

Window condition report, St. Andrew's Presbyterian, Victoria B.C.

General window condition is rated as shown, with a '1' (Hazard) suggesting urgent intervention, usually due to a condition where the window itself is in danger of extensive damage, or there exists a liability issue in the event of a window failure, or both.

Scale: 5 = Excellent - as new condition

4 = Good - no intervention required/anticipated, monitor

3 = Fair - some issues suggest future intervention will be required, monitor

2 = Poor - requires intervention to save/protect glass, schedule for needed work

1 = Hazard - see above

Windows are indicated by position and dedication (where noted, otherwise by quotation), studio and date of installation noted where visible.

Sanctuary, North, ground floor, four windows, similar style

A - Royal Canadian Navy, no studio or date, as with 'A' to 'H', 55" wide X 66" tall

Generally firm, tight in rebate, pronounced deflection in the top panel (too tight?)

Two T-bars and two saddle bars, wire ties, all good

Protective glazing (PG) Plexiglass in light aluminum frame, clipped in place, unvented

Rating: 3.5 - monitor, vent PG

B - Canadian Scottish Regiment, 55" X 66"

Firm, flat, tight, steel bars and ties as in 'A', all in good shape

PG as in 'A', unvented

Rating: 4.5 - monitor, vent PG

C - Royal Canadian Airforce, 55" X 66"

Generally firm, slight deflection at top, pronounced at bottom, Union Jack glass cracked

Steel bars, ties as in 'A', all in good shape

PG as in 'A', unvented

Rating: 3.0 - monitor, vent PG

D - Merchant Navy, 55" X 66"

Firm, flat, tight, steel bars and ties as in 'A', all in good shape

PG as in 'A', unvented

Rating: 4.5 - monitor, vent PG

Sanctuary, South, ground floor, four windows, similar style**E - "Not My Will but Thine, be Done", 55" X 66"**

Flat, firm, tight, one minor crack in filet (border)

Two T-bars, three saddle bars, ties somewhat loose

PG in light aluminum frame installed in separate wooden sash with clips (some clips not securing aluminum frames properly), small cracks at bottom of Plexiglass, not vented

Rating: 4.5 - monitor, vent PG, consider adding more venting to these four windows

F - Ogilvie, 55" X 66"

Flat, firm, tight, cracks in purple robe, other minor cracks

Steel bars, ties as in 'A', all in good shape

PG as in 'E', but vented

Rating: 4.5 - monitor

G - Douglas, 55" X 66"

Flat, firm, tight, steel bars and ties as in 'A', all in good shape

PG as in 'E', vented

Rating: 4.5 - monitor

H - Pollock, 55" X 66"

Flat, firm, tight, steel bars and ties as in 'A', all in good shape

PG as in 'E', small cracks at bottom of Plexiglass, vented

Rating: 4.5 - monitor

North Balcony, four windows, similar style

I - Howe, McCausland Studio, Toronto, 1966, 59" X 115"

Fairly firm, flat except pronounced deflection at bottom, tight

Four T-bars with metal tabs holding the window, no caulking or putty on T's

Four 1/2" saddle bars, several copper ties not done up (rectified)

PG in separate light aluminum frame held in place with clips, not vented

Rating: 3.5 - monitor, vent PG

J - "all That Heard Him..." (dedicated to many) , 59' X 115"

No studio or date noted, probably McCausland Studio

Fairly firm and flat except pronounced deflection at top, tight

Four T-bars with putty, four saddle bars reduced to 3/8", ties good

Steel opening panel (ventilator) at bottom

PG as in 'I', unvented

Rating: 3.5 - monitor, vent PG

K - Naismith, no date/studio, probably McCausland Studio, 59" X 115"

Fairly firm, moderate deflection throughout, more pronounced at top, tight

T-bars, bars, ties and opener as in 'J', good

Rating: 3.5 - monitor, vent PG

L - Dean et al, McCausland Studio, 1972, 59" X 115"

Fairly firm, flat, except pronounced deflection at top, tight

T-bars, bars (now 1/2"), ties and opener as in 'J', good

Rating: 3.5 - monitor, vent PG

South Balcony, four windows, similar style**M - Campbell**, McCausland Studio, 1967, 59" X 115"

Fairly firm, tight, moderate to pronounced deflection throughout, but severe at bottom

Four T-bars with tabs, no putty/caulking at T's, four 1/2" saddle bars (top bar not affixed to sash), ties good, steel opener at bottom

Pg in light aluminum frame, held with clips, unvented

Rating: 2.5 - monitor, vent PG, affix loose saddle bar, plan to address lower panels

N - Armstrong, McCausland Studio, 1966, 59" X 115"

Fairly firm, tight, minor to moderate deflection throughout, except severe at bottom

Four T-bars with caulking, bars/ties good

PG as above

Rating: 3.0 - monitor, vent PG

O - Nicol, McCausland Studio, 1946, 59" X 115"

Fairly firm, moderate overall deflection

Four T-bars, puttied, bars and ties as above, good

Some evidence of prior leakage, probably before PG installed

PG as above

Rating: 3.0 - monitor, vent PG

P - Howe, McCausland Studio, 1966, 59" X 115"

Fairly firm, flat, except severe deflection at bottom, chalice cracked, rest OK

T-bars caulked, otherwise bars/ties as above, good

Leakage noted as above

PG light aluminum frame missing, Plexiglass is severely bowed in (against stained glass) and out, loose, not secure

Rating: 3.5 - except 2.0 at bottom - monitor, plan to address lower panel and PG issues (including venting when properly installed)

East Balcony and Rose Window

Q - Dunsmuir, by A. Linneman, Frankfurt, 1889, two pairs, each window 33" X 94"

Previously restored (and the Rose window) by Kitsilano Glass, Vancouver B.C.

Generally fair, reasonably firm, flat, (previously rebuilt), with exceptions noted.

Three T-bars each, some silicone caulking, scant room on T-bars to interior to hold window, no method of attaching windows to T-bars (top right panel actually bowed inward past edge of T-bar, showing daylight)

Were four light flat bars originally per window, two are now missing, three are partly detached, soldered on one side only as improper attachment to panels

Paint condition is compromised and fragile, some missing, probably due to borax flux sometimes used in late 19th century, found to be deficient

PG - installed in rebate with stained glass pressed tight against it, (hence scant room to interior on T-bars), unvented, no effective air movement even if vented, evidence of trapped condensation between stained glass and PG

Rating: 1.5 - Top right panel, remove, flatten/relead, add missing bar, install with effective attachment to T-bar

2.0 - Installation, all windows - address T-bars and lack of attachment

3.0 - General condition - though all should be removed, missing bars and T-bar issue addressed, and reinstalled without PG

1.5 - PG - Four Dunsmuir windows should be removed and reinstalled with a different method of providing properly vented and spaced PG (or no PG)

R - Rose Window and Tracery, no studio or date noted, perhaps not by A. Linneman

as the paint style and finish seems by a different hand or studio, paint seems stable

Firm, flat, (previously rebuilt), tight, no bars (inadequate)

PG as above

Rating: 3.5 - monitor, remove, add bars and reinstall without PG

S - South-East Stairwell, no studio/date (leaded glass, original to the church),

Three windows, 24" X 78"

Upper and Lower staircase - Fairly firm and flat, lead and attendant cement in comes

showing age, not due for restoration yet, one lap joint, three 3/8" square bars, ties good

Middle staircase - Previously restored by Mercer & Schaefer Glasstudio, Victoria, B.C.

No PG on these windows

Rating: 3.0 - Upper and lower windows, monitor

4.5 - Central staircase, no intervention

T - East, Douglas St. Entry, original leaded glass

Four leaded windows over doors, each with seven panels, and four narrow zinc-lights in the doors

Somewhat firm, showing their age, numerous cracks and previous repairs, to repair is to commit to restoration, (one panel protruding inward, broken lead, glass edge showing)

Zinc lights, good condition

No bars, no PG, none required

Rating: 2.0 - one panel - restore

3.0 - remainder - monitor

4.0 - Zinc lights - no intervention

North-East Tower and Stairwell, all original leaded glass

U - Lower stairwell, East Window, 44" X 82"

Soft, loose, previous repairs, buckling at bottom

Four 3/8" bars, one lap joint (pulling apart at lap, showing daylight), many broken ties

Lead aged, cement crumbling

No PG

Rating: 2.0 - needs restoration

V - Middle Stairwell, East Pair, each 24" X 103"

Soft, loose, previous repairs, bowing

Four square 3/8" bars, some loose ties, two lap joints

Lead is worn, cement crumbling, loose

No PG

Rating: 2.0 - needs restoration

W - Middle Stairwell, North Pair, each 24" X 103"

Similar to 'V' beside them, but less sun (North exposure) tends to reduce expansion/contraction and stress on windows

Rating: 3.0 - monitor

X - Upper Stairwell, East, pair, each 28" X 75", round 38" dia., two small tracery

Right of pair restored previously by Mercer & Schaefer, one lap joint, three bars

Left of pair - weak, loose, cracked glass, deflection, lead is worn, cement crumbling

No PG on pair

Round - soft, loose, weak, very poor condition, broken glass, numerous broken solder joints, all ties broken off the one bar

PG is cracked in two

Rating: 4.5 - Right panel of pair, no intervention

2.0 - Left panel, restore

1.0 - Round window, danger of collapse, restore

2.0 - Tracery, restore

Y - Clock Tower, four round, each 41" dia.

Very soft ('floppy'), loose, weak, very poor condition

Two thin flat bars soldered to each, many solders on bars broken (one fallen off)

No PG

Sash in need of attention as well

Rating: 1.0 - danger of collapse, restore, and attend to sash

Z - North (Broughton) Entry, office and studio entrance, original leaded, 63" X 15"

Lower over door -Firm, flat, loose in sash

No bars (deficient)

Upper arched over door - fairly firm, slight deflection, lead OK

One bar, ties good

PG unvented

Rating: 4.0 - Lower window over door, monitor, vent PG

3.5 - Upper arched over door, monitor, vent PG

AA - Small Room East of Entry, original leaded, 47" X 98"

Single hung sash, not operable

Somewhat firm, slight deflection, two bars only (deficient), cement deteriorated,

PG unvented

Rating: 3.0 - monitor, vent PG

BB - West of Entry, handicapped washroom, as above 'AA'

Similar to above, except smaller bars added later, ties compromised

PG unvented

Rating: 2.5 - monitor, vent PG

CC - North Stairwell to Offices, original leaded, 47" X 95"

Single/double hung sash, not operable

Not very firm, numerous previous repairs, lead and cement worn out

Two bars only (deficient), some ties broken

No PG

Rating: 3.0 - monitor

DD - Upper (North) Office, Two, as per "CC"

More extensive deflection, broken leads, cracked solders, one appears to be upside-down compared to the other two similar windows

Rating: 2.5 - monitor, plan for restoration

Summary

Most of the windows in the Sanctuary are in fair to good condition, although with some issues pertaining to protective glazing as noted, and the loose saddle bar on the Campbell ('M') window which should be affixed. The exception is the Dunsmuir windows, and to a lesser extent the Rose, mostly due to improper installation and the PG, rated at 1.5 (very poor). Ideally all would be removed, addressed as needed, and installed correctly with proper PG, or perhaps none at all. The top-right panel of the Dunsmuir windows needs to be addressed before damage to painted glass occurs.

The South-East Stairwell windows are fair to very good, with no PG.

The East (Douglas St.) entry windows are fair, except for the one noted for restoration. It might be prudent to address all of these at the same time if one is to be rebuilt.

The North-East Stairwell and Tower windows range from a 4.5 (very good), one fair, several poor (plan to restore), and the five round windows which are rated at 1.0 (hazard) needing restoration rather soon. There may be a safety issue if any of these fail abruptly, as has happened in the South-East Stairwell.

The South-West Broughton St. windows are generally poor to fair, requiring restoration at some point, with the one newer window over the entrance in good condition.

Some of the protective glazing requires attention, especially the Howe window (south balcony) which seems quite precarious. Others need the tabs holding them in place to be addressed, and many need venting. Unvented PG can cause a remarkable amount of heat build-up between the PG and the stained glass, and even north-facing windows can trap condensation with attendant damage to woodwork. Any PG addressed might well do with an exterior cleaning. The PG on the Rose and Dunsmuir windows is pressing and has been discussed above.

Cost Estimates

Estimates do not include applicable taxes, sash/woodwork repairs or painting, access if other than by ladder, and sidewalk or street control if required. Some (the Rose window and other tracery) present some questions as to removal and installation. The most urgent windows will be addressed here, with further estimates provided upon request if intervention is planned in the foreseeable future.

North-East Tower

The four top tower windows - are all rated at 1.0 (hazard) and need to be addressed.

Cost: \$12500.00 - remove, cover the openings, restore the windows, and install in existing sash. The sash need attention as well, with costs determined once they are removed.

Upper stairwell (East, window 'X') - the round window is also rated as 1.0 (hazard)

Cost: \$2900.00 - as above, with little or no woodwork expected, remove PG

The left window below the above round window and the tracery are rated 2.0 (poor)

Cost: \$5350.00 - as above, full restoration of windows

Lower stairwell (window 'U') rated 2.0 (poor)

Cost: \$7350.00 - fully restore as above

Dunsmuir Windows

These are difficult to estimate without some hands-on experience with their installation and condition. The one top-right panel of the four has severe bowing and is partially off the T-bar supporting it, rated at 1.5 (very poor).

Cost: \$2500 - 4000.00 - remove, flatten, add bar, install against existing PG

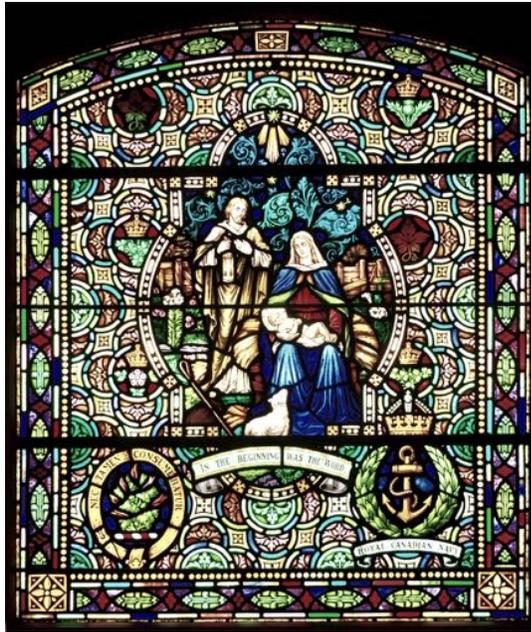
This may give more information on how to address the remainder of the Dunsmuir windows, and subsequently the Rose window and their PG.

Protective Glazing

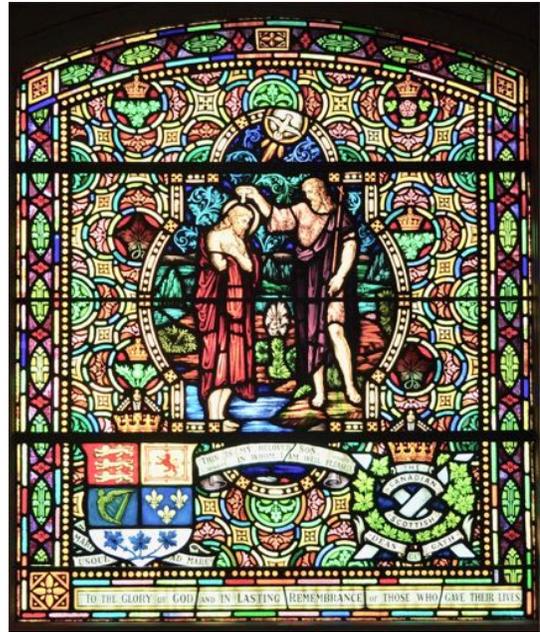
Unvented PG should be vented, others should have additional venting, some supporting tabs need improving, with costs determined by access, how close to the stained glass etc.

One window does need to be remedied, the PG on the Howe window ('P') has come out of it's aluminum frame (some of the frame appears to be missing), is barely supported, and is bowing against the stained glass. Being a balcony window access is not simple. If a lift is provided to address this PG it would be prudent to vent all of the balcony windows on that side. Cost is difficult to arrive at until it is determined why this PG has failed so completely.





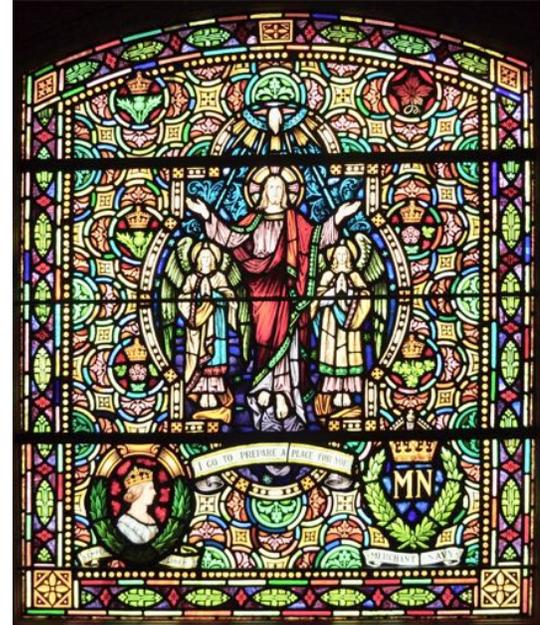
A- Royal Canadian Navy



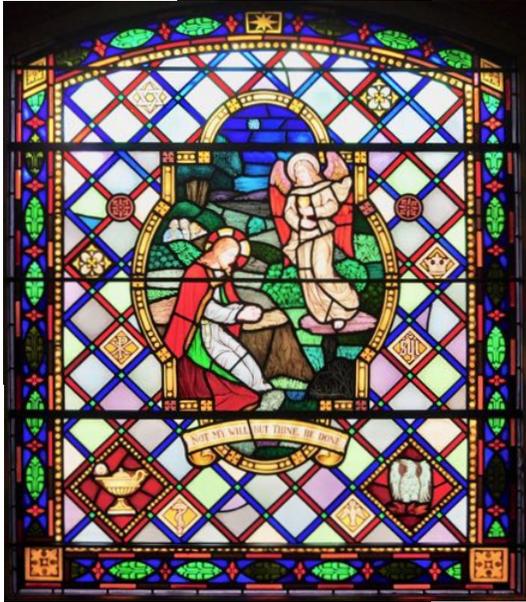
B - Canadian Scottish



C - Royal Canadian Airforce



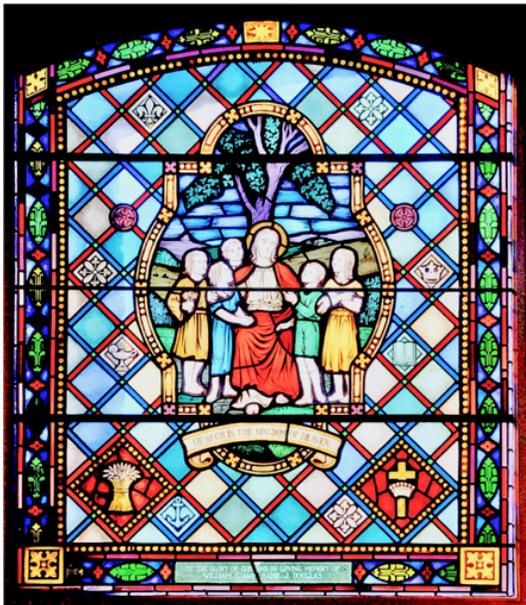
D - Merchant Marine



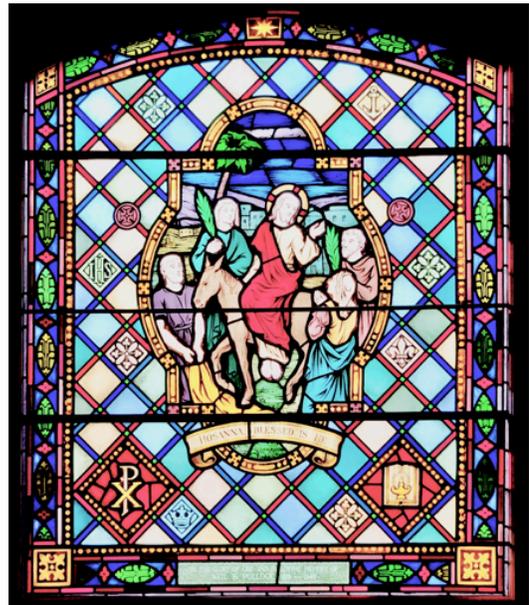
E - "Not My Will..."



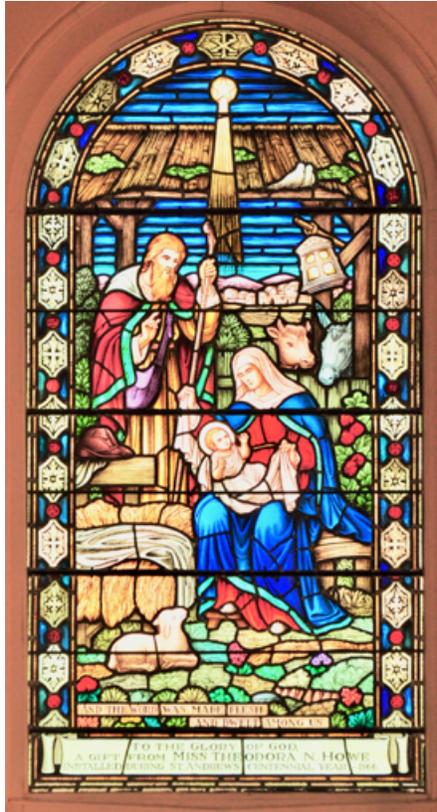
F - Ogilvie



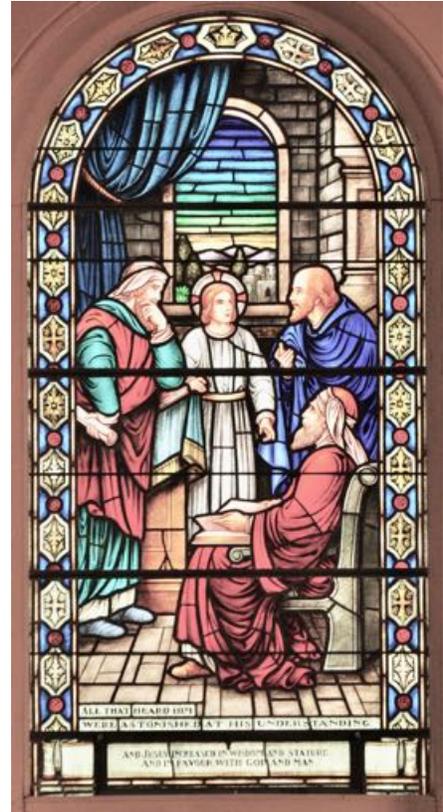
G - Douglas



H - Pollock



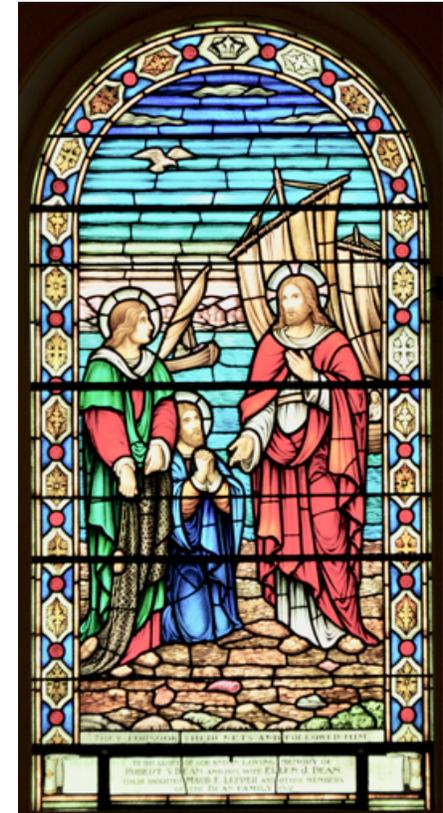
I - Howe



J - "All that Heard.."



K - Naismith



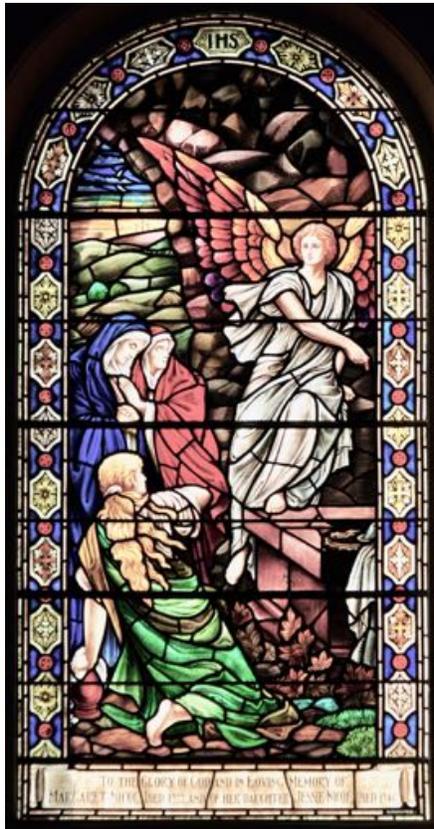
L - Dean



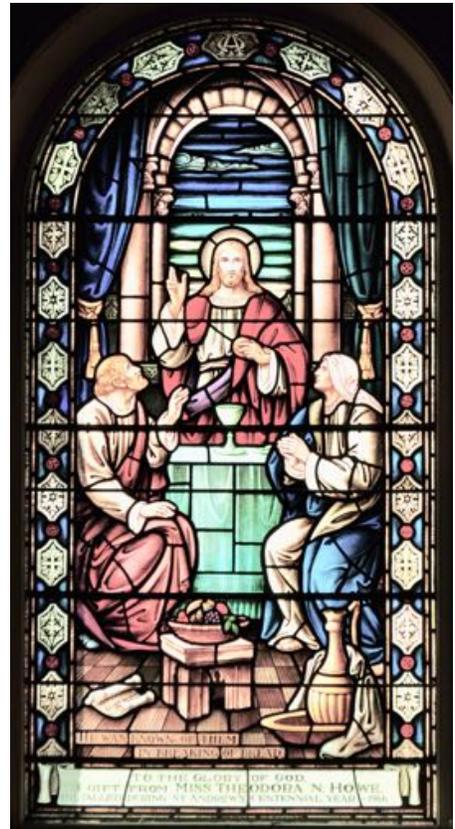
M - Campbell



N - Armstrong



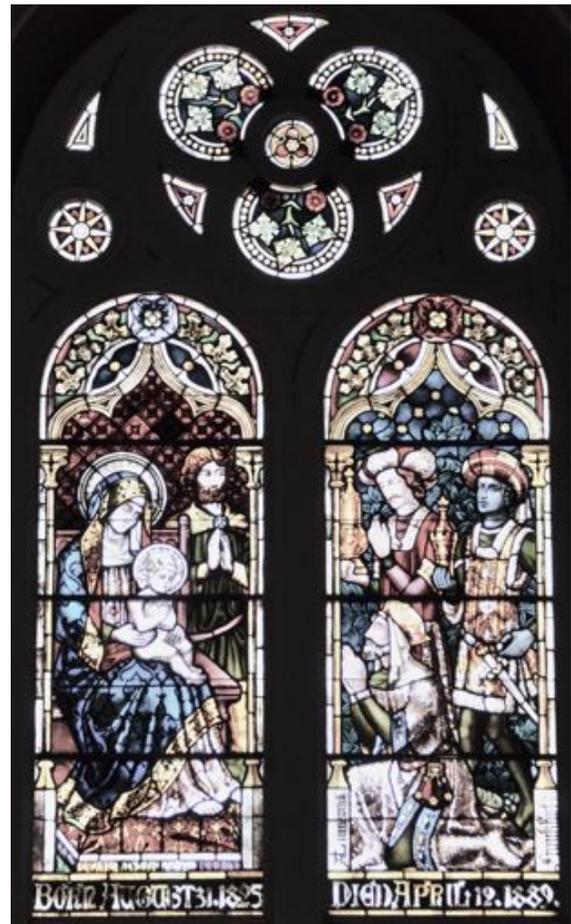
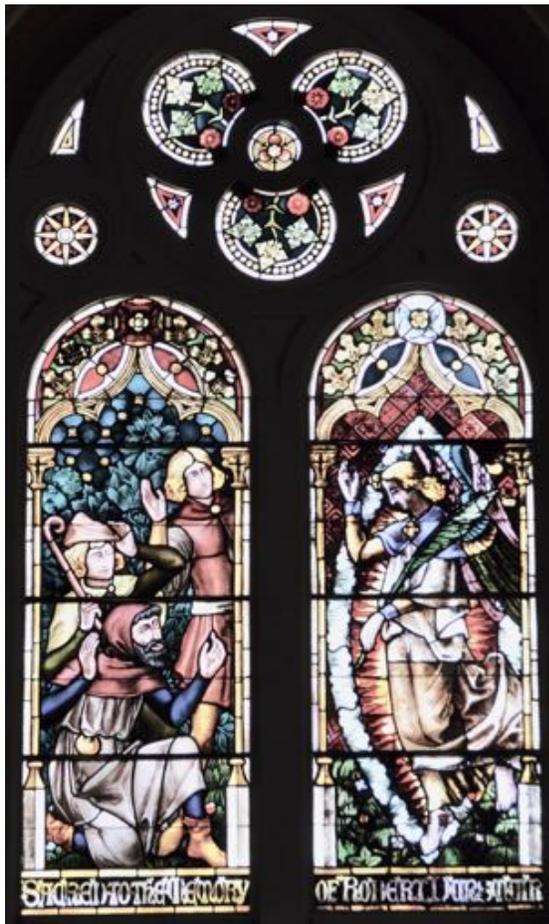
O - Nicol



P - Howe



Q- Dunsmuir (4) and R - Rose and Tracery





S - South-East Stairwell (3)



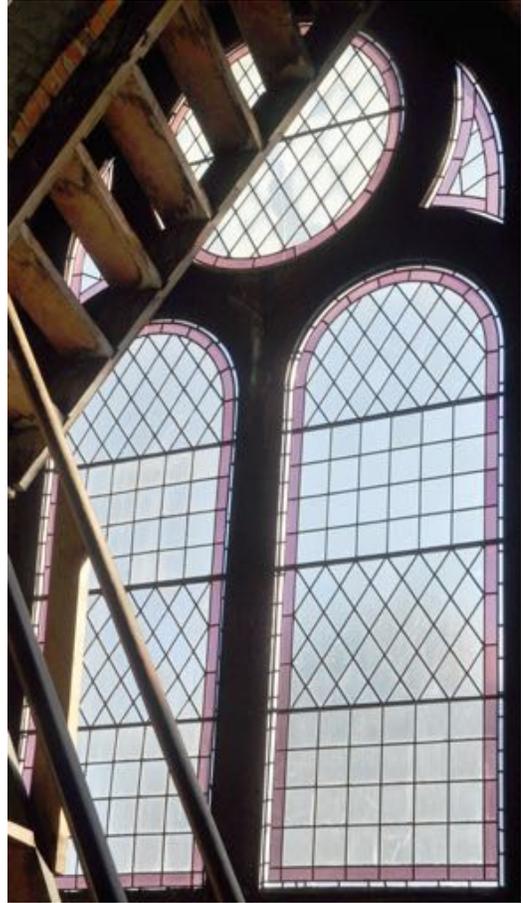
T - East, Douglas St. Entry (4)

U - N/E Tower, Lower Stairwell, East Window





V, W - N/E Tower, Middle Stairwell,
East & North Pairs



X - Upper Stairwell, East



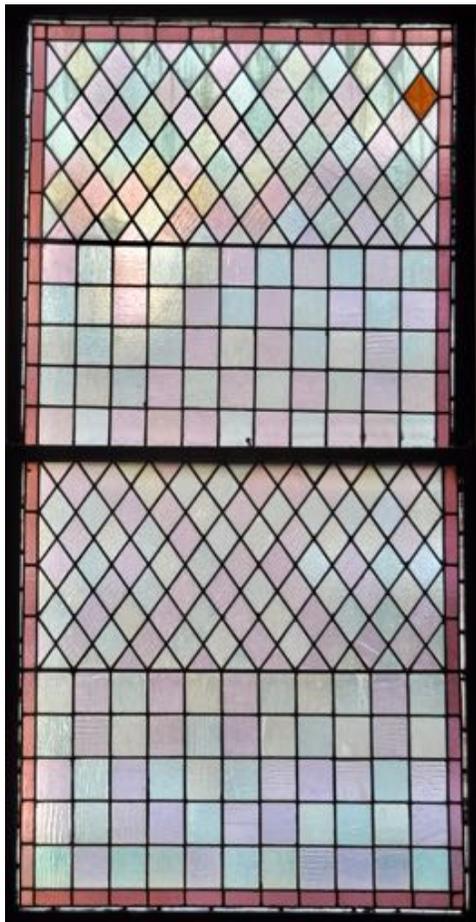
Y - Clock Tower (4) and Sash Detail



Z - North (Broughton) Entry



AA, BB - East and West of Broughton Entry (2)



CC, DD - North Stairwell and Office (3)