This Condition Assessment is a preliminary diagnostic assessment of visible conditions observed while at the Pratt Hall and Heaton House sites and is neither a document for contractor bidding nor a specification for repair and construction. Bid Documents, prepared by an Architect, contain substantially more information on Drawings (blue-prints) consisting of floor plans, elevations, details, sections, schedules and general conditions, and Specifications, all of which guide and protect the Owner and Contractor during construction.

This assessment was partially funded under a grant from the Preservation Trust of Vermont.

On 31 August 2007 Montgomery Historical Society Board members Scott Perry, Bill and Noela McGroarty, Marijke Dollois, and Pat Farmer, and Architect Michael Gohl met on site to visually examine Pratt Hall and the adjoining Heaton House in Montgomery Center, Vermont. The purpose of the visit was to gather information to prepare a condition assessment of both buildings.

On 11 September Michael Gohl met on site with Marijke Dollois and Tim Murphy, who removed the Vestibule flooring for view of the otherwise inaccessible floor joists and the bell tower laminate post foundations, to view (MG & TM) the upper structural stages of the steeple as well as the attic structural system above the Nave.

On 31 October Michael Gohl met on site with Ann Cousins and Eric Gilbertson, of Preservation Trust of Vermont, for additional evaluation of Pratt Hall.

My findings are summarized herein, and are based upon non-destructive observation of conditions visible at the time of the visits, conversations, and Vermont Department of Historic Preservation supporting documents.

PRATT HALL

HISTORIC VALUE

The Montgomery Union Church, St. Bartholomew's Episcopal Church (preferred), now known as Pratt Hall, is a one story, post and beam, Greek Revival/Gothic Revival structure, built between 1832 and 1835. Gothic elements may have been a result of later modifications. The building is a combination of a simple, rectangular, gable front temple, with added sanctuary and flanking chapels, lancet arch windows, and a front central three-stage bell and clock tower topped off with a crenellated parapet. In 1974 the building was purchased by the Montgomery Historical Society and deconsecrated. Between 1974 and 1996 the clock tower was rebuilt and the clock and stained glass windows were restored. In 2006 repairs and restoration included painting, rear clapboard replacement, and bell tower rot removal.

See attached US Department of Interior NPS National Register of Historic Places Inventory – Nomination Form for additional information.

GENERAL CONDITION

The current condition of the building is good, with certain exceptions.

The exceptions are several deteriorated window casings, missing and broken window panes, siding and wood trim too close to the ground, inappropriate foundation repair, deteriorated vestibule floor joists, structurally compromised bell tower, undersized basement post footings, undersized stage floor joists, decayed attic top plate, and several noticeable wall cracks.

The basement and crawlspace floors are dirt, the furnace and nearby fuel oil tank are relatively new, and stored materials are located within close proximity to the furnace.

Building insulation is substandard. If the intent is to use the building in colder weather, a winter thermal scan might be considered to determine the extent of the thermal envelope.

DESCRIPTION OF THE RESOURCE

The primary mission of the Montgomery Historical Society is to maintain the building for use by the community. The Society currently uses Pratt Hall for community events such as marriages, anniversaries, funerals and memorials; summer concerts including vocal, chamber, jazz, Celtic, and folk; board meetings, including a June Annual Meeting and membership buffet; art shows and sales including a member appreciation buffet and artist reception; speakers and lectures including a gathering of locals for taking oral history; community Christmas Caroling (sing along); fundraisers (auction this past summer); education and tours (Montgomery Elementary School 5th Grade visit); a workspace for other projects in the warmer months; and storage and exhibit of Montgomery artifacts.

The timber-framed structure was originally set on a stone foundation and enclosed with clapboards and a slate roof. (Much of the fieldstone has been either covered with concrete or replaced with concrete blocks; the slate roof was replaced with standing seam; the bell tower roof replaced with a single-ply membrane).

At some point in time the crawlspace was further excavated approximately 18-inches deeper, and eight feet inboard of the exterior foundation, to possibly allow for the installation of a hot air heating system. A new stone foundation was placed around the new excavation as a retaining wall to the upper excavation, to minimize disruption of the bearing of the original exterior foundation. Numerous plastered wood panels, several with windowpanes, rest longitudinally on and along the three lower retaining walls and are inclined up and away from the retaining wall towards the exterior foundation. The panels may be former walls removed when the building was renovated, used to create a hot air plenum to heat worshippers through rectangular hinged floor panels along the pews. These features are unique and should be preserved.

The six principal nave rafters contain one mid longitudinal framed in purlin, with framed in common rafters extending from the wall plate to the purlin and to the ridgepole. Parallel and beneath the ridgepole is a longitudinal system of king posts and struts of similar design.

The bell tower, a later addition to the nave, was extended into the first bay and is dependent on steel rods to complete the structural heavy timber connection.

On the east of the rectangular nave is a three-stage bell and clock tower and on the west a sanctuary with flanking chapels. The south chapel has a basement access trap door; the north chapel has a toilet room with an electric panel, and an exit. Both chapels are used for storage.

Within the nave eave walls are six window unit openings. Four units each consist of side-by-side 20/20 double hung sash, capped with a fixed tri-lancet arch window; one unit consists only of a stained glass window; one unit consists of three horizontal fixed glass panels above an awning sash, capped with two fixed gothic panes and one four-lobed gothic-like foliation. Five full-height stained glass window units are set within these openings.

Three gothic style stained glass windows are in the west gable wall and one gothic clear glass fixed window unit is in the north wall of the sanctuary, two sets of side-by-side double hung sash are in the south chapel south wall, and one set of side-by-side double hung sash are in the north chapel west wall. Remaining windows are either double hung or fixed and are located in the basement.

The eaves are a box cornice with gable end returns and a Doric frieze with triglyphs.

The tower's first stage contains the main entrance with recessed double doors that form a gothic revival style lancet arch. A single lancet arch fixed window is set into each side of the tower vestibule. An oculus window, above the entrance doors, provides natural light to within the first stage but above the vestibules' arched ceiling. The second stage contains the original church bell and is faced with side-by-side louvered lancet arch openings set into single lancet arch surrounds. The third stage contains the original clockworks with its four clock faces, and is capped by the crenellated parapet.

Interior walls and ceilings are plaster on wood lath, intact, and appear to have been well maintained. Newer 20th century constructions appear to be sheet rock.

EXTERIOR

The painted wood exterior consists of clapboards and horizontal board siding, trim boards, and operable and fixed window sash, exterior fixed-plastic storm panels, metal and membrane roof, slate and concrete front steps, brick ramp, masonry chimney, and foundations consisting of pargetted concrete block, stone, and concrete over stone. Although the site is relatively flat, the north grade appears to slope towards the building and should be graded to slope away from the building.

Foundation Walls

Condition - Good to fair.
Description – Of the nave, the south foundation wall is fieldstone (cast over with concrete), the east wall is fieldstone, the north wall is reused concrete block surfaced with a stucco-like material, and the west wall is cast-in-place concrete. Sanctuary and flanking chapel walls are cast-in-place concrete. Bell tower walls are fieldstone. The south stonewall of the nave has been cast over with concrete, which extends outwardly beyond the sill boards, leaving an exposed horizontal top ledge of concrete. The joint between the ledge and the sill boards is caulked with a synthetic caulk that is used for log home chinking.
Treatment - Remove cast over concrete and consider restoration of the foundation to its original stone construction. The north concrete block foundation should be monitored yearly for cracks and frost heave related movement. Replacement of the north foundation, using historically appropriate materials, should be considered if there is strong evidence of cracking or frost heave movement. Foundation restoration is recommended for long term care.

Siding, Trim and Sill Boards

Condition - Good.
Description – Clapboards envelop the building with the exception of flat boards below the water table sill on the front and sides of the bell tower, and sill boards along the base of the nave. Clapboards above the south foundation wall are outwardly bulged and vertically wavy, as if various structural members crumpled beneath the rigid surface of the clapboards. Various clapboards on the bell tower are not tight to the corner boards.
Treatment - Since the exterior surface of the sill plates and the vertical support structure is hidden from view, it is recommended that select exterior sill boards and clapboards along the south foundation be removed for inspection of the structure. Either caulk and paint bell tower clapboard cracks or remove and replace select clapboards.

South Sill Plates

Condition – Unknown
Description – The interior surface of the sill plate, viewed from the partial basement, appears to be sound. The outer surface is questionable due to the condition of the clapboards as noted herein.
Treatment – Remove clapboards and sill boards and inspect plates, replace sill plates as structurally necessary and replace clapboards.

East Sill Plates (and Threshold)

Condition – Structurally unsound.
Description – The brick ramp and concrete and slate landing are constructed tight to the building and is causing the floor joists, sill plates and threshold to rot. The sill

plate and vestibule floor joists, when viewed from beneath the vestibule floor, are significantly decayed and need to be replaced.
Treatment – The threshold should be replaced and flashed with materials that would be historically appropriate.

Front Steps and Ramp

Condition – Poor
Description – Slate steps and landing applied over concrete steps and landing, brick ramp between pressure-treated timbers, and painted metal handrails. Original stair system was probably wood and may not have included a landing, and definitely did not include a ramp.
Treatment – Remove masonry steps, landing, and ramp, and reconstruct with cedar decking and pressure treated wood only when in contact with grade. If possible, grade front yard and walkway up to landing to eliminate steps, handrails and ramp; bridge landing to building.

Northwest exterior 'inside' corner of exterior wall between Nave and Sanctuary

Condition – Poor
Description – There is a significant exterior vertical opening at the intersection of the walls, possibly due to foundation movement. Due to the continued maintenance of the building, I could find no evidence of recent movement.
Treatment – The corner boards of this opening should be patched to match the existing, and scribed for a snug and weather-tight fit. In the meantime this corner should be monitored for a year, both inside the building and outside, using a structural movement-measuring device, which detects vertical and horizontal movement of two surfaces relative to one another. If there is evidence of continued movement, it will be necessary to excavate and reconstruct the foundation wall and footing.

Nave Stained Glass Window Units (5)

Condition - Good.
Description – Four full height stained glass window units are independent of and interior of four exterior window units. One full height stained glass window unit has no exterior window unit. (One exterior window unit has no interior stained glass).
Treatment - It was brought to my attention that the five stained glass window units were recently restored and that no renovation or repair work is necessary. Please note that several operable window components appear to be stuck, a condition that may be the result of wall movement or window sag, and should be further evaluated by a qualified individual experienced with stained glass window restoration. Inspect yearly for signs of deterioration.

Sanctuary Stained Glass Window Units (3)

Condition - Good.
Description – These stained glass window units have no exterior window protection and are exposed to the elements. Hardware cloth is attached to outer casework to minimize projectile damage.
Treatment – Inspect yearly for signs of deterioration.

Clear Glass Window Units

Condition - Good to fair.
Description – Rectangular and gothic glass panes are missing or cracked; windows are not weather-stripped.
Treatment - Replace missing and cracked windowpanes and weather-strip window sash. Inspect yearly for signs of deterioration and regularly maintain glazing compound and sash.

Window Casing

Condition - Fair.
Description – The ocular and south wall window casings show signs of deterioration.
Treatment – Either replicate or reconstruct, using synthetic materials, the ocular window casing. Replace south wall middle window casing.

Solid Plastic Window Sheets (exterior)

Condition - Good.
Description – Each of the nave windows have several large sheets of rigid plastic attached to the casework. The sheets are gapped for ventilation. Although the plastic sheets protect the clear glass sash and a stained glass window from vandalism, the billowing effect of the plastic, caused by wind and changes in pressure, may adversely affect the caulked muntins and the casing to which the plastic is attached.
Treatment - Remove the plastic sheets to retain historic authenticity and then install a secure, nonflexible and vented protective storm panel.

Roof

Condition - Good
Description – The nave roof is standing seam, the sanctuary and chapel roofs are asphalt shingle, and the clock tower roof is a single ply membrane.
Treatment – Repair bell tower membrane tear at bell support anchor bolt. Yearly inspect, and maintain, roof and flashing details for tightness, cracks, and leaks, and attic spaces for signs of water infiltration.

Doors

Condition - Good.
Treatment - Weather-strip and maintain.

Grade

Condition - Poor
Description – the north grade slopes towards the building, highest at the east corner, lowest at the west corner. The ground is very mossy and the woodwork and basement windows are in contact with the grade.
Treatment - Cut the grade to 10-inches below woodwork, then re-grade and drain away towards the north, and run the swale from east to west. Sow grass seed.

INTERIOR

Interior repairs are generally of a lower priority than exterior repairs, since they have less impact on the building's condition and are not as vulnerable to weather-related accelerated deterioration. However, due to the past failure of the moisture envelope, several interior structural components have been seriously compromised. A comprehensive preservation and maintenance plan should be developed to include interior maintenance.

Nave Floor System

Condition – Bouncy
Description – Original dressed summer beams and joists appear to be in good condition. One joist in the northeast corner of the nave shows evidence of decay, but appears to be sound and stable. Several wood posts appear to have been placed beneath the system to ease live loads.
Treatment – Monitor for structural integrity and do not exceed loading capacity of original structure. The capacity should be determined by a structural engineer.

Sanctuary Floor System

Condition – Bouncy
Description – Floor joists are undersized and over extended. Unused mortises in the beams indicate former renovations to the sanctuary floor. An upper floor was added to the sanctuary.
Treatment – Install new mid-beam perpendicular to joists, complete with new posts and footings; place new footing beneath existing post adjacent to chapel stair.

Nave Roof Structure

Condition – Good
Description – the roof was recently repaired from leaking. There is evidence of mold along the wall plate and tie beam, south and center above the exterior wall.
Treatment – Remove mold.

Bell Tower

Condition – Poor
Description – The first stage of the heavy timber structural system is unsound due to decay caused by water infiltration and insect infestation. Numerous mortise and tenon structural connections have completely deteriorated. Clapboard siding is not tight to corner boards and the ocular window casing is rotten.
Treatment – Remove and replace compromised structural components with like materials and construction. Analyze west bearing where nave structure was removed to accommodate tower. This structural repair work is major and a timber framer, who will understand the structural dynamics better than a conventional framer, should be employed to further analyze the framing and to perform this work. Remove and replace select clapboards and replace ocular window casing.

Bell Tower Laminate Structural Posts

Condition – Unknown
Description – The laminate wood posts, installed when the upper stages of the clock tower were rebuilt, bear on poorly constructed concrete footings.
Treatment – Remove foyer flooring and joists and inspect laminate post points-of-bearing for structural soundness. Repair post points-of-bearing to improve soundness and regain full bearing.

Vestibule Floor

Condition – Poor
Description – Floor joists and sill plates are rotten due to water infiltration at threshold and exterior stair landing.
Treatment – Replace sill plate and joists; reinstall sub and finished floors.

Clock Counter-weight Enclosure

Condition – Average
Description – Clock and bell weights extend, within an enclosure, into the vestibule.
Treatment – If clock and bell will function with shorter weight runs, remove first floor weight enclosure and restore vestibule.

PRESERVATION STRATEGIES AND COSTS

The use of skilled and experienced contractors, knowledgeable in preservation work, will help to manage unseen and newly discovered conditions, and will insure that proper consideration is given to material choice and preservation approach. This is usually the most cost-effective approach for repair, building integrity protection, and funding eligibility.

The following advisory cost estimates address historic preservation concerns and is based upon ballpark estimating principles. These estimates are explicitly 'Order of Magnitude' preliminary opinions of probable cost and are exclusive of General

Condition costs, specific costs associated with materials and methods choice, scale of work, conditions discovered during bidding, contingencies, and Construction Documents. Interior finishes, as well as energy efficiency improvements, are not included in the estimates since this report is intended to assist in making the building weather-tight to avoid future weather related deterioration.

HIGH PRIORITY – EXTERIOR

Phase 1

Foundation Walls		10,000
Siding, Trim and Sill Boards		2,000
South Sill Plates	(50 ' @ 200/foot)	10,000
East Sill Plates (and Threshold)	(20 ' @ 200/foot)	4,000
Front Steps and Ramp		6,000
Northwest exterior 'inside' corner		10,000
Grade		3,000

Phase 2

Clear Glass Window Units	70 rectangular panes	6,500
	14 gothic panes	3,200
	Weather strip windows	600
Window Casing		1,000
Roof		100

Phase 3

Solid Plastic Window Sheets (removal only)	300
Doors	300
Sub total	**$ 57,000**

HIGH PRIORITY - INTERIOR

Phase 1

Bell Tower	50,000
Bell Tower Laminate Structural Posts	1,000
Vestibule Floor	2,500

Phase 2

Nave Floor System	--
Sanctuary Floor System	3,000
Nave Roof Structure	100
Sub total	**$ 56,600**
HIGH PRIORITY TOTAL	**$ 113,600**

MEDIUM PRIORITY

Clock Counter-weight Enclosure	2,000
Nave Stained Glass Window Units (5)	Yearly inspection
Sanctuary Stained Glass Window Units (3)	Yearly inspection
Thermal scan	1,500
Insulation	Cost to be determined
Five-year cyclical exterior maintenance plan	Cost to be determined

MEDIUM PRIORITY TOTAL **$ 3,500**

HEATON HOUSE

The original Heaton House sits on a fieldstone foundation, has a full basement and one large two story room. The two-story addition to the west sits on a concrete block foundation that is also a full basement. The one-story addition to the south is over an inaccessible crawlspace with concrete foundation. The one-story addition to the east rests on fieldstone piers placed directly on grade. The original structure appears to be early 19th century; the additions appear to range from late 19th to mid 20th century. The three additions have been severely altered and are marginally weatherized. The basement is wet and the block walls have gone through too many freeze-thaw cycles to guarantee ongoing structural integrity. The ceiling of the original building is covered with a manmade fibrous board material and the walls new T&G softwood, and exposed post and beam framing appears to have been installed to give the interior the "look" of an older building. Sheetrock is prevalent in all of the structures.

It was pointed out during my visit that the general belief is that the original wood structure, above the stone foundation, was also severely altered. Society members will attempt to verify the original construction by reviewing deeds and maps.

Based upon conversation and observation, the additions appear to be of no significant historic value. The original structure, however, could be renovated to play a significant role in the history of the Town, and support new additions that could address the Society's needs for a climate controlled facility, as well as provide quality space to serve the historical needs of the Town and the Society. Deed research is needed before any work is performed. The renovation cost is based upon renovating the existing footprint, using conventional stick-built framing, sheetrock, spruce clapboards, commodity windows, and asphalt shingle roof. New heating and electrical is included.

Demolition cost	5,000
Renovation cost	85,000
Cost per square foot for new construction	150

CONCLUSION

Deferred maintenance has taken its toll on the buildings. Today's repair costs will offset the effect that the deferred maintenance has had on the building to a condition requiring only routine maintenance. Unfortunately, as with any building that is not routinely maintained, the effects of deterioration followed by catch-up repair can be expensive. All buildings need ongoing routine maintenance in order to keep repairs costs minimal. Employment of construction trades with a demonstrated expertise in historic building repairs will avoid most maintenance problems created by the use of unskilled labor and sub-standard materials; standard maintenance personnel are generally not trained in historic repair-work. A comprehensive plan should be developed for the periodic maintenance of the building to avoid future costly repairs, to anticipate cyclical replacement of materials, and to utilize the best methods and materials for maintaining a historic building which are different from a new building.

