

HERITAGE HOME PROGRAM (HHP)
**A Linked Deposit Program of the Cuyahoga County Treasurer and
the Cleveland Restoration Society**

Cleveland Restoration Society
3751 Prospect Avenue, Cleveland, Ohio 44115
(216) 426-3116
Fax: (216) 426-1975

BID SPECIFICATIONS

HHLF funds cannot be used to fund the purchase or installation of the following items:

- Vinyl siding
- Vinyl windows
- Swimming Pools
- Hot tubs
- Decks

Appropriate permits shall be secured through the Building Department of the city that the work is being completed in and the contractor shall be registered with such Building Department in order to secure permits.

**ALL REHAB AND INSTALLATION MUST BE PER CITY BUILDING CODES
AND MANUFACTURER’S SPECIFICATIONS.**

**PROJECT COSTS EXCEEDING CONTRACT AMOUNT ARE TO BE PAID BY
HOMEOWNER(S).**

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Article I. CARPENTRY

Section 1.01 ROUGH CARPENTRY

(a) MATERIALS

- (i) New Sill Plates: Pressure-treated southern yellow pine lumber of the stock size closely matching that of the old sills. (UC3-UC4 Category System). Cut down or add to lumber so that stock sizes will be exact size of old sill.**
- (ii) New Corner posts: Solid or built-up lumber that closely matches the size of the old.**
- (iii) New Joists, Rafters, Studs & Other Framing: Two-inch dimensional No. 1 grade hem-fir framing lumber. Closest width to match existing. Engineered joists-rafters and beams shall be designed to carry the live and dead loads.**
- (iv) Floors – ¾” T & G or ¾” T & G Plywood. T &G is not required with blocking at seams.**
- (v) Walls – Minimum ½” OSB or ½” Plywood Roofs – Minimum ½” OSB or ½” Plywood on 16” OC Rafters / Trusses. Minimum 5/8” OSB or 5/8” Plywood on 24” OC Rafters / Trusses with H Clips.**
- (vi) Underlayment: Plywood A.P.A. underlayment, Group 1, exposure 1, 3/8” minimum sub-floor thickness. To receive resilient flooring.**
- (vii) Wood for Furring: 1”X 3” construction grade “furring strip.”**
- (viii) Moisture Content: Moisture content of all lumber and plywood, including pressure-treated lumber, shall be maximum 19%.**
- (ix) Fasteners, Anchors, & Hangers: Size and type as recommended by applicable standards, or as recommended by the manufacturer. Where weather exposed or in ground contact, provide fasteners, anchors, and hangers with hot-dipped zinc coating. (Corrosion resistant.)**
- (x) Wood Preservative: Cuprinol Green #10 or equal.**
- (xi) House Wrap: Example- Tyvek.**

(b) WORKMANSHIP

- (i) General: Set carpentry work to required levels and lines with members plumb and true and accurately cut and fitted. Securely attach all carpentry work to substrate. Install solid backing and furring needed to receive finishes and fixtures.**
- (ii) Jacking and Shoring: If a corner or more than 6 feet of sill are to be replaced, support the house from the ground before starting work. Base of jacking system should be dispersed over a large enough area as to not damage existing structure. Make as level as possible. New header-beams- or struts should be properly sized and resting on bearing walls. Contractor shall be responsible for repairing plaster damage and re-adjustment of doors caused by movement.**
- (iii) Trim, Siding, & Sheathing Removal: Where specified to be re-used, remove carefully-mark and save. Cut back damaged sheathing over the nearest stud. Install new sheathing of equal thickness. Re-nail all sheathing that is to remain.**
- (iv) Damaged Sill, Corner post & Stud Removal: Cut out. Wherever possible,**

cut off old sills to form a half-lap joint with the new sills. All cuts are to come over solid masonry, not over openings. Cut off corner posts and studs squarely to provide good bearing for new pieces.

- (v) **New Sill Plates:** Cut half-lap joints at all ends and corners. Install “Liquid Nail Adhesive” or Cellotex between sill plate and masonry. Two-inch dimensional pressure-treated lumber may be laminated for sills, but shall still be half-lapped with the old sills. Bolted down by 1/2" anchor bolt 16" deep and approx.. 6" O.C.
- (vi) **New Corner posts & Studs:** Fit new pieces in tightly and add “scabs” alongside that extend as far up the old corner posts/studs as possible. Spike securely into place.
- (vii) **Rafter Repair:** Match length and configuration of old rafters. Install “crown up” and where rafters are to be sistered, spike securely to the old rafters.
- (viii) **Joist Repair:** Rip to exact width as original joists and space 16" o.c. Install “crown up” and where joists are to be “sistered” spike securely into old joist and provide full bearing on nearest plates of structural walls.
- (ix) **New Walls:** To be constructed of 2X4 lumber, 16" o.c., unless indicated otherwise. New studs shall be “padded out” with wood strips to receive finishes where they adjoin an existing wall. Include single bottom and double top plates- jack studs under headers- four studs in corners. Studs to align with floor joists or rafters. Exterior walls will include structural sheathing and or wind bracing properly secured to top and bottom plates.
- (x) **Wood Furring:** Install 16" o.c. and plumb and level with closure strips at ends and openings. Shim flush with existing work.
- (xi) **New Sheathing:** Install new sheathing wherever old was removed. The end cuts of new sheathing should rest on rafters or solid blocking. Shim new sheathing to flush with existing.
- (xii) **Support Blocking:** Prior to installing wall finishes, determine and obtain approval for the exact locations of each toilet accessory. Provide minimum 3/4" wood blocking at every fastener location. Include blocking for curtain rods- shower rods and doors- medicine cabinet.
- (xiii) **References:** Comply with Ohio Basic Building Codes including Fastening Schedule Table 2305.2 and with recommendations of “Manual For Wood Frame Construction” of National Forest Products Association for recommended sizes, spacing, framing of openings and fastening. Comply with recommendations of “A.P.A. Design/Construction Guide- Residential & Commercial” for types of plywood products and nailing schedule.

Section 1.02 SOFFIT AND EAVE REPAIR

(a) MATERIALS

- (i) **Finish Wood:** Kiln Dried Pine, D-Select or approved equal
- (ii) **Lookouts, Rafter Tails & Brackets:** Hem/fir, spruce or pine, to match existing in size, thickness and profile.
- (iii) **Fly Rafters:** Hem/fir, spruce or pine, to match existing size, thickness and

- profile.
- (iv) **Soffits & Fascias:** Hem/fir, spruce or pine, to match existing tongue and groove configuration.
 - (v) **Mouldings:** Where specified, mouldings are to be custom-milled to match the original profile. Use pine, D-select grade or better, or approved equal softwood. Where no specification is given use the closest available moulding. Submit to CRS Historic Preservation Specialist for approval.
 - (vi) **Nails:** Corrosion resistant only.
 - (vii) **Wood Preservative:** Cuprinol Clear or equivalent.
 - (viii) **Primer:** Covered under “Painting”
 - (ix) **Pigeon Control:** Nixalite.
- (b) WORKMANSHIP**
- (i) **Replacement:** Replace pieces as noted in drawings or in specifications. Where additional pieces are deemed to be rotted or damaged, obtain and replace on a unit cost basis.
 - (ii) **Lookouts, Rafter Tails, & Brackets:** Replace all damaged, rotted or split wood with new pieces. Screw or nail all new lookouts, rafter tails and brackets to sound wood to secure solidly in place.
 - (iii) **Fly Rafters:** Replace all damaged, rotted or split fly rafters with new pine fly rafters. Cut the angles accurately and screw securely to lookouts.
 - (iv) **Soffits & Fascias:** Install new soffits and fascias to match existing where the old were removed. Where necessary, shim out the new pieces to be flush with the old. All joints shall be tight and properly secured to solid backing.
 - (v) **Mouldings:** Replace all missing or deteriorated mouldings to match original as close as possible. Cut and tightly fit new mouldings where old ones were disposed or missing. Where new mouldings do not match the old perfectly, blend area around the joint between the new and the old so that it is invisible once painted.
 - (vi) **Old Pieces That Are Loose:** Where old pieces are sound but coming apart at the joints, remove as much paint and caulking from the joint surfaces as possible and re-nail tightly together.
 - (vii) **Nails:** Set all visible nails.
 - (viii) **Priming:** Face prime all finish lumber before installation.

Section 1.03 CLAPBOARD REPAIR

(a) MATERIALS

- (i) **Replacement Sheathing:** 3/4” #3 sheathing board.
- (ii) **Building Paper:** Tyvek, or approved equal.
- (iii) **Clapboards:** 1/2"X6” Western Red Cedar Clear VG (vertical grain) bevel siding only.
- (iv) **Drop Siding:** T&G or ship lap. Eastern White Pine.
- (v) **Epoxy Consolidant:** Abatron, Inc.’s Liquid Wood and Wood Epox or approved equal.

- (vi) **Nails: 5d galvanized ring-shank. (Corrosion resistant)**
- (vii) **Primer: Covered under "Painting."**
- (b) WORKMANSHIP**
 - (i) **General: In addition to areas called out in drawings, replace all clapboards that are missing, damaged, rotted, or have cracks more than 12" long.**
 - (ii) **Removal: Carefully remove all clapboards that are to be replaced. In addition, remove and dispose of any that are damaged during the work. Re-nail all loose sheathing.**
 - (iii) **Sheathing Repair: Cut back sheathing to the nearest stud or install solid backing. Install new sheathing of equal thickness. Re-nail all sheathing that is to remain.**
 - (iv) **Toothing-In: Where existing clapboards end on a vertical line (as where a door or window was removed), cut back every other existing clapboard at least 6 inches before installing new clapboards.**
 - (v) **Building Paper: Install house wrap over all exposed sheathing.**
 - (vi) **Joints: All joints between ends of clapboards shall be tight (less than 1/6") and those between clapboards and trim less than 1/8". Stagger joints in succeeding courses at least six inches. Outside corner joints to be scribed and staggered.**
 - (vii) **Length: Use the longest length possible. Pieces less than 12" are not to be used except as "shorts" between trim pieces (i.e. between a window casing and a cornerboard.)**
 - (viii) **Epoxy Consolidant: Per manufacturer's specifications.**
 - (ix) **Nailing: Place nails approximately 3/4" above butt at every stud, or every 18", whichever is closer. Penetration of framing at least 1". Re-nail all clapboards that are loose.**
 - (x) **Prep for Painting: Use 80 grit sand paper to lightly remove "mill glaze". Back prime with water repellent wood preservative. All edges including outside miters should be primed.**

Section 1.04 WOOD SHINGLE REPAIR

- (a) MATERIALS**
 - (i) **Replacement Sheathing: 3/4" #3 sheathing board.**
 - (ii) **Building Paper: Tyvek, or approved equal.**
 - (iii) **Flashings: Aluminum "coil stock" with baked-enamel finish.**
 - (iv) **Shingles: Western Red Cedar #1 Blue Label or R&R grade; length to match that of the old shingles.**
 - (v) **Nails: Hot-dipped galvanized shingle nails. (Corrosion resistant)**
 - (vi) **Primer: Covered under "Painting."**
- (b) WORKMANSHIP**
 - (i) **General: Re-nail all loose sheathing. Rip shingles to the same width as the old and, where the old shingles have round or other fancy-cut butts, cut the new butts to match the old shingles exactly. Spaces between shingles shall not exceed 1/4". Nails will penetrate sheathing a minimum of 1/2" and**

should not be overdriven.

- (ii) **Nailing:** Nail as recommended by the manufacturer.
- (iii) **Flashings:** Replace all rusted and damaged flashings.
- (iv) **Primer:** Back prime using a water repellent wood preservative before installation.

Section 1.05 EXTERIOR TRIM REPAIR

(a) MATERIALS

- (i) **Finished Wood:** Kiln Dried Pine, D-Select or approved equal.
- (ii) **Mouldings:** Custom milled from clear stock to match original profile. Where no specification is given, use the closest available moulding. Submit for approval.
- (iii) **Mails:** Hot-dipped galvanized or non-ferrous.
- (iv) **Wood Preservative:** Cuprinol Clear
- (v) **Primer:** Covered under "Painting."
- (vi) **Flashing:** .032 aluminum roll stock with baked-enamel finish.

(b) WORKMANSHIP

- (i) **Replacement:** Replace trim noted in drawings. Where additional pieces are found to be rotted, split, or damaged, obtain approval and replace on an additional-cost basis, as provided in contract.
- (ii) **Re-Nailing:** Scrape out joints and re-nail all loose pieces.
- (iii) **New Flat Trim:** Match dimensions of new pieces to old exactly. Shim out the new wood to be flush with the old; all joints shall be tight and blended to be invisible under paint, and all nails set.
- (iv) **Scarf Joints in Vertical Pieces:** Cut horizontal joints in vertical pieces on a 45-degree angle to shed water. Joints in horizontal pieces may be buttoned or scarfed.
- (v) **Mouldings:** Blend the joints between the new and old mouldings so that the joint will be invisible once painted. All joints shall be tight and all nails set.
- (vi) **Priming:** Face prime all finish lumber before installation.

Section 1.06 PORCHES

(a) MATERIALS

- (i) See Section 1.01 Rough Carpentry for additional general requirements.
- (ii) **Footers and Step Slabs:** Any footer or footing that supports a structure that is attached to a dwelling should be a minimum of 42" below grade.
- (iii) **Piers:** Install piers noted below.
- (iv) **Framing:** All floor framing shall be pressure-treated southern yellow pine lumber of the stock size closely matching that of the existing framing. (UC3-UC4 Use Category System) Cut down or add to lumber so that stock size will be exact size of existing. Joist hangers shall be used whenever appropriate.

- (v) **Fascia: Kiln Dried Pine, D-Select or approved equal.**
- (vi) **Columns, Railings, Balustrades, & Balusters: Style, size and profile to match original and use Cypress, Redwood, or Cedar. Composite base may be used with CRS approval.**
- (vii) **Stringers: Pressure treated southern yellow pine.**
- (viii) **Decking & Ceiling: All decking and ceilings shall match original. Total replacement shall be minimum 3/4" Tongue and Groove lumber. Blind nail into floor joists. Alternative Tongue and Groove materials must come under review by The Cleveland Restoration Society before being used.**
- (ix) **Lattice: 3/4" frame of treated lumber with 1/4"x2" lattice screwed to frame with rust resistant utility screws.**
- (x) **Nails: Hot-dipped galvanized or non-ferrous. Flooring nails for Tongue and Groove decking.**
- (xi) **Moisture Content: Moisture content of all lumber and plywood, including pressure-treated lumber, shall be maximum 19%.**
- (xii) **Fasteners, Anchors, & Hangers: Size and type as recommended by applicable standards, or as recommended by the manufacturer. Where weather exposed or in ground contact, provide fasteners, anchors and hangers with hot-dipped zinc coating. (Corrosion resistant)**
- (xiii) **Wood Preservative: Cuprinol Green #10 or equivalent**
- (xiv) **Priming: Covered under "Painting."**

(b) WORKMANSHIP

- (i) **See Section 1.01 Rough Carpentry for additional general requirements.**
- (ii) **General: Set carpentry work to required levels and lines with members plumb and true and accurately cut and fitted. Securely attach all carpentry work to substrate. Provide blocking and furring as required to receive finishes and fixtures.**
- (iii) **Footers: Install jack or shoring to support the porch from the ground before starting work. Installation shall include digging, pouring, and backfill. Excavate to below frost line at pier locations. Install cement slab 24"x24"x12".**
- (iv) **Step Slabs: Excavate and install 3" of drainage gravel. Pour concrete slab 4" thick as base for new steps.**
- (v) **Piers: Re-set piers on slab, using mortar to make plumb and level. Shim as required to loan bearing beam. For new porches, use 4"x4" or 6"x 6" pressure treated posts with appropriate footings as notes.**
- (vi) **Joist Repair: Rip to exact width as original joists and space 16"o.c. Install "crown up" and where joists are to be "sistered" spike securely into old joist and provide full bearing on nearest plates of structural walls. Header joists to be doubled.**
- (vii) **Sistering: All sister nailing to be done in triangulated pattern.**
- (viii) **Columns, Railings, Balustrades & Balusters: All shall be free of cracks, warping and checking. All to be replicated or performed from a lumber supplier to match existing. Submit samples for approval. If balusters are to**

be replaced, they should be at least 1-3/4" square and spaced no more than 3-1/2" apart when measured from center to center. Larger spindles (2-1/2" diameter) may be spaced further apart. Submit detail to CRS Historic Preservation Specialist prior to construction. Newel posts to be lagged to floor joist. Balustrades securely anchored.

- (ix) **Steps:** Rise not to exceed 8". Stringers shall be 16" o.c. Treads and risers to be Fir or CRS approved. All stairs shall be built with a slight pitch to prevent standing water from accumulating on the treads. Stairs having more than two steps will have at least one matching balustrade with newel attached to stringer or in concrete footer.
- (x) **Lattice:** Properly hang and fasten into opening.
- (xi) **Priming:** Face prime all finish lumber before installation.

Section 1.07 FINISH CARPENTRY

(a) MATERIALS

- (i) **Flat Stock:** D-Select pine or poplar ripped to same width as original unless noted otherwise. Match wood grain as close as possible.
- (ii) **Mouldings:** Match existing or closest moulding available. Submit for approval. Use finger jointed mouldings only when painting.
- (iii) **Fasteners:** Finish nails, screws and other anchoring devices of the proper size, material and finish for application, concealed where possible.

(b) WORKMANSHIP

- (i) **General:** Condition wood products to average prevailing humidity conditions prior to installing.
- (ii) **Patching:** Patch baseboards, trim and other woodwork to match wherever partitions are removed. On all new partitions and door infills match height of existing flat baseboard stock, and where possible, install salvaged matching cap moulding. Otherwise, use closest match stock cap moulding.
- (iii) **Installation:** Install all work plumb, level, true, and straight with no distortions. Shim as required using concealed shims.
- (iv) **Nailing:** "Blind nail" finish work whenever possible. Where this is not possible, set surface nails and fill holes. Nailing should penetrate studs, plates or solid backing.
- (v) **Mouldings:** Cope inside corners and miter outside corners. All joints shall be tight. Toenail, glue, and sand all joints to make ready for stain or painting.