

CITY OF PORT ST. LUCIE

STANDARD REHABILITATION SPECIFICATIONS

Revised 2/22/12

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SECTION I
GENERAL

1.0 SCOPE of work shall include all labor, materials, equipment, drawings, and services necessary for the proper completion of the rehabilitation of the property identified in the work write-up.

1.1 VALIDITY: If any part of this document is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this code.

1.2 THESE SPECIFICATIONS shall be followed by the contractor and all subcontractors performing work on each rehabilitation project and are a part of each Contract for Rehabilitation.

1.3 THE WORK WRITE-UP OR CHANGE ORDER shall take precedence over the specifications when in conflict as to the material, equipment, workmanship, etc. The City shall make the final determination when a conflict exists.

1.4 ANY DRAWINGS included with the work write-up are for illustration and may not be exact or to scale. (See spec. 1.7.)

1.5 TRADE NAMES or brand names are used in the Basic Specifications to establish quality, style or type of equipment or material required.

1.6 THE TERMS "EQUAL" OR "BETTER" allow for substitutions as to the trade name. The determination of equal or better shall be made by the City. Installation of substitutions without prior approval shall be at the Contractor's risk.

1.7 THE CONTRACTOR shall be responsible for all applicable building permits and fees, the design of any foundations, piers, connection details required for permitting, utilities and sanitation facilities, exact dimensions and construction details, and for acts and omissions of his employees and subcontractors and shall employ only qualified persons, skilled in the job to which he is assigned.

1.8 SUBCONTRACTORS shall be bound by the terms and conditions of this contract insofar as it applies to their work, but this shall not relieve the General Contractor from full responsibility under the contract nor responsibility to the owner for the proper completion of all work to be performed under the contract. The General Contractor shall not be released from his responsibility by a sub contractual agreement he may make with others.

1.9 CHANGES proposed by either the contractor or the owner shall be in writing and agreed to by the City, before any change in work is started. No change orders will be issued except for code related items discovered after the work has commenced.

1.10 MATERIALS shall be new, in good condition and of the grade required by the work write-up or specifications. Materials damaged in shipment or prior to owner's acceptance shall be replaced at the contractor's expense.

1.11 WORKMANSHIP shall be done in accordance with the trades standards as "Workmanlike Manner" or "Acceptable Standards of Workmanship" and all items replaced or repaired shall be finished to match or blend with the surrounding and/or adjacent areas.

1.12 DAMAGED, deteriorated, loose, or missing items shall be reported to the City for inspection. He shall determine repair or replacement. Any damage as a result of the contractor's work shall be repaired or replaced by the contractor at no additional cost to the agency nor owner.

1.13 CODES: All work performed shall be in accordance with all locally applicable codes, laws, regulations, and rules such as: HUD's Housing Quality Standards for The Section 8 Existing Housing Program; Federal, State and local Codes; Manufacturer's Specifications and recommendations for Installation; Title X standards regarding lead based paint; and Florida Statute 469 regarding asbestos.

1.14 BUILDING OFFICIAL shall mean the locally appointed Building Official and/or his appointed assistant(s).

1.15 QUANTITIES shall be provided as an estimate in determining the area to be covered, repaired, replaced, or installed. This estimate is not intended to be an exact determination of the amount of material required. Actual field dimensions and verifications shall be the responsibility of the contractor.

1.16 APPLICABILITY: Section II of this document applies to all work performed under the local housing program, whether indicated in the work write-up or not. Instructions in other sections are applicable only when the work write-up requires a work item to be provided as described in the specification.

1.17 REPLACE shall mean to remove the existing and install a new replacement.

SECTION II

2.0 SITE WORK AND INSPECTIONS:

Compliance with the work write-up, the Florida Building Code, applicable city ordinances and specifications herein as required.

2.1 ADJACENT PROPERTY:

When adjacent property is affected by contract work, it shall be the contractor's responsibility to take whatever safeguards or precautions are necessary for the protection of the adjacent property and to notify the owner thereof prior to such actions.

2.2 DEMOLITIONS AND REMOVALS:

(A) Demolition shall be conducted in a safe and workmanlike manner.

(B) Items for removal and re-installation shall be saved and/or replaced in accordance with the work write-up and shall be properly protected or stored.

(C) Reasonable amounts of building debris may be allowed to accumulate if stored in a safe condition without causing damage to property and shall be removed when the quantity is sufficient to be economical.

(D) All removed items, unused materials and debris (with exception of saved items) shall become the property of the contractor (unless otherwise noted in the work write up) and shall be removed from premises prior to final inspection.

(E) Removed items, unused materials and debris shall not be burned or buried on the property site. Items shall not be left at the curbside for pick-up.

2.3 FINAL CLEAN UP:

(A) Upon completion of construction, the entire premises shall be cleaned cleared, and broom swept with debris removed and interior left clean. Provisions for the clean up of lead paint chips or dust shall be the responsibility of the contractor. When required by work write-up the premises shall be graded to blend with the surrounding area.

(B) When required by work write-up, crawl spaces under a dwelling not completely enclosed with a masonry foundation wall shall be graded for drainage past the exterior perimeter of the dwelling.

2.4 MANDATORY INSPECTIONS:

- (A) The contractor shall notify the City when work is ready for inspection.
- (B) Inspection requests shall be made to the City and the Contractor should provide a minimum of 24 hours notice when ordering an inspection.
 - 1. Rejection or refusal by the City to approve the work for reasons of in-completeness, code violation or inadequacy shall nullify that request for inspection. Any charge for re-inspection shall be the responsibility of the Contractor.
 - 2. It shall be assumed that the responsible contractor in charge of the work shall have inspected the work and found it to be in compliance with Code and Contract requirements before a request for inspection is made.
 - 3. Electric, plumbing, roofing and mechanical subcontractors shall be present or represented at their respective inspections.
- (C) No work shall be done on any part of a building or structure beyond the point indicated herein until such inspection has been made, approved, and signed off for each successive step of construction as indicated by each of the following:
 - 1. Demolition Inspection: To be made after demolition or removal and before replacement work begins.
 - 2. Foundation Inspection: To be made after necessary excavations have been made, forms erected and reinforcing steel has been placed.
 - 3. Pier Inspection: To be made after piers are completed.
 - 4. Reinforcement Inspection: To be made after all reinforcing steel is in place and before pouring concrete.
 - 5. Rough Plumbing Inspection: To be made after completion of rough in as required by local codes.
 - 6. Rough Electrical Inspection: To be made after completion of rough in as required by local codes.

7. Framing Inspection: To be made at each floor level and after all framing, fire blocking, furring and bracing are in place, and when sub-flooring, plumbing, and electrical work is roughed in.
 8. Sheathing Inspection: To be made upon completion of roof or wall sheathing. Existing sheathing/decking to remain shall be inspected after being uncovered and re-nailed.
 9. Roofing Inspection: To be made in accordance with manufacturer's installation specifications and at the completion of fastening the anchor sheet and flashing (including eaves drip or gravel stop), prior to tar and gravel flood coat, and upon completion of the roof covering.
 10. Window and Door Inspection: To be made after windows and doors are installed and before attachments and connections to the building frame are concealed.
 11. Gypsum Inspection: To be made after gypsum board (drywall or lathing) is fastened, spackled and taped, but before paint or other finish is applied.
 12. Painting Inspection: To be made upon invoicing.
 13. Insulation Inspection: To be inspected before being concealed.
 14. Plumbing Inspection: To be made after completion of all plumbing work.
 15. Electrical Inspection: To be made after completion of all electrical work.
 16. Special Inspections: To be made of all mechanical installations, awnings, etc., and at such intervals during the progress of the work as may be required by the City and upon completion of work.
 17. Other Inspections: To be made as the City requires.
 18. Final Inspection: to be made after all work has been completed and the structure is ready for use or occupancy, and the contractor has obtained a Certificate of Occupancy from the Building Official.
- (D) No reinforcing steel, structural work, plumbing, electrical, mechanical, gas nor roofing shall be covered or concealed in any manner whatsoever without the approval of

the Building Official and City. The City and the Building Official reserve the right to request the removal of any covered installation and the cost of re-installation or items or materials shall be borne by the Contractor.

(E) The City reserves the right to conduct tests to determine compliance with codes and specifications, including, but not limited to, tests of materials and strengths (for example, grab bar thrust resistance). Damage to the property resulting from the failure of work to meet required strength, resistance or other performance standards shall be corrected by the contractor at his own expense.

2.7 HOUSE RAISING:

(A) House raising shall be performed when required to level a dwelling or to do extensive foundation, pier, or floor framing work.

(B) Dwelling shall be entirely and uniformly raised and lowered using a procedure that the contractor determines to cause minimal or no damage to the dwelling.

(C) Piers, foundation walls and supporting members shall be properly constructed to be level, plumb, and equal in finished height prior to lowering of dwelling,

(D) Spot raising may be performed in a workmanlike manner in order to bring a portion of a dwelling to the same level as that of the rest of the structure, or when replacing piers.

(E) The contractor/subcontractor performing house raising shall be fully insured against any and all damages to the structure and contents resulting from such raising, and shall be responsible for correcting any resulting damages.

2.8 PEST CONTROL INSPECTION:

(A) The general contractor shall obtain a local licensed pest control operator for the extermination of pests and insects when required by work write-up.

(B) Exterminators and exterminating procedures shall be in compliance with State and Federal regulations, such as State Law Chapter 482 and HRS Chapter 10D-55 Entomology.

(C) Upon completion of work, a certificate of extermination and one-year warranty signed by the licensed operator shall be provided to the City.

SECTION III

3.0 CONCRETE:

Compliance with the work write-up, Florida Building Code, and specifications herein as required.

3.1 SOIL AND COMPACTION:

(A) Concrete footings and slabs shall be poured on undisturbed soil or soil compacted to a minimum of ninety five percent (95%) of standard laboratory density, or as directed by a licensed structural or foundation engineer.

(B) Areas to receive fill shall be free of vegetation, rocks, debris, deleterious and foreign materials and graded to drain away from building.

3.2 CONCRETE CONSTRUCTION:

(A) Concrete shall be ready-mixed concrete of no less than two thousand five hundred (2,500) pounds per square inch (PSI) strength in twenty-eight (28) days.

1. Ready-mixed concrete shall be certified by delivery ticket as to component mixture and any additional components (water, etc.) added at job site shall be written on the ticket.
2. No concrete shall be re-tempered after it has taken an initial set nor shall any concrete be deposited more than one and one-half (1 1/2) hours after mixing.
3. No concrete shall be poured when surrounding temperature is lower than 40 degrees Fahrenheit.

(B) Areas to receive concrete, either formed or unformed, shall be squared, leveled and plumbed prior to pouring. The complete formed area shall be poured in one continuous pour. Cold joints will not be allowed.

(C) When forms are used they shall be of sufficient strength and properly braced to resist movement.

(D) Grade stakes and/or key cove should be used to control concrete depths in larger irregular concrete pours.

(E) No loads shall be placed on finished concrete for twenty-four (24) hours thereafter.

3.3 CONCRETE FINISH:

(A) Concrete shall be finished level to avoid ponding of water.

(B) Interior concrete shall be smooth trowel finished and sealed or as required by the architect.

(C) Exterior concrete walkways shall be broom finished perpendicular to path of travel.

(D) Exposed edges of all concrete shall be edged with edging trowel.

3.4 CONCRETE FOOTING:

(A) Concrete footing design, connection details and other permit requirements shall be designed by a licensed engineer and shall be the responsibility of the contractor when new footings are required by the work write up.

(B) Pier footings, whether new or re-constructed when called for in the work write up, shall be appropriately designed by a licensed engineer. All designs, connection details, wind and roof load calculations shall be the responsibility of the contractor.

3.5 CONCRETE SLABS:

(A) Concrete slabs shall be no less than three and one-half (3 1/2) inches thick. For interior floor slabs, a minimum of six (6) mil polyethylene (visqueen) vapor barrier shall be installed between ground and concrete.

(B) All concrete slabs shall be reinforced with 6" x 6" 10/10 wire fabric placed at mid-depth of concrete or as required by the architect.

(C) All exterior steps, ramp landings, or stairs shall rest upon a poured concrete slab, extending a minimum of four inches (4") out from sides and back of steps, with an apron extending thirty-six inches (36") out in front of steps. Steps, as well as handrails (when required) shall be anchored to concrete.

3.6 EXTERIOR CONCRETE:

(A) All concrete slabs shall be provided with control joints approximately ten feet (10') apart in each direction. Control joints shall extend completely through the depth of the concrete; metal key cove may be used.

(B) All exterior concrete slabs shall be pitched to drain away from dwelling and shall not puddle (hold water) more than one-eighth inch (1/8") deep.

(C) Concrete slabs located more than thirty inches (30") above the floor or grade below shall be equipped with guardrails (see spec. 5.5).

3.7 CONCRETE PIERS, COLUMNS, BEAMS, AND LINTELS:

dead Concrete piers, columns, beams, and lintels shall be designed and erected to carry the and live loads to be imposed on them as to size, components, and bearing, and shall be designed by a licensed engineer. All design and permit requirements shall be the responsibility of the contractor.

3.8. DAMAGED CONCRETE:

(A) Concrete that is cracked, failing or deteriorated shall be removed and replaced with new concrete. Do not repair.

(B) Concrete that is about to fail due to erosion of the earth supporting it may be pressure grouted or underpinned with concrete when approved by City.

SECTION IV

4.0 MASONRY:

Compliance with the work write-up, Florida Building Code and specifications herein as required.

4.1 HOLLOW UNIT MASONRY BLOCKS:

(A) Hollow unit masonry block (concrete block) shall be eight inches by eight inches by sixteen inches (8" x 8" x 16") unless otherwise specified in work write-up and shall comply with the American Society for Testing Materials (ASTM).

1. Hollow unit masonry block (concrete block) shall not be used for footers, footings, steps, nor at any time with cells turned horizontally.
2. Concrete block may be stack bond (one on top of another) only when used for piers and columns and shall be filled with concrete or type M, S, or N mortar, regardless of height, or as directed by the design engineer.
3. Concrete block shall be staggered horizontally in vertical courses when used in wall construction.
4. All concrete block shall be laid in head and bed mortar joints consistent in thickness of no less than three-eighths inch (3/8") nor more than five-eighths inch (5/8") type M, S, or N mortar. No concrete block shall be installed when wet.

(B) Anchorage and/or reinforcement shall be required when concrete blocks support sills, girders, joists, framing or lintels (by means of anchor bolts, straps, and/or durawall). The following requirements are to be used as minimum requirements, and may be exceeded at the direction of the design engineer.

1. Anchor bolts, as required by the design engineer.
2. Anchor straps for girders, joists and framing shall be steel one-eighth inch thick by one inch wide by twelve inches long (1/8" x 1" x 12") embedded six inches (6") into concrete or type M, S, or N mortar and protruding out of the top of the concrete block six inches (6").

3. Foundation walls erected with concrete block shall be filled with concrete or type M, S, or N mortar when over two feet (2') in height shall have durawall reinforcement installed continuously in every other horizontal bed joint sixteen inches (16") on center vertically in height.
 4. Piers over thirty-two inches (32"), (4 block) in height shall have one (1) bar of #5 5/8" steel embedded in each block core vertically and embedded into the footer a minimum of six inches (6") with a six inch (6") hook. All piers shall be filled regardless of height.
- (C) Foundation walls below grade shall be provided with a sealer on the exterior of the foundation walls to prevent the penetration of moisture or water.

4.2 BRICK:

- (A) Brick shall conform to the American society for Testing and Materials (ASTM) and shall be laid with full head and bed joints of which the average thickness shall not exceed one-half inch (1/2").
- (B) Brick shall be attached to block or framed walls by galvanized wall ties every thirty-two inches (32") on center horizontally and every twenty-four inches (24") on center vertically.
- (C) Weepholes shall be provided at four feet (4') on center by omitting mortar in the vertical joints at the bottom course. A shield or insect barrier shall be provided which has openings or louvers one-sixteenth inch (1/16") or less which drains and dries the inner cavity but will retain poured insulation.
- (D) Brick or mortar joint reinforcement shall be installed when required.

4.3 REPAIRS AND REPLACEMENTS:

- (A) No masonry shall be laid when surrounding temperature is lower than 40 degrees Fahrenheit.
- (B) All masonry repairs or replacement shall match existing or surrounding areas and be uniform.

4.4. STUCCO:

Stucco shall comply with requirements of the American Society for Testing and Materials (ASTM) and the American National Standard Institute, Inc. (ANSI).

4.5 CRAWL SPACE:

(A) Ventilation openings shall be provided for enclosed crawlspace according to the Florida Building Code, using louvered vents.

(B) Crawlspace enclosed with ventilated vinyl skirting shall be extended from finished grade to exterior wall siding level, and shall be securely fastened to pressure-treated framing.

(C) When a crawl space of eighteen inches (18") or more in height exists under a dwelling, enclosed with foundation walls, an access opening shall be provided of no less than eighteen inches high by twenty-four inches (18" x 24") wide.

1. Access openings shall be readily accessible and shall have a door or covering that may be easily opened or removed.
2. Access doors shall be tightly fitted, with hinges and throw bolt.
3. Framing and door shall be of pressure treated material.

4.6 PLASTERING:

Plastering shall comply with requirements of the American Society for Testing Materials (ASTM) and the American National Standards Institute, Inc. (ANSI).

SECTION V

5.0 INGRESS AND EGRESS PROTECTION:

Compliance with the work write-up, Florida Building Code, manufacturer's specifications and specifications herein as required. For required concrete landings and support, see specification 3.5 – C.

5.1 STEPS OR STAIRS:

(A) Steps or stairs shall not be less than three feet (3') in width. May be pre-cast concrete or constructed from pressure treated wood. If constructed with wood, at least three stringers must be used.

(B) A flight of stairs shall not change in direction of travel unless a landing is provided (see spec. 5.2).

5.2 LANDINGS:

(A) Stairs, steps and ramps shall be provided with landings at the top, at the bottom, and at any change in direction. No door shall open immediately over a step or stair. A landing shall be provided at the same elevation as the floor of the door it serves.

(B) Landings shall be no less than three feet (3') in width or length and level in grade. Landings thirty inches (30") or more above grade or a floor below shall be protected by guardrails (see spec. 5.5).

5.3 RAMPS, LANDINGS AND PLATFORMS:

(A) A ramp shall be no less than thirty-six inches (36") in clear width nor greater in slope than one foot (1') of vertical height in twelve feet (12") of horizontal length.

(B) A ramp shall not change in grade from the bottom to the top, or between platforms.

(C) A ramp shall be provided with a landing at the bottom of the ramp and a platform at the top of the ramp, at intervals of no more than thirty feet (30') in length, at any change in direction of travel and at any door opening.

1. The bottom landing or approach to a ramp shall be no less than three feet in width by six feet in length (3'x 6') or approach to the ramp.

2. The top platform of a ramp shall be no less than five feet in width by three feet (5' x 3') in length (depth or protrusion).
 3. Where a door opens onto a ramp, a platform shall be provided of no less than five feet (5') in length or path of travel and at the same elevation as the floor of the door it serves.
- (D) Ramps and platforms shall be provided with handrails and guardrails (see spec. 5.4 and 5.5).
- (E) Exterior ramps shall be made of non-slip materials.
- (F) All landings or platforms shall be level in grade and no less than three feet in width by three feet (3' x 3') in length or depth.

5.4 HANDRAILS:

Handrails shall be provided, designed, and built to comply with the requirements of specification 5.0 as to dimensions for height, width, spacing, horizontal thrust, strength, number, and protection.

- (A) Handrails shall be provided on stairs, steps and ramps rising more than thirty inches (30") above a floor or grade and stairways of more than three (3) risers.
- (B) The top member of a handrail shall be smooth surfaced.
- (C) Handrails shall be located no less than thirty inches (30") nor more than thirty-four inches (34") above the leading edge of a tread.

5.5 GUARDRAILS:

- (A) Guardrails shall be provided, designed and built to comply with the requirements of specification 5.0 as to dimensions for height, width, spacing, horizontal thrust, strength, number and protection.
1. Guardrails shall be provided at unenclosed floor openings, landings, platforms, ramps, balconies or porches which are more than thirty inches (30") above grade, and on unenclosed sides of stairs, steps, and ramps rising more than 30" or 3 risers.
 2. Guardrails shall be provided with intermediate rails, lattice work, or ornamental pattern constructed so that a sphere six inches (6") in diameter cannot pass through.

3. Guardrails on steps shall be to the height specified for handrails. All other locations shall have a minimum of 36" in height.
4. The top member of a guardrail shall be sanded smooth.

5.6 DOORS:

(A) All doors used for ingress and egress shall be six feet eight inches (6'8") in height and three feet (3' 0") in width and hung with a clearance around the perimeter of no less than one-sixteenth inch (1/16") nor more than one-eighth inch (1/8").

(B) All doors shall be hung in jambs and casings that are plumb and level. When jambs and casings are damaged they shall be replaced with new pre-hung jambs, casings and trim. All hardware shall be mortised true as to fit.

1. New exterior pre-hung jambs shall be no less than one and one-fourth inches (1 1/4") thick with an allowance for a screen door assembly (see spec. 5.6(G), and shall be sanded smooth and protected from weather immediately upon completion of hanging by painting or varnishing.

2. Rabbited exterior jambs shall be no less than one and one-fourth inches (1 1/4"), and shall not be rabbited to less than five-eighths inch (5/8").

(C) Exterior doors shall be solid core wood flush of luan, birch or better and no less than one and three-fourth inches (1 3/4") thick and no less than thirty-six inches (36") in width, or insulated metal or fiberglass of the same dimensions.

1. Exterior doors shall open out to the exterior rather than opening into the interior of a dwelling

2. Exterior doors shall be weather tight and provided with three (3) four by four inch (4" x 4") pre-finished hinges, and aluminum threshold with vinyl strip (sized to fit opening), and a keyed lock of quality equal to "Schlage A Series" or better (installed in accordance with manufacturer's specifications). A thumbed deadbolt with a minimum 1" bolt is also required and shall be keyed alike.

3. Exterior doors shall be sanded smooth and protected from weather immediately upon completion of hanging by painting or varnishing.

(D) Interior doors shall be hollow core wood flush of luan, birch or better, no less than one and three-eighths inches (1 3/8") thick and no less than thirty inches (30") wide unless otherwise specified. On new construction, minimum width will be thirty six inches (36").

1. New interior pre-hung jambs shall be no less than five-eighths inch (5/8") thick and painted or varnished as to Section XV (Painting).
2. Interior doors shall be provided with two (2) three and one-half by three and one-half inch (3 1/2" x 3 1/2") pre-finished hinges, and the proper lock (passage or privacy). Locks shall be equal to "Schlage A Series" or better, and shall be installed in accordance with manufacturer's specifications.
3. Interior doors shall have bottoms trimmed off to accommodate floor covering plus approximately one-fourth (1/4) to one-half (1/2) inch for ventilation when required and shall be sanded smooth and painted or varnished as to Section XV and the work write-up.
4. Interior pocket doors shall comply with specifications for interior doors as to size, thickness, locks, clearance, and finish.

(E) Closet doors may be flush, by-pass, bi-fold or louvered designed to fit opening and installed as to manufacturer's specifications and include a passage latch.

(F) Doors provided for areas requiring mechanical or combustible ventilation shall comply with local fire ordinances.

(G) Screen doors must be aluminum and shall be installed with either pneumatic or spring closers. A bug strip, screen guard and locking device shall be provided.

1. A bug strip shall be the width of the door opening and fastened horizontally to the exterior bottom of the door with not less than one-half inch (1/2") of vinyl extending down below the door.
2. When screen door jambs are required, they shall be aluminum pre-hung units with a door clearance around the perimeter of no more than one-eighth inch (1/8") nor less than one-sixteenth inch (1/16").

(H) Access doors or coverings for openings into crawl spaces under a dwelling and for openings into attic areas shall be as follows:

1. See 4.5 (C) for crawlspace access.
2. An interior attic access door constructed of 1/2" plywood or OSB painted to match ceiling of no less than twenty-two inches by thirty-six inches (22" x 36") shall be provided.
3. Access door shall be tightly fitted.

5.7 WINDOWS:

(A) Windows shall include framing, locks, casing, sills, trim, screens, and weather protection. Bathroom windows shall be obscured glass to five feet (5') above the floor. When windows are replaced in bedrooms, at least one window MUST be sized for egress as required by the Florida Building Code. The Florida Building Code is also applicable to windows that are near doors and shower areas that require tempered glass.

1. Windows shall be sized to fit existing openings unless otherwise specified in work write-up.
2. All windows exposed to weather shall be provided with flashing above window and caulked around the perimeter.
3. Windows shall be caulked between framed opening and window upon installation and caulked around perimeter of window after installation.
4. Windows shall comply with the light, ventilation, and egress requirements of The Florida Building Code.
5. Windows shall be provided with proper locks and shall have the capability to remain in the open position desired without the use of props.

(B) All windows shall be provided with sill of hardwood, marble, ceramic tile, or approved moisture resistant materials such as formica or plastic covered wood materials.

(C) Existing windows shall be repaired or replaced in accordance with original manufacturer's specifications and/or work write-up and specifications herein.

(D) New windows shall be aluminum frame Florida building code compliant, unless otherwise specified with self-storing screens, and installed in accordance with manufacturer's specifications. Sills are required under Item (B). Trim around window as

needed to provide a complete installation, with no noticeable defects in materials or workmanship.

(E) Window screens shall be aluminum frame with either a charcoal fiberglass screen mesh or not less than eighteen by fourteen (18 x 14) strands per inch with a strand diameter of .011 or an aluminum mesh. Screen shall be stored and protected (not installed) until all exterior work and painting is completed.

SECTION VI

6.0 FRAMING:

Compliance with the work write-up, The Florida Building Code and specifications herein as required.

6.1 FLOOR:

(A) All floors of habitable rooms, bathrooms, and hallways shall be level and uniform in height throughout the dwelling unless otherwise specified in the work write-up.

(B) All girders, sills, floor joists and flooring that is damaged, deteriorated, inadequate, overstressed or improperly spliced shall be reported to the City and repaired or replaced as to work write-up or change order.

1. Girders, sills and floor joists shall be sized, spaced, and spanned to carry the dead and live loads they are designed to carry.
2. Girders and sills shall be anchored to the foundation at not less than six feet (6') on center or at every pier.
3. Doubling of lumber shall include 20D nails from both sides, minimum 2 at each end of piece and each splice, and 2 rows of nails at top and bottom of joist/sill/girder 32" OC, staggering nails. Splices shall be staggered.
4. Joints shall rest on supporting members.
5. Floor joists shall be installed appropriately according to one of the following procedures:
 - (a) Ends shall rest a minimum of 3" on sill or appropriate supporting member, adequately toe-nailed with 10D nails;
 - (b) Ends shall be secured into side of sill or girder with steel joist hangers (1/4" x 1 1/2" strap iron) or steel angles 3" x 2" 18 gauge 6" long applied to both sides of joists. Joists may also be toe-nailed into side if resting on ribbon not less than 2" x 2", joists notched not more than 1/4 of depth.

6. Cuts in joists for plumbing or conduit shall be no more than 2" diameter, and shall be centered between the top and bottom of the joist.
7. Protection from decay and termites shall be provided by:
 - (a) Pressure treated girders and sills where closer than eighteen inches (18") from ground;
 - (b) Pressure treated joists and bottom of wood or structural flooring if closer than eighteen inches (18") from ground; and
 - (c) Pressure treating or separating from masonry by felt, metal or pressure treated wood.

6.2 WALL FRAMING:

- (A) Wall framing shall be inspected by the building inspector whenever wall covering is removed, i.e. interior wall coverings and exterior siding and/or siding. Inadequate wall framing shall be replaced or repaired according to work write-up or change order.
- (B) Studs shall be 2" x 4" unless plumbing requires 2" x 6" for passage of pipes. Maximum spacing shall be sixteen inches (16") on center
- (C) Unless reinforced, studs shall not be notched more than 1/4 of their depth, nor drilled through the wide face more than 1 1/4" in a 4" stud or 2" in a 6" stud.
- (D) Block walls shall be furred out with one inch by two inch (1" x 2") pressure treated wood. Furring shall be nailed into block walls sixteen inches (16") on center into the solid portions of the block.

6.3 CLOSETS:

- (A) Clothes closet shall be sized with a minimum interior depth of two feet (2') and must have a door. (See spec. 6.2(D)).
 1. A closet shelf shall not be higher than six feet (6') from the floor and shall support thirty (30) pounds per linear foot with a vertical deflection of no more than one-fourth inch (1/4").
 2. A closet rod for clothes hanging shall not be higher than five feet (5') above the floor and shall support ten (10) pounds per linear foot with a vertical deflection of not more than one-fourth inch (1/4").

3. For wheelchair access, rods shall be no higher than forty-eight inches (48") above the floor.
 4. There shall be a clearance between the shelf and rod of no less than two inches (2").
- (B) Linen closets shall be no less than twelve inches (12") in depth and width and shall have at least four (4) shelves, and must have a door.
1. Shelves shall be spaced no less than twelve inches (12") apart with the top shelf no higher than six feet (6') above the floor and the bottom shelf no less than twelve inches (12") above the floor.
 2. Shelves shall support thirty (30) pounds per linear foot with a vertical deflection of no more than one-fourth inch (1/4").

6.4 ROOF AND CEILING FRAMING:

- (A) Roof trusses, when provided, shall be engineered by a licensed truss manufacturer and stamped by the manufacturer, to assure structural integrity.
- (B) Roof framing shall include rafters, collar ties and jack rafters.
1. New roof framing shall include a ridge board.
 2. A collar tie shall be installed on each pair of rafters, minimum 2 nails each end.
 3. Jack rafters shall be nailed to ceiling joists over bearing walls where possible, minimum 2 nails each end.
- (C) Eaves shall be constructed according to work write-up and codes.
1. Soffit materials shall be exterior grade plywood of no less than three-eighth inch (3/8") thickness, or shall be aluminum if designated by the work write up.
 2. Fascia material shall be redwood, cypress, cedar, pressure treated wood, aluminum or naturally decay resistant material.
 3. Eave ventilation shall comply with The Florida Building Code.

(D) Ceiling and roof framing shall be inspected in attic access areas of pitched roofs. Flat roofs or roofs without access openings shall be inspected by the building inspector when ceiling or roof coverings are removed. Damaged, deteriorated, or inadequate materials (including ceiling joists, rafters, trusses, eaves, sheathing and roof supports) shall be reported to the City and repaired or replaced as to work write-up or change order.

6.5 SCREEN PORCHES:

(A) Screen porches shall be provided in accordance with manufacturer's specifications and as described herein if specified by the work write up.

(B) Screen porches shall be framed with aluminum or pressure treated wood 2" x 4" and screened with charcoal fiberglass mesh of no less than twenty by twenty (20 x 20) strands per inch with a strand diameter of .013. A screen panel may exceed four feet (4') in height when provided with a horizontal intermediate wood support rail every four feet (4') in vertical height, or at a height of 3' above floor with a 5' area between rail and ceiling.

SECTION VII

7.0 ROOFING:

Compliance with the work write-up, The Florida Building Code, manufacturer's specifications and specifications herein as required.

7.1 ROOFING REQUIREMENTS:

All re-roofing conducted shall conform to Florida Building Code Hurricane Mitigation Retrofits as identified by Rule 9B-3.0475.

(A) Roofing inspections shall be the responsibility of the contractor, allowing a minimum of 24 hours for coordination of inspections or as directed by the local building official.

(B) Roofing and re-roofing shall not be done during inclement weather.

(C) Roofing and re-roofing shall include all underlayment, all rotted sheathing, felt shall be minimum 30 lb., all metal flashing, and all roof coverings as follows:

1. Sheathing shall consist of one-half inch (1/2") CDX plywood or five eighths inch (5/8") OSB, mineral surface roll roofing and asphalt saturated felts. Sheathing shall be exterior grade material only. A sheathing inspection shall be performed by the building inspector prior to installation of replacement shingles. All sheathing, new or existing, shall be re-nailed according to the following schedule:

<u>FRAMING SPACING</u>	<u>SHEATHING THICKNESS</u>	<u>8d</u> <u>NAILS</u>
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16" o.c.	1/2" nominal	6" o.c.
24" o.c.	5/8" nominal	4" o.c.

2. Metal flashing, valley flashing, chimney flashing, wall flashing, counter flashing, cantstrips, chimney crickets and flashing all protrusions through the roof such as pipes, vents and stacks.
2. Roof covering, slate roofing, tile roofing, metal roofing, mineral surfaces roll roofing, built-up roofing, wood shakes or shingles and asphalt or fiberglass shingles.

(D) Roofing shall not be installed over existing (old) roofing or on roofs with damaged, deteriorated or missing sheathing and/or framing, such as trusses or rafters. Such items shall be reported to the City and replaced or repaired according to the work write-up or change order.

(E) Built up roofing shall not be patched nor repaired.

7.2 FIBERGLASS SHINGLES:

Fiberglass shingles shall be minimum Architectural Grade and provided for all dwellings requiring complete re-roofing and having a pitch of 3/12 or more, and shall be installed according to manufacturer's specifications.

(A) Fiberglass shingles shall be no less than a Class "A" fire and wind rating nor less in weight than two hundred a fifteen (215) pounds per square (100 sq. ft.) and shall be provided with no less than a twenty five (25) year limited warranty, and shall be attached with a minimum of 6 fasteners per three tab shingle. Roof felt shall be minimum 30 lb.

(B) Color shall be selected by Owner.

7.3 METAL ROOFING:

Installation of galvanized, five-v, minimum 26 gauge metal roofing shall be done in accordance with manufacturer's recommendations. Sheet laps should be located over the rafters if possible or nailers installed for that purpose. Install sheets with side edges overlapped per manufacturer's recommendations. Cross braces shall be spaced on minimum twenty-four inch (24") centers. Attach by mechanical fasteners per manufacturer's instructions into cross braces, front header and back header. Sheeting should overlap a minimum eight inches (8") on ends. Screws (minimum length 1 3/4") shall be aluminum with neoprene washers.

7.4 VENTILATION:

(A) Ventilation of attic space shall be provided according to the Florida Building Code and contract specifications. Installation shall meet manufacturer specifications and provide weather protection. Size is to be determined by contractor to meet the Florida Building Code.

(B) Eave Vents

1. Soffit vents shall be manufactured vents or continuous openings screened on interior side.
2. Bird-stop vents shall be manufactured or screened openings.

(C) Gable vents shall be wood or metal louvers with screens, sized to meet the Florida Building Code.

(D) Roof vents (turbine, strip, or exhaust) shall be installed with attention to proper flashing.

SECTION VIII

8.0 EXTERIOR WALLS:

Compliance with the work write-up, The Florida Building Code, manufacturer's specifications and specifications herein as required.

8.1 EXTERIOR WALL REQUIREMENTS:

- (A) Exterior walls shall provide safe and adequate support for all loads imposed upon them, and prevent the entrance of water or excessive moisture (see spec. 10.2).
- (B) Damaged, deteriorated or missing masonry, exterior wall sheathing and/or siding shall be repaired and cracks, corners, and openings effectively sealed, or materials replaced.
- (C) Portions of exterior walls that are repaired or replaced shall be uniform and match surrounding areas.
- (D) Exterior wood sheathing and siding shall not be less than twelve inches (12") above the ground unless pressure treated or naturally decay resistant.
- (E) Siding shall include vapor barrier, building paper or felt, inside and outside corner trim, window and door flashing and/or trim, appropriate moldings and trim, caulking and flashing between abutting bottom and top ends of panel siding. Sheathing is required for the installation of vinyl siding.
- (F) Horizontal siding joints shall be made over supports, staggered with not more than three joints on the same stud, except at ends.
- (G) Siding shall be installed in a workmanlike manner, matching horizontal courses and vertical lines on panel siding.

SECTION IX

9.0 INTERIOR COVERINGS:

Compliance with the work write-up, The Florida Building Code, manufacturers specifications and specifications herein as required.

9.1 WALLS AND CEILINGS:

(A) All interior walls and ceilings shall be covered and finished to match existing finishes for rehabilitation. For new construction, plaster or drywall may be used. See Section X (Insulation) and Section XV (Painting).

(B) Interior ceilings and/or wall coverings that are damaged, deteriorated, buckling or have other defects, including holes, shall be repaired or replaced and shall match and be uniform with the surrounding area.

9.2 DRYWALL:

(A) Drywall shall be no less than one-half inch (1/2") in thickness and shall include metal corner beads, taping, finishing, and all trim moldings.

(B) Drywall shall not be fastened nor glued directly to masonry walls.

(C) Ceilings in bathrooms shall be smooth finish with enamel paint. All other ceilings shall be finished in one of the following manners: blown, roll stipple, or unpainted textured hardcote.

(D) Walls in kitchen and bath shall be smooth finish. Other rooms shall be textured in one of the following: smooth, orange peel, or unpainted textured hardcote.

(E) Existing trim moldings may be reused if not damaged. Replacement baseboards should be builder grade/entry level made of finger joint pine, sized to match unless otherwise specified.

(F) Moisture proof sheetrock (greenboard or blueboard) shall be used on walls surrounding plumbing fixtures.

9.3 PLASTERING:

Plastering shall comply with the American Society for Testing and Materials (ASTM) and the American National Standards Institute, Inc. (ANSI) (see spec. 9.1).

9.4 PANELING:

- (A) Paneling shall include ceiling cove, base molding, inside and outside corner trim, batten strips, adhesive and appropriate nails as to color, size and application.
- (B) Paneling shall be installed in a workmanlike manner as to nationally recognized practices (see spec. 9.1 and manufacturer's specifications).
- (C) Paneling shall be no less than four foot by eight foot (4' x 8') wood backed panels, one-fourth inch (1/4") thick, nailed in the groves and not on the printed face, and adhesives shall not be used as the primary fastener.
- (D) Paneling of less than one-fourth inch (1/4") thickness, but not less than three sixteenths inch (3/16"), may be installed over approved backing. (See work write-up or manufacturer's specifications.) Backing may include drywall, smooth wood, paneling or sheathing.
- (E) Paneling shall be consistent and match as to style, color, texture and installation throughout any one room.
- (F) Style and color shall be chosen by owner.

9.5 TILEBOARD:

- (A) Plastic-finished one-fourth inch (1/4") durarock or comparable cement board paneling equal in quality to Masonite's "Royaltile" or better shall be installed in bathrooms, kitchens, and elsewhere when specified by work write-up.
- (B) Tileboard paneling shall be installed as to manufacturer's specifications and recommendations, including trim, molding, backing, etc.
- (C) Owner shall have a choice of style and color.

9.6 CERAMIC TILE

- (A) Ceramic floor tile to be a level 3 grade with a minimum of three color selections.
- (B) Ceramic wall tile for shower/tub enclosures, to be a level 1 or 2 tile installed on durarock/concrete board with a minimum of three color selections.

9.7 VINYL FLOORING:

(A) Vinyl flooring shall meet FHA standards and installed to comply with manufacturer's specifications and recommendations. Flooring in kitchens and bathrooms must be sheet vinyl.

(B) Sheet vinyl flooring seams shall be kept to an absolute minimum with all edges securely fastened to avoid separating or curling. No seams are allowed in kitchens or bathrooms. Metal hold down strips are required for all installations ending in either wood flooring or carpeting. Base or shoe molding is required adjacent to all walls.

(C) Owner shall have a choice of style and color.

9.9 UNDERLAYMENT:

(A) Floor coverings shall be installed over a smooth, solid (BC) surface. New underlayment may be OSB or plywood. Cracks, imperfections and nail indentations shall be filled and smoothed for vinyl.

(B) Where a sturdy subfloor exists, underlayment, when required by work write up shall be one-fourth inch (1/4") or thicker, BC plywood or one-fourth inch (1/4") OSB with BC finish. Where new subflooring is required, three-fourth inch (3/4") BC plywood or OSB shall be installed as a subflooring and underlayment combination.

9.8 CARPETING AND PAD:

(A) Carpeting and pad shall be FHA approved, minimum 25 oz single level cut pile pattern with a minimum 3 color choices. Removal, padding, floor prep and installation are per manufacturer's specifications.

(B) Carpeting seams shall be kept to an absolute minimum and all edges securely fastened to avoid separating.

SECTION X

10.0 INSULATION:

Compliance with the work write-up, The Florida Building Code and specifications herein as required.

10.1 CEILING INSULATION:

(A) Ceiling insulation with a rating of no less than "R-30" shall be provided over all heated areas of a dwelling.

1. Ceiling insulation may be batt, roll, or blown. Batts or rolls shall be sized to fit snugly and blown rock wool shall include baffles to protect eave ventilation. Vapor barrier shall be included.
2. In all instances attic ventilation must be ascertained and adequately provided for.
3. Attic access coverings or doors shall be covered with "R-30" batt insulation.

(B) A certification sticker shall be affixed to the access opening upon completion.

1. Sticker shall state the type of insulation and "R" rating and shall be dated and signed by the Contractor upon completion.
2. The contractor shall not sign nor date the certification sticker until he has inspected the work and is assured of its compliance with manufacturer's specifications.

(C) Exception: Dwellings with flat roofs or other ceiling areas where installation is impractical shall be insulated only when the ceiling or roof covering is removed.

10.2 WALL INSULATION:

(A) Wall insulation with a rating of no less than "R-11" shall be provided in all exterior walls of a dwelling when wall covering, either the interior or exterior, is removed. Wall insulation shall be batt type and include a vapor barrier applied to the warm side of the exterior walls. Concrete block shall have either foam filled cells, or vermiculite filled cells.

(B) Blown rock wool insulation shall be installed in walls of rehabilitated dwellings where walls are inaccessible during rehabilitation if required by the work write up.

(C) Electrical junction boxes that have exposed wiring shall not be filled nor covered and shall be reported to the City. Electrical junction boxes shall be properly enclosed and accessible.

10.3 FLOOR INSULATION:

Batt or roll type insulation with a vapor barrier and a rating of no less than "R-19" shall be provided beneath all heated areas of a dwelling without masonry foundation walls, when specified in the work write-up. Insulation shall be installed under subflooring between floor joists, stapled and supported by fiberglass or wire mesh.

10.4 PLUMBING INSULATION:

All water pipes exposed to weather shall be insulated unless buried twelve inches (12") below the ground or under dwellings with a continuous foundation wall. Insulation shall be foam sleeve, securely installed.

SECTION XI

11.0 CABINETS:

Compliance with the work write-up, manufacturer's specifications and specifications herein is required.

11.1 CABINET REQUIREMENTS:

(A) Cabinets, when required by work write-up, shall be standard in size, style and finish and shall include front/ back, doors, drawers, hinges, handles and closures, and be securely installed.

(B) Wall and base cabinetry shall be constructed of no less than three-eighths inch (3/8") thick plywood, or approved solid wood with wood veneer. Pressed board or engineered wood is not acceptable.

(C) Shelves shall not be less than three-eighths inch (3/8") thick and support no less than twenty-five (25) pounds per linear foot.

(D) Vertical surfaces of cabinets (front, sides, doors, and drawers) shall be clad with plastic laminate or sealed with varnish, shellac, lacquer, polyurethane or oil based enamel paint.

(E) Base cabinets and vanities which abut a wall shall be provided with back splashes, including side splashes for corner walls. Counter tops and back splashes shall be clad with plastic laminate of a quality equal to Formica HPG or better and no less than five-hundredths of an inch (.05") in thickness.

(F) All interior surfaces shall be painted with oil base paint or moisture protective finish.

(G) Owner shall have choice of at least two colors and types of finish.

11.2 VANITY CABINETS:

(A) Imitation molded marble top may be substituted for plastic laminate vanity top.

(B) Vanity cabinets shall be no less than thirty inches (30") nor more than thirty-four inches (34") in height. Width shall be a minimum of thirty inches (30"), space permitting, and not less than twenty inches (20") wide in any case.

11.3 MEDICINE CABINETS:

(A) A medicine cabinet shall be provided over bathroom lavatories when required by the work write up for rehabilitated houses. Medicine cabinets are required for new construction.

(B) Medicine cabinets shall have a minimum of three (3) shelves and a mirror, unless otherwise specified in work write-up.

(C) For medicine cabinets with electrical features, see Section XIII (Electrical).

11.4 KITCHEN BASE CABINETS:

(A) Counter top shall be no less than twenty-five inches (25") in depth, width or protrusion. Counter top shall include a back splash around any perimeter abutting a wall of no less than four inches (4") in height.

(B) Base cabinets, including counter tops shall be thirty-six inches (36") in height, and toe recess shall be provided.

(C) Drawers shall be provided in at least one base cabinets. Drawers shall be at least twenty-one inches (21") long and five and one-fourth inches (5 1/4") deep.

11.5 KITCHEN WALL CABINETS:

(A) Wall cabinets shall be no less than twelve inches (12") in depth.

(B) Wall cabinets installed over a counter or base cabinet shall be installed no less than fifteen inches (15") nor more than eighteen inches (18") above the counter or base cabinet.

(C) Cabinets shall be no less than the following vertical lengths:

1. over base cabinets, 30".
2. over range or sink (if specified), 18".
3. over refrigerator, 15".

SECTION XII

12.0 PLUMBING:

Compliance with the work write-up, Plumbing Codes, manufacturer's specifications, and specifications herein as required. (For physically handicapped, see Accessibility codes and standards.)

12.1 PLUMBING REQUIREMENTS:

- (A) Plumbing workmanship shall conform to generally recognized and accepted good practices of the plumbing trade.
- (B) Plumbing that is inadequate, damaged, deteriorated, leaking, or improperly supported or displaying signs of improper workmanship according to present codes or practices shall be reported to the City.
- (C) The contractor shall be responsible for layout and installation of all plumbing unless otherwise directed by the City.
- (D) Shut-off valves shall be installed on water lines at each fixture, except bathtubs and showers. When new fixtures are specified by the work write up, all installations shall include new faucets, supply tubes, waste and vent plumbing, and or new toilet seats.

12.2 PLUMBING FIXTURES:

- (A) Bathtubs shall be white enameled steel equal to American Standard, Crane or Kohler.
 - 1. Bathtubs shall be no less than sixty inches long by thirty inches wide by fifteen inches deep (60" x 30" x 15").
 - 2. The bottom surface of a bathtub shall be slip resistant.
 - 3. Bathtub grab-bars, when required for elderly and handicapped, shall be installed to sustain a dead load of two hundred and fifty (250) pounds for five (5) minutes.
- (B) Water closets shall be white vitreous china equal to American Standard, Crane or Kohler.
 - 1. Water closets shall be no less than fourteen inches (14") high from finished floor to rim.

2. Water closets for elderly or handicapped shall be no less than eighteen inches (18") from finished floor to seat.
3. Water closets shall include back flow preventer water control with volume regulator, flush valve and trip lever.
4. Water closets shall be designed to utilize not more than three and one-half (3 1/2) gallons of water per flush.

(C) Lavatories shall be vanity type not less than eighteen inches (18") round, space permitting. A one-piece molded lavatory and vanity top may be installed.

(D) Compliance with the Florida Accessibility and Handicap requirements and shall apply to all handicapped and elderly as to wheelchair and bathtub access, grab bars and non-scald valves, and layout and dimensions of fixtures when required by work write-up.

12.3 KITCHEN SINKS:

Kitchen sinks shall be double compartment stainless steel with washerless fittings, and be not less than 33" x 22" x 8".

12.4 GARBAGE DISPOSALS:

Existing inoperable garbage disposals shall be replaced with builder-grade models with minimum 1/3 horsepower motor. Installation shall be according to manufacturer's specifications.

12.5 FITTINGS:

(A) Bathtub, shower, and lavatory faucets may be single or double control and shall be washerless type equal to American Standard, Crane or Kohler.

(B) Shower heads shall be designed to utilize no more than three (3) gallons of water per minute.

12.6 WATER LINES:

Water lines shall be properly insulated and protected from weather and freezing, see spec. 10.4.

12.7 ELECTRIC WATER HEATER:

A comparable size Energy Star water heater shall be provided and installed. A minimum five (5) year warranty shall be provided. Installation shall comply with plumbing and electric codes.

12.8 GAS WATER HEATER:

A glass lined, quick recovery gas water heater shall be provided and installed. Heater shall be equipped with a stack vented to the outside and a combustion air source sized to meet the plumbing code. Type (low boy, cabinet or regular) shall be provided as specified in work write-up. A minimum five (5) year warranty shall be provided. Installation shall comply with plumbing and gas codes. Size shall be minimum 30 gallon.

SECTION XIII

13.0 ELECTRICAL:

Compliance with the work write-up, The Florida Building Code, the National Electric Code (latest edition adopted by the local government), policies of local Utility Company and specifications herein as required.

13.1 ELECTRICAL REQUIREMENTS:

- (A) Any dangerous, deteriorated or improperly installed electrical components or equipment shall be reported to the City and repaired or replaced as to work write-up or change order.
- (B) Electric service to a dwelling shall be no less than one hundred (100) amperes and shall include the appropriate breaker panels, circuits and circuit breakers and shall be properly grounded.
- (C) Unused electrical lines, boxes, fixtures, etc. shall be removed. Unused wires in walls may be cut-off as short as possible to prohibit any possible future use.
- (D) All electrical wires, junctions, boxes, fixtures, etc. shall be properly installed and fastened to dwelling.
- (E) Bathrooms shall have a GFI receptacle located near the lavatory. All kitchen countertop receptacles except for dedicated receptacles shall be ground fault protected. All exterior receptacles shall be ground fault protected.

13.2 SMOKE DETECTORS:

- (A) Smoke detectors shall be located in each bedroom and central hallway, and installed per manufacturer's instructions. All smoke detectors shall be hardwired in sequence on a dedicated circuit and have battery back up. A monitored battery power source shall be permitted in existing construction.

13.3 LIGHTING:

- (A) All lighting shall be permanent fixtures, wall switch controlled. Unless otherwise indicated on the write-up or drawing, fixtures shall be ceiling mounted (except bathroom).
- (B) Bathroom lighting shall be wall-mounted above the lavatory and a fixture in the ceiling unless otherwise indicated, and shall be not less than 100 watts incandescent.

(C) Kitchen lighting shall be not less than 80 watt fluorescent, centrally located, or more than 80 watts distributed in two fixtures according to write-up or drawing.

13.4 VENTILATION:

(A) Exhaust fans for kitchen or bathroom shall be properly vented through the roof, unless otherwise noted. Each bathroom shall have an exhaust fan.

(B) Lighted range hoods shall include 2-speed exhaust fan. Non-vented charcoal filtered systems may be installed in lieu of vented if specified in work write-up. Hoods shall be sized to match opening for range or cook top, and shall be securely attached to appropriately sized and elevated wall cabinet.

13.5 CARBON MONOXIDE DETECTORS

(A) Carbon Monoxide Detectors shall be installed as per Rule 9B-3.0472

(1) Definitions: For purposes of this rule, the following definitions shall apply:

(a) CARBON MONOXIDE ALARM. A device for the purpose of detecting carbon monoxide, that produces a distinct audible alarm, and is listed or labeled with the appropriate standard, either ANSI/UL 2034 - 96, Standard for Single and Multiple Station CO Alarms, incorporated herein by reference, or UL 2075 - 04, Gas and Vapor Detector Sensor, incorporated herein by reference, in accordance with its application. Both documents may be obtained by writing to: Codes and Standards Section, Department of Community Affairs, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399-2100.

(b) FOSSIL FUEL. Coal, kerosene, oil, fuel gases, or other petroleum or hydrocarbon product that emits carbon monoxide as a by-product of combustion.

(2) Every building for which a permit for new construction is issued on or after 7/1/08 and having a fossil-fuel-burning heater or appliance, a fireplace, or an attached garage shall have an operational carbon monoxide alarm installed within 10 feet of each room used for sleeping purposes.

(3) In new construction, alarms shall receive their primary power from the building wiring when such wiring is served from the local power utility. Such alarms shall have battery back up.

(4) Combination smoke/carbon monoxide alarms shall be listed or labeled by a Nationally Recognized Testing Laboratory.

SECTION XIV

14.0 HEATING & A/C:

Compliance with the work write-up, electrical, gas and mechanical, The Florida Building Code and energy codes, manufacturer's specifications and specifications herein as required. Heating & a/c systems are to be operational at the final inspection.

14.1 COMFORT HEATING UNITS:

- (A) The comfort heating unit serving every habitable room in a dwelling unit, including bathrooms and halls, shall be capable of maintaining a temperature of at least 65 degrees Fahrenheit at three feet (3') above the floor on the coldest day of the year. For elderly persons, the minimum maintaining temperature shall be 68 degrees Fahrenheit.
- (B) Heating units shall be gas, or electric, as specified in the work write-up.
- (C) Heating units shall be installed by licensed heating contractors.
- (D) No un-vented fuel burning heaters shall be permitted in a habitable dwelling.
- (E) No open-flame radiant type heaters shall be permitted in a habitable dwelling.
- (F) No fireplace shall be permitted as the primary source of heat in a habitable dwelling. Fireplaces will not be addressed with CDBG funds.
- (G) Fuel lines shall be properly connected, fastened and reasonably protected from possible damage, weather, and tampering. A shut off valve or disconnect shall be provided between the source of fuel and the heating unit. All gas connections shall be performed by properly licensed personnel.

14.2 HEATING & A/C UNIT DESIGN AND CALCULATIONS:

- (A) BTU (British Thermal Units) shall be used to figure the amount of the heat / air conditioning required. To calculate required BTU input size of a/c systems, multiply the cubic feet of all interior rooms by ten (10). Calculation to be used when applicable to new construction or increased square footage only.
- (B) Central systems shall include ductwork and appropriate supply and return vents to distribute air conditioning evenly throughout the dwelling. Air supply vents shall have a closeable register in each room. A thermostat shall be located appropriately to control temperature evenly throughout the dwelling.

(C) All electric air conditioning units shall be a minimum SEER rating of 15 and be Energy Star rated. If the home has an existing heat pump system then replace with a similar system with a minimum SEER rating of 15 , be Energy Star rated and also have an emergency 10k heat strip.

SECTION XV

15.0 PAINING AND FINISHING:

Compliance with the work write-up, the manufacturer's specifications, and the specifications herein as required.

15.1 PREPARATION:

(A) Preparation shall include: cleaning, sanding, scraping, filling holes and cracks, caulking, sealing, pressure treating, moisture proofing and protection of surfaces and surrounding areas.

(B) Prepare surfaces prior to applying paint, stain, varnish, etc.

1. Foreign material (nails, hooks, fasteners, wall paper, etc.) shall be removed unless properly installed and deemed necessary by the owner.
2. Holes, cracks, and indentations shall be properly filled, surfaces scraped, cleaned, and sanded uniformly smooth.
3. Porous surfaces, chalky surfaces, old painted surfaces, masonry, such as block, stucco, and concrete slabs, shall be cleaned and sealed before painting.
3. Proper precautions shall be taken by the contractor and his painters to protect all surrounding surfaces, flooring, and landscaping from possible damage and paint splattering. Any damage to personal property shall be repaired at the contractor's expense.

15.2 APPLICATION OF PAINT:

(A) Paint shall be applied to a mil thickness of no less than five (5) mils per coat on new drywall. Minimum 24 hrs drying time in between coats or as specified by the manufacturer.

(B) For two (2) or three (3) coat application, the first coat shall be prime coat or sealer coat, as applicable.

(C) A minimum of two (2) coats of paint shall be applied to new surfaces. Additional coats may be required by the work write-up or to obtain full coverage.

(D) Bathroom and kitchen walls shall be painted with enamel semi-gloss washable paint.

(E) Interior and exterior wood surfaces shall be covered with oil base or latex paint unless otherwise directed by the work write-up. All pressure treated wood shall be painted with oil based paint.

15.3 APPLICATION OF STAIN, SEALER:

(A) Stain shall be applied evenly, to obtain selected shade.

(B) Varnish or shellac shall be sanded smooth between coats.

15.4 SELECTION:

(A) Owner shall be provided an adequate color selection guide (brochure chart, etc.) with a wide range of colors to choose from. Contractor shall assure that paint selected is appropriate for surface (masonry, exterior wood, etc.).

(B) Owner's choice shall be documented in order to avoid disputes regarding color.

(C) Hardcote shall be painted only at the owner's request and expense.

15.5 LEAD BASED PAINT:

(A) Lead base paint shall not be applied to any dwelling, interior or exterior. Lead base paint is defined as paint containing more than 0.05% lead by weight in the total nonvolatile content of the paint or the equivalent measure of lead in the dried film of paint already applied.

(B) All HUD Title X provisions regarding the repair, removal, replacement of any painted material or surface shall be the responsibility of the contractor.

- Interim Control Projects - The contractor shall have at least one worker on projects containing lead based paint that is trained and certified in lead based paint safe work practices.
- Abatement Projects – The contractor shall use the services of a lead based paint Certified Abatement Contractor on projects that require abatement.
- All painted, varnished, or shellacked surfaces that are disturbed in pre 1978 houses will be considered to contain lead unless an inspection by an EPA licensed inspector indicates otherwise. The owner or the owner's agent shall

provide all inspection services performed. Only inspections performed by EPA licensed personnel shall be considered valid.

(C) All OSHA requirements regarding safety of workers shall be the responsibility of the contractor.

(D) All clean up of paint chips and or paint dust shall be performed according to Title X requirements and the house shall be free of dust and paint contamination upon completion of the work. The Contractor will provide and pay for the required clearance testing. The contractor will be responsible for the costs of any failed clearance test or tests. No final payment can be made to the Contractor until a passing clearance test is received from a HUD certified and licensed lead based paint inspector or risk assessor.

SECTION XVI

16.0 KITCHEN APPLIANCES:

Compliance with the work write-up, the manufacturer's specifications, and the specifications herein as required.

16.1 CONDITION FOR REPLACEMENT:

Kitchen appliances that are inoperable or not cost effective to repair may be replaced using program funds.

16.2 REPLACEMENT REQUIREMENTS:

Appliances allowed under this program are ranges/ovens, refrigerators, and hood fans. Built-in dishwashers may be replaced if pre-existing. Other appliances will not be replaced unless otherwise allowed under special funding on a case-by-case basis.

16.3 PRODUCT DESCRIPTION AND RATING

Appliances should be builder-grade with Energy Star rating. Colors shall match already existing appliances, where feasible, with basic colors of white, bone, or black.

16.4 INSTALLATION

All appliances must be installed in accordance with manufacturer's specifications.

16.5 WARRANTIES AND MANUALS

Contractors must provide standard manufacturers' warranties and manuals for newly installed appliances.