

Virgin Islands Department of Education  
Coastal Consistency Determination Request

Demolition and Reconstruction of the St. Croix Central High School Project,  
St. Croix, U.S. Virgin Islands

Grant Manager: #86987  
FEMA Applicant Id: #000-U6P8U-01  
June 1, 2022

The Virgin Islands Department of Education (VIDE) hereby requests your permission to undertake the FEMA funded project – **St. Croix Central High School (STXCHS) Demolition/Reconstruction Project**. The St. Croix Central High School is located at RFD #1 927, Christiansted, St, Croix, USVI 00851.



Figure 1 – USVI, St. Croix – Location Map, St. Croix Central High School

## DESCRIPTION OF PROJECT

The St. Croix Central High School was damaged during Hurricane Maria in September 2017. The purpose of the project during phase 1 is to demolish of selected buildings, including classrooms, administrative offices, library, cafeteria, kitchen, bathrooms, stairways, balconies, hallways and all fixtures, equipment and contents to make it possible for VIDE to replace. Phase 2 design/build a complete school, including classrooms, administrative offices, library, cafeteria, kitchen, bathrooms, stairways, balconies, hallways and all fixtures, equipment and contents to replace the campus with a new campus to fulfill the VIDE vision outlined in the Bridging Documents, under the Federal Emergency Management Agency (FEMA) Public Assistance (PA) program utilizing the flexibility afforded by the Bipartisan Budget Act (BBA). Phase One and Two will be done in tandem part of the campus will be demolished, and the buildings that are not being demolished will house the students and staff, once the new buildings are completed students and staff will move in to the new building and the remaining buildings will be demolished for the new construction to continue.

The general scope is primarily the safe demolition, removal and legal disposal of concrete roofs, slabs, stairs and foundations, C.M.U. walls, windows, doors, finishes, fixtures and with identification, testing and abatement of all asbestos.

VIDOE is still in the design phase for the replacement buildings but intends to demolish the St. Croix Central High School while the replacement building design is in process. Therefore, the project for this Coastal Consistency Determination request is for the demolition of the St. Croix Central High School and the New Design/Build of the St. Croix Central High School. The proposed demolition project will impact only previously disturbed areas associated with the removal of the existing St. Croix Central High School, including the existing foundations. The proposed project will begin as soon as all approvals have been finalized.



## **I. List all of the federal and territorial permits:**

**VIDE Response:** the project will obtain the required demolition permits; seek and comply with Division of Fish and Wildlife recommendations; the VISHPO concurred and the FEMA's determination of No Historic Properties Affected pursuant to 36 CFR 800.4(d)(1). (attached 1)

## **II. Detailed analysis that the project and its effects are consistent with the goals and policies of the VI Coastal Zone Management Program (VICZMP):**

### **VIDE Response:**

The St. Croix Central High School was damaged during the 2017 Hurricane Irma and Maria events and was deemed unsafe for students and faculty. The St. Croix Central High School has been assessed and deemed to be demolished. The demolition stage is the precursor to the reconstruction of the new St. Croix Central High School on the same site.

The VIDE kindly seeks your review and approval for the required Consistency Determination certification process in accordance with the Virgin Islands Coastal Zone Management Program (CZMP as required under the VI Code Section 1, VIR and Regs. Title 12, Subchapter 904, section 904-8. This project may include the security fencing, traffic control, dust control, demolition, minimal ground disturbance, asbestos abatement, air monitoring and site grading, on various sites of the StXCHS Campus. The project was outlined in the PowerPoint presentation during a March 25, 2021, multi-agency pre-application meeting and again on March 3, 2023 at another pre-application meeting.

## **ENVIRONMENTAL IMPACTS**

### ***Climate/Weather***

Once completed, the demolition of the existing St. Croix Central High School and the reconstruction of the New St. Croix Central High School will not be affected by climate or weather. During demolition, rainfall will influence the open areas created by the demolition of existing building and foundations. Sedimentation and erosion controls will be implemented to ensure rainfall will not affect the nearby drainage way during demolition.

### ***Prevailing Winds***

The Virgin Islands lie in the "Easterlies" or "Trade Winds" which traverse the southern part of the "Bermuda High" pressure area, thus the predominant winds are usually from the east-northeast and east.

### ***Precipitation***

The average annual precipitation on St. Croix is approximately 36.14 inches. Rainfall usually occurs in brief, intense showers of less than a few tenths of an inch and major rainfall events are associated with weather systems. The Virgin Islands have no sharply defined wet seasons. The wettest period generally is from August to November, and the driest period is from January to June.

### ***Landform Geology, Soils and Historic Land Use***

The soil composition of the area of the St. Croix Central High School Demolition Project site is Arawak gravelly loam ArB – 2 to 5 percent slope, ArC- 5 to 12 percent slopes, ArD – 12 to 20

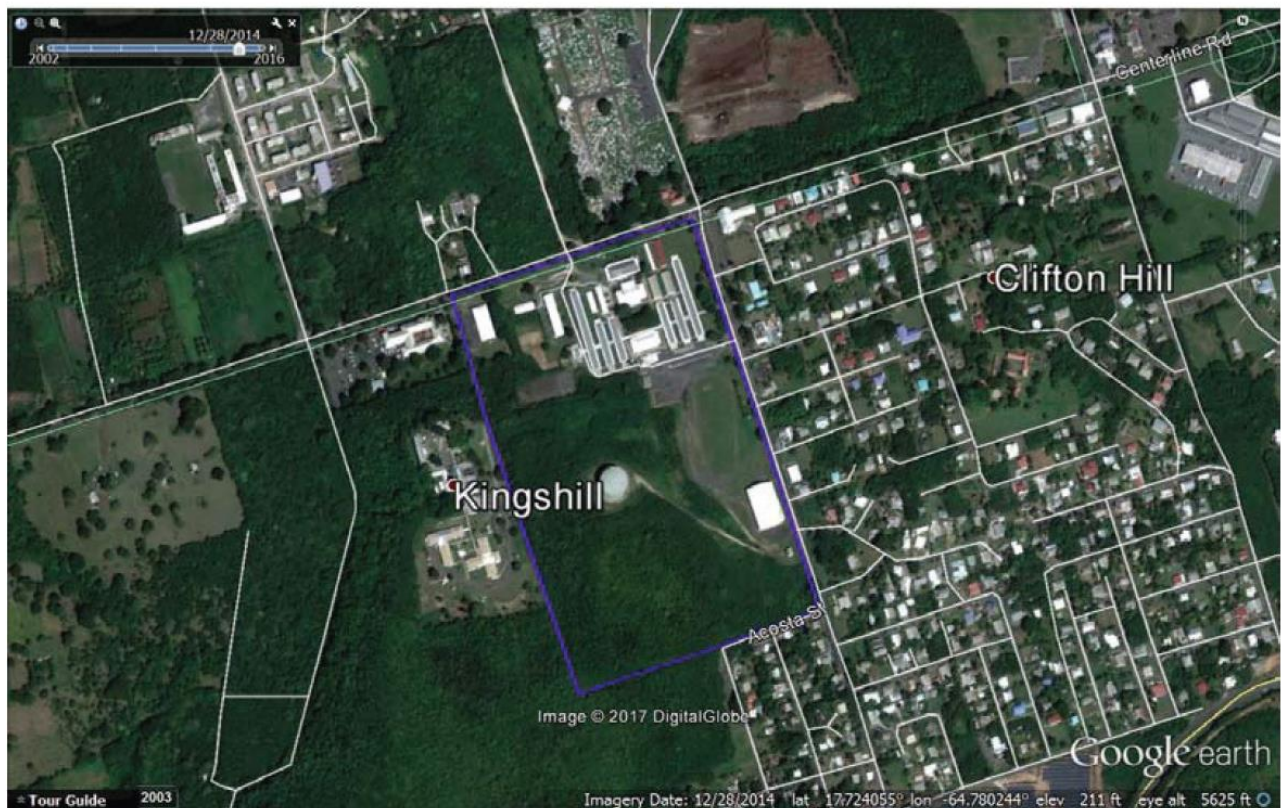
percent slopes and soils are stony. Sion Clay SiB-2 to 5 percent slopes. All work is being done in areas that have already been disturbed.

**Soils**

According to the USDA Web Soil Survey, USDA Official Soil Series Description, and the 2000 Soil Survey of the United States Virgin Islands, the following soils occur in the APE.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ArB	Arawak gravelly loam, 2 to 5 percent slopes, very stony	3.3	9.4%
ArC	Arawak gravelly loam, 5 to 12 percent slopes, very stony	16.4	47.0%
ArD	Arawak gravelly loam, 12 to 20 percent slopes, very stony	9.6	27.5%
SiB	Sion clay, 2 to 5 percent slopes	5.6	16.1%
<b>Totals for Area of Interest</b>		<b>34.9</b>	<b>100.0%</b>

**St. Croix Central High School APE (Purple)**



St. Croix Central High School Web Soil Survey map showing soils in the vicinity of the APE (in purple)



Custom Soil Resource Report  
Soil Map



### ***Drainage, Erosion Control, and Maintenance***

As the existing buildings are demolished and the site is cleared, and new construction begins drainage and erosion prevention best management practices (BMPs) shall be implemented throughout the construction site area to aid in the prevention of sediment-laden storm water runoff. These BMPs shall be focused on areas with potential of erosion, and areas preceding infiltration practices. The erosion prevention measures shall be selected on a site-specific basis. In addition, any materials requiring to be stockpiled shall be properly stored so as not to be susceptible to runoff. Examples of Erosion Prevention BMPs include, but are not limited to, silt fencing, construction entrance, concrete washout, surface roughening, erosion control blankets, turf reinforcement mats, and dust control. Guidance on the design and proper use of Erosion Prevention BMPs located in the Virgin Islands Environmental Protection Handbook, 2002 will be used.

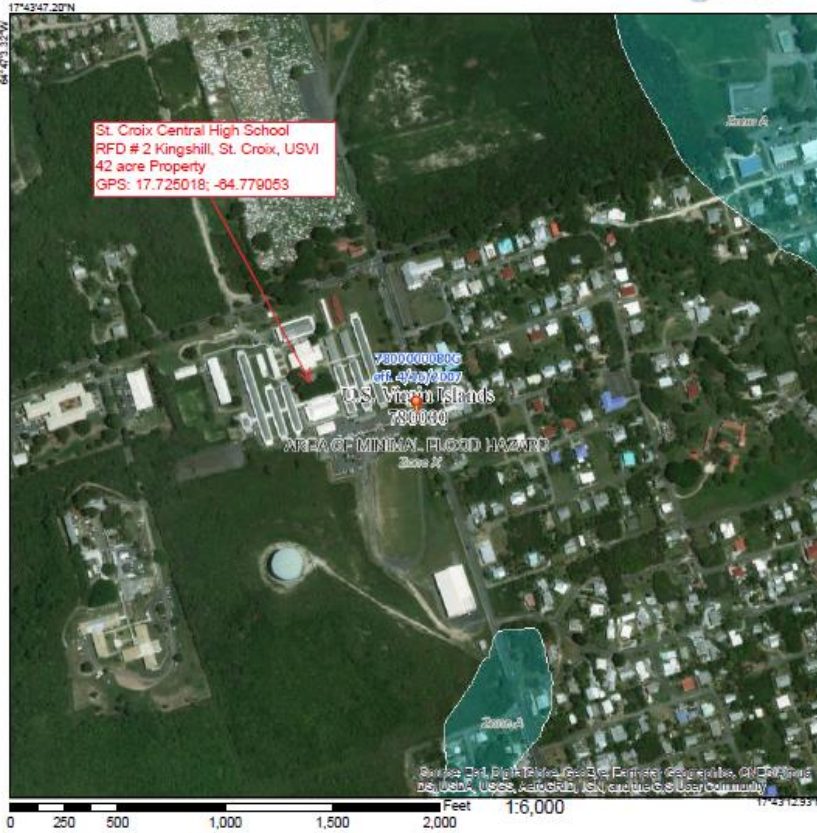
### ***Drainage Patterns***

The proposed demolition and rebuilding project will have no impact on existing drainage patterns.

### ***Coastal Floodplain***

The project is not located in a coastal flood plain. Sediment and erosion controls will be implemented in this area and any materials that need to be stockpiled overnight will be properly stored so as not to be susceptible to run off.

# National Flood Hazard Layer FIRMette



**Legend**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRMPANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone A, X, AH
- With BFE or Depth
- Regulatory Floodway Zone AH, AE, A99, VE, AF

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee, See Notes, Zone X
- Area with Flood Risk due to Levee Zone X

**OTHER AREAS**

- Area of Minimal Flood Hazard Zone X
- Effective LOMRa
- Area of Undetermined Flood Hazard Zone X

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**CROSS SECTIONS WITH 1% ANNUAL CHANCE WATER SURFACE ELEVATION**

- Coastal Tract
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Tract Baseline
- Profile Baseline

**OTHER FEATURES**

- Hydrographic Feature

**MAP PANELS**

- Digital Data Available
- No Digital Data Available
- Unmapped

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/7/2023 at 12:34:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation data, community identifiers, FIRMPanel number, and FIRMPanel effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

## Fresh Water Resources

The proposed demolition and reconstruction of the St. Croix Central High School will have no impact on freshwater resources. No freshwater ponds or streams occur within the project footprint and groundwater resources within the area are deeper than 80 inches; meaning below the depth of the proposed project.

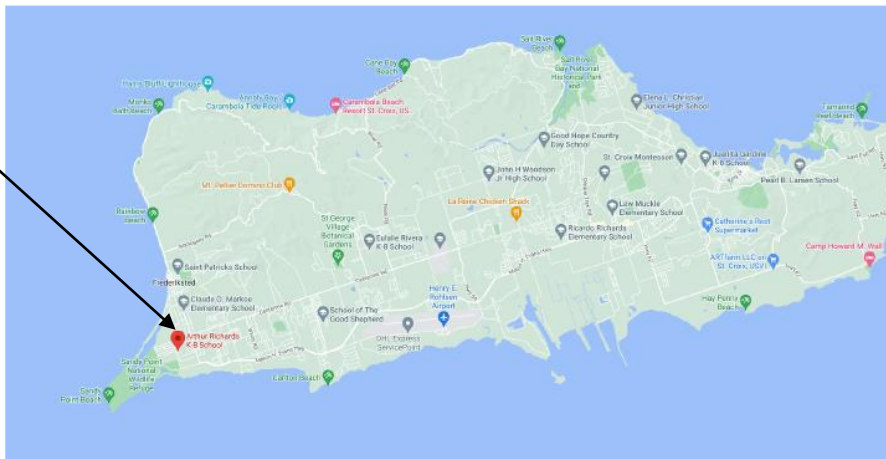
## Oceanography

The proposed project occurs well inland and will not be affected by sea storm events.

## Marine Resources

The property is located inland and will have no direct impact on the marine environment.

Location



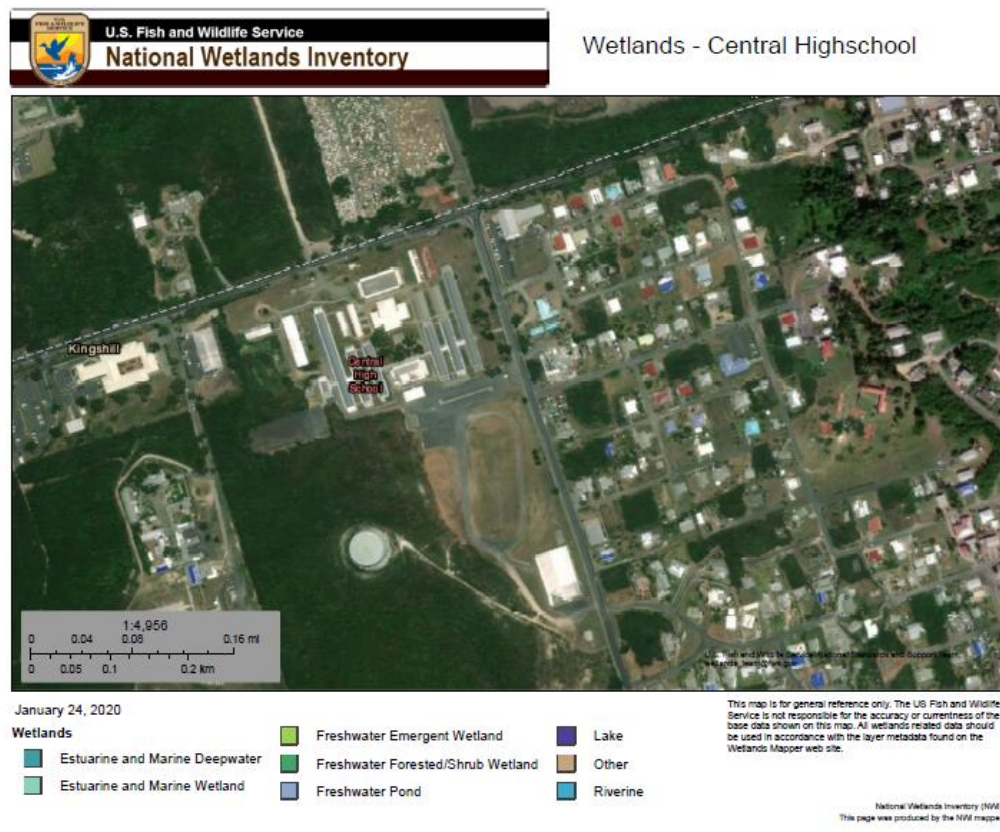


### ***Terrestrial Resources***

The proposed project will occur within existing previously developed areas. No natural terrestrial resources or any native flora or fauna will be impacted during the demolition and the reconstruction of the St. Croix Central High School.

### ***Wetlands***

The U.S. Army Corps of Engineers defines wetlands as "those areas that are periodically inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, bogs, marshes and similar areas." (U.S. Army Corps of Engineers, 1986). The project will have no impact on wetlands, as there are no wetlands in, or adjacent to, the proposed project site.



### ***Rare and Endangered Species***

No endangered or threatened species or endangered species habitat exist within proposed project site. According to the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) project tool, no endangered species, critical habitat, or migratory birds are expected to be found within the proposed project site area.

There is an endangered ground lizard (*Ameiva polops*) found on the island of St. Croix, but this lizard is only found on Buck Island, Green Cay, Ruth Cay and Protestant Cay, locations outside of the proposed project site.

There are also three endangered plant species located on St. Croix (*Agave eggertiana*, *Buxus vahlii* and *Catesbaea melanocarpa*), but these are primarily located in exposed, dry areas

- Five (5) known populations of *Agave Eggertiana* on St. Croix, all are well removed from the proposed project site.
- Three (3) known populations of *Buxus Vahlia* on St. Croix and all are well removed from the

proposed project site.

- One (1) known population of *Catesbaea Melanocarpa* on St. Croix and it is also located outside the proposed project site.

Neither the endangered ground lizard nor any of the endangered plants species are found within the proposed project footprint.

### ***Air Quality***

All of St. Croix is designated Class II by the Environmental Protection Agency, in compliance with National Ambient Air Quality Standards. In Class II air quality regions open burning, visible air contaminants, particulate matter emissions, volatile petroleum products, sulfur compounds and internal combustion engine exhaust are all regulated (Virgin Islands Code Rules and Regulations).

There will be minor increases in emissions during the demolition phase of the existing buildings due to the use of heavy construction equipment that will create combustion engine exhaust. Upon project completion, air quality will return to pre-construction conditions.

## **IMPACT ON MAN'S ENVIRONMENT**

### ***Land and Water Use Plans***

The project site is zoned R-2 Residential which complies with the Coastal Land and Water Use Plan, published 2004. Impacts on the existing site: The proposed demolition and reconstruction of the St. Croix Central High School that was destroyed by Hurricane Maria.

### ***Visual Impacts***

The proposed demolition project will remove the existing St. Croix Central High School that will remove all of the buildings which were damaged by Hurricane Maria for the eventual construction of a new facility to replace the existing function and capacity. The replacement buildings will thereby improve the visual appearance of the area and more. As a result, this project will have a positive impact on the existing landscape.

### ***Historical and Archaeological Resources***

The proposed demolition of the St. Croix Central High School that was damaged by Hurricane Maria is intended to be the initial phase of construction prior to the facilities replacement structure. The project only involves impact areas that have already been developed and will have no impact on any known historical or archeological resources. No undisturbed area will be affected.

### ***Waste Disposal and Accidental Spills***

The Virgin Islands Waste Management Authority has specific guidelines and criteria for accepting construction debris. Any excess excavated material spoils and construction debris will be collected, taken off-site, and disposed of in accordance with all governing laws and regulations. Equipment will be kept in good operational condition during the proposed project timeline and will not be fueled on site. The selected demolition contractor shall be certified in the procedural requirements for the handling, containment, and disposal of any hazardous materials identified resulting from the demolition of the St. Croix Central High School. The handling and disposal of any hazardous materials shall of in strict accordance with all governing laws and regulations.

The following policies are set forth in the U.S. Virgin Islands Code Title 12. Conservation Chapter 21, Virgin Islands Coastal Zone Management [V.I. Code tit. 12 § 903(b)]. The proposed **St. Croix Central High School Demolition Project** meets each of the basic goals of the USVI for its coastal zone as follows:



## **USVI Code Title Twelve Conservation, Chapter 21 § 903 (b)**

- 1. Protect, maintain, preserve and, where feasible, enhance and restore, the overall quality of the environment in the coastal zone, the natural and man-made resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the United States Virgin Islands.**

**Comment:** - The proposed demolition and reconstruction of the buildings will remove the existing structures that were damaged by Hurricane Maria and new construction will rebuild the New St. Croix Central High School. The project will affect only previously disturbed areas, including the existing foundations. The project will not affect any natural resources and will improve the visual image of the site and enhance the overall quality of the environment in the area. This project is located outside the coastal area and is therefore consistent with this policy.

- 2. Promote economic development and growth in the coastal zone and consider the need for development of greater than territorial concern by managing: (1) the impacts of human activity and (2) the use and development of renewable and nonrenewable resources so as to maintain and enhance the long-term productivity of the coastal environment.**

**Comment:** The proposed demolition and reconstruction project will have no impact on the economic development and growth in the coastal zone.

- 3. Assure priority for coastal-dependent development over other development in the coastal zone by reserving areas suitable for commercial uses including hotels related facilities, industrial uses including port and marine facilities, and recreation use.**

**Comment:** The proposed demolition and reconstruction project involves the complete removal of the existing buildings at the site and the reconstruction of a new school. This project is located outside the coastal area and is therefore consistent with this policy.

- 4. Assure the orderly, balanced utilization and conservation of the resources of the coastal zone, taking into account the social and economic needs of the residents of the United States Virgin Islands.**

**Comment:** The proposed demolition and reconstruction project will impact only previously disturbed areas associated with the removal of the existing buildings, including the existing foundations. The vacant lot will not negatively impact the social and economic needs of USVI residents for the immediate area, because a new campus will be constructed, that will enhance the social and economic needs of the USVI student, school staff and residents for the area.

- 5. Preserve, protect and maintain the trust lands and other submerged and filled lands of the United States Virgin Islands to promote the general welfare of the people of the United States Virgin Islands.**

**Comment:** The proposed demolition and reconstruction project will not impact trust lands or other submerged or filled lands of the U. S. Virgin Islands. The project is not located within or near trust lands.

- 6. Preserve what has been a tradition and protect what has become a right of the public by ensuring that the public, individually and collectively, has and shall continue to have the right to use and enjoy the shorelines and to maximize public access to and along the shorelines consistent with constitutionally-protected rights of private property owners.**

**Comment:** The proposed demolition and reconstruction project will in no way affect public access to, or use of, the shoreline. The project is located well inland.

- 7. Promote and provide affordable and diverse public recreational opportunities in the coastal zone for all residents of the United States Virgin Islands through acquisition, development and restoration of areas consistent with sound resource conservation principles.**

**Comment:** The proposed demolition and reconstruction project will not affect public recreational opportunities in the coastal zone.

- 8. Conserve ecologically significant resource areas for their contribution to marine productivity and value as wildlife habitats, and preserve the function and integrity of reefs, marine meadows, salt ponds, mangroves and other significant natural areas.**

**Comment:** - The proposed demolition and reconstruction project will impact only previously disturbed areas associated with the removal of the existing buildings, including the existing foundations and the reconstruction of the new campus. The project will have no impact on natural resources and will utilize best management practices (BMPs) to minimize areas of disturbance, thereby protecting adjacent habitats.

- 9. Maintain or increase coastal water quality through control of erosion, sedimentation, runoff, siltation and sewage discharge.**

**Comment:** The proposed demolition and reconstruction project will have no long-term change on sedimentation or erosion. Storm water will be directed to a gravel/ rock soak-away for percolation before any overflow into the existing drainage ways. The former building footprints will become permeable.

### **III. An assessment relating to the probable effects of the proposed activity and its associated facilities on the VICZMP.**

**Comment:** The proposed demolition and reconstruction project will have No adverse effect. Best practices and measures for erosion control will be taken in compliance with all requirements approved by DPNR in the demolition permit process. After the buildings are removed, water will percolate where before water would have collected on the roofs of the buildings and been channeled to drains and overflowed onto impervious surfaces. The impact on the school storm water drainage system of this project will be less than the existing conditions.

The proposed activity is consistent to the maximum extent practicable with the Virgin Islands Coastal Zone Management Program and will be conducted in a manner consistent with such program

Thank you for your careful consideration of this request for Consistency Determination.

## PHOTOS

ROOF: Pre-Cast Concrete with liquid applied membrane.



BUILDING EXTERIOR



**BUILDING 13 - Damage #264612**

BUILDING INTERIOR – 1<sup>st</sup> Floor Classrooms



Sagging/stained acoustical ceiling tiles (ACT) & grid



Damaged acoustical ceiling tiles (AC) metal grid



Mold on acoustical ceiling tile (ACT)



Typical sagging acoustical ceiling tile (ACT) and metal grid



Damaged vinyl composition tiles (VCT)



Spall on concrete ceiling

Stained concrete wall & window paint/damaged screen



Spall on concrete wall



Damaged window screens



Damaged ACT metal grid



Damaged soffit NE



Damaged custom-made aluminum gutter & flashing



Damaged concrete wall above window below soffit



Damaged soffit, aluminum gutter, PVC storm water pipe

Photo 41: St. Croix Central High School, main façade, primary entrance, looking north:



Photo 42: St. Croix Central High School, auxiliary buildings, looking south.

