Environmental Review Record (ERR) Sister Emma Cottage

Lutheran Social Services of the Virgin Islands

The Virgin Islands Housing Finance Authority

Community Development Block Grant—Disaster Recovery Program



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Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: Sister Emma Cottage

Responsible Entity: Virgin Islands Housing Finance Authority (VIHFA)

Grant Recipient (if different than Responsible Entity): Lutheran Social Services of the Virgin Islands (LSSVI)

State/Local Identifier: United States Virgin Islands (USVI)

Preparer: Nadalie Joseph, Environmental/NEPA Specialist, VIHFA

Certifying Officer Name and Title: Ms. Dayna Clendinen, Interim Executive Director/Chief Disaster Recovery Officer

Direct Comments to: Virgin Islands Housing Finance Authority, Attention: Dayna Clendinen 3202 Demarara Plaza, Suite 200, St. Thomas, VI 00802

Project Location: Parcel #71 Estate Concordia St. Croix, Virgin Islands (See attached location Map)





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Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The proposed project is a new construction to replace the existing Sister Emma Cottage for severely disabled children. The total project is expected to cost \$3,426,979.92. Community Development Block Grant-Disaster Recovery (CDBG-DR) will fund \$3,036,979.92. In addition to CDBG-DR funds, \$390,000.00 will be funded privately.

Sister Emma Cottage is a separate cottage on the Queen Louise Home for Children campus that provides residential foster care for children and young adults with severe developmental and physical disabilities. The existing Sister Emma Cottage will be converted to the facility's maintenance building. The building will be constructed on the existing Queen Louise Home for Children, #71 Estate Concordia West. The construction plot is owned by LSSVI and is located in close proximity to the Town of Frederiksted. The Queen Louise Home for Children lies to the north and residential properties lie to the east. The property to the west and south is undeveloped and has been undeveloped for the last 40 years. The proposed building is laid out in a connected square configuration, with classrooms, bedrooms, and a multipurpose room in one wing located south. Another set of bedrooms, storage and laundry is in a separate wing located north. A cistern and Fire water tank will be located beneath the classroom wing. Administrative offices, a kitchen and laundry will be in the east wing. Therapy room, washroom, and nurses' station is in a wing on the west side of the building. Approximate dimension of various spaces withing the proposed building are as follows (see Schematic Design (30%) in appendix):

Space	Square Footage
Kitchen/Dining Room	672 Sq. Ft.
Living/Multipurpose Room	600 Sq. Ft.
Classroom	340 Sq. Ft.
Nurses Station	273 Sq. Ft.
Nurses' Station Storage	168 Sq. Ft.
Bedrooms	1920 Sq Ft.
Therapy and Meditation Rooms	273 Sq. Ft.
Office and Services Areas	530 Sq. Ft.
Bathrooms/Washrooms	960 Sq. Ft.
Courtyard	1116 Sq. Ft
Porch	480 Sq. Ft.
Circulation	1440 Sq. Ft.

As per Schematic Design (30%), the proposed building is expected to measure approximately 9,910sqft. The construction site is estimated at 217,455sqft, with associated retention ponds, possible retaining wall and parking lot. The proposed structural exterior wall construction is 6"





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poured concrete with a stucco panted finish. At present, the roof structure anticipated is to be preengineered wood trusses. However, the roof structure could be revised to use metal framing . The roof material is proposed to be standing seal aluminum roofing. All exterior doors is proposed to be heavy duty insulated metal doors with stainless steel hardware. The windows and window wall system is proposed to be heavy duty aluminum with insulated glazing that are hurricane rated for the USVI. Wood hurricane shutters with stainless steel hardware will be installed on exterior windows shown on the elevations. The interior wall finishes is proposed to be painted gypsum board with wood trim. All interior doors will be solid core wood with hollow metal door frames. The ceiling system is proposed to be a 2x2 acoustical tile system or gypsum board on framing. The floors is proposed to be ceramic tile in all rooms except janitor closets.

Mechanical: The mechanical systems have not been determined at this stage of the project. It would be assumed that the new mechanical systems would be a two (2) stage heat pump system with one or two interior units with one or two exterior condensers. The condensing units are proposed be installed above the FEMA flood level for safety.

Plumbing: The plumbing systems have not been determined at this stage of the project. It would be assumed that the sanitary lines will be 4" minimum PVC lines sloped to the sanitary septic tank and drain field. The supply lines to the fixtures are proposed to be copper or CPVC / PVC. No fire sprinkler system is required for this facility under current codes. A 94,560 gallon cistern is proposed to be constructed under the floor as noted in the drawings. The roof drainage system will be tied into the cistern by gutters and piping.

Electrical: The electrical systems have not been determined at this stage of the project. It would be assumed that the main lines from the street shall be from a transformer furnished by WAPA. The supply lines shall be underground and made of copper. The interior main panel shall be a minimum of 400-amp panel. The final size of the electrical system shall be determined later in coordination with WAPA.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

Lutheran Social Services of the Virgin Islands, Inc. (LSSVI) is the largest private family and child services agency in the US Virgin Islands, with multi-faceted programs serving hundreds of children, seniors, and individuals with disabilities from ten (10) sites on St. Croix and St. Thomas. The LSSVI's longest running and most treasured programs is the Queen Louise Home of Children (QLH), established in 1904. Queen Louise Home for Children provides a safe haven and residential foster care for children in the US Virgin Islands who have been abused, neglected, or have severe disabilities. The children at Queen Louise Home and Sister Emma Cottage are all placed there by the Virgin Islands Department of Human Services. Most of the children at the Cottage use wheelchairs and require intensive care and medical assistance. LSSVI is the only provider of such facility in the Territory. Hurricanes Irma and Maria damaged Sister Emma's





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Cottages roof, flooded the building, toppled, and uprooted mahogany and mango trees. The children's play equipment and colorful picket fencing were destroyed.

Hurricane Maria brought torrential rains to the island and filled the debris clogged gut that runs through the campus. Floodwaters inundated the Sister Emma Cottage, and staff members rushed to evacuate children with severe disabilities out into one of our Early Head Start classrooms. All the children required assistance due to the severity of their disabilities, making it a very difficult and potentially dangerous situation. The children lost clothing, toys and medical supplies. The Cottage lost furniture, appliances, and hospital beds due to flood water.

Even with moderate rain, water penetrates through the tiles and floors and flooding has compounded the hurricane damage to Sister Emma's Cottage. This was further exasperated when the sewer backup problem continued after the storm despite clearing the sewage. The sewer was eventually abandoned and new one installed with new lines. Heavy rain leaves the staff mopping the floors and the children's wheelchairs being maneuvered with extra caution. Sister Emma's Cottage is in a 100-year floodplain and with the swale created, the cottage sits too close to the gut, and it became evident the long-term safety of the children from future hurricanes or heavy rainfall will require relocation of the Sister Emma Cottage from its proximity to the gut.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The proposed property is located at Parcel No. 71 Estate Concordia (West), U.S. Virgin Islands. The property is zoned R-2 and is between a residential area and an undeveloped segment area. The existing structures on the Queen Louise Home for Children lay adjacent to the proposed new construction and residential properties lie to the east. The properties to the west and south are undeveloped. The parcel lies less than one mile from the town of Frederiksted. According to a Phase I Environmental Site Assessment conducted by Bioimpact Inc, the elevation is 60ft in northeastern corner of the property, dips down to 50ft and then climbs to 70 in the southeastern corner. The Phase I ESA also states the adjacent properties to the west and south have been undeveloped for the last 40 years. The residential properties to the west have been in existence for 40 years. The Queen Louise Home for Children has been in existence at this site for more than 40 years. The proposed plot had been used for Agriculture prior to the establishment of Queen Louise Home for Children, while adjacent areas had been a combination of undeveloped land, agricultural land and residences





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Funding Information

Grant Number	HUD Program	Funding Amount
P-17-VI-78-HIM1	CDBG-DR	\$3,036,979.92

Estimated Total HUD Funded Amount: \$3,036,979.92

This project anticipates the use of funds or assistance from another Federal agency in addition to HUD in the form of (if applicable): NA

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$3,426,979.92

Funding Source	Amount	Activity
Private Funds	390,000.00	Architectural Design
CDBG-DR	3,036,979.92	Construction Activity

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations	
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6			
Airport Hazards 24 CFR Part 51 Subpart D	Yes No	The Sister Emma Cottage project is situated 3.24mi or 17,096.7ft from Henry E. Rohlsen Airport and there are no military airports within the US Virgin Islands.	
		The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport.	





Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No	 The project is in compliance with 24 CFR Part 51 Subpart D. See Appendix A for the following compliance documentation related to this section. A-1: Airport Distance A-2: VIPA Consult This project is not located in a CBRS Unit. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act The proposed project is in compliance with 16 USC 3501. See Appendix B for the following compliance documentation related to this
		 B-1: CBRS Map
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes No	The proposed project is located within the 100-year floodplain. The community is participating in the National Flood Insurance Program. For grants and other non-loan forms of financial assistance, flood insurance coverage must be continued for the life of the building irrespective of the transfer of ownership. The amount of coverage must at least equal the total project cost or the maximum coverage limit of the National Flood Insurance Program, whichever is less. A copy of the Flood Insurance Policy will need to be added to the applicant file prior to Close-Out. Subrecipient must obtain and maintain insurance under the NFIP as a part of this funding assistance. With flood insurance, the project is in compliance with the Flood Disaster Protection Act. VIHFA will also include provisions within the project agreement requiring applicant to





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		maintain flood insurance in perpetuity. This requirement is to be passed along with the facility and, if the property is transferred to a new owner, the transferring owner must notify the transferee of the flood insurance requirement. LSSVI will be required to submit proof of flood insurance annually for a fifteen-year period.
		Mitigation measures will comply with FEMA NFIP and DPNR Floodplain regulations. Additionally, an elevation certificate will be obtained to demonstrate compliance with elevation requirement of a minimum of 3 feet.
		The proposed project is in compliance with Flood Insurance requirements.
		See Appendix C for the following compliance documentation related to this section.
		C-1: NFHL MapC-2: Sister Emma Flood Insurance
STATUTES, EXECUTIVE OF 58.5	RDERS, AND R	EGULATIONS LISTED AT 24 CFR 50.4 &
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes No	The US Virgin Islands is not in nonattainment or maintenance status for any criteria pollutants. Also, the proposed project complies with the US Virgin Islands Monitoring Network Plan 2022, as the proposed activities would not present a significant source of sulfur dioxide or pollutants, which contribute to ozone depletion, and based on the population size and pollution sources, 40 CFR Part 58 does not require monitoring in the US Virgin Islands for CO, O3, NO2, PM10, PM2.5, SO2, and Pb. The proposed project includes construction activities or operation of an air pollution source. Therefore, an Authority to Construct Permit and a Permit to Operate will be



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		obtained, by the contractor and/or applicant, from the Department of Planning and Natural Resources - Division of Environmental Protection (DEP) Air Pollution Control Program.The project is in compliance with the Clean Air Act.See Appendix D for the following compliance documentation related to this section.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes No	 D-1: Status of VI designated areas This project is not located in and does not affect a Coastal Zone as defined in the state Coastal Management Plan. The project is in compliance with the Coastal Zone Management Act. See Appendix E for the following compliance documentation related to this section. E-1 : Coastal Zone Management Map
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes No	A Phase I Environmental Site Assessment (ESA) was done on behalf of Lutheran Social Services of the VI. Inc. on the proposed construction site to identify any potential hazardous substances or petroleum products or Recognized Environmental Concerns (RECs) on Parcel No. 71 Estate Concordia (West), U.S. Virgin Islands. An onsite visit by environmental staff of Bioimpact, inc used ASTM standards to determine whether an existing release, a past release or a potential threat of a future release exists at the proposed construction site and adjacent properties. Based on interviews with government officials, federal and standard record sources, historic use information, past uses of adjoining area and current or past uses in the surrounding area, there are no Controlled Recognized Environmental Condition



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 Fervironmental Condition (HREC) and Recognized Environmental Condition (REC) associated with the project site. A Phase I conducted in March 2020 revealed no evidence of recognized environmental conditions or concerns in connection with Parcel No. 71 Estate Concordia (West), U.S. Virgin Islands. Additionally, an on-site inspection was conducted by CDBG-DR Environmental Department on January 19, 2023. A visual assessment of the project site revealed no onsite or nearby toxic, hazardous, or radioactive substances that could affect the health and safety of project occupants or conflict with the intended use of the property were not found. EPA Facilities: The proposed project site was be mapped to identify the presence of EPA Facilities (toxic releases, Brownfields Sites, water discharges, air pollution, hazardous waste, and Toxic Substances Control Act facilities using the ArcGIS map within a 0.5 mile radius of the project is in compliance with contamination and toxic substances requirements. See Appendix F for the following compliance documentation related to this section. F-1: Sister Emma EPA Facilities Map F-2: ECHO Reports Alexander Henderson School Krystal Springs Ludwig Harrigan Stoney Ground F-3: Superfund and Brownfield Map 	(CREC) Historical Recognized
 Map F-2 : ECHO Reports Alexander Henderson School Krystal Springs Ludwig Harrigan Stoney Ground F-3 : Superfund and Brownfield Map 	 Recognized Environmental Condition (REC) associated with the project site. A Phase 1 conducted in March 2020 revealed no evidence of recognized environmental conditions or concerns in connection with Parcel No. 71 Estate Concordia (West), U.S. Virgin Islands. Additionally, an on-site inspection was conducted by CDBG-DR Environmental Department on January 19, 2023. A visual assessment of the project site revealed no onsite or nearby toxic, hazardous, or radioactive substances that could affect the health and safety of project occupants or conflict with the intended use of the property were not found. EPA Facilities: The proposed project site was be mapped to identify the presence of EPA Facilities (toxic releases, Brownfields Sites, water discharges, air pollution, hazardous waste, and Toxic Substances Control Act facilities using the ArcGIS map within a 0.5-mile radius of the proposed site. No violations were identified with surrounding EPA Facilities. The project is in compliance with contamination and toxic substances requirements. See Appendix F for the following compliance documentation related to this section.
	 F-1: Sister Emma EPA Facilities Map F-2: ECHO Reports Alexander Henderson School Krystal Springs Ludwig Harrigan
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		• F-4 : Site Inspection
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes No	Through the use of <u>IPaC: Getting Started</u> - <u>Draw on Map (fws.gov)</u> and further consultation with the US Fish and Wildlife Services, there are no endangered species found within the project site. This project is in compliance with the Endangered Species Act.
		See Appendix G for the following compliance documentation related to this section.
		G-1: USFWS Package ApprovalG-2: IPAC
Explosive and Flammable Hazards	Yes No	An Environmental Site Assessment has been conducted of Parcel No. 71 Estate Concordia
24 CFR Part 51 Subpart C		(West), U.S. Virgin Islands on January 19, 2023. According to the site inspection, there is an AST less than 1 mile away. According to results of HUD Acceptable Separation Distance for Blast Over Pressure, distance is measured at 235.80ft. and the Acceptable Separation Distance for thermal radiation for people is 303.51ft. Sister Emma is outside the Acceptable Separation Distance at a distance of 3,631,6ft.
		This project is in compliance with 24 CFR Part 51 Subpart C, Explosive and Flammable Hazards.
		See Appendix H for the following compliance documentation related to this section.
		 H-1: Acceptable Separation Distance Calculation H-2: Distance to nearest above ground gas station
Farmlands Protection	Yes No	The Queen Louise Home for Children has been in existence for more than 40 years.





Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658		Through Act No. 8723, the VI Legislature amended Official Zoning Map No. SCZ- 10 for the island of St. Croix and changed the zoning designation of Plot No. 71 Consolidate Estate Concordia, West End Quarter, St. Croix, Virgin Islands from R-2 (Residential-Low Density-One and Two Family) to R-3 (Residential-Medium Density) was passed by the Legislature of the Virgin Islands on June 14, 2023.
		This project does not include any activities that could potentially convert agricultural land to a non-agricultural use. There are no designated farmlands in the Virgin Islands. The project is in compliance with the Farmland Protection Policy Act.
		See Appendix I for the following compliance documentation related to this section.
		• I-1: Acres of Primeland Map
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR	Yes No	This project is located in a 100-year floodplain. The 8-Step Process is required. With the 8-Step Decision-Making Process was conducted
Part 55		Early Floodplain Notice appeared in local Newspapers, online sources and on the VIHFA CDBG-DR website on November 16th, 23 rd and 30 th , 2022. There were no comments from the public.
		Impacts of the proposed construction and alternatives were assessed as part of the Floodplain 8-Step Decision-Making Process.
		The existing gut bottom elevation is set at 46.0'. The top of the gut elevation is set at 52.0'. The FEMA flood zone for this site is "A". The designated finished floor elevation will be set for the new Sister Emma Cottage at 58.0' which is 6' above the Base Flood Elevation.





		 To mitigate the effect of the gut and FEMA required finish floor elevation requirements, a 12" wide poured concrete retaining wall is being considered for construction on the west and south sides of the site. A final determination will be made based on the final placement of the retention pond. The contractor will also construct a new retention pond on the south side of the building. Additional retention ponds will be constructed for future development of this site, as necessary. A Final Floodplain Notice will be combined with the Finding of No Significant Impact (FONSI) and the Notice of Intent (NOI) in local newspapers, online publication sites and VIHFA CDBG-DR website. See Appendix J for the following compliance documentation related to this section. J-1: Advisory Base Flood Elevation Map J-2: 8-Step Decision Making Process
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes No	Document Based on consultation with the Virgin Islands State Historic Preservation Office (SHPO) signed August 26, 2022 by Sean Krigger, Director and Deputy of SHPO, the project has No Potential to Cause Effects. The project is in compliance with Section 106. See Appendix K for the following compliance documentation related to this section. • K-1: Historic Consultation
		• K-2: Historic District Map
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet	Yes No	See Appendix L for the following compliance documentation related to this section.



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Communities Act of 1978; 24 CFR Part 51 Subpart B		• L-1 : Henry E. Rohlsen Noise Contour Map
Sole Source Aquifers Safe Drinking Water Act of 1974,	Yes No	There are no sole source aquifers located in the US Virgin Islands.
as amended, particularly section 1424(e); 40 CFR Part 149		The project is in compliance with the Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149.
		See Appendix M for the following compliance documentation related to this section.
		• M-1: Sole Source Aquifer Map
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes No	The proposed project would stand approximately 799.9ft(.15mi) from the nearest wetland.
particularly sections 2 and 5		According to a 8/8/22 consultation correspondence from Nicole Angeli of The Department Planning and Natural Resources- Division of Fish and Wildlife (DPNR-DFW), the wetland is southeast of the development. Trees and shrubbery in the gut should not be disturbed so as to protect the nearby pond.
		The project is in compliance with Executive Order 11990. However, subrecipient is required to adhere to condition that trees and shrubbery in gut must not be disturbed.
		See Appendix N for the following compliance documentation related to this section.
		 N-1: Sister Emma Wetland Distance Map N-2: DPNR_DFW Consultation
Wild and Scenic Rivers		There are no wild and scenic rivers in the US
Wild and Scenic Rivers Act of 1968, particularly section 7(b)	Yes No	Virgin Islands. The project is not within proximity of a NWSRS river.
and (c)		The proposed project is in compliance with the Wild and Scenic Rivers Act of 1968



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		See Appendix O for the following compliance documentation related to this section. O-1: Wild and Scenic Rivers Map
ENVIRONMENTAL JUSTIC	E	
Environmental Justice Executive Order 12898	Yes No	This project will serve severely disabled children whose previous home has been damaged by the 2017 hurricanes Irma and Maria. The project is intended to Construct a new facility to replace the Sister Emma Cottage, which has been in operation for over forty years. While assessing possible environmental impacts caused by this project, it has been determined that there are no potentially adverse impacts identified through this EA. Minor impacts are expected during construction. However, these impacts are expected to be temporary and of short duration and will be avoided and minimized through the construction permitting process with DPNR. In order to minimize impacts to the floodplain, the 8-StepDecision-Making Process was conducted as part pf the environmental review process. Alternatives in project location and design were considered and it was determined that there are no feasible alternatives to the proposed project. There will be limited impact to environmental resources and residents of Sister Emma Cottage will not be displaced during the construction process. The project is in compliance with Environmental Justice





Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. All conditions, attenuation or mitigation measures have been clearly identified.

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact May require mitigation

(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental	Impact			
Assessment Factor	Code	Impact Evaluation		
CLIMATE AND	ENERGY			
Climate Change Impacts		VITEMA USVI 2019 Hazard mitigation plan outlines potential hazard mitigation and plans to build disaster resiliency. According to VITEMA USVI 2019 Hazard Mitigation Plan, drought can have an effect in southern coastal areas on St. Croix. However, this project is incorporation potable water connection and a fire water storage cistern in construction plans.		
	3	The US Virgin Islands is considered to be very seismically active with valid record of earthquake occurrences dating back more than 500 years. It is expected that earthquake with the magnitude of year 1867 event, has a reoccurrence interval of 300-5000 years. The Project site has undergone a geotechnical investigation which provides seismic consideration based on Liquefaction of the subgrade soils. Liquefaction refers to a condition where vibration or shaking of the ground, usually from earthquake forces, results in development of excess pore pressures in loose, saturated soils and subsequent loss of strength in the deposit of soil so affected. According to the geological investigation, the liquefaction potential is low.		





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Significant flooding effects has occurred on the island of St. Croix. VITEMA hazard mitigation plan outlines 5 federal disaster declarations as a result of flooding in the Virgin Islands from since 2010. Most effects have been felt in Christiansted, but extensive flooding have occurred in Frederiksted, the location of the project site. The Project site is located in a 100-year floodplain. Construction will incorporate recommended base flood elevation for a critical action. The 8-Step Decision Making Process has also been conducted to determine the best alternative to mitigate flooding on project site and adjacent properties. Mitigation measures such as designated finished floor elevation is 58'.0, retention ponds and possible retaining wall will be implemented. Hurricane Winds are a likely source of damage currently and in the future. The USVI and Caribbean is among the most hurricane prone areas in the world according to the VITEMA Hazard Mitigation Plan. The plan outlines that newly constructed structures, that have been built in accordance with building codes, are less vulnerable than older structures. Architectural plans must be approved by the Department of Planning and Natural Resources Building Permits Division prior to the start of construction. Tsunami impacts varies within the Virgin Islands. Tsunami hazard maps have been updated and Sister Emma Cottage Site lies on or near the hazard zone. VITEMA hazard maps has been developed to define an evacuation zone for the US Virgin Islands using an 82-foot elevation profile and inundation of 2 miles from the coast. Subrecipient is encouraged to have a tsunami evacuation plan based on VITEMA guidelines. According to VITEMA Hazard Mitigation Plan, St. Croix

According to VITEMA Hazard Mitigation Plan, St. Croix residential and commercial structures are intermingled with grassland and/or shrublands. Many wildfires on St. Croix tend to be caused by persons burning garbage or clearing land for cultivation. Sister Emma Cottage has planned to build a fire water storage cistern.

Sea Level Rise has been evident in the USVI as sea level has been rising by about an inch every ten years. As the oceans and atmosphere continue to warm, sea level is likely to rise





		one to three feet in the next century. Rising sea level submerges marshes, mangroves, and dry land; erodes beaches; and exacerbates coastal flooding. The Project site is 0.8062 miles away from the Coastal High Hazard Area and isn't anticipated to be impacted by rising sea levels. See Appendix P for related documentation. P-1: VITEMA Hazard Mitigation Plan
Energy Efficiency		The Virgin Islands Energy Office (VIEO) was consulted regarding the Sister Emma Cottage construction. In a response dated 8/11/22 VIEO director Kyle Flemming proposed LED lighting, solar water heating and maximizing of natural ventilation where possible as manners in which energy efficiency can be maximized.
	2	Additionally, according to the Department of Planning and Natural Resources website, it has implemented the Tropical Energy Code Implementation Program. The Tropical Energy Code Implementation Program is a collaborative effort between the Virgin Islands Energy Office and the Department of Planning and Natural Resources to promote the adoption and implementation process of the existing draft Model Buildings Energy Tropical Codes up to the 2009 national level.
		See Appendix Q for related documentation. Q-1: Energy Efficiency Consult

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELO		Impact Evaluation
	PIVIEIN I	
Conformance with Plans / Compatible Land Use and Zoning		The Queen Louise Home for Children has been in existence for more than 40 years.
/ Scale and Urban Design	5	Through Act No. 8723, the VI Legislature amended Official Zoning Map No. SCZ- 10 for the island of St. Croix and changed the zoning designation of Plot No. 71 Consolidate Estate Concordia, West End Quarter, St. Croix, Virgin Islands from R-2 (Residential-Low Density-One and Two Family) to R-3 (Residential-Medium Density) was passed by the Legislature of the Virgin Islands on June 14, 2023.
		See Appendix R for related documentation.





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	R-1: Act No. 8723 Zone Change
	See Appendix R-2 for Zoning Consult
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	 See Appendix R-2 for Zoning Consult According to Geotechnical Investigation Report signed January 22, 2021, Glynn Gravelly Loam 2 to 5 percent slopes (GyB): This soil type is found on alluvial fans and terraces and is between 3 and 300 acres in area. The soil profile in the upper 17 inches is a dark brown gravelly clay. Between 10 and 32 inches is yellowish brown gravelly clay loam, followed by light brown very gravelly clay to 60 inches. It is well drained with a moderately slow permeability. The depth to the seasonal high-water table is deeper than 5 feet and is rarely flooded. The shrink-swell potential is moderate. This soil is in the hydrologic soil group C. Additionally, according to the geotechnical report, ground surface slopes from east to west with elevation of approximately + 70 feet MSL on the east boundary and approximately +56 feet MSL on the west boundary. Near surface soils contain high quantities of clay, there may be ponding of water where surface drainage is not adequately addressed. To mitigate possible flooding that have occurred in the area in the past, several alternatives were considered including relocation of the project to another location onsite and offsite. When the alternatives were not feasible, the best



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		this site. The final design will verify the need for three (3) or two (2) separate ponds. See Appendix S-1 for Geotechnical Investigation Report See Appendix S-1 for Schematic Design Drawing (30%)) See Appendix S-3 for Schematic Design Summary
Hazards and Nuisances including Site Safety and Noise	2	North, South and West adjacent properties are vacant. The closest residential neighbors to the construction site is located to the east. The distance from the project site to the nearest eastern neighboring residence is approximately 480 feet. In order to reduce noise nuisance, construction noise must be limited to daylight hours for the duration of the construction period. Distance to the nearest main road is .5347 miles or 2823.2ft. This distance is buffered by vegetation and residences. Residents will not be impacted by noise from the main roadway.
Energy Consumption	2	See Appendix T-1 for distance to major roadway Based on consultation with the Water and Power Authority, this project isn't expected to pose a strain on power generation or transmission. The construction of the Sister Emma Cottage replaces the existing cottage. The current cottage will be converted into a maintenance and storage building. Though some increase in consumption is expected, it is negligible. An upgrade to the distribution lines is required (approximately 16 spans) See Appendix U for related documentation. U-1: WAPA Consultation

Environmental	Impact	
Assessment Factor	Code	Impact Evaluation
SOCIOECONOM	IIC	
Employment and	1	Construction of the new facility is expected to generate
Income Patterns	1	short-term construction employment.
Demographic		The project scope involves the replacement of the existing
Character Changes,		Sister Emma Cottage which currently houses the disabled
Displacement	2	children, who will be residing in the newly constructed Sister
		Emma Cottage. Furthermore, the property is also home to the
		Queen Louise Home for children which was established in



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	1904 and locat	ed at	this prope	rty for mo	ore than	40 years.
	Demographics	and	character	changes	aren't	expected.
	Current resident	ts wil	l not be dis	placed.		

Environmental	Impact			
Assessment Factor	Code	Impact Evaluation		
COMMUNITY F	ACILITIE	S AND SERVICES		
Educational and Cultural Facilities	2	The project scope involves the replacement of the existing Sister Emma Cottage which currently houses the disabled children who will be residing in the newly constructed Sister Emma Cottage. Additionally, the project site has been part of the Queen Louise home for orphaned children and has been operational at the site for the last 40 years. Effects on Educational and Cultural facilities aren't expected.		
Commercial Facilities	2	Frederiksted town is situated less than one mile from the project site. The proposed project will occur on the existing Queen Louise Home for Children site. Therefore, the residents and staff will be subject to the same commercial facilities as current.		
Health Care and Social Services	2	Frederiksted Health Care is located less than one mile away from the proposed site. Juan F. Luis Hospital is 42,184.5ft from the site. However, the current Sister Emma Cottage has access to 24hr medical professionals. The construction of the new facility would enable residents to have the same access to health care facilities and onsite medical care. See Appendix V for related documentation. V-1: Distance to Frederiksted Health Care		
Solid Waste Disposal / Recycling	3	Debris generated would be typical of construction debris. The project site is already cleared of trees and vegetation. Additionally, no demolitions will occur prior to construction. Therefore, limited debris generation is anticipated. Subrecipient must obtain Solid Waste Permit from VIWMA relative to construction and subsequent operation of facility		
Wastewater / Sanitary Sewers	2	There are no public sewer connections within the vicinity of the project site, the sanitary effluent from the proposed facility will be managed by an on-site sewage disposal system Geotechnical Investigation Report signed January 22, 2021, recommends a septic system with a drainfield size of 1000 square feet or more, designed as a low pressure dosed system. This system will require pressurized laterals in the drainfield		



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		 that will distribute the effluent uniformly in the larger drainfield. A dosing tank and pump will be required. An operation and maintenance agreement would be required with the recommended septic system. The maximum size of a single drainfield should not be more than 1500 square feet See Appendix S for related documentation. S-1: Geotechnical Report
Water Supply	2	According to The Geotechnical Investigation Report signed January 22, 2021, the project will include both a potable water and a fire water storage cistern. The cisterns will be located under the buildings and will collect runoff from the roofs. The cistern walls are anticipated to be poured in place concrete. The walls will have to be designed to support the backfilled soil. Since this construction would connect to the Public Water System, there should be minor increase to supply needed from the Public Water System. However, this new construction replaces the existing cottage and its activities. The Current building will be converted to a maintenance and storage building where minor public water usage is expected. Subrecipient must follow recommendations assigned by the Geotechnical Investigation Report signed January 22, 2021 for the wall design are provided below.
Public Safety, Police, Fire and Emergency Medical	2	The nearest Police Station is less than one mile away from the proposed facility. The nearest fire station is 3,831ft, while the nearest Emergency Room in JFL hospital is 42,184.5ft. Sister Emma Cottage provides access to onsite medical care 24hrs per day. The newly built Sister Emma Cottage will house current residents of the existing Sister Emma Cottage. Therefore, there are no effects on Police, Fire and Emergency Medical facilities. See Appendix V for related documentation. W-1: Distance from Sister Emma-Fire Station (3,831 Feet) W-2: Sister Emma Cottage Fire Service Consult W-3: Distance from Sister Emma-Nearest Police Station (3,523.9 Feet) W-4: Distance from Sister Emma Cottage to JFL Hospital- 8.05miles (Nearest Emergency Services)
Parks, Open Space and Recreation	2	The proposed facility is located less than one mile from the newly refurbished Midre Cummings Park and the town of Frederiksted. Additionally, the property contains a play area and open space. The residents being relocated to the new



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		 facility onsite, would have access to the same parks and recreational resources on and offsite. There is also a playground onsite that residents have access to. See Appendix W-1 for related documentation. X-1: Distance from Sister Emma-Midre C Park (4,906.5 Feet).
Transportation and Accessibility	2	 The facility houses severely disabled children. Additionally, the property houses the Queen Louise Home for Children orphanage for over 40 years. The facility provides transportation to residents. See Appendix X for related documentation. Y-1: Transportation Services Consultation

Environmental	Impact	
Assessment Factor	Code	Impact Evaluation
NATURAL FEATUR		
Unique Natural		Kerten Peters, CDBG-DR Environmental Specialist
Features,		conducted a site inspection on January 19, 2023 and found
Water Resources		no unique natural features or water resources on or near the
	2	project site. See Attachment E-3 for related documentation.
Vegetation, Wildlife		The project site is currently undeveloped and has recently
		been completely cleared. However, the property is
		approximately 5.0 acres in area and has a covering of tall
		grasses and scattered brush.
	2	According to Nicole Angeli of DPNR-DFW species
	2	Sphaerodactylus beattyl, Anolis acutus, Bridled Quail
		Doves, Scaly Naped Pigeons and Kestrels can be found on
		the project site but shouldn't be harmed by construction.
		See Appendix N-2 for related documentation.
		VIDPNR-DFW Consult
Other Factors		N/A





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Additional Studies Performed:

- Phase I Environmental Site Assessment
- Geotechnical Report conducted by VITEST Engineers conducted 01/22/21

Field Inspection (Date and completed by):

• Site Inspection-12/01/2022: Conducted by Kerten Peters, VIHFA Environmental/NEPA Specialist

Agency or Source	Name	Title
VI Energy Office	Kyle Fleming	Director
VI Department of Planning and Natural Resources	Jean-Pierre Oriole	Commissioner
 Wetlands and endangered species State Historic Preservation Office Zoning 	Nicole Angeli Sean Krigger Leia Laplace-Mathew	 Director Director & Deputy State Historic Preservation Officer Territorial Planner
VI Waste Management Authority	Roger Merritt	Executive Director
VIWAPA	Andrew Smith	Executive Director
Human Services	Kimberley Causey-Gomez	Commissioner
US Fish and Wildlife	Edwin E. Muniz	Field Supervisor
Department of Public Works	Karole E. Oveson-McGregor	Deputy Commissioner of Transportation
VI Port Authority	Jerome Sheridan	Territorial Airport Manager
VI Fire Department	Daryl A. George Sr.	Director

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

List of Permits Obtained:

• None

Public Outreach [24 CFR 50.23 & 58.43]:

• VIHFA published an early floodplain notice in the newspaper and VIHFA website on November 13th, 23rd and 30th.





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 VIHFA will publish a combined Final Floodplain Notice, Finding of No Significant Impact and Notice of Intent to Request a Release of Funds in the newspaper and on the VIHFA Website for a total of 15 days

Cumulative Impact Analysis [24 CFR 58.32]:

The proposed project will improve the living conditions for 16 severely homeless children who initial residence was impacted by Hurricanes Maria and Irma during September 2017. Additionally, construction of this facility isn't expected to burden nearby, emergency, recreational, public safety and educational services. Furthermore, the proposed site is part of a property that has been developed. The construction location has already been cleared, and posses little effect on the flora and fauna of the site. Finally, this project is highly beneficial to very deserving children, staff and the community. The following are expected to be negatively impacted by the construction.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Alternative sites were considered. The LSSVI was not able to locate an available property that can accommodate the size and function of the building. Alternate properties owned by has been purchased with federal funds and airmarked for HeadStart Centers. The proposed location of the new Sister Emma Cottage will bring the cottages and the existing campus closer together, which will allow for better interaction between the children and staff for campus programs. Furthermore, the construction of the new Sister Emma Cottage at the existing Queen Louise for the Children's complex allows regular business operations to continue

No Action Alternative [24 CFR 58.40(e)]

If the building was not constructed at the site listed, a sufficiently sized building would not be suitable at other sites owned by LSSVI.

Law, Authority, or Factor

• Flood Insurance

Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]. The Property lies within a 100-year floodplain

• Clean Air

Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93-Particulate matter may increase as a result of soil disturbance.

• Floodplain Management

Executive Order 11988, particularly section 2(a); 24 CFR Part 55- Property lies within a 100-year floodplain.





Environmental Assessment Factors 24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27

• Soil Suitability/ Slope/ Erosion

Due contain high quantities of clay, there may be ponding of water and inadequate surface drainage.

• Energy Consumption

An upgrade to the distribution lines are required (approximately 16 spans

• Solid Waste Disposal/Recycling Construction debris though minor is eminent.

Wastewater/Sanitary Sewers

Onsite wastewater system must be constructed since there is no public sewer connections within the area.

• Wildlife

Species Sphaerodactylus beattyl, Anolis acutus, Bridled Quail Doves, Scaly Naped Pigeons and Kestrels can be found on the project site, but shouldn't be harmed by construction

• Climate Change Impacts

Site can be affected by natural disasters such as tsunami and hurricanes

Law, Authority, or Factor	Mitigation Measure
	For grants and other non-loan forms of financial
	assistance, flood insurance coverage must be continued
	for the life of the building irrespective of the transfer of
	ownership. The amount of coverage must at least equal
	the total project cost or the maximum coverage limit of
	the National Flood Insurance Program, whichever is less
Clean Air	Due to residents, daycare and staff inhabiting the facility
	during construction, dust control activities must be
Clean Air Act, as amended,	exercised
particularly section 176(c) & (d); 40	
CFR Parts 6, 51, 93	





Floodplain Management	Project must be elevated in accordance with 100-year Flood Plain base flood elevations. Project architectural
Executive Order 11988, particularly section 2(a); 24 CFR Part 55	design must be reviewed by VIHFA engineer.
	Mitigation measures will comply with FEMA NFIP and DPNR Floodplain regulations. Additionally, an elevation certificate will be obtained to demonstrate compliance with elevation requirement of a minimum of 3 feet.
	Construction will include a new retention pond on the South side of the building and construction of additional retention ponds for future development of the site. The new retaining may need to be constructed based on the final placement of the retention pond configuration. The retention ponds may need to be split up into two or more. The retention ponds shown on the site plan are to serve the entire developed site with all future buildings in place
Wetlands Protection	Subrecipient must adhere to the condition that trees and
	shrubbery in gut must not be disturbed.
Executive Order 11990, particularly	
sections 2 and 5	
Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]
Drainage/ Storm Water Runoff	Therefore, construction must incorporate sufficient drainage at the construction site.
Solid Waste Disposal/Recycling	Subrecipient must obtain pertinent Solid Waste Permit relative to construction and subsequent operation of facility
Wastewater/Sanitary Sewers	Follow recommended parameters to design the on-site sewage disposal system as prescribed in Geotechnical Investigation Report signed January 22, 2021 which recommends a septic system with a drainfield size of 1000 square feet or more designed as a low pressure dosed system. This system will require pressurized laterals in the drainfield that will distribute the effluent uniformly in the larger drainfield. A dosing tank and pump will be required. An operation and maintenance agreement would be required with the recommended septic system. The maximum size of a single drainfield should not be more than 1500 square feet.





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Water Supply	Follow recommendations assigned by the Geotechnical Investigation Report signed January 22, 2021 for the wall design are provided below.	
Unique Natural Features, Water Resources	Trees and shrubbery in the gut should not be disturbed so as to protect the nearby pond	
Climate Change Impacts	 Subrecipient is encouraged to have a tsunami evacuation plan based on VITEMA guidelines Architectural plans must be approved by the Department of Planning and Natural Resources Building Permits Division prior to the start of construction. 	

Summary of Findings and Conclusions:

Construction activities generate waste which may be unavoidable. This project is expected to create garbage that waste receptacles cannot support. Therefore, a permit is required to dispose in the landfill and reduce waste wherever possible. Additionally, dust nuisance and exhaust from heavy machinery is possible and must be suppressed during construction. This also is expected with construction. The project is being constructed in a floodplain. The 8-step process was applied, where alternatives were considered but not adopted. Mitigation according to base flood elevation is being required. Buildings will be elevated to 58.00. Additionally, flood insurance coverage must be continued for the life of the building irrespective of the transfer of ownership. The replacement of the Sister Emma Cottage will be critical to sixteen children and young adults with severe physical and developmental disabilities whose primary residence was damaged by Hurricanes Irma and/or Maria. The new facility will mitigate the current risks that the children face with flooding and lack of resiliency from potential hurricanes.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform	Click or tap here to enter text.For grants and other non- loan forms of financial assistance, flood insurance coverage must be continued for the life of the building irrespective of the transfer of ownership. The amount of



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Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	coverage must at least equal the total project cost or the maximum coverage limit of the National Flood Insurance Program, whichever is less
Clean Air	Due to residents, daycare and staff inhabiting the facility during construction, dust control activities must be
Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	exercised
Floodplain Management	Project must be elevated in accordance with 100-year Flood Plain base flood elevations. Project architectural
Executive Order 11988, particularly section 2(a); 24 CFR Part 55	design must be reviewed by VIHFA engineer
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Subrecipient must adhere to the condition that trees and shrubbery in gut must not be disturbed.
Environmental Assessment Factor	s [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	Subrecipient must obtain variance from legislature and any other necessary zoning approval prior to start of construction project.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	Due to high quantities of clay at the proposed site, there may be ponding of water and inadequate surface drainage. Therefore, construction must incorporate sufficient drainage at the construction site.
Energy Consumption	An upgrade to the distribution lines are required (approximately 16 spans)
Solid Waste Disposal/Recycling	Subrecipient must obtain pertinent Solid Waste Permit relative to construction and subsequent operation of facility
Wastewater/Sanitary Sewers	Follow recommended parameters to design the on-site sewage disposal system as prescribed in Geotechnical Investigation Report signed January 22, 2021 which recommends a septic system with a drainfield size of 1000 square feet or more designed as a low pressure dosed system. This system will require pressurized laterals in the drainfield that will distribute the effluent uniformly in the larger drainfield. A dosing tank and pump will be required. An operation and maintenance agreement would be required with the recommended



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A CHARACTER CONTRACTOR OF THE NT OF	U.S. Department of Housing and Urban Development 451 Seventh Street, SW Washington, DC 20410 www.hud.gov
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	septic system. The maximum size of a single drainfield should not be more than 1500 square feet.
Water Supply	Follow recommendations assigned by the Geotechnical Investigation Report signed January 22, 2021 for the wall design are provided below.
Wildlife	Care must be taken during construction to avoid harming species Sphaerodactylus beattyl, Anolis acutus, Bridled Quail Doves, Scaly Naped Pigeons and Kestrels can be found on the project site.
Unique Natural Features, Water Resources	Trees and shrubbery in the gut should not be disturbed so as to protect the nearby pond
Climate Change Impacts	 Subrecipient is encouraged to have a tsunami evacuation plan based on VITEMA guidelines Architectural plans must be approved by the Department of Planning and Natural Resources Building Permits Division prior to the start of construction.

Determination:

- Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.27]: The project will not result in a significant impact on the quality of the human environment.
- □ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]: *The project may significantly affect the quality of the human environment.*

Preparer Signature: Nadalie Joseph	Date: 09/29/23
Name/Title/Organization: Nadalie Joseph, VIHFA	
Responsible Entity Agency Official Signature	Date: 10/5/2023
Name/Title: <u>Dayna Clendinen</u> , IED/CDRO	10 -

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

