CDBG-DR Program – Territory of the U.S. Virgin Islands Construction Standards

The Territory's CDBG-DR Program activities entail both new construction and rehabilitation. The Virgin Islands Housing Finance Authority, in its capacity, as the administrator of the CDBG-DR Program for the Territory, has established the following construction standards. These standards shall apply to all projects which include CDBG-DR funding.

New Construction – For projects which entail new construction, VIHFA has adopted its Affordable Housing Development Guidelines as the standard. The Affordable Housing Development Guidelines incorporate the local building code which is based on the International Residential Code. Where necessary, new construction projects must also meet the International Energy Conservation Code (IECC). This is essentially identical to the code requirements for new construction in the U.S. Virgin Islands, as required the CDBG-DR Program's Rule. by Final (See https://www.energycodes.gov/adoption/states/us-virgin-islands for reference.). Additional standards include applicable handicap accessibility requirements, where necessary. New construction rental housing projects must also meet site and neighborhood standards as defined at 24 CFR 893.6(b).

VIHFA has also chosen to adopt the Energy Star new construction guidelines, modified to reflect the Virgin Islands' tropical climate and the agency's experience with constructing housing that will withstand hurricanes and tropical storms.

Rehabilitation – Projects which entail substantial rehabilitation as defined below are required to meet the same standards as new construction. For projects which entail acquisition with rehabilitation and rehabilitation only, VIHFA has adopted written rehabilitation standards as described in the Green Building Retrofit Checklist. VIHFA's written rehabilitation standard will be based on current local building code, to the greatest extent feasible. Rehabilitation projects are also required to meet handicap accessibility requirements, to the greatest extent feasible, where necessary – i.e., where the assisted household includes an elderly or physically challenged household member. VIHFA has also chosen to adopt the Energy Star standard with respect to equipment such as water heaters.

Acquisition Only – Projects which entail acquisition without rehabilitation are required to meet the National Electric Code and the International Residential Code with respect to plumbing only. (IRC Section VII).

In addition to the standards outlined above, VIHFA has established a list of certain amenities which will not be permitted in CDBG-DR -assisted housing. The list is attached hereto as Appendix A.

New Construction Standards

¹ The recently instituted International Residential Code is published by the International Code Council. This comprehensive, stand-alone residential construction code establishes minimum regulations for one- and two- family dwellings and townhouses using prescriptive provisions. Additionally, the International Residential Code is designed to be compatible with the BOCA National Codes published by Building Officials and Code Administrators International (BOCA), the Standard Codes published by the Southern Building Code Congress International (SBCCI), the Uniform Codes published by the International Conference of Building Officials (ICBO), and all the International Codes published by the International Code Council (ICC).

The Virgin Islands has determined that it is appropriate to utilize a modified Green Building Standard for new construction of one & two-family homes (1-2 units) and small rental properties (3-20 units).

Historic averages for high and low temperatures by month in the USVI, coupled with the fact that there is no need for space heating or cooling equipment, dictates modifications from typical Green Building requirements for building envelope insulation, air sealing, and ventilation.

Monthly Averages & Records - °F °C						
Date	Average Low	Average High	Record Low	Record High	Average Precipitation	Average Snow
January	72°	85°	63° (1996)	93° (1996)	2.38"	0"
February	73°	85°	62° (1972)	93° (1996)	1.48"	0"
March	73°	86°	56° (1972)	94° (1994)	1.42"	0"
April	74°	87°	62° (2001)	96° (1996)	2.74"	0"
Мау	76°	88°	66° (1974)	97° (1996)	3.06"	0"
June	78°	89°	67° (1972)	99° (1996)	2.53"	0"
July	78°	90°	57° (1999)	98° (1994)	2.85"	0"
August	78°	90°	59° (1999)	99° (1994)	3.74"	0"
September	78°	90°	64° (1972)	98° (1993)	5.58"	0"
October	77°	89°	66° (2007)	97° (1994)	5.42"	0"
November	75°	87°	52° (1999)	95° (1995)	5.23"	0"
December	74°	86°	62° (1972)	92° (1995)	2.96"	0"

The Virgin Islands does not appear to fall within the EPA's Radon Zone 1 or 2, although there is very little information available on EPA's Region 2 website related to the prevalence of radon in the U.S. Virgin Islands.

Program aim: Creation of resilient, energy efficient affordable housing stock

Population served: CDBG-DR-eligible income households throughout the jurisdiction

Project types: Single=family rehabilitation (1-4-unit dwellings)

Products: Low-interest loans, grants, loan/grant combinations

The VIHFA Green Building Standards for New Construction are intended to promote energy efficiency and green building practices for residential new construction projects. The Virgin Islands will follow the Green Building standards and apply all measures noted below to the extent applicable to the particular building type being constructed. ¹

Permits All reconstruction projects shall require Building, Electrical, and/or Plumbing permits, as required by Virgin Islands law.

¹ Note: Historic averages for high and low temperatures by month in the USVI, coupled with the fact that there is no need for space heating equipment, should be sufficient evidence for exemption from typical Green requirements for building envelope insulation, air sealing and ventilation. This source provides a simple format for displaying average high and low temperatures by month. http://www.intellicast.com/Local/History.aspx?location=USVI9994

Plans Architectural drawings shall be required. Drawings shall be prepared by a licensed draftsman, architect, or engineer.

Building Systems Acceptable building systems are as follows:

- a) Reinforced concrete and/or concrete block throughout
- b) Reinforced concrete and/or concrete block exterior with frame interior
- c) Steel frame with masonry exterior
- d) Steel frame with lath and plaster exterior or other composite material that may be approved by VIHFA
- e) Other structural types that may be approved by VIHFA on a case-by-case basis
- Walls Exterior walls shall be of concrete masonry units (i.e., blocks), reinforced concrete, or other structural materials that may be approved by VIHFA on a case-by-case basis.

Maximum exterior wall height shall not exceed nine (9) feet.

Wall finishes Exterior wall finish shall be cement plaster, stucco, wood shiplap boards or other structural materials that may be approved by VIHFA on a case-by-case basis. Workmanship shall be flawless – leaving an even and neat finish.

Interior wall finish shall be of cement plaster or gypsum wallboard. Ceramic tiles or prefabricated fiberglass shall be provided at showers, tubs, bathroom and laundry plumbing walls). When constructing tub and/or shower enclosures, use non-paper-faced backing materials such as, concrete blocks, 5/8" treated plywood, fiber cement board, or equivalent in bathrooms. Kitchen sink area shall have a 4" ht. min. backsplash of ceramic tiles and a double seal must be provided to prevent water penetration. This shall be accomplished by sealing the backsplash to the countertop and then utilizing a waterproof caulking on the face, filling any gaps, and leaving a slightly coved, even and neat finish.

Cistern The supply of clean water that is suitable for consumption and other household uses is of paramount importance. The interior of the cistern should be waterproof using a minimum of two (2) coats of thoroseal or and approved equal product. Once the cistern has properly cured, it should be filled with 3,000 gallons of potable water.

The cistern access should be sanitary-sealed.

Roof Roofs should be constructed of wood-frame, engineered wood and/or metal truss, steel or concrete. Structural members should be of size and type as prescribed by current building code. Roof finish shall be corrugated metal, plywood, or concrete.

Wood-frame and engineered wood and/or metal truss roofs shall have roof sheathing (5/8" plywood), tar paper and purlins prior to the installation of the corrugated metal. Composite wood products are not used in federally-assisted housing in the Virgin Islands. All cut lumber/sheathing shall be pressure treated Southern Pine/ Douglas Fir No.1&2.

Plywood and concrete roofs should be waterproofed with sealant products such as neoprene-Hypalon, or products of equal quality.

Roofs should have a minimum slope of 3:12 pitch. The maximum roof pitch should be 5:12, except in historical district where higher pitch may be required by Historical Preservation guidelines.

All roofs shall have sufficient guttering and downspouts leading water directly to cistern.

- Windows New installation windows shall be required to meet current code (rated to 145 mph wind resistance). This may include impact resistant glazing or metal shutters. A fire egress window shall be provided in each bedroom that does not have a door to the exterior. All windows shall have screens in good condition. Most homes utilize jalousie windows and ceiling fans to promote air circulation. Air conditioners are not usually installed in federally-assisted housing due to the high cost of energy on the Islands.
- Electrical Each living area within the unit shall have working outlets and light fixtures and shall be free from electrical hazards. At minimum, the dwelling shall meet the current National Electric Code (NEC) standards.

Interior Lighting

ENERGY STAR Advanced Lighting Package (ALP) will be installed; or the project will follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; or when installing new fixtures and ceiling fans, must meet or exceed ENERGY STAR efficiency levels.

Plumbing Kitchen and all bathrooms shall have hot and cold running water. At minimum, dwelling shall meet the International Residential Code (Section VII). Water conserving fixtures will be installed, using the following specifications: Toilets-- 1.6 gpf; Urinals--0.5 gpf; Showerheads-- 2.0 gpm; Kitchen faucets-- 2.0 gpm; and Bathroom faucets--1.5gpm. [gpf = gallons per flush; gpm = gallons per minute]

Pump/Water Heater

Dwelling unit shall have a water pump, tank, and heater. Pump shall have a standard 30-gallon pressure tank. Water heater shall be electric with a minimum capacity of 20 gallons. Upon installation, the water heater shall be set within the range of 100 to 110 degrees Fahrenheit. Pump, tank, and heater shall be securely enclosed to prevent theft or vandalism and exposure to weather elements. When installing domestic water heating system(s), the system(s) shall meet or exceed the efficiency requirements of the ENERGY STAR for Homes' Reference Design. Pipes will be insulated by at least R-4. Solar Water heaters may be installed if economically feasible. Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling to prevent mold.

Floor Finish With new construction, ceramic flooring tiles are used due to the hard protective layer that makes this type of flooring impervious to water and most stains, and

naturally resistant to the ravages of high humidity conditions. Contractor shall be required to provide one (1) box of tile for owner upon completion.

- Cabinets Kitchen must have-a reasonable space for storage and preparation of food. Kitchen cabinets should be sound; doors and drawers should be in place. Countertops should have laminate covering. When constructing bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces. New installation cabinets shall be commercial or custom-made with hinged doors. Cabinets shall be of luan, edai, or Philippine mahogany plywood faced and edge-banded with plastic laminate. Kitchen cabinets shall be affixed to the wall with the appropriate number and type of properly-sized screws (wood screws for frame walls and tapcon for concrete/masonry walls).
- Doors/Locks All main entry doorways shall be at least 3'0" in width. Interior room doorways shall be at least 2'8" in width; however, where construction includes handicap accessibility modifications, interior room doorway widths shall be no less than 3'0 (36").

New installation exterior doors shall be 1 3/4" flush solid core or paneled; doors shall be painted with a minimum of two (2) coats of paint or clear finish on all edges and surfaces. Exterior doors at each entrance to the dwelling shall require a dead bolt lock with a minimum 1-inch throw and an entry lockset, preferably keyed alike.

- Weatherproofing (This section reserved).
- Entrances All entries (front, side, and rear) must have some overhead coverage to ensure that no weather hits directly onto the entry door. In cases where this is not possible, or would be too costly, then partial coverage and protection will be acceptable as long as the doors which are exposed to the prevailing winds are properly protected from wind-driven rain entering the dwelling. This can also be achieved by recessing the entry door inwardly a minimum of 24".
- Stairs/Railings Entrances should have appropriately sized exterior platforms/landings. Ideally, stairway risers shall be even in height and shall not exceed eight (8) inches. Stairways having three (3) or more risers should have a handrail of 30- 34 inches in height on at least one side of the stairway. All stairs shall have a non-slip finish.

Handrails should have intermediate rails or ornamental closures (e.g., balusters, pickets, or solid walls) which would prevent passage of an object that is 4" (102 mm.) or more in diameter, shall not be conducive to climbing, and shall be a minimum of 36" high on horizontal planes.

Paint Where scope of work entails painting, a minimum of two (2) coats in addition to the appropriate type of primer coat shall be applied. All surfaces to be painted shall be properly prepared to receive finish coats. Exterior paint shall be oil or acrylic latex; interior paint shall be semi-gloss washable enamels in kitchens and baths, satin or flat finish elsewhere.

Burglar Bars Bars at egress windows must be located inside with easy-open latch.

Fire Protection

Living units shall have some provisions for safe egress in the event of fire. Smoke detectors shall be provided in the hallways and all bedrooms. Smoke detectors shall be hard-wired with battery-back-up. A fire egress window shall be provided in each bedroom that does not have a door to the exterior.

Lighting for Common Areas & Emergency Lighting:

Lighting will follow the guidance appropriate for the project type: using ENERGY STARlabeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; OR when installing new, all common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, all exit signs shall meet or exceed LED efficiency levels and conform to local building codes.

Exterior Lighting

Lighting will follow the guidance appropriate for the project type: installing ENERGY STAR-qualified fixtures or LEDs with a minimum efficacy of 45 lumens/watt; OR following the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR installing ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt.

Handicap Accessibility

Where necessary to accommodate an elderly or physically challenged household member, accessibility modifications shall be made to the greatest extent feasible. Examples of accessibility modifications include access ramps, grab bars, door handles, and accessible bathroom and kitchen fixtures. Handicap accessibility modifications shall be done in accordance American with Disabilities Act Design Guidelines.

Appliances: Installation of ENERGY STAR-labeled clothes washers, dishwashers, dryers and refrigerators, if these appliance categories are provided. Clothes dryers are to be vented directly to the outdoors, using rigid-type duct work.

Mold Inspection & Remediation:

Inspect the interior and exterior of the building for evidence of moisture problems. Document the extent and location of the problems and implement the proposed repairs according to the Moisture section of the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades.

Rehabilitation Standards

For projects which entail acquisition with moderate rehabilitation and projects which entail moderate rehabilitation only², VIHFA has adopted written rehabilitation standards as described below in the absence of a local rehabilitation code. These written rehabilitation standards are based on current local building code, to the greatest extent feasible. Rehabilitation projects are also required to meet handicap accessibility requirements, to the greatest extent feasible, where necessary – i.e., where the assisted household includes an elderly or physically challenged household member. VIHFA has also chosen to adopt the Energy Star standard with respect to equipment such as water heaters.

With respect to acquisition/rehabilitation and rehabilitation only (i.e., owner-occupied rehabilitation) projects, the particulars of Territory's CDBG-DR Program are as follows:

Program aim:	Preserving existing affordable housing stock
Population served:	CDBG-DR-eligible income households throughout the jurisdiction
Project types:	Single-family rehabilitation (1-4-unit dwellings)
Products:	Low-interest loans, grants, loan/grant combinations

Program organizational structure: The program is delivered by VIHFA staff based on a delivery model whereby the agency acts the lender/approver with construction review authority. The various duties are divided between VIHFA's Disaster Recovery Division and the Planning & Construction Management Division. Disaster Recovery is responsible for the determination of the applicant's eligibility, approval of financing packages, and general program oversight. Planning & Construction is responsible for preparation of construction scopes of work, inspections, and moderately intensive construction oversight.

² Note: Projects which entail substantial rehabilitation, as defined elsewhere in this document, are not subject to these rehabilitation standards; instead, projects which entail substantial rehabilitation are subject to the same standards as new construction projects.

Rehabilitation Standards – Description of Methods/Materials

- Permits Based on the scope of work to be undertaken, rehabilitation projects shall require Building, Electrical, and/or Plumbing Permits, as required by Virgin Islands law.
- Plans Architectural drawings shall be required when any work to be undertaken entails alterations and/or additions to an existing structure. The detail/extent of the drawings required shall be based on the nature of the proposed alteration. Drawings shall be prepared by a licensed draftsman, architect, or engineer.
- Building Systems Acceptable building systems are as follows:
 - f) Reinforced concrete and/or concrete block throughout
 - g) Reinforced concrete and/or concrete block exterior with frame interior
 - h) Steel frame with masonry exterior
 - i) Steel frame with lath and plaster exterior or other composite material that may be approved by VIHFA
 - j) Other structural types that may be approved by VIHFA on a case-by-case basis

Manufactured housing will not be assisted, except where the manufactured unit is inspected by the VIHFA and found to be a sound structure able to meet current codes.

BuildingEnvelope

Historic averages for high and low temperatures by month in the USVI, coupled with the fact that there is no need for space heating equipment, constitute sufficient evidence for exemption from Green Building requirements for building envelope insulation, air sealing and ventilation. This source provides a simple format for displaying average high and low temperatures by month. http://www.intellicast.com/Local/History.aspx?location=

Walls Exterior walls shall be of concrete masonry units (i.e., blocks), reinforced concrete, or other structural materials that may be approved by VIHFA on a case-by-case basis.

Maximum exterior wall height shall not exceed nine (9) feet.

Wall finishes Exterior wall finish shall be cement plaster, stucco, wood ship-lap boards or other structural materials that may be approved by VIHFA on a case-by-case basis. Cracks in existing exterior walls shall be sealed using a method to be approved by VIHFA. Workmanship shall be flawless – leaving an even and neat finish. Patched area should be finished with appropriate exterior material to match existing finish.

Interior wall finish shall be of cement plaster or gypsum wallboard. Ceramic tiles or prefabricated fiberglass shall be provided at showers, tubs, laundry and bathroom (plumbing walls). Kitchen sink area shall have a backsplash of ceramic tiles or else a double seal must be provided to prevent water penetration. This shall be accomplished by sealing the backsplash to the countertop and then utilizing a waterproof caulking on the face, filling any gaps, and leaving a slightly coved, even and neat finish.

Cistern The supply of clean water that is suitable for consumption and other household uses is of paramount importance. If the cistern water has not been tested within the past twelve (12) months, the cistern water must be tested by a certified laboratory for suitability. If the cistern must be cleaned, the interior of the cistern should be waterproof using a minimum of two (2) coats of thoroseal or and approved equal product. Once the cistern has properly cured, it should be refilled with 3,000 gallons of potable water.

The cistern access should be sanitary-sealed.

Roof Roofs should be constructed of wood-frame, engineered wood and/or metal truss, steel or concrete. Structural members should be of size and type as prescribed by current building code. Roof finish shall be corrugated metal, plywood, or concrete. All cut lumber/sheathing shall be pressure treated Southern Pine/ Douglas Fir No.1&2.

Wood-frame and engineered wood and/or metal truss roofs shall have roof sheathing (5/8" plywood), tar paper and purlins prior to the installation of the corrugated metal.

Plywood and concrete roofs should be waterproofed with sealant products such as neoprene-Hypalon, or products of equal quality.

Roofs should have a minimum slope of 3:12 pitch. The maximum roof pitch should be 5:12, except in historical district where higher pitch may be required by Historical Preservation guidelines.

All roofs shall have sufficient guttering and downspouts leading water directly to cistern.

- Windows Existing windows shall be free of signs of deterioration, missing or broken panes/louvers, or damaged hardware. New installation windows shall be required to meet current code (rated to 145 mph wind resistance). A fire egress window shall be provided in each bedroom that does not have a door to the exterior. All windows shall have screens in good condition. Jalousie windows are used exclusively for windows in the Virgin Islands, due to the constant need for ventilation. ENERGY STAR rated windows are not available from Virgin Island suppliers.
- Electrical Each living area within the unit shall have working outlets and light fixtures and shall be free from electrical hazards. At minimum, the dwelling shall meet the National Electric Code (NEC) standards. Where the existing unit does not meet NEC, the Scope of Work must include all tasks necessary to bring the unit into full compliance with NEC. All electrical work that is to be performed shall be based on NEC standards.

Interior Lighting

ENERGY STAR Advanced Lighting Package (ALP) will be installed; or the project will follow the ENERGY STAR MFHR program guidelines, which require that 80% of installed lighting fixtures within units must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; or when installing new fixtures and ceiling fans must meet or exceed ENERGY STAR efficiency levels.

To the greatest extent possible, new installation light fixtures should be adaptable for use with compact florescent bulbs.

- Plumbing The dwelling unit's plumbing shall be free from leaks. Kitchen and all bathrooms shall have hot and cold running water. At minimum, dwelling shall meet the International Residential Code (Section VII). Where the existing unit does not meet IRC with respect to plumbing, the Scope of Work must include all tasks necessary to bring the unit into full compliance with that section. Install or retrofit water conserving fixtures in any unit and common facility, use the following specifications: Toilets-- 1.6 gpf; Urinals--0.5 gpf; Showerheads-- 2.0 gpm; Kitchen faucets-- 2.0 gpm; and Bathroom faucets--1.5gpm. [gpf = gallons per flush; gpm = gallons per minute]
- Appliances Install ENERGY STAR-labeled clothes washers, dishwashers, and refrigerators, if these appliance categories are provided in units or common areas and replacement is required. Vent clothes dryers directly to the outdoors using rigid-type duct work. For rehabs, this is often not possible due to the existing poured wall construction. For these homes, dryers are vented into an indoor dryer vent

Pump/Water Heater

Dwelling unit shall have a water pump, tank, and heater all in good working condition – free of leaks and electrical hazards. Pump shall have a standard 30-gallon pressure tank. Water heater shall be electric with a minimum capacity of 20 gallons; upon installation, the water heater shall be set within the range of 100 to 110 degrees Fahrenheit. Pump, tank, and heater shall be securely enclosed to prevent theft or vandalism and exposure to weather elements. When replacing domestic water heating system(s), ensure the system(s) meet or exceed the efficiency requirements of ENERGY STAR for Homes' Reference Design. Insulate pipes by at least R-4. Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

Floor Finish Dwelling unit's interior floor shall be free from hazardous conditions (to include missing and/or broken floor tiles). Interior floor finish shall be vinyl tile (commercial grade) or ceramic tile (5/16" minimum thickness). Bathroom tiles must be either ceramic tile or terrazzo. Whenever possible, and where floor installation is otherwise in good condition, every effort should be made to match existing tile but, where more than 20% of the tiles need replacement and no suitable match is available, the entire room may be re-tiled. Where entire room(s) has been re-tiled, Contractor shall be required one (1) box of tile to Owner upon completion.

Cabinets, countertops and tub/shower enclosures

Kitchen must have a reasonable space for storage and preparation of food. Kitchen cabinets should be sound; doors and drawers should be in place. Countertops should have laminate covering. New installation cabinets shall be commercial or custom-made with hinged doors. Cabinets shall be of luan, edai, or Philippine mahogany plywood faced and edge-banded with plastic laminate. Kitchen cabinets shall be affixed to the wall with the appropriate number and type of properly-sized screws (wood screws for frame walls and tapcon for concrete/masonry walls). When replacing or repairing bathrooms, kitchens, and laundry rooms, use materials that have durable, cleanable surfaces. When replacing or repairing tub and/or shower enclosures, use non-paper-faced backing materials such as cement board, fiber cement board, or equivalent in bathrooms.

Doors/Locks All main entry doorways shall be at least 3'0" in width. Interior room doorways shall be at least 2'8" in width; however, where rehabilitation includes handicap accessibility modifications, interior room doorway widths shall be no less than 3'0 (36"). Where existing doorways are less than the required minimum, doorways shall be widened to the acceptable width.

New installation exterior doors shall be 1 3/4" flush solid core or paneled; doors shall be painted with a minimum of two (2) coats of paint or clear finish on all edges and surfaces. Exterior doors at each entrance to the dwelling shall require a dead bolt lock with a minimum 1-inch throw and an entry lockset, preferably keyed alike.

- Duct Sealing In buildings with ducted forced-air heating and cooling systems, seal all penetrations of the air distribution system to reduce leakage in order to meet or exceed ENERGY STAR for Homes' duct leakage standard.
- Mold Inspection & Remediation

Inspect the interior and exterior of the building for evidence of moisture problems. Document the extent and location of the problems, and implement the proposed repairs according to the Moisture section of the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades.

- Weatherproofing (This section reserved).
- Entrances All entries (front, side, and rear) must have some overhead coverage to ensure that no weather hits directly onto the entry door. Where no coverage is existing, coverage must be provided. In cases where this is not possible, or would be too costly, then partial coverage and protection will be acceptable as long as the doors which are exposed to the prevailing winds are properly protected from wind-driven rain entering the dwelling.
- Stairs/Railings Entrances should have appropriately sized exterior platforms/landings. Ideally, stairway risers shall be even in height and shall not exceed eight (8) inches. Stairways having three (3) or more risers should have a handrail of 30- 34 inches in height on at least one side of the stairway. All stairs shall have a non-slip finish.

Handrails should have intermediate rails or ornamental closures (e.g., balusters, pickets, or solid walls) which would prevent passage of an object that is 4" (102 mm.) or more in diameter, shall not be conducive to climbing, and shall be a minimum of 36" high on horizontal planes.

Paint Where scope of work entails painting, a minimum of two (2) coats in addition to the appropriate type of primer coat shall be applied. All surfaces to be painted shall be properly prepared to receive finish coats. Exterior paint shall be oil or acrylic latex; interior paint shall be semi-gloss washable enamels in kitchens and baths, satin or flat finish elsewhere. All interior paints and primers must be less than or equal to the following VOC levels: Flats--50 g/L; Non-flats--50 g/L; Floor--100 g/L. [g/L = grams per liter; levels are based on a combination of the Master Painters Institute (MPI) and GreenSeal standards.]

Lighting for Common Areas & Emergency Lighting:

Lighting will follow the guidance appropriate for the project type: using ENERGY STARlabeled fixtures or any equivalent high-performance lighting fixtures and bulbs in all common areas; OR when installing new, all common space and emergency lighting fixtures must meet or exceed ENERGY STAR efficiency levels. For emergency lighting, all exist signs shall meet or exceed LED efficiency levels and conform to local building codes.

Exterior Lighting

Lighting will follow the guidance appropriate for the project type: installing ENERGY STAR-qualified fixtures or LEDs with a minimum efficacy of 45 lumens/watt; OR following the ENERGY STAR MFHR program guidelines, which require that 80% of outdoor lighting fixtures must be ENERGY STAR-qualified or have ENERGY STAR-qualified lamps installed; OR installing ENERGY STAR compact fluorescents or LEDs with a minimum efficacy of 45 lumens/watt.

- Burglar Bars Where burglar bars are in place in an existing unit, bars at egress windows must be inside with easy-open latch. Where existing bars obstruct the function of any egress window, the burglar bars at that window must be removed or retrofitted to allow for the proper operation of the egress window.
- Fire Protection Living units shall have some provisions for safe egress in the event of fire. Smoke detectors shall be provided in the hallways and all bedrooms. Smoke detectors shall be hard-wired with battery-back-up.
 A fire egress window shall be provided in each bedroom that does not have a door to the exterior.

Handicap Accessibility

Where necessary to accommodate an elderly or physically challenged household member, accessibility modifications shall be made to the greatest extent feasible. Examples of accessibility modifications include access ramps, grab bars, door handles, and accessible bathroom and kitchen fixtures. Handicap accessibility modifications shall be done in accordance American with Disabilities Act Design Guidelines.

Termite Inspection/Treatment

Where there is evidence of termite infestation, Owner will be required to retain the services of a certified exterminator to inspect the unit to determine the nature and degree of the infestation and to treat the unit to eradicate all termites. The exterminator shall be required to provide at minimum a one-year warranty on the termite extermination. Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate sealing methods to prevent pest entry. [If applicable, provide training to multifamily buildings staff.]

Lead Safe Work Practices

For properties built before 1978, if the project will involve disturbing painted surfaces or cleaning up lead contaminated dust or soil, use certified renovation or lead abatement contractors and workers using lead-safe work practices and clearance examinations consistent with the more stringent of EPA's Renovation, Repair, and Painting Rule and HUD's Lead Safe Housing Rule.

APPENDIX A

Luxury Amenities

Certain luxury amenities will not be permitted in CDBG-DR -assisted housing units. Where the proposed CDBG-DR project entails rehabilitation or purchase of an existing unit which has existing any of the listed amenities, CDBG-DR Program staff will make a determination as to whether the unit qualifies as affordable housing despite the inclusion of said amenity. If it is determined that the unit still qualifies as affordable housing, the proposed project will be eligible for CDBG-DR assistance. Where the project entails rehabilitation, the use of CDBG-DR funds will be limited to repair of those items which are necessary to meet the rehabilitation standards. Where replacement of an item is necessary in order to satisfy the rehabilitation standards, CDBG-DR funds will be used to replace the item with a similar item of a non-luxurious nature. (Example: High-end fixtures will be replaced with quality standard grade fixtures).

Examples of "luxury amenities" include but are not limited to:

Corian[®] (or comparable composite material) countertops Marble or Granite countertops Marble tiles Hardwood floors Custom finishes (i.e., crown molding, wainscot in areas other than kitchen or bath, chair rails, etc.) (Note: Modest use of decorative glass blocks comprising less than six (6) square feet Glass blocks will be permitted). High-end plumbing fixtures **Recessed lighting** High-end electrical fixtures (i.e., chandeliers) His & her accommodations (i.e., double lavatories; double walk-in closets; separate shower enclosure and tub in the same bathroom) Built-in furnishings (i.e., bookshelves, wine racks, dressers, window seats) Stained glass windows Decorative awnings Roof tile Designer metal roofing Exotic woods (i.e., cypress, redwood, mahogany Air conditioning Heating Fireplace Finished attic Finished basement Elevator Sky light Jacuzzi Swimming Pool Fountain Brick pavement Stamped concrete

Detached garage Guest cottage Wall fences (except for retaining walls where determined to be necessary by a certified engineer or with VIHFA approval)

VIHFA has also adopted certain maximum square footage parameters based on unit size. The maximum living area square footage for the various unit size are as follows:

1-BR: 900 square feet
 2-BR: 1,100 square feet
 3-BR: 1,300 square feet
 4-BR: 1,500 square feet

For all unit sizes, the maximum entry porch area is 100 square feet.

Amenities which are permissible in CDBG-DR-assisted new construction units, but which shall not be paid for with CDBG-DR funds include those listed below. Note: Where the proposed CDBG-DR project entails rehabilitation or purchase of an existing unit which has existing any of these amenities, the presence of these amenities shall not be taken into consideration when determining whether the unit qualifies as affordable housing.

Garbage disposal Chain link fencing Security alarm systems Electronic gates Wrought iron burglar bars (security grillwork) Storm shutters Security camera