

## **Laneway Suites: Fire Access Requirements**

**Date:** September 8, 2020

**To:** Planning and Housing Committee

**From:** Chief Building Official and Executive Director, Toronto Building

**Wards:** All

### **SUMMARY**

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This report responds to direction from the Planning and Housing Committee on July 13, 2020, which requested that the Chief Building Official and Executive Director, Toronto Building in collaboration with the Fire Chief and General Manager, Toronto Fire Services, and the Chief Planner and Executive Director, City Planning, explore and develop further opportunities for building designers to achieve compliance with the fire department access requirements for Laneway Suites.

Following City Council's decision to allow Laneway Suites across the city in 2019, Toronto Building worked with Toronto Fire Services to develop options and tools to assist homeowners in meeting Building Code requirements for fire access during the building permit stage. While the 2012 Ontario Building Code does not provide specific dimensional requirements for fire department access, Toronto Fire Services requires a level, unobstructed exterior path for firefighters no longer than 45 metres in length, with minimum dimensions of 1.0 metre-wide by 2.1 metres-high.

In cases where it is not possible to provide the minimum 1.0 metre-wide path of travel for firefighting access on the subject property, the City developed an option for property owners, where this required width may be shared with a neighbouring property, provided both owners enter into a Limiting Distance Agreement, or through the lane provided the path of travel is not more than 45 metres in length. Despite these additional options, some applicants proposing Laneway Suites still had difficulties meeting the fire access requirements. Following the implementation of these additional options and tools, the City continued to consider alternate approaches to emergency access based on experiences with applications for Laneway Suites and comments from the building industry. A Building Code Commission decision on this matter in 2019 was also helpful in informing the consideration of how to develop additional compliance options for designers and property owners.

This report summarizes how Toronto Building, in consultation with Toronto Fire Services, has responded to a new housing option and has developed innovative approaches to support the construction of Laneway Suites.

The review of fire department access requirements and the challenges these requirements create was carried out with support from a Building Code Consultant having expertise in fire protection engineering. The Consultant identified acceptable measures that may allow an increase in the maximum permitted travel distance from a Laneway Suite entry to a fire apparatus on a public street to more than 45 metres. The Chief Building Official and Executive Director, Toronto Building and the Fire Chief and General Manager, Toronto Fire Services agree with the approach recommended by the Consultant and are working to share these options in more detail with the public.

Toronto Fire Services has also reviewed the current 1.0 metre-wide unobstructed path of travel requirement and is establishing a new standard of 0.9 metres (and allowing for building protrusions such as hydro and gas meters into this required path of travel). The new requirement of 0.9 metres is the minimum width that will permit firefighters to respond effectively and efficiently to an emergency. This minimum width is consistent with the typical residential side yard setback required in the Zoning By-law.

This review process conducted by City staff illustrates an opportunity for Toronto Building to continue to develop alternative solutions to Building Code challenges in order to support other City strategic objectives, including the provision of a diverse range of housing opportunities. As a next step, this report recommends that the Chief Building Official and Executive Director, Toronto Building undertake a review of Code-related requirements for multi-tenant houses and other forms of additional units in accessory buildings in order to identify generic alternative solutions that all property owners and designers can use to more easily meet Code requirements.

This report has been written in consultation with the Fire Chief and General Manager, Toronto Fire Services, Chief Planner and Executive Director, City Planning, and the Executive Director, Housing Secretariat.

## **RECOMMENDATIONS**

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The Chief Building Official and Executive Director, Toronto Building recommends that:

1. City Council request that the Chief Building Official and Executive Director, Toronto Building, in consultation with the Fire Chief and General Manager, Toronto Fire Services develop a publicly accessible guide detailing acceptable options along with mitigating measures to achieve compliance with the Ontario Building Code for fire access to Laneway Suites where the travel distance to the building from a fire apparatus on an access route exceeds a travel distance of 45 metres.
2. City Council request that the Chief Building Official and Executive Director, Toronto Building request that the Ministry of Municipal Affairs and Housing amend the Ontario Building Code to provide clarity for designers and homeowners by providing a broader range of fire access options to comply with the Ontario Building Code requirements that apply to Laneway Suites.

3. City Council request that the Chief Building Official and Executive Director, Toronto Building, in consultation with the Fire Chief and General Manager, Toronto Fire Services work to facilitate the design and construction of other housing forms, in support of the City's housing strategy by:

a. Hiring a Building Code Consultant for technical consulting services to recommend options to achieve compliance with the Ontario Building Code for multi-tenant houses and other forms of additional units in accessory buildings; and,

b. Working in partnership with the Executive Director, Municipal Licensing and Standards; the Chief Planner and Executive Director, City Planning, and the Executive Director, Housing Secretariat, to incorporate the alternative options for compliance into the proposed regulatory framework for Multi-tenant Houses and "Expanding Housing Options in Neighbourhoods".

## **FINANCIAL IMPACT**

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The Chief Building Official and Executive Director, Toronto Building has confirmed that the anticipated costs associated with the recommendation to hire a Building Code consultant for technical services have been provided for in the Toronto Building 2020 operating budget.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact statement.

## **DECISION HISTORY**

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On June 26, 2018, City Council adopted Official Plan and Zoning By-law Amendments to permit Laneway Suites, subject to a range of criteria, within the Toronto and East York area of the city.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.TE33.3>

On July 16, 2019, City Council adopted Official Plan and Zoning By-law Amendments to expand the permission for Laneway Suites to the entire city.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.PH7.1>

At its meeting of July 13, 2020, the Planning and Housing Committee requested that the Chief Building Official and Executive Director, Toronto Building, in collaboration with the Fire Chief and General Manager, Toronto Fire Services; and the Chief Planner and Executive Director, City Planning explore and develop further opportunities for building designers to achieve compliance with the fire department access requirements for Laneway Suites and report back, with recommendations, to the September 17th, 2020 meeting of the Planning and Housing Committee.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.PH15.7>

## COMMENTS

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### **"Changing Lanes": Toronto's Laneway Suites Initiative**

In 2017, the City undertook an analysis and consultation to develop criteria for the construction of Laneway Suites through the “Changing Lanes” initiative. In 2018, Toronto City Council approved amendments to the City's Official Plan and Zoning By-law to permit Laneway Suites in the Toronto and East York District, subject to a number of criteria.

Laneway Suites are separate, self-contained housing units, typically located in the rear yard of a residential lot with access to a public lane. They are subordinate in scale, completely detached from the main house, and may have outdoor access via both the side yard of the main house, and the lane. They are intended as rental units, should not be severed from the main property, are subordinate to the principal house, and are permitted as-of-right, though they may not be possible on all lots with a lane. In 2019, the Laneway Suite permissions were expanded city-wide.

As of August 31, 2020, the City has received 264 preliminary zoning review applications – which is the first step in the process, before submitting for a building permit. The City has also issued 88 building permits for the construction of Laneway Suites. There are another 24 building permits currently under review.

### **Laneway Suite Design: Meeting Fire Access Requirements**

The Official Plan and Zoning By-law amendments to allow Laneway Suites are intended to be flexible in order to allow for a variety of designs and sizes. The width of side yard setbacks for existing homes, and the depth of the lots, however, have proven to be a challenge for some homeowners in designing their laneway projects to meet the City's fire access requirements required at the building permit stage.

The requirements for emergency access requirements for a Laneway Suite are governed by the Ontario Building Code Act, the Ontario Building Code and applicable law.

The Ontario Building Code is an objective-based code. Objective-based codes include objective and intent statements for each prescriptive Code requirement. This allows designers the option to develop other alternative solutions to specific Code requirements provided the solution can successfully demonstrate that the overall objectives and intent of the Code are being met.

While the Code uniformly applies across the province, Ontario's urban areas are diverse in their built form and present distinct local emergency response challenges as the capabilities of individual fire services also vary across the province. In order to address this reality, the Code infers that the Chief Building Official will consult with the Fire Chief on certain fire safety requirements and collaboratively they will develop local

requirements in order to meet both operational needs of their fire service while at the same time meet the safety objectives of the Building Code.

## **Toronto Fire Services Requirements: Clear Path of Travel**

The Toronto Fire Services' requirement for clear path of travel outside of a building is such an example of an operational requirement developed by emergency services. In the case of Laneway Suites, these requirements are based on the following two key Ontario Building Code requirements:

- access for fire department equipment is required to be provided to each building by means of a street, private roadway or yard.
- where access to a building is provided by means of a roadway or yard, the design and location of such roadway or yard must take into account connection with public thoroughfares, weight of firefighting equipment, width of roadway, radius of curves, overhead clearance, location of fire hydrants, location of fire department connections and vehicular parking.

The Ontario Building Code does not provide specific dimensional requirements for fire department access paths between detached homes from the street to the entrance of a laneway suite. However, in the ordinary course, Toronto Fire Services requires:

- a level, unobstructed exterior path for the movement of firefighters with minimum dimensions of 1.0 metre-wide x 2.1 metres-high, and
- a maximum travel distance of 45 metres measured from the fire apparatus located on a public street to the entrance of the laneway suite, where the fire apparatus is within 45 metres of a fire hydrant.

## **Meeting Emergency Access Requirements**

When Laneway Suites were first permitted in mid-2018, staff identified that emergency access was to be provided entirely on the subject property from the street fronting the main house, or via a public lane from a flanking street, provided the length of the path of travel is never more than 45 metres, in all cases. It was generally thought that the access could most commonly be provided via:

- a 1.0 metre-wide pedestrian pathway in the side yard having a minimum one-storey height on a residential lot,
- a combination of side yards shared on abutting lots where appropriate easements have been secured, or
- via a public laneway.

## **Sharing the Path of Travel for Fire Access**

Providing a minimum 1.0 metre-wide unobstructed path of travel for firefighting and emergency access proved challenging in instances where houses had a limited side yard width, or none at all, in the case of an interior townhouse. In response, Toronto Building, Toronto Fire Services and Legal Services developed the option for property owners to meet the minimum width for the path of travel by entering into a Limiting

Distance Agreement with the adjacent property owner. The Limiting Distance Agreement establishes that the adjacent property owner agrees to share part of their property with the homeowner building the Laneway Suite for fire department access. Toronto Building has developed an on-line guide to assist with the process and implemented a notification protocol with Toronto Fire Services.

### **Alternative Solutions**

Where fire access to a Laneway Suite was proposed in a manner that did not correspond to the common access routes noted above, the 2018 report to City Council identified that homeowners would be able to propose an "alternative solution" under the Ontario Building Code.

Alternative solutions are a tool whereby a permit applicant proposes to use a different solution to a Building Code requirement while still meeting the objectives of the Code. Toronto Building has a process whereby applicants propose an alternative solution for review. Toronto Building then makes a determination as to whether the proposal meets the objectives set out in the Ontario Building Code and is comparable to the prescriptive requirements.

Alternative solutions can be a valuable tool where an innovative building design may present challenges for achieving Code compliance through a prescriptive path. In the case of Laneway Suites, requiring an alternative solution in each instance where one of the three common access routes is not present has proven to be problematic, costly and time consuming for both applicants and the City alike. The development of alternative solutions by Toronto Building for specific Code challenges can reduce costs and simplify the permit process for both applicants and building officials. It also introduces a layer of transparency by clarifying the City's expectations while providing Building Code options to designers and property owners early in the design process.

### **Building Code Commission Decision**

Experiences with early applications for Laneway Suites and comments from the building industry, were helping the City identify the need for additional Code compliance options and tools for permit applicants. A Building Code Commission decision on this matter in 2019 was also helpful in informing Toronto Building's consideration of how to develop these options for permit applicants. This was intended to facilitate the development of Laneway Suites while also ensuring that firefighter access was being provided for in their design.

The Ontario Building Code Commission is an independent tribunal established under the Building Code Act to resolve technical disputes related to interpretation and compliance under the Ontario Building Code.

In 2019, an application was made to the Building Code Commission by a permit applicant in Toronto who was proposing an alternative solution for the construction of their laneway project. The application was made to the Commission, as Toronto Building had not issued a permit for the Laneway Suite with proposed access of a 1.0

metre-wide exterior path having a travel distance of approximately 73 metres from the closest point in the street (compared to the required 45 metres under the City requirements). The applicant had proposed additional mitigating measures to account for the increased travel distance, including sprinkler protection and fire-rated exterior walls with non-combustible cladding.

The Building Code Commission ruled in favour of the permit applicant and determined that in the Commission's opinion, the mitigating measures met the objectives of the Code and directed that a permit be issued.

### **Recommended Compliance Alternatives**

Building Code Commission decisions are site specific in nature and cannot be submitted under the Code as a solution for other projects. The Building Code Commission decision, therefore, further supported the need for Toronto Building to develop generic alternative solutions to meet the fire department access requirements in the design and construction of Laneway Suites.

Toronto Building, in consultation with Toronto Fire Services, engaged the services of a Building Code consultant with expertise in fire protection engineering to review the requirements pertaining to the construction of Laneway Suites in the City of Toronto. The objective was to identify measures or options that could be utilized to increase the minimum travel distance from a Laneway Suite entry to a fire truck on a public street or lane to more than 45 metres, effectively increasing the overall number of lots in the City which could accommodate the construction of a Laneway Suite. The consultant was also asked to evaluate the Building Code Commission's decision to determine if it met the objectives of the Ontario Building Code.

The consultant completed their work and provided options along with mitigating features that could be incorporated into the construction of a Laneway Suite building to address instances where the travel distance from fire department apparatus to the building exceeds 45 metres. The consultant also concluded that the decision of the Building Code Commission met the objectives of the Ontario Building Code.

The consultant proposed that the distance from the fire department apparatus to the Laneway Suite be permitted to extend up to 90 metres, where the fire department apparatus is within 45 metres of a fire hydrant provided additional mitigating features have been incorporated into the building as described in this report. There are two proposed options to offset the additional response time associated with connecting an additional hose line, as follows:

#### **Option 1: provide active protection via an automatic sprinkler system with visual indication of the suite via an exterior strobe on the laneway side.**

This option incorporates an automatic sprinkler system within the building to mitigate the risk associated with increased firefighter travel distance to the laneway and potential delayed fire department response. These systems have proven to be capable of controlling or suppressing fires in their early stages. The result is that firefighters have additional time to respond to and extinguish a growing fire compared to a non-

sprinklered building while providing additional time for occupants to evacuate the Laneway Suite.

Both Options 1 and 2 (below) also include the introduction of a strobe light on the laneway side of the suite to assist firefighters in quickly identifying the location of the fire. This is important due to other obstructions in the lane which may impact the ability of the firefighters to locate the appropriate suite.

**Option 2: provide passive protection via increased spatial separation and exposure protection measures with visual indication of the suite via an exterior strobe on the laneway side.**

A second option to address the risk associated with a potential delayed fire department response due to the increased travel distance to a Laneway Suite is to add passive type fire protection to contain the fire in the suite. This would mean, for example, increased fire protection on the exterior walls, limiting openings and cladding building faces with non-combustible materials under certain conditions.

As with Option 1, Option 2 includes the provision of an exterior strobe to assist in locating the incident building.

The Chief Building Official and Executive Director, Toronto Building and Fire Chief and General Manager, Toronto Fire Services are in agreement that the consultant's proposals should form the basis of a generic alternative solution for permit applicants in the City of Toronto for the design and construction of Laneway Suite buildings. Toronto Building, in consultation with Toronto Fire Services, is now working expeditiously to develop a publicly accessible guide detailing acceptable options and/or mitigating measures to achieve compliance with the Ontario Building Code for emergency access to Laneway Suites where the travel distance to the building from a fire department apparatus on an access route exceeds a travel distance of 45 metres.

**Amending Requirement for an Unobstructed 1.0 Metre Path of Travel**

Some designers and property owners have identified that it is challenging to meet the Toronto Fire Services' requirement of a 1.0 metre-wide unobstructed path of travel between houses. They have commented that despite expanded options and tools to meet Code compliance, the 1.0 metre requirement and an unobstructed, clear path of travel may still exclude properties that would otherwise support a Laneway Suite.

Toronto Fire Services has advised that it has reviewed this requirement, and will now be reducing this width to 0.9 metres and permitting limited existing protrusions (such as gas and hydro meters) from the side of dwellings. Fire suppression activities involve firefighters wearing cumbersome and bulky personal protective equipment carrying and using hose lines and large manual and automatic tools and 0.9 metres is the minimum width that should be permitted to permit firefighters to allow effective and efficient firefighting operations. This measurement also corresponds with the typically required residential side yard setback in the Zoning By-law and is intended to further support the development of Laneway Suites in the city.



## **Amendments to the Ontario Building Code**

The City of Toronto's recent experience identified that in order to facilitate the development of Laneway Suites, there is a need to broaden the way in which designers can meet the intent and objectives of the Ontario Building Code.

Recognizing that it is important to work with other orders of government, this report proposes that the Chief Building Official and Executive Director, Toronto Building request that the Ministry of Municipal Affairs and Housing amend the Ontario Building Code with regard to fire access to Laneway Suites and identify how these changes would support the construction of housing identified in both Ontario's Housing Supply Action Plan and the HousingTO 2020-30 Action Plan. Ontario's Plan speaks to the economic benefits of construction, including the need to "clarify rules and help people understand how to take advantage of creative solutions".

## **Impact of the Generic Alternative Solution on Laneway Suites Construction**

Approximately 47,000 residential lots in the City of Toronto abut a public laneway and are zoned to permit a Laneway Suite. However, due to a number of factors including lot size and where the principal house is located on the property, not all of these lots can meet the By-law and Building Code criteria to create a Laneway Suite. A challenge in the construction of Laneway Suites is the ability to meet the criteria for emergency access. The changes to the emergency access requirements for Laneway Suites detailed in this report will create more opportunities for laneway suite construction by increasing the overall number of properties in the city which may construct a laneway suite.

## **Conclusion and Next Steps**

Since the initial Official Plan and Zoning By-law changes to permit Laneway Suites in 2018, Toronto Building and Toronto Fire Services have incrementally expanded the tools and options available to meet emergency access requirements and facilitate Laneway Suite design and construction. Prompted by the 2019 Building Code Commission decision directing the Chief Building Official to issue a permit for the construction of a Laneway Suite, Toronto Building and Toronto Fire Services completed a Code analysis with a Building Code consultant. The Divisions are now moving expeditiously to share these acceptable approaches with the public.

The experience with Laneway Suites has identified the benefit of Toronto Building developing generic alternative solutions, so that designers, builders, and the public have additional options for Code compliance. By making these generic options available it eliminates the need for property owners to hire a designer to develop an alternative solution and pay an additional fee to Toronto Building for its review. In turn, this helps to build efficiency, clarity and transparency into the permit process and reduce costs. It further prevents instances where applicants and the City must rely on the Building Code Commission to determine technical interpretations of the Code. The current experience with COVID-19 has also reinforced the important role of the construction and renovation

industries in the economic health of the city. The proposed generic, acceptable solutions, are also an additional tool to facilitate and expedite the permit process.

Multi-unit houses and other low-rise building forms (e.g., coach houses), like Laneway Suites, have the potential to further increase the City's rental stock and provide a greater range of housing options. However, like Laneway Suites, there is also a lack of clarity on the applicable Code requirements and how they can be achieved through alternative approaches. In order to support the proposed regulatory framework for Multi-Tenant Housing and the "Expanding Housing Options in Neighbourhoods" initiative, it is recommended that the Chief Building Official and Executive Director, Toronto Building undertake similar work with a third-party Code consultant to support these initiatives and assist with the design and construction of other housing forms. The results of the analysis would be shared with the public and in partnership with the lead City Divisions incorporated into the City's housing-focused strategies

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## **SIGNATURE**

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