

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

Cleveland Restoration Society
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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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TABLE OF CONTENTS

Article I. MASONRY	2
<i>Section 1.01 MASONRY CLEANING</i>	<i>2</i>
<i>Section 1.02 MASONRY TUCKPOINTING</i>	<i>2</i>
<i>Section 1.03 MASONRY REBUILDING</i>	<i>3</i>
<i>Section 1.04 CHIMNEY REBUILDING</i>	<i>4</i>
<i>Section 1.05 MASONRY CAULKING</i>	<i>6</i>
<i>Section 1.06 STUCCO REPAIR</i>	<i>6</i>
<i>Section 1.07 FOUNDATION WATERPROOFING</i>	<i>7</i>
<i>Section 1.08 MASONRY STEPS</i>	<i>7</i>

Article I. MASONRY

Section 1.01 MASONRY CLEANING

(a) MATERIALS

(i) Masonry Cleaner: Prosoco Sure-Klean or approved equal.

(b) WORKMANSHIP

- (i) Sample: Before starting work, clean a sample area of at least 4 square feet to determine the mildest solution that effectively cleans the masonry surface. Obtain approval from CRS Historic Preservation Specialist and Homeowner. This approved sample shall be the standard for the rest of the work.**
- (ii) Masonry Cleaning: Following all label direction, remove all paint and discoloration from designated masonry surfaces. Application, handling, and disposal of all sludge and chemical waste must meet all Local, State, and Federal Regulations.**
- (iii) Protection: Properly cover and protect all adjacent non-brick and stone surfaces. Protect plants and landscaping. Beware of drifting of sprayed materials and rinse residue.**
- (iv) Pre-wetting and Rinsing: Thoroughly pre-wet and rinse masonry surfaces with a 25-40 degree fan tip. Cleaning solution shall be applied using a low pressure spray, or by roller or brush. Pre-wetting and rinsing shall be completed at no more than 600 psi.**
- (v) Temperature: In general cleaning shall not be done when temperatures are below 45-deg. F. or when such temperatures can reasonably be expected within three days following completion of the work. Obtain approval from CRS Construction Manager before starting if work is to be done under above conditions.**
- (vi) Contractor Addendum: Completely describe additional work you feel is needed to complete the above scope of work, and the materials to be used. If the addendum is not used, place NA on the bid line below.**

Section 1.02 MASONRY TUCKPOINTING

(a) MATERIALS

- (i) Brick: Reuse old brick or stone wherever possible. If use of old brick is not feasible, use new brick grade SW or better that matches the color and size of the old exactly. Provide a sample for approval.**
- (ii) Mortar: Use a high-lime, low Portland cement mix to match color and hardness of the old mortar closely. Do not add anti-freeze or water repellents to the mix. The following mortar composition is suggested as starting point for the new mortar. Mason shall alter as needed to match existing mortar.**

- 1) **Composition:**
 - a) **19th Century Mortars**
 - b) **Type O Mix: One part type I Portland cement**
 - c) **Two parts type S lime**
 - d) **Nine parts well graded sharp mason sand**
 - e) **Add pigment as necessary**
 - f) **(Use white Portland to match mortars with high/full line content)**
- 2) **20th Century Mortars**
 - a) **Type N Mix: One part type S lime**
 - b) **One part type I Portland cement**
 - c) **Six part well-graded sharp mason sand**
 - d) **Add pigment as necessary**

(b) WORKMANSHIP

- (i) **Temperature:** In general, tuckpointing shall not be done when temperatures are below 45-deg. F. or when such temperatures can reasonably be expected within three days following completion of the work. Obtain approval from the CRS Construction Manager before starting if work is to be done under above conditions.
- (ii) **Mortar:** Mortar shall be thoroughly mixed, and only in such quantity as needed for immediate use. Over wetting of mortar shall be avoided. Water shall be clean and free from injurious amounts of acids, alkalis, or organic materials. For hand mixing, the sand, lime, and cement shall be thoroughly mixed before water is added. Add approx.. 3/4 of the water required and mix until material is uniformly damp. Continue to add water in small amounts until mortar mix achieves workable consistency.
- (iii) **Tuckpointing:** Remove deteriorated mortar to a depth of at least 3/4". Obtain permission from the Construction Manager before using power tools. Wash out all joints. Lightly dampen bricks or stone prior to tuckpointing. Project adjacent masonry. All mortar shall be applied only with tuckpointing tools. Mortar shall be applied in a number of lifts no deeper than 1/4" to 1/3". All new mortar joints shall match the old joints in profile, size, tooling, and color exactly, and match the composition as close as possible. Remove all mortar stains on completion.

Section 1.03 MASONRY REBUILDING

(a) MATERIALS

- (i) **Brick:** Reuse old brick or stone wherever possible. If use of old brick is not feasible, use new brick in grade SW or better that matches the color and size of the old exactly. Provide a sample for approval.
- (ii) **Closing in openings:** When changing opening sizes brick must be toothed in to maintain staggered joints.
- (iii) **Mortar:** Use a high-lime, low Portland cement mix to match color and hardness of old mortar closely. Do not add anti-freeze or water repellents to the mix. The following mortar composition is suggested as a starting point

for the new mortar. Mason shall alter as needed to match existing mortar.

- 1) **Composition:**
- 2) **19th Century Mortars**
 - a) **Type O Mix: One part type I Portland cement**
 - b) **Two parts type S lime**
 - c) **Nine parts well graded sharp mason sand**
 - d) **Add pigment as necessary**
 - e) **(Use white Portland to match mortars with high/full lime content)**
- 3) **20th Century Mortars**
 - a) **Type N Mix: One part type S lime**
 - b) **One part type I Portland cement**
 - c) **Six part well-graded sharp mason sand**
 - d) **Add pigment as necessary**

(b) WORKMANSHIP

- (i) **Temperature:** In general, rebuilding shall not be done when temperatures are below 45-deg. F. or when such temperatures are reasonably expected within three days following completion of the work. Obtain approval from CRS Construction Manager before starting if work is to be done under above conditions.
- (ii) **Mortar:** Mortar shall be thoroughly mixed, and only in such quantity as needed for immediate use. Over wetting of mortar shall be avoided. Water shall be clean and free from injurious amounts of acids, alkalis, or organic materials. For hand mixing, the sand, lime, and cement shall be thoroughly mixed before water is added. Add approx. 3/4" of the water required and mix until material is uniformly damp. Continue to add water in small amounts until mortar mix achieves workable consistency.
- (iii) **Rebuilding:** Document existing masonry patterns and configuration before dismantling. Carefully take down masonry units where noted. If reusing old units, clean and lightly dampen them before relaying. All new courses shall be plumb, level and true to line immediately when first set. Face coursing shall be laid out before setting. All head joints for the face brick and back-up work shall be completely full of mortar. Slushing is not permitted. All new mortar joints shall match the old joints in width, profile, size, tooling, and color exactly, and match the composition as close as possible. Remove all mortar stains on completion. Remove all mortar stains from faces on completion.
- (iv) **Footers:** If upon inspection it is determined that footer is damaged or unsound the footer shall be replaced. Size and thickness to be determined by the wall size.

Section 1.04 CHIMNEY REBUILDING

(a) MATERIALS

- (i) **Brick:** Reuse old brick or stone whenever possible. If use of old brick is not feasible, use new brick grade SW or better that matches the color and size of

the old exactly. Provide a sample for approval.

- (ii) **Mortar:** Use a high-lime, low Portland cement mix to match color and hardness of old mortar closely. Do not add anti-freeze or water repellents to the mix. The following mortar composition is suggested as a starting point for the new mortar. Mason shall alter as needed to match existing mortar.
 - 1) **Composition:**
 - 2) **19th Century Mortars**
 - a) **Type O Mix: One part type I Portland cement**
 - b) **Two part type S lime**
 - c) **Nine part well graded sharp mason sand**
 - d) **Add pigment as necessary**
 - e) **(Use white Portland to match mortars with high/full lime content)**
 - 3) **20th Century Mortars**
 - a) **Type N Mix: One part type S lime**
 - b) **One part type I Portland cement**
 - c) **Six part well graded sharp mason sand**
 - d) **Add pigment as necessary**
- (iii) **Flue Liners:** Not required unless the chimney below is to be re-lined.
- (iv) **Counter Flashing:** 2-1/2 lb, 16 oz. copper, or anodized aluminum to match new existing roof (if roof is to remain).

(b) WORKMANSHIP

- (i) **Temperature:** In general, a chimney shall not be rebuilt when temperatures are below 45-deg. F. or when such temperatures can reasonably be expected within three days following completion of the work. Obtain approval from the CRS Construction Manager before starting if work is to be done under above conditions.
- (ii) **Overall Design:** Match height, corbelling, color of mortar, profile and tooling of joints, and other details of chimney exactly.
- (iii) **Mortar:** Mortar shall be thoroughly mixed, and only in such quantity as needed for immediate use. Over wetting of mortar shall be avoided. Water shall be clean and free from injurious amounts of acids, alkalis, or organic materials. For hand mixing, the sand, lime, and cement shall be thoroughly mixed before water is added. Add approx.. 3/4 of the water required and mix until materials is uniformly damp. Continue to add water in small amounts until mortar mix achieves workable consistency.
- (iv) **Rebuilding:** Document existing masonry patterns and configuration before dismantling. Carefully take down masonry units where noted. If reusing old units, clean and lightly dampen them before relaying. All new courses shall be plumb, level and true to line immediately when first set. Face coursing shall be laid out before setting. All head joints for the face brick and back-up work shall be completely full of mortar. Slushing is not permitted. All new mortar joints shall match the old joints in width, profile, size, tooling, and color exactly, and match the composition as closely as possible. Remove all mortar stains on completion. Remove all mortar stains from faces on

completion.

- (v) **Counter Flashing:** Set flashings shall extend into the fresh mortar at least two inches as chimney is erected. Where chimneys are not being taken down below the roofline, cut out the joints and the old flashings and insert new flashings, wedge with lead and point joints with matching mortar. Neatly cut, fold and hammer together the flashings, lapping them in the proper direction to shed water, leaving no loose pieces or gaps.
- (vi) **Flues:** Neatly smooth the mortar on the inside of the flues as the chimney is built
- (vii) **Cap: (Chimneys without Capstones)** Neatly finish off the top of the chimney with a layer of mortar pitched to shed water away from the chimney.
- (viii) **Cleaning:** Upon completion, remove all traces of mortar from brick faces.

Section 1.05 MASONRY CAULKING

(a) MATERIALS

- (i) **Backer Rod:** Closed-cell polyurethane rope, (“Ethafoam Rod”).
- (ii) **Caulking:** Polysulfide, (“Vulkem” or approved equal), color to match that of the masonry being caulked.

(b) WORKMANSHIP

- (i) **Cleaning:** Remove all loose mortar and dirt from joint surfaces.
- (ii) **Backer Rod:** Place backer rod in joints 1/4” wide or wider so that the thickness of the caulking bead will be no greater than 1/2 the joint width at its thinnest point.
- (iii) **Caulking:** Fill joints with a neat, smooth bead of caulking. Remove excess caulk from masonry faces.

Section 1.06 STUCCO REPAIR

(a) MATERIALS

- (i) **New Stucco Mix:** Match color, texture, and hardness of existing.
- (ii) **Lath (where called for):** Galvanized, diamond-mesh wire lath.
- (iii) **Bonding Agent:** Weld-o-bond, or approved equal.

(b) WORKMANSHIP

- (i) **Temperature:** In general stucco shall not be applied when temperatures are below 45-deg. F. or when such temperatures can reasonably be expected within three days following completion of the work. Obtain approval from CRS Construction Manager before starting if work is to be done under above conditions.
- (ii) **Preparation:** Where indicated, cut existing stucco on a neat, straight line and remove. Remove all dirt, mildew and other contaminants from substrate. Where substrate was painted, remove enough paint, by chipping or other approved method, to secure a good bond unless lath is to be installed. Repoint and open substrate joints.
- (iii) **Lathing:** Where indicated, apply lath over a water resistant substrate and use approved galvanized fasteners with spacers.

- (iv) **Application: Match thickness and texture of existing stucco. Meet existing stucco on a neat clean line.**

Section 1.07 FOUNDATION WATERPROOFING

(a) MATERIALS

- (i) **Stone- washed and clean #57 river rock**
- (ii) **Crack Filler- hydraulic cement**
- (iii) **Parging- Portland cement/ironite mix**
- (iv) **Foundation Coating- heated or equivalent**
- (v) **Drain Tile- SDR35 or equivalent**
- (vi) **Fabric- soil/stone separation**

(b) WORKMANSHIP

- (i) **Excavation: To be performed in a workmanlike manner. Protect areas of property; grass, walkways, driveway, and other areas that are needed as access. Contractor is not responsible for the life of plants or shrubs that are being moved. Top soil can be reused. Haul away all excess soil.**
- (ii) **Wall Preparation: Walls and footers should be scraped clean of dirt and loose material. All holes and cracks filled with hydraulic cement. Parge walls and footer with Portland/ironite mix.**
- (iii) **Drainage: Drain tile shall be set on 2” of gravel and covered with gravel within 12” of grade. Stone to be separated from 12” of top soil with fabric. Drain tile should have 1.5% to 1.0% slope for water flow. Clean outs shall be installed to I.R.C. and city plumbing codes.**
- (iv) **Backfill: #57 river rock with 12” of top soil with a 4% slope away from building. Where concrete is to be replaced, backfill to grade with gravel compatible for concrete.**
- (v) **Warranty: Contractor shall provide Homeowner with a minimum ten year warranty against leakage before final payment.**

Section 1.08 MASONRY STEPS

(a) MATERIALS

- (i) **Must be re-built with original materials when possible or like material to match original.**
- (ii) **No pre-cast steps may be used.**

(b) WORKMANSHIP

- (i) **Footers must be 42 inches below grade.**

(c) SCOPE OF WORK

- (i) **Permit Required.**