



## Investigation into Allegations of Wrongdoing Regarding Building Inspections of 2 Houses

**June 22, 2023**

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Auditor General

**AUDITOR  
GENERAL**  

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**TORONTO**

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## Executive Summary

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### **Allegations about 2 large houses under construction in Toronto by 1 builder**

This report provides details about an investigation into allegations of wrongdoing related to the construction of two large houses by one builder in Toronto. There was a third house included in the allegations, but due to the timing of the construction and inspection processes, this investigation only reviewed two of them (House 1 and House 2).

### **Complainant alleged the houses were not being built in accordance with the permits and were potentially unsafe**

The complainant made four allegations, including that the home builder was not constructing the houses in accordance with the permits approved by Toronto Building Division (TB). The complainant alleged that the builder was making changes to the houses that were not in compliance with the *Ontario Building Code* (OBC or Building Code or the Code). The complainant said it was possible that TB's inspectors were not catching these changes and was concerned that the houses, once complete, would not be safe.

The complaint came to the Auditor General through the Chief Building Official (CBO) on April 20, 2021.

The *Building Code Act* (BCA) sets out the legislative framework for the various people involved in the construction of a house, from the owner and/or builder, to the building inspectors and the CBO. Each person has an important role to play to ensure buildings are constructed safely, particularly the owner/builder of the property. The Background section of this report (Appendix 3) provides further details on these roles and the parties' respective responsibilities under the BCA, as well as additional background information on the inspection process.

The purpose of the BCA is to protect the general public from unsafe design and construction, and the OBC is a set of minimum provisions for the safety of buildings with respect to public safety, fire protection and structural sufficiency.

One of the key issues from the complainant was that the builder was making unapproved changes to the houses.

### **"Material" changes to plans must be approved by CBO**

Builders can make changes to the buildings they are constructing. Generally, minor changes do not require that the builder or permit holder submit a revision to the City-approved plans to TB. However, the BCA Section 8 (12) clearly states that "material" changes cannot be made without approval from the CBO:

*“No person shall make a material change or cause a material change to be made to a plan, specification, document or other information on the basis of which a permit was issued without notifying, filing details with and obtaining the authorization of the chief building official.”*

**TB and Building Code Act do not define what a “material” change is**

The BCA does not define what constitutes a “material” change. However, TB provides some guidance to its inspectors to help them assess whether a change may be “material” and thus would require the permit holder to submit their revised plans to TB for a review to ensure the change is in accordance with the OBC. But ultimately, inspectors have the final say on whether a change is “material” or not. Minor changes still require approval but are not required to go through TB’s permit revision process, and can sometimes be approved by inspectors on-site.

**Material changes**

Throughout this investigation, senior inspectors, the CBO and a structural forensics consulting engineer we contracted to help review this complaint confirmed that most of the changes made to the buildings in this file would be considered “material”.

TB has a process in place where its staff review proposed changes to ensure they are compliant with applicable law. This is an important process to ensure that buildings are safe.

If a builder makes unapproved changes to a house under construction, there is a risk that those changes are not in compliance with the OBC and therefore could be unsafe.

**Fire at House 1**

An element which added some complexity to this investigation was that House 1 suffered massive damage in a fire (while this investigation was occurring) and had to be demolished. The fire occurred at a point where the construction was nearing completion, but before the final inspections took place and before the occupancy permit was issued.

Toronto Fire Services (TFS) investigated the cause of the fire and could not determine a specific cause. TFS was called and the house was fully engulfed by flames by the time firefighters arrived. Most of the exterior and interior walls collapsed. After the fire, TFS interviewed 13 different people, all of whom were working at the house earlier on the day of the fire, to get more information on the potential cause. The last person on site that day did not recall seeing anyone there when they left in the evening. TFS found that the fire started inside the house but could not get more specific – they were not able to access the inside of the house due to the extensive structural damage and water from fire-fighting efforts. Because of this, TFS classified the cause of the fire as “undetermined”.

Appendix 1 includes more details about the fire, and the TFS investigation into the cause of the fire.

### **What we did**

In order to determine the validity of the allegations from the complainant, the Auditor General's Office conducted a review of the building files for the two houses, conducted more than a dozen interviews, contracted a structural forensics engineer, reviewed hundreds of documents, and conducted data analysis on building inspection information.

Our Office also requested that the CBO direct re-inspections of the houses by different, very experienced inspectors from different districts from where the houses were being built, and the CBO arranged for these re-inspections. This was a necessary step to ensure that those doing the re-inspection were neutral and separate from any involvement or influence from City employees in the districts where the houses were being built.

### **House 3 not included in our detailed work**

As noted above, there was a third house (House 3) included in the complainant's allegations. The construction on this house began later than the other two houses, so it was not as far along when the CBO-appointed inspector visited the property. That inspector visited House 3 after already working with the builder on House 1 and House 2 to bring them into compliance. When that inspector visited House 3, he told us that the builder was generally proceeding with construction in accordance with the City-approved plans. Given the risk was lower for House 3, we did not include it in our detailed work and in this report.

Our conclusions on the four allegations from the complainant are below.

## **Allegation Conclusions**

### **4 Allegations**

We found evidence that one allegation was substantiated and two were unsubstantiated. For one allegation, we were unable to determine a conclusion. Each allegation is listed below, along with a summary of how we came to our conclusion. Detailed findings and evidence supporting these conclusions are included in the Chronology of House 1 and 2, found in Appendix 1 and 2, respectively. Section B of this report includes further details about the investigation's findings.

#### **Allegation 1: The builder was making changes to the houses without having those changes approved by Toronto Building Division.**

We found that the builder made changes on-site during construction at House 1 and House 2, without having the changes reviewed and subsequently approved by TB staff. Section B.3. of this report provides more details on the unapproved changes the builder made.

We found that various TB inspectors regularly requested that the builder make changes to his buildings to bring them into compliance – he did not always make the changes, did not always submit the required reports when requested, and also proceeded with further stages of construction before submitting requested reports. Or, in some cases, he made the changes on paper to get the revision passed, but did not make the changes to the actual building.

**Material changes made without approval**

Our investigation determined that the builder made material changes to House 1 and House 2 without first getting the proper approval from TB. These changes are discussed in more detail in Appendix 1 and 2.

One of the material changes was regarding the garage roofs at both houses. The City-approved plans showed that the material to be used for the roofs was concrete. However, the builder changed it to wood. He did not submit a revision for this to TB for approval.

**Other material unapproved changes made**

In addition to the garage roof changes, the builder also made other material changes to House 1 and House 2, including:

House 1: adding a mechanical room to the third floor/attic, increasing the size of windows, and not installing a fire shutter.

House 2: changing the roof from trusses to conventional framing, changes regarding a skylight, the cross-section dimensions of the steel beams were not specified in the second storey terrace, creating a walk-out basement, adding a third washroom to the third floor, and adding columns to the basement.

As several of the interviewees said (and the CBO agreed), most builders, especially experienced ones like the one involved in this case, would know that changes like these (especially the garage roof changes) must be reviewed and approved by TB staff before being made.

TB staff and the CBO confirmed that the above-mentioned changes are material and a revision to the permit was required.

Our consulting engineer agreed that almost all of the above-mentioned changes are material and required a revision to the permit, with the exception of these items at House 2 which would not necessarily warrant a permit revision:

- increasing the size of the skylight – a review and report from the structural engineer of record would suffice, and
- not providing the size of the steel beams in the terrace on the City-approved plans appears to be an oversight – the structural designer could be asked to provide the missing information.

**Substantiated**

We found this allegation to be **substantiated**.

**Allegation 2: The changes made to these houses were potentially non-compliant with the *Ontario Building Code*.**

The allegations included that the builder made changes to the houses, and that the changes were not in compliance with the OBC.

As discussed above, it is a BCA violation to make a material change without having it approved first by the CBO. As described under our conclusion for Allegation 1, there was non-compliance with the Act to make material changes without first applying for a revision. Making material changes without having approval from TB first can be a potential safety issue because the changes may not be in compliance with the OBC.

However, for the garage roof at House 1, we do not know whether that material change from concrete to wood was in compliance with the Code or not because we were not able to obtain the engineered wood drawings showing the wooden garage roof. Neither the builder, his engineer, nor anyone at TB kept a copy on file. This is discussed further in Section B.5. of this report.

Furthermore, for House 1, due to outstanding reports and inspections, and the fire, the inspectors were not able to carry out the rest of their inspections and had not yet approved the home for occupancy. Because of this, we were unable to verify whether House 1's unapproved changes were in compliance with the OBC or not.

For House 2, the builder also made unapproved changes, and inspectors requested that the builder submit revisions for those changes. He did, and those revisions were then reviewed and approved by TB. Inspectors later approved the house for occupancy, so any issues with the unapproved changes (which would include compliance with the OBC) were cleared before occupancy.

We were unable to determine whether this allegation is fully substantiated due to the challenges in obtaining information about how House 1, in particular, was constructed. See Sections B.3. and B.5. of this report for more details. Because of this, we cannot verify whether this house was built in accordance with the OBC.

**Unable to determine conclusion**

We were unable to determine if this allegation is substantiated or not.

**Allegation 3: The builder was fraudulently using the project architect's credentials to make changes to the houses.**

We did not find evidence to substantiate this allegation. TB staff had requested revisions to the drawings for both buildings. For House 1, we found that the revision was submitted by the builder and did not have an engineer or architect's stamp on it. In the case of House 2, the revision was submitted by someone who appears to be the builder's employee. This person could not be found on any engineer or architect's registry. It is not clear who made the actual revisions for House 2. But that revision also did not have an engineer or architect's stamp on it (nor was it required to have for House 1 and House 2).

While we cannot confirm who made the actual changes to the House 1 and House 2 drawings, we did not find evidence that the architect's stamp/seal was being used without their approval to revise the drawings for these houses.

**Unsubstantiated**

Therefore, this allegation is **unsubstantiated**.

**Allegation 4: The builder had connections at the City of Toronto, who were in some way helping the builder to bypass the regular Toronto Building Division's plan review and/or inspection process.**

For this investigation, we interviewed key staff – some more than once – to determine whether any of them were motivated in some way to help the builder get changes passed without having to go through the regular processes. We found no evidence of this.

**Code/Zoning Examiners**

Through interviews, email reviews, and permit reviews, we did not find evidence to support that the Code or Zoning Examiners acted in an improper manner to benefit the builder.



## Inspectors

We found that while all of the inspectors missed some material and noteworthy changes at House 1 and House 2, had issues with receiving outstanding reports in a timely manner, and in some cases, performed inspections in an unusual order (according to the CBO and the new/independent inspectors who inspected the properties later) without documenting why, we did not find evidence that the inspectors were motivated by the builder or anyone else to overlook unapproved changes.

We have no evidence to support that any of the inspectors were intentionally looking the other way or acted in an improper manner to benefit the builder.

### Unsubstantiated

This allegation is **unsubstantiated**.

## Further Findings

### Building Better Outcomes: Audit of Toronto Building's Inspection Function

In addition to responding to the complainant's four allegations, this investigation also identified other issues. These issues were similar to some of the findings from our recent performance audit report entitled "[Building Better Outcomes: Audit of Toronto Building's Inspection Function](#)" (the audit was being conducted at the same time as this investigation, was dated January 27, 2023 and was presented at the February 13, 2023 Audit Committee meeting). In parts of Section B of this report, we refer to our audit report for details and relevant recommendations (audit report recommendations are also outlined in Appendix 5). The potentially wider-ranging issues we found in this investigation included:

1. A risk-based approach to inspections is not used
2. The importance of using powers to enforce compliance
3. Material and note-worthy changes were not identified through the inspection process
4. The inspection order is not always logical
5. The City-approved plans are not always used for inspecting

Our audit report identified two more areas that we also found in this investigation. They are explained in detail with recommendations made in our audit report, so we have not duplicated them in this report. These areas are:

- a. TB needs to improve record-keeping in the Integrated Business Process and Workflow Management Software System (IBMS) to demonstrate that inspections are being performed properly (Section B.1. of the audit report).
- b. TB needs to modernize its systems to support its business needs. The audit found that IBMS presents many challenges to inspection staff because of its limited functionalities and the way it captures data (Section C of the audit report).

**Why this investigation matters**

While this investigation focuses on only two houses in a large city, the issues identified by this investigation have implications that stretch further. It is the Auditor General's view that this investigation report reflects a serious example of the 'so what?', or the importance of why the Division needs to address recommendations from this report as well as recommendations from our recent performance audit report. It shows the risk that some builders might be making unapproved changes to their buildings, which could have serious safety implications, if TB is not notified to review and inspect the changes and/or the changes are not caught during the inspection process.

**6 recommendations in this report plus 20 audit report recommendations**

The Auditor General has made six recommendations in this report, plus 20 recommendations in her recent audit report. The recommendations in both reports will help to address the gaps identified.

Because of the importance of the issues raised in this investigation and in the performance audit, we recommend the CBO immediately start acting on these recommendations. To do this, the CBO will need support from other City Divisions, including Technology Services and Legal Services Division.

Once implemented, the Division will be in a stronger position to carry out its mandate and support its staff as they continue to review plans and do inspection work to verify that homes and buildings are being constructed in compliance with the City-approved plans, the *Ontario Building Code* and the *Building Code Act*.

**Thank you to TB staff for their assistance**

The Auditor General would like to thank all those at Toronto Building Division who assisted in this investigation. Their help in providing documentation and their participation in interviews and this investigation was critical and appreciated.

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# Investigation Results

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## A. House 1 and 2

### Listing of TB Staff referenced in report

Below is a reference guide for City of Toronto Building Division staff referenced throughout this report.

#### Inspectors

- Inspector 1: Inspected House 1
- Inspector 2: Inspected House 1
- Inspector 3: Inspected House 2
- Inspector 4: Inspected House 2
- Inspector 5: CBO-appointed inspector from a different district, appointed after allegations reported to CBO and Auditor General. Inspected House 1, 2 and 3
- Inspector 6: Assisted Inspector 5
- Inspector 7: Completed the demolition inspection for House 2

#### Code Examiners

- Code Examiner 1: Reviewed House 1
- Zoning Building Code Examiner 1: Reviewed House 2
- Zoning Building Code Examiner 2: Reviewed House 2

### 3 houses under construction by same builder

At the time we began our investigation, there were three houses under construction by the same builder/developer, called House 1, House 2 and House 3 in this report. Houses 2 and 3 were not larger than 600 square metres (like House 1), but they were still large houses with underground garages to fit several vehicles.

Detailed chronologies for House 1 and House 2 are included in Appendix 1 and 2, respectively.

We found similar issues arose at both House 1 and House 2, even though the houses were located in different districts with different staff members assigned to the file.

**Problems not isolated to House 1, some of the same problems found at House 2**

The fact that similar problems were found at both Houses 1 and 2 illustrates the potential that such problems could arise at other properties across the districts involving other TB staff. Some of these problems included:

- Changing the garage roof material from concrete to wood without getting it approved by TB first
- Inspectors requesting reports but not getting them in a timely manner from the builder
- Unusual order of inspections.

**Investigation did not include House 3 given timing of construction and same problems not found by inspector**

Inspector 5, who was brought on after the allegations were reported and inspected all three houses, did not find similar problems when he inspected House 3.

This house's construction began later than the other two houses, so it was not as far along when the independent inspector visited the property. Inspector 5 told us that the builder was generally proceeding with construction in accordance with the City-approved plans.

We reviewed the file in the system and found that there were no major issues, and Inspector 5 did not issue any orders on the property. Based on this information, we do not have the same concerns about House 3 that we did for House 1 and 2. Therefore, House 3 details have not been included in this report.

## B. Issues Identified

This investigation identified weaknesses and issues in the inspection and permit review processes that TB needs to address. Our January 27, 2023 audit report entitled “**Building Better Outcomes: Audit of Toronto Building’s Inspection Function**” had similar findings and relevant recommendations in many of these areas related to the inspection process. We refer to that audit report throughout this section, and the recommendations from it can be found in Appendix 5.

We have organized the issues into the following categories:

1. A risk-based approach to inspections is not used
2. The importance of using powers to enforce compliance
3. Material and noteworthy changes not identified through the inspection process
4. The inspection order is not always logical
5. The City-approved plans are not always used for inspecting

This section will explain each of these findings in more detail.

Our audit report identified two more areas that we also found in this investigation. They are explained in detail with recommendations made in our audit report, so we have not duplicated them in this report. These areas are:

- a. TB needs to improve record-keeping in IBMS to demonstrate that inspections are being performed properly (Section B.1. of the audit report).
- b. TB needs to modernize its systems to support its business needs. The audit found that IBMS presents many challenges to inspection staff because of its limited functionalities and the way it captures data (Section C of the audit report).

Please refer to the audit report for details and recommendations related to these topics.

### **B. 1. A risk-based approach to inspections is not used**

A risk-based approach involves assessing various factors to consider when risks are higher for certain projects and adjusting the approach for those higher risks. For example, assigning more experienced inspectors for higher-risk projects. This approach also helps to make the most efficient use of limited resources.

In the context of TB, risks in general may include complex building construction, staff who are less experienced and/or not finding material changes or issues, and builders not always building in

compliance with the OBC or not making the requested revisions. The consequences of significant risks occurring and not being fully mitigated is that houses may not be built according to the OBC and, as a result, there could be a safety risk to people in that house.

TB's Program Review as discussed below, identified that TB does not take a risk-based approach to plan review or inspections. Applications are generally processed and resourced in the same way despite differences in the risk profiles of applicants and applications.

The recommendations from TB's Program Review for the Division align well with a risk-based approach, which include streaming building permit and inspection services by building project complexity and customer type.

**Audit report also recommends taking a risk-based approach**

Section A.1. of our audit report also noted that a risk-based approach would be beneficial for TB in reviewing and prioritizing follow-up on open permits. The audit was specifically speaking to following up on permits where inspections did not occur because the permit holder did not notify TB that they were ready for an inspection. The audit identified that, in some cases, construction may have continued, and the houses appeared to be fully complete and even occupied, yet they had open permits (meaning the system indicated that they did not pass all of their inspection stages).

**More attention needed where circumstances indicate increased risk**

This is slightly different from what we describe in this investigation. While inspections are needed when requested for all buildings with a building permit, it is our view that more attention needs to be paid to permit holders and situations where, in light of all the circumstances, there is a higher level of risk, and the building may need a closer look or a more experienced inspector to ensure compliance with the Code. When this is the situation, an inspection plan should be modified to ensure the higher level of risk is addressed.

Risk can increase or decrease because of the permit holder's actions (or lack of action) and approach. Sometimes risk increases when there is more than one risk factor combined with others, such as the example below with a larger and more complex house, without professional reviews (regular oversight of a construction project by an engineer or architect) required, in combination with the other risk factors outlined.

**Several factors, when combined, increased the risk on House 1 and House 2**

During the review of the files for House 1 and House 2, we noted several things that, when combined, increased the risk:

1. House 1 was large and professional reviews were not required: House 1 exceeded 600 square metres (more than 6,458 square feet) in building area (footprint area), which is larger than most detached single-family houses (which are usually governed by Part 9 of the OBC). Due to the footprint area of the house, it would usually be designed in

accordance with the requirements outlined in Part 3 of the Building Code rather than Part 9. Part 3 houses are subject to professional reviews, while Part 9 houses are not. In order for House 1 to fall under a Part 9 designation, the dwelling was divided into two portions separated by a firewall, as allowed by the Code<sup>1</sup>. This therefore meant there was no professional review required.

2. The architect quit part-way through and asked to be removed from the projects. The engineer also later removed himself from the House 1 project.
3. The builder used different engineers on his projects, and sometimes more than one engineer per house.
4. Long-outstanding requested reports from the builder at Houses 1 and 2, while construction proceeded:

House 1: the first request for the soil report was on the first inspection visit on July 15, 2019 and was not received until more than two years later.

House 2: the first request for the as-built survey was on January 9, 2020 and was not received until June 9, 2020.

Despite the fact that specific reports were long-outstanding, the builder moved on to other stages of construction before providing those requested reports.

5. Newly qualified, newly hired inspectors working on large houses where professional reviews by architects or engineers were not required under the OBC.

**Many risk factors and when combined, indicated higher level of risk**

These factors may not be red flags on their own, but when combined with the other factors, indicated a higher level of risk.

TB does not currently take a risk-based approach with its inspections, including the assignment of files to inspectors.

Although there is no requirement in the Act or the Code to conduct a risk assessment before or as a building project progresses, it is a good practice that will help with prioritization and will help TB to ensure it allocates the right resources to a project based on the risk

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<sup>1</sup> While we understand this is acceptable under the Code, our point is that when it comes to inspecting this house, the firewall and other issues increase the complexity of the house. From a risk perspective, it may be advisable to assign a more experienced inspector, or to have the inspection overseen by a more experienced inspector.

levels. It's important to also keep in mind that risk assessment is a dynamic process where an overall profile can change as a file inspection progresses.

Other organizations take a risk-based approach as described below. Although the example below focusses mainly on the risk related to the builder profile, and it is under a different legislative framework<sup>2</sup>, TB may want to consider a broader risk-based approach, which could also include this risk factor.

### **Tarion uses a risk-based inspection program**

#### **Tarion implemented a risk-based inspection program following 2019 Auditor General of Ontario Special Report**

Following a finding in the Auditor General of Ontario's Special Audit of the Tarion Warranty Corporation<sup>3</sup>, the provincial consumer protection organization instituted a risk-based inspection program<sup>4</sup> to more heavily focus on builders who need improvement. The approach helps to "*identify root causes of deficiencies to encourage builders to improve construction practices and reduce risk*".

The program bulletin notes that while:

*"Site and Practices Inspections are applicable to all builders... priority will be given to new builders, builders with an unsatisfactory record of compliance, and builders who present risk factors<sup>5</sup> ...*

*Site and Practices Inspections ... are intended to identify root causes of deficiencies to encourage builders to improve construction practices and reduce risk. Where a risk or deficiency is noted that represents a significant health and safety concern, a specific targeted construction inspection may be required to ensure the risk is properly mitigated."*

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<sup>2</sup> The Tarion risk-based program falls under the Ontario New Home Warranty Plan Act, and not under the *Building Code Act* or the *Ontario Building Code*.

<sup>3</sup> [Special Audit of the Tarion Warranty Corporation \(auditor.on.ca\)](https://www.auditor.on.ca)

<sup>4</sup> [Risk-Based Inspection Program | Tarion.com](https://www.tarion.com)

<sup>5</sup> Tarion's Risk Based approach bulletin outlines that when a builder enrolls new unit(s), Tarion will complete a risk assessment based on factors that include, but are not limited to:

- Limited recent history of enrolling homes.
- Significant changes to the principals, officers, directors, or employees, including those responsible for construction or the day-to-day operations of the builder.
- Significant changes to the business model including product type, volume of construction, or project scope.
- Any warranted claims and systemic reported issues within the past 24 months, whether paid or unpaid.
- Any chargeable conciliations.



Tarion analyzes the builder's profile to gauge risk so that it can create an appropriate inspection plan with the right level of focus and resources.

A risk-based inspection process is used in several other jurisdictions as well, which TB found through its own review.

In 2021, TB completed a Program Review<sup>6</sup>. In this review, consultants undertook broad jurisdictional research and noted that risk-based inspection approaches and behaviour-based approaches are used in several jurisdictions:

*“— **Risk-based approaches.** Several jurisdictions use risk-based analysis to guide permitting and inspection activities. These programs typically assign a risk level to different application and inspection types, and then use that risk level to guide service delivery.*

*“— **Behavior-based approaches.** A number of jurisdictions use the past behaviour and performance of applicants to guide permitting and inspection activities. For example, some jurisdictions provide streamlined service to applicants with a track record of high-quality applications and compliance, while others focused additional enforcement resources on applicants with a track record of noncompliance.*

**TB should work with Legal Services to consider a risk-based approach**

TB should work with the Legal Services Division to consider using a risk-based approach in its processes, including inspections, and assignment of more experienced staff to higher-risk projects.

Before embarking on such a program, TB needs to:

1. Clearly define its risk factors.
2. Discuss the approach with the industry and other relevant groups, especially those already using a risk-based inspection approach, such as other jurisdictions identified in TB's program review, to consider good practices and lessons learned.
3. Ensure the computer information system is updated to have the capability to manage and track the risks by builder and project.
4. Engage with stakeholders and provide education on the proposed changes, what this means for everyone, and the importance of the changes.
5. Train TB staff regarding the criteria to consider and apply when using a risk-based approach.

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<sup>6</sup> [Toronto Building Program Review-Program Review Final Report](#)

**Recommendation:**

- 1. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to consider developing and implementing a risk-based approach to its processes, including inspections, and assignment of more experienced staff to higher-risk projects.**

## **B. 2. The importance of using powers to enforce compliance**

### **CBO and inspectors enforce compliance**

The Council of each municipality is responsible for the enforcement of the Act in their municipality. Each Council appoints a CBO who is responsible for enforcing the Act. The CBO's inspectors check to see if the design and construction of buildings are done in compliance with the Act, the OBC and the issued permit drawings.

The Act gives the inspector powers with the objective of obtaining compliance. Non-compliance could have a serious effect on people's safety.

### **Inspectors are granted powers<sup>7</sup> under the Act**

During an inspection, Section 18 (1) of the Act gives inspectors the following powers:

*“For the purposes of an inspection under this Act, an inspector may,  
(a) require the production for inspection of documents or things, including drawings or specifications, that may be relevant to the building or any part thereof;*

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<sup>7</sup> Section 18 of BCA

- (b) inspect and remove documents or things relevant to the building or part thereof for the purpose of making copies or extracts;*
- (c) require information from any person concerning a matter related to a building or part thereof;*
- (d) be accompanied by a person who has special or expert knowledge in relation to a building or part thereof;*
- (e) alone or in conjunction with a person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of the inspection; and*
- (f) order any person to take and supply at that person's expense such tests and samples as are specified in the order."*

Inspectors may issue specific orders in connection with the construction of a building in the appropriate circumstances. Please see Appendix 3 for more information on the types of orders.

If an order has not been complied with, according to TB policies, the inspector must update their manager. Their manager can then consider whether a court application, another type of order or prosecution is warranted and available in order to resolve the issue.

Inspectors may also write a ticket and impose set fines for any unlawful construction.

During our investigation, we found several instances where there were multiple requests to comply with certain directions (done via email and/or discussed during site visits), but the builder did not follow through, and the inspector, via the CBO or DCBO, did not issue an order. Given an Order to Comply was not issued by the initial inspectors (for House 1), a Stop Work Order could not be and was not issued.

**Inspectors were not exercising full powers available to them**

For example:

- 6 separate requests for the soil report for House 1 (and the 6<sup>th</sup> request was an Order to Comply issued by Inspector 5)
- 5 separate requests for the foundation rebar report for House 1
- 3 separate requests for an engineer report on the added mechanical room for House 1
- Similar multiple requests for House 2: 6 requests for an engineer comment on several structural changes, 3 requests for a revision to the plans due to a new basement walk-out. This eventually resulted in Inspector 4 issuing an Order to Comply.

The Order to Comply issued by Inspector 4 for House 2 requested that the builder apply for a revision to bring unapproved changes into compliance. The changes included:

1. A walk-out basement was added – it was not part of the original City-approved permit plans
2. Changes were made to the roof – it was shown as an engineered truss system in the City-approved plans and was now changed to conventional framing
3. Steel beams were used to frame the covered terrace at the ground level. These beams were not identified in the City-approved plans
4. Extra windows were added on the east and west elevations of the basement, a door was added from the master bedroom to the roof on the second storey, and windows were removed from the east elevation at the ground floor. None of these changes were in the original City-approved plans.

The builder submitted revised drawings, which were reviewed by a Code and Zoning Examiner and, after some back-and-forth and more revisions, passed several months later.

Since the revisions passed, Inspector 4 indicated in IBMS that the Order was complied with.

**Inspectors try to encourage builders to comply before issuing orders**

The inspectors who worked on Houses 1 and 2 said they don't tend to issue orders – instead, they try to encourage builders to comply by noting a deficiency. Our review shows that they often followed up about outstanding items with the builder via email and documented their requests in the notes field in IBMS.

We asked an experienced engineer from the industry (not the same structural forensics engineer we contracted) who had interacted with inspectors on these houses to see if he had any recommendations in relation to the inspection process. His response was that inspectors need training to tell builders to stop building when there are issues, as opposed to allowing the work to continue.

The engineer we spoke with said allowing work to continue when earlier stages have not yet passed could give the builder the impression that there is no issue:

*"As soon as you [the inspector] see something that you don't like and it's major, stop the work right there, because ... if you [the inspector] see something and you don't say it, and [the inspector] approves something on top of it, that implies you accepted that. You cannot go back and say, 'I didn't like it, but I let you go ahead, and I said nothing for two years, and ... approved steps that comes after that'..."*

It's important to note that an inspector, through the CBO or DCBO, may only issue Stop Work Orders when there is non-compliance with an existing order. Inspectors 1 and 2 did not issue orders on House 1. Inspector 4 did issue an order on House 2.

While the inspector should use discretion on what actions to take in working with the builder / permit holder, knowing when to exercise powers is equally important.

**Shifting the culture related to progressive courses of action for non-compliance**

Where the inspector identifies issues of non-compliance, such as a builder not providing a report that an inspector requested, TB should provide clear direction to inspectors on the progressive courses of action for situations of non-compliance. The direction may depend on the importance of the structural element and the severity of the deficiency. All requests for compliance need to be tracked in the system.

**Achieving compliance**

After a failure to comply with multiple verbal and written requests, the inspector should consider using the powers in the legislation to achieve compliance, especially where the building elements are important to safety. For example, the next step may be to issue a formal order clearly stating what is expected and by what date. Considering this investigation, it will be helpful for the CBO to clarify expectations with staff.

**Monitoring dates and being pro-active on follow-up actions supports TB's vision to be a modern building regulator**

Ensuring that follow-up activities and progressive actions are taken on orders based on the dates set in the order could significantly reduce the average time required to achieve compliance. Written orders should be monitored by the Division based on the approach of anticipated compliance dates. This can support the Division's vision to shift to becoming a pro-active modern building regulator.

**Recommendations from performance audit**

Recommendations in our recent performance audit report outline the action we recommend to address this issue of using powers to enforce compliance. See Appendix 5 for these relevant audit report recommendations.

**B. 3. Material and note-worthy changes were not identified through the inspection process**

The CBO is expected to establish operational policies for the enforcement and administration of the BCA and the OBC, and to coordinate and oversee prescribed inspections that confirm buildings are constructed in compliance with the OBC and the City-approved permit plans.

Builders can make changes to the buildings they are constructing. Generally, minor changes do not require that the builder or permit holder submit a revision to the City-approved plans to TB, but they do require that the builder notify the inspector of the change.

However, the BCA Section 8 (12) clearly states that “material” changes cannot be made without approval from the CBO:

*“No person shall make a material change or cause a material change to be made to a plan, specification, document or other information on the basis of which a permit was issued without notifying, filing details with and obtaining the authorization of the chief building official.”*

In order to get approval from the CBO for a material change, the builder or permit holder must submit a revision for the change to the Division. Then, a Zoning and Code Examiner will review, and, if the change complies with the OBC and all applicable laws, approve it.

**Important to submit proposed material changes to TB for approval before making them**

It is important that permit holders submit proposed material changes for revisions to TB before they are made. This is to ensure that the Division can verify whether the proposed changes are compliant with the OBC. If a permit holder makes unapproved material changes to a house under construction, there is a risk that the changes may not be compliant with the OBC and could pose a safety risk.

On the inspection side, inspectors must record deviations they identify from the City-approved plans when conducting their work. We understand it is not realistic for inspectors to examine every single element of a building under construction because they are only visiting at certain times upon request.

#### **What we found**

Inspectors at both House 1 and House 2 missed material and noteworthy changes that were made by the builder.

#### **Example 1: Garage Roof Material Change at House 1**

**Material change of garage roof from concrete to wood was missed**

One of the material changes that Inspector 1 and Inspector 2 missed at House 1 was the change in materials over the garage roof from concrete to wood.

Inspector 5, the senior inspector who went out to inspect the property after the complaint came in, said:

*“These were major changes too, which I felt warranted a revision, and the builder did not apply for a revision... specifically I’m referring to the change of the garage roof deck from concrete to wood.”*

Code Examiner 1 for House 1 agreed that this change needed a revision:

*“For any kind of changes based on the approved drawings, the entire building code is very strict about these changes, unless, for example, they want to use, for example, a wood door instead of metal or they want to put a carpet, for example, in their house. But for other than that, everything must be approved by a revision.”*

The Auditor General’s Office inquired with both inspector 1 and 2 about missing this material change and what plans were used for the inspection.

**Inspector 1 noted garage roof would be inspected during Structural Framing inspection**

Inspector 1 said he did not notice the change from concrete to wood for the garage roof, adding that he did not do the Structural Framing inspection where that would have been checked.

Inspector 2 was also not aware of this change in materials, even though he was responsible for conducting the Structural Framing inspection.

**Inspector 2 conducted Structural Framing inspection using engineered wood drawings for inspection and change not identified from City-approved plans**

We asked Inspector 2 how he could have missed this change. He said that the manufacturer’s engineered wood drawings matched the condition at the house. He appears to have used the manufacturer’s engineered wood drawings for his inspection, instead of the City-approved plans.

We feel that he should have ensured the engineered wood drawings from the wood manufacturer matched the City-approved plans. Had he reviewed the City-approved plans, he likely would have seen that the garage roof material was supposed to be a very large concrete slab, not wood.

He said he could not remember whether he looked at the City-approved plans to make sure they matched the wood manufacturer’s plans. He said he realizes now that a revision should have been submitted to TB. But he said the engineered wood drawings matched what he was seeing at the house:

*“But on site, I was given a drawing that matched the condition on site.”*

The inspector also did not retain a copy of the engineered wood drawings from the wood manufacturer.

**City-approved permit plans are to be used in almost all inspections**

TB's inspection service levels, which are guidelines for each inspection stage, indicate that during almost all inspection types, the City-approved permit plans are to be used for the inspection. However, these guidelines show that for engineered floor systems, inspectors may use wood manufacturers' drawings (called "shop drawings" in the service levels).

It is our view that the inspector should have kept a copy of the manufacturer's engineered wood drawings since he used them for his inspection. Although it is not currently required in TB policy for these drawings to be retained, the CBO agrees that they should be. It is also our view – and the CBO agrees – that the inspector should have used the City-approved drawings for his inspection, and only used the engineered wood drawings as reference.

### **Firewall at House 1**

A firewall is a barrier which effectively divides a building into separate buildings. The concept is that if a fire happens in one part of the building, the firewall prevents the fire from spreading to the other part until the fire burns out or is extinguished. A firewall also has a time rating for how long it can remain standing in the event of a fire. The firewall at House 1 was rated for two hours, which is a common time rating for a firewall like this.

**Concerns on the inspection of the firewall**

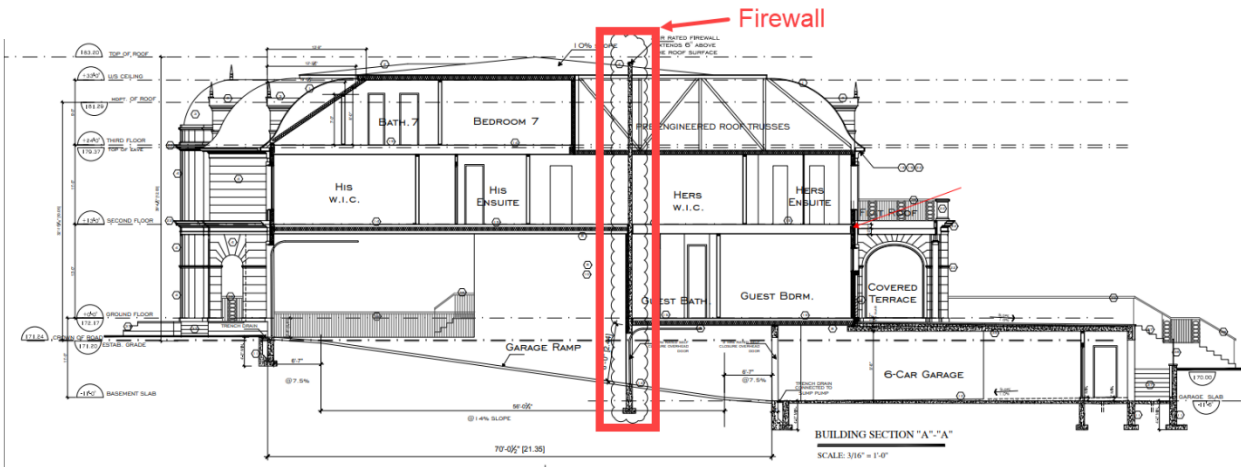
As discussed previously in this report, House 1 had a firewall running through the middle of it. This firewall, by all accounts, was designed in accordance with the OBC. We still have concerns with the inspection of this firewall because there was insufficient documentation to indicate that it was inspected at all. This is an important element to inspect because of the safety implications of a firewall. Also, the change of the construction of the garage roof described above as a material change from concrete to wood, circumvented the firewall for House 1 as it allowed direct contact between the fire compartments on either side of the firewall.

**Firewall used as House #1 larger than 600 sq/m to classify as Part 9**

The reason there was a firewall in the detached house was because the house was larger than 600 square metres in size. This meant it either had to be classified as a Part 3 building (which has more extensive requirements, including professional reviews), or it had to have a firewall in order to be classified as a Part 9 building (the classification most common for detached houses). The builder chose to use a firewall in this case. Although most detached houses do not generally have a firewall, the Code allows for this in larger houses, which means they can be designated as Part 9 buildings.



Figure 1: Firewall separating house into 2 sections – front and back



As mentioned earlier, our consulting engineer identified the change of the garage roof from concrete to wood as a material change. He also found that, in his opinion, changing the material from concrete to wood could have circumvented the function of the firewall.

Our consulting engineer stated:

*“It is our professional opinion that changing the construction of the garage roof/rear deck floor from precast concrete hollowcore panels (a non-combustible material) to wood framing (a combustible material) defeated the fundamental concept of keeping the ‘fire component’ on either side of a firewall separate. This change brought the garage roof, part of one fire compartment, into direct contact with the rear exterior wall, part of another fire compartment, with both members constructed of combustible material... We found no architectural details to show how the assembly of the wood-framed garage roof would satisfy the required 2 hr fire rating.”*

**Unclear whether firewall was ever inspected**

TB advised that it is expected that a firewall would have been inspected during the Structural Framing inspection.

When it came to the inspectors, in this case, there is no note on any of the inspection visits that the firewall was inspected.

Given the house construction was near completion by the time Inspector 5 began looking at the house, if an inspector were to inspect the firewall at that stage, it would likely require the builder to remove drywall and other finishings.

We asked Code Examiner 1, who examined the plans for House 1, about the firewall. He told us that it should have been inspected:

*“I put a firewall in that building, so it needs to be verified.”*

The Division agrees that a firewall should be reviewed and inspected to confirm that the construction is substantially in compliance with the approved plans. The Division said that this incident shows that there is an opportunity to strengthen training for plan reviewers and inspectors on key aspects that must be reviewed when a firewall is included as part of the building design and construction.

**Firewall should have been inspected**

We feel that there should have been some indication in the inspection notes, or elsewhere clearly indicated in IBMS, that the firewall was inspected and constructed in accordance with the City-approved plans.

**House 1 burns down before final occupancy inspection**

Another factor to consider in the list of outstanding inspections is that the house suffered extensive damage in a fire.

This fire occurred at a point when construction on the house was near completion, but before the final occupancy inspection and final occupancy permit were issued. The outstanding inspections at the time included Excavation/Shoring, Structural Framing, and HVAC/Rough-in, as well as the orders issued by Inspector 5. The day prior to the fire, the builder contacted TB asking when the permit would be closed on the house.

**Figure 2: Firewall remains (as shown with red arrows)**





**Cause of fire  
'undetermined'**

TFS investigated the origin and cause of the fire. It was not able to determine the cause – fire investigators could not enter the house due to structural concerns and large amounts of water in the house after the fire suppression efforts. The cause of the fire in TFS' report is “undetermined”, which is a type of conclusion that TFS uses when it is unable to conclusively determine the cause of a fire. Appendix 1 has more details about the fire and TFS's investigation.

We have no evidence that shows the firewall did not perform as intended in the fire, although we also don't have evidence to verify whether the firewall was constructed per approved plans, given the fire occurred before the Structural Framing inspection stage was passed. This example, however, shows that better documentation about what was specifically inspected during the inspections would have been useful.

**Example 2: Garage roof material change at House 2**

**Garage roof material was  
also changed at House 2**

The same material change to the garage roof occurred at House 2 – wood was used instead of concrete. The inspector for House 2 (Inspector 4) – an entirely different one in a different district – said he did not catch this change.

Inspector 5, the senior inspector brought on after the CBO received the allegations, discussed this change at both houses with the builder. The builder said it was unfair to ask him to get a revision for these changes and said that it was the earlier inspectors' jobs to point out changes that needed revisions.

Inspector 5 disagreed – he said the builder (who is experienced) should know that a change of that magnitude would always require a revision.

The CBO also agreed that the builder should have known this would require a revision.

The *Building Code Act* says that it is the builder's role:

*“(a) to ensure that construction does not proceed unless any permit required under this Act has been issued by the chief building official;*

*(b) to construct the building in accordance with the permit;*

*(c) to use appropriate building techniques to achieve compliance with this Act and the building code; and*

*(d) when site conditions affect compliance with the building code, to notify the designer and an inspector or the registered code agency, as appropriate. 2002, c. 9, s. 3.”*

Ultimately, it is the builder's responsibility to ensure the house is constructed in accordance with the permit plans.

### **Example 3: Additional mechanical room added to House 1**

Based on our interviews with TB staff and our review of documents, there is one set of City-approved drawings, such as architectural, structural, and mechanical drawings, but there are often other sets of drawings, as well:

- 1) Engineered wood drawings from wood manufacturer
- 2) Roof truss drawings from wood manufacturer

**Various drawings for House 1 did not match regarding the mechanical room**

In our view, when on-site, inspectors should look at all the drawings to ensure that they match, and that the conditions at the site also match with the approved plans. The CBO also agrees that the inspector should have ensured the engineered wood drawings matched the City-approved drawings.

This next example shows that City-approved plans and the engineered wood plans from the wood manufacturer for House 1 did not match when it came to a second mechanical room, which the builder added to the third floor/attic.

**Mechanical room added to 3<sup>rd</sup> floor / attic is a material change that requires a revision**

The Division confirmed that the addition of a mechanical room is a material change, and the inspector should have requested a revision for it. However, as this example shows, the inspector did not request a revision – instead, he asked for an engineer's report to support the addition of the mechanical room.

In this case, as is detailed below, the addition of the second mechanical room to the third floor/attic did not go unnoticed – but a lack of follow-up on behalf of the inspector led to it not being reviewed by an engineer or TB Code Examiners.

Inspector 1 noted the change on June 24, 2020 in IBMS when conducting one of the Insulation/Vapour Barrier inspections:

*“... third floor mechanical rooms to still be insulated.”*

And a few weeks later, on July 14, 2020, it appears that he discussed the mechanical rooms with the builder and/or project manager. He noted them again in IBMS after visiting for another Insulation/Vapour Barrier inspection:

*“... engineer report regarding moved mechanical rooms required<>Insulation/Vapour Barrier”*

The CBO noted that this note is confusing and highlights the need for inspectors to take better notes.

**Inspector repeatedly asks for engineer comment on mechanical room**

Inspector 1 again mentioned the outstanding engineer’s report about the mechanical rooms on August 18, 2020 in an email to the project manager:

*“Your insulation has been passed. We are still waiting for the following:*

- 1. soil report*
- 2. engineer report regarding framing of new mechanical rooms”*

The builder’s project manager emailed Inspector 1 an engineer’s report, but it did not comment on the addition of the second mechanical room to the third floor/attic specifically.

**Figure 3: June 25, 2020 Framing Inspection Report – no mention of second mechanical room added to third floor/attic**

**Inspection Report**

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Location: [REDACTED]	Report No.: 2
Contractor: [REDACTED]	Building Permit No. [REDACTED]
Present: Framing crew/builder	Weather: Fair / Sunny
Report By: [REDACTED]	Date of Visit: 25 June 2020
Signature: [REDACTED]	[REDACTED]

Attachments: none.

**Distribution:**

Client: [REDACTED]

Chief Building Official (by client)

City inspector (by client)

**The following items were noted:**

1. **Scope of inspection was limited to:** To review overall joists' layout, LVL size and locations and Truss Layout. Location of steel beams and columns and sold bearings.
2. **Observations and comments:**
  - Floor joists and LVL beams were inspected and found to be in compliance with framing layout provided by framing supplier and acceptable.
  - Solid bearing was checked and found to be adequate under point loads on most areas.
  - Trusses were reviewed and found to be in accordance with truss layout.
  - Steel beams and columns placed in location as indicated in permit drawings and acceptable.

**Statement of limitation:**

The scope of this report is limited only to specific structural elements as discussed in the report and shall be used in conjunction with an approved building permit. This report is in general nature and based on visual inspection of accessible areas at the time of inspection. Report is prepared for current owner of property and the City of Toronto only. [REDACTED] is not liable for third parties loss due to use of the contents of this report or TORT or in any other means. For construction projects, [REDACTED] is not responsible for the actual construction of the work, responsibility for which shall remain with the Contractor. This report represents a professional opinion and shall not be interpreted as a warranty or guarantee of construction work.

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On August 18, 2020, Inspector 1 passed the Insulation/Vapour Barrier stage.

**Framing report does not mention new mechanical room added to 3<sup>rd</sup> floor/attic**

On August 19, 2020, Inspector 1 once again emailed the builder's project manager saying:

*"Please have the engineer comment on the structural integrity of the trusses in regards of the area where the mechanical rooms are."*

**Engineer request for third floor/attic mechanical room never received**

It does not appear that anyone at TB received a report or comment from the builder's engineer about the structural integrity of supporting the second mechanical room on the third floor/attic.

TB management asked both Inspector 1 and Inspector 2 about this. Inspector 1 said he was aware that a mechanical room had been added to the third floor, but he did not request a revision for this change.

**Inspector 1 believed both mechanical rooms were shown on the mechanical drawings**

Inspector 1 told us that this was because the mechanical rooms were, in fact, on the mechanical/HVAC drawings for the building, but since those drawings did not match the City-approved plans (the architectural drawings), he felt that a report from an engineer would be sufficient to address the discrepancy.

However, this was incorrect, as is shown further below – there was only one mechanical room on the mechanical/HVAC drawings, not two.

Further, TB told us that the addition of the second mechanical room was a material change and a revision should have been required.

**Inspector 2 did not notice the 2<sup>nd</sup> mechanical room**

Inspector 2 said he did not notice the addition of the second mechanical room to the third floor/attic. He told us that he was looking at three sets of drawings when he was doing the Structural Framing inspection: the approved architectural drawings, the mechanical/HVAC drawings, and the manufacturer’s engineered wood drawings.

He said the HVAC/mechanical plans did mention mechanical rooms on the third floor/attic.

**Inspector 2 said he checked that mechanical plans matched City-approved permit plans**

*“So, I reviewed the layouts. Everything matched the layouts that they had on site from the engineer from the manufacturers for the engineered floors and roof system.”*

**2<sup>nd</sup> mechanical room on 3<sup>rd</sup> floor/attic not on City-approved plans nor on HVAC drawings**

However, there was just one mechanical room on the third floor/attic in the official drawings and in the HVAC/mechanical drawings. Neither the City-approved permit plans, nor the City-approved mechanical/HVAC plans show a second mechanical room on the third floor/attic.

Figure 4: City-approved permit plans showing 1 mechanical room on 3<sup>rd</sup> floor

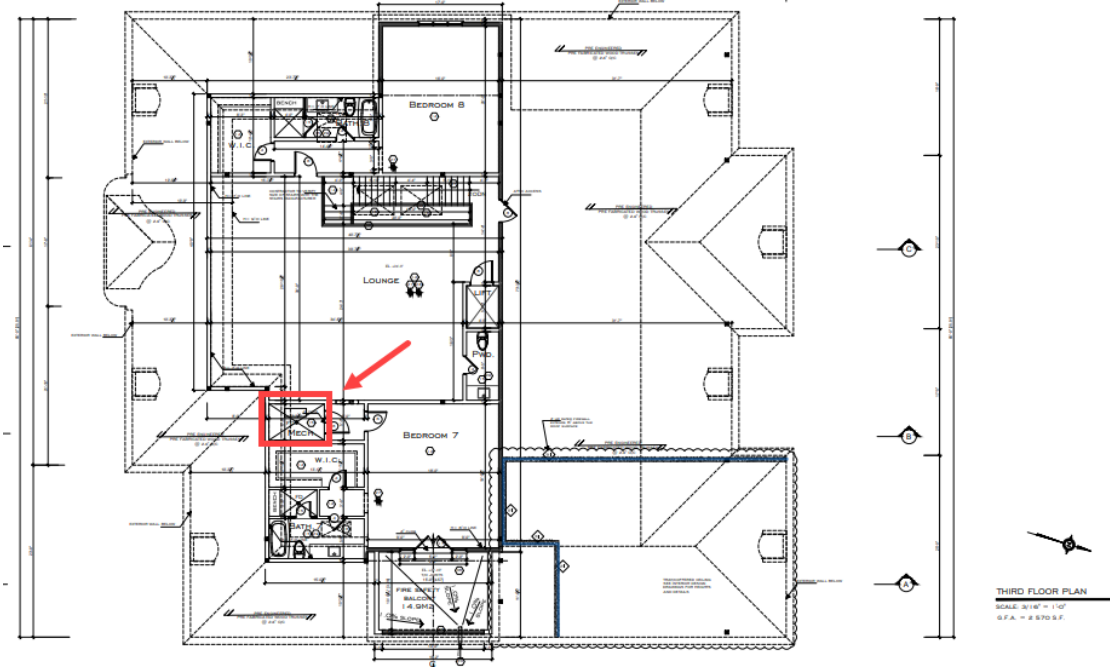


Figure 5: Closeup of 3<sup>rd</sup> floor City-approved permit plans showing 1 mechanical room

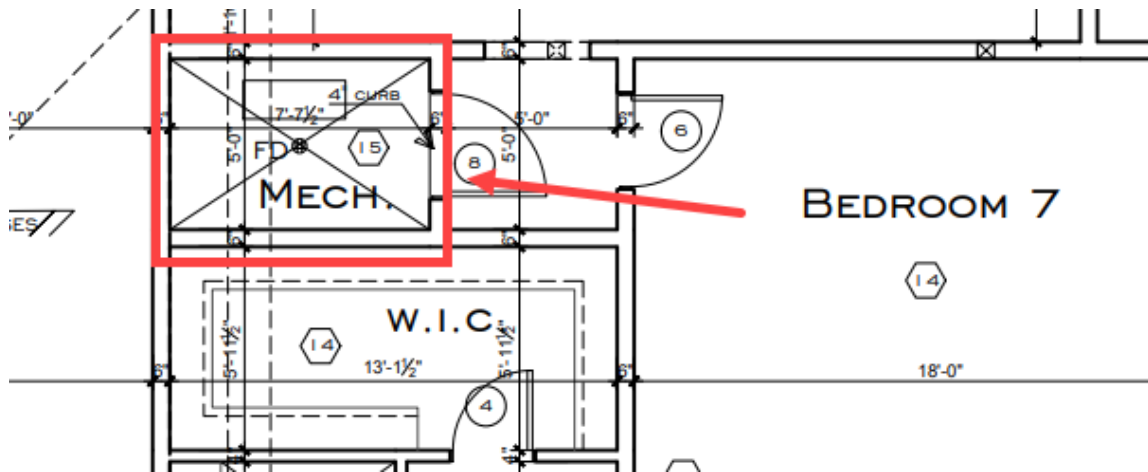
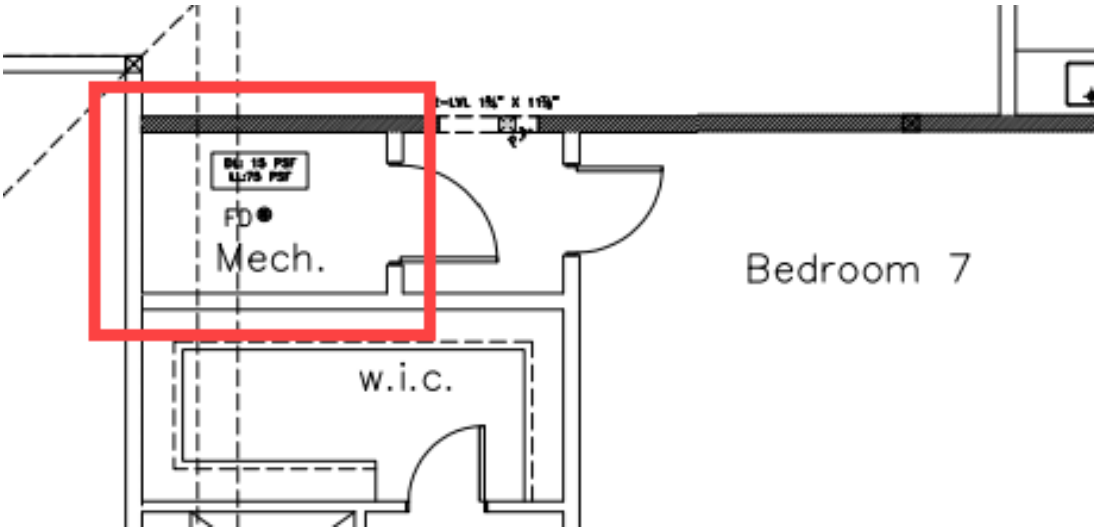




Figure 6: City-approved mechanical/HVAC plans showing 1 mechanical room on 3<sup>rd</sup> floor



We were not able to verify if two mechanical rooms are shown on the third floor of House 1 in the manufacturer’s engineered wood drawings because we were unable to obtain the drawings. We requested them from the builder, the engineer and TB. No one appears to have kept them on file.

**Senior inspector issues Order related to new mechanical room**

Upon visiting the property in July 2021, Inspector 5 noted that there were two mechanical rooms on the third floor/attic. He noted that the extra room was not on the original approved drawings, nor was it on the revised drawings.

Inspector 5 issued an Order to remedy this.

When our consulting engineer reviewed this change, he was unable to comment on the specifics because the wood supplier’s plans were not available, and there was no indication of where on the third floor/attic this second mechanical room was added. Inspector 2, who received the framing report from the engineer of record, did not ensure the plans which the engineer was referring to (roof truss and floor joists from the engineered wood manufacturer) were saved in the system, so we cannot verify which plans were being referred to. No one else kept a copy of those plans, either.

**Example 4: At House 2, steel beams used, walk-out terrace added, truss system changed, windows changed – none of which were on the approved plans**

In March 2021, Inspector 4 found several unapproved changes that the builder made. He issued an order that the following needed to be fixed:

*“1. Steel beams were used to frame the covered terrace at the ground level. The framing members were not identified on the drawings.*

*Required action:*

*Apply for a revision to include the framing members used to frame the covered terrace by April 08, 2021 and obtain the permit by April 22, 2021. In the interim, cease all further construction until the necessary revision has been issued.”*

*2. A walk out located at the north west of the basement has been constructed which is not part of the issued permit plans.*

*Required action:*

*Apply for a revision to include the walk out basement by April 08, 2021 and obtain the permit by April 22, 2021. Alternatively, remove all unauthorized construction and complete construction in accordance with permit plans. In the interim, cease all further construction until the necessary revision has been issued.*

*3. The proposed engineered truss system to be installed at the north west area of the roof has been changed to conventional framing.*

*Required action:*

*Apply for a revision which clearly identifies the framing members used in that area of the roof by April 08, 2021 and obtain the permit by April 22, 2021. Alternatively, remove all unauthorized construction and complete construction in accordance with permit plans. In the interim, cease all further construction until the necessary revision has been issued.*

*4. Contrary to the issued permit plan, windows were added at the west elevation and east elevation of the basement. A door was added at the master bedroom to the flat roof at the second storey. Windows were removed from the east elevation at the ground floor.*

*Required action:*

*Apply for a revision to include the addition and removal of windows contrary to the issued permit plans by April 08, 2021 and obtain the permit by April 22, 2021. Alternatively, remove all unauthorized construction and complete construction in accordance with permit plans. In the interim, cease all further construction until the necessary revision has been issued.”*

**Builder submitted revision but was not what was actually built**

Inspector 4 requested that the builder submit a revision for those changes. The builder submitted a revision and it was approved. However, the changes in the revision were not consistent with what the builder actually ended up building. We know this because one of the changes that was requested in that revision was found when Inspector 5 went to the property to examine the house, which was many months later and after the builder submitted the revision and had it approved.

Inspector 5 found one of the same unapproved changes when he visited House 2 in the fall of 2021 (specifically, the changes to the roof from trusses to conventional framing).

**Why this is significant**

The inspectors who missed these items (Inspectors 1, 2 and 4) said some of the items would have been caught during the final occupancy inspections. We do not believe that this is necessarily true because many of the deficiencies would very likely have been physically covered up at the stage of the occupancy inspection. The CBO agrees with this opinion.

Further, the Division confirmed that these are material changes, all of which would have required a revision to the permit before being made.

While we understand the Code places responsibilities on the builder to construct buildings in accordance with the Code, the CBO also has responsibility in enforcing the Code.

If inspectors miss material or note-worthy changes or fail to inspect critical elements, this means that potentially unapproved changes are being put into place without being properly scrutinized by TB and can result in safety issues.

There could be many reasons why the inspectors missed the changes, including a need to assign more experienced inspectors to higher-risk projects, strengthen training for staff, improve record-keeping and retention of key plans and documents, and improve monitoring, supervision, and quality assurance reviews. Our performance audit report “Building Better Outcomes: Audit of Toronto Building’s Inspection Function” includes recommendations that address these causes related to inspections (see Appendix 5 for relevant recommendations).

In addition, we’ve included a broader recommendation below to further enhance and strengthen training for both plan review and inspection staff to address this issue.

There is also a need for more detailed reviews and inspections done on fire safety elements such as firewalls. These are critical life safety elements that must be thoroughly inspected. TB agrees, and said this example shows there is an opportunity to strengthen training for plan reviewers and inspectors on key aspects that must be reviewed when a firewall is included as part of the building design and construction.

**Recommendation:**

- 2. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to enhance and strengthen building code and enforcement training for both plan review and inspection staff, including key aspects that must be reviewed when a firewall is included as part of the building design and construction.**

#### **B. 4. The inspection order is not always logical**

As per the OBC, various inspections may be required for the construction project under a building permit. TB lists on its website the building inspections that may be required and when the permit holder should contact the Division to request an inspection.

**General logical order of events aligns with inspection stages**

Generally, inspections are expected to be conducted and passed following the logical order of how construction progresses. For New House projects, the logical order of events, when applicable based on project scope, is usually the following:

1. Excavation/Shoring
2. Footings/Foundations
3. Structural Framing
4. Insulation/Vapour Barrier
5. Fire Separations
6. Fire Protection Systems
7. Occupancy
8. Exterior Final
9. Site Grading

These inspection stages are imbedded in TB's information system IBMS, and inspectors can include additional stages if needed for specific projects they are responsible for. As inspections are being conducted, inspectors are expected to mark off the respective stage in IBMS as Passed, Not Passed, or Not Applicable, and cannot close a building permit unless all listed inspection stages are Passed or noted as Not Applicable.

**No rule in TB that specifies the order of inspections**

While inspections generally fall in a logical order, there is no rule in TB's policies and procedures specifying the order of inspections. TB staff we spoke with said that normally, inspectors perform their work in a logical order.

In this case, we found that inspections were not always carried out or passed in a logical order.

**What we found**

After reviewing files for House 1 and House 2, we were concerned that for both files, which involved different inspector teams in different districts, there was evidence that inspections of later stages were signed off before key prerequisite earlier stage inspections were finalized first. During the investigation, we found that the inspectors for House 1 did not pass earlier inspections, yet still moved on to the next phase of inspections. In some cases, the later inspections passed before the earlier ones in an order that was not logical, with no documentation to explain why.

**Inspector left earlier stages open due to missing reports**

The reason for some earlier inspections not passing included inspectors not receiving reports that they ordered and needed for various inspection stages until months or even years later. The inspectors had to make multiple requests of the builder and their staff to obtain the reports. TB should provide inspectors with training and supervisory oversight on what to do when a requested report is outstanding for long periods of time, when to set time limits for receiving reports they request, and reasonable expected time limits.

As a result of passing later inspection stages before earlier ones, the risk is that something may not be able to be physically inspected from an earlier stage if further construction work was done that would cover it up. We understand that there are some cases when inspections can take place even when earlier ones have not yet passed. However, if earlier construction stages are covered up due to the progression of construction work, there could be issues that are not found in earlier-stage inspections.

**Example 1: Insulation/Vapour Barrier inspections passed before Footings/Foundation**

For example, Inspector 1 at House 1 conducted several Footings/Foundation inspections in July and August 2019. He did not pass those stages because a soil report and an engineering report on the foundation rebar was outstanding.

**Work continued even though Footings/Foundation inspection had not passed**

While that Footings/Foundation stage had not yet passed its inspection, the work on the house continued. The builder requested Plumbing, Structural Framing, HVAC and Insulation/Vapour Barrier inspections – all while the Footings/Foundation had still not passed.

For example, at House 1:

- The Plumbing inspection passed on June 9, 2020.
- The Footings/Foundation inspection – which should be done before the Plumbing inspection – was passed on July 20, 2020. It was also passed about a full year after the initial inspector inspected it. The reason it was passed a year later was because a report that was outstanding (the foundation rebar report from the engineer) was submitted to the inspector.

### **Example 2: Insulation/Vapour Barrier passed before Structural Framing**

Again, at House 1, Inspector 1 passed the Insulation/Vapour Barrier inspection on August 18, 2020 before the Structural Framing stage was passed.

This is also not logical – the framing must be in place before any insulation work can be done.

**Inspector 1 said  
sometimes things can be  
passed in irregular order if  
a stage is just waiting on a  
report**

Inspector 1 noted that he did not pass the Structural Framing stage because of outstanding documentation – reports from the engineer. He acknowledged to us that this is an unusual order.

*“Basically, there was a few items that had to be addressed for the framing. And a lot of times they can be addressed through an engineer report through something else where we can, they can still continue construction while that stage is not passed. It should be passed in order. But I guess based on site conditions, sometimes things can be passed irregularly, but generally speaking, it should be passed in a logical order.”*

We also asked Inspector 2 about this. He had originally been tasked with the Structural Framing inspection at House 1. He said that typically, he would not pass a later-stage inspection when earlier-stage inspections were not yet passed.

*“Typically, when I'm doing my inspections, I won't pass anything until everything up to that stage is passed. So, I wouldn't, even if there was a verbal agreement that framing is fine, but they still have to submit a report or something.”*

**Structural Framing never  
passed**

The Structural Framing inspection stage was never passed, according to TB's system. This was an outstanding inspection item that was not remedied before the house was destroyed in a fire.

Figure 7: IBMS snapshot showing inspection stages passed

Activity	Start Date	End Date	Results
Excavation/Shoring			Yes <input type="radio"/> No <input type="radio"/>
Footings/Foundations		07/20/2020 11:13:36	Yes <input checked="" type="radio"/> No <input type="radio"/>
Structural Framing			Yes <input type="radio"/> No <input type="radio"/>
Insulation/Vapour Barrier		08/18/2020 09:38:31	Yes <input checked="" type="radio"/> No <input type="radio"/>

TB policies and procedures do not say that an inspection at a later stage cannot pass if previous stages of inspections have not yet passed. As such, IBMS also does not prevent this from occurring.

***“We had not passed the Framing or the Insulation stage yet, and yet it was completely drywalled and ready for final...”***

When Inspector 5 visited House 1, he said he felt that the project had “gone a little too far without these items being looked at.”

*“We had not passed the Framing or the Insulation stage yet, and yet it was completely drywalled and ready for final, or very near final [inspection]. The Structural Framing was not yet passed, however the Insulation and Vapour Barrier one was... There was no follow-up on the framing to indicate that perhaps they were just waiting on a report. But the insulation should not have been passed.”*

Inspector 5 said that while it is not unheard of to have inspections pass in an unusual order, it is not something he sees regularly, and certainly not something he sees without adequate explanation and documentation in IBMS.

**Why this is significant**

***“...was surprising to you for a building that was basically complete.”***

He said it was surprising to see so many changes that weren’t shown on the permit drawings.

*“There were also some changes to the window elevations on the main floor. And he hadn’t installed the fire shutters that he was supposed to install... They had added two mechanical rooms on the third floor, which weren’t shown on the permit drawings. And so when you notice all of these deviations ... that was surprising to you for a building that was basically complete.”*

### Example 3: Unusual inspection stages at House 2

We reviewed House 2 and found that inspections were done in a similar unusual order as House 1. For example, the Excavation/Shoring and Footings/Foundation stages were inspected on November 21, 2019 and they did not pass. They were inspected again a couple months later, on January 9, 2020 – they again did not pass.

**Inspector for House 2 noted many reports missing to pass inspection stages**

Inspector 3 noted that several items were outstanding: shoring sign-off letters, an engineering review of the footings and foundation, and photos of the elevations required for damp proofing. The inspector also noted on January 9, 2020:

*“Hold for further inspections with as built survey and approved drawings to verify construction is proceeding in accordance with the approved plan”.*

**Inspector for House 2 identified unapproved changes**

In another example of unusually ordered inspections at House 2, Inspector 4 visited on October 9, 2020 for an HVAC, Plumbing and a Structural Framing inspection. He passed the HVAC and Plumbing stages that day, but did not pass the Structural Framing stage – he commented the following in IBMS:

*“Attended site and met [builder’s name]. Reviewed structural framing on a random sampling basis. Following observed:*

*- Areas of the roof which called for trusses were changed to conventional framing. Plans for changes including engineer report for changes required.*

*- Skylight by the stairs was enlarged and plan for framing changes not provided. Engineer to comment about framing.*

*- Steel beams at second storey terrace not labeled on plans. Engineer to provide details about steel beams used and connections.<>Structural Framing”*

**Inspector moved on to next inspection stages before passing Structural Framing stage**

Again, the work carried on at House 2, even though the Structural Framing stage had not passed. The next inspection that took place was the Insulation/Vapour Barrier, on November 10, 2020. It did not pass.

After several months of requesting changes and more emails back and forth, on March 25, 2021, Inspector 4 issued an Order to Comply and listed all the deficiencies that needed to be corrected for the Structural Framing inspection stage to be passed. Months later, on June 14, 2021, after the builder submitted revised plans with the changes made based on the Order to Comply, Inspector 4 indicated that the violation Order had been complied with.

The majority of the inspection stages – Structural/Framing, Insulation/Vapour Barrier, and Occupancy – did not pass until November 25 and 26, 2021.



### **Data analysis shows unusual inspection order is not typical**

We conducted data analysis on information contained in IBMS to determine how common it is for earlier-stage inspections to be passed after later-stage ones.

We checked to see how often the Insulation/Vapour Barrier inspection stage was passed before the Structural Framing stage. We looked at all permits applied for between January 1, 2016 and December 9, 2021 where Insulation/Vapour Barrier and Structural Framing stages are applicable – which makes up a total of 20,661 permits. The reason for selecting these two stages to compare, is that if these two stages are out of order as they were with the House 1 inspection, it would make it very difficult to inspect the work done from the earlier stage.

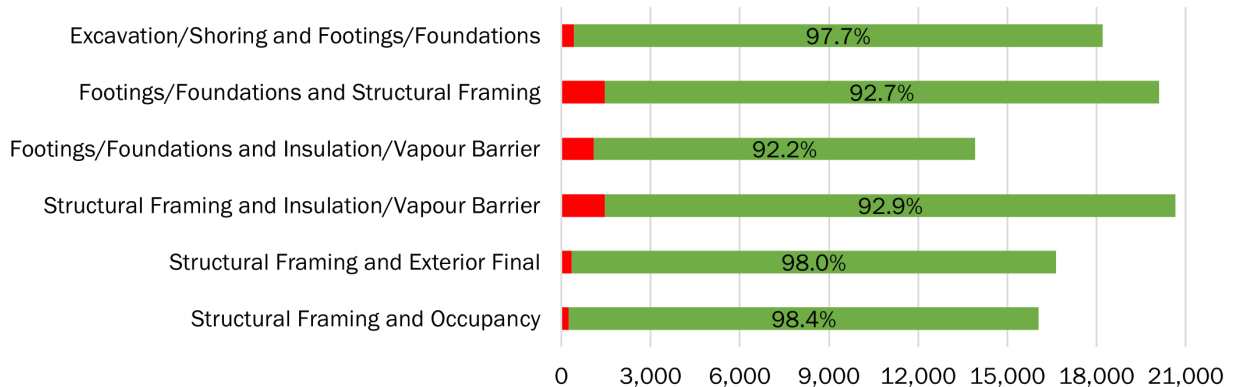
Out of those permits, we found that only 7.1% per cent of the Insulation/Vapour Barrier stage passed before the Structural Framing stage. Therefore, for the majority of building permits, these inspection stages for construction were passed in a logical order.

**Table 1: Data analysis of Insulation/Vapour Barrier and Structural Framing Inspection Stages, permit data from January 1, 2016 to December 9, 2021**

<b>Description</b>	<b># of permits</b>	<b>% of total permits</b>
Inspections were not done in logical order (either both Structural Framing and Insulation/Vapour Barrier stages Passed but Structural Framing passed after Insulation/Vapour Barrier passed, or Insulation/Vapour Barrier stage Passed, but Structural Framing stage is Not Passed)	1,465	7.1%
Structural Framing Stage passed before Insulation/Vapour Barrier (logical order)	19,196	92.9%
Total number of permits with Insulation/Vapour Barrier and Structural Framing Stage Inspections	20,661	100%

We also wanted to verify whether other inspection stages were being passed out of a logical order. The table below shows that, for the most part, inspections are passed in a logical order.

**Chart 1: Data analysis of more inspection stages, permit data from January 1, 2016 to December 9, 2021**



- Inspections not done in logical order: either both Structural Framing & Insulation/Vapour Barrier Passed but Structural Framing passed after Insulation/Vapour Barrier passed, or Insulation/Vapour Barrier Passed, but Structural Framing stage is Not Passed
- No sign of inspection stages being passed "out of order"

**Why this matters**

It is our view, and the CBO agrees, that inspection stages should be done in a logical order. If a problem is found at one stage, but the building process has moved on to several stages later, this could:

- a) be much more difficult to spot,
- b) be much more costly and time-consuming to remedy (for example, if drywall needs to be removed in order to inspect the structure behind it), and
- c) result in potential problems not being noticed.

However, it is important to note that there is no law, policy or procedure that explicitly states inspectors must perform and pass inspections in a logical order. The Division’s ‘Inspection Service Levels’ lists the various inspection types and the recommended requirements for each inspection. The list is written in a logical order (for example, Structural Framing is listed before Insulation/Vapour Barrier), but there is nothing saying that inspectors must follow this order, nor is there any legislation requiring inspections to be passed in a specific order.

In this case, the builder felt that it was unfair that TB was requesting reports for stages that they had progressed far beyond. We do not agree with the builder’s perspective. TB inspectors had requested various reports, such as the soil report, at earlier stages. In fact, for House 1, inspectors requested the soil report six times and the foundation rebar report five times. These requests were documented in the inspectors’ inspection notes in IBMS and/or made via email to the builder.

**Builder said inspector was present day of soil inspection**

We spoke with the builder, who said that on July 8, 2019, the day their engineer visited the property for the soil assessment, a City of Toronto inspector was present. The builder said the City inspector even came back to the site twice that day.

**We found no record that inspector was present for soil inspection**

We could not find any entry in IBMS or any email showing that a City of Toronto building inspector visited the property on July 8, 2019. We do not expect that the inspector would have been on site for a soil assessment, as we were informed by TB that they are not qualified to assess soil conditions. The first record of any inspection on House 1 was several days later, on July 15, 2019 (the inspection request having been made on July 13, 2019 by the builder).

**Controls required to ensure inspections passed in order**

It is our view that training and supervisory oversight is needed to ensure inspectors pass inspection stages in order, and that they should not generally move on to later inspection stages until the previous stages have passed.

The Division agreed, saying that an inspector should not pass a later-stage inspection until the earlier-stage inspection has passed.

**Exceptions should be documented with reasons and follow-up done on earlier stages**

When exceptions are required, based on certain circumstances and with supervisory approval, inspectors may be able to pass to a later-stage inspection, but need to clearly document the reasons for doing so, and follow-up to ensure the earlier stages are passed before work continues past the point that inspecting earlier stages becomes impractical. For example, having to inspect the Structural Framing stage after the Insulation/Vapour Barrier stage has already passed is not practical, since the builder would have to remove the insulation so that the inspector could examine structural elements.

**Improving communication on deficiencies to builder**

In addition, it appears that communication can be improved between inspectors and builders. Where an inspector identifies a deficiency, it is important that they follow up the next time they are at the site and for the builder to be notified of all outstanding deficiencies and reports. We realize an order does not guarantee compliance, but it could help when a builder is not providing requested reports in a timely manner. Further, an inspector cannot issue a Stop Work Order (via the CBO or DCBO) if the issue persists, if they have not issued an Order to Comply.

TB needs a better system to track deficiencies. It would also be helpful to build in the ability for builders/permit holders to access the status of their inspections, including any deficiencies that must be fixed before being passed.

#### Recommendations:

3. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to implement controls, including training and supervisory oversight, to ensure that:
  - a. inspectors pass inspection stages in order; and
  - b. when exceptions are required to passing inspections in order and are approved by a supervisor, clearly document the reasons for moving on to subsequent inspection stages.
4. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to provide training and supervisory oversight for inspectors on when to set a time limit on requested reports from professionals, as well as reasonable expected time limits.
5. City Council request the Chief Technology Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to ensure that any necessary enhancements to system functionality and data fields are implemented to support better tracking of deficiencies, and also allow for builders/permit holders to access the status of their inspections, including any deficiencies that must be fixed before being passed to the next stage.

### **B. 5. The City-approved plans are not always used for inspecting**

Inspectors must use the City-approved plans for their inspections and are instructed to keep all relevant information on file.

In some cases, inspectors may use other drawings for their inspection work. For example, for engineered floor systems, they can use the City-approved plans or the wood manufacturer's engineered wood drawings.

**Inspectors should keep relevant information in the file**

Inspectors are not specifically required to keep those other plans on file, but their guidelines and training say they should keep relevant information in the file.

There is a risk if the inspectors do not, at the very least, check that the other plans/drawings (such as engineered wood drawings from the manufacturer in this case) match the City-approved plans, as well as retain all relevant plans on file. This risk is described further in this section.

## What we found

Inspector 2 at House 1 appears to have relied on the engineered wood drawings from the wood supplier as his main source when doing one of the inspections at the Structural Framing stage.

Inspector 2:

- 1) did not keep the engineered wood drawings that he used on file.
- 2) accepted opinions from the builder's engineer regarding the framing layout. These opinions were also based on the layout in the engineered wood drawings.

### Inspector did not keep a copy of wood drawings

While Inspector 2 appears to have relied on the engineered wood drawings to inspect the Structural Framing of the house, he did not retain a copy, so we have no way to verify what he used for that inspection.

### Builder told us they do not have a copy

While builders often keep a copy of these engineered wood drawings on site, in this case, the house burned down, and the builder told us that the drawings were lost in the fire. We asked the engineer for a copy and he also said he did not have one.

### Engineer told us they do not have a copy

Inspector 2 said he could not remember whether he checked that the engineered wood drawings matched the City-approved plans. But he said the engineered wood drawings he reviewed matched the condition on site.

*“They had the engineered floor system the same as the manufacturer specs. [I’m] learning back now that they changed the concrete slab for the ceiling of the garage to engineered floor joists. But on site, I was given a drawing that matched the condition on site.”*

Inspector 2 told us he thought the engineered wood drawings were sufficient to use because they had been signed off by an engineer. We cannot verify if an engineer signed off on the engineered wood drawings from the manufacturer because we were not able to locate the plans.

### Engineered wood drawings not compared with City-approved plans

However, this meant that Inspector 2 either did not check that the engineered wood drawings matched the City-approved plans, or that he missed key changes from the City-approved permit plans because they were likely not included in the engineered wood drawings, including:

- the addition of a second mechanical room to the third floor/attic.

- the change from concrete to wood to the garage roof. The wood floor layout for the garage was potentially included in the engineered wood drawings, but if he had matched it with the City-approved plans, he would have seen that it was approved to be a concrete slab in that area

Again, we cannot be certain because we could not obtain the engineered wood drawings.

The CBO agrees that Inspector 2 should not have relied on the engineered wood drawings for his inspection. He says that the inspector should have reviewed them, but ultimately should have relied on the City-approved plans for his inspection.

**Why this is significant**

**Inspectors should ensure they rely on City-approved plans**

If the inspector is relying on plans other than City-approved plans or plans that are inconsistent with the City-approved plans, the inspector may miss key areas where there were unapproved changes that may not be in compliance with the Code.

When other plans are used as an additional reference, like the engineered wood drawings, it is our view that the inspector should ensure they are kept on file. Furthermore, the inspector should note which plans they are using during an inspection.

**All plans referenced must be saved and stored**

It is our view that controls are required to ensure inspectors are keeping all relevant plans on file. Controls or internal policy changes to the field inspection guidance for inspectors are also needed to ensure inspectors only use the City-approved plans for their work, while allowing them to use other plans (such as engineered wood drawings) as a reference. Further, the inspector should clearly reference the plans they are using for their work., We note that when permits are issued, builders are made aware that they must have the City-approved plans on-site as per the OBC, therefore it is a matter of ensuring those plans are used and match any other reference plans.

**Recommendation:**

**6. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to implement policies, procedures and training to ensure:**

- inspectors retain all relevant plans and drawings for a project on file;**
- inspectors clearly document which plans they used for their inspection work; and**
- inspectors use the City-approved plans for their inspection work, and if also using other plans such as engineered wood drawings from a manufacturer, that they match them to the City-approved plans.**

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## Conclusion

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**1 of 4 allegations substantiated, 1 not able to determine**

This investigation report originated from allegations of wrongdoing related to a home builder in Toronto. We investigated the allegations and determined their validity.

One of the four allegations has been substantiated and one we were unable to determine given the lack of available documentation. The other two allegations were unsubstantiated.

**6 investigation report plus 20 audit report recommendations**

This investigation revealed issues within TB's inspection processes and practices and also highlighted opportunities for continuous improvement. These include taking a risk-based approach to inspections, using powers to enforce compliance, ensuring that material and note-worthy changes are identified through the inspection process, ensuring a logical inspection order, and ensuring city-approved plans are always used for inspecting.

The Auditor General has made six recommendations in this report, plus 20 recommendations in her recent audit report, "Building Better Outcomes: Audit of Toronto Building's Inspection Function". The recommendations in both reports will help to address the gaps identified.

Because of the importance of the issues raised in this investigation and also in the performance audit, we recommend the CBO immediately start acting on these recommendations. To do this, the CBO will need support from other City Divisions, including Technology Services and Legal Services Division.

Implementing these recommendations will help the Division to be in a stronger position to carry out its mandate and support its staff as they continue to review plans and do inspection work to verify that homes and buildings are being constructed in compliance with the City-approved plans, the *Ontario Building Code* and the *Building Code Act*. It will help the Division to be more effective and efficient, and to help ensure the safety of buildings in Toronto.

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# Objectives, Scope and Methodology

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**Objective and scope of the review**

This was an investigative review. We undertook sufficient work to confirm whether there was a high risk of fraud and to make recommendations to help ensure City entities are aware of the controls that help prevent such frauds from occurring. Our review focused on the allegations that involved City resources.

Our work included a review of the files in IBMS for the City of Toronto.

**Our approach**

Our investigative approach included:

- review and analysis of emails; reviewing invoices, supporting documentation, contracts, policies and legislation; websites and corporate searches
- interviews with the complainant, the builder and City staff, as required
- the contracting of an expert consulting engineer to conduct detailed technical reviews based on available information
- requesting that the CBO instruct senior inspectors from different districts to conduct inspections of House 1, House 2 and House 3
- other investigative and analytical procedures, as required

**Scope limitation**

As noted throughout this report, not all documentation was available to us because many documents were missing, including key reports and drawings. The findings and conclusions in this report were based in part on information and data available in IBMS at the time the investigation was completed. Divisional policies and procedures note that IBMS is where all inspection records are to be retained. We did not physically visit the sites ourselves and our review of the inspection history of these houses is limited to what was retained in IBMS – it is possible that additional records exist but were not properly retained and stored within IBMS, or that the notes in IBMS may not be complete nor reflect all of the circumstances of what happened at the construction sites for these houses.

**This is an investigative review, not an audit**

The work performed in relation to this investigation report does not constitute an audit conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS).



**Review provides reasonable basis for our findings and conclusions**

Despite these limitations, based on the detailed analysis and the evidence obtained, we believe we have gathered and reviewed sufficient appropriate information to provide a reasonable basis for our findings, conclusions, and concerns.

## Appendix 1: Chronology of House 1

<b>Legend:</b>
Yellow = Inspector's request for a report
Orange = Inspection fail
Green = Inspection pass

### Initial inspectors & start of construction

The first house under construction, House 1, was a large (had a footprint of more than 600 square metres), three-storey house with many components that are not typically found in a detached single-family house, including a sub-basement with a basketball court, a firewall, and an underground six-car garage.

### Experienced architect and builder/owner

Both the architect and the builder/owner of the house had worked on many projects before, some of which they worked on together – the process to build a new house of this size and complexity was not new to them.

### Part 9 vs Part 3 buildings

Most houses are smaller and designed and constructed in accordance with Part 9 of the OBC.

Larger residential buildings, such as condos or apartment buildings that are more than 600 square metres (6,879 square feet) in footprint area or more than three storeys in height are typically classified as Part 3 and are therefore subject to more extensive building code requirements, including professional reviews.

In this case, the house was larger than 600 square metres. The builder inserted a firewall<sup>8</sup>, which enabled the building to be classified as a Part 9 building, which is allowed under the OBC.

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<sup>8</sup> A firewall is a fire separation of non-combustible construction that subdivides a building or separates adjoining buildings to resist the spread of fire. A firewall has a fire-resistance rating as prescribed in the building code and must have the structural stability to remain intact under fire conditions for the required fire-rated time. (*Ontario Building Code, Division A, Section 1.4.1.2 – Defined Terms*)

The engineer and architect worked together to design the firewall. The engineer said to the architect on May 17, 2019:

*“I used concrete lintels/beams to make the support fire rated.”*

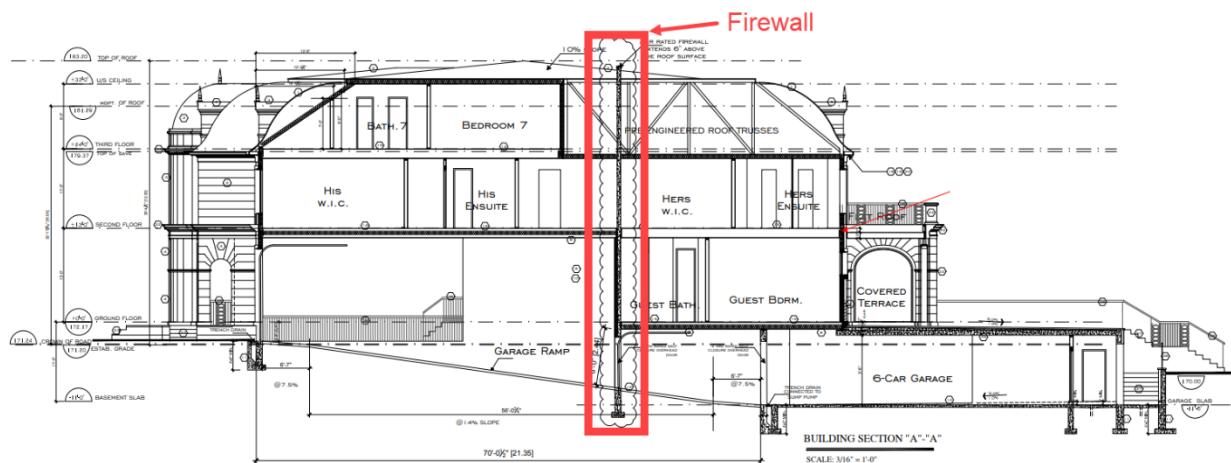
The builder sent the new drawings from the engineer to the Building Code Examiner, and the Building Code Examiner replied that day that with this new information he could make the changes work.

The architect emailed the Building Code Examiner the revised drawings later that morning.

Permit issued May 29, 2019

The permit was approved and issued on May 29, 2019.

Figure 8: Firewall at House 1



1st inspector

New inspectors

The initial inspector assigned to this house was new – he was hired in October 2018 and had completed his final certification exam for Building Generalist in May 2019. He undertook the inspection of this property in July 2019 – less than a year into his position. He told us this was one of the first houses of this size that he was assigned to inspect.

It’s up to the builder to notify TB when a project is ready for an inspection, and that inspection must occur within two days of notification, according to the Building Code.

On July 13, 2019, the builder requested a Footings/Foundations inspection.

**First inspection: July 15, 2019**

Two days later (as required by the legislation), Inspector 1 went to the property on July 15, 2019 to review the footings and foundation. He noted in IBMS that the work substantially matched the approved drawings:

*“attended property with [the builder] for requested footing inspection. introductory inspection completed.*

*observed footing size, depth, and layout which appear to substantially match the approved set of drawings.*

**July 15, 2019:  
Request #1 for soil  
report**

*engineer to submit soil report before passing footing stage*

*rebar in place, tied with ties to top of footings. no organic material in forms*

*ok to pour”*

**Footings/Foundation  
inspection 1 – not  
passed**

The inspection result was “not passed” – the soil report was outstanding.

This would be the first of many requests for the soil condition report.

The soil report is important because:

*“The soil beneath a structure is responsible for absorbing the stressors that come from a building, so understanding how a particular soil will react is critical. Failing to properly test and analyze the soil could lead to a structure that crumbles, settles, or decays well before its time.*

*Testing is done by experienced geotechnical engineers who are trained to take proper samples. Boreholes are drilled in various locations across a property and samples are then taken to a soils lab for testing.”<sup>9</sup>*

The soil report was not provided to TB until September 2021 – more than two years after it was first requested. This report was finally delivered long after the house was almost completely built and after the Auditor General's investigation was launched and a new independent inspector requested it as part of that review. The soil report found no issues with the soil. However, it is important to know the condition of the soil before construction moves on to later stages.

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<sup>9</sup> <https://www.centralgeotech.com/geotechnical-engineering-information/soils-analysis/>

The builder requested another Footings/Foundation inspection on July 25, 2019.

**Request #1 for foundation rebar report**

On July 29, Inspector 1 spoke to the builder over the phone. The inspector's note in IBMS stated:

*"Spoke to contractor over the phone. He advised he made an inspection request for us to come inspect the rebar in the foundation walls. I advised [builder] that we expect an engineer report for this stage of the property. He had an engineer come on the 26th and has continued work.*

*no inspection conducted"*

**Footings/Foundation inspection #2 - not passed**

On August 8, 2019, the builder requested an inspection. Inspector 1 went back to the property on August 12, 2019. Once again, it did not pass.

Inspector 1 noted the progress in IBMS:

*"attended property for requested backfill inspection*

*front half of property has been completed. only observed front half. damproofing completed. observed crush stone over weeping tile, layout, anchor bolt spacing and window placement*

*door has been cut into concrete under the garage. [the builder] is unsure if he is planning to use the space or not at this time. advised to either obtain a revision or block it in and follow the approved drawings.*

*rear part of property to still be inspected for backfill. stone slinger could not reach from the front of the property.*

*front portion of the property can be backfilled*

**Request #2 for foundation rebar report**

*reinforcement report to still be provided<>Footings/Foundations"*

**Footings/Foundation inspection #3 - not passed**

The project manager called for another inspection a few days later. Inspector 1 visited the property on August 15, 2019 for the third Footings/Foundation inspection. Again, it did not pass.

It is not clear from the inspector's notes why it did not pass:

*“attended property with supervisor [the project manager] for requested inspection*

*sides of the property have substantial gravel over weeping tiles, damproofing has been installed. ok to backfill sides only*

*stone thrower could not reach the back of the property so backfill inspection has been completed in stages*

*rear end of house to still be inspected<>Footings/Foundations”*

**Footings/Foundation inspection #4 – not passed**

On August 16, 2019, the builder requested an inspection. In the inspection history in IBMS, it shows that inspector 1 went back to the property on August 19, 2019. Again, it did not pass.

**Request #3 for foundation rebar report**

Based on the inspector's note in IBMS, it is not clear why the inspection failed. Inspector 1's IBMS note about this inspection says:

*“attended property with supervisor [project manager's name] for requested inspection*

*rear portion of backfill has been completed. stone has been laid over weeping tile. damproofing installed. ok to backfill*

*reinforcement report still required for exterior walls and interior concrete walls<>Footings/Foundations”*

Although we could not obtain confirmation, based on Inspector 1's IBMS note above, it appears the inspection may not have passed due to the outstanding foundation rebar report from the engineer. Also, the soil report had still not been received.

**No inspection stage passed yet**

At this stage, no inspection stages had been passed by the first inspector. There is no further activity on the file until the end of December 2019.

**Drains inspection #1  
- not passed**

On December 23, 2019, the builder requested a Drains inspection. There is no corresponding inspection note for what happened, but it appears that an inspection was scheduled for December 27th. There is no inspection visit logged for that day, though.

However, on Dec. 30, 2019, Inspector 1 visited the property for a Drains and Sewers inspection.

He did not pass the Drains inspection because of a failed ball test, which is a test to determine drain functionality. His IBMS inspection note said:  
*“attended property with [builder] for requested inspection*

*observed layout which appears to be substantially complete. ball tests failed. advised to fix the issue and rebook. also advised to not pour slab until ball test was completed<>Sewers/Drains/Sewage System”*

**Drains inspection #2  
- not passed**

The builder requested another Drains inspection on December 30, 2019. Inspector 1 went back the next day, on December 31, 2019, for another Drains and Sewers inspection. Again, it failed. This time, the ball tests passed.

He did not pass the inspection because he only did the interior drains on this visit – his note in IBMS said *“hold for exterior drain”*. The full IBMS note says:

*“attended property with drain contractor for requested interior drain inspection.*

*random ball tests passed. layout appears to be as per approved drawings.*

*hold for exterior drain<>Sewers/Drains/Sewage System”*

There is no further activity noted in the IBMS file until the spring of 2020.

**Inspector 2**

In April 2020, Inspector 2, also newly hired (in July 2019) and newly certified (passed building structural course in October 2019) took over.

On April 3, 2020, the builder's project manager contacted Inspector 2 requesting a Structural Framing inspection for the property. He also asked why the Excavation/Shoring and Footings/Foundation inspections were still listed as ‘not passed’.

**April 6, 2020:  
Request #2 for soil  
report**

On April 6, 2020, Inspector 2 informed the project manager that most inspections were on hold due to the pandemic. He also explained that the Excavation/Shoring and Footings/Foundation inspections were still open because they were still in need of engineer's reports on the soil and the foundation rebar.

**Request #4 for  
foundation rebar  
report**

**Structural Framing  
inspection takes  
place even though  
no other inspection  
stage had yet  
passed**

On May 7, 2020, the builder requested a Structural Framing inspection. On May 11, 2020, Inspector 2 visited the building for the inspection, even though earlier inspection stages had not yet passed (Excavation/Shoring, Footings/Foundation). See section B.4. in this report for further discussion of the order of inspections.

During this inspection, he noted that the east and west side elevation of the building were different from the approved drawings, and that some windows had been added while others had been removed. He noted in IBMS:

**2<sup>nd</sup> inspector  
noticed changes to  
elevations, windows,  
requested revision**

*"Attended property and met with the owner/builder [builder's name]. I conducted random sampling inspection of the framing due to the size of the house. All items of framing inspected were as approved drawings/engineers floor/roof layouts. All point loads inspected had blocking under transferring loads down. The East and West side elevation were different from the approved drawings. Some Windows had been added and some Windows had been moved. Advised to submit revision for the changes. Also advised [the builder] the soil report is still outstanding."*

Inspector 2 later told us that he used the wood manufacturer's engineered wood layout drawings to check the structure. He said at the time that he thought that they matched the City-approved plan. We found that it was not likely that the plans matched because the builder made changes that were not on the City-approved plan, including changing the garage roof from concrete to wood, and adding a second mechanical room to the third floor. We were not able to verify what the manufacturer's engineered wood drawings showed, because no one involved in the project kept a copy of them. This is discussed further in Section B. 5 of this report.

**May 11, 2020:  
Request #3 for soil  
report**

He told the builder to submit a revision for the changes. He also advised the builder that the soil report was still outstanding.

**Structural Framing  
inspection #1 – not  
passed**

The result of the Excavation/Shoring and Footings/Foundation stages of construction remained as "not passed". The rebar and soil reports previously requested several times were not received.

At this point, the builder's project manager reached out to the architect and asked him to make changes to the drawings so that they could submit them to Toronto Building.

**Builder's project manager asks architect to change windows**

On May 11, 2020, the builder's project manager wrote:

*"Hi [architect's name],  
Hope all is well.  
We need to update our permit drawings for the basement and also East and West elevations.  
We had some changes done on site and we need to submit the updated drawings to the city ASAP.  
I have attached an Autocad file consisting of the new basement Layout based on our framed basement on site.  
Also, we have changed a few windows on the side elevations that need to be updated on the permit drawings.  
we added 3 windows in the garage area (1 on the Garage ramp 64'X 48"H and 2 more on the same elevation 64"x 36") pictures attached below  
Also, an oval window was added in the 2nd floor east elevation. The opening to the right of the ovals is replaced with two smaller windows (new window sizes are: 32 1/2"X 52" H)  
on the west elevations the location of the windows have changed (attention to the screenshot of the window positioning attached below) the current on site window sizes on the main floor on this elevation from the front to the back are as follows:  
1- 35 1/2 " x 94 1/2 " H  
2- 35 1/2 " x 94 1/2 " H  
3- 35 1/2" x 78 3/4" H  
4- 47 1/4" x 78 3/4" H  
5- 94 3/4" x 78 3/4" H"*

**Architect says he can't make those changes**

On May 12, 2020, the architect responded that it would not be possible to make all those changes.

*"You could only add 60sf of windows on the east side.  
Can you please mark up the elevations with the window revisions?  
We would only want to do this once"*

After that, the builder submitted revisions to TB without the architect's seal. Although the builder had made a request of the architect, given the house was under Part 9 designation of the OBC, professional reviews were not required, and the revisions therefore did not require an architect's seal.



**Revision done by builder/owner approved on June 16, 2020**

On May 27, 2020, the builder's project manager contacted Inspector 2 and informed him that the revisions were complete and will be submitted soon. On June 1, 2020, IBMS shows that the builder/owner applied for a revision permit. It was approved two weeks later, on June 16, 2020.

**Code allows owners to submit changes to own home**

The revised permit shows that the drawings were revised by the builder/owner and did not contain an architect's seal, as seen in the image of the revised permit below. There is an allowance in the Building Code that permits owners to submit changes for their own homes, rather than an architect or a designer, and professional reviews are not required for Part 9 houses.

**Figure 9: Revised permit changed by builder/owner, not architect**

Application

**Schedule 1: Designer Information**

**A. Project Information**

Street No. [REDACTED]	Street Name [REDACTED]	Unit/Suite No. [REDACTED]	Lot/con. [REDACTED]
City/Town [REDACTED]	Postal Code [REDACTED]	Plan No./Other Description [REDACTED]	

**B. Contact Information**

Individual who reviews and takes responsibility for design activities

First Name [REDACTED]	Last Name [REDACTED]	Firm [REDACTED]		
Street No. [REDACTED]	Street Name [REDACTED]	Unit/Suite No. [REDACTED]	Lot/con. [REDACTED]	Telephone No. [REDACTED]
Municipality TORONTO	Province ONTRIO	Postal Code [REDACTED]	Mobile No. [REDACTED]	
E-mail Address [REDACTED]			Fax No. [REDACTED]	

**C. Design Activities**

Undertaken by individual identified in "Contact Information", [Building Code Table 3.5.2.1, of division C]

<input type="checkbox"/> House	<input type="checkbox"/> HVAC — House	<input type="checkbox"/> Building Structural
<input type="checkbox"/> Small Buildings	<input type="checkbox"/> Building Services	<input type="checkbox"/> Plumbing — House
<input type="checkbox"/> Large Buildings	<input type="checkbox"/> Detection, Lighting and Power	<input type="checkbox"/> Plumbing — All Buildings
<input type="checkbox"/> Complex Buildings	<input type="checkbox"/> Fire Protection	<input type="checkbox"/> On-site Sewage Systems

Description of designer's work  
The Drawing is provided by the Owner [REDACTED] for his own house

Application

**Schedule 1: Designer Information**

**D. Designer Declaration**

I, **Owner/Builder's name** (print name) declare that (choose one as appropriate):

I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4, of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.  
Individual BCIN: \_\_\_\_\_  
Firm BCIN: \_\_\_\_\_

I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5, of Division C, of the Building Code.  
Individual BCIN: \_\_\_\_\_  
Basis for exemption from registration: \_\_\_\_\_

The design work is exempt from the registration and qualification requirements of the Building Code. Basis for exemption from registration and qualification: Designer is the homeowner.

I certify that:

- The information contained in this schedule is true to the best of my knowledge.
- I have submitted this application with the knowledge and consent of the firm.

**Owner/Builder's signature**      **Owner/Builder's name**      2020-06-01  
Signature      Print Name      Date (yyyy-mm-dd)

**Inspections continued even though earlier stages had not yet been passed**

The inspections continued, despite:

- No inspection stage (Excavation/Shoring, Footings/Foundation, Structural Framing) had yet been passed – there were repeated visits for each inspection stage and they repeatedly failed
- The soil report was still outstanding, which was needed for the Excavation/Shoring stage
- The foundation rebar report was still outstanding, which was needed for the Footings/Foundation inspection stage

On June 3, 2020, the builder/owner requested a Plumbing inspection. On June 5, 2020, the builder/owner requested an HVAC/Extraction Rough-in inspection.

**HVAC Inspection 1/Drains inspection #2**

Inspector 2 conducted both inspections on June 9, 2020.

**HVAC inspection – not passed**

The HVAC inspection did not pass; the inspector noted that a return air [vents] needed to be moved in order to comply with the City-approved plans. Inspector 2's IBMS note says:

*“Attended property and met with [builder] and [builder’s project manager]. I observed the HVAC and plumbing rough ins. Plumbing lines were under pressure and holding and the drain lines were filled with water. The HVAC required a few of the return airs to be moved to comply with the drawings.<>HVAC/Extraction Rough-in”*

**Plumbing inspection – passed**

The Plumbing inspection that day passed. Inspector 2's IBMS note says the exact same thing as the note for the HVAC/Extraction Rough-in inspection note.

The next inspection that took place was the Insulation/Vapour Barrier, done by Inspector 1, who was back on the file.

To note: none of the other inspection stages had yet been completed and passed. The legislation states that an inspection must happen if a permit owner requests one, so the inspector was required to go out, regardless of whether previous inspection stages had passed or not.

On June 22, 2020 the builder requested an Insulation/Vapour Barrier inspection.

**Insulation/Vapour Barrier inspection #1 – not passed**

On June 24, 2020, Inspector 1 attended at the property. He did not pass the Insulation/Vapour Barrier inspection because of deficiencies.

Inspector 1 noted that he would add the list of deficiencies to IBMS:

*“attended property with contractor [project manager’s name] for requested inspection*

**Inspector 1 wrote  
“see deficiency list”**

*see deficiency list*

*only second and third floor inspected. main floor and basement to also be completed.*

*exterior walls on second floor have correct insulation installed but vapour barrier not fully attached, just loose due to the roofers using the walls as an anchor. advised to provide a full walkthrough video of the vb attached in place.*

*third floor mechanical rooms to still be insulated. also, two areas have been spray foamed, requested to speak with mechanical designer if a supply and return are required. otherwise, insulation appears to be substantially complete.*

*check attic insulation sticker for blown in areas<>Insulation/Vapour Barrier”*

**No deficiency list  
included in IBMS or  
sent to builder**

Despite referencing a deficiency list, no deficiency list was added to the system for this inspection type. We could not find any record related to deficiencies on this property. This means there is no record of communicating the deficiencies to the builder and no list in the file so that other inspectors could follow-up to ensure deficiencies are rectified. This issue of lack of documentation is explored further in the audit report.

When, about a year later, TB management conducted their own interviews about this with Inspector 1, they asked him why he did not enter the deficiency list into IBMS. His response was simply:

*“I should have entered deficiencies under deficiency tab.”*

The builder’s project manager emailed Inspector 1 photos and updates about the insulation July 2.

On July 14 (after the builder/owner requested an inspection on July 10), Inspector 1 visited the property.

**Insulation/Vapour  
Barrier inspection #2  
– not passed**

The Insulation/Vapour Barrier inspection failed a second time.

July 14, 2020: Request #4 for soil report	Inspector 1 noted the following in IBMS:  <i>“attended property with contractor for requested inspection</i>
Request #5 for foundation rebar report	<i>second floor, first floor and basement have been completed.  daily work log to be provided.</i>
Request #1 for engineer report on 2 <sup>nd</sup> mechanical room added to third floor/attic	<i>soil report to be provided before passing excavation stage  foundation wall reinforcement report to be provided before passing footing/foundation stage  engineer report regarding moved mechanical rooms required&lt;&gt;Insulation/Vapour Barrier”</i>

Given the inspector’s notes above, it highlights a couple of key issues at the time of this inspection:

**Changes made but builder did not apply for a revision to City-approved plans**

- 1) Given the basement was complete, this means that at some point, **the material for the basement/garage roof** (which was about 330 square metres (3,552 square feet) in size) **was changed from concrete to wood and this inspector did not notice this material change, nor did the builder/owner inform him of this change, and those changes were not submitted for updates to the approved building plans.** The second inspector informed us while he was on site doing his structural inspection, he was using the engineered wood drawings from the manufacturer that showed the framing layout. He told us he compared those plans and that they matched the condition on site. However, we cannot confirm whether the City-approved plans matched the manufacturer’s engineered wood drawings, because no one kept a copy of the engineered wood drawings on file. However, it is notable that this inspector missed that the builder changed the garage roof from concrete to wood – a material change according to our expert consulting engineer and agreed to by the CBO, Inspector 5 (the one who was directed to re-inspect the houses by the CBO), and the Deputy Chief Building Official (DCBO) who was also involved in the re-inspection of the houses.

**3 reports still outstanding: 1. Soil  
2. Foundation wall  
3. Added mechanical room**

- 2) At this stage, **three reports remain outstanding:** soil, foundation wall, and a report regarding a moved mechanical room.
- 3) **The builder/owner did not apply for a revision to the approved building plans to add a mechanical room to the third floor, and the inspector did not request an update to the approved plans.** Under the *Building Code Act*, the builder, when making a material change from the approved plans, must submit revised plans for approval. TB confirmed to us that this is a material change and the builder should have applied for a revision for this change before making it.

**July 16, 2020:  
Foundation rebar report sent to inspector – 1 year after it was first requested, after inspector asked 5 times**

Nearly one year later, the builder's project manager emailed the foundation rebar report from the engineer to the inspector. The report is dated July 25, 2019 and was emailed to the inspector on July 16, 2020. It is not clear why it took so long to get this report. The builder said it was provided earlier to TB. We could not find an earlier record of this report in the file or in any emails we reviewed.

Figure 10: Foundation rebar report from engineer – dated 1 year earlier

[REDACTED]		Inspection Report	
Location:	[REDACTED]	Report No.:	1
Contractor:	[REDACTED]	Building Permit No.:	[REDACTED]
Present:	Forming crew	Weather:	Fair / Sunny
Report By:	[REDACTED]	Date of Visit:	25 July 2019
Signature:	[REDACTED]	[REDACTED]	
Attachments: 3 Pics.			
<b>Distribution:</b>			
<u>Client</u> [REDACTED]			
<u>Chief Building Official (by client)</u>			
<u>City inspector (by client)</u>			
<b>The following items were noted:</b>			
1.0 <b>Scope of inspection:</b> To review reinforcement placement inside of foundation walls. We do not check the top of the wall elevations. Wall heights to comply with permit drawings.			
2.0 <b>Progress of Work:</b> Foundation wall forms installation completed. Reinforcement installed.			
3.0 <b>Observations and comments:</b>			
<ul style="list-style-type: none"><li>• Reinforcement bars of foundation walls were inspected in all sides, in 4 random locations and found to be in compliance with permit drawings.</li><li>• Vertical 15M bars were placed at 12" O.C. and Horizontal bars placed @14" O.C.</li></ul>			
<b>Statement of limitation:</b>			
The scope of this report is limited only to specific structural elements as discussed in the report and shall be used in conjunction with an approved building permit. This report is in general nature and based on visual inspection of accessible areas at the time of inspection. Report is prepared for current owner of property and the City of Toronto only. [REDACTED] Eng. is not liable for third parties loss due to use of the contents of this report or TORT or in any other means. For construction projects, [REDACTED] Eng. is not responsible for the actual construction of the work, responsibility for which shall remain with the Contractor. This report represents a professional opinion and shall not be interpreted as a warranty or guarantee of construction work.			



Picture 1:



Picture 3:



Picture 2:



Page 2 of 3

**July 20, 2020:  
Footings/Foundation inspection  
passed**

On July 20, 2020, the Inspector 1 passed the Footings/Foundations inspection. His comment in IBMS was:

*“foundation wall reinforcement report added to file. ok to pass footing/foundation stage<>Footings/Foundations 5 - Report received - construction stage passed”*

**Aug. 4, 2020: Insulation/Vapour  
Barrier inspection #3 – not  
passed**

On August 4, 2020, Inspector 1 visited the property to inspect the Insulation/Vapour Barrier. The inspection did not pass.

Inspector 1’s notes in IBMS say the following:

*“attended property to observe insulation in attic mechanical rooms*

*all insulation has been completed. once daily work log and attic insulation has been verified at final, then ok to pass<>Insulation/Vapour Barrier”*

On August 5, 2020, Inspector 1 emailed the builder's project manager and requested that he provide the insulation specifics and a daily work log for the spray foam installers.

The next day, the project manager emailed Inspector 1 the insulation certificate.

**Insulation/Vapour Barrier inspection passed**

On August 18, 2020, Inspector 1 passed the Insulation/Vapour Barrier stage.

**Structural Framing inspection still not yet passed**

It is unusual for an Insulation/Vapour Barrier inspection to pass before the Structural Framing inspection passed, primarily because a builder would need to have framing in place and inspected before completing work on the Insulation/Vapour Barrier – most framing would eventually be covered up by insulation and then drywall.

Inspector 1 was questioned as to why the insulation was inspected prior to ensuring the framing was passed.

Question: *"Did you review the framing? If so, was the framing passed?"*

Inspector 1: *"(I) did not review the framing or pass it."*

Question: *"Can you explain why you approved the insulation and vapour barrier before approving the structure?"*

Inspector 1: *"I cannot explain this. I passed insulation barrier on completion. Framing should have been passed first."*

**Aug. 18, 2020:  
Request #5 for soil report  
Request #2 for engineer report on added mechanical room**

The same day the Insulation/Vapour Barrier inspection was passed, Inspector 1 followed up on the outstanding reports for the other inspections with the project manager. He emailed the project manager:

*"Hi [project manager's name],  
Your insulation has been passed. We are still waiting for the following:*

- 1. soil report*
- 2. engineer report regarding framing of new mechanical rooms*

*Also, quick question, has the exterior drain been connected to the house yet?"*

**Framing report does not mention mechanical rooms**

The project manager replies the same day with the framing report from the engineer. However, the report does not mention anything specifically about the mechanical rooms in the third floor/attic.



The framing report from the builder's engineer says the floor joists and LVL beams are in compliance with *"the framing layout provided by framing supplier"*. We feel that they should have been inspected to see whether they were in compliance with the City-approved plans. In addition, the framing layout from the framing supplier was never retained by the inspector or kept on file, so we could not verify what was looked at.

We asked the inspector why he did not keep a copy, and he said:

*"The contractor/builder are required to have these layouts on-site at the time of the framing inspection. We would have to ask the contractor/builder for a copy. We don't typically save them in IBMS."*

We followed up with the builder to request the manufacturer's engineered wood framing drawings. He replied that all drawings were supplied to Inspector 5 and asked him to provide them – he said all computers were destroyed in the fire at the building (the house fire is described later in this chronology section), implying he did not have the drawings anymore.

The project manager's email does not reply to the question about the soil report. He does reply to the drain question, though:

*"The exterior drain and water will be excavated by the city contractors this week and probably next week we will be ready for your inspection."*

**Request #3 for engineer's report on added mechanical rooms**

The next day, on August 19, 2020, Inspector 1 followed up with the project manager about the engineer's report – he said the report needs to comment on the addition of the second mechanical room to the third floor/attic:

*"Please have the engineer comment on the structural integrity of the trusses in regards of the area where the mechanical rooms are."*

From what we could find, Inspector 1 never received a reply to this August 19 email request about the engineer's report.

On August 20, 2020, the builder's project manager requested a Drains inspection.

**Aug. 24, 2020: Drains/Sewers inspection passed**

On August 24, 2020, Inspector 1 visited the property and passed the Drains/Sewers inspection. His note in IBMS says:

*“attended property with [name of builder’s project manager] for requested inspection*

*observed exterior drain which appeared substantially complete. two cleanouts installed due to length from city to the house. 1" copper service line installed and ball test successful. ok to cover<>Sewers/Drains/Sewage System<>Water Service”*

**Aug. 31, 2020: Architect emails**

On August 31, 2020, the architect emailed various TB staff who were involved in the project, and cc'd the CBO, asking if changes were made to the drawings.

**Sept. 2, 2020: Architect formally requests to remove himself from the project**

A TB official responded to the architect and confirmed that changes were made, and the permit was revised in June 2020.

On September 2, 2020, the architect responded that he will formally remove himself from the project.

As of January 5, 2023, the architect is still listed on the file in IBMS, and there is no note to show that he requested to be removed.

It's also worth noting that in June 2022, the engineer informed TB inspectors that he was no longer providing engineering services for this project.

We feel that this information should be documented in TB's system because when key professionals leave a project, it can sometimes be an indicator of the risks on this project (when combined with other risk factors), but it is currently not a requirement to do so. TB agreed that a change of architect/engineer of record should be documented in IBMS by staff, however it is not clearly required in TB policies.

It's important to note that given the house was under Part 9 of the OBC, there was no requirement for general reviews by professionals, and these professionals were therefore not required.

## Project goes quiet for months

For several months, there is no activity on the file noted in emails or in IBMS. As mentioned earlier in the report, TB is only required to perform inspections if notified by the permit holder, and there were no requests received for several months.

On April 8, 2021, a plan review manager reached out to the Building Code Examiner, Code Examiner 1. He asked Code Examiner 1 to look at the drawings to ensure the percentage of openings for side elevations on the east and west side of the property were in compliance with the OBC.

**Code Examiner says builder removed 2 windows on East side, and added 1 window on West side**

Code Examiner 1 responded the next day (April 9, 2021) that the property is in compliance with the code:

**Examiner notes both changes are in compliance with the OBC**

*“On the east elevation in revision application they removed two windows with total glazing area of about 5.18 m<sup>2</sup> and put three new windows with total glazing area of about 2.36 m<sup>2</sup>. Basically, they reduced the total glazing areas on this elevation. This elevation is in compliance with the OBC. On west elevation in revision application they have just relocated one window with the same size. I double checked the glazing area on the original permit, and it is in compliance with the OBC. Having said that, please note that one window on west elevation has to have a fire shutter as per approved drawings. Please let me know if you need more clarification on this matter.”*

**Auditor General's Office receives complaint via CBO**

About a week or so later, on April 20, 2021, the CBO emailed complaint information to the Auditor General, saying the allegations potentially relate to wrongdoing.

The *Disclosure of Wrongdoing and Reprisal Protection* policy of the Toronto Public Service By-Law requires all City employees who are aware that wrongdoing has occurred to immediately notify their manager, their Division Head, or the Auditor General's Office. Allegations of wrongdoing received by Division Heads, Deputy City Managers or the City Manager are to be immediately reported to the Auditor General.

**Complaint details**

The complainant told the CBO's office that they had concerns with three buildings that the builder currently had under construction.

The complainant made several allegations that the builder was making changes to the houses without having those changes approved by TB.

The complainant did not have specific allegations regarding House 3, but said it was important to check that the same things were not happening there too.

The complainant said the City is at risk because TB staff were not catching the changes that the builder was making.

**CBO assigns independent inspectors to examine the complaints upon Auditor General Office's request**

The Auditor General's Office met with the CBO to discuss the complaint and requested that the CBO assign an independent building inspector(s) to re-inspect the properties and identify if they met all building and safety code requirements. The Auditor General's Office asked for reviews of all three properties by the same seasoned inspectors.

Upon the Auditor General Office's request, the CBO chose two seasoned, highly reliable inspectors from a completely different district than the ones where the properties are located to conduct the inspections. This was done intentionally to keep the review as confidential as possible and to ensure there was sufficient independence in the review of the property and in the interviews with the building inspectors.

**New, independent inspectors assigned**

In late June 2021, the two new inspectors visited the first property (Inspectors 5 and 6). They went unannounced.

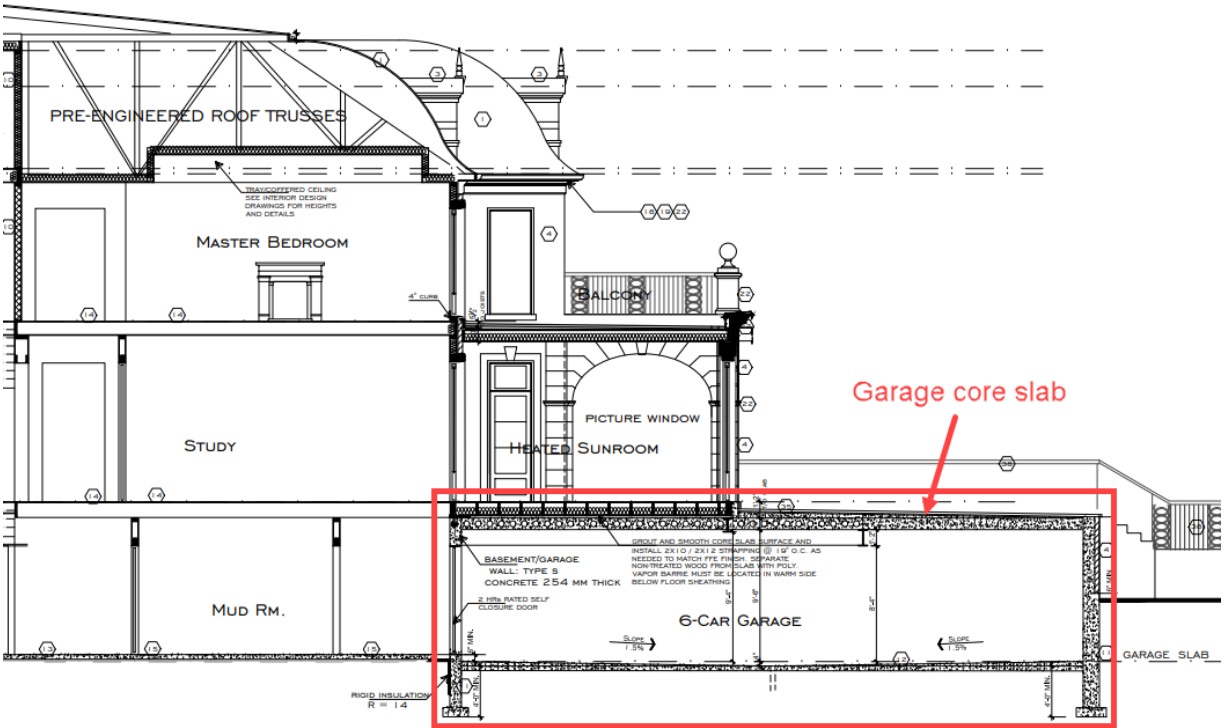
**Noted that inspections were done in unusual order**

They noted that the inspections were passed in unusual orders (e.g. Insulation/Vapour Barrier was passed before the Structural Framing inspection was passed) – something they do not see often.

**Noted garage roof material changed from concrete to wood**

Upon visiting the property and after speaking with the engineer for the project, the inspectors immediately noticed many issues. Perhaps one of the biggest was that the material used for the roof of the garage was made of wood – the plans specified that it was to be made of concrete. This is a material change, and the garage was large, at about 330 square metres. There is a risk that this change could have defeated the concept of keeping the fire compartments on either side of the firewall separate for the same length of time, since it was now a wood garage coming into direct contact with other combustible material. A material change like this would require a revision to the approved plans.

**Figure 11: Original drawings showing concrete core slab to be used for garage roof**



**2<sup>nd</sup> mechanical room added to 3<sup>rd</sup> floor without builder applying for revision**

Inspectors 5 and 6 found that a second mechanical room had been added to the third floor without any revisions being made to the City-approved plans. This was something Inspector 1 noted, but he never requested that the builder apply for a revision for this. Inspectors 5 and 6 felt it was a change that would require revisions to ensure the structure conformed to the approved plans. TB confirmed that this was a change that required a revision to be submitted to TB for approval.

**Windows on site did not match City-approved plans, nor revised City-approved plans**

Inspectors 5 and 6 also noted that some windows had not been changed as had been previously requested. Inspectors 5 and 6 noted that even though the builder made a revision to the plans for the windows (as per the earlier inspector's request), the windows on site still did not match either the first City-approved plans, nor the revised plans.

TB confirmed to us that increasing the size of a window is a material change. However, if the window had been reduced in size, it would not be considered a material change provided the lintel size is still in compliance with the OBC and the maximum permitted percentage of all unprotected openings is not impacted.

**Required fire shutter missing**

Inspector 5 additionally noted that the fire shutter for one of the windows on the west elevation was not installed. This fire shutter is meant to protect the window and to prevent fire from spreading.

This fire shutter was required and was on the approved drawings. TB confirmed to us that deleting a fire shutter that was required by the City-approved plans is a material change and would have required a revision.

**3 Orders issued**

After discussing with the CBO, the CBO directed Inspector 5 to issue three Orders on the property to ensure compliance. Two of these were Orders to Comply, and the third was an Order to Remedy Unsafe Building, related to the garage roof material from concrete to wood.

**Figure 12: Order to Comply issued by Inspector 5, August 20, 2021**

Item	Reference	Description and location	Required action and compliance date
1	8.(13) OBC Act	1) The garage roof/floor framing has been changed from concrete to wood framing.  2) Window openings have been added on the ground floor west elevation (not shown on approved permit drawings and approved revised permit drawings).  3) The fire shutter has not been installed to protect the window opening on the ground floor west elevation as shown on the approved permit drawings.  4) Two mechanical rooms have been installed on the third floor (not shown on approved permit drawings).	You are required to obtain a revision for the changes or remove the unauthorized construction and construct the building in accordance with the approved drawings by September 3, 2021.

**Figure 13: Order to Comply issued by Inspector 5, August 26, 2021**

Item	Reference	Information required
1.	BCA 18(1)	You are required to:  1) Submit a report from a qualified Geotechnical Specialist verifying that the proposed subgrade allowable bearing capacity has been attained for the supporting soil as per approved plans.

**Figure 14: Order to Remedy Unsafe Building issued by Inspector 5, August 20, 2021**

Item	Reference	Description and location	Required action and compliance date
1	15.9.(1)	Structural changes to the garage roof framing from concrete to wood framing have taken place without obtaining approval.	1) You are required to submit a report to Toronto Building from a registered professional engineer confirming the building is structurally sound and stable by August 26, 2021.  2) Use of the building is prohibited until the registered professional engineer confirms the building is structurally sound and stable.  3) All work must stop immediately.  4) A building permit is required for the changes.

**Aug. 26, 2021:** Request #6 for soil report

In the August 26, 2021 Order to Comply, Inspector 5 noted that the soil report was still required.

**TB requested engineer to confirm if House 1 was structurally sound**

Via the Order to Remedy Unsafe Building regarding changing the garage roof framing from concrete to wood, Inspector 5 requested that the builder’s engineer provide a report “confirming that the building is structurally sound and stable”.

Inspector 5 followed up with the engineer several times.

Eventually, on September 15, 2021, the engineer sent Inspector 5 the framing inspection report (report 2R) that was performed on June 25, 2020 – more than a year earlier.

Figure 15: Report dated June 25, 2020 – sent by engineer Inspector 5 on September 15, 2021

**Inspection Report**

---

Location: [REDACTED] Report No.: 2R  
Contractor: [REDACTED] Building Permit No.: [REDACTED]  
Present: Framing crew/builder Weather: Fair / Sunny  
Report By: [REDACTED] Date of Visit: 25 June 2020

Signature: [REDACTED]

Attachments: revised S1 and S7.

**Distribution:**  
Client: [REDACTED]  
Chief Building Official (by client)  
City inspector (by client)

**The following items were noted:**

- 1. Scope of inspection was limited to:** To review overall joists' layout, LVL size and locations and Truss Layout. Location of steel beams and columns and solid bearings at the time of inspection.
- 2. Progress of Work:** Structural framing substantially completed. Windows installation in progress.
- 3. Observations and comments:**
  - Floor joists and LVL beams were inspected and found to be in compliance with framing layout provided by framing supplier and acceptable.
  - Structure of rear deck over underground garage was changed from concrete to I-Joists per our revised drawings S1 and S7 dated July 13, 2019.
  - Solid bearing was checked and found to be adequate under point loads on most areas.
  - Trusses were reviewed and found to be in accordance with truss layout.
  - Steel beams and columns placed in location as indicated in design drawings and acceptable.

**Statement of limitation:**  
The scope of this report is limited only to specific structural elements as discussed in the report and shall be used in conjunction with an approved building permit. This report is in general nature and based on visual inspection of accessible areas at the time of inspection. Report is prepared for current owner of property and the City of Toronto only. [REDACTED] is not liable for third parties loss due to use of the contents of this report or TORT or in any other means. For construction projects, [REDACTED] is not responsible for the actual construction of the work, responsibility for which shall remain with the Contractor. This report represents a professional opinion and shall not be interpreted as a warranty or guarantee of construction work.

Page 1 of 1

**Report does not state if building is structurally stable**

Nowhere in that report does the engineer state that the building is structurally sound and stable, which was what the inspector specifically asked.

Inspector 5 replied on September 16, 2021:

*"I'm glad to see you had the opportunity review the framing prior to any finishes being installed. Are you able to confirm based on your June 25, 2020 inspection and recent site review that the building is structurally stable? This will need to be submitted to us as a field review report."*

The engineer replied the same day:

*"This report is based on what was exposed and inspected on June 25<sup>th</sup>, 2020. As I explained to you over the phone on September 14<sup>th</sup>, 2021, I am not going to provide a blanket statement regarding structural stability."*




There was more back and forth with Inspector 5, the engineer and the builder, with the inspector scheduling a call with the three of them.

On September 21, 2021, Inspector 5 followed up once again with the builder asking for the report from his engineer.

On September 23, 2021, the builder sent him a revised report, still dated June 25, 2020. The only difference in the revised report was the addition of a fourth point that said, "Previous deficiencies: none noted."

Figure 16: Revised report sent to Inspector 5 on September 23, 2021 (highlights added by AG's office)



**Inspection Report**

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Location:	[Redacted]	Report No.: 2 - R2
Contractor:	[Redacted]	Building Permit No.: [Redacted]
Present:	Framing crew/builder	Weather: Fair / Sunny
Report By:	[Redacted]	Date of Visit: 25 June 2020

Signature: [Redacted]

Attachments: revised S1 and S7.

**Distribution:**

Client: [Redacted]

Chief Building Official (by client)

City inspector (by client)

[Redacted]

**The following items were noted:**

- Scope of inspection was limited to:** To review overall joists' layout, LVL size and locations and Truss Layout. Location of steel beams and columns and solid bearings at the time of inspection.
- Progress of Work:** Structural framing substantially completed. Windows installation in progress.
- Observations and comments:**
  - Floor joists and LVL beams were inspected and found to be in compliance with framing layout provided by framing supplier and acceptable.
  - Structure of rear deck over underground garage was changed from concrete to I-Joists per our revised drawings S1 and S7 dated July 13, 2019.
  - Solid bearing was checked and found to be adequate under point loads on most areas.
  - Trusses were reviewed and found to be in accordance with truss layout.
  - Steel beams and columns placed in location as indicated in design drawings and acceptable.
- Previous deficiencies: None noted.**

**Statement of limitation:**

The scope of this report is limited only to specific structural elements as discussed in the report and shall be used in conjunction with an approved building permit. This report is in general nature and based on visual inspection of accessible areas at the time of inspection. Report is prepared for current owner of property and the City of Toronto only. [Redacted] is not liable for third parties' loss due to use of the contents of this report or TORT or in any other means. For construction projects, [Redacted] is not responsible for the actual construction of the work, responsibility for which shall remain with the Contractor. This report represents a professional opinion and shall not be interpreted as a warranty or guarantee of construction work.

**Revised engineer's report still fails to state if building is structurally sound**

The engineer's report did not say whether the building was structurally stable consistent with his September 16, 2021 email.

Inspector 5 emailed the engineer, noting that if the report does not stipulate that the design complies with the building code, he will issue another order.

A September 28, 2021 email from Inspector 5 to engineer:

*"We have reviewed the revised report and have noted that it failed to comment on whether the design actually complies with the OBC. The report must stipulate that the design complies with the OBC and if not, how does it not comply.*

*If this information is not received by October 1, 2021, a Section 18 order under the OBC Act will be issued."*

**Engineer submits specific report about garage roof only**

The engineer once again did not provide this. He told Inspector 5 to make any further requests to the builder. After further back and forth and more conversations, this time involving a Director and Deputy Chief Building Official for one of the districts at TB, the engineer submitted a new report. This report says that the garage roof changes are designed in accordance with the building code and based on the wood manufacturer's design tables.

Figure 17: New, limited report from the engineer dated September 28, 2021

**Inspection Report**

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Location: [REDACTED] Report No.: 3  
Contractor: [REDACTED] Building Permit No.: [REDACTED]  
Present: N/A Weather: N/A  
Report By: [REDACTED] Date: 30 September 2021

Signature: [REDACTED]

Attachments: revised S1 and S7.

**Distribution:**  
Client: [REDACTED]  
Chief Building Official (by client)  
City inspector (by client)  
Deputy CBO: [REDACTED]

Following your request on September 28th, 2021, I confirm that the rear deck (roof of underground garage) at [REDACTED Address] is designed in compliance with Ontario Building Code specified loads and using engineering principals based on manufacturer's design tables for I Joists. Please refer to revised S1 and S7 sheets for the framing layout of the rear deck.

The report does not state that the entire building is structurally sound and stable, which was what the Order requested. It says:

*“Following your request on September 28<sup>th</sup>, 2021, I confirm that the rear deck (roof of underground garage) at [House 1 address] is designed in compliance with Ontario Building Code specified loads and using engineering principals based on manufacturer’s design tables for I Joists. Please refer to revised S1 and S7 sheets for the framing layout of the rear deck.”*

The Director and DCBO, who received the report about the garage, shown above, thanked the engineer for sending that report. He did not provide any further details as to whether he would now pass the house’s final inspection stages.

Several days after the engineer submitted his September 30, 2021 report, the builder got in touch again with the Director and Deputy Chief Building Official for one of the districts at TB, asking them to close the permits, saying his mortgage company was requesting it.

The builder's October 4, 2021 email says:

*“Hope all is well, can you kindly close the other items that are still open, my mortgage company is requesting it.”*

The builder attached a spreadsheet showing the various outstanding items (below). At this stage – the finishes were being put on the building, yet there was no documentation in the file that the following stages passed:

- Excavation/Shoring
- Structural Framing
- HVAC/Rough-in

The only inspections that had passed were the Footings/Foundation, the Insulation/Vapour Barrier, Drains/Sewers and Plumbing for rough-in stages. The final occupancy inspection had also not taken place.

And the August 20, 2021 Order to Remedy Unsafe Building was still outstanding.

**Figure 18: Figure: Spreadsheet from builder showing outstanding items, items, October 4, 2021**

	A	B	C	D	E	F	G	H	I
1	Permit No.	19 148726							
2	Property:	68 Old Colony Rd., Toronto, ON							
3	Date:	October 4, 2021							
4									
5	Discipline:	BUILDING				Discipline:	PLUMBING		
6	INSPECTION STAGE	STATUS	PASSED ON		INSPECTION STAGE	STATUS	PASSED ON		
7	Excavation/Shoring	Not Passed	July 15, 2019		Sewers/Drains/Sewage System				
8	Footings/Foundations	Passed	July 20, 2020		Water Service				
9	Structural Framing	Not Passed	May 11, 2020		Fire Service				
10	Insulation/Vapour Barrier	Passed	August 18, 2020		Drains/Waste/Vents	Passed	June 9, 2020		
11	Fire Separations				Water Distribution	Passed	June 9, 2020		
12	Fire Protection Systems				Plumbing Final				
13	Exterior Final Inspection				Occupancy				
14	Site Grading Inspection								
15	Occupancy								
16									
17	Discipline:	HVAC				Discipline:	DRAINS		
18	INSPECTION STAGE	STATUS	PASSED ON		INSPECTION STAGE	STATUS	PASSED ON		
19	HVAC/Extraction Rough-In	Not Passed	June 9, 2020		Sewers/Drains/Sewage System	Passed	August 24, 2020		
20	HVAC Final				Water Service	Passed	August 24, 2020		
21	Occupancy				Fire Service				
22					Occupancy				
23	Violations:				Order #:				
24	Order to Remedy Unsafe Building	Not Resolved	August 20, 2021	21 202122 UNS 00 VI					
25									
26									
27									

## **Destructive Fire at House 1**

**House burns down on Oct. 5, 2021**

The next day, on October 5, 2021, the property suffered extensive damage from a fire. Toronto Fire Services (TFS) was notified of the fire at 9:59 pm. According to TFS records, the first truck and crews arrived at the location at 10:05 pm to find thick black smoke and flames coming from the roof of the house. The fire escalated to a third-alarm response and took about four hours to extinguish the majority of the fire.

It is also worth noting that according to the TFS report, there were people working for the builder on the interior of the house on the day of the fire, despite the Order to Remedy Unsafe Building which included an order to stop work immediately.

The house was destroyed. TFS investigators found:

*“The exterior was partially collapsed. The entire roof had collapsed, the entire rear exterior walls on the north side were no longer standing, the majority of the west wall had collapsed, more than half of the east wall had collapsed, and the remaining east wall was unstable. The front (south) wall was standing but unstable. The remaining walls had soot deposits above all windows. The garage doors on the front wall were intact with all glass missing.”*

Figure 19: Photos of the fire from TFS, October 5, 2021



Security camera footage destroyed in fire

TFS determined that the fire started inside the house but couldn't determine anything more specific than that due to the extent of the fire and the damage. There were video cameras on the site for security purposes. That footage may have been helpful in better understanding the origin of the fire, but the video footage was destroyed in the fire.

**Cause of fire “undetermined”**

TFS said that as a result of the extensive damage suffered to the structure, there was no reasonable prospect of determining origin and cause for this fire utilizing scientific methodology. Accordingly, Toronto Fire Services classified this fire as undetermined:

*“Due to the lack of access [to the house because of the damage] and the inability to determine a conclusive area of origin beyond the interior of the building, and the lack of physical evidence that could be safely recovered, Fire Cause for this incident was classified as ‘UNDETERMINED’”.*

**Outstanding Orders closed due to fire**

On October 27, TB inspectors notified the builder that the outstanding Orders on the property were rendered moot and closed due to the fire.

## Appendix 2: Chronology of House 2

On August 10, 2018, a zoning certificate application was submitted. On October 1, 2018, Zoning Building Code Examiner 1 sent a Zoning Notice to the architect indicating that the application is not in compliance with the City Zoning By-laws. Specifically, the proposed floor space and various other dimensions of the house were more than permitted. As such, the architect would need to apply to the Committee of Adjustment for the necessary variances.

It doesn't appear as if much happened for months until February 5, 2019, when the architect contacted Zoning Building Code Examiner 1 about floor area calculations.

There is some back and forth about the floor area – these are required for the zoning review at the local Committee of Adjustment, where the application for the variances was approved with conditions on February 13, 2019.

Later, on May 25, 2019, a demolition application for the property was accepted. After more back and forth about the zoning, Zoning Building Code Examiner 1 issued the zoning certificate on June 11, 2019.

Zoning Building Code Examiner 1 then began the plan review on June 13, 2019 for the New House (NH) Application.

Zoning Building Code Examiner 2 noted that shoring would be required on this property's Excavation/Shoring stage, for which a structural engineer would have to sign off. He entered a code deficiency in IBMS about this:

*“Excavations in clay or good soil that exceed 1.2 meters (4 ft.) in depth are required to be shored or cut back at the top so that the angle of the cut does not exceed 1 vertical for 1 horizontal, and the vertical cut at the bottom, if so designed, not to exceed 1.2 meters*

*Excavation along the east property line exceeds a depth of 2.67 metres. (162.15 - 159.48 USF)*

*Excavation along the west property line exceeds a depth of 2.93 metres. (162.41 - 159.48 USF)*

*Shoring is required along the east and west property lines. Provide confirmation and complete section with detailing.*



**\*\*\*\* Structural engineer to provide updated drawings to address \*\*\*\***

A GRCC is required for the shoring/structural engineer.

[Div. B. 9.4.4. - Foundation Conditions]  
[Div. C. 1.2.1.1. (5) - Angle of Repose]"

The builder/applicant also needed a letter of clearance from Urban Forestry in order to remove a tree on the property.

On June 17, 2019, Zoning Building Code Examiner 2 issued a refusal notice to the applicant (the architect) and the owner, requesting the updated shoring drawings, Commitment to General Review (GRCC) form for the structural engineer, and the letter of clearance from Urban Forestry.

On July 9, 2019, the architect sent Zoning Building Code Examiner 2 the shoring information and said he was still waiting on clearance from Urban Forestry about the tree removal. The next day, he sent the signed GRCC form as requested.

On July 9, 2019 a TB engineer conducted a review of the shoring documents and completed the shoring structural review on July 16, 2019.

**July 24, 2019: New Home Permit issued**

Upon receipt of the letter of clearance from Urban Forestry on July 24, 2019, Zoning Building Code Examiner 2 cleared the permit for issuance.

**July 25, 2019: Demolition Permit issued**

The next day, on July 25, 2019, a Manager, Plan Review issued and approved the demolition permit.

**Footings/Foundation & Excavation/Shoring inspection 1 - not passed**

Several months later, the builder requested a Footings/Foundation inspection on November 18, 2019. On November 21, 2019, Inspector 3 visited the property for an Excavation/Shoring and Footings/Foundation inspections - neither passed because the site was not ready (footings were still in progress).

**Footings/Foundation & Excavation/Shoring inspection 2 - not passed**

Over a month later, the builder requested a Footings/Foundation inspection on January 8, 2020. Inspector 3 visited the property on January 9, 2020 for the Excavation/Shoring and Footings/Foundations inspections. Neither passed.

**Jan 9, 2022 - Request #1 for engineer report on Footings/Foundation & Request #1 for shoring report**

The inspector said several items were missing, including shoring sign-off letters and an engineering review of the footings. He also noted to hold off on all further inspections until the As-Built survey was received.

IBMS comment:

*“Att'd site. Witnessed completed foundations. Discussed outstanding items. Shoring sign off letters, engineering review regarding footing and foundation. Damproofing installed. Could not confirm perimeter as site was snow covered. Photos of elevations required for all damproofing. Hold for further inspections with as built survey and approved drawings to verify construction is proceeding in accordance with the approved plan.”*

**New engineer used for shoring report**

On January 13, 2020, Inspector 3 uploaded an engineering report about the shoring, dated December 11, 2019.

The next day, on January 14, 2020, another engineer for the builder submitted a structural report on the foundation wall, dated December 17, 2019. The report says that the foundation walls were in compliance with the approved permit drawings.

**Demolition inspection 1 - passed**

Several months later, on April 27, 2020, Inspector 7 attended the site for the demolition inspection. He passed it that day.

On June 9, 2020, the project manager emailed Inspector 4 and cc'ed Inspector 3 the As-Built survey for the property, which is a document that is required after the completion of the foundation walls and prior to the commencement of construction of the first-floor walls. The survey is prepared by a qualified surveyor and contains information about the height and location of the project's foundation.

The builder requested a Sewers/Drains inspection on July 23, 2020.

**Drains inspection 1 - not passed**

On July 24, 2020, Inspector 4 visited the property for the Sewers/Drains inspection – the inspector noted that it did not pass because exterior drains and water service connections were pending.

His comment in IBMS:

*Attended site and met drain contractors for inside drain inspection. Ball test conducted and passed on interior drains. BWV installed. Appeared in substantial accordance with permit drawings.*

*Exterior drains and water service connection pending.<>Sewers/Drains/Sewage System*

The builder's staff requested another Sewers/Drains inspection on August 19, 2020.

**Drains inspection #2 - passed**

Inspector 4 returned for the second Drains inspection on August 21, 2020 – this time, the necessary tests it needed to pass the inspection were successful.

On October 6, 2020, the builder requested a Structural Framing inspection.

On October 7, 2020, the builder submitted a revision to the HVAC design.

**Excavation/Shoring – passed  
Footings/Foundation - passed**

On October 7, 2020, Inspector 4 passed the building's Excavation/Shoring and Footings/Foundation stage, noting that he had received the As-Built survey, and that the survey was in accordance with the issued permit plans.

**Structural/Framing Inspection  
#1 – not passed**

On October 9, 2020, Inspector 4 did not pass the Structural/Framing inspection.

**Oct. 9, 2020 – Request # 1 -  
Engineer report for truss  
change, skylight and steel  
beams**

Inspector 4 noted that there were several items missing, which prevented him from passing the Structural Framing inspection:

- Areas of the roof which called for trusses were changed to conventional framing. He asked for an engineer's report to support this change.
- A skylight was enlarged but the plan for the framing changes for it was not provided. He also asked for an engineer's comment on that change.
- Steel beams at the second storey terrace were not labelled on the plans. He also asked for an engineer's comments on that change.

**Plumbing Inspection 2 – passed  
HVAC inspection 1 - passed**

While the Structural Framing did not pass, on the same day, Inspector 4 passed the Plumbing and HVAC stages.

On November 10, 2020, the project manager sent a report from the engineer to Inspector 4- which the inspector had requested for the Structural/Framing stage.

However, this report did not confirm that the floor joists were in compliance with the approved plan. It only confirmed compliance with the layout provided by the framing company.

On the same day (November 10, 2020), Inspector 4 noted that several items were missing from the report. He wrote to the builder that the following was missing:

**Request #2 for specific items in engineer's report**

**Various changes made, not addressed in report like inspector asked**

*"1) Areas of the roof which called for trusses were changed to conventional framing. Please provide plans for changes including engineer report for changes. Alternatively, you may apply for a revision.*

*2) Skylight by the stairs was enlarged and plan for framing changes not provided. Engineer to comment about framing.*

*3) Steel beams at second storey terrace not labeled on plans. Engineer to provide details about steel beams used and connections.*

*Were you able to have the above mentioned addressed?"*

The builder said the first item about the roof framing was already in the engineer's report, and the steel beams are noted in the City-approved permit drawings. The builder followed up and pointed Inspector 4 to where the steel beam size was shown.

In the snapshot of the report below, there is no clear reference to what Inspector 4 requested.

The report, which is dated October 9, 2020, reads:

*“The following items were noted:*

*Scope of inspection: To review overall joists/ layout, LVL size and locations and Truss Layout.*

*Progress of Work: Framing substantially completed. Mechanical work in progress.*

*Observations and comments:*

- *Floor joists were in compliance with framing layout provided by framing company and acceptable.*
- *Top chord of floor joist over breakfast area is cut to install plumbing pipe. Plumbing pipe must be relocated and top chord of joists must be repaired by attaching 18”-2x4 lumber beside it glued and nailed see pictures 1 and 2.*
- *Top plate over exterior walls must be continuous and where it is cut to be repaired by metal strap. See picture 3.*
- *Load bearing studs were bowed in few locations. Contractor was advised to fix them and install blocking where studs are bowed. See pictures 4 and 5.*
- *Solid bearing needs to be added under LVL beam on second floor. See picture 6.*
- *Door of Walk-In Closet of master bedroom is relocated and 4 Ply 1.75” x 11 7/8” beam with span of 11’-6” installed over this area to support floor above and point load from roof beams. We recommend to reduce the span to 11’ by adding solid bearing at the end of the beam in order to meet deflection requirement.*
- *Hand cut roof over front and rear portion was inspected and found to be adequate.”*

On November 4, 2020, the owner’s staff requested an Insulation/Vapour Barrier inspection.

**Insulation/Vapour Barrier inspection #1 – passed**

Inspector 4 went out to the property on November 10, 2020 for the Insulation/Vapour Barrier inspection. It passed, but the inspector noted that several items were still outstanding in order to pass the Structural/Framing stage.

He commented in IBMS:

*“Attended site. Insulation/vapour barrier appeared to be in substantial accordance with issued permit plans. Ceilings, joist pockets and basement walls insulated with 2 lb spray foam. Daily work logs to be provided.*

*Basement walk out being installed not according to plans. Revision to be submitted.*

**Request #3 for structural framing report from engineer**

*Reports remaining for structural framing deficiencies.<>Insulation/Vapour Barrier”*

**Request #1 for revision due to new basement walk-out**

At this inspection, he noted a material change to the basement – it was now a walk-out basement, which was not in accordance with the approved plans. He told the builder to get a revision for this change.

Inspector 4 followed up with the builder a few days later, on November 13, 2020, and asked for an engineer to provide a report about the remaining outstanding items for the structural stage.

He wrote:

*“I would also like to clarify what is remaining to pass the structural framing stage and the insulation stage:*

*Insulation:*

*1) Daily work logs [...] from the spray foam contractor*

*2) The area at the third floor above the second floor coffered ceiling in the master bedroom was not insulated. You may choose to insulate the partition wall or the exterior wall. Please let me know when this is completed so I can take a look.*

**Request #4 for engineer to comment on specific structural items**

*Structural framing:*

*1) Please provide the as built drawings including the engineer letter about the framing changes that took place at the third storey.*

*Please specify the area where the trusses were not used and what type of framing members were used. I do not understand why it would be difficult to provide an as built condition as all of the framing members are exposed. You can clearly identify the framing members and the spacing between them. If you have any questions, feel free to contact me.*

**Request #2 for revision due to walk-out basement**

*2) Please submit a revision for the walk out basement which was not part of the original plans.”*

**Builder provided some, but not all, requested items**

Two weeks later, the builder provided Inspector 4 with the daily work logs but not the rest of outstanding items.

Several months go by, and, on Jan. 27, 2021, changes are sent to Inspector 4 by a different employee from the builder’s company.

**Builder submitted changes that still did not reflect what inspector requested**

Inspector 4 replied that day that the changes still did not adequately reflect what he had requested. He re-iterated what he had requested:

*“Thank you for your email. The following are still pending:*

*1) The drawings for the stairs in the walk out basement.*

*2) The drawings for the roof framing changes at the third floor. The proposed truss system was replaced with conventional framing. There was also a skylight added in that space.*

**Request #5 for engineer to comment on specific structural items**

*When the drawings are completed, please submit for a revision.”*

The new staff person replied two days later with more drawings. Note: the drawings are not stamped by an architect or an engineer, nor were they required to since the house was a Part 9 building.

Revisions again did not meet inspector's requests

Inspector 4 replied that they still did not reflect the changes that he saw, and requested a revision once again:

*"I have reviewed the drawings and they do not fully reflect what I had requested. I apologize as perhaps I was not clear enough.*

*Please also include the following:*

- 1. Please submit a revision for the walk out and include the structural details of the walk out. The drawings you have provided do not provide those details.*

**Request #6 for engineer to comment on specific structural items**

*2) Please provide an as built drawing for the roof framing in any area where the roof framing was changed from the approved drawings. There was one area in particular, where the roof truss system was changed to conventional framing. This area now has windows installed as well as a skylight. Please ensure this is also included.*

**Request to submit revision to TB**

*When the drawings have been drafted, please submit for a revision to Toronto Building."*

**Inspector issues Order to Comply after multiple issues not being complied with, and without receiving requested items for more than 6 months**

It had been more than six months since the first request on these items. On March 25, 2021, Inspector 4 issued an Order to Comply on the property because the changes he requested were still outstanding.

**Request #3 for revision related to walk-out basement**

*"Structural Framing Deficiencies*

- 1. A walk out located at the north west of the basement has been constructed which is not part of the issued permit plans.
  - a. Remedy: Apply for a revision to include the walk out basement by April 08, 2021 and obtain the permit by April 22, 2021. Alternatively, remove all unauthorized construction and complete construction in accordance with permit plans. In the interim, cease all further construction until the necessary revision has been issued.**

- 2. The proposed engineered truss system to be installed at the northwest area of the roof has been changed to conventional framing.*



- a. *Remedy: Apply for a revision which clearly identifies the framing members used in that area of the roof by April 08, 2021 and obtain the permit by April 22, 2021. Alternatively, remove all unauthorized construction and complete construction in accordance with permit plans. In the interim, cease all further construction until the necessary revision has been issued.*
3. *Steel beams were used to frame the covered terrace at the ground level. The framing members were not identified on the drawings.*
  - a. *Remedy: Apply for a revision to include the framing members used to frame the covered terrace by April 08, 2021 and obtain the permit by April 22, 2021. In the interim, cease all further construction until the necessary revision has been issued.*
4. *Contrary to the issued permit plan, windows were added at the west elevation and east elevation of the basement. A door was added at the master bedroom to the flat roof at the second storey. Windows were removed from the east elevation at the ground floor.*
  - a. *Remedy: Apply for a revision to include the addition and removal of windows contrary to the issued permit plans by April 08, 2021 and obtain the permit by April 22, 2021. Alternatively, remove all unauthorized construction and complete construction in accordance with permit plans. In the interim, cease all further construction until the necessary revision has been issued.”*

About a week later, on April 1, 2021, the builder emailed Inspector 4 saying that they applied for a full revision for what he called “all the minor changes.”

**Inspector noted that Order complied with because builder submitted revisions, which were accepted and approved**

In the meantime, Zoning Building Code Examiner 2 reviewed the revised drawings and the permit was issued on June 7, 2021.

A few days later, on June 14, 2021, Inspector 4 indicated that the violation Order he issued in March had been complied with because a revision with the requested changes had been submitted and approved as requested.

**New, senior inspectors visit House 2**

At this point, the CBO directed a senior inspector (Inspector 5, accompanied by Inspector 6) to visit the house for a proactive inspection – this is the same inspector that went to House 1, and he was aware of the allegations with regards to the construction of this house, as well.

**Inspector 5 noted many deficiencies, requested revision**

On November 15, 2021, Inspector 6 noted many deficiencies with House 2 and requested a revision. He emailed the list of deficiencies to the builder:

*“Thank you again for your time today. Please see the list below regarding outstanding deficiencies for HVAC, plumbing and building.*

- 1. Main floor return air openings are undersized*
- 2. HRVs [Heat Recovery Ventilation system] have yet to be installed*
- 3. A revision to HVAC, plumbing and building permits is required to reflect the addition of the third washroom on the 3<sup>rd</sup> storey*
- 4. The supply air openings in the nanny room have not been installed in accordance to the issued permit plans*
- 5. A revision is required for the changes to the roof framing (i.e. changed from truss roof to conventionally framed)*
- 6. A revision is required to reflect the omission of the columns in the basement*

7. *Revision is required to reflect the changes from the reinforced concrete slab to engineered joists*
8. *A permanent solution is required to address the climbability of the interior and exterior guards  
When these matters have been addressed please submit an inspection request and an inspector will contact you to make arrangements for the inspection."*

**Some revisions had already been requested back in March 2021**

One of these changes was the exact same as what the original inspector, Inspector 4, had requested months earlier, in March 2021. That same change was the changes in the roof from trusses to conventional framing

**Garage roof was also changed from concrete to wood – same as House 1**

The rest of the changes were newly spotted. One similarity with House 1 is that the roof over the garage was yet again changed from a concrete slab (which was on the approved permit plans) to engineered wood joists (which was not on the approved plans). As discussed earlier, this is a material change that any builder would know would require a revision.

**Builder said he did not submit revisions because earlier inspectors did not ask him to**

Inspector 5 said that while on site, he asked the builder why he made all these changes without getting a revision. The builder replied that the earlier inspectors did not ask for those revisions.

However, Inspector 5 said that when the original inspector, Inspector 4, checked the framing, the garage roof would have been covered up with drywall already.

**Orders not issued on House 2 because they felt builder was cooperating**

Inspector 5 and the DCBO decided not to issue orders on the property to get the changes done. They felt that the builder, at that point, was motivated to get the inspections passed because he was trying to sell the house imminently. It is relevant to note that this was happening about a month and a half after House 1 was destroyed in a fire.

The builder requested a final Plumbing inspection on November 4, 2021. The builder also requested a Structural Framing inspection on November 4, 2021.

On November 15, 2021, Inspectors 5 and 6 attended the house for two inspections: Drains and Structural Framing.

**Drains inspection #3 – passed**

Inspector 6 conducted the inspection. He noted that the final Drains inspection was ok, and passed it.

**Structural Framing Inspection #2 – not passed**

Inspectors 5 and 6 conducted the Structural Framing inspection. It did not pass.

Inspectors 5 and 6 noted that many items were needed in order to pass the Structural Framing stage:

*“attended with dcbo and manager, met with builder [name redacted] and his architect, [name redacted] to review and resolve outstanding inspection stages. instructed owner to address the following:*

- 1. Main floor return air openings are undersized*
- 2. HRVs have yet to be installed*
- 3. A revision to HVAC, plumbing and building permits is required to reflect the addition of the third washroom on the 3rd storey*
- 4. The supply air openings in the nanny room have not been installed in accordance to the issued permit plans*
- 5. A revision is required for the changes to the roof framing (ie changed from truss roof to conventionally framed)*
- 6. A revision is required to reflect the omission of the columns in the basement*
- 7. Revision is required to reflect the changes from a the reinforced concrete slab to engineered joists*
- 8. A permanent solution is required to address the climbability of the interior and exterior guards*

*The owner was instructed to request another inspection when these matters have been resolved*

*<>Structural Framing”*

On November 16, 2021, the builder submitted a revision which was reviewed and approved one day later. Subsequently, the builder also provided Inspectors 5 and 6 with multiple reports for the occupancy inspection.

The builder requested an Exterior Final Inspection on November 18, 2021. And he requested an Insulation/Vapour Barrier inspection on November 24, 2021.

On November 24, Inspectors 5 and 6 went back to the property for an occupancy inspection.

### Structural inspection #3 - Failed

Inspector 6 noted that for occupancy, the following deficiencies still had to be corrected:

#### *“Occupancy*

1. *garage self-closer to be adjusted*
2. *climbable guards on second floor balcony*
3. *garage gas proofing not completed*
4. *stairwell lighting not according to OBC*
5. *revision required for changes to roof framing*
6. *review and acceptance of all reports required prior to occupancy”*

On November 25, 2021, the builder submitted a revision to include changes to roof framing as requested by the inspector.

### HVAC #2, Plumbing #4, Structural Framing #4 inspections - passed

On the same day and the following day, the remaining HVAC, final Plumbing and Structural Framing inspections were passed.

There was one remaining issue with the railings on the staircase in the house – they were not at the appropriate sizes in order to prevent a potential safety issue. Inspector 5 issued a letter to the purchaser and said the house passed the occupancy permit provided that any changes to the railings will require a building permit.

Figure 20: Stairwell railings



Inspector 5’s letter is shown in the figure below.

## Figure 21: TB Letter to purchaser regarding handrails at House 2

November 26, 2021

Purchaser: [REDACTED]

Dear purchaser,

**Re: Interior Stair Guardrails/Handrails & 2<sup>nd</sup> Floor Balcony Guard**

I am writing to inform you that the above building elements have been modified by the builder to comply with the approved permit drawings and sentence 9.8.8.6.(1) of the Ontario Building Code. The modifications were done at the request of Toronto Building to prevent small children from climbing over the top. Any future modifications will require a building permit.

**Toronto Building will not be responsible for any unauthorized changes to the guardrails/handrails.**

Please contact me directly if you have any questions.

Thank you, \_\_\_\_\_

**Permit closed on Nov. 26, 2021**

After this letter was placed on the file, the permit was closed, and the occupancy permit was issued.

## Appendix 3: Background

<b>The <i>Building Code Act</i> governs construction in Ontario</b>	The <a href="#">Building Code Act</a> (the Act) governs construction activities in Ontario. The <a href="#">Ontario Building Code</a> (the Code) is a regulation under the Act. It establishes detailed technical standards for any building being constructed, demolished or where the use is changed <sup>10</sup> . The Act outlines the roles of various stakeholders who are involved when a building is constructed.
<b>City Council is responsible for enforcement of the Act</b>	The council of each municipality is responsible for the enforcement of the <i>BCA</i> in their municipality. Council appoints a Chief Building Official (CBO) and inspectors to enforce the Act. The legislation prescribes the qualifications for these positions. In Toronto, the CBO is the Executive Director for Toronto Building Division (TB or the Division).
<b>Act lists roles</b>	The Act lists the roles of various persons who cause a building to be constructed <sup>11</sup> , including designers, builders, manufacturers, building owners, the CBO, and inspectors. <sup>12</sup>
<b>Role of Chief Building Official</b>	The Act specifies that the role of the Chief Building Official <sup>13</sup> is to: <ul style="list-style-type: none"><li><i>(a) to establish operational policies for the enforcement of this Act and the building code within the applicable jurisdiction;</i></li><li><i>(b) to co-ordinate and oversee the <b>enforcement</b> of this Act and the building code within the applicable jurisdiction;</i></li><li><i>(c) to exercise powers and perform the other duties assigned to him or her under this Act and the building code; and</i></li><li><i>(d) to exercise powers and perform duties in an independent manner and in accordance with the standards established by the applicable code of conduct.</i></li></ul>
<b>Role of inspector</b>	The Act provides that inspectors are: <ul style="list-style-type: none"><li><i>(a) to exercise powers and perform duties under this Act and the building code in connection with reviewing plans, inspecting construction, conducting maintenance inspections and issuing orders in accordance with this Act and the building code;</i></li></ul>

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<sup>10</sup> Not all building changes require permits. "Building" is defined in the Act. A permit is only required when constructing a "building" as defined or materially altering a "building". Also, a permit is only required for changes of use that result in an increase in hazard as defined in the OBC.

<sup>11</sup> [SO 1992, c 23 | Building Code Act, 1992 | CanLII](#)

<sup>12</sup> S(1.1) It is the role of every person who causes a building to be constructed to do in accordance with this Act and the building code and with any permit issued under this Act for the building. They are to ensure that construction does not proceed unless a permit required under the Act has been issued by the Chief Building Official. They are to ensure that construction is carried out only by persons with the qualifications and insurance, if any, required by this Act and the building code.

<sup>13</sup> S(6)

- (b) to exercise powers and perform duties in respect of only those matters for which he or she has the qualifications required by this Act and the building code; and
- (c) to exercise powers and perform duties in an independent manner and in accordance with the standards established by the applicable code of conduct. 2002, c. 9, s. 3; 2006, c. 22, s. 112 (2); 2017, c. 34, Sched. 2, s. 2 (3).

**Role of builder**

The Act provides that the role of a builder is:

- (a) to ensure that construction does not proceed unless any permit required under this Act has been issued by the chief building official;
- (b) **to construct the building in accordance with the permit;**
- (c) to use appropriate building techniques to achieve compliance with this Act and the building code; and
- (d) when site conditions affect compliance with the building code, to notify the designer and an inspector or the registered code agency, as appropriate. 2002, c. 9, s. 3.

**Role of building owner**

The Act says building owners are:

- (a) to ensure that the building or part of the building is maintained, repaired and evaluated in accordance with this Act and the building code; and
- (b) to ensure documents, records and other information about the building are kept and provided in accordance with this Act and the building code. 2017, c. 34, Sched. 2, s. 2 (1).

**Role of designer**

The Act specifies the role of a designer as follows:

- (a) if the designer's designs are to be submitted in support of an application for a permit under this Act, to provide designs which are in accordance with this Act and the building code and to provide documentation that is sufficiently detailed to permit the design to be assessed for compliance with this Act and the building code and to allow a builder to carry out the work in accordance with the design, this Act and the building code;
- (b) to perform the role described in clause (a) in respect of only those matters for which the designer has the qualifications, if any, required by this Act and the building code; and
- (c) if the building code requires that all or part of the design or construction of a building be under general review, to perform the general review in respect of only those matters for which the designer has the qualifications, if any, required by this Act and the building code.



**Building Permits are a key control for construction activity**

Anyone who wants to demolish, newly construct, materially alter or change the use of a building as defined in the Code requires a building permit. And only material alterations to an existing building, as defined in the Code, require a permit. Not every change of use requires a permit – only those that result in an increase in hazard.

The CBO reviews each application and approves the issuance of a building permit based on the plans for the construction being compliant with all applicable law and after receiving payment of all fees.

After a building permit is issued, builders are required to notify the CBO at prescribed stages of the construction process.

**Inspections must be completed within 2 days after receipt of notice**

The Code requires that inspections be undertaken within two days after receipt of the inspection notice. The two-day timeframe starts the day after the day on which the notice is given.

The inspector performs the inspection to ensure that the construction is progressing in accordance with the issued permit drawings and the Code. An inspector may request third-party professional reports if deemed necessary for the purposes of carrying out an inspection.

**IBMS and RCS support inspection operations**

Together with some other City divisions, TB uses the Integrated Business Management System (IBMS) as its core technology platform to track workflow, including scheduling inspections and documenting the results. Inspectors are also equipped with mobile devices and the RCS application to complete inspection documentation remotely during visits to construction sites.

**System automatically assigns inspections to inspectors based on geography**

Each inspector is assigned to a geographic area in which they are responsible for the inspection work under their specialty. When a building permit is issued, IBMS automatically adds it to inspectors' to-do list based on the geographic location of the property and the type of construction.

**Builders must request mandatory inspections when construction work is ready**

Builders are required to contact TB to request an inspection when the construction work is ready for inspection at each prescribed stage of inspection. Builders can submit the request through an online portal, which will be automatically transmitted into IBMS and added to the inspector's to-do list. In practice, builders often contact inspectors directly to request an inspection – in those cases, inspectors need to manually enter the request into IBMS.

**There is no customized Inspection Checklist**

When doing inspections for new houses or buildings, inspectors use a standard checklist in IBMS that prescribes inspection stages, regardless of the complexity of the project. Inspectors can modify the checklist by classifying a listed inspection stage as "Not Applicable" or adding an extra inspection stage.

**Inspectors are required to record inspection activity in IBMS**

Inspectors are required to document the scope of inspection, contact, observations and conclusions for each inspection attempt in IBMS. They can complete the entry either through their mobile device (RCS application) on site, or directly into IBMS after the site visit. Photos, any reports, and other attachments can be uploaded into IBMS as supporting evidence.

**Inspectors rely on their professional judgment to conclude inspections**

Divisional policies allow for inspections to be completed and concluded using a sampling method but do not provide a formal guideline on when and how to apply the sampling method. Therefore, inspectors rely on their professional judgment when using this method.

**Builders need to correct deficiencies identified in inspections**

If an inspector finds a contravention of the Act or the Building Code, this may result in the inspector issuing an order. An inspector must first create a deficiency in IBMS before they can issue an order. Inspectors may communicate the deficiencies verbally as an advisement or in writing by email. The builder is given the opportunity to remedy the deficiency. Serious deficiencies that are not addressed may require a formal Order to Comply to get the desired compliance.

Inspectors are expected to document deficiencies in the deficiencies tab in IBMS. We recognize it is not reasonable for an inspector to catch every deficiency or Code violation.

**No time limit for correcting a deficiency, unless an order is written with a comply date**

There is no time limit for correcting a deficiency, unless an order is written on the deficiency with a compliance date. Inspectors follow up on deficiencies when builders notify them that the deficiencies have been corrected or during subsequently scheduled inspections. If an order was issued, it appears on inspectors' to-do list until they follow up and confirm that the builder has resolved it.

**Building permit can only be closed when all applicable inspection stages are passed**

Multiple attempts may be required to pass an inspection stage. An inspector can also review components across different inspection stages during one inspection visit. Once all applicable inspection stages listed on the Inspection Checklist are passed, inspectors can close the building permit.

Inspectors are expected to document deficiencies in either the Comment field or the Deficiency tab in IBMS, depending on the significance of the issues. A building permit should not be closed until all deficiencies are corrected.

**An audit on building inspection activities was done in 2013**

In December 2013, the Auditor General's Office conducted an audit of the efficiency and effectiveness of inspection services provided by Toronto Building, and issued a report titled "*Toronto Building – Improving the Quality of Building Inspections*". In this report, the Auditor General made 11 recommendations, and management agreed with all of them. In January 2022, Management said the Division had fully implemented 10 recommendations and is in progress of implementing the 11<sup>th</sup>, which relates to quality assurance. However, the Auditor General's Office determined through its recent

performance audit of TB that Recommendation 7 (which relates to documentation standards and inspection records) has not yet been fully implemented.

**Types of Orders  
Authorized under the  
BCA**

Inspectors may issue specific orders as authorized under the Building Code Act in respect of construction of the building in the appropriate circumstances which include, but are not limited to:

**S.12 Order (Order to Comply)** – where non-compliance with the *Building Code Act* or *Ontario Building Code* is found and wherein the inspector sets out the required action to bring about compliance;

**S. 13 (1) Order (e.g. Order not to Cover)**– an Order to not cover or enclose any part of a building pending inspection;

**S. 13 (6) Order (e.g. Order to Uncover Work)** – an Order, which can only be issued by the CBO or DCBO, to uncover construction in specific delineated circumstances (including, but not limited to, where construction has been covered prior to calling for an inspection); and

**S. 14 Order (e.g. Stop Work Order)** – an Order, which can only be issued by the CBO or DCBO, to stop work. Such an Order may only be issued where there has been non-compliance with a previously issued s. 12 or s. 13 Order.

**Appendix 4: Management's Response to the Auditor General's Report Entitled: "Investigation into Allegations of Wrongdoing Regarding Building Inspections of 2 Houses"**

**Recommendation 1: City Council request the Chief Building Official and Executive Director, Toronto Building Division, to consider developing and implementing a risk-based approach to its processes, including inspections, and assignment of more experienced staff to higher-risk projects.**

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:
The Division agrees with this recommendation.
The Division, in consultation with the City Solicitor, will develop and implement risk-based procedures for its processes, including inspections, and staff assignment of more experienced staff to higher-risk projects.
In 2019, the Chief Building Official (CBO) initiated a division-wide Program Review to improve service delivery. This work has resulted in a new operating model and supporting organizational structure, which is currently being implemented. As part of this work, the division will onboard supervisory positions which will oversee and support inspection staff in the field for higher-risk projects. This new operating model along with this audit recommendation, will further enhance the Division's inspection processes.
Projected timeframe for full implementation Q4 2023/Q2 2026

**Recommendation 2: City Council request the Chief Building Official and Executive Director, Toronto Building Division, to enhance and strengthen building code and enforcement training for both plan review and inspection staff, including key aspects that must be reviewed when a firewall is included as part of the building design and construction.**

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:
The Division agrees with this recommendation.
The Division will develop and deliver the required training and will work with its new Workforce Planning and Development team to establish this as part of the Division's on-going training program. The Division will also develop guidelines to assist examiners and inspectors in applying best practices in the review and inspection of key requirements related to firewalls.
Projected timeframe for implementation: Q4 2023

**Recommendation 3: City Council request the Chief Building Official and Executive Director, Toronto Building Division, to implement controls, including training and supervisory oversight, to ensure that:**

- a. inspectors pass inspection stages in order; and
- b. when exceptions are required to passing inspections in order and are approved by a supervisor, clearly document the reasons for moving on to subsequent inspection stages.

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  The Division agrees with this recommendation.  The Division will review and update its existing policy for inspection standards and will establish training for all inspection staff to address this recommendation.  Through the implementation of the Division’s Program Review, new inspection supervisory positions will be onboarded to provide oversight of inspection processes in the field to ensure that inspectors pass inspection stages in order, and where exceptions are made, that decisions are clearly documented in IBMS.  Projected timeframe for implementation Q4 - 2023

**Recommendation 4: City Council request the Chief Building Official and Executive Director, Toronto Building Division, to provide training and supervisory oversight for inspectors on when to set a time limit on requested reports from professionals, as well as reasonable expected time limits.**

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  The Division agrees with this recommendation.  The Division will review and strengthen existing policy for inspection standards to include this audit recommendation, along with the development and delivery of additional training for inspection staff.  Through the implementation of the Division’s Program Review, new inspection supervisory positions will be onboarded to provide inspection staff with mentoring and supervisory oversight of inspection processes in the field.  Projected timeframe for implementation Q4- 2023

**Recommendation 5: City Council request the Chief Technology Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to ensure that any necessary enhancements to system functionality and data fields are implemented to support better tracking of deficiencies, and also allow for builders/permit holders to access the status of their inspections, including any deficiencies that must be fixed before being passed to the next stage.**

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  <p>The Division agrees with this recommendation.</p> <p>The Division will work with the Chief Technology Officer to achieve the results of this recommendation.</p> <p>Estimated timeline: Q2 2026</p>

**Recommendation 6: City Council request the Chief Building Official and Executive Director, Toronto Building Division, to implement policies, procedures and training to ensure:**

- a. inspectors retain all relevant plans and drawings for a project on file;
- b. inspectors clearly document which plans they used for their inspection work; and
- c. inspectors use the City-approved plans for their inspection work, and if also using other plans such as engineered wood drawings from a manufacturer, that they match them to the City-approved plans.

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan/Time Frame:  <p>The Division agrees with this recommendation.</p> <p>The Division will review and strengthen the existing policy for inspection standards and related policies to include this audit recommendation, along with establishing training for all inspection staff.</p> <p>Through the implementation of the Division’s Program Review, new inspection supervisory positions will be onboarded to provide inspection staff with mentoring and supervisory oversight of inspection processes in the field.</p> <p>Projected timeframe for implementation Q4- 2023</p>

## Appendix 5: Recommendations from the Audit Report Entitled, “Building Better Outcomes: Audit of Toronto Building’s Inspection Function”

Audit Report Recommendation	Page
1. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to develop and implement a risk-based strategy for periodically reviewing open building permits without a recent request for an inspection and determining what follow-up action is warranted in order to assess the current status of construction and to enforce the Building Code Act and Building Code.	29
2. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to: <ul style="list-style-type: none"> <li>a. strengthen processes and provide additional training to ensure staff are consistently following the Division’s operational policies and procedures for recording, numbering, and tracking deficiencies for re-inspection.</li> <li>b. strengthen existing policies to address expectations for improved record keeping of how deficiencies and requests for reports are communicated.</li> </ul>	32
3. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to enhance monitoring and oversight of identified deficiencies by: <ul style="list-style-type: none"> <li>a. implementing periodic reviews of open deficiencies to identify where further follow-up and enforcement action may be required to ensure timely and proper resolution.</li> <li>b. analyzing deficiency data for trends where targeted education of permit holders and industry may be useful.</li> </ul>	34
4. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to develop and implement additional training, operational guidance and/or criteria to assist inspection staff with deciding what tools to use, including issuing orders, to help bring about compliance with the Building Code Act and Building Code.	36
5. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to review open orders and expedite the implementation of the 2021 “Enforcement Policy for Issued Orders” for orders determined to be higher risk or higher priority.	42
6. City Council request the Chief Technology Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to ensure that any necessary enhancements to system functionality and data fields are implemented to support: <ul style="list-style-type: none"> <li>a. effective tracking of enforcement workflows and actions taken to follow up on open orders.</li> <li>b. effective monitoring and oversight of the status of open orders.</li> </ul>	43

<p>7. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to review the responsibilities of the Division’s Dedicated Enforcement Unit and the Unit’s role in enforcing orders and ensuring violations and other matters are promptly and properly addressed.</p>	<p>44</p>
<p>8. City Council request the Chief Building Official and Executive Director, Toronto Building Division, in consultation with the City Solicitor, to develop and implement operational guidance or criteria to assist inspection staff with deciding whether a permit holder should be charged with an offence or an administrative penalty if the person fails to comply with an order, direction or other requirements made under the Building Code Act.</p>	<p>46</p>
<p>9. City Council request the Chief Technology Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to ensure that any necessary enhancements to system functionality and data fields are implemented to improve the reliability of data used to determine compliance with the legislated timeframes for prescribed inspections.</p>	<p>37</p>
<p>10. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to provide additional direction to inspectors to properly record all inspections requests (including on-site requests or requests received by phone) and reasons for rescheduling or cancelling inspections, in order to allow for better tracking and monitoring of whether inspections are promptly carried out in compliance with legislated time frames.</p>	<p>37</p>
<p>11. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to:</p> <ul style="list-style-type: none"> <li>a. strengthen processes to ensure staff are consistently following the Division’s operational policies for documenting activities performed during an inspection.</li> <li>b. strengthen existing policies to address expectations for improved record-keeping of inspection process steps for each construction component related to each stage of construction specified in Toronto Building’s “Field Inspection Service Levels” that are not passed and/or need to be completed.</li> </ul>	<p>54</p>
<p>12. City Council request the Chief Technology Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to ensure that any necessary enhancements to system functionality and data fields are implemented to support inspectors’ ability to efficiently document inspection process steps not passed and still to be (re-)inspected for each construction component related to each stage of construction specified in Toronto Building’s “Field Inspection Service Levels”.</p>	<p>55</p>
<p>13. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to review Toronto Building’s operational policies for inspections and, where relevant:</p> <ul style="list-style-type: none"> <li>a. clarify what must be reviewed and documented when the inspector is placing full or partial reliance on general review or other reports.</li> <li>b. provide guidance on when an order may be warranted when requested reports are not received in a reasonable timeframe.</li> </ul>	<p>59</p>



<p>14. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to discuss with the Ontario Association of Architects (OAA), Professional Engineers of Ontario (PEO), and other relevant industry stakeholders who provide guidelines to their own members on general review and other reports, how these reports can better address the needs of the City’s Chief Building Official and building inspectors.</p>	59
<p>15. City Council request the Chief Technology Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to ensure that any necessary enhancements to system functionality and data fields are implemented to track open requests for reports from third-party professionals.</p>	60
<p>16. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to strengthen supervision, monitoring and quality assurance processes over inspection activities by:</p> <ul style="list-style-type: none"> <li>a. implementing on-site observation of the quality of inspections.</li> <li>b. expanding the scope of internal inspection audits to cover an entire building permit file rather than a few inspection attempts.</li> <li>c. increasing the number of inspections and building permit files a manager reviews for a given inspector, when areas for improvement are observed during their internal inspection audit.</li> <li>d. providing timely and constructive feedback to inspectors about areas to correct or improve when performing inspections.</li> <li>e. summarizing and analyzing results from quality assurance reviews to identify trends or themes that indicate more guidance, training, and supervision of inspectors may be warranted.</li> </ul>	63
<p>17. City Council request the Chief Building Official and Executive Director, Toronto Building Division, to:</p> <ul style="list-style-type: none"> <li>a. continue educating staff on the importance of adhering to the Toronto Public Service bylaw, divisional Code of Conduct including the Conflict of Interest policy, and common examples of how independence can be impaired.</li> <li>b. consider how system data can be leveraged or analyzed to enhance monitoring of potential conflicts of interest and impairment to independence of building inspectors.</li> </ul>	65
<p>18. City Council request the Chief Technology Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to ensure that any necessary enhancements to system functionality and data fields are implemented to support more effective monitoring of potential conflicts of interest and impairment to independence of building inspectors.</p>	65
<p>19. City Council request the Chief People Officer, in consultation with the Chief Building Official and Executive Director, Toronto Building Division, to expedite a strategy for</p>	67

<p>recruiting and retaining building inspectors and address workload challenges arising from planned and unplanned absences so that sufficient inspectors are available to carry out prescribed inspections within legislated time frames, as well as follow-up on higher risk open building permits and orders.</p>	
<p>20. City Council request the Chief Building Official and Executive Director, Toronto Building Division, in consultation with the Chief Technology Officer, to ensure that any necessary enhancements to existing system functionality or modern technology solution are implemented to:</p> <ul style="list-style-type: none"> <li>a. improve workflow management, tracking, record-keeping, and monitoring of inspection processes.</li> <li>b. support Toronto Building’s ability to collect and analyze data to develop targeted approaches to improving inspection efficiency, effectiveness, and economy.</li> </ul>	<p>72</p>

**AUDITOR  
GENERAL**  

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**TORONTO**

