

December 31, 2016

Dealing with Substitutions to Your Design

Recent research into claims arising against architects has confirmed that many involve substitutions to the systems and designs provided by the architect or its consultants.

Although many substitutions factor in claims involving building envelope failures, substitutions to what the architect or engineer included in its design and specifications may factor in claims elsewhere in the building.

The following advisory and example of a letter to a client are intended to assist the architect to:

- meet its professional obligation to protect the public interest;
- comply with the *Architects Act* and Regulation thereto;

- protect the public and itself where a client disregards the architect's advice, or substitutes unqualified advice for the advice of the architect; and
- provide tools for the architect to consider for use when a substitution occurs.

The example of a letter to a client at the end of this advisory is a sample based on a specific set of circumstances. Other circumstances and decisions by the architect would require different wordings.

The Problem with Substitutions

It is not uncommon for an architect to find its design and specifications are being disregarded by a client, contractor or trade contractor during construction, and the impacts of substitutions for the architect's design and specifications regularly show up in claims against the architect when the substitution does not perform adequately.

One way or another, the architect will find itself facing allegations of negligence in the provision of its services related to the substitution, including:

- failure by the architect to provide a suitable design in the first place; and / or
- acceptance or approval of an unsuitable substitution by the architect; and / or
- failure of the architect to recognize that what was being constructed did not conform to the architect's design and specifications.

Actions or failures to act by the architect may result in the architect being deemed to have accepted or

approved of the substitution, thus converting the substitution into the architect's design, regardless of other considerations.

In addition, failure to advise your client of the consequences that may arise where the substitution was incorporated without professional input may constitute professional misconduct.

Regulation 27 under the *Architects Act* includes as a prescribed Standard of Practice Item 49.8:

Every member or holder shall present clearly to the member's or holder's employer or client the consequences that may be expected from any deviation in a design for which the member or holder is responsible in a case where the member's or holder's judgment was overruled by nontechnical authority.

"Nontechnical authority" may be anyone who is not an architect holding a Certificate of Practice or professional engineer holding a Certificate of Authorization; including a client, contractor, trade contractor, product sales representative etc.

The following suggestions reflect “lessons learned” by Ontario architects. They reflect “good practice” and adherence to the OAA Standards of Practice and will help protect you from claims arising from substitutions made without your involvement or agreement.

Some Important “DO s”:

1. Remember that it is your professional obligation and recognized “good practice” to advise your clients about your concerns respecting any proposed changes to your design or substitutions for your design.

It may be professional misconduct to fail to advise your clients of the consequences or your concerns related to the substitutions.

2. Insist upon an adequate scope of services and fees to carry out sufficient Field Review / General Review and contract administration services necessary to enable you to be on site enough to identify any substitutions or attempted substitutions to your design of an exterior wall system or other aspects of the construction before they occur.
3. Include a no-substitutions without the architect’s express approval and oversight provision in your contract or terms of engagement with your clients. Be prepared to enforce it. Refer to OAA Document 800-2011, Clause 8.(3) or OAA Document 600-2013, Clause 8.7 for examples of possible wordings.
4. Understand how the design for an exterior wall assembly or other construction is intended to:
 - meet the design objectives;
 - perform adequately for the intended use;
 - comply with the Building Code requirements;
 - avoid water ingress or premature deterioration; and
 - be constructed to achieve these requirements.If uncertain, obtain additional expertise from another architect or professional engineer (building envelope specialist) to assist with your design.
5. Ensure that designs that you prepare for any exterior above-grade wall assemblies fully comply with the insurability requirements of the *Non-Drained Exterior Wall Exclusion* as amended.
6. Where a substitution is sought by your client, or proposed by a contractor, insist upon comprehensive re-design and documentation services to ensure the new exterior wall assembly as designed and constructed will comply with Building Code, performance and insurability requirements.
7. Warn your client that changes or substitutions may result in denial of insurance coverage for future losses.

8. Include a mock-up as a construction requirement, for both your design and for any proposed changes or substitutions.
9. Report any non-compliant or unacceptable substitutions to your design in your Field Review reports, including any reports directed to building officials.
10. Insist upon notification of municipal building officials, other authorities having jurisdiction or any designated review agency such as a Tarion Builder Bulletin 19R Field Review Consultant respecting any substitution from your design.

11. Insist upon submission of the design for the substitution to the municipal building officials and other authorities and receipt of formal approvals and amendments to the Building Permit before proceeding with the changes.

Some Important “DON’T s”:

1. Do NOT accept a commission where the client is unwilling to make a commitment to “no changes or substitutions” without your oversight and approval, or where you recognize that adherence to your design will not be the client’s priority.
2. Do NOT ignore, agree to, accept, or approve of any change or substitution to an exterior wall assembly that does not comply with the *Non-Drained Exterior Wall Exclusion’s* insurability requirements, regardless of who might promote or encourage the substitution.
3. Do NOT ignore, approve or accept any documentation, submittal, manufacturer’s literature etc., for a proposed change that does not include evidence of suitability for the use intended including:
 - compliance with performance requirements of the Building Code;
 - compliance with any CCMC assessment related to an approval under Part 9;
 - compliance with the applicable referenced standards in the Building Code;
 - compliance with the insurability requirements for water ingress coverage.
4. Do NOT ignore, accept or approve shop drawings or samples that do not reflect your design. Identify and return such submittals as unacceptable, not in compliance with your design.
5. Do NOT issue any certificates or documentation accepting or authorizing payment for a design or system that does not comply with your design and/or the insurability requirements for water ingress coverage. Qualify any certificates respecting substitutions that have been made to your design.

6. Do NOT issue any Field Review Reports / General Review Reports or other reports or submissions to the client, municipality or any other entity advising that a non-compliant substitution or other failure to comply with your design is nevertheless in “general conformity” with your design. Instead, highlight the discrepancies from your design to avoid any inference that you have “adopted” the non-compliant design as your own.

Finally, recognize that an exterior wall design or construction that is not designed by an accredited professional (architect or engineer) and /or will not be insured for water ingress is not in the public interest, or your own. Be prepared to terminate your professional services on the project if your client does not support your position.

Suspending or Terminating your Services:

If the client does not accept your advice and refuses to abandon a substitution that you consider to be:

- non-compliant with the Building Code; or
- not in accord with your Duty of Care to subsequent buyers; or
- a threat to the health or safety of occupants or the public; or
- in your professional opinion, otherwise not in the public interest;

it may be appropriate to consider suspension or termination of your services.

This is a serious undertaking that should not be considered without first consulting a lawyer.

One principle that may apply is failure to comply with the Building Code. Clause GC 9.3.2 in OAA Document 600-2013 provides that the architect may suspend its services “*if the architect becomes aware of an action taken by the client which violates applicable building codes or regulations*”.

Prior notice to the client of your intention to suspend or terminate your services is required.

Other forms of Client / Architect agreement may include similar provisions to those in OAA Document 600-2013. A lawyer can advise of other law that may apply if the form of contract does not include specific provisions respecting suspension or termination of services by the architect.

Comments that follow address a number of specific areas of concern with suggestions that can help you manage risk associated with changes and substitutions for your design.

Condominiums: Tarion Builder Bulletin 19R

If the project is a condominium, it may be subject to Tarion (Ontario New Home Warranty) requirements.

You should remind a condominium project client that Tarion’s Builder Bulletin 19R requires that any exterior wall assembly using Exterior Insulation and Finish Systems (EIFS), Window Wall or Insulated Concrete Forms (ICF) are to be designed and constructed in accordance with Pro-Demnity Insurance Company’s water ingress insurability requirements. Any change or substitution that fails to meet the insurability requirements may have the client in breach of the New Home Warranty conditions, with significant financial consequences for the client.

The Field Review Consultant (FRC) retained to report on adherence to Builder Bulletin 19R should be made aware of any changes or substitutions to the design in order to assess compliance with the insurability provisions.

Condominiums: Schedule G

Architects retained on a condominium must be particularly wary of signing a *Schedule G* where a substitution to architect’s design has been incorporated into the exterior cladding assemblies. Warn your client at the outset of your services that you will NOT sign a *Schedule G* where you have not designed the cladding that was used or constructed and / or have not been retained to carry out sufficient Field Review / General Review of the construction to attest to its adherence to your design, including compliance with the *Non-Drained Exterior Wall Exclusion*.

Exterior Insulation and Finish Systems...EIFS

Exterior Insulation and Finish Systems have been particularly prone to claims involving substitutions from what was designed and specified by the architect. Notwithstanding the availability of EIFS assemblies that are described as complying with the insurability requirements for water ingress, other EIFS systems remain available in the market that will not comply. Often these non-compliant systems have been substituted for systems designed and selected by the architect as a cost saving measure.

Too often architects have accepted the substitutions without taking the measures described above, meaning they have been considered to have adopted the non-compliant design as their own.

If you or your client is favouring the use of EIFS, consider having the project enrolled in the EIFS Quality Assurance Program Inc. (EQI). One important aspect of the EQI is restrictions on substitutions to the systems selected and specified by the architect.

Information about the EQI is available from the EIFS Council of Canada website via the following link:

<http://eifscouncil.org/about-eqi>

Part 9: Building Code Compliance does not assure Water Ingress Coverage

Some cladding assemblies that may be approved as code compliant for use on Part 9 Buildings will not meet the insurability requirements for water ingress coverage under the *Non-Drained Exterior Wall Exclusion* in your Pro-Demnity policy. One possible omission to be aware of in such assemblies is the required: “...provision for drying of the assembly”, including “an air space no less than 10 mm deep behind the cladding with positive drainage to the exterior”.

Where a constructed assembly that does not include ALL the requirements for water ingress coverage, including the required space for drying and drainage, has been selected or accepted by an architect, there may be no insurance coverage for the architect for a water ingress claim.

For most projects outside Part 9, water ingress may be “prima facie” evidence that the design as constructed does NOT comply with the Building Code requirements for environmental separations in Part 5 of the Building Code. An error or omission resulting in water ingress would ordinarily be covered by professional liability insurance; however, there may be no water ingress coverage if the insurability requirements of the *Non-Drained Exterior Wall Exclusion* have not been met.

Important Tool for Architects: A Mock-up of the Cladding Assembly constructed at the site...

Some substitutions have been generated when a contractor has determined that the design provided by the architect for an exterior cladding or components for the assembly does not fit together appropriately in the field. The substitution from the architect’s design has been justified as necessary in order that the cladding may be constructed, and the architect may be faulted for a design that could not be built.

One tool available to every architect is to specify that a “mock-up” of the cladding assembly be constructed and approved at the site BEFORE any construction is commenced on the actual building. The mock-up should include key elements and interfaces including those at windows and other critical aspects of the design. It should be built by the trades who will be carrying out the work on the site and, once approved can serve as the standard against which the workmanship of the cladding assembly on the actual project will be assessed.

If there are constructability or other issues that are identified in this “trial run”, any proposed amendments to the design or substitutions can be addressed by the architect and contractor BEFORE construction has reached the point where it is too late to intervene to carry out corrections or start over.

Where a mock-up is specified, it is critical that the architect and related consultants be on hand to observe construction of the mock-up by the affected trades to confirm constructability of the design or assess what changes, if any, should be made to the design BEFORE construction commences.

The project schedule must identify construction of the mock-up as a key “milestone” ahead of commencement of work on the affected components on the building. Sufficient time must be allocated in the contractor’s schedule for the mock-up to be prepared and evaluated, and any required amendments to the design properly prepared and agreed to BEFORE work commences on the actual building.

Sample Letter to a Client

If you become aware of a change or substitution that you are not prepared to accept as “your design”, protect your position by sending a letter to your client setting out your position, complying with the Standard of Practice Item 49.8 that applies in the Regulation. Such a letter may prove pivotal to your defence in the event you are named in a lawsuit arising from a failure of the substituted system.

A substitution may be proposed or adopted by a client (or others) at any stage of the project. The specifics in such a letter will vary with every situation and your determination of what actions are required to meet your professional obligations and expectations. **Such a letter should only be sent after receiving legal advice on the content.**

The following sample is based on the architect’s discovering a substitution to its design (and the permit drawings) during an early construction review. The project is a condominium where the ultimate owners are not the architect’s client; however, the condominium buyers are those who are most likely to sue the architect respecting damages arising from a cladding or other failure.

The client has not accepted the architect’s warning that:

- the substitution is contrary to the CCMC assessment that was the basis for approval of the cladding system under Part 9 of the OBC; and
- claims for water ingress arising from the substitution will not be covered by the architect’s professional liability insurance.

Dear Client,

At the site visit of ...(date)... it was noted that the cladding being installed on the above referenced project is not in accordance with our design and specifications that are the basis for the approvals and building permit pertaining to the project. Specifically, the installation being carried out at the site has eliminated the required 10 mm space for drainage and drying of the assembly included in our design.

Upon investigation it was determined that you had (approved of / directed etc.) the contractor to proceed with the substitution (...made without our knowledge, without our input, contrary to our advice etc.)

We must advise you that we will not assume any responsibility or liability for the consequences of the substitution that was made without our professional involvement.

It is a breach of the Architects Act and Regulation thereto to fail to advise you of the consequences that may be expected from any deviation to our design where our judgment has been overruled by a nontechnical authority (e.g. a client, contractor, trade) as appears to be the case in this instance.

Accordingly, please be aware that the cladding product selected is known to be very sensitive to moisture. The manufacturer’s product information as well as the CCMC assessment referenced in Part 9 of the OBC warn of the risk of premature failure due to prolonged exposure to moisture and recommend specific provision for drainage and drying as per our design. Elimination of the 10mm space for drainage and drying of the wall assembly may result in premature failure of the cladding material and / or give rise to water ingress should the material fail. The substitution appears contrary to the basis for the Part 9 approval and not compliant with the OBC.

In addition, water ingress coverage under our professional liability insurance is dependent upon the design including the 10 mm space for drainage and drying of the wall assembly. Elimination of the 10 mm space and loss of water ingress insurance coverage is unacceptable to us and is not in the public interest.

If assurance is not received that the substitution will immediately be corrected:

- *We must notify the Chief Building Official of the change and that it was taken without our professional involvement*
- *We must notify the Tarion Builder Bulletin 19R Field Review Consultant of the substitution*
- *We will not sign a Schedule G under the Condominium Act respecting the exterior building envelop.*

We are very concerned that you have chosen to disregard our design and recommendations and hope you will reconsider your decision.

*Yours truly,
Architect*