in the program.

### **D2. Exceptions to Criteria**

During the Charrette, VI ARNG representatives and Jacobs discussed several requirements and changes to the area program. However, none of these changed impacted the program so as to be listed as an exception to criteria. All areas quoted in the area program are therefore based on the authorized quantities and there are no exceptions listed.

### D3. Area Program Matrices for Move-in in FY06

#### VI ARNG CST Medcom - FY06 MOVE-IN

#### Program Summary

**Sprat Hall existing: 11,211 NSF**

			Authorized	Assigned	Shortfall	Alterations	Additions
NO.	FACILITY INFORMATION		TOTAL AREA/QTY AUTHORIZED (NSF)	TOTAL REQUIRED MOVE-IN (NSF)	DELTA Auth - Move-in (NSF)	TOTAL AREA/QTY ALTERATION (NSF)	TOTAL AREA/QTY ADDITONS (NSF)
A1.0	CST SCHEDULE I	NSF	4,130	2,290	1,840	2,290	0
A2.0	CST SCHEDULE II	NSF	9,736	4,588	5,148	4,588	0
	<b>CST Subtotal</b>	<b>NSF</b>	<b>13,866</b>	<b>6,878</b>	<b>6,988</b>	<b>6,878</b>	<b>0</b>
C1.0	MEDICAL COMMAND UNIT	NSF	6,965	4,333	2,632	4,333	0
<b>Subtotal for Move-in (Net)</b>			<b>20,831</b>	<b>11,211</b>	<b>9,620</b>	<b>11,211</b>	<b>0</b>



**Program Summary:** Shows the total net areas CST and Medcom are authorized, assigned in FY06 and the consequent shortfall (to be assigned later in FY12). Detailed area program for CST/Medcom can be found the following two pages.

**Note:** Also see Table 1 & 2 in the Executive Summary earlier in this report.

#### Summary of Programmed Areas:

The above matrix is a summary of the area program captured during the PPDC. The net areas shown are a reflection of the user group requirements and staffing needs. The three columns – Authorized, Assigned and Shortfall can be described as:

- **Authorized** – These are quantities (area) based on a given criteria or regulation (e.g. PAM 415-12) that the ARNG unit is allowed for their use without having to request an ‘Exception to Criteria’. The total authorized area for CST as shown above is 13,866 NSF. Total authorized area for Medcom is 6,965 NSF.
- **Assigned/Required** – In FY06 for Sprat Hall CST and Medcom can only occupy part of the area they are authorized. This is because there is only 11,211 NSF available in Sprat for both units to occupy on a shared basis. Therefore the ‘Assigned’ column above reflects only the portion of area the units get. At Move-in CST is assigned only 6,878 SF of the 13,866 NSF it is authorized, whereas Medcom gets only 4,333 NSF of its authorized 6,965 NSF.
- **Shortfall/Delta** – Shortfall denotes the remainder of the authorized area that was not assigned to CST and Medcom at Move-in. CST has a shortfall of 6,988 NSF and Medcom is short by 2,632.
- **Alterations** – Total of 11,211 NSF undergoes modifications.
- **Additions** – No new construction or addition in this phase.

The following two pages depict the detailed area program for CST Schedule I, CST Schedule II, Medcom and the Supporting Facilities.

# FY06

## Sprat Hall

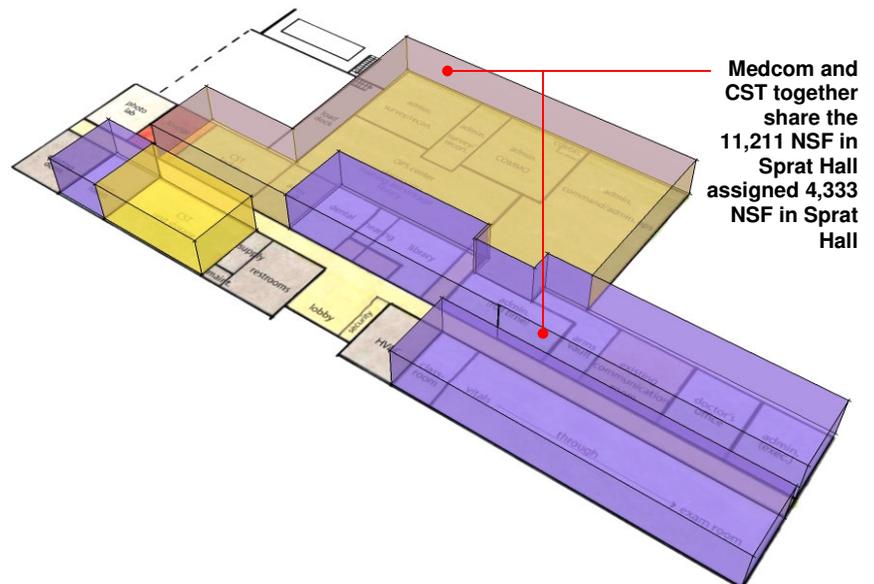
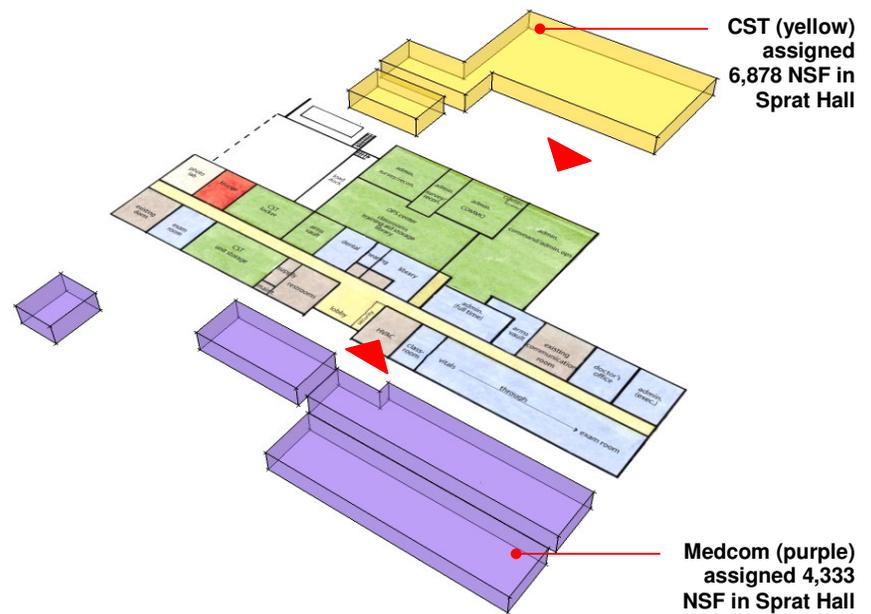
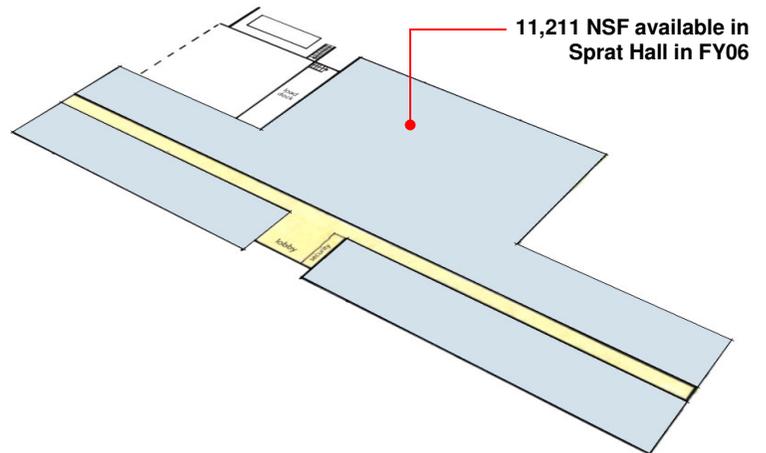
1. Sprat Hall has only 11,211 NSF available for Medcom and CST.

2. CST total requirement is 13,866 NSF.

Medcom total requirement is 6,965 NSF.

Since Sprat Hall only has 11,211 NSF, CST assigned 6,878 NSF and Medcom assigned 4,333 NSF.

3. 11,211 NSF in Sprat Hall undergoes internal modifications and alterations to fit the needs of CST and Medcom.



**FY06 Move-in Graphic Representation:**  
 Illustrates the nature of development, transfers, alteration and addition that mark this phase of VI ARNG CST Medcom project.

**Detailed Area Program for Move-in:**

<b>CST SCHEDULE I</b>		<b>Authorized</b>	<b>Assigned</b>	<b>Shortfall</b>	<b>Alterations</b>	<b>Additions</b>
<b>NO.</b>	<b>FACILITY SPACE LIST</b>	<b>TOTAL AREA/QTY AUTHORIZED (NSF)</b>	<b>TOTAL REQUIRED MOVE-IN (NSF)</b>	<b>DELTA Auth - Move-in (NSF)</b>	<b>TOTAL AREA/QTY ALTERATION (NSF)</b>	<b>TOTAL AREA/QTY ADDITONS (NSF)</b>
<b>Components</b>		<b>NSF</b>	<b>NSF</b>	<b>NSF</b>	<b>NSF</b>	<b>NSF</b>
<b>A1.0</b>	<b>CST SCHEDULE I</b>					
A1.1	Operations Center	680	1,320	-640	1,320	0
A1.2	Classrooms	800	0	800	0	0
A1.3	Library/Classroom	250	250	0	250	0
A1.4	Training Aid Storage	80	0	80	0	0
A1.5	Break Area	760	370	390	370	0
A1.6	Vending Area	75	0	75	0	0
A1.7	Toilets & Showers	1,385	350	1,035	350	0
A1.8	Flammable Materials Storage	100	0	100	0	0
<b>Total Net Component Area (NSF)</b>		<b>4,130</b>	<b>2,290</b>	<b>1,840</b>	<b>2,290</b>	<b>0</b>

<b>CST SCHEDULE II</b>		<b>Authorized</b>	<b>Assigned</b>	<b>Shortfall</b>	<b>Alterations</b>	<b>Additions</b>
<b>NO.</b>	<b>FACILITY SPACE LIST</b>	<b>TOTAL AREA/QTY AUTHORIZED (NSF)</b>	<b>TOTAL REQUIRED MOVE-IN (NSF)</b>	<b>DELTA Auth - Move-in (NSF)</b>	<b>TOTAL AREA/QTY ALTERATION (NSF)</b>	<b>TOTAL AREA/QTY ADDITONS (NSF)</b>
<b>A2.0</b>	<b>CST SCHEDULE II</b>					
<b>A2.1</b>	<b>ADMINISTRATIVE OFFICE SPACE</b>					
A2.1.1	Basic Space	1,200	3,040	-1,840	3,040	0
A2.1.2	General Space	0	0	0	0	0
A2.1.3	Common ADP Space	300	0	300	0	0
<b>A2.2</b>	<b>UNIT STORAGE SPACE (INCL ARMS VAULT)</b>					
A2.2.1	Heated Storage	2,400	810	1,590	810	0
<b>A2.3</b>	<b>LOCKER ROOM SPACE</b>					
A2.3.1	Basic Space (one per RC)	100	585	-485	585	0
A2.3.2	Space per each individual auth in RC	1,116	0	1,116	0	0
<b>A2.4</b>	<b>SPECIAL FUNCTIONS</b>					
A2.4.1	COMSEC Material Direct Support Activities (SMDSA)	120	153	-33	153	0
A2.4.2	Vehicle Storage/Ready Bays	4,500	0	4,500	0	0
<b>Total Net Component Area (NSF)</b>		<b>9,736</b>	<b>4,588 *</b>	<b>5,148</b>	<b>4,588</b>	<b>0</b>

**MEDICAL COMMAND UNIT**

MEDICAL COMMAND UNIT		Authorized	Assigned	Shortfall	Alterations	Additions
NO.	FACILITY SPACE LIST	TOTAL AREA/QTY AUTHORIZED (NSF)	TOTAL REQUIRED MOVE-IN (NSF)	DELTA Auth - Move-in (NSF)	TOTAL AREA/QTY ALTERATION (NSF)	TOTAL AREA/QTY ADDITONS (NSF)
Components		NSF	NSF	NSF		NSF
<b>C1.0</b>	<b>Medical Command Areas</b>					
C1.1	Library	680	282	0	282	0
C1.2	Administrative Offices	1,430	958	472	958	0
C1.3	Unit Supply	1,200	0	1,200	0	0
C1.4	Heated Storage/Arms Vault	1,000	153	847	153	0
C1.5	Medical Command HQ	400	0	400	0	0
C1.6	Reception, Waiting & Form Writing	350	0	350	0	0
C1.7	Doctor's Office	320	228	92	228	0
C1.8	Exam Room	550	1,763	-1,213	1,763	0
C1.9	History Station	105	105	0	105	0
C1.10	Height/Weight Station	70	70	0	70	0
C1.11	Blood Pressure & Pulse Station	70	70	0	70	0
C1.12	Electronic Consult System/Tonometry	110	110	0	110	0
C1.13	Laboratory	70	70	0	70	0
C1.14	Blood Specimen Collection	70	70	0	70	0
C1.15	Specimen Toilet	60	60	0	60	0
C1.16	Vision Test	70	70	0	70	0
C1.17	Hearing Test	210	124	86	124	0
C1.18	Dental Check	200	200	0	200	0
<b>Total Net Component Area (NSF)</b>		<b>6,965</b>	<b>4,333</b>	<b>2,234</b>	<b>4,333</b>	<b>0</b>

**SUPPORTING FACILITIES**

NO.	FACILITY SPACE LIST	Total AUTHORIZED	Total REQUIRED	DELTA	Charrette Notes
		SY	SY	SY	
<b>B1.0</b>	<b>Rigid Pavement</b>				Number of vehicles adjusted during PPDC after review of MTOE's.
B1.1	Wheeled	450	450	0	
B1.2	Trailers	100	100	0	
B1.3	Tracked	0	0	0	
B1.4	Equipment > 30-ft	0	0	0	
B1.5	Fuel & M977 HEMMT	0	0	0	
B1.6	HEMTT PLS/HET	0	0	0	
	<b>MV Parking Subtotal</b>	<b>550</b>	<b>550</b>	<b>0</b>	
B1.7	Enclosed MV Parking	444	444	0	
B1.8	Circulation and Access	500	500	0	
	<b>Rigid Pavement Subtotal</b>	<b>1,494</b>	<b>1,494</b>	<b>0</b>	
<b>B2.0</b>	<b>Flexible Paving</b>				
B2.1	POV Parking	3,623	3,623	0	
B2.2	Access Road	5,000	5,000	0	
	<b>Flexible Pavement Subtotal</b>	<b>8,623</b>	<b>8,623</b>	<b>0</b>	

## **E. REVIEW OF DD FORM 1390/91 FOR FY12 - SPRAT HALL**

### **E1. Introduction**

The review of the DD Form 1390/91 for the VI ARNG CST was developed after the Charrette and was completed with reference to the parametric cost numbers. During the work session, the authorized and assigned space requirements were reviewed and updated, and technical and operational needs were identified. The goal of the work sessions was to produce an area program for the 23<sup>rd</sup> CST unit which could be budgeted using a parametric estimate. In addition, the works sessions also helped generate the DD Form 1390/91 that accurately portrays the project program, description and cost. It is anticipated that the Add/Alt project for Sprat Hall in FY12 will be a 100% federally funded project.

This Add/Alt program for Sprat Hall was developed keeping in mind the fact that Medcom will transfer out of Sprat Hall in FY12 to Hams Bluff leaving 4,333 NSF for CST to fill in. In addition, CST would also get a Vehicle Bay as new construction once Medcom moves out. The total net area assigned to CST in FY12, including FY06 assignment and Vehicle Bay, would stand at 15,711 NSF.

The new building layout for Sprat Hall in FY12 is discussed later in Sections H – Master Plan Concepts. This section pertains only to programmatic, area and cost analysis of additions/alterations for CST to fully occupy Sprat Hall in FY12.

Since there were no initial attempts by VI ARNG at developing a DD Form 1390/91, Jacobs worked with the stakeholders in developing a completely new form. This form is attached later in this section of the report. Also included in this section is a cost estimate summary for the Add/Alt scenario based on the square footages quoted in the program.

### **E2. Exceptions to Criteria**

During the Charrette, VI ARNG representatives and Jacobs discussed several requirements and changes to the area program. However, none of these changed impacted the program in order to be listed as an exception to criteria. All areas quoted in the area program are therefore based on the authorized quantities and there are no exceptions listed.

### E3. Area Program Matrices for Addition/Alteration to Sprat Hall in FY12

#### VI ARNG CST Medcom - FY12 ADD/ALT

Sprat Hall existing: 11,211 NSF

#### Program Summary

			Authorized	Assigned	Surplus	Alterations	Additions
NO.	FACILITY INFORMATION		TOTAL AREA/QTY <b>AUTHORIZED</b> (NSF)	TOTAL REQUIRED <b>ADD/ALT</b> (NSF)	<b>DELTA</b> Auth. Less Req. (NSF)	TOTAL ALTERATIONS (NSF)	TOTAL ADDITIONS (NSF)
A1.0	CST SCHEDULE I	NSF	4,130	4,775	-645	2,335	0
A2.0	CST SCHEDULE II	NSF	5,236	6,436	-1,200	1,998	0
A2.1	CST Vehicle Bay	NSF	4,500	4,500	0	0	4,500
<b>Subtotal for Add/Alt (Net)</b>			<b>13,866</b>	<b>15,711</b>	<b>-1,845</b>	<b>4,333</b>	<b>4,500</b>



**Program Summary:** Shows the total net areas CST is authorized, assigned and the consequent surplus in FY12. Detailed area program for CST Add/Alt can be found the following two pages.

**Note:** Also see Table 1 & 2 in the Executive Summary earlier in this report.

#### Summary of Programmed Areas:

The above matrix is a summary of the area program captured during the PPDC. The net areas shown are a reflection of the user group requirements and staffing needs. The three columns – Authorized, Assigned and Shortfall can be described as:

- Authorized – These are quantities (area) based on a given criteria or regulation (e.g. PAM 415-12) that the ARNG unit is allowed for their use without having to request an ‘Exception to Criteria’. The total authorized area for CST as shown above is 13,866 NSF.
- Assigned/Required – In FY12 for Sprat Hall CST is assigned the space left behind by Medcom. With this extra area the total CST assignment in FY12 would be 15,711 NSF. This is 1,845 NSF more than what they are authorized.
- Surplus/Delta – Due to Medcom departure, CST would have a surplus 1,845 NSF available to them for future use.
- Alterations – Refers to renovation of space. In this case, the only area renovated is the area left behind after Medcom departure (4,333 NSF).
- Additions – Refers to any new construction added to Sprat Hall in FY12, i.e. the 4,500 SF Vehicle Bay will be added as a new construction.

The following two pages depict the detailed area program for CST Schedule I, CST Schedule II and the CST Supporting Facilities.



**Detailed Area Program for Move-in:**

<b>CST SCHEDULE I</b>		<b>Authorized</b>	<b>Assigned</b>	<b>Surplus</b>	<b>Alterations</b>	<b>Additions</b>
<b>NO.</b>	<b>FACILITY SPACE LIST</b>	<b>TOTAL AREA/QTY AUTHORIZED (NSF)</b>	<b>TOTAL REQUIRED ADD/ALT (NSF)</b>	<b>DELTA Auth. Less Req. (NSF)</b>	<b>TOTAL ALTERATIONS (NSF)</b>	<b>TOTAL ADDITIONS (NSF)</b>
<b>Components</b>		<b>NSF</b>	<b>NSF</b>	<b>NSF</b>	<b>NSF</b>	<b>NSF</b>
<b>A1.0</b>	<b>CST SCHEDULE I</b>					
A1.1	Operations Center	680	1,325	-645	1,325	0
A1.2	Classrooms	800	800	0	0	0
A1.3	Library/Classroom	250	250	0	250	0
A1.4	Training Aid Storage	80	80	0	0	0
A1.5	Break Area	760	760	0	760	0
A1.6	Vending Area	75	75	0	0	0
A1.7	Toilets & Showers	1,385	1,385	0	0	0
A1.8	Flammable Materials Storage	100	100	0	0	0
<b>Total Net Component Area (NSF)</b>		<b>4,130</b>	<b>4,775</b>	<b>-645</b>	<b>2,335</b>	<b>0</b>

<b>CST SCHEDULE II</b>		<b>Authorized</b>	<b>Assigned</b>	<b>Surplus</b>	<b>Alterations</b>	<b>Additions</b>
<b>NO.</b>	<b>FACILITY SPACE LIST</b>	<b>TOTAL AREA/QTY AUTHORIZED (NSF)</b>	<b>TOTAL REQUIRED ADD/ALT (NSF)</b>	<b>DELTA Auth. Less Req. (NSF)</b>	<b>TOTAL ALTERATIONS (NSF)</b>	<b>TOTAL ADDITIONS (NSF)</b>
<b>A2.0</b>	<b>CST SCHEDULE II</b>					
<b>A2.1</b>	<b>ADMINISTRATIVE OFFICE SPACE</b>					
A2.1.1	Basic Space	1,200	2,400	-1,200	1,998	0
A2.1.2	General Space	0	0	0	0	0
A2.1.3	Common ADP Space	300	300	0	0	0
<b>A2.2</b>	<b>UNIT STORAGE SPACE (INCL ARMS VAULT)</b>					
A2.2.1	Heated Storage	2,400	2,400	0	0	0
<b>A2.3</b>	<b>LOCKER ROOM SPACE</b>					
A2.3.1	Basic Space (one per RC)	100	100	0	0	0
A2.3.2	Space per each individual auth in RC	1,116	1,116	0	0	0
<b>A2.4</b>	<b>SPECIAL FUNCTIONS</b>					
A2.4.1	COMSEC Material Direct Support Activities (SMDSA)	120	120	0	0	0
A2.4.2	Vehicle Storage/Ready Bays	4,500	4,500	0	0	4,500
<b>Total Net Component Area (NSF)</b>		<b>5,236</b>	<b>6,436 *</b>	<b>-1,200</b>	<b>1,998</b>	<b>4,500</b>

**SUPPORTING FACILITIES**

NO.	FACILITY SPACE LIST	Total AUTHORIZED	Total REQUIRED	DELTA	Charrette Notes
		SY	SY	SY	
<b>B1.0</b>	<b>Rigid Pavement</b>				
B1.8	Ready Bay Apron	1,600	1,600	0	
	<b>Rigid Pavement Subtotal</b>	<b>1,600</b>	<b>1,600</b>	<b>0</b>	
<b>B2.0</b>	<b>Flexible Paving</b>				
B2.1	Wheeled	450	450	0	Number of vehicles adjusted during PPDC after review of MTOE's.
B2.2	Trailers	100	100	0	
B2.3	Tracked	0	0	0	
B2.4	Equipment > 30-ft	0	0	0	
B2.5	Fuel & M977 HEMMT	0	0	0	
B2.6	HEMTT PLS/HET	0	0	0	
B2.1	POV Parking	910	910	0	
B2.2	Access Road	5,000	2,500	0	
	<b>Flexible Pavement Subtotal</b>	<b>6,460</b>	<b>3,960</b>	<b>0</b>	

### **E5. Reviewed DD Form 1390/91**

The following DD Form 1390/91 is based entirely on the WMD-CST criteria and the NGB PAM 415-12. The initial few pages document information about the unit, staffing, total population, etc. There are two cost summary pages (pages 3 and 11) in varying level of detail. The area program is located on page 7 under Schedule I and II.

**FY12  
WMD-CST BUILDING  
at  
SPRAT HALL, ST. CROIX, US VIRGIN  
ISLANDS**

This project consists of construction of a new facility to accommodate the addition of the new WMD-CST Company to be stationed in FY03 NDAA, SEC. 1403. This facility will be in accordance with the Information Paper, Jun 2005 Facility Construction Criteria for National Guard WMD-CST Program to house a Weapons of Mass Destruction Civil Support Team (WMD-CST) as directed by the Army Division Redesign Study.



1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
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3. INSTALLATION AND LOCATION  
  
SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS

11. PERSONNEL STRENGTH AS OF:

	<u>PERMANENT</u>				<u>GUARD/RESERVE</u>		
	<u>TOTAL</u>	<u>OFFICER</u>	<u>ENLISTED</u>	<u>CIVILIAN</u>	<u>TOTAL</u>	<u>OFFICER</u>	<u>ENLISTED</u>
AUTHORIZED	22	7	15	0	22	7	15
ACTUAL	22	7	15	0	22	7	15

PERCENTAGE = 100%

12. RESERVE UNIT DATA

<u>UNIT DESIGNATION</u>	<u>STRENGTH</u>	
	<u>AUTHORIZED</u>	<u>ACTUAL</u>
23rd WEAPONS of MASS DESTRUCTION CIVIL SUPPORT TEAM (WMD-CST) UIC: TBD                      TPSN: TBD                      MTOE/TDA: NGW7LQAA	22	22
TOTAL =	22	22

13. MAJOR EQUIPMENT AND AIRCRAFT

<u>TYPE</u>	<u>AUTHORIZED</u>	<u>ASSIGNED</u>
VAN, CARGO DIESEL	9	9
TRUCK, 4X4 FULLSIZE CREW CAB	2	2
VEH SPORTS UTIL., DIESEL 9 PSNGR	0	0
UNIFIED COMMAND SUITE COMMO VAN	0	0
TRAILERS	0	0

14. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:

	(\$000)
A. AIR POLLUTION	NONE
B. WATER POLLUTION	NONE
C. OCCUPATIONAL SAFETY AND HEALTH	NONE

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG WMD-CST Building		5. PROJECT NUMBER 090071A
<p>11. REQUIREMENT <u>1976 SM</u> <u>21,266 SF</u> ADEQUATE: <u>0</u> SUBSTANDARD: <u>5865 SF</u>  <u>PROJECT:</u> The construction of a Ready Building to provide administration, storage and training space for a 22 person Weapons of Mass Distruction military support unit. The space will allow the members of the unit to train and perform their duties in a Facility and location that offers the access and security required (New Mission). The site for this project is state land. (New Mission)</p> <p><u>REQUIREMENT:</u> This facility is required to house Weapons of Mass Destruction Civil Support Team. This unit will have a required strength of twenty-two full-time personnel. This project will provide the necessary administrative, training, and storage areas required to achieve proficiency in required training tasks. A portion of a 59 acre state-owned site is available for this project.</p> <p><u>CURRENT SITUATION:</u> As a result of the Army Division Redesign Study, Weapon of Mass Destruction Civil Support Team is to be assigned to the VIARNG beginning in FY03. Currently there are no sufficient facilities available to house these companies within the state. As a result the CFMO, with direction from the Adjutant General and the Plans, Operations, and Training Officer, has determined that Sprat Hall is able to be expanded to accommodate this company.</p> <p><u>IMPACT IF NOT PROVIDED:</u> The units' ability to meet its readiness, recruiting and retention, and training objectives will be adversely affected if the personnel are not provided with adequate facilities. Delays in the funding of this project will force the unit to use inadequate and unsound facilities that will negatively impact soldier readiness and moral, which will directly affect the reduce the effectiveness of this nations protective force. The lack of proper and adequate training, storage, and administrative areas will impair the ability to achieve required mobilization levels.</p> <p><u>ADDITIONAL:</u> This project complies with the scope and design criteria of the Information Paper, Jun 2005 Facility Construction Criteria for National Guard WMD-CST Program and Design Guide 415-1 dated 1 November 1999. The most similar DoD standards do not address all of the current criteria incorporated in the (project type) design and thus do not yield accurate cost estimates. Therefore, a parametric estimate was used to develop baseline unit cost . Alternative methods of meeting this requirement have been explored during project development. This project is the only feasible option to meet the requirement.</p> <p><u>JOINT USE CERTIFICATION:</u> The State Guard/Reserve Forces Facilities Board certifies that this project has been considered for joint use potential. Unilateral construction is recommended. The reasons for this recommendation are there are no other reserve or active Department of Defense entities located within reasonable travel distance and local area demographics can not support additional requirements.</p>		

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG WMD-CST Building	5. PROJECT NUMBER 090071A	
<p><b>ANTITERRORISM/FORCE PROTECTION:</b> This project has been coordinated with the installations AT/FP Plan. Risk and threat analysis have been performed in accordance with DA Pam 190-51 and TM 5-853-1, respectively. Only protective measures required by regulation and ONLY the minimum standards required by the "Unified Facilities Criteria 4-010-01, DoD Minimum Antiterrorism Standards for Buildings" dated 31 July 01 are needed. They are included in the cost estimate and description of construction.</p>  <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>_____</p> <p>DATE</p> </div> <div style="text-align: center;"> <p>_____</p> <p>EDDIE L CHARLES The Adjutant General, VIARNG</p> </div> </div>  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>AT/FP POC: MAJ KAI SCHJANG (340-712-7772)</p> </div> <div style="width: 45%;"> <p>CFMO LTC AUBREY L RUAN JR. (340-712-7721)</p> </div> </div>		

1. COMPONENT <b>ARNG</b>	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE <b>18-Sep-05</b>	
3. INSTALLATION AND LOCATION <b>SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS</b>			
4. PROJECT TITLE <b>VI ARNG WMD-CST Building</b>		5. PROJECT NUMBER <b>090071A</b>	
12. SUPPLEMENTAL DATA:			
a. ESTIMATED DESIGN DATA:			
(1) STATUS:			
(a) DATE DESIGN STARTED .....		<b>10/11</b>	
(b) PERCENT COMPLETE AS OF JANUARY 2011.....		<b>50%</b>	
(c) DATE DESIGN EXPECTED TO BE 35% COMPLETE .....		<b>07/11</b>	
(d) DATE DESIGN COMPLETE.....		<b>07/12</b>	
(e) PARAMETRIC COSTS USED TO DEVELOP COSTS.....		<b>YES</b>	
(f) AN ENERGY STUDY AND LIFE CYCLE COST ANALYSIS WILL BE DOCUMENTED DURING FINAL DESIGN.			
(2) BASIS:			
(a) STANDARD OR DEFINITIVE DESIGN .....		<b>NO</b>	
(b) WHERE DESIGN WAS MOST RECENTLY USED. ....		<b>N/A</b>	
(3) TOTAL DESIGN COST:			
(a) PRODUCTION OF PLANS AND SPECIFICATIONS. ....		<b>-</b>	
(b) ALL OTHER DESIGN COSTS. (3%) .....		<b>71.2</b>	
(c) TOTAL .....		<b>71.2</b>	
(d) CONTRACT.....		<b>71.2</b>	
(e) IN-HOUSE .....		<b>-</b>	
REPRODUCTION SERVICES .....		<b>7.5</b>	
(4) CONSTRUCTION START.....		<b>10/12</b>	
(5) CONSTRUCTION COMPLETION DATE .....		<b>04/13</b>	
		<i>(MONTH AND YEAR)</i>	
b. EQUIPMENT ASSOCIATED WITH THIS PROJECT WHICH WILL BE PROVIDED FROM OTHER APPROPRIATIONS:			
<u>EQUIPMENT</u> <u>NOMENCLATURE</u>	<u>PROCURING</u> <u>APPROPRIATION</u>	<u>FISCAL YEAR</u> <u>APPROPRIATION</u> <u>OR REQUESTED</u>	<u>COST</u> <u>(\$000)</u>
FURNITURE (5%)	OPA	FY 12	119
J-SIIDS	OPA	FY 12	20
CLASS 5 SAFE	OPA	FY 12	10
SMART CARD SYSTEM	OPA	FY 12	20
IT (2%)	OPA	FY 12	47
IT (5%)	OMNG	FY 12	119
SECURITY CAMERAS		FY 12	
AV EQUIPMENT		FY 12	
WASHER/DRYER		FY 12	
KITCHEN EQUIPMENT		FY 12	
NEPA		FY 12	
		<b>TOTAL</b>	<b>335</b>

PREVIOUS EDITIONS MAY BE USED INTERNALLY  
UNTIL EXHAUSTED

**H-3**

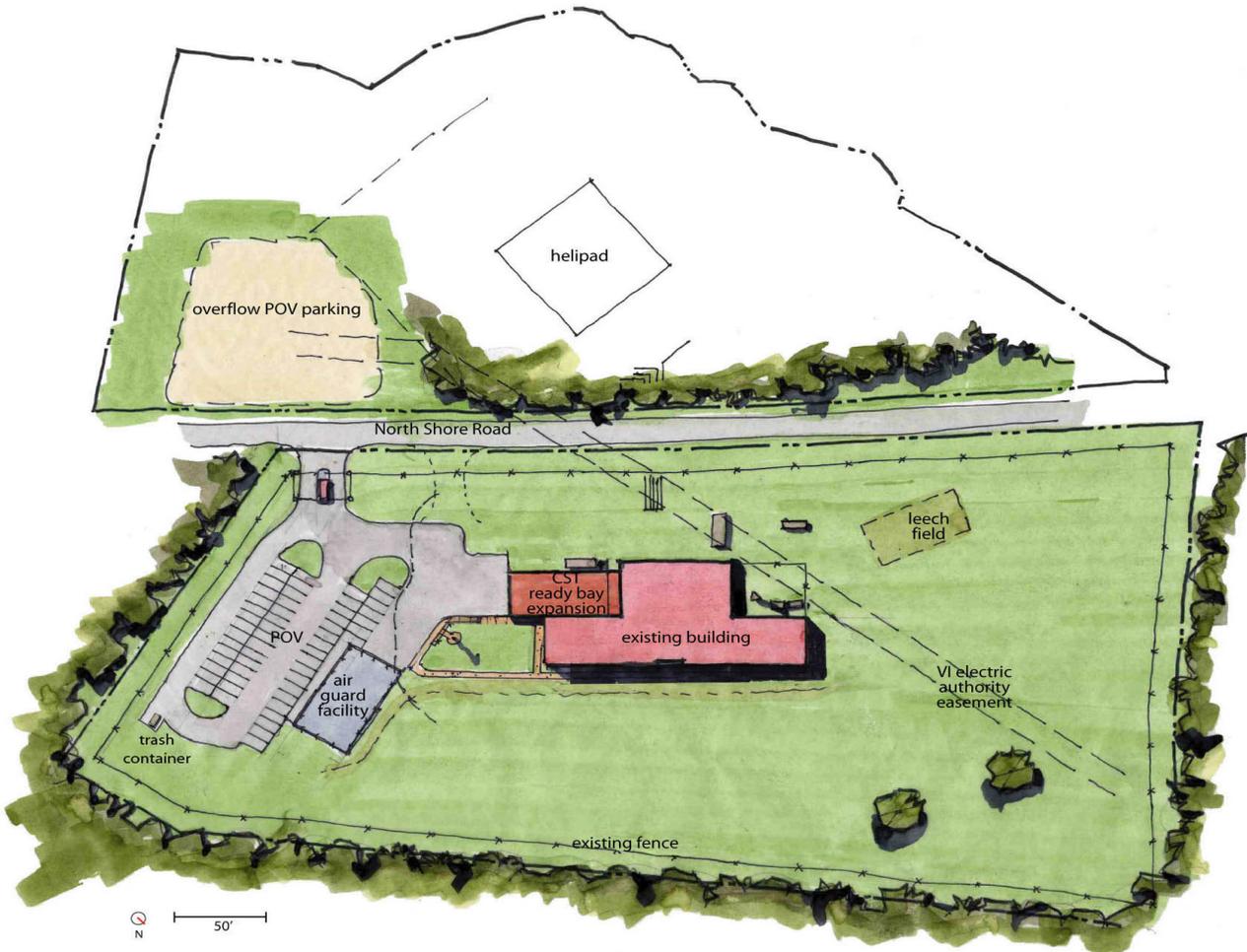
1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>		2. DATE 18-Sep-05	
3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS				
4. PROJECT TITLE VI ARNG WMD-CST Building		5. PROJECT NUMBER 090071A		
SPACE CRITERIA (as taken from NG Pam 415-12 & Information Paper dated 08 June 05)				
<b>Schedule I</b>				
<b>Functional Area (Common Use Areas)</b>	<b>Allowance</b>	<b>Required</b>	<b>Addition</b>	<b>Existing or Alteration</b>
1. Operation Center	680	1,325	-	1,325
2. Classrooms	800	800	-	-
3. Library/Classroom	250	250	-	250
4. Training Aid Storage	80	80	-	-
5. Break Area	760	760	-	760
6. Vending Area	75	75	-	-
7. Toilets/Showers	1,385	1,385	-	-
8. Flammable Materials Storage	100	100	-	-
9. Laundry	-	-	-	-
10. Table & Chair Storage	-	-	-	-
<b>Total SF for Schedule I (SF)</b>	<b>4,130</b>	<b>4,775</b>	<b>-</b>	<b>2,335</b>
<b>Schedule II</b>				
<b>Unit and Special Space Allowances</b>	<b>Allowance</b>	<b>Required</b>	<b>Addition</b>	<b>Alteration</b>
1. Administrative Office Space:				
a. Basic Office Space	1,200	2,400	-	1,998
b. General Administrative Office	-	-	-	-
c. Common Use Printers & Terminals	300	300	-	-
2. Unit Storage Space (Including Arms Vault)	2,400	2,400	-	-
3. Communications Security (COMSEC)	120	120	-	-
4. Locker Room Space	1,216	1,216	-	-
5. Vehicle Ready Bays	4,500	4,500	4,500	-
6. Medical Support/Storage	-	-	-	-
7. Equipment Maintenance	-	-	-	-
8. Decon Room	-	-	-	-
<b>Total SF for Schedule II (SF)</b>	<b>9,736</b>	<b>10,936</b>	<b>4,500</b>	<b>1,998</b>
<b>SUB-TOTAL</b>	<b>13,866</b>	<b>15,711</b>	<b>4,500</b>	<b>4,333</b>
Facility Maintenance and Storage (2%)	277	314	90	87
Mechanical/Electrical/Telephone Equipment Room (5%)	693	786	225	217
IT/Telephone Equipment Room (1%)	-	-	-	-
<b>SUB-TOTAL</b>	<b>14,837</b>	<b>16,811</b>	<b>4,815</b>	<b>4,636</b>
Interfunctional Circulation (15%)	2,225	2,522	722	695
<b>SUB-TOTAL</b>	<b>17,062</b>	<b>19,332</b>	<b>5,537</b>	<b>5,332</b>
Walls (10%)	1,706	1,933	554	533
<b>Total Facility Space (GSF)</b>	<b>18,768</b>	<b>21,266</b>	<b>6,091</b>	<b>5,865</b>
* Exception to Criteria				

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
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3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS
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4. PROJECT TITLE VI ARNG WMD-CST Building	5. PROJECT 090071A
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**Site Layout**

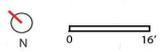
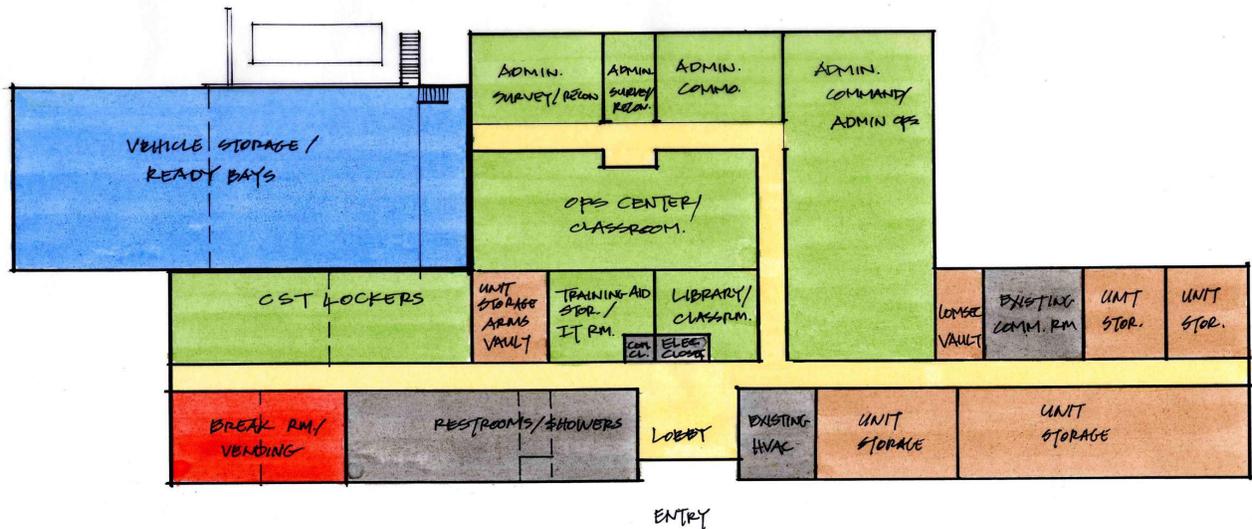


1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
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3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS
--

4. PROJECT TITLE VI ARNG WMD-CST Building	5. PROJECT 090071A
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**Floor Plan Layout**



1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>		2. DATE 18-Sep-05
3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS			
4. PROJECT TITLE VI ARNG WMD-CST Building		5. PROJECT 090071A	
SPACE CRITERIA (continued)			
<b>RIGID PAVEMENT</b>		<b>Allowance</b>	<b>Required</b>
READY BAY APRON	SY	1,600	1,600
<b>TOTAL RIGID PAVEMENT</b>		<b>SY</b>	<b>1,600</b>
<b>FLEXIBLE PAVEMENT</b>		<b>Allowance</b>	<b>Required</b>
MILITARY-OWNED VEHICLE PARKING		550	550
POV PARKING		910	910
ACCESS ROAD		5,000	2,500
WASH PLATFORM		-	-
FUEL PAD		-	-
TURNING PADS		-	-
<b>TOTAL FLEXIBLE PAVEMENT</b>		<b>SY</b>	<b>3,960</b>
<b>SIDEWALKS</b>	<b>SF</b>	<b>3,754</b>	<b>4,253</b>
<b>FENCING</b>	<b>LF</b>	<b>1,000</b>	<b>-</b>
<b>CURBING</b>	<b>LF</b>	<b>2,225</b>	<b>2,225</b>

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG WMD-CST Building	5. PROJECT NUMBER 090071A	
<p><b>DETAILED REQUIREMENTS STATEMENTS</b></p> <p>1. <u>GENERAL:</u>  This project is for the construction of a Ready Building to provide administration, storage and training space for a 22 person Weapons of Mass Distruction military support unit. This project will provide the administration, storage, classroom, locker room, break area, latrine/showers, parking, and maintenance needs the new company will require, to establish and maintain the readiness posture of the assigned units. The space will allow the members of the unit to train and perform their duties in a Facility and location that offers the access and security required (New Mission)  The site for this project is state land. (New Mission)</p> <p>2. <u>DATA ON ACCOMMODATIONS NOW IN USE:</u>  There is no facility available in the Virgin Islands Army National Guard that is capable of housing the Weapons of Mass Destruction Civil Support Team.</p> <p>3. <u>ANALYSIS OF DEFICIENCY:</u>  As a result of the Army Division Redesign Study, Weapon of Mass Destruction Civil Support Team is to be assigned to the VIARNG beginning in FY03. These companies have equipment and facility requirements that are unique to the Connecticut Army National Guard, such as large SUV-type vehicles with pre-installed communications, specially constructed vans for the Mobile Analytical Laboratory System and the Unified Command Suite, and support vehicles. This project will accomodate the additional storage, administration, locker room, and maintenance areas that are required for this company to train the soldiers assigned to it. Without these facilities, the assigned companies will not be able to train at the level necessary to ensure the high state of readiness that is required of them.</p> <p>4. <u>ANALYSIS OF ALTERNATE FACILITIES AND LOCATIONS:</u>  No ARNG facilities in the the US Virgin Islands meet the requirements that are mentioned in Item 3. All existing potential ARNG facilities in the state have been surveyed and only one other facility can be expanded to meet this requirement.</p> <p>5. <u>ANALYSIS OF CRITERIA FOR NEW CONSTRUCTION:</u>  The size and capacity is in accordance with the Information Paper, Jun 2005 Facility Construction Criteria for National Guard WMD-CST Program2 and Design Guide 415-1 dated 1 November 1999. Alternative methods of meeting this requirement have been explored during project development. This project is the only feasible option to meet the requirement.. By using this criteria, the teams will be able to train as they will fight, ensuring that our soldiers are ready to fight when called upon.</p> <p>6. <u>STATEMENT OF PROGRAM RELATED EQUIPMENT:</u>  Furniture and Tele-com Equipment (OMARNG) will be requested in FY12.</p>		

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG WMD-CST Building	5. PROJECT NUMBER 090071A	
<p>DETAILED REQUIREMENTS STATEMENTS (continued)</p> <p>7. <u>DISPOSITION OF PRESENT ACCOMMODATIONS:</u> There are no current facilities to house these teams.</p> <p>8. <u>SURVIVAL MEASURES:</u> None.</p> <p>9. <u>CONTRIBUTION TO READINESS:</u>  a. Readiness will be enhanced by providing a readiness center with adequate facilities to support training, supply, administration, and maintenance missions of the assigned companies.  b. There are no facilities capable of performing the missions required to maintain the readiness of these companies. By deferring this project, training, administration and troop morale will suffer, all of which impact readiness.  c. This project has been given high priority in keeping within the State's plan to replace or renovate older, inadequate, armories at inadequate sites which will save in operating costs, provide adequate parking and areas for training to meet readiness objectives.</p> <p>10. <u>CLEAN AIR ACT OF 1990:</u>  Permitting and other procedural requirements mandated by State, Interstate, and Local air pollution control agencies will be complied with for this project. Copies of all Federal required permits and/or registration applications and responses will be forwarded to the US Army Center for Health Promotion and Preventative Medicine, ATTN: MCHB-TS-EAP, Aberdeen Proving Ground, MD 21010-5422.</p> <p>11. <u>PROTECTION OF WETLANDS:</u>  Project has been evaluated for compliance with Executive Order No. 11990 and is not in wetlands.</p>		

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4. PROJECT TITLE VI ARNG WMD-CST Building	5. PROJECT NUMBER 090071A	
<p>DETAILED REQUIREMENTS STATEMENTS (continued)</p> <p>12. <u>REQUEST FOR EXCEPTION TO CRITERIA:</u></p> <p>No ETCs identified.</p> <p>13. <u>TELECOMMUNICATIONS:</u> Telecommunications services and equipment are required. Telecommunications equipment not specifically authorized by NGR 105-23 will be provided by other than ARNG federal funds.</p> <p>14. <u>ECONOMIC ANALYSIS:</u></p> <p>15. <u>ANTITERRORISM/FORCE PROTECTION:</u> This project has been coordinated with the installations AT/FP plan. Risk and threat analysis have been performed in accordance with DA Pam 190-51 and TM 5-853-1, respectively. Only protective measures required by regulation and ONLY the minimum standards required by the "Unified Facilities Criteria 4-010-01, DoD Minimum Antiterrorism Standards for Buildings" dated 31 July 01 are needed. They are included in the cost estimate and description of construction.</p>		

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 18-Sep-05
3. INSTALLATION AND LOCATION SPRAT HALL, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG WMD-CST Building	5. PROJECT NUMBER 090071A	
<p>DETAILED REQUIREMENTS STATEMENTS (continued)</p> <p><u>NATIONAL ENVIRONMENTAL POLICY ACT:</u> Project has been analyzed for environmental impact in accordance with AR 200-2.</p> <p><u>POLLUTION ABATEMENT:</u> The design of proposed project includes, where appropriate, the provision of facilities for air and water pollution control IAW Executive Order No. 11752.</p> <p><u>COASTAL ZONE PLAN:</u> In accordance with the provisions of Section 102(2)(c) of the National Environmental Policy Act of 1969, the project has been reviewed, and it is determined to be in compliance with the State's Coastal Zone Plan.</p> <p><u>ENDANGERED SPECIES ACT:</u> Proposed project is in consonance with Section 7 of the Endangered Species Act (P.L. 93-205(87) STAT. as amended).</p> <p><u>FALLOUT PROTECTION:</u> In accordance with Section 601 of Public Law 89-568, as amended, the design of this project will be prepared to maximize fallout protection. Fallout shelters have been excluded from any structure only for the following reason: the presence of personnel during a period of fallout radiation would impair facility operations.</p> <p><u>FLOOD HAZARD:</u> Project has been evaluated for flood hazards in compliance with Executive Order 1988, and the facility is not sited in an area known to be subjected to flooding.</p> <p><u>DESIGN FOR ACCESSIBILITY OF PHYSICALLY HANDICAPPED PERSONNEL:</u> In accordance with Public Law 90-480, provisions for the physically handicapped personnel will be provided for, where appropriate, in the design of the facility.</p> <p><u>VENDING FACILITIES FOR THE BLIND:</u> Project has been evaluated for the provision of vending facilities to be operated by blind persons in compliance with DHEW Rule, 45 CFR-1369, and the State Licensing Board has not sanctioned operation of a blind vending concession at the proposed location.</p> <p><u>NATIONAL HISTORIC PRESERVATION ACT OF 1966:</u> A survey has been completed, and it revealed that this undertaking will not affect, either directly or indirectly, any property included in, or eligible for, inclusion in the National Register of Historic Places.</p> <p><u>RESERVE MANPOWER POTENTIAL:</u> The Reserve Manpower Potential to meet and maintain authorized officer and enlisted strengths of all reserve units in the areas where units are to be located has been reviewed in accordance with the procedures described in DOD directive 1225.7. It has been determined, in coordination with the other military departments having reserve units in the area, that the number of units of the reserve components presently located in the area, and those units having been allocated to this area for future activation, is not and shall not be larger than the number that reasonably may be maintained at authorized strength.</p>		
_____ DATE		_____ EDDIE L CHARLES The Adjutant General, VIARNG CFMO LTC AUBREY L RUAN JR. (340)712 7721
AT/FP POC: MAJ KAI SCHJANG (340)712 7772		

## **F. REVIEW OF DD FORM 1390/91 FOR FY12 – HAMS BLUFF**

### **F1. Introduction**

The review of the DD Form 1390/91 for the VI ARNG Medcom was developed after the Charrette and was completed with reference to the parametric cost numbers. During the work session, the authorized and required space requirements were reviewed and updated, and technical and operational needs were identified. The goal of the work sessions was to produce an area program for the Medcom unit which could be further budgeted using a parametric estimate. In addition, the work sessions also helped generate the NGB Form 1390/91 that accurately portrays the project program, description and cost. It is anticipated that the Add/Alt project for Medcom in FY12 will be a 100% federally funded project.

This Add/Alt program for Hams Bluff was developed keeping in mind the fact that Medcom will transfer out of Sprat Hall in FY12 to fully occupy Hams Bluff. In other words, in FY12 Hams Bluff would become a building dedicated to the use of Medcom and its staff.

The new building layout for Hams Bluff in FY12 is discussed later in Sections I – Master Plan Concepts. This particular section pertains only to programmatic, area and cost analysis of additions/alterations for Medcom to fully occupy Hams Bluff.

Since there were no initial attempts by VI ARNG at developing a DD Form 1390/91, Jacobs worked with the Medcom stakeholders in developing a completely new form. This form is attached later in this section of the report. Also included in this section is a cost estimate summary for the Add/Alt scenario based on the square footages quoted in the program.

### **F2. Exceptions to Criteria**

During the Charrette, VI ARNG representatives and Jacobs discussed several requirements and changes to the area program. However, none of these changed impacted the program in order to be listed as an exception to criteria. All areas quoted in the area program are therefore based on the authorized quantities and there are no exceptions listed.

### F3. Area Program Matrices for Addition/Alteration to Sprat Hall in FY12

#### VI ARNG CST Medcom - FY12 ADD/ALT

#### Program Summary

Hams Bluff existing: 4,638 NSF

		Authorized	Assigned or Existing	Shortfall	Alterations	Additions
NO.	FACILITY INFORMATION	TOTAL AREA/QTY AUTHORIZED (NSF)	TOTAL REQUIRED ADD/ALT (NSF)	DELTA Auth. Less Req. (NSF)	TOTAL ALTERATIONS (NSF)	TOTAL ADDITIONS (NSF)
C1.0	MEDICAL COMMAND UNIT NSF	6,965	4,638	2,327	4,638	2,327
<b>Subtotal for Add/Alt (Net)</b>		<b>6,965</b>	<b>4,638</b>	<b>2,327</b>	<b>4,638</b>	<b>2,327</b>



**Program Summary:** Shows the total net areas Medcom is authorized, assigned and the consequent shortfall in FY12. Detailed area program for Medcom Add/Alt can be found the following page.

**Note:** Also see Table 1 & 2 in the Executive Summary earlier in this report.

#### Summary of Programmed Areas:

The above matrix is a summary of the area program captured during the PPDC. The net areas shown are a reflection of the user group requirements and staffing needs. The three columns – Authorized, Assigned and Shortfall can be described as:

- **Authorized** – These are quantities (area) based on a given criteria or regulation (e.g. PAM 415-12) that the ARNG unit is allowed for their use without having to request an ‘Exception to Criteria’. The total authorized area for CST as shown above is 13,866 NSF.
- **Assigned/Required/Existing** – In FY12 for Sprat Hall CST is assigned the space left behind by Medcom. With this extra area the total CST assignment in FY12 would be 15,711 NSF. This is 1,845 NSF more than what they are authorized.
- **Shortfall/Delta** – Due to only 4,638 NSF available at Hams Bluff and a Medcom requirement of 6,965 NSF there would be a shortfall of 2,327 NSF. This shortfall would have to be added as new construction in this phase FY12.
- **Alterations** – Refers to renovation of space. In this case, the entire interior space of Hams Bluff is going to be renovated/alterated for Medcom (total of 4,638 NSF).
- **Additions** – Refers to any new construction added to Hams Bluff in FY12. This amount would be 2,327 NSF.

The following page depicts the detailed area program Medcom. Since there is only one (1) wheeled vehicle, a supporting facility matrix has not been included.



**Detailed Area Program for Medcom in FY12:**

<b>MEDICAL COMMAND UNIT</b>		<b>Authorized</b>	<b>Assigned or Existing</b>	<b>Shortfall</b>	<b>Alterations</b>	<b>Additions</b>
<b>NO.</b>	<b>FACILITY SPACE LIST</b>	<b>TOTAL AREA/QTY AUTHORIZED (NSF)</b>	<b>TOTAL REQUIRED ADD/ALT (NSF)</b>	<b>DELTA Auth. Less Req. (NSF)</b>	<b>TOTAL REQUIRED ALTERATIONS (NSF)</b>	<b>TOTAL REQUIRED ADDITION (NSF)</b>
<b>Components</b>		<b>NSF</b>	<b>NSF</b>	<b>NSF</b>	<b>NSF</b>	<b>NSF</b>
<b>C1.0</b>	<b>Medical Command Areas</b>					
C1.1	Library	680	680	0	680	0
C1.2	Administrative Offices	1,430	750	680	750	680
C1.3	Unit Supply	1,200	600	600	600	600
C1.4	Heated Storage/Arms Vault	1,000	0	1,000	0	1,000
C1.5	Medical Command HQ	400	400	0	400	0
C1.6	Reception, Waiting & Form Writing	350	350	0	350	0
C1.7	Doctor's Office	320	320	0	320	0
C1.8	Exam Room	550	550	0	550	0
C1.9	History Station	105	105	0	105	0
C1.10	Height/Weight Station	70	70	0	70	0
C1.11	Blood Pressure & Pulse Station	70	70	0	70	0
C1.12	Electronic Consult System/Tonometry	110	110	0	110	0
C1.13	Laboratory	70	70	0	70	0
C1.14	Blood Specimen Collection	70	70	0	70	0
C1.15	Specimen Toilet	60	30	30	30	30
C1.16	Vision Test	70	53	17	53	17
C1.17	Hearing Test	210	210	0	210	0
C1.18	Dental Check	200	200	0	200	0
<b>Total Net Component Area (NSF)</b>		<b>6,965</b>	<b>4,638</b>	<b>2,327</b>	<b>4,638</b>	<b>2,327</b>

#### **E4. Reviewed Form DD 1390/91**

The following DD Form 1390/91 is based entirely on chapter 2 of NGB PAM 415-12 (discussion on Medical Section for Readiness Centers). The initial few pages document information about the unit, staffing, total population, etc. There are two cost summary pages (pages 3 and 11) in varying level of detail. The area program is located on page 7 under Schedule I and II.

**FY12  
MEDICAL COMMAND UNIT (Medcom)  
BUILDING  
AT  
HAMS BLUFF, ST. CROIX, US VIRGIN  
ISLANDS**



1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05																		
3. INSTALLATION AND LOCATION  HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS		4. AREA CONSTR COST INDEX 1.7																		
5. FREQUENCY AND TYPE OF UTILIZATION																				
6. OTHER ACTIVE/GUARD/RESERVE INSTALLATIONS WITHIN 15 MILES RADIUS																				
7. PROJECTS REQUESTED IN THIS PROGRAM																				
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">CATEGORY</th> <th style="border-bottom: 1px solid black;">PROJECT TITLE</th> <th style="border-bottom: 1px solid black;">SCOPE</th> <th style="border-bottom: 1px solid black;">COST (\$000)</th> <th colspan="2" style="border-bottom: 1px solid black;">DESIGN STATUS</th> </tr> <tr> <th style="text-align: left; border-bottom: 1px solid black;">CODE</th> <th style="border-bottom: 1px solid black;"></th> <th style="border-bottom: 1px solid black;"></th> <th style="border-bottom: 1px solid black;"></th> <th style="border-bottom: 1px solid black;">START</th> <th style="border-bottom: 1px solid black;">COMPLETE</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">14132</td> <td>VI ARNG Medcom Building</td> <td>9,516</td> <td>2,246</td> <td>10/11</td> <td>07/12</td> </tr> </tbody> </table>	CATEGORY	PROJECT TITLE	SCOPE	COST (\$000)	DESIGN STATUS		CODE				START	COMPLETE	14132	VI ARNG Medcom Building	9,516	2,246	10/11	07/12		
CATEGORY	PROJECT TITLE	SCOPE	COST (\$000)	DESIGN STATUS																
CODE				START	COMPLETE															
14132	VI ARNG Medcom Building	9,516	2,246	10/11	07/12															
8. STATE RESERVE FORCES FACILITIES BOARD RECOMMENDATION FACILITIES IDENTIFIED IN ITEM #6 HAVE BEEN EXAMINED BY THE STATE RESERVE FORCES FACILITIES BOARD FOR POSSIBLE JOINT USE/EXPANSION. THE BOARD RECOMMENDATIONS ARE UNILATERAL CONSTRUCTION																				
<u>1-Jan-04</u> Date																				
9. LAND ACQUISITION REQUIRED NONE																				
<hr style="width: 20%; margin-left: auto;"/> (Number of acres)																				
10. PROJECTS PLANNED IN NEXT FOUR YEARS																				
RPM BACKLOG \$(000): 0																				
SITE SURVEY HAS BEEN COMPLETED AND THE SITE IS SUITABLE FOR CONSTRUCTION OF THE PROPOSED PROJECT AT THE ESTIMATED COST INDICATED.																				

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
----------------------	--	----------------------

3. INSTALLATION AND LOCATION  
  
HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS

11. PERSONNEL STRENGTH AS OF:

	PERMANENT				GUARD/RESERVE		
	TOTAL	OFFICER	ENLISTED	CIVILIAN	TOTAL	OFFICER	ENLISTED
AUTHORIZED	4	2	2	0	40	17	23
ACTUAL	4	2	2	0	40	17	23

PERCENTAGE = 100%

12. RESERVE UNIT DATA

UNIT DESIGNATION	STRENGTH	
	AUTHORIZED	ACTUAL
Medical Command Unit UIC: TBD                      TPSN: TBD                      MTOE/TDA: NGW7LQAA	40	40
TOTAL =	40	40

13. MAJOR EQUIPMENT AND AIRCRAFT

TYPE	AUTHORIZED	ASSIGNED
VAN, CARGO DIESEL	1	1
TRUCK, 4X4 FULLSIZE CREW CAB	0	0
VEH SPORTS UTIL., DIESEL 9 PSNGR	0	0
UNIFIED COMMAND SUITE COMMO VAN	0	0
TRAILERS	0	0

14. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:

A. AIR POLLUTION	(\$000) NONE
B. WATER POLLUTION	NONE
C. OCCUPATIONAL SAFETY AND HEALTH	NONE

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG Medcom Building	5. PROJECT NUMBER 090071A	
<p>11. REQUIREMENT <u>884 SM</u> <u>9,516 SF</u> ADEQUATE: <u>0</u> SUBSTANDARD: <u>4,868 SF</u>  <u>PROJECT:</u> This project in FY12 is for an addition/ateration of the Hams Bluff facility to provide administration, storage and examination space for a 40 person Medical Command unit. The space will allow the members of the unit to provide medical support and perform their duties in a facility and location that offers the access and security required.</p> <p><u>REQUIREMENT:</u> This altered facility is required to house the Medical Command Unit. This unit will have a required strength of 40 personnel. This project will provide the necessary administrative, medical examination rooms, and storage areas required to achieve proficiency in required medical support tasks.</p> <p><u>CURRENT SITUATION:</u></p> <p><u>IMPACT IF NOT PROVIDED:</u></p> <p><u>ADDITIONAL:</u> This project complies with the scope and design criteria stated in the 'Medical Section' in chapter 2 of the NGB PAM 415-12. The most similar DoD standards do not address all of the current criteria incorporated in the (project type) design and thus do not yield accurate cost estimates. Therefore, a parametric estimate was used to develop baseline unit cost . Alternative methods of meeting this requirement have been explored during project development. This project is the only feasible option to meet the requirement.</p> <p><u>JOINT USE CERTIFICATION:</u> The State Guard/Reserve Forces Facilities Board certifies that this project has been considered for joint use potential. Unilateral construction is recommended. The reasons for this recommendation are there are no other reserve or active Department of Defense entities located within reasonable travel distance and local area demographics can not support additional requirements.</p>		

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG Medcom Building	5. PROJECT NUMBER 090071A	
<p><b>ANTITERRORISM/FORCE PROTECTION:</b> This project has been coordinated with the installations AT/FP Plan. Risk and threat analysis have been performed in accordance with DA Pam 190-51 and TM 5-853-1, respectively. Only protective measures required by regulation and ONLY the minimum standards required by the "Unified Facilities Criteria 4-010-01, DoD Minimum Antiterrorism Standards for Buildings" dated 31 July 01 are needed. They are included in the cost estimate and description of construction.</p> <p style="text-align: center;">_____ DATE</p> <p style="text-align: center;">_____ EDDIE L CHARLES The Adjutant General, VIARNG</p> <p>AT/FP POC: MAJ KAI SCHJANG (340-712-7772)      CFMO LTC AUBREY L RUAN JR. (340-712-7721)</p>		

1. COMPONENT <b>ARNG</b>	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE <b>30-Sep-05</b>																																																																																												
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ESTIMATED DESIGN DATA:</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="padding-left: 20px;">(1) STATUS:</td> <td></td> </tr> <tr> <td style="padding-left: 40px;">(a) DATE DESIGN STARTED .....</td> <td style="text-align: right; border-top: 1px solid black;">10/11</td> </tr> <tr> <td style="padding-left: 40px;">(b) PERCENT COMPLETE AS OF JANUARY 2011.....</td> <td style="text-align: right; border-top: 1px solid black;">50%</td> </tr> <tr> <td style="padding-left: 40px;">(c) DATE DESIGN EXPECTED TO BE 35% COMPLETE .....</td> <td style="text-align: right; border-top: 1px solid black;">07/11</td> </tr> <tr> <td style="padding-left: 40px;">(d) DATE DESIGN COMPLETE.....</td> <td style="text-align: right; border-top: 1px solid black;">07/12</td> </tr> <tr> <td style="padding-left: 40px;">(e) PARAMETRIC COSTS USED TO DEVELOP COSTS.....</td> <td style="text-align: right; border-top: 1px solid black;">YES</td> </tr> <tr> <td style="padding-left: 40px;">(f) AN ENERGY STUDY AND LIFE CYCLE COST ANALYSIS WILL BE DOCUMENTED DURING FINAL DESIGN.</td> <td></td> </tr> <tr> <td colspan="2" style="padding-top: 10px;">(2) BASIS:</td> </tr> <tr> <td style="padding-left: 40px;">(a) STANDARD OR DEFINITIVE DESIGN .....</td> <td style="text-align: right; border-top: 1px solid black;">NO</td> </tr> <tr> <td style="padding-left: 40px;">(b) WHERE DESIGN WAS MOST RECENTLY USED. ....</td> <td style="text-align: right; border-top: 1px solid black;">N/A</td> </tr> <tr> <td colspan="2" style="padding-top: 10px;">(3) TOTAL DESIGN COST:</td> </tr> <tr> <td style="padding-left: 40px;">(a) PRODUCTION OF PLANS AND SPECIFICATIONS. ....</td> <td style="text-align: right; border-top: 1px solid black;">-</td> </tr> <tr> <td style="padding-left: 40px;">(b) ALL OTHER DESIGN COSTS. (3%) .....</td> <td style="text-align: right; border-top: 1px solid black;">67.4</td> </tr> <tr> <td style="padding-left: 40px;">(c) TOTAL .....</td> <td style="text-align: right; border-top: 1px solid black;">67.4</td> </tr> <tr> <td style="padding-left: 40px;">(d) CONTRACT.....</td> <td style="text-align: right; border-top: 1px solid black;">67.4</td> </tr> <tr> <td style="padding-left: 40px;">(e) IN-HOUSE .....</td> <td style="text-align: right; border-top: 1px solid black;">-</td> </tr> <tr> <td style="padding-left: 40px;">REPRODUCTION SERVICES .....</td> <td style="text-align: right; border-top: 1px solid black;">7.5</td> </tr> <tr> <td style="padding-left: 20px;">(4) CONSTRUCTION START.....</td> <td style="text-align: right; border-top: 1px solid black;">10/12</td> </tr> <tr> <td style="padding-left: 20px;">(5) CONSTRUCTION COMPLETION DATE .....</td> <td style="text-align: right; border-top: 1px solid black;">04/13</td> </tr> <tr> <td></td> <td style="text-align: right;">(MONTH AND YEAR)</td> </tr> </table> <p style="margin-top: 20px;">b. 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PREVIOUS EDITIONS MAY BE USED INTERNALLY  
UNTIL EXHAUSTED

H-3

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
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3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS
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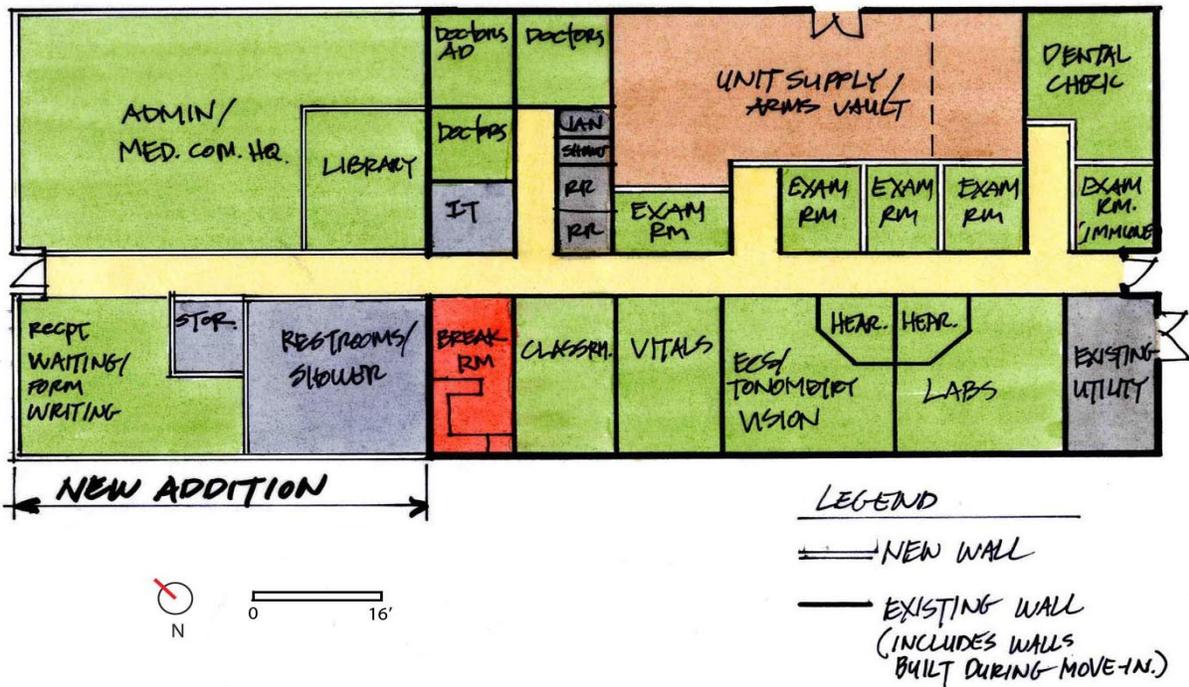
4. PROJECT TITLE VI ARNG Medcom Building	5. PROJECT 090071A
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**Site Layout**



1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG Medcom Building	5. PROJECT 090071A	

**Floor Plan Layout**



1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>		2. DATE 30-Sep-05
3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS			
4. PROJECT TITLE VI ARNG Medcom Building		5. PROJECT 090071A	
SPACE CRITERIA (continued)			
<b>RIGID PAVEMENT</b>		<b>Allowance</b>	<b>Required</b>
READY BAY APRON	SY	-	-
<b>TOTAL RIGID PAVEMENT</b>	<b>SY</b>	<b>-</b>	<b>-</b>
<b>FLEXIBLE PAVEMENT</b>		<b>Allowance</b>	<b>Required</b>
MILITARY-OWNED VEHICLE PARKING		-	-
POV PARKING		200	200
ACCESS ROAD		750	750
WASH PLATFORM		-	-
FUEL PAD		-	-
TURNING PADS		-	-
<b>TOTAL FLEXIBLE PAVEMENT</b>	<b>SY</b>	<b>950</b>	<b>950</b>
<b>SIDEWALKS</b>	<b>SF</b>	<b>1,903</b>	<b>1,903</b>
<b>FENCING</b>	<b>LF</b>	<b>1,000</b>	<b>-</b>
<b>CURBING</b>	<b>LF</b>	<b>2,925</b>	<b>2,225</b>

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG Medcom Building	5. PROJECT NUMBER 090071A	
<p><b>DETAILED REQUIREMENTS STATEMENTS</b></p> <p>1. <u>GENERAL:</u> This project is for the construction of a facility to provide administration, storage and operational space for a 40 person Medical Command unit. This project will provide the administration, storage, examination rooms, doctors' chambers, locker room, break area, latrine/showers, parking to support the operations of the medical section.</p> <p>2. <u>DATA ON ACCOMMODATIONS NOW IN USE:</u> Hams Bluff is approximately the right size and location for the needs of VI ARNG Medcom unit.</p> <p>3. <u>ANALYSIS OF DEFICIENCY:</u> No dedicated space available to Medcom. Medcom staff needs 6,965 NSF for proper functioning and provide support to the VI ARNG units.</p> <p>4. <u>ANALYSIS OF ALTERNATE FACILITIES AND LOCATIONS:</u> No ARNG facilities in the the US Virgin Islands meet the requirements that are mentioned in Item 3. All existing potential ARNG facilities in the state have been surveyed and only one other facility can be expanded to meet this requirement. This facility is located in Hams Bluff.</p> <p>5. <u>ANALYSIS OF CRITERIA FOR NEW CONSTRUCTION:</u> The size and capacity is in accordance with the NGB PAM 415-12 . Alternative methods of meeting this requirement have been explored during project development. This project is the only feasible option to meet the requirement.. By using this criteria, the Medcom unit will be provided with adequate area for its proper functioning.</p> <p>6. <u>STATEMENT OF PROGRAM RELATED EQUIPMENT:</u> Furniture and Tele-com Equipment (OMARNG) will be requested in FY12.</p>		



1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG Medcom Building	5. PROJECT NUMBER 090071A	
<p>DETAILED REQUIREMENTS STATEMENTS (continued)</p> <p>12. <u>REQUEST FOR EXCEPTION TO CRITERIA:</u>  No ETCs identified.</p> <p>13. <u>TELECOMMUNICATIONS:</u> Telecommunications services and equipment are required. Telecommunications equipment not specifically authorized by NGR 105-23 will be provided by other than ARNG federal funds.</p> <p>14. <u>ECONOMIC ANALYSIS:</u></p> <p>15. <u>ANTITERRORISM/FORCE PROTECTION:</u> This project has been coordinated with the installations AT/FP plan. Risk and threat analysis have been performed in accordance with DA Pam 190-51 and TM 5-853-1, respectively. Only protective measures required by regulation and ONLY the minimum standards required by the "Unified Facilities Criteria 4-010-01, DoD Minimum Antiterrorism Standards for Buildings" dated 31 July 01 are needed. They are included in the cost estimate and description of construction.</p>		

1. COMPONENT ARNG	<b>FY 2012 GUARD AND RESERVE MILITARY CONSTRUCTION</b>	2. DATE 30-Sep-05
3. INSTALLATION AND LOCATION HAMS BLUFF, ST. CROIX, US VIRGIN ISLANDS		
4. PROJECT TITLE VI ARNG Medcom Building	5. PROJECT NUMBER 090071A	
<p>DETAILED REQUIREMENTS STATEMENTS (continued)</p> <p><u>NATIONAL ENVIRONMENTAL POLICY ACT:</u> Project has been analyzed for environmental impact in accordance with AR 200-2.</p> <p><u>POLLUTION ABATEMENT:</u> The design of proposed project includes, where appropriate, the provision of facilities for air and water pollution control IAW Executive Order No. 11752.</p> <p><u>COASTAL ZONE PLAN:</u> In accordance with the provisions of Section 102(2)(c) of the National Environmental Policy Act of 1969, the project has been reviewed, and it is determined to be in compliance with the State's Coastal Zone Plan.</p> <p><u>ENDANGERED SPECIES ACT:</u> Proposed project is in consonance with Section 7 of the Endangered Species Act (P.L. 93-205(87) STAT. as amended).</p> <p><u>FALLOUT PROTECTION:</u> In accordance with Section 601 of Public Law 89-568, as amended, the design of this project will be prepared to maximize fallout protection. Fallout shelters have been excluded from any structure only for the following reason: the presence of personnel during a period of fallout radiation would impair facility operations.</p> <p><u>FLOOD HAZARD:</u> Project has been evaluated for flood hazards in compliance with Executive Order 1988, and the facility is not sited in an area known to be subjected to flooding.</p> <p><u>DESIGN FOR ACCESSIBILITY OF PHYSICALLY HANDICAPPED PERSONNEL:</u> In accordance with Public Law 90-480, provisions for the physically handicapped personnel will be provided for, where appropriate, in the design of the facility.</p> <p><u>VENDING FACILITIES FOR THE BLIND:</u> Project has been evaluated for the provision of vending facilities to be operated by blind persons in compliance with DHEW Rule, 45 CFR-1369, and the State Licensing Board has not sanctioned operation of a blind vending concession at the proposed location.</p> <p><u>NATIONAL HISTORIC PRESERVATION ACT OF 1966:</u> A survey has been completed, and it revealed that this undertaking will not affect, either directly or indirectly, any property included in, or eligible for, inclusion in the National Register of Historic Places.</p> <p><u>RESERVE MANPOWER POTENTIAL:</u> The Reserve Manpower Potential to meet and maintain authorized officer and enlisted strengths of all reserve units in the areas where units are to be located has been reviewed in accordance with the procedures described in DOD directive 1225.7. It has been determined, in coordination with the other military departments having reserve units in the area, that the number of units of the reserve components presently located in the area, and those units having been allocated to this area for future activation, is not and shall not be larger than the number that reasonably may be maintained at authorized strength.</p>		
_____ DATE		_____ EDDIE L CHARLES The Adjutant General, VIARNG CFMO LTC AUBREY L RUAN JR. (340)712 7721
AT/FP POC: MAJ KAI SCHJANG (340)712 7772		

## **G. MASTER PLAN CONCEPTS FOR CST/MEDCOM MOVE-IN FY06 – SPRAT HALL**

While the primary objective of the PPDC was to focus on the analysis of the proposed site, facility requirements, and validation of the Form DD 1390/91, this section provides a more conceptual view of the facility. In addition, the scenarios in the following sections provide a starting point for future facility design charrettes. To this end, Jacobs assumes that building codes will be in conformance with State, Local and MILCON guidelines.

During the charrette, Jacobs initially developed a design solution for the combined Civil Support Team (CST) and Medical Command Unit (MedCom) utilizing the existing building on the Sprat Hall site. This solution, following consultation with the VI ARNG, resulted in an initial move-in that would enable both units to inhabit Sprat Hall immediately, and a subsequent addition/alteration phase that would renovate and expand Sprat Hall to give the CST and MedCom units more area, therefore getting the units closer to their authorized 1390/91 square footage.

During the out brief at the end of the charrette, the VI ARNG leadership requested an alternative that would be developed as a post-charrette solution. This post-charrette scenario locates the CST at Sprat Hall and relocates the MedCom unit to the Hams Bluff site. Due to the immediate need for a facility to move in, coupled with the availability of Hams Bluff not available until 2012, three scenarios were developed. This is the design direction detailed in this report and is presented in more detail in the following three report sections (G, H, and I).

The first scenario is for the CST and MedCom unit to move into Sprat Hall in 2006 with minimal renovation. This will be referred to as the CST/MedCom Move-In FY06 scenario and is detailed further in this section.

The second scenario requires the MedCom unit to move out of Sprat Hall, and subsequently commence the required addition and alteration that will allow the CST to inhabit Sprat Hall at their fully authorized program. This will be referred to as the CST Add/Alt FY12 scenario and is detailed in section 'H' of this report.

The third scenario describes what is required to move the MedCom unit from Sprat Hall to the Hams Bluff site. The existing RTI at Hams Bluff will vacate the building in FY 2012, which will allow the renovation and addition of the existing building to occur that will allow the MedCom unit to inhabit Hams Bluff at their fully authorized program. This will be referred to as the MedCom Add/Alt FY12 scenario and is detailed in section 'I' of this report.

Parametric cost estimates for site and building have been completed for all three of the post-charrette scenarios. This section describes the concept and scope of the CST/MedCom Move-In FY06 scenario.

The scenarios presented in the following sections build upon the information-gathering and analytical processes of the PPDC. The building layouts shown in each concept are based on user group functions, opportunities for potential expansion, adaptability for future missions, and total site utilization. These concepts provide a spectrum of planning analysis for the various options developed during the charrette, and set the foundation for further development during the design phase.

## **G1. Facility Description**

The Civil Support Team (CST) and Medical Command (MedCom) will be moving into the existing building at Sprat Hall in FY06. This solution does not allow for the fully authorized areas for each unit due to the limited size of the existing structure. Both units will occupy space considerably less than the authorized amount in order to have a facility they can inhabit for the short term. During the charrette, multiple configurations of blocking diagrams placing the units into Sprat Hall were discussed and analyzed until both units were comfortable with a solution that allowed for their critical areas of program to be fulfilled. The work that will be required for the move-in and a brief description of the scope and assumptions are described below.

### **1. Existing Site Condition:**

The existing building was originally a Navy facility built in 1984 that operated on a 24-hour basis. The building is one story of approximately 12,500 SF which includes a 4,000 SF basement. The basement houses the bulk of the mechanical and electrical equipment and will be left as is. The site is located on the northwest side of the island along North Shore Road. The overall site boundaries encompass land on both sides of North Shore Road. The south section of land borders the Caribbean Sea and contains a helipad, while the north section contains the parking and the building (Sprat Hall). The Air Guard currently occupies a portion of the parking lot with a fenced concrete slab that contains cargo boxes. VIARNG must maintain accessibility to the slab for the Air Guard.

### **1. Site Design/Work scope:**

Overall, minimal work is required for the site. The existing POV parking is gravel and is overgrown with vegetation, the full replacement of the POV parking area with flexible paving will be assumed.

The existing fence is in good condition and will remain.

2. Site Utilities:  
Utilities currently service the building and appear to have capacity for the new program and are assumed adequate.
3. Site AT/FP design criteria:  
Since the building is being occupied without major renovation, the existing AT/FP provisions are being accepted as is for Sprat Hall. Note that the existing layout of the building does not meet AT/FP setback distances from the entry and the windows do not meet current UFC criteria.
4. Architectural Design:  
The exterior of the building will not be modified. A general caulking and sealing of joints and window/door jambs to maintain weathertightness as needed.  
The existing roofing is assumed to be replaced with a new roof of like kind, with penetrations as needed for the new sink vents.  
The interior will require painting of all walls, with minimal patch and repair as needed. For estimating purposes, the assumption of 24 LF of partition demolition and 60 LF of partition construction will be used.  
The entry lobby will require the demolition of the entry desk and console and retrofitted to an open waiting area with new VCT flooring.  
The suspended ceiling is in good condition, a small percentage of 2'x4' acoustical tiles will need replaced.  
Approximately 4500 SF of space has raised flooring, some minor repairs/replacement of missing tiles will be required.
5. Structural Design:  
No structural work will be required as part of the Move-In FY06.
6. Mechanical/Plumbing:  
The HVAC system is currently not working and will require maintenance/repair.  
Plumbing – Three sinks for exam rooms will be added.  
A contingency will be added to the estimate to allow for upgrade of the restroom fixtures, and/or the addition of a shower.
7. Fire Protection & Fire Alarm:  
No foreseeable additions. Existing building has fire sprinkler, heads to be located in new exam rooms as needed.
8. Electrical:  
Service should be adequate for new functions, no upgrade assumed.

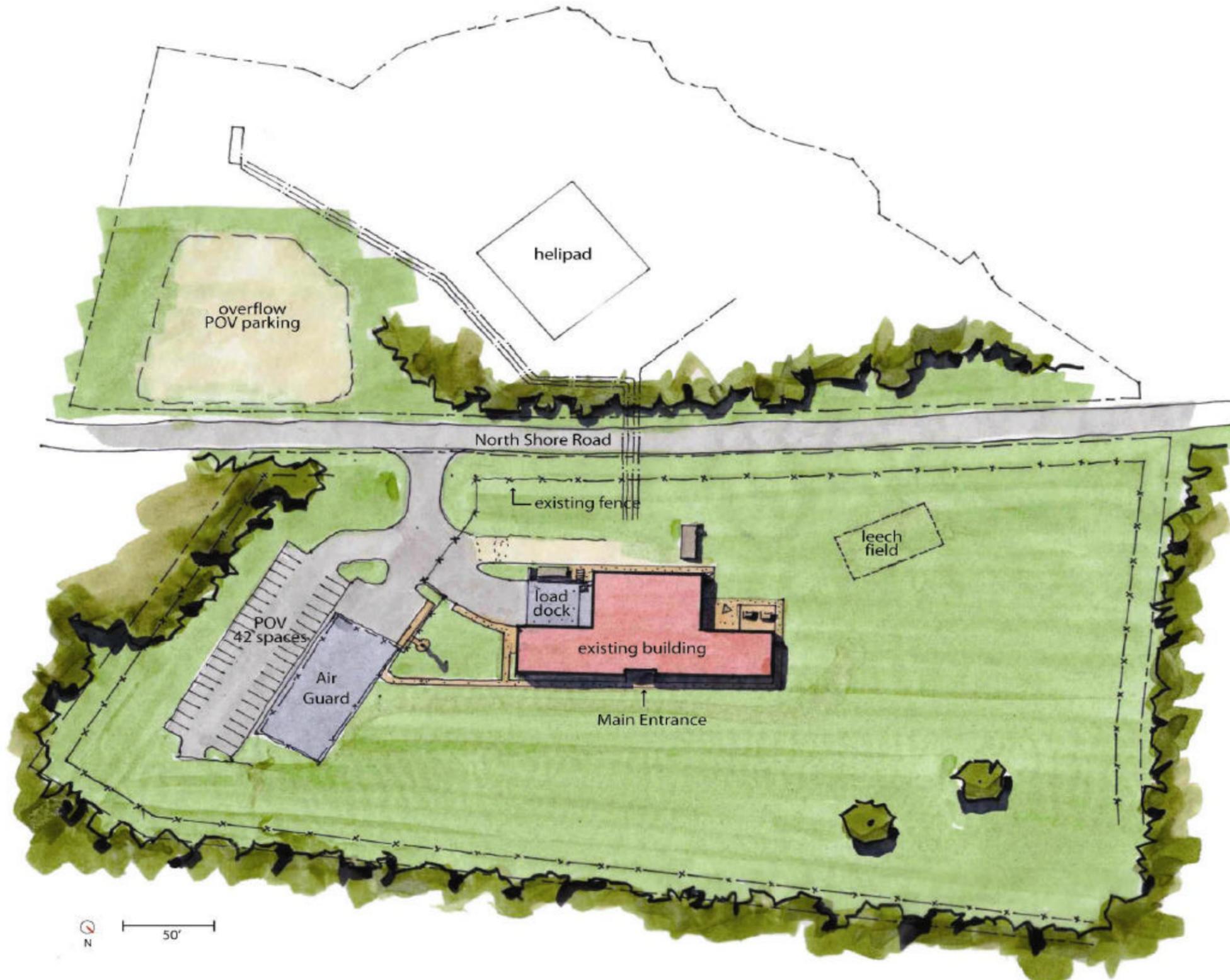
9. Security System:

The building has an operating security system that will need maintained. The monitoring equipment will have to be relocated from the counter in the entry to an adjacent wall.

The exterior doors (6) will require security devices.

All building material and systems assumptions, relative to architectural, mechanical, electrical, plumbing, structural, fire protection, and civil may change or be modified upon commencement of the design phases.

## G2. Prepared Concept – CST/MedCom Move-In FY06 at Sprat Hall, Site Plan



### CST/MedCom Move-In FY06

This scenario presents what is needed to locate the CST and MedCom units at Sprat Hall in FY06. This would be a temporary solution until FY12, at which time MedCom would move to Hams Bluff and Sprat Hall be renovated for the full CST program.

#### Site

The existing site for Sprat Hall would be remain as it currently exists for the CST/MedCom Move-In scenario with the exception of replacing the existing gravel parking area with new flexible pavement.

Since minimal site and interior renovation will be required for the Move-In phase, the existing AT/FP provisions are assumed to be adequate. Currently, a restricted Air Guard facility area to the east of the building limits expansion opportunities.

The CST/MedCom facility is accessed by an entrance off of North Shore Road along the southeastern edge of the site. The main POV parking and visitor parking lot is oriented south of the restricted Air Guard facility area to allow for future expansion. Overflow POV parking is located on the south side of North Shore Road. Utility lines currently reach the existing building from the south.

**G3. Prepared Concept – CST/MedCom Move-In FY06 at Sprat Hall, Blocking Diagram**

**CST/MedCom Move-In FY06  
 Blocking Diagram**

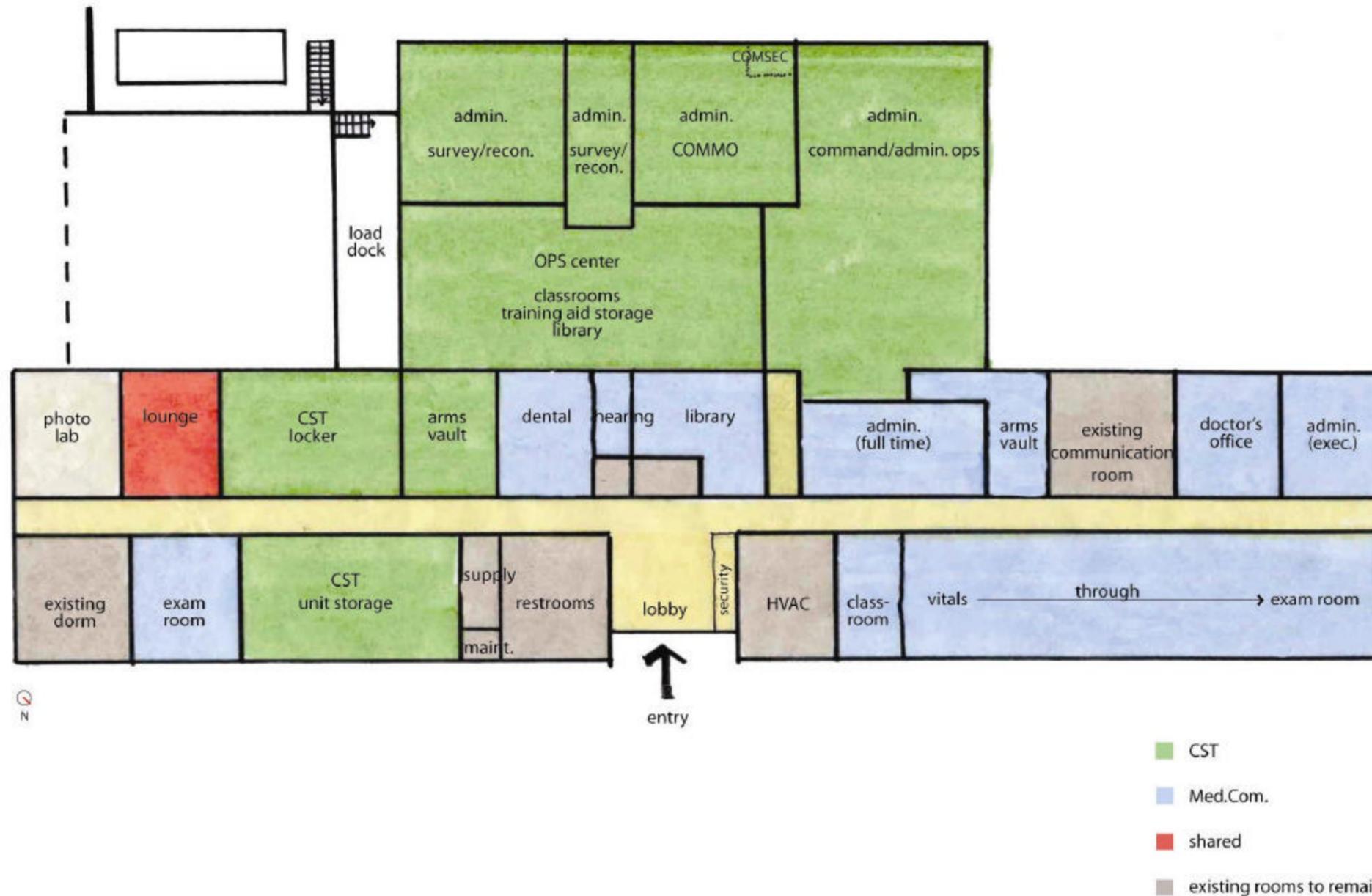
This layout illustrates a proposed shared facility between the CST and Medical Command Unit. This initial design scheme is confined to the building's original shell, and uses a majority of existing interior walls, with some minor demolition and new partition construction.

**FACILITY**

The layout is a direct result of requested adjacencies and room functions of each unit. The main entrance and lobby area is shared by the CST and MedCom and is centered on the north east side of the building. The MedCom unit is positioned along a double loaded corridor located on the northeast side of the building. MedCom exam spaces are arranged along the corridor to coincide with the stages of the physical examination process. Doctor offices and administration are directly adjacent to the exam spaces.

Access to the CST stems off of the main corridor. The CST administration is appropriately grouped together on the northwest side of the building surrounding the central ops center. CST lockers and storage areas are in proximity to the loading dock.

The lounge area will be shared between both units, along with an existing photo lab and dormitory room.



## **H. MASTER PLAN CONCEPTS FOR CST ADDITION/ALTERATION IN FY12 – SPRAT HALL**

This section describes the scenario for the addition and alteration of Sprat Hall in FY12 for the CST. The Medcom unit will be relocating from Sprat Hall to Hams Bluff in FY12. Then, Sprat Hall will be renovated and the new vehicle ready bay will be constructed, allowing for the CST to occupy the facility at their fully authorized program. In addition, the scenario in this section provides a starting point for future facility design charrettes. To this end, Jacobs assumes that building codes will be in conformance with State, Local and MILCON guidelines.

The scenario presented on the following pages builds upon the information-gathering and analytical processes of the PPDC. The building layouts shown in each concept are based on user group functions, opportunities for potential expansion, adaptability for future missions, and total site utilization. These concepts provide a spectrum of planning analysis for the various options developed during the charrette, and set the foundation for further development during the design phase.

### **H1. Facility Description**

The Medcom unit will move out of Sprat Hall in FY12 to the Hams Bluff site. The Civil Support Team (CST) will inhabit the entire Sprat Hall building. To fully fit the CST program, the vacated Medcom areas of Sprat Hall will need to be renovated, along with the construction of a new Vehicle Ready building addition. The work that will be required for the Add/Alt and the description of the scope and assumptions are below.

#### **1. Site Design/Work scope:**

The Add/Alt for the CST will require additional POV parking flexible paving and rigid paving. The rigid paving will include the relocation of the entry drive (refer to site plan), and the vehicle ready bay approach. The perimeter fencing will have to be extended to meet the new entry drive configuration, along with adding fencing around the communications tower. Minimal landscaping and seeding required adjacent to new paving areas.

A new sidewalk will be required adjacent to the ready bay.

The overflow parking area on the south side of North Shore Road will not require construction.

#### **2. Site Utilities:**

The site utilities currently servicing the CST/Medcom would be adequate for the new CST retrofit, with possible exception of the vehicle ready bay. The CST ready bay houses (2) vehicles that require 24-hour charging. (2 vehicles require (4) 50 amp charge

connections each). Without performing engineering calculations, the assumption is that the existing service to the building is assumed to be adequate for the vehicles.

3. Site AT/FP design criteria:

The relocation of the entry drive creates an 82' setback distance for the facility from the public road. The entry will have a small guardhouse with a k-4 anti-ram barrier.

The building façade adjacent to the North Shore Road may have to be hardened to comply with UFC, since the open space is reduced from 148' to 82'. For this estimate, non-hardening assumed, but window will need laminated glazing and anchored frames.

The sea cable tunnel will require a security grate.

4. Architectural Design:

The 4,500 SF vehicle ready bay will be an addition to the existing building, connected at the loading dock. The ready bays need to be climate controlled (cooling/dehumidification), with electrical connections for the vehicles, an exhaust ventilation system. The vehicles are standard van/suburban/small trucks; with typical height around 9'-9'-6", so 14' entry doors will be assumed.

A clear structure of 16' for the bay itself for the vehicle and their associated equipment.

Assume reinforced CMU exterior walls with a 4" veneer CMU and 30% of the wall in a veneer metal panel.

Standing seam metal roof will be assumed for the new ready bay.

The existing building exterior will only be modified as follows:

- Existing roof patching per new plumbing & mechanical work.
- Expansion joint between new and existing construction required.

Exterior windows will be replaced with laminated glazing and an anchored frame. (25) 4'x4' windows along with laminating the 9'x14' storefront glazing will be required.

The interior will require some demolition of existing rooms and conversion to new program. The following lists the existing room to be demolished, and the new room and function. All newly renovated room will require wall patching and repair, painting, ceiling tile replacement, and new flooring.

- a. Photo lab & lounge demo (540 SF) converted to CST locker area. Include two doors into new ready bay.
- b. (2) dorm rooms demo (576 SF) converted to Break room with VCT and typical kitchen appliances.

- c. Unit storage area demo (576 SF) converted to additional restrooms and showers.
- d. Classroom wall demo – patch and repair floor, wall, and ceiling.
- e. (3) exam rooms with sink demo (350 SF) converted to unit storage area.

Assume new hardware for new ready building (4 doors) and minor re-keying of vacated MedCom unit (assume 8 doors)

- 5. Structural Design:  
For the ready bay - Assume load bearing reinforced CMU exterior wall with steel joist roofing.
- 6. Mechanical/Plumbing:  
New HVAC system for the Ready Bay will be self-contained air conditioning units.

New restroom and shower fixtures as described in architectural section and illustrated in the blocking diagram.

Demo and cap the (3) sinks in the exam rooms.  
Adjust HVAC duct distribution per interior room reconfiguration.

- 7. Fire Protection & Fire Alarm:  
Add capacity for the ready bay.  
  
Adjust per new room configuration.
- 8. Electrical:  
Add capacity for the ready bay. Assume 400 a service because of the vehicle requirements.

Adjust/modify lightings & outlets per interior rooms' re-configuration.

- 9. Security System:  
Maintaining the security system with adding sensors for the new doors of the ready bay.
- 10. Telecommunication:  
Modify telephone and data outlets/services per interior room re-configuration.

All building material and systems assumptions, relative to architectural, mechanical, electrical, plumbing, structural, fire protection, and civil may change or be modified upon commencement of the design phases.

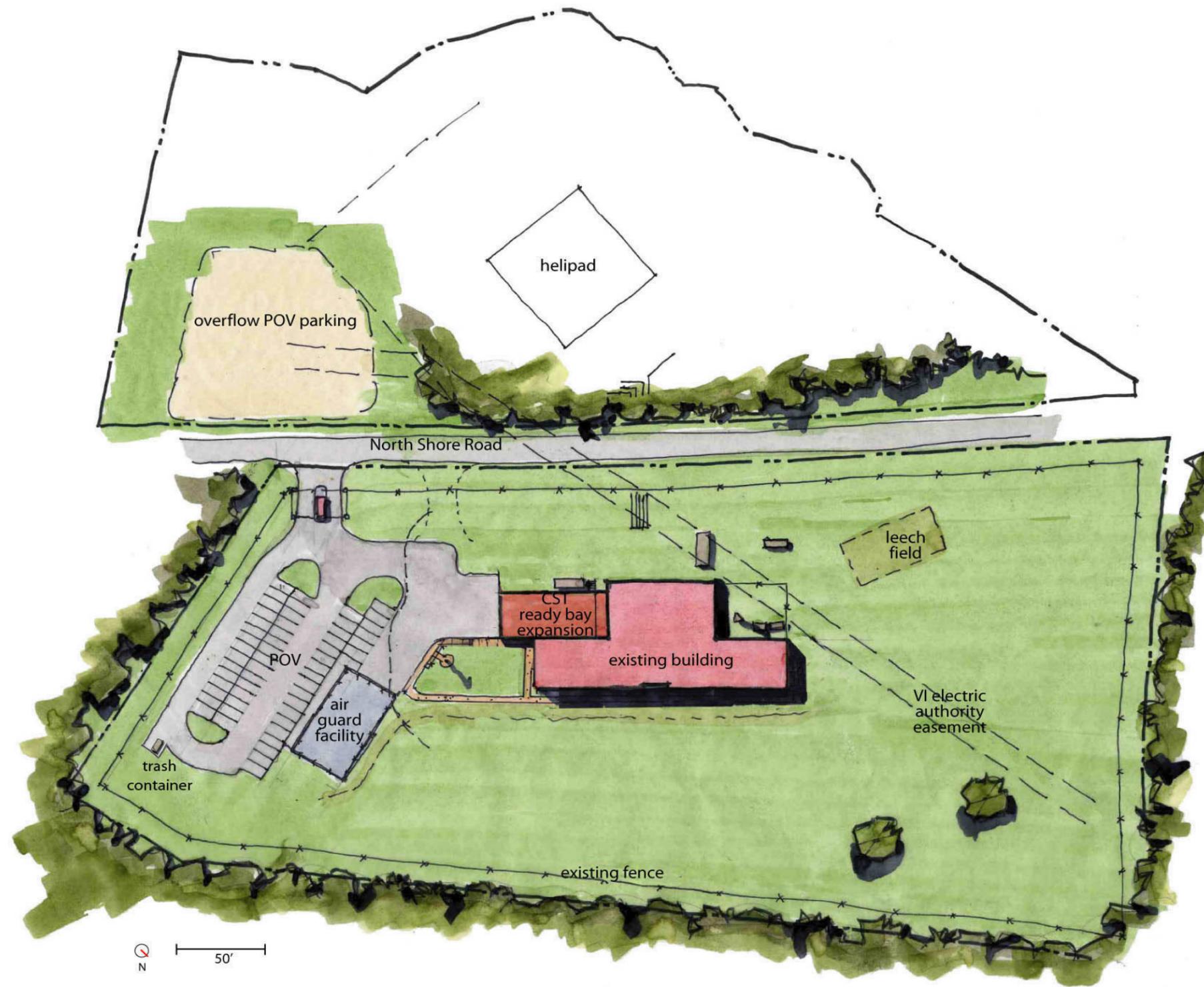
## H2. Preferred Concept – CST Addition/Alteration for FY12 at Sprat Hall, Site Plan

This scenario presents the addition/alteration required after the MedCom relocation to Hams Bluff in order for the CST to occupy Sprat Hall at their fully authorized program. A new ready bay will be added at the loading dock at the southeast end of the existing building to fulfill the CST program requirement. The interior will require some alteration as described in the previous section, and illustrated on the following page.

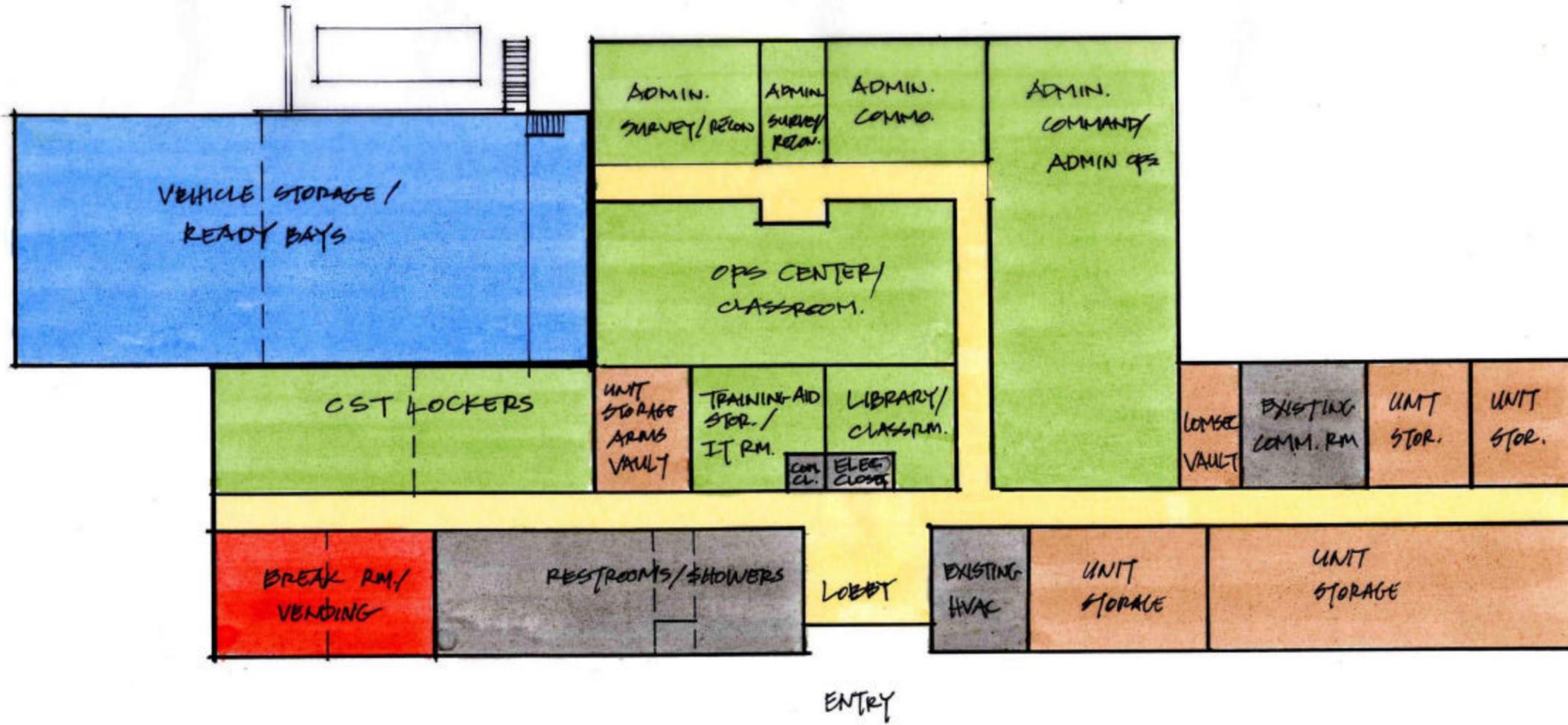
### Site

The addition of the ready bay will require alteration of the vehicular entry and perimeter fencing in order to fit the expansion and to conform to AT/FP guidelines. The entry point from North Shore Road is shifted to the southeast to give the proper stand-off distances to the primary facility, along with providing a guardhouse and anti-ram barrier.

The shifted entry allows for an expansion of POV parking along the southeast perimeter. Overflow POV parking would still be available on the south side of North Shore Road. The main entry into the building will remain the same, with some additional sidewalk added adjacent to the new parking and ready bay.



**H3. Preferred Concept – CST Addition/Alteration for FY12, Blocking Diagram**



Sprat Hall is expanded and altered during this add/alt FY12 scenario to accept the full 1390/91 program authorizations. The ready bay will be the only addition required, and the interior will require some renovation to fulfill the programmatic requirement.

**Facility**

The general space layout of the OPS center and administration areas will not be altered from the move-in scenario. The vacated MedCom areas will be renovated and converted to CST unit storage, a library/classroom, training aid storage, and an IT room.

The restrooms will be expanded to allow for more fixtures, including the addition of showers. The two existing dorm rooms have to be removed and replaced with an appropriate sized break room and vending area.

Lastly, the CST lockers will be expanded into the original break room and photo lab area, which give more exposure from the lockers to the new ready bay.

## **I. MASTER PLAN CONCEPTS FOR MEDCOM ADDITION/ALTERATION FY12 – HAMS BLUFF**

This section describes the scenario in relocating the Medcom unit from Sprat Hall to the existing building at the Hams Bluff site in FY12. The existing building at Hams Bluff will be renovated and expanded so that the Medcom unit can inhabit the facility at their fully authorized program. In addition, the scenario in this section provides a starting point for future facility design charrettes. To this end, Jacobs assumes that building codes will be in conformance with State, Local and MILCON guidelines.

The scenario presented in the following pages builds upon the information-gathering and analytical processes of the PPDC. The building layouts shown in each concept are based on user group functions, opportunities for potential expansion, adaptability for future missions, and total site utilization. These concepts provide a spectrum of planning analysis for the various options developed during the charrette, and set the foundation for further development during the design phase.

### **11. Facility Description**

The Medcom unit will move out of Sprat Hall in FY12 and occupy the existing building on the Hams Bluff site. In order to house the full Medcom program, the existing building (4,638 SF) will be renovated, along with a new construction addition of 3,095 SF. The existing building was built 1991/92 for the Navy, and is currently being used for the VIARNG RTI. The work that will be required for the Add/Alt construction and the description of the scope and assumptions are listed below.

#### **1. Site Design/Work scope:**

The existing entry stair and sidewalk will need to be demolished to make room for the new expansion.

The existing paving will need expanded, the assumption to replace the POV parking area and the access drive with new flexible paving. The addition of parking spaces will require grading as necessary to meet the existing contours. A small retaining wall may be required for the uphill side of the parking. No rigid paving required.

The perimeter fencing assumed to be in good condition and meet UFC criteria, relocation required for 120 LF of fencing to meet the new entry gate and parking area required.

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Minimal decorative landscaping near the entry area will be assumed.

A new sidewalk required (100 LF) and new paving at entry required (1,903 SF).

New tree plantings at east side of building are assumed.

2. Site Utilities:

The site utilities currently servicing the Hams Bluff are assumed to be adequate for the new Medcom Unit.

3. Site AT/FP design criteria:

The entry drive will require a small guardhouse with a K-4 anti-ram barrier. Additionally, there are (2) 4'-6" x 6' window in the existing building that will need to be replaced with a laminated glass and anchored frame system. All new windows for the expansion will need to be laminated and anchored. Assume (7) 4'-6" x 6' new windows.

All POV parking will be located 33' from primary facility.

4. Architectural Design:

The existing building:

- The exterior will require painting and caulking to match the new addition.
- Assume new roof for existing and new building. Due to the small size of the addition, and the existing building having a flat roof, assume single-ply thermoplastic membrane roofing (i.e. Steven or Sarnafil equivalent) installed on entire building, new and existing.
- Roof penetrations as required for vent stacks and for new sinks.
- Assume an expansion joint between new and existing building.

The interior of the existing building will require:

- The interior will require painting of all walls, with minimal patch and repair as needed. The 2'x4 suspended acoustical ceiling is in good condition, patch and repair as required for demolished areas. The carpet flooring and resilient tile will need patching and repairing as needed according to new layout. Assume new VCT flooring in all exam rooms and the carpeted areas of the corridor. The unit supply room will have sealed concrete. Maintain carpet in the administration areas.
- Approximately 50 LF of partition will need demolished.

- Approximately 106 LF of new partition to be added.

The interior of the new addition:

- Assume new gypsum board partitions with paint and new 2'x4' acoustical ceiling.
- Flooring to be VCT for the waiting room and corridor, carpet for administration and library area, and ceramic tile for the restrooms.

Assume new hardware for new addition (8 interior, 1 exterior door) and minor re-keying of vacated existing building

5. Structural Design:  
Assume load-bearing, cast-in-place concrete exterior walls with steel column interior. Steel joists and metal deck (to match existing building).
6. Mechanical/Plumbing:  
New HVAC system for the Addition - self-contained air conditioning units.  
  
New restroom and shower fixtures required in the new addition.  
  
New (4 total) sinks in each exam room.  
  
Adjust HVAC duct distribution per interior room reconfiguration.  
  
HVAC system for existing building assumed to be adequate for existing building.
7. Fire Protection & Fire Alarm:  
Add capacity for the new addition.  
  
Adjust per new room configuration.
8. Electrical:  
Add capacity for the new addition.  
  
Adjust/modify lightings & outlets per interior rooms' re-configuration.
9. Security System:  
Maintaining the security system with adding sensors for the new doors.
10. Telecommunication:  
Modify telephone and data outlets/services per interior room re-configuration.

All building material and systems assumptions, relative to architectural, mechanical, electrical, plumbing, structural, fire protection, and civil may change or be modified upon commencement of the design phases.

## 12. Preferred Concept – Medcom Add/Alt FY12 at Hams Bluff, Site Plan



This scenario presents what is required at the Hams Bluff site in order for the Medcom unit to inhabit the facility at their fully authorized program. An addition to the existing building is required to obtain the necessary square footage, along with modification of the parking area and entry gate. Due to the natural restriction on the site and location of the existing building, the expansion area available for the addition is located adjacent to the north end of the existing building

### Site

An access road at the northwest corner of the site provides access to the Hams Bluff site. A new guardhouse and anti-ram gate will be provided at the entry location. The existing fence along the northern edge of the property will have to be relocated to allow for the new entry gate and expanded POV parking. The POV parking and the entry drive will be expanded and replaced to the point indicated in the site plan. The southern access drive to the utility building will remain as it is currently configured.

Deliveries may be received on both the northeast and southeast sides of the building. Utility lines currently reach the existing building from the south, and appear to have adequate capacity for the new addition.

The AT/FP setback requirements will be maintained as currently existing for the existing building. Additional AT/FP measures will include:

- The addition of the guardhouse and anti-ram barrier
- Laminated glazing for new and existing windows
- The location of POV parking 33' from the primary facility
- The addition of trees to provide screening between the facility and adjacent steep slope.

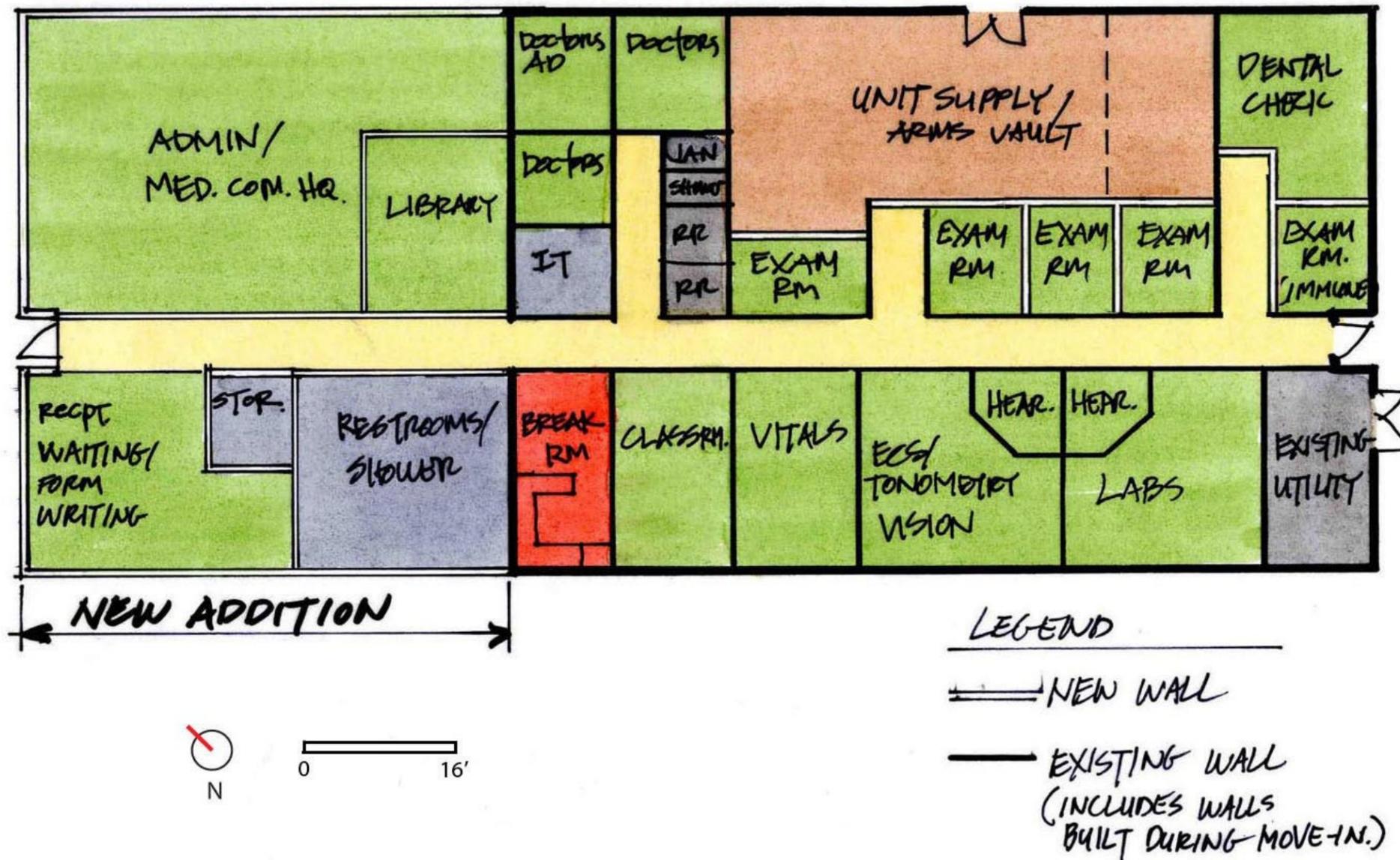
13. Preferred Concept– Medcom Add/Alt FY12 at Hams Bluff, Blocking Diagram

The existing building at Hams Bluff will need to be renovated along with an approximate 3,200 SF addition to fully house the Medcom unit. The layout of the program is based on the adjacencies and information gathered during the PPDC charrette.

**Facility**

The main entrance into the Medcom facility is located along the northwest face of the building at the new addition in close proximity to the POV parking. The primary circulation is along a double loaded corridor with entrances and exits on each end. The main administration area is located in the north corner of the building adjacent to doctor's offices. The waiting room is located in close proximity to the main entrance. The check-up areas, labs, and exam rooms are centrally located along the main corridor in a functional progression of use, as established by the Medical Command's adjacency diagram.

Delivery access is provided into both the unit supply room and utility room on the northeast and southeast sides of the building by externally accessed double doors.



## **APPENDIX**

- 1. VI ARNG PPDC In-Brief Presentation**
- 2. VI ARNG PPDC Out-Brief Presentation**
- 3. Acronyms**
- 4. WMD-CST Criteria**
- 5. CST Manning**
- 6. NG PAM 415-12**
- 7. Basis of Estimate with Parametric Cost Estimate Details**

## **1. PPDC In-Brief Presentation**

VI ARNG

# Project Planning Document Charrette

**Joint Forces Headquarters Readiness Center (JFHRC),  
Estate Bethalem**

**210<sup>th</sup> Regional Training Institute, Hams Bluff and  
23<sup>rd</sup> Civil Support Team & Medical Detachment, Sprat Hall**

St Croix, Virgin Islands

In-Brief Meeting

*11 July 2005*



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## Agenda

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- Introductions
- Business Driven Solutions – The Charrette Process
- Key Challenges
- Establish Charrette Expectations
- Set Project Goals and Objectives
- Charrette Work Sessions
- Project Schedule
- Confirm Charrette Schedule

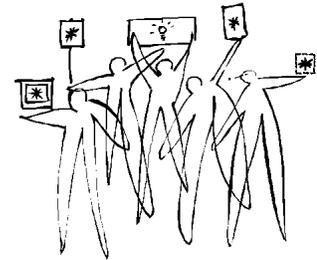
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## Introductions

All Present

- VI ARNG
- VI National Guard JFHRC users
- VI ARNG RTI users
- VI ARNG CST/Med Det Users
- VI CFMO
- NGB
- Jacobs
- Others

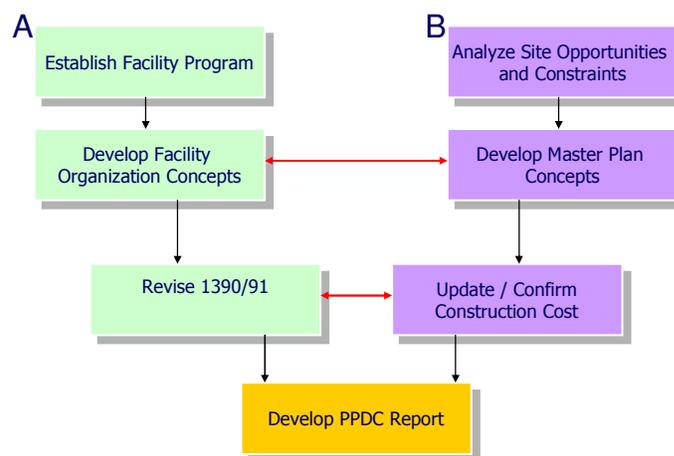


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## The Charrette Process

Project Planning Document Charrette (PPDC)



3

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## **Business Driven Solutions**

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- What is "Business Driven Solutions?"

4

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## **Business Driven Solutions**

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### **Solutions that meet the following criteria:**

- Responsive to the JFHRC, RC and CST/Med Det business goals
- Responsive to flexibility / growth opportunities and industry trends
- Designed for optimized functions, processes, relationships and workflows to support mission
- Designed for balanced and facility requirements per authorizations
- Driven by available funding dollars and funding schedule(s)

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## **Challenges of the Planning and Programming Phase**

### **CHALLENGES**

- Getting the right facility for the need — on time and within budget
- Long-range planning
- Funding vs. requirements
- Traditional approach to requirements definition (functional programming)
  - Preparation of 1390/91s
- **PPDC Process**

7

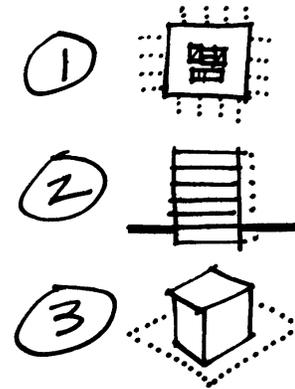
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## Successful Project Execution

- **Early phases** of project design have the **greatest potential** to affect the outcome of the project, and have the **most significant influence** on quality, functionality, and overall project viability



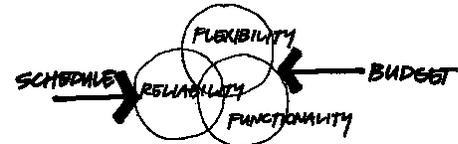
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## Successful Project Execution

### Project Planning Charrette Objectives

- Set business goals
- Involve all proponents in the program definition process
- Maximize opportunities
- Understand site constraints and challenges
- Fully understand and document programmatic requirements
- Develop clear and defensible Project Planning Document, including:
  - Program Validation
  - Master Planning
  - Facility Organization
  - Cost Estimate
  - Accurate 1390/91



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### Facility Goals and Objectives

- What are the primary "business drivers" for each project per facility component?
  - Equipment Load, Staff Count, Student Load
  - Assembly Hall, Classrooms, Admin/Support Functions, Billeting, Dining, Special Functions
  - Justification (Exceptions to Criteria) for VI ARNG specific "Unique Requirements"
  - Ready Building for CST (Weapons of Mass Destruction)
- Will/should this project be "joint-use"?
- What is the impact of the project on the Existing Facilities & Proposed Site?
- What is the impact of the necessary 60-70 year viable life span?
- What are the flexibility requirements?
  - Expansion
  - Adaptation / Convertibility
  - Spatial / Building Systems
- Sustainability / Spirit Checklist?
- Others?

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## Site Goals and Objectives

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- Can each of the sites accommodate the requirements based on:
  - Their Size and Attributes
  - Existing Infrastructure
  - ATRP Requirements
  - Cost Impacts
- What are the options in case the JFHRC, RTI & CST/Med Det requirements cannot be physically accommodated on the proposed site?
- Use / disposition of existing facilities – RTI Bldg, Sprat Hall?
- Impact of the above on existing Operations?
- Sustainability / Spirit Checklist?
- Others?
- Identification and reconciliation of “**show stoppers**”...

12

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## Establish Charrette Expectations

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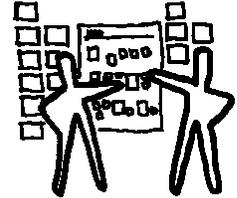
- What are the expectations for this Charrette?
  - ✓ Achieve PPD consensus with all charrette stakeholders
  - ✓ Fully understand the needs and document them with appropriate justification
  - ✓ Establish site opportunities, constraints and any additional requirements
  - ✓ Lay the foundation for the facility design
  - ✓ Others...

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## Charrette Work Sessions

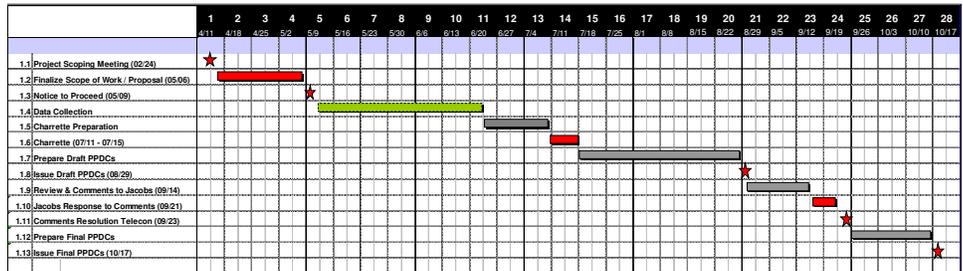
- Interactive work session and the charrette process
  - ✓ Create analysis cards /wall display
  - ✓ Capture discussions at a macro level
  - ✓ Other data capture and diagrams
- What to expect during the work sessions
  - Review Business Drivers
  - Develop Facility Requirements
  - Develop Functional Relationships
  - Identify Building Organizational Concepts
  - Facility Relationship to the site and the base



## Charrette Schedule

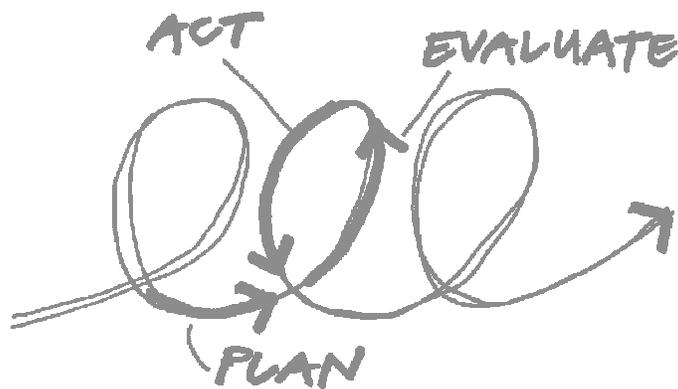
	Monday 11-Jul-05	Tuesday 12-Jul-05	Wednesday 13-Jul-05	Thursday 14-Jul-05	Friday 15-Jul-05
0730 - 0800					
0800 - 0830	Charrette Setup	JFHQRC Site Team Work Session	RTI Site Breakout POV, MYP & Ancillary Facilities	Jacobs Work Session	Jacobs Work Session
0830 - 0900	Kickoff, Goal Setting, Expectations & Project Discussion	JFHQRC 1390 / 91 Scrub & Validation Other Special Requirements	RTI 1390 / 91 Scrub & Validation Billing, Cirrig & Other Reqrts	CST 1390/91 Scrub Schedule 1 & 1	
0900 - 0930		JFHQRC Facility Organization & Space Relationship Diagrams	Jacobs RTI Site Team Work Session	MED Det 1390/91 Scrub	Out Brief Setup
0930 - 1000	RTI & JFHQRC Site Overview Discussions		RTI Facility Organization & Space Relationship Diagrams		
1000 - 1030				CST Facility Organization & Relationship Discussion	JFHQRC, RTI & CST Meet Det Senior Leadership Out Brief
1030 - 1100					
1100 - 1130	JFHQRC Site Breakout Infrastructure & Access	JFHQRC 1390 / 91 Scrub & Validation Morning Dock	JFHQRC ATPP, Safety, IT, Telecom, CWHF, POL, etc.		
1130 - 1200					
1200 - 1230	Working Lunch	Working Lunch	Working Lunch	Working Lunch	
1230 - 1300		JFHQRC SPIRIT Checklist Review	CST Site Visit and Building Walk Through	RTI ATPP, Safety, IT, Telecom, etc.	JFHQRC Pre-Brief for CFMO & Key Users
1300 - 1330	JFHQRC Site Breakout Environmental, Topography, Drainage, Access, etc.	JFHQRC 1390 / 91 Scrub & Validation Schedule 1 & 1 and Joint Requirements	RTI Site Breakout Site, Access, Drainage, Security ATPP	CST IT, CWHF & POL	
1330 - 1400		RTI Site Breakout Environmental, Topography, Drainage, Access, etc.	RTI 1390 / 91 Scrub & Validation Morning Docs	CST SPIRIT Checklist Review	RTI Pre-Brief for CFMO & Key Users
1400 - 1430			CST Site Breakout Site, Access, Drainage, Security ATPP		
1430 - 1500	JFHQRC Site Breakout Security / ATPP		CST IDA / MTCES & Exceptions to Criteria Validation & Review	Wednesday's Work Sessions Review	
1500 - 1530					
1530 - 1600	JFHQRC Site Breakout POV, MYP & Ancillary Facilities	RTI 1390 / 91 Scrub & Validation Education & Admin/Office Area	CST Site Breakout POV, MYP & Ancillary Facilities	Jacobs Work Session	Jacobs Work Session
1600 - 1630			CST 1390/91 Scrub Schedule 1 & 1		
1630 - 1700	Monday's Work Sessions Review	Tuesday's Work Sessions Review			
1700 - 1730					

## Project Schedule



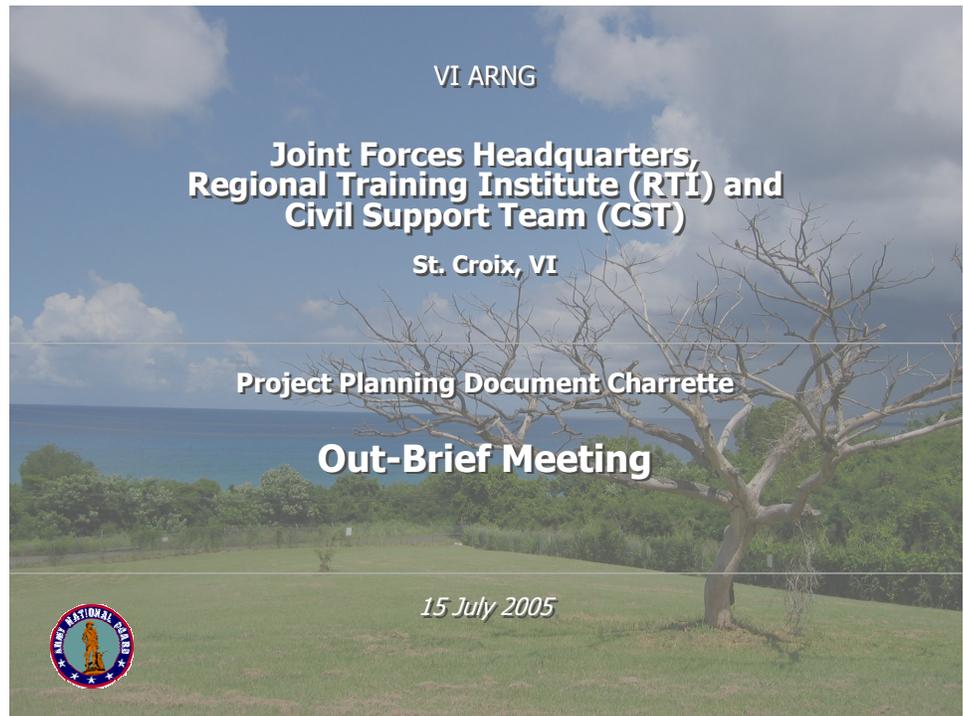
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## Discussion



17  
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## **2. PPDC Out-Brief Presentation**



## Out-Brief Agenda

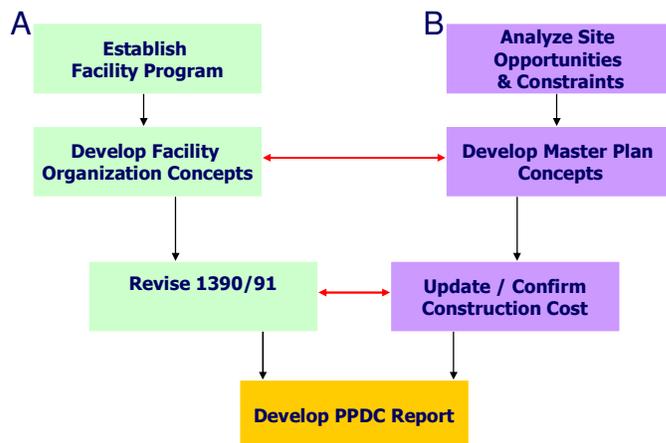
- Opening
- Charrette Process
- Review Charrette Goals and Objectives
- CST, RTI and JFHQ
  - Program Summary
  - Site Analysis
  - Master Plan Concepts
  - DoD Cost Summary
  - Action Items
- Review Charrette Expectations
- Discussion

# Charrette Process

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## The Charrette Process

### Project Planning Document Charrette (PPDC)



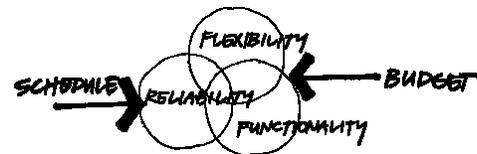
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## Successful Project Execution

### Project Planning Charrette Objectives

- Set business goals
- Involve all stakeholders in the program definition process
- Maximize opportunities
- Understand site constraints and challenges
- Fully understand and document programmatic requirements
- Develop clear and defensible PPD, including:
  - Program Validation
  - Master Planning
  - Facility Organization
  - Cost Estimate
  - Accurate 1390/91



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## Facility Goals and Objectives

- What are the primary "business drivers" for each project per facility component?
  - Equipment Load, Staff Count, Student Load
  - Assembly Hall, Classrooms, Admin/Support Functions, Billeting, Dining, Special Functions
  - Justification (Exceptions to Criteria) for VI ARNG specific "Unique Requirements"
  - Ready Building for CST (Weapons of Mass Destruction)
- Will/should this project be "joint-use"?
- What is the impact of the project on the Existing Facilities & Proposed Site?
- What is the impact of the necessary 60-70 year viable life span?
- What are the flexibility requirements?
  - Expansion
  - Adaptation / Convertibility
  - Spatial / Building Systems
- Sustainability / Spirit Checklist?... **Gold on both JFHQ and RTI**
- Others?

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## Site Goals and Objectives

- Can each of the sites accommodate the requirements based on:
  - Their Size and Attributes
  - Existing Infrastructure
  - ATFP Requirements
  - Cost Impacts
- What are the options in case the JFHRC, RTI & CST/Med Com requirements cannot be physically accommodated on the proposed site?
- Use / disposition of existing facilities – RTI Bldg, Sprat Hall?
- Impact of the above on existing Operations?
- Sustainability / Spirit Checklist?
- Others?
- Identification and reconciliation of **"show stoppers"**...

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## Charrette Schedule

	Monday 11-Jul-05	Tuesday 12-Jul-05	Wednesday 13-Jul-05	Thursday 14-Jul-05	Friday 15-Jul-05
0730 - 0800					
0800 - 0830	Charrette Setup	JFHQ Jacobs Team Work Session		Jacobs Work Session	Jacobs Work Session
0830 - 0900					
0900 - 0930	Kickoff, Goal Setting, Expectations & Project Discussion	JFHQ SPIRIT Checklist Review	JFHQ, RTI and CST/MedCom ATFP Discussion	CST/MedComm Facility Organization & Relationship Discussion	Out Brief Setup
0930 - 1000					
1000 - 1030	RTI & JFHRC Site Overview Discussions	RTI Site Visit	CST/MedComm Site Visit and Building Walk Through	Jacobs RTI Site Team Work Session	JFHRC, RTI & CST/MedComm Senior Leadership Out Brief
1030 - 1100				RTI Facility Organization & Space Relationship Diagrams	
1100 - 1130	JFHQ Site Breakout Infrastructure & Access	JFHQ 1390 / 91 Scrub & Validation Manning Docs		CST/MedComm Jacobs Site Team Work Session cont.	
1130 - 1200					
1200 - 1230	Working Lunch	Working Lunch	Working Lunch	Working Lunch	
1230 - 1300					
1300 - 1330	JFHQ Site Breakout Environmental, Topography, Drainage, Access, etc.	RTI Site Breakout Environmental, Topography, Drainage, Access, etc.	RTI 1390 / 91 Scrub & Validation Manning Docs	CST/MedComm Site Breakout Info, Access, Environ, Topography, Drainage, Security / ATFP	CST/MedComm, RTI & JFHQ Pre-Brief for CFMO & Key Users
1330 - 1400	JFHQ 1390 / 91 Scrub & Validation Schedule I & II, ATFP, Safety, IT, Telecom, CWIF, PCL, etc.				
1400 - 1430	JFHRC Site Breakout Security / ATFP	RTI Site Breakout POV, MVP & Ancillary Facilities	RTI 1390 / 91 Scrub & Validation Bleeding, Dining, Education & Admin/Office Areas	CST/MedComm 1390/91 Scrub Schedule I & II	Jacobs Work Session
1430 - 1500					
1500 - 1530	JFHRC Facility Organization & Space	RTI Site Breakout Security / ATFP			
1530 - 1600					
1600 - 1630					
1630 - 1700	Monday's Work Sessions Review	Tuesday's Work Sessions Review			
1700 - 1730					

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# CST/MED COM Program Summary

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## CST - Facts & Assumptions

- **WMD-CST**
  - 23<sup>rd</sup> WMD-Civil Support Team
  - ARNG Medical Command Unit
  
- **Population/Staffing**

	CST/MED COM
<b>Total Population</b>	<b>62</b>
<b>Admin. Staff</b>	<b>23</b>
<b>Full-time Staff</b>	<b>26</b>

9

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## Program Summary – CST

NO.	FACILITY INFORMATION	UNITS	Phase I	Phase II
			TOTAL REQUIRED MOVE IN	TOTAL REQUIRED ADDITION
A1.0	CST SCHEDULE I	NSF	1,590	
A2.0	CST SCHEDULE II	NSF	4,489	3,550
C1.0	MEDICAL COMMAND UNIT	NSF	3,769	2,422
<b>Subtotal for CST (Net)</b>			<b>9,848</b>	<b>5,972</b>

■ **Total Programmed Area (for both phases)**

- CST Unit – 9,629 NSF
- ARNG Medical Command Unit – 6,191 NSF

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# CST/MED COM Site Analysis

**JACOBS**

## Proposed Site – CST/MED COM

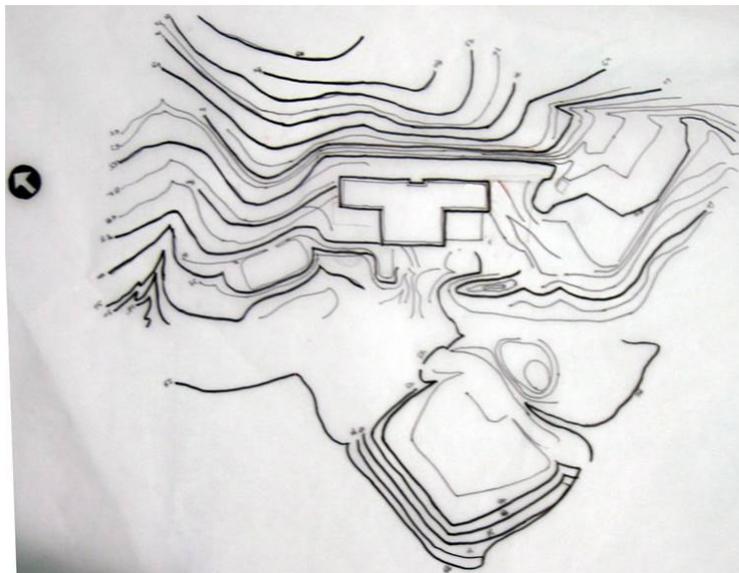
- Sprat's Hall Site
  - ¾ of a mile from Frederiksted
  - Site split by North Beach Road
- Former Navy facility



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## Proposed Site Topography



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## Surrounding Uses and Supporting Facilities

---

- Surrounding Land Uses
  - Residential
  - Recreational
- Supporting Facilities
  - Diesel Storage Tank
  - Septic System/Drain Field
  - Microwave Tower
  - Helipad
  - Transformer
  
  - Air National Guard Mobile Radar

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## Site Constraints

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- Existing Facilities
- Topography
  - Slope ranges from 1% to 20%
- Site Drainage
  - Drainage pattern runs north of the existing facility in shallow swale
  - Drainage swale bisects western side of site
- Utilities
  - VI Electric Authority Easement
  - Septic System Drain Field

15

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## **Environmental Analysis**

---

- Drainage Patterns
- 250 yards to the Caribbean Sea

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## **Utilities**

---

- Utilities at site are capable of accommodating the proposed facility additions

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## Anti-Terrorism/Force Protection

- Relocate Access Control Point to eastern fenceline
  - Card/Guard access
  - Gate House to be located within median
  - Fencing and gate structure will be relocated
- Sea Cable tunnels require mitigation to prevent unauthorized access



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## Parking

- 55 POV spaces required
  - Includes Visitors
  - MV Parking
    - 1 Ambulance
- Overflow parking to be located across North Beach Road

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## Buildable Envelope



# CST/MED COM Master Plan Concepts

**JACOBS**

## Master Plan Concept – CST/MED COM

### CST/MED COM Master Plan Concept – MOVE-IN

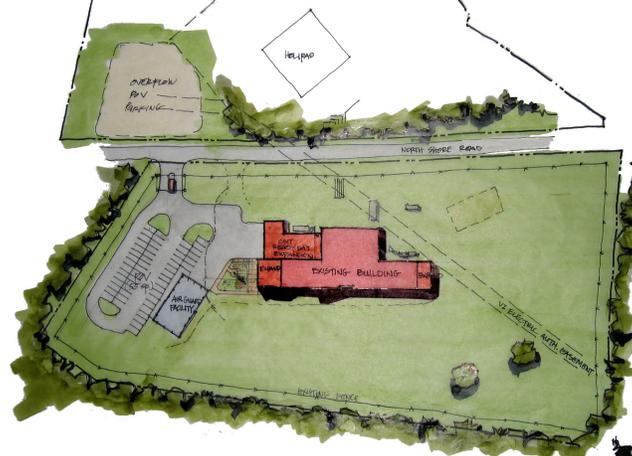


CST / MED COM - SITE PLAN  
SPRAT HALL - MOVE IN 02/14/05

22  
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## Master Plan Concept – CST/MED COM

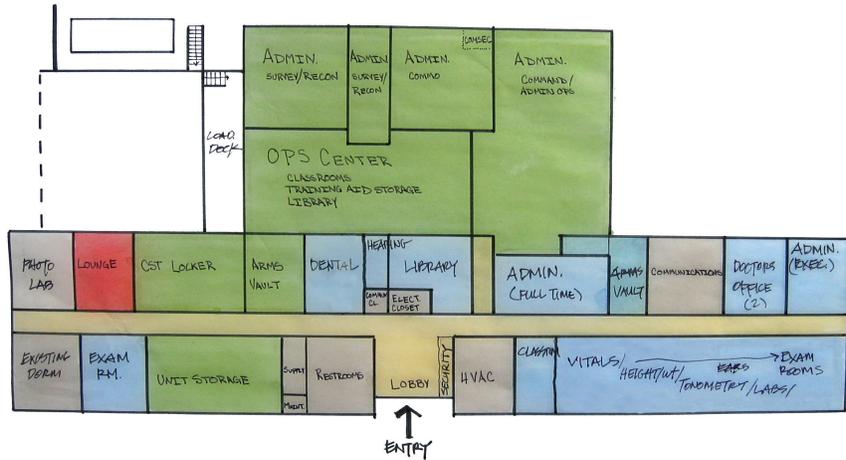
### CST/MED COM Master Plan Concept – ADD/ALT



CST / MED COM - SITE PLAN  
SPRAT HALL - ADD. ALT. 07/14/05

## Master Plan Concept – CST/MED COM

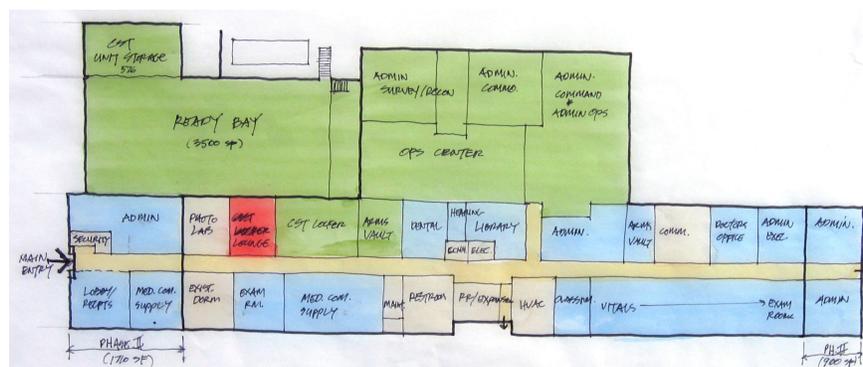
### CST/MED COM Floor Plan– MOVE-IN



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## Master Plan Concept – CST/MED COM

### CST/MED COM Floor Plan– ADD/ALT



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## PROJECTS OPTIONS

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- CST/MED COM @ Sprat Hall **A**
- RTI @ Hams Bluff
- JFHQ @ Estate Bethlehem
  
- CST @ Sprat Hall **B**
- MED COM @ Hams Bluff
- RTI & JFHQ @ Estate Bethlehem
  
- CST/MED COM @ Sprat Hall **C**
- RTI & JFHQ @ Estate Bethlehem

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**Review Charrette  
Expectations**

**JACOBS**

## Establish Charrette Expectations

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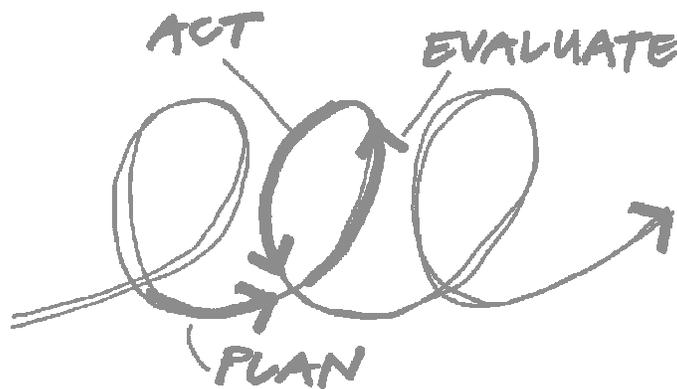
- What are the expectations for this Charrette?
  - ✓ Achieve PPD consensus with all charrette stakeholders
  - ✓ Fully understand the needs and document them with appropriate justification
  - ✓ Establish site opportunities, constraints and any additional requirements
  - ✓ Identify cost implications and constraints on the budget
  - ✓ Lay the foundation for the facility design
  - ✓ Others...

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## Discussion

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### 3. Acronyms

#### Glossary of Acronyms

<b>ARNG</b>	Army National Guard
<b>AT/FP</b>	Anti-Terrorism / Force Protection
<b>CBRNE</b>	Chemical, Biological, Radiological, Nuclear and Enhanced Conventional Weapons
<b>CCTV</b>	Closed Circuit Television
<b>CFMO</b>	Construction & Facilities Management Officer
<b>CMU</b>	Concrete Masonry Unit
<b>CoA</b>	Course of Action
<b>CST</b>	Civil Support Team
<b>CWHF</b>	Controlled Waste Handling Facility
<b>DoD</b>	Department of Defense
<b>DOIM</b>	Director of Information Management
<b>ETC</b>	Exceptions to Criteria
<b>FY</b>	Fiscal Year
<b>HEMMT</b>	Heavy Expanded Mobility Tactical Truck
<b>HVAC</b>	Heating, Ventilation, & Air Conditioning
<b>JFHG/RC</b>	Joint Force Headquarters / Readiness Center
<b>MEDCOM</b>	Medical Command Unit
<b>MILCON</b>	Military Construction
<b>MTOE</b>	Modified Table of Organization and Equipment
<b>MV</b>	Military Vehicle
<b>NGB</b>	National Guard Bureau
<b>NGB-ARI</b>	National Guard Bureau-Army Installations Division

<b>PPDC</b>	Project Planning Document Charrette
<b>POL</b>	Petroleum, Oil, and Lubricants
<b>POV</b>	Privately Owned Vehicle
<b>RTI</b>	Regional Training Institute
<b>SPIRiT</b>	Sustainable Project Rating Tool
<b>TAG</b>	The Adjutant General
<b>TDA</b>	Table of Distribution and Allowance
<b>UFC</b>	Uniform Fire Code
<b>USAF</b>	United States Air Force
<b>VCT</b>	Vinyl Composition Tile
<b>VI ARNG</b>	Virgin Islands Army National Guard
<b>WMD</b>	Weapons of Mass Destruction

#### 4. WMD-CST Criteria

08 JUN 2005

### **SUBJECT: Facility Construction Criteria for the National Guard Weapons of Mass Destruction (WMD) Civil Support Team (CST) Program.**

**1. Purpose.** To provide the State Facility Management Officers and CST Commanders with the latest space allowances/criteria and design guidance for the National Guard CST Program.

**2. Facts.**

a. The National Guard Bureau has fielded and provided Ready Buildings (CATCODE 14132) for thirty-three (33) CSTs with twenty-three (23) Teams requiring facilities. The existing CST Ready Buildings have an average area of 13,000 square feet including an average 3,100 square feet Vehicle Ready Bay. Responses from a survey conducted by the Installations Division Design Branch (ARI-DE) of existing Team Commanders regarding facilities space requirements indicated that Vehicle Ready Bay space was insufficient for storage and training. The mission, authorized strength (22 full-time) and major equipment for CST Commanders have not changed since the National Defense Appropriations Act for FY 99.

b. Civil Support Team Mission:

(1) Provide physical and technical support to civil authorities at a domestic chemical biological nuclear and high yield explosives (CBRNE) incident site; by performing situational assessments and detection to federal, state and local response elements and agencies.

(2) Provide detection, initial sample collection and CBRNE reconnaissance.

(3) Determine initial resource requirements and provide supply and maintenance support for the assessment element.

(4) Coordinate for transportation and/or air movement of assessment element.

(5) Provide internal communications within the assessment element. Coordinate for communications connectivity with civilian resources and maintain a reach-back capability for additional technical expertise.

c. Civil Support Team Equipment:

(1) The Teams are equipped with high-end detection, analytical, and protective equipment. The unit possesses satellite, secure and cellular telephone communications to provide connectivity with both civil and military forces within the operational conditions.

(2) CSTs are required to maintain personal protective equipment sets that exceed those provided to military forces. Teams are equipped to civil standards in order to operate in an area containing unknown contamination. Additionally, high-end detection equipment is required to detect a greater range of substances, including toxic industrial chemicals, organic substances, and chemical and biological warfare agents.

d. Civil Support Team Capabilities:

(1) Based upon weather and road conditions, ground transit time equates to 3 to 5 hours after departing Home Station. CST will normally be the first National Guard units to arrive at a WMD incident

(2) Any response beyond the 250-mile maximum ground movement radius may warrant the use of rotary or fixed wing aircraft. The CST equipment set is man-portable for rotary wing movement (but at a degraded capability) as well as air transportable by fixed wing aircraft at full capability.

(3) Provide CBRNE-related hazard assessments and technical advice to federal, state and local response forces and to DOD response elements to include boundaries of the affected area, distribution of hazard, type of hazard agent, and severity of damages, death, and injuries.

(4) Conduct extensive nuclear and chemical reconnaissance detection, identification and monitoring of an incident area in support of civilian response forces.

Civil Support Team Site Selection/Facilities Space Criteria:

1. Stationing location – States recommend location.

a. Ability to support the region

b. Appropriate military facilities for team and equipment

2. Logistical support

a. Rapid movement within region

b. Access to state and federal response teams

c. Access to response planning groups and meetings

d. Coverage focused on major metropolitan areas

e. Information links

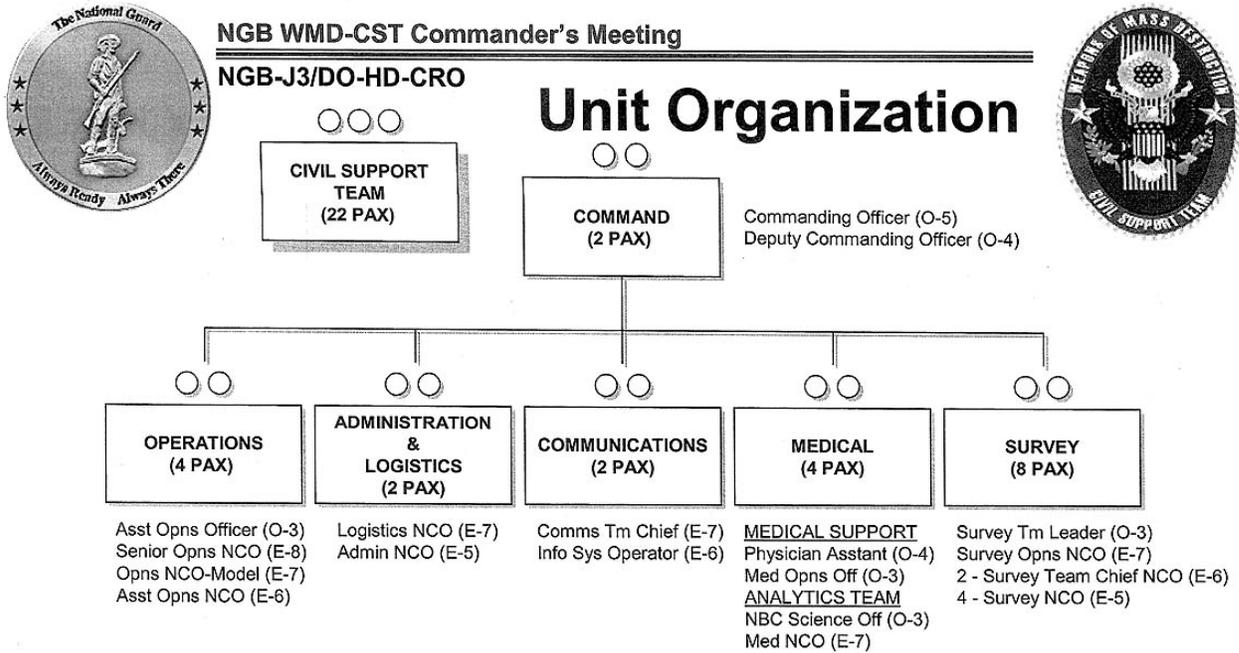
3. Facilities construction criteria are developed from NG Pam 415-12, Readiness Centers. Design guidance is ARNG Design Guides DG 415-1, Readiness Centers and DG 415-5, General Facilities Information Design Guide. The facility should be designed and constructed as one harmonious, sustainable building.

## NEW FACILITY REQUIREMENTS

<u>Schedule I, Space Allowances for Functional Areas</u>	<u>Allowance (SF)</u>
Operations Center/Crew Room 500+180	680
Classrooms	800
Library/Classroom	250
Training Aid Storage	80
Break Area	560
Vending Area	75
Toilets/Shower (Toilets 600 + showers 60)	660
Facility Maint. and Storage (2% of Total Net)	xxx
Mechanical/Electrical Equipment Room (5% of Total)	xxx
Flammable Materials Storage	100
<u>Schedule II, Unit and Special Space Allowances</u>	
Administrative Office Space:	
Basic: Unit w/75 and less	200
General Space	1000
Common use ADP terminals/printers	300
COMSEC	120
Unit Storage Space (Including Arms Vault)	2,400
Locker Room: Basic (per facility)	100
Added Space based number of people	400
Vehicle Storage/Ready Bays	4,500

ELVIN SHIELDS/607-7955  
APPROVED BY: COL EDWARD SWEENEY

### 5. CST Manning



- 32 DoD certified CST in 31 States
- 704 NG SM assigned, full time National Guard duty (Title 32) status
- Multi-service Staffed unit (80% Army (576 ARNG), 20% Air (128 ANG))
- 22 personnel (7 Officers and 15 NCOs)
- 14 military specialties
- 8 GSA Vehicles and 2 Trailers (Approximate weight, 80,540 LBS)

## 6. NG PAM 415-12

NG Pam 415-12

23 July 2003

**Table 2-2. Schedule II, Unit and Special Space Allowances (contd)**

Functional Area	Allowance		
d. Physical Exam/Flight Surgeon Space for 10-160 Exams per Year <u>12/</u>			500
e. Physical Exam/Flight Surgeon Space: <u>13/</u>			
	Exams per Year		
	<u>161-320</u>	<u>321-640</u>	<u>641-1280</u> <u>14/</u>
Reception, Waiting and Form Writing	210 square feet	280 square feet	350 square feet
Doctor's Office (80 square feet each)	80 square feet	80 square feet	160 square feet
Exam Room (110 square feet each) <u>15/</u>	220 square feet	330 square feet	550 square feet
History Station	70 square feet	70 square feet	105 square feet
Height & Weight Station	70 square feet	70 square feet	70 square feet
Blood Pressure and Pulse Station	70 square feet	70 square feet	70 square feet
Electronic Consult System (ECS) and Tonometry Station	in exam room	110 square feet	110 square feet
Lab	70 square feet	70 square feet	70 square feet
Blood Specimen Collection	70 square feet	70 square feet	70 square feet
Specimen Toilet	36 square feet	36 square feet	60 square feet
Vision Test	70 square feet <u>16/</u>	70 square feet <u>16/</u>	70 square feet <u>16/</u>
Hearing Test	90 square feet	150 square feet	210 square feet
Dental Check (100 square feet ea)	100 square feet	100 square feet	200 square feet
Circulation	345 square feet <u>16/</u>	485 square feet <u>16/</u>	675 square feet <u>16/</u>
<b>Total</b>	1501 square feet	1921 square feet	2770 square feet
f. COMSEC Material Direct Support Activities (CMDSA)			<u>17/</u>
g. Information Technology (IT) Support Activities			<u>17/</u>
h. Support Level Maintenance Training Workbays (collocated/noncollocated)			<u>18/</u>
i. Unit Level Maintenance Training Workbays			<u>19/20/</u>
j. Air/Army National Guard Weather Flight <u>21/</u>			1,500
k. Band <u>22/</u>			
Main Rehearsal Studio <u>23/</u>			1,700
Large Group Rehearsal Studio <u>24/</u>			700
Small Rehearsal Studio <u>25/</u>			350
Music Library			500
Individual Instrument Storage <u>26/</u>			520
Recording Studio <u>27/</u>			250
Unit Supply/Storage/Instrument Cleaning and Repair <u>28/</u>			1,200
Individual Practice Rooms <u>29/</u> , <u>30/</u>			870
Administrative Area <u>31/</u>			1,025
<b>Total</b>			7,115

NOTES:

1/ The appropriate space for each unit is to be selected from below and subtotaled by unit per each function. Space for headquarters, special units, or other elements having special requirements not specifically established in this schedule may be submitted to NGB-ARI for approval as an exception to criteria if supported by a clearly stated justification that is backed up by actual data (if appropriate). The word unit, when not further modified, is intended to represent TOE units, TDA units, split units and detachments.

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2/ The State uses the sum of total of all administrative space authorized for the units and lays out the work areas according to accepted guidelines.

3/ In addition to the basic space, all units, detachments, and split units are authorized additional space by the formula: 130 square feet times the sum of the number of administrative positions in the MTOE/TDA and of Federally-reimbursed State employees not on the MTOE/TDA who serve in administrative positions. Include a copy of each MTOE/TDA with each administrative position annotated, plus a list of all Federally-reimbursed State administrative positions for which space is being requested. Eligible positions include all commanders; leaders; chiefs of units, platoons, sections, and staffs; band group leaders; clerks; and all other clearly identifiable positions with a major administrative function. (Included are platoon leaders and platoon sergeants, but not squad leaders. Also included are unit supply and arms room positions.) The sizing formula does not mean persons get only 130 square feet of work area.

4/ Special administrative allowances include a secure planning/briefing room, conference/meeting rooms, operations center, files/supplies storage, etc.

5/ The allowance shown in the table for State headquarters space already includes the following: 100 square feet for COMSEC supplies/equipment; 120 square feet for a terminal room for the Worldwide Military Command and Control System (WWMCCS); and 200 square feet for the terminal room for on-line secure interactive system support.

6/ For a records storage area, you are authorized in square feet the total required strength for all assigned units divided by 20.

7/ For military records archives storage area, you are authorized in square feet the total required strength for all assigned units in the State divided by 4.

8/ Unit storage space will be computed based on authorized strength of, and cubage of the equipment (excluding vehicles/equipment provided space under military equipment parking, other items normally stored outside and provided space elsewhere, and individual clothing and equipment) authorized to the unit(s) assigned to the facility.

a. Each unit or detachment with a required strength of 55 or more is authorized:

(1) Heated storage space. A net area of 2,400 square feet within the readiness center facility for an equipment cubage of 0 to 4,000 cubic feet. This allowance includes space for a vault (300 square feet) and, if desired, a climate controlled area (maximum of 250 square feet).

(2) Unheated storage space. If total equipment cubage exceeds 4,000 cubic feet, a detached building or an equivalent area incorporated within the readiness center facility is authorized based on one of the following applicable categories:

Total Cubage In Cubic Feet	Net Square Feet (NSF) Authorized
4,001 to 8,000	$NSF = 0.6 \times (\text{Total Cubage} - 4,000)$
Exceeds 8,000	$NSF = 2,400 + 0.2 (\text{Total Cubage} - 8,000)$

b. Each unit or detachment with a required strength of less than 55 is authorized:

(1) Heated storage space. A net area (minimum of 1,000 square feet) within the readiness center facility for an equipment cubage of 0 to 4,000 cubic feet as determined by the formula listed below. The resultant allowance includes space for a vault (maximum 300 square feet) and, if desired, a climate controlled area (maximum of 250 square feet).

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$$\text{Heated Storage} = 0.6 \times \text{Total Cubage}$$

(2) Unheated storage space. If total cubage exceeds 4,000 cubic feet, use the appropriate applicable category referenced above in Note 8a(2).

9/ This 1,000 square feet authorized for the battalion supply area is intended for a temporary storage area of supplies in transit to and from organic subunits. Shelving for this area is authorized. Vaults or improved office space are not authorized. However, a wire cage partition may be erected to give security to more sensitive supplies. For the Supply and Transport Battalion (Divisional) and the Support Battalion (Separate Brigade) this 1,000 square feet is only authorized for units that have a fulltime functioning supply support activity (SSA) and is intended for a temporary storage area of supplies in transit to and from organic units within the Division or Separate Brigade.

10/ Space may be divided, provided that the total of the separate space allocated to men and women is within the total space authorized. Also, a part or the total area may be used as unit storage space.

11/ A photographic studio (20' x 25' with an approximate 10 foot ceiling height) is authorized in STARC readiness centers that do not have a collocated Public Affairs Detachment with a video mission.

12/ Not more than one examination facility will be authorized in a single readiness center.

13/ These facilities will not be authorized unless establishment of examination facilities has been approved by NGB-ARS. (See AR 40-61, para 414, and Supply Bulletin 875-27.) Not more than one examination facility will be authorized in a single readiness center. Sizes are based on operation of the facility at least 15 days per year.

14/ For over 1280 exams/year use space data for 641-1280 and increase the number of days per year the facility is operated.

15/ One room may be used for consulting, review of completed physical examination paperwork, weight control counseling or similar purposes.

16/ An additional 140 square feet is authorized to accommodate eye examinations if the facility is authorized to conduct flight physical examinations. The circulation space should then be increased by 20 square feet because of the additional 140 square feet for the eye examinations.

17/ This item refers to communications security and other information technology items (e.g., computer hardware) unique to specific units. Size to be determined in coordination with State Director of Information Management (DOIM) and NGB-AIS prior to the submission of programming documents.

18/ For a readiness center housing one or more support level surface equipment maintenance units, two maintenance training workbays per readiness center, unless additional workbays are justified as an exception, are authorized. They are to be 32 feet by 32 feet (unless unit needs dictate another configuration), oriented front to back to provide a 32 foot by 64 foot area. These bays are for use by wheeled vehicle and artillery repair elements of the unit. If the readiness center is not collocated with a Combined Support Maintenance Shop (CSMS) or a Maneuver and Training Equipment Site (MATES) with support, the following areas are also authorized for each qualifying unit:

- Supervisor's office: 100 square feet.
- Inspections and library: 110 square feet.
- Tool room: 400 square feet.
- Supply room: 300 square feet.
- Any other areas required by the unit's mission must be justified as exceptions to criteria.

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If the readiness center is collocated with a CSMS or MATES, the following items are authorized for each qualifying unit:

- Inspections and library: 110 square feet.
- Tool room: 200 square feet.
- Any other areas required by the unit's mission and not satisfied in the collocated shop must be justified as exceptions to criteria.

19/ For a readiness center housing one or more units that have a surface maintenance section or platoon with six or more mechanics identified on the Modified Table of Organization and Equipment (MTOE), two maintenance training workbays are authorized. They are to be 32 feet by 32 feet (unless unit needs dictate another configuration). Each unit is also authorized the following items:

- Supervisor office: 100 square feet.
  - Tool room: 200 square feet.
  - Supply room: 300 square feet.\*
  - Battery room: 200 square feet.
- \* Additional supply and battery room space may be justified based on the number of authorized vehicles.

20/ For a readiness center which is not authorized maintenance training workbays, a single 32 foot by 32 foot workbay is authorized for vehicle operator maintenance, minor repair to Table of Organization and Equipment (TOE)/Table of Distribution and Allowances (TDA)/Common Table of Allowances (CTA) equipment, weapons cleaning, etc. No additional area is authorized.

21/ Add 200 square feet for a Representative Weather Observation Station (RWOS). See TM 5-803-7.

22/ All spaces are required in the dimensions shown. If any spaces are omitted, corresponding adjustments to other spaces will be required to accommodate personnel and equipment required for mission capability.

23/ Average ceiling height of 20 feet to 30 feet is recommended, with 18 feet as a minimum. Minimum wall length is 30 feet.

24/ Average ceiling height of 18 feet recommended, with 15 feet as a minimum. Room should not be square.

25/ Minimum wall length is 15 feet, to allow for work space and storage.

26/ Requires 65 feet of lineal storage for instrument lockers. If this space is omitted, main rehearsal studio must be increased in size by 520 net square feet.

27/ Minimum width is 10 feet. The recording studio must have visual contact by means of soundproof glass or videocamera with the main rehearsal studio. Visual contact with the large group rehearsal studio is highly desired.

28/ Smallest wall length is 16 feet, to permit movement of large equipment items. May be configured with security cages as needed to permit various levels of access to unit members.

29/ In combination of large (80-125 net square feet) and small (55-65 net square feet) individual soundproofed rooms.

30/ Commercially available soundproofed prefabricated modules may be used, particularly in cases of renovation/renewals.

31/ Recommended configuration is 200 net square feet for the commander, 150 net square feet for the first sergeant, 225 net square feet for senior staff, and 450 net square feet for administration, operations, and full-time personnel.

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**Table 2-3. Facility Support Space Allowances**

Facility Maintenance and Storage	3% of the Total Net Area of Schedule I and II items
Mechanical/Electrical Room 1/	5% of the Total Net Area of Schedule I and II items
Telecommunications/Information Technology 1/	1% of the Total Net Area of Schedule I and II items

Note:

1/ Mechanical/Electrical and Telecommunications/Information Technology rooms may be increased or decreased based on actual design requirements. Mechanical space includes pipe and duct shafts and perimeter heating units. Additional mechanical equipment space is authorized for multiple story facilities to accommodate vertical duct requirements. This space is understood to include space for computerized controls and equipment for all facility related systems. The percentage indicated is intended as a planning guide. Final determination will be approved during the design review process.

**Table 2-4. Circulation**

Interfunctional Circulation 1/	15 percent (22 percent for multiple-story facilities) of the total net floor area (excluding unheated unit storage, unless it is incorporated within the readiness center)
--------------------------------	--

Note:

1/ This includes corridors, staircases, entrances, and a lobby. This percentage is a planning figure, and final determination will be approved during the design review process based upon what is required for a well planned functional layout.

**Table 2-5. Walls**

Walls 1/	10 percent of total net floor area, including circulation
----------	---

Note:

1/ The total floor area may be increased by 10 percent to provide for interior and exterior walls and partitions. The 10 percent figure is intended as a planning guide. Final determination will be approved during the design review process.

### Chapter 3

#### Logistical Facilities

##### 3-1. General

- a. Standards. This chapter establishes the space allowances for ARNG logistical facility construction projects.
- b. Space allowances applicable to all facility types.
  - (1) For facility support space allowances, refer to Table 3-1.
  - (2) For circulation, refer to Table 3-2.
  - (3) For walls, refer to Table 3-3.

##### 3-2. Common Supporting Items

In planning the functional arrangement of facilities, the State will give appropriate consideration to the existing site conditions, layout, and materials of construction in order to achieve maximum operating efficiency, cost effectiveness, and flexibility. The support items that are common to all logistical facility projects are:

- a. Site preparation. The work of clearing, grubbing, stripping, and stockpiling topsoil, excavating embankment, and rough grading required to develop the project site to subgrade levels and elevations for proper siting and drainage of facilities (including culverts, head walls, retaining walls, etc.). The State must use its own funds for the

**7. Basis of Estimate with Parametric Cost Estimate Details**