



# Certificate of Appropriateness

Milwaukee Historic Preservation Commission/200 E. Wells Street/Milwaukee, WI 53202/phone 414-286-5712/fax 414-286-3004

**Property**

2833 W. STATE ST.      Concordia Historic District

**Description of work**

1. Remove service chimney near southwest corner to below roofline
2. Re-roof entire house in GAF Natural Shadow Backwood, valleys must be metal and painted to match roofing or slightly darker. East chimney to be flashed with copper.
3. Install half-round gutters and downspouts
4. Remove vegetative overgrowth, shrubs, yews, as needed per RACM specs
5. Remove back alley fence.
6. Rebuild eaves as needed per attached specs
7. Remove all non-wood siding and trim.
8. Restore/repair/replace wood siding and trim as appropriate, all clapboards to be quarter sawn vertical grain
9. Reconstruct porch to match original. Measured drawings of existing conditions are required to be made so that the reproduction can be verified.

**Date issued**

5/8/2017

PTS ID    114252    COA: RACM Rehab

In accordance with the provisions of Section 320-21 (11) and (12) of the Milwaukee Code of Ordinances, the Milwaukee Historic Preservation Commission has issued a certificate of appropriateness for the work listed above. The work was found to be consistent with preservation guidelines. The following conditions apply to this certificate of appropriateness:

**Decorative east chimney must be photo-documented before repairs commence. Special attention is needed to the corbelled detailing at the top and this must be photographed in detail along with measurements to be taken of how much each brick projects or recesses. Corbelling detail must be reproduced exactly. Numbering of the bricks is strongly advised.**

**Submit measured drawing of existing porch to HPC staff before commencing work on replication.**

**All work other to be done according to attached RACM specs.**

All work must be done in a craftsman-like manner, and must be completed within one year of the date this certificate was issued. Staff must approve any changes or additions to this certificate before work begins. Work that is not completed in accordance with this certificate may be subject to correction orders or citations. If you require technical assistance, please contact Tim Askin of the Historic Preservation staff as follows: Phone: (414) 286-5712 E-mail: HPC@milwaukee.gov.

**If permits are required, you are responsible for obtaining them from the Milwaukee Development Center.** If you have questions about permit requirements, please consult the Development Center's web site, [city.milwaukee.gov/permits](http://city.milwaukee.gov/permits), or call (414) 286-8210.



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City of Milwaukee Historic Preservation Staff

Copies to: Development Center, Ald. Robert Bauman, Contractor , Inspector Dave Pedersen (286-2540)

Current conditions



2833 West State Street

**Base Bid - Roof Repair and Gutters**

1. Dismantle chimney at southwest corner to below the roofline and reconstruct roof at this location.
2. Roof requires complete tear off, sheathing, flashing and roofing with GAF Timberline, Natural Shadow in **Barkwood** color. Metal valley flashing, drip edge and gutter apron to be color that matches or is one shade darker than roof color.
3. Roofing to include back porch and rear bays.
4. Install copper step flashing on chimney at east side of house.
5. Install new half round gutters with corresponding downspouts.
6. Remove any scrub trees and shrubs growing in yard, along foundation and along fenceline. Remove large yews at front porch.
7. Remove deteriorated fence at backyard/alley.

**Alternate Bid Item #1 - Siding and Trim Repair and Paint for Body of House (excluding front porch)**

1. Rebuild eaves as required; replace any rotted fascia boards, soffit boards, crown molding, trim, brackets etc....
2. Remove any existing vinyl, asphalt, transite or aluminum siding to reveal the original siding and trim. Take care to preserve existing siding and trim
3. Restore existing siding, shingles and trim. Any deteriorated or missing siding shall be replaced with Quarter sawn vertical grain clapboards ordered from [wardclapboards.com](http://wardclapboards.com). Sawn wood replacement shingles to be all clear cedar, vertical grain with no knots or sapwood. (Premium Grade Sidewall, 100% Vertical Grain Shingles.
4. All finish wood must be smooth and free of knots and sapwood. All finish wood must be of a naturally decay-resistant species such as western red cedar, domestic Spanish cedar or redwood. Coat all new finish wood and trim with Woodlife wood preservative prior to priming and painting. All new wood must be primed and painted as soon as possible after installation to insure durability of paint job

5. Full exterior paint job with Benjamin Moore, Moor-Gard latex paint. All existing siding and trim to be scraped thoroughly and carefully. Provide smooth surface for paint application. Paint all exterior wood surfaces with one coat of bonding primer and two coats of exterior paint. At least three different colors; to be specified by the owner. (Window sashes do not need to be painted. Aluminum storms remain in place. Any wood storms must be painted)

**Alternate Bid Item #2 Front Porch Renovations.**

6. Front Porch/Entry renovations:
  - o Rebuild front porch with original details and dimensions. Porch roof deck and columns seem to be intact but after deconstruction any rot must be removed and rebuilt.
  - o Install any required footings and stair pad for new front porch.
  - o Front porch first requires all new columns, railings, hand rails, newel posts, decking, stairs and skirting where it cannot be salvaged. Owner's representative will provide plans for porch details that require rebuilding.
  - o All replacement wood on porch to be cedar.

**Alternate Bid Item #3- Chimney rebuild at east of house.**

1. Repair, rebuild and tuckpoint chimney at east side of house.

**House to be secured at the end of each work day. All boards to be replaced on doors and windows to prevent vandalism and break-ins.**

Please submit bid by breaking out costs by base bid item and alternate bid items listed along with a total for all proposed repair work. As part of accepting bid, DCD may choose to remove certain bid items in order to keep overall project on budget.

### General Specifications for Roofing and Gutters

Roofing shingles to be used are GAF Timberline, Natural Shadow in Pewter Gray or Barkwood color, unless otherwise specified. Drip edges, gutter apron and roof valleys should match color of roof shingles as closely as possible (e.g. use black drip edge etc... when installing pewter gray shingles.)

- 1) Tear off all roofing material down to the original boards.
- 2) Inspect and replace rotted, damaged or missing boards using like-with-like dimensioned boards.
- 3) Sheath the roof with OSB a minimum of 7/16" thick to create a continuous nailing surface.
- 4) To avoid interior water damage only tear off as much roof area as can be repaired and sheathed in the same day. No roof shall be left with open areas overnight. Any roof that has not had felt applied shall be securely tarped at the end of the work day.
- 5) Install 15 lb. (non-perforated) felt with 3" minimum overlap using T-50 3/8" staples.
- 6) Install 3 ft. wide GAF Stormguard Ice and Water Shield along all eave lines. On eaves extending out more than 3 feet add a second row of GAF Stormguard Ice and Water Shield with a 6" overlap
- 8) For all roof venting cut a 3" wide channel along the gable peak to within 2 feet of the roof edge for installation of a ridge vent. (NOTE: Pan vents are NOT permitted unless approved by owner's representative.)
- 9) Install manufactured **Black** aluminum 1-1/4" drip edge along entire gable roof edge, and **Black** gutter apron with 1/4" shingle overlap at eave edge. Install using 1-1/4" galvanized roofing nails.
- 10) Install a full shingle starter strip along the base of the roof. The architectural shingles are to be nailed down using roofing nails. The size of the nail is determined by the thickness of the roofing material (typically 1-1/4"). Nail the shingles just below the tar strip using 4 nails per shingle, or in the thickest area of the shingle follow manufactures specifications.
  - a) Install the first architectural shingle 1/4 inch over the edge of the roof to force any water away from the fascia. It will also help prevent any fascia deterioration.

b) Next mismatch the shingle gaps by cutting different amounts of material from each piece of shingle before it is laid. For example; the first row should be left alone, the second row would be cut 5 inches, the third row 11 inches and on in 6-inch increments. This staggers the architectural shingles as they are installed so the gaps from each shingle to do overlap each other. Continue this process until the entire roof surface is covered, leaving the peak of the roof bare.

c) Install ridge cap of architectural shingles over the peak of the main roof. These shingles will require a 2" nail on each side to hold them in place.

11) All roof valleys shall be installed as open roof valleys using 26 gauge prefinished **Black** aluminum. Start by running a piece of GAF Stormguard Ice and Water Shield 36" wide up the entire length of the valley and stapled against the wood, then run 15 # felt lapping past the valley 12"-18" on each side of the valley.

a) Using a metal valley with a "w" bend in the metal, to slow water from rushing under the shingles, run the metal valley piece up the valley starting at the bottom of the valley and work your way to the top. The metal valley needs to be black in color to compliment the color of the roof shingles.

b) Install the shingles past the valley center on one side of the flashing all the way up. Do not drive nails into the flashing. Then install shingles on the other side. Again, do not drive nails through flashing. Overlap shingles as you go, much like weaving.

c) Snap a chalk a line 3 inches from the center of the valley at the top of the valley and widen the gap by 1/8" per running foot on each side of the valley as it runs downward.

d) Place a piece of sheet metal under the shingles to make sure you will not damage the flashing. Use a utility knife with a hook blade to cut the shingles along the chalk line.

e) Snip off the corners of adjacent shingles (dub) to protect against water being channeled under shingles. Lift up shingles and use a hook blade to cut all the pointed unexposed ends. Make each cut about 2 inches from the point.

f) Caulk twice between shingles and flashing. Using roofing cement in a caulk tube, insert the tube's tip all the way under the shingles and run a continuous bead. Then hold the nozzle 2 inches back and apply a second bead nearer the edge. Then lift up each top shingle and apply roofing cement to adhere the shingles to each other. This is to seal out water and to attach the shingles because there are no nails.

### Gutters

Install new half-round gutters and downspouts. Gutter and downspout color to be **granite gray** unless otherwise specified. Gutters to be half-round unless otherwise specified.

a) Half-round gutters must be installed with brackets or straps installed under the roof shingles and not directly mounted to the fascia board. All gutters shall be a minimum of .032 gauge, maintain a minimum slope of 1/2" per 10 running feet of gutter, and shall be attached approximately every 32" on center, or every other rafter tail, and shall be a minimum of 1/2" from the fascia board.

b) Gutters longer than 40 feet should be sloped in two directions from the midpoint of the gutter and connected to a minimum of a 4" diameter downspout. All downspouts shall be a minimum of 024 gauge.

Go to this link to find out more about 1/2 round gutters vs. K style including price, <http://www.guttersupply.com/p-halfround.gstml>

Aluminum half round gutters are supplied by the gutter store in various colors. [www.merchantcircle.com/business/The.Gutter.Store.414-258-8000](http://www.merchantcircle.com/business/The.Gutter.Store.414-258-8000)

#### **Chimneys and flashing**

- If the chimney exits the roof below the ridge, a chimney saddle must be installed where none exist.
- All chimneys shall be flashed with permanent metal base flashing and counter flashing. Step flashing to be installed when specified.
- Install appropriate flashing at any wall and roof intersections.

#### **Decorative tin ornamentation and metal flashing**

- To be repaired per specifications provided by owner's representative

## **GENERAL SPECIFICATIONS for CARPENTRY**

These guidelines to be followed where applicable

All wood repair and replacement to be made with **clear wood, no knots, no sapwood**. All new wood must be primed and painted as soon as possible after installation to insure durability of paint job.

All wood repairs/replacement to wood siding, trim and decorative details must be with clear, smooth wood with no knots and no sapwood. Wood to be Eastern White Pine, Spanish Cedar or Western Red Cedar. (Western or Ponderosa Pine is not recommended as it rots prematurely in most exterior applications.

Repair and replacement of wood siding, shingles and trim must match dimensions and patterns of existing siding, shingles and trim.

### **Porch Repairs/Reconstruction:**

1. Secure porch roof while deck, posts and roof are inspected for deterioration. Replace damaged or deteriorated framing members with same dimensioned materials. Install new porch foundation piers directly below each column.
2. Raise and level porch roof leaving a slight slope to allow water runoff. Install new 6"x 6" posts that extend from the ground to the porch roof. Columns are to be placed in same locations as existing columns. Sheathe roof with 7/16" OSB and apply appropriate roofing. OSB must not be visible on finished porch roof. See drawings supplied for boxing columns and capitol design.
3. When rebuilding wood porch decks use primed Fir tongue & groove 5/4" x 4" decking. Deck boards to be primed on all sides before installation. All decking shall extend a minimum of 1" beyond the porch skirt framing
  - a) All porch decks shall have a slope from the house to the outer porch edge of 1/8" per linear running foot.
  - b) All decking will be laid perpendicular to the house and be supported at the house with a ledger board and by joists a minimum of 16" on center (if new), or IAW with the specifications of the UDC.
  - c) All joists will be mounted by means of joist hangers properly installed.
4. Porch railings to be a maximum of 36" tall on residential homes in historic areas unless otherwise indicated.
  - a) Porch hand rails will include a bread loaf upper rail and a bottom rail built up with 2X and 1X material (see plans). Bottom rail to be installed 3" inches above the porch deck.
  - b) Railings will be attached to newel posts, columns, or the house with 4" galvanized counter-sunk screws to allow future repair and replacement.
  - c) Railings will have 2" x 2" (actual 1-1/2" x 1-1/2") square stock spindles spaced 1-1/4" apart, and all spindles will be installed in a minimum 1/4" x 1-1/2" blank with galvanized 1-1/2" screws.
  - d) Stair rails will mirror the design of the hand railings and be attached to newel posts.
  - e) Upper porch railings on second floor porches will mirror the design and appearance of the first floor railing, except that newel posts may be designed proportionately narrower.
5. When repairing or rebuilding porch skirts all materials will be of like-with-like wood replacement of the same design and dimensions as originally existed or as specified by the drawings provided by the Owner's Representative.
  - a) All porch skirts will be installed with a continuous board frame that is a minimum of 6" in width. Clear cedar boards must be used where wood meets the ground in areas such as porch skirt board frames and stairs.
  - b) All framing will cover the rough framing lumber of the support posts, columns and beams.
  - c) All skirts will incorporate a slat design that will closely mirror the design of the wood railings above or as specified by the Owner's Representative.
6. When repairing or rebuilding stairs all components will be of like-with-like clear wood materials (no knots, no sapwood).
  - a) All stairs will be supported by a minimum of three stringers with steps of equal height, and no step will exceed 8 inches in height.
  - b) There will be no more than a 3/16" variation between steps.
  - c) Each step will have a minimum tread width of 11" with a tread overhang of no more than 1 inch.

- d) Each step will be constructed with a corresponding riser.
- e) Any stairs with more than three steps will include a hand railing along each side of the stairs that attaches to a lower newel post and an upper newel post or column.

#### **Siding and Trim repair and replacement. Windows and Doors:**

Miscellaneous repairs or replacement to existing items such as the water table boards, soffits, fascia boards, crown moldings etc... will use like-with-like materials of the same design and dimensions. (clear wood no knots)

Quarter sawn vertical grain clapboards to be used for replacement of wood clapboards (for example see [wardclapboards.com](http://wardclapboards.com)). Sawn wood replacement shingles to be all clear cedar, vertical grain with no knots or sapwood. (Premium Grade Sidewall, 100% Vertical Grain Shingles)

Any new elements such as the addition of or removal of windows or doors will be indicated by the Owner's Representative and specify the design and dimension of each new element.

Generally new windows will be wood, double-hung with proportions and trim work similar to other existing windows. Doors must match existing historically accurate doors and be a minimum of 6'8" in height and 36" in width, and will reflect the panel design of other exterior doors on the house.

#### **GENERAL SPECIFICATIONS for MASONRY**

All brick and mortar repairs must blend with existing brick and mortar color, patterns, mortar mix and joint thickness. Repairs must maintain the historic integrity of existing brick and masonry work. These guidelines to be followed where applicable.

- 1) When doing mortar or brick repair, or replacement on historic homes the following process/procedure is to be followed:
- 2) Inspect all masonry for signs of deterioration. Identify any bricks that are cracked or spalled, and determine the reason for the damage. Replace damaged bricks using like-with-like material.
- 3) Check for cracks in the mortar joints and determine if excessive settling has occurred which will require additional foundation repairs.
- 4) When repairing foundations be sure to incorporate the same brick pattern. The contractor shall use like-with-like dimensioned bricks of similar color and density for any repairs.
- 5) When removing any damaged brick from a chimney, or rebuilding a chimney it is critical that the contractor take photos of the existing chimney, so that they can duplicate the corbelling pattern that exists. Rebuilt chimneys MUST be completed using the same type, pattern and dimensions as the existing chimney. When in doubt the chimney design on page 97 of "As Good As New" may be used if approved by the Owner's Representative.
- 6) When tuckpointing brick or block the old mortar must be removed to a minimum depth of 3/4" by means of a tuckpointer's rake pulled across the joint or lightly tapping with a hammer. If the mortar does not come loose a hammer and plugging chisel should be used. Either of these methods is preferred. Use of an electric grinder should only be done in areas that are not visible to the general public such as rear walls, and then only after being approved by the Owner's Representative. Great care must be taken not to damage the brick. "No mortar removal is to be done using a reciprocating saw with a masonry blade."
- 7) When applying the new mortar to Cream City brick the joint should be damp but not dripping wet. The new mortar should use a lime mortar mix with one part lime to two parts sand. Use Type "K" mortar if available and Type "O" mortar as a second option.
- 8) When tuckpointing it is important that the mortar match the existing mortar in color. New mortar must be colored or tinted and installed in an inconspicuous test area, prior to installing it in highly visible areas.
- 9) When applying mortar a grout bag or knife-like tuckpointing tool should be used to push the mortar all the way back into the joint. Tuckpointing should be

done in 1/4 inches layers, packing each layer before applying the next. Apply mortar as neatly as possible and avoid smearing mortar on the face of the brick.

10) When the final layer begins to set up slightly, it MUST be tooled to match the style of the existing joints. (See pg 85 of "As Good As New"), unless another style is approved by the Owner's Representative prior to initiating any project work.

11) Clean up any excess mortar immediately using phosphoric acid. If this does not work use muriatic acid. Use muriatic acid in a solution of 1 part muriatic acid to 10 parts water. Apply the acid mixture with a large sponge. Leave the acid in contact with the masonry for 30 seconds then use a scrub brush to remove any excess mortar. When clean, rinse thoroughly with water and neutralize the cleaned area with 1 cup of household ammonia to 1 gallon of water. Muriatic acid is dangerous so do not get in contact with eyes or skin, and always keep a neutralizing agent like baking soda on hand.