RE-ASSESSMENT of St. John's Episcopal Church, E. Poultney, VT 9.27.13

1. Previous Assessments/Estimates

Original assessment by KWA done Oct. 26, 2005 was based on a walk-through with the Owner taking notes, and did not contain costs; a subsequent Maintenance Program and estimated budget costs based on our 2005 assessment was provided by Cole in 2009.

2. Re-Assessment

We re-visited the building on Friday Sept. 27, 2013 to examine conditions available to visual inspection and provide an updated assessment. Below is copied the 2005 Assessment (*in italics*) with 2013 updates or confirmation of same condition added. Note: we have not been able to access anything above the attic level, including the belfry or high roof; observations are with binoculars from the ground and may not identify the full extent of deterioration that a close inspection would reveal.

A. Work Completed since April 2000 Assessment by Charlie Parker

Belfry repaired (carpentry; roofing)

Attic – removed guano; installed partial plastic sheeting on floor of attic

Slate roof- repairs were carried out

Foundation – partially repaired (concrete infill); floor reinforced; treated for powder-post beetles.
Windows – sash conservation on all main floor windows

B. Work needed/identified 10.27.05:

Tower – repair/seal crenellations and spire woodwork

Repair cornice at bell deck; pigeon control? Provide larger drip flashing

Replace/repair membrane roofing at bell deck; re-build hatch/curbing

Misc. woodwork repairs @ outside corners, caulk gaps, etc.

Check high roof; repair as needed; larger drip flashing?

Repair stairs to tower/bell stage; provide top roof hatch & ladder @ bell stage.

2013: We noted open joints in woodwork including cornices, crenellations, pinnacles etc. , black patches of water-related deterioration on upper and bell deck cornices, splash damage to paint and siding at tower base (all sides), and improperly-installed aluminum flashing on rear/north side of tower base. Could not determine condition of tower roof and skirt roof at bell stage. Pigeon control needed (note; they are feeding at bird-feeder at house behind church). Stairs from attic to belfry are substantially unsafe, need re-building.

Roof - repair slate. Note: old wood shingle roof remains under slate.

2013: Mix of Vermont Weathering Green (gray) and mottled or purple slate, mostly nailed, some repair hangers; galvanized ridge is not painted; substantial repairs needed both sides (east largely obscured by overhanging trees) – approx. 60-70 slates need replacement or re-attachment on each side; open hole at missing slate on SW rake at left of steeple base. Old wood shingle roofing remains under slate, contributing to deterioration.

Woodwork – misc. repairs at open joints, e.g. arched laminated molding over front entry;

Epoxy repair weathered door sill, window sills; siding/water table (E); re-nail siding

in spots; caulk gaps around front door sill.

2013: Unique hand-made rake and eave cornice moldings appear sound; tower cornices deteriorating. Siding generally sound; some repairs on north. East sill and water table appear deteriorated at center; damage/missing pieces at arched trim at front entry, at paneled jambs at front entry, at Gothic screen on south face of steeple, at siding/trim in splash zone above roofs or horizontal surfaces, at window sills and misc. repairs needed to woodwork around building

Windows – All Main sash: secure with blocking, not a single nail as is currently; seal gap at

triple Gothic sash on front (S) of tower; secure shutters; eventual shutter repairs.

2013: Sash conservation done c.2004 appears to be holding well; shutters should be fastened shut over windows when building not in use. 46" x97" shutters at northern west gothic 30/30 wood double-hung window need substantial repair, several others need minor repairs. Solid paneled shutters on north windows need repair. Replace missing glass in south tower window behind Gothic screen to exclude pigeons.

Paint – alligatored; peeling; needs 50-year prep, painting per Preservation Brief #10: Exterior

Paint Problems on Historic Woodwork.; caulk all usual locations, too.

2013: Appears to have been some stabilization painting (without prep) on south and east, but paint failure is still evident on all sides, and especially tower. Paint worst on north. Major prep/re-painting is needed; most Churches tackle one side per year.

Foundation – repair deflected section(E); seal hole (S); provide secure screens at openings.

Caulk open joints in modern masonry front steps; seal joint to building.

2013: Main floor has 'new' p.t. 6x6 piers on concrete footings supporting new p.t. beams under original carrying beams, and many new p.t. 2x6 and 2x8 floor joists, toe-nailed. Foundation consists of cut stone, much of it slate, laid in a random (rubble stone) pattern with a soft lime original mortar, a smooth brown medium-soft repair mortar in several locations, and a substantial amount of ordinary Portland cement hard mortar on the south. Stones have displaced on the north, and the east wall is ~2" out of plumb in 24" of exterior exposure at south half of wall. This section likely to need re-building; other sections need extensive re-pointing. Front steps are modern construction of slate and ordinary Portland cement mortar; OPC mortar has failed at most horizontal and many vertical joints, steps need repairs, caulk horizontal joints.

Site – remove trees too close to foundation; cut back branches on E; provide pitched gravel drip at eaves, both sides.

2013: trees on east need substantial pruning; building needs gravel 'splash' under eaves on each side.

Attic: **2013**: Sheeting is draped over floor/framing but not tight or complete; medium size animal scat indicates possible raccoons, etc. Guano is up to 6" deep, needs to be removed!

C. Code Compliance Issues

Building is 36" above grade; need ramped entry to landing flush w/ main floor, no level-changes in accessible pathway greater than ½"; might accommodate with new north entry & ramp? accessible door hardware (or variance); provide short sloped transition to raises seating platform in sanctuary; interior door hardware made accessible (or variance). Gravel path from exterior bottom of ramp to designated parking space .

Egress: need L&I walk-through and negotiated compliance steps/schedule; may need

2nd egress from rear (north), or limit # of occupants.

Use of oil lanterns may be restricted; provide fire extinguishers. No open flames, smoking,

etc. should be permitted in or around building.

Use of balcony probably not permitted.

Windows must remain operable for ventilation air during occupancy.

Entry doors swing inwards; might need change to out-swing or variance.

2013: no changes to these conditions since 2005.

Summary

This remarkable 1831 church is little-altered and in fairly *good condition, with many urgent issues already addressed, and others in process; the roof is nearing the end of its service life, hastened by the old roofing under slate. A major painting restoration is needed, and several corrective or preventative repairs (drip flashing improved on tower; crenellations and woodwork at bell stage repaired and detailed to avoid deterioration; shutters, woodwork, foundation repaired; gravel drip installed) are needed to address points of deterioration. Code compliance will require careful cooperation with Dept. of Safety (formerly Labor & Industry) to ensure public safety while preserving the historic character of this unusual building.*

As recognized by PHS, this building must have a contemporary use to ensure its continued preservation and maintenance.

Repairs by priority are listed below with estimated costs.

HIGH PRIORITY

Slate repairs – incl. replacement of slipped, missing or broken slates; new step flashing at tower base (north)	Allow $6,000-8,000.
Tower repairs – incl. woodwork; roofing (close inspection may reveal additional work), paint; boot flashing at pinnacles; flashing/repairs at hatch	Allow $11,500-14,500.
Clean guano from tower interior	Allow $3,500-5,000.
Repair interior tower stairs/access	Allow $2,000-2,500.

MEDIUM PRIORITY

Window and shutter repairs – including glass replacement; consolidation of window sills; shutter repairs; new stops; etc.	Allow $5,000-7,000.
Woodwork repairs (all except tower)	Allow $6,000-8,000.
Foundation repairs – rebuild section on east; re-pointing	Allow $11,000-15,000.
Paint – major prep/prime/paint; lead paint measures.	Allow $40,000-45,000.
Window and door weather-stripping, air sealing, etc.	Allow $13,000-15,000.

Note: these are order-of-magnitude estimates for specific work items, and do not include a Contractor's costs for mobilization, overhead and profit, permits, or other costs of construction, which can differ depending on the scale of any phase of work, time of year, state of the economy, workload of the available bidders, etc.

Accessibility work is not priced here, pending further investigation of the requirements; the intact nature of the historic materials and plan in this historic church may justify extra measures in negotiation with the Fire Marshall, and possibly some restrictions on the occupant load and use of fire watch personnel to avoid a requirement for intrusive measures such as cutting a 2nd exit in the rear wall. Finding a contemporary use that can support the maintenance of this building is the other major challenge; the community already has several assembly spaces nearby that are more cod-compliant. The greatest risk to this building appears to be benign neglect due to the lack of a robust contemporary use.

Prepared by: Thomas Keefe, Architect

Keefe & Wesner, Architects, PC

KEEFE & WESNER ARCHITECTS, P.C.

ARCHITECTURE & PLANNING

ARCHITECT'S FIELD REPORT

Owner	[ ]
Architect	[ ]
Consultant	[ ]
Field	[ ]

PROJECT: New Slate Roofing at St. John's Church **FIELD REPORT NO**: 1

CONTRACT: n/a **ARCHITECT'S PROJECT NO**:

Date: 6.26.14 **Time:** 9:30am-noon **Weather:** cldy **Temp. Range:** 69

Est. % of Completion n/a **Conformance with Schedule (+,-)**

Work in Progress: initial meeting w/ Owners; inspect tower and roof (interior framing)

Present At Site: Ida Mae Johnson, William Davidson, Ed McHale, Ed Lewis; TK

Observations: Scheduled meeting to inspect attic and tower interior, and review proposed methods for planning and carrying out roofing replacement.

1. TOWER – Owners have cleaned up much of bird guano and repaired utility stairs to tower. Climbed to bell deck; bell has been removed and deck covered with white membrane roofing – appears sound and effective. Some housekeeping/cleaning needed. Hipped roof (slate and al. flashing) does not appear to be leaking after 24 hours of rain; double layer of sheathing on roof. Top plates (8x8) and corner posts (9x9) appear sound; clapboard siding nailed directly to frame – some gaps/openings but nothing requiring immediate attention.

Skirt roof (extension of bell deck) has been re-roofed recently (c.2006-8?) with standing seam Galvalume roofing, appears to be sound. Crenellated fence and 8 pinnacles are partially coated with mold/lichens, top surfaces of rails deteriorated; boot flashing not visible at pinnacles, but probably located under wood casing, as there are no apparent leaks on interior.

Main tower corner posts (10x10) frame down onto two 10x10 transfer beams at the attic floor level; these timbers extend the full length of the building (~50') and bear on the top chords of the trusses. Some reinforcing with p.t. lumber and steel angles has been done below the bell deck.

2. ATTIC/ROOF FRAMING – kingpost truss structure has 10x10 kingposts with ~ 8x8 timber ridge, 6x8 top chord, 11 x 10 bottom chord continuous across building, 6x8 purlins with 8x8 purlin posts below at each truss (offset next to 5x5 struts). Rafters (4x4 ½ @ 36"o.c.) extend from top of kingposts to the 10x10 top plates at exterior walls, and bear on the purlins at mid-span. 3 trusses are spaced ~ 14' apart, the first at the rear (north) edge of the tower, approx. 8 ½' from front of building. 7x7 sawn timber ties run between kingposts at ~ 4' above the floor, and 2 ½" x 6" floor joists are framed between bottom chords of the trusses at 21" o.c. spanning about 13'-2"; there is no insulation in the attic floor.

The northern bay has no floor joists. Curved 1" framing to support the cove in the Sanctuary ceiling is apparent in the north bay and also along the sides of the interior bays; previous 2x6 ties from this framing that once extended into the attic have been cut off, and the remnants appear very deteriorated. Split lathe

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is nailed to the underside of cove and ceiling joist framing. All members pegged with wood trunnels except the floor joists which appear to be half-mortised into the bottom chord and nailed.

Framing is typical of buildings from this period, and appears to be in generally good condition; there are no signs of framing failure, displacement, splitting or deflection. Pine skip-sheathing on the roof uses irregular-edged and random width softwood, with spaces up to 2 ½"; wood shingle roofing is visible above. This roof frame appears adequate to continue supporting a slate roof, but we are not structural engineers and cannot make this determination. No calculations have been done; if needed, we can retain a structural engineer to make this determination.

3. Planning for the Roofing Project

A. History – Owners provided a pamphlet indicating that there was a 1983-4 tower repair project that included scaffolding the full height of the tower. Additional repairs were carried out in 2000-2005 by Charlie Parker (*see attached Memo*), and a Maintenance Plan was prepared by Cole in 2009.
Owners have recently informally contacted a number of people, including contractors and suppliers; several may be qualified for this work. They have been in contact with the PTV (Ann Cousins) and are compiling lists of potential local donors. Recommended contact with Partners for Sacred Places http://www.sacredplaces.org/#sthash.4iyGMzh5.dpbs and continued discussion with Ann Cousins. A budget for this roofing replacement needs to be established to assist in setting fundraising goals.

B. Recommended Process

Prepare a simple Specification and Instruction to Bidders to ensure use of correct materials and practices, proper protections and clean-up, conformance with the Secretary of the Interior's Standards, and spell out Insurance requirements, schedule, care of the site, etc.; pre-qualification of 3 bidders; a bid procedure (bidders meeting; Addendum if needed; Architect receives bids, reviews and forwards to Owners with recommendation); an AIA Contract for Construction incorporating Specifications and Instructions; and 3 site visits by architect at start, middle and end of construction, with a Punch List provided following the last inspection. Architect's fee for this estimated to be $6 -7,000. We will provide an Authorization for Services agreement to cover our work with you.

C. Preliminary Budget: Allow $96,500. THIS IS NOT A FIRM ESTIMATE! This is a place-holder pending further research/estimating based on the particular circumstances of this project, to include staging, demolition of existing roofing (slate and wood shingles), spot repair of wood sheathing; install new VT Weathering Green slates 24" x 14" (to be confirmed), with copper nails, lead-coated copper flashing and ridge.
A contingency of at least 10% is strongly encouraged, top address any discovered conditions.

D. Related Issues

State Permit – not required for repair work; there may be a local building permit.
Other building Issues – see previous reports for summary of these
Important to build community support, increase number of stakeholders
Assembly Occupancy -proposed uses of building (religious services; cultural events) may need fire marshal approval due to exits, lack of accessibility or emergency lights/exit signs, water, etc. An informal courtesy walk-through with Fire Marshal might be a wise initial step.

Next Steps:

Owners will continue fund-raising efforts, in consultation with Preservation Trust of VT., Partners for Sacred Places and others; we (architects) are available as needed.

By: TFK Date 6.26.14