



## 2012 HOUSE GRANTS PROGRAM REHABILITATION DOS AND DON'TS

### General Principles

The Victoria Heritage Foundation's *Rehabilitation Dos and Don'ts* are based on the *Standards and Guidelines for the Conservation of Historic Places in Canada*, a manual of heritage practice published by Parks Canada ([www.historicplaces.ca](http://www.historicplaces.ca)). VHF has assembled these general principles and guidelines for exterior rehabilitation.

- An overall rehabilitation plan is highly recommended.
- Ongoing maintenance will minimize the need for extensive repairs.
- Repairs to the basic structure, foundations and roofs should be done first.
- Repair of historic materials is preferable to replacement with new work.
- If original detail is missing or replacement is necessary, new work should accurately match the original forms, materials and detailing, based on sufficient physical or documentary evidence.
- Use products with proven performance records.
- All surface cleaning should be undertaken with the gentlest method possible
- Use contractors who are familiar with work on heritage houses and positive references you can personally verify.
- When obtaining quotes for a project, make sure you have considered all aspects of the job.
- The City of Victoria Building Bylaws require a **Building Permit** for most construction, alteration, addition, reconstruction or demolition. For more information on building permits, please contact the Permits and Inspections Division of the City of Victoria.
- Alterations or additions needing a building permit and affecting the designated portions of the building cannot be made, without approval by the City of Victoria. They may require a **Heritage Alteration Permit**. Please contact the City of Victoria Heritage Planners for further information.
- For any work, the owner must follow the requirements of the **BC Building Code**, available for reference at libraries, or check with the Building Inspection Department at City Hall.

*While every effort is made by the Victoria Heritage Foundation to provide correct information and guidance to homeowners in making applications, neither VHF nor its members or staff individually guarantees the information given.*

### Funding Priorities

Victoria Heritage Foundation reserves the right to fund work in accordance with rehabilitation priorities. The following list is ordered by VHF's priorities:

1. Structural work, seismic upgrading, foundations, perimeter & storm drains, chimneys and masonry work, roofing in conjunction with fascia repairs and gutters
2. Exterior cladding, woodwork, trim, door and window repairs including storm windows
3. Exterior preparation and paint
4. Reconstruction of missing significant architectural elements
5. Reconstruction of documented, historically-accurate designated outbuildings, fences, gates and masonry walls
6. Designated interior features

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## Seismic Upgrading

Victoria is in a high-risk earthquake zone. Therefore, VHF urges homeowners to consider seismic upgrading both for personal safety and protection of their investment in Victoria's invaluable historic housing stock. VHF strongly recommends that homeowners purchase Earthquake Insurance. For those who wish to do some of the work themselves, both VHF and City of Victoria Planning Department have videos available to explain techniques for seismic upgrading.

- Seismic upgrading for masonry chimneys, roof structures and foundations (or for new foundations where the extent of sheathing is similarly limited by chimneys, windows, doorways, etc.) requires design by a Professional Engineer.
- Where seismic upgrading is planned, homeowners can expedite the process by obtaining the required engineering design along with the contractors' estimates, and submit these with the grant application. The cost of the engineering documentation can be included as part of the application (*see Special Grants in Application Requirements document*).
- New foundation work shall include doubling the minimum requirements of the BC Building Code for anchor bolts and sheathing nailing.
- Foundation wall sheathing shall be plywood and may be placed on inside or outside faces as appropriate.
- Milled boards will not be approved as sheathing.

## Foundations, Perimeter & Storm Drains

- VHF funds new foundations and foundation repair.
- Any foundation that raises the house will be considered on a case-by-case basis.
- Reconstruction of foundation skirting should replicate the original, including water table elements.
- VHF funds repairs to existing as well as new perimeter and storm drainage systems. Check with the City of Victoria Engineering Department for requirements.

## Chimneys & Masonry Work

VHF funds only exterior brick and masonry work. Make sure your contractor is familiar with historic masonry work. If in doubt, contact City of Victoria Heritage Planners, or refer to Martin Weaver's *"Keeping it Together: Mortars in Old Buildings"*, Mark Fram's *"Well Preserved"* and Robert M. Patterson's *"Your Old House: Masonry"* (*see Suggested Reading List*).

- Cleaning or paint removal should be undertaken with the gentlest method possible.
- Media (e.g. sand) blasting and pressure or power washing are not acceptable.
- Replacement bricks or stone, if required, must match original in profile, colour, texture and size.
- Strength, composition, colour, texture and profile of mortar joints or pointing should match original.
- Mortar mix should be no stronger than the original. Historic brick construction used soft lime mortars with a minimum of Portland cement.
- Do not use soot-stained bricks on exterior.
- Profile and material of chimney cap and chimney pots should match original; try to find old photographs.
- Beware of reproducing a chimney which has been rebuilt incorrectly in previous years.
- Chimney flue liners are to be of types approved by municipal building authorities. If installing flue liners, use minimum projection above chimney.

## Fascias, Gutters & Downspouts

- Gutter replacement should be coordinated with roofing replacement, and both should precede painting.
- Consider condition of the storm drain system; VHF does fund this work.
- Fascia boards and rafter tails should be checked for rot, and repairs included in estimates.

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- Do not allow contractors to cut off the exposed or notched rafter tails (typically found on Craftsman houses) to allow installation of larger gutters.
- Built-in gutters should be repaired and retained rather than attaching new ones.
- Original materials are preferred (i.e. wood, galvanized metal), but pre-finished enameled steel or aluminum is acceptable if compatible with colour scheme of house.
- Original profile of gutters and downspouts should be replicated.
- Downspouts in Victoria were typically round (2" or 3").

### Roofs

- Roofing and gutter replacement should be coordinated.
- Chimneys may need repointing prior to re-roofing.
- VHF funds both repairs to and replacement of original roofs.
- VHF is able to fund re-roofing of a house once every 30 years.
- VHF will fund cedar shingles and compatible substitute roofing materials.
- Although cedar shingles are a historic roofing material in Victoria, cedar shakes whether split or tapersawn are not.
- Roofing material should reflect the historic material in design, colour, size and other visual qualities.
- A sample of proposed material, if new to VHF, must be submitted for review and approval.
- Roof must be properly flashed in the valleys as per cedar shingle roofs.
- Sheathing where required, must be plywood.
- All layers of old roofing must be removed. Photographic verification or VHF inspection is required.
- Repair problems in roof structure before final repairs to roof surface.
- Low-pitched roofs have specific requirements: refer to BC Building Code or specialist.
- Ensure that nail length for roof overhang on exposed eaves is correct to avoid protruding nails.
- Vents must be installed to BC Building Code requirements. Contractor should indicate the number of required vents and discuss placement of the vents with the owner.
- All new elements (including vents) should be fitted as discreetly as possible.
- Ensure chemical and physical compatibility between roofing material, fastenings and flashings (i.e. do not use copper with galvanized material).
- Original ridge capping may have been metal or wood and should be replaced, if known.
- If there is documentation of original rooftop decoration or missing features such as cresting or finials, consider replacing at time of re-roofing (*see Special Grants in Application Requirements document*).

### Stucco

VHF funds repairs to historic stucco. VHF also funds removal of stucco, asphalt, asbestos, aluminum or vinyl siding where original siding has been covered by these materials.

- Ensure that any textured or decorative stucco is accurately recorded before undertaking repairs (i.e. note texture, thickness and colour).
- Strength, composition, colour and texture of historic stucco should be carefully matched.
- Consider repairing entire wall panel or section, but generally do not remove sound stucco.

### Woodwork & Trim

- It is always preferable to repair original material where feasible.
- When repairing or replacing deteriorated woodwork, ensure that the exact profile of the original material is replicated.
- Where the design of missing woodwork elements is unknown, documented evidence must be provided from buildings of a similar style and era to demonstrate that replicated elements will be appropriate. To ensure historical accuracy, it is recommended that homeowners consult widely with those knowledgeable in the field before undertaking the replacement of missing elements (e.g. heritage architects, designers or engineers, City

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of Victoria Heritage Planners, VHF House Grants Inspectors). Such preparatory consultations can assist the homeowner in avoiding inaccurate design choices as well as the use of inappropriate materials.

- Rotted or structurally deteriorated woodwork must be repaired or replaced prior to applying paint.
- All woodwork must be primed on all sides at time of installation (including concealed areas such as stair treads, etc).
- Contemporary products suitable for preservation of deteriorated woodwork should be researched for your projects.
- There are few heritage buildings on which plywood is historically accurate.
- Most original porches floors were made with Douglas fir tongue and groove boards.
- Stair treads should be bull-nosed; cove moulding under the treads may be historically correct for your house.
- Design changes must be approved by the City of Victoria and may require a Heritage Alteration Permit.

## Windows & Doors

It is preferable to repair rather than replace original wood sash windows. The key to window longevity is quality of original material and construction techniques, combined with regular maintenance. These general guidelines for historic windows also apply to the repair, restoration and replication of historic doors.

- VHF funds repair and restoration of historic windows.
- VHF funds replication of historic windows where the original windows are missing or beyond repair.
- VHF does **not** fund double-glazed or thermal units, broken panes, nor freeing painted-shut windows.
- Replacement windows should replicate the original windows in material, overall frame size, sash profile and size, muntin profile and size, glass colour and reflective qualities.
- It is recommended that historic “wavy” glass appropriate to the period of the house be used rather than modern float glass.
- Muntin bars (the wood pieces dividing small panes of glass) are to be placed between separate pieces of glass, not over one large piece of glass.
- New windows must be primed before installation.
- It is recommended that visible hardware such as hinges, door handles, locks and escutcheons be appropriate to the period and style of the house.
- Modern weather stripping, door sweeps and deadbolts should be as unobtrusive as possible when viewed from the exterior.
- Ensure your price quote includes priming, painting, hardware and installation.

## Storm Windows

Storm windows can increase the life of historic windows by providing protection from the elements as well as heat and sound insulation.

- VHF funds fixed and opening traditionally-constructed (jointed with through-mortise and tenon joinery) wood storm windows.
- Storms must be attached with non-invasive hardware.
- It is recommended that all storm hardware be attached with stainless steel screws.
- New storms must be primed on all sides and finish-painted before installation.
- Storms must be painted in the same colour as the exterior face of the sash underneath.
- For safety reasons, it is recommended that storms be openable from the interior.
- Ensure your price quote includes priming, painting, hardware and installation.

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## Paint

VHF funded paintwork must be a project of quality. The Victoria Heritage Foundation will be unable to fund any later maintenance painting. Contractors should be reputable, established firms, with business licences, and the ability to stand behind their work. Obtain a written warranty from the contractor.

- All exterior repairs should be completed before exterior painting: i.e. foundation, roofing, drainage, windows, woodwork and trim repairs.
- Ensure the highest quality surface preparation and paint for the longevity of the paint job.
- Proper safety procedures must be adhered to for removing existing paint or surface coatings.
- Exterior painting is best done between May and September when temperatures are neither too hot nor too cold (between 10°C and 30°C). Wood moisture content should not exceed 12%; use a moisture meter.

## Painting Preparation

The most important aspect of a paint job is preparation of the surface to be painted. An improperly prepared surface will not hold paint. If done correctly the first time, then maintenance will be less frequent and subsequently much easier. Please remember preparation and repairs must be reviewed and inspected by the assigned VHF House Grants Inspector prior to painting or further work that might conceal the repairs.

- Remove damaged or deteriorated paint before repainting to the next sound layer using the gentlest method possible (hand scraping and hand sanding).
- No media (e.g. sand) blasting or power washing wood siding.
- Washing is acceptable only by hand and garden hose.
- No stripping by torch.
- No grinding or heavy abrasive sanding that damages wood surface.
- Ensure a clean surface, free of grease, dirt, mildew, etc. by washing wall surfaces, overhangs, porch ceilings and eavestroughs, inside and out, by hand with environment-friendly cleaners. Rinse thoroughly.
- Crystalline deposits, which develop under eaves and protected areas, are a major cause of peeling; remove by washing and rinsing as above.
- Areas of heavy paint build-up, alligatoring, blistering, scaling and peeling, or areas which show a moderate to heavy chalk deposit must be thoroughly prepared to ensure paint adhesion. Remove to a sound substrate by scraping, sanding and wire brushing.
- On rough-sawn textured shingles, previously stained weathered surfaces must be thoroughly cleaned with a stiff fibre brush and a mild, biodegradable remover such as sodium hydroxide, to remove "dead" wood fibres.
- Glossy surfaces under eaves and protected areas that are not exposed to normal weathering should be dulled by sanding.
- Where bare wood is exposed, spot prime with a **high quality oil-based primer**.
- Loose or warped siding and shingles must be nailed flush with surface using appropriate nails.
- Fill all crevices, nail holes and cracks.
- All loose or split caulking on windows and doors is to be removed and replaced. Re-caulk with flexible, paintable caulking, and then prime.
- Loose and deteriorated window putty must be removed and replaced.
- House must dry between washing and painting, to ensure surface will not resist new paint. Wood moisture content should not exceed 12%; use a moisture meter.

## Painting Porch Decking

- Deck surface must be sound, clean, dry and free from dust, oil, grease, rust and scale.
- Depressions and surface defects must be filled, smoothed and compacted.
- Sand uneven joints flush and clean.
- Blisters and peeling areas must be repaired by thorough sanding and priming.
- Several thin applications of paint are better than one thick coat.

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## Painting or Staining Shingle Siding

- Shingle siding should be stained unless already painted.
- Stains penetrate the wood surface and are less likely to peel.

## Paint Types

- Choice of paint will depend on condition of surface, the existing undercoat, location on house and design of house.
- Window sashes, doors, frames and trim must be done in gloss or semi-gloss for highest abrasion resistance.
- Old stains in wood will leach through latex paint. Wood must be sealed with an oil-based primer.
- Half-timbering was likely meant to have a flat finish, to simulate an aged, medieval, rough-hewn look.

## Historic Colour Schemes

- Original colours are one option; these can be revealed by scraping and feather sanding a small area down to the wood and examining it with a magnifying glass.
- Alternative colour schemes and colour placement must be historically-appropriate for the design, period, style and locale of the house.
- Avoid bright hues and too many colours on the building.
- Paint colours have to work in conjunction with roof colours.
- For assistance in selecting paint colours, consider employing a colour consultant (*see Special Grants in Application Requirements document*).

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## Suggested Reading List

- Barratt, Scott. *Your Old House: What Style Is It?* Vancouver: Vancouver Heritage Foundation, 2003.
- Bawlf, Nicholas R. *Your Old House: Wood Siding*. Victoria: Victoria Heritage Foundation, 2000.
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- Collier, Richard. *Guidelines for Restoring Brick Masonry - Technical Paper Series 2*. Victoria: BC Heritage Trust, Province of BC, Ministry of Municipal Affairs, 1989.
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- Patterson, Robert M. *Your Old House: Masonry*. Victoria: Victoria Heritage Foundation, 2000.
- Poore, Patricia, editor. *The Old House Journal Guide to Restoration*. Toronto: Penguin Books Canada Ltd, 1992.
- Schweitzer, Robert. *Bungalow Colors: Exteriors*. Salt Lake City: Gibbs Smith, Publisher, 2002.
- Sweetser, Sarah M. *Roofing for Historic Buildings - Preservation Briefs #4*. Washington: National Park Service, 1981.
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- Weeks, Kay D. & David W. Look. *Exterior Paint Problems on Historic Woodwork - Preservation Briefs #10*. Washington: National Park Service 1981.