

TAKE A LOOK INSIDE

CMY RENOVATIONS

Structural Solutions

Removing load-bearing walls can transform a home by creating open, functional living spaces that feel larger, brighter, and more connected. When done properly with engineered beams and structural support, it enhances both the flow and long-term value of the home.

www.cmyrenovations.ca





What does it include? Services

LOAD-BEARING WALL OPENINGS (ENGINEERED AND PERMITTED) (2 - 5 DAYS)

***HVAC and plumbing are done separately

INCLUDES:

- Floor Protection
- Temporary Shoring/wal support
- Demolition and removal of load bearing wall
- Installation of new beam
- Clean up and garbage removal

Types of Structural Openings

When planning a renovation, there are several ways to approach a structural opening:

Full Wall Removal (Open Concept): This is the most popular option, especially in kitchens and main floors. It creates a seamless flow between spaces and significantly improves natural light.

Partial Wall Removal: A half-wall or large pass-through opening can provide openness while maintaining some separation.

Widened Openings: Expanding an existing doorway or archway is a cost-effective way to improve layout without full structural removal.





Why Structural Work Requires a Professional Contractor

Load-bearing wall removal is not a DIY project. It involves structural risk, code compliance, and precise installation.

Working with an experienced contractor ensures the following:

- Proper engineering and permits
- Safe load transfer and support
- Clean, professional finish
- Reduced risk of costly issues

At CMY Renovations, we manage the entire process, from planning and permits to final finishing, so you can move forward with confidence.

Will Removing a Wall Increase Home Value?

Yes, removing a load-bearing wall to create an open-concept layout is one of the most valuable upgrades you can make. This is especially impactful in older homes with closed-off floor plans.

Benefits include:

- Improved flow and functionality
- Increased natural light
- Modernized layout
- Stronger resale appeal in the GTA market





Materials Used for Structural Supporting

The right material depends on span, load, and design goals.

LVL Beams (Engineered Wood)

- Common in residential homes
- Strong and cost-effective
- Ideal for most standard openings

Steel Beams

- Used for larger spans or heavier loads
- Allows for slimmer profiles
- Often required in basement renovations

Support Posts

Posts (wood or steel) transfer the load to the foundation and are critical to the system's performance.

All structural components must be properly sized and installed according to engineering specifications.

BUILDING PERMIT

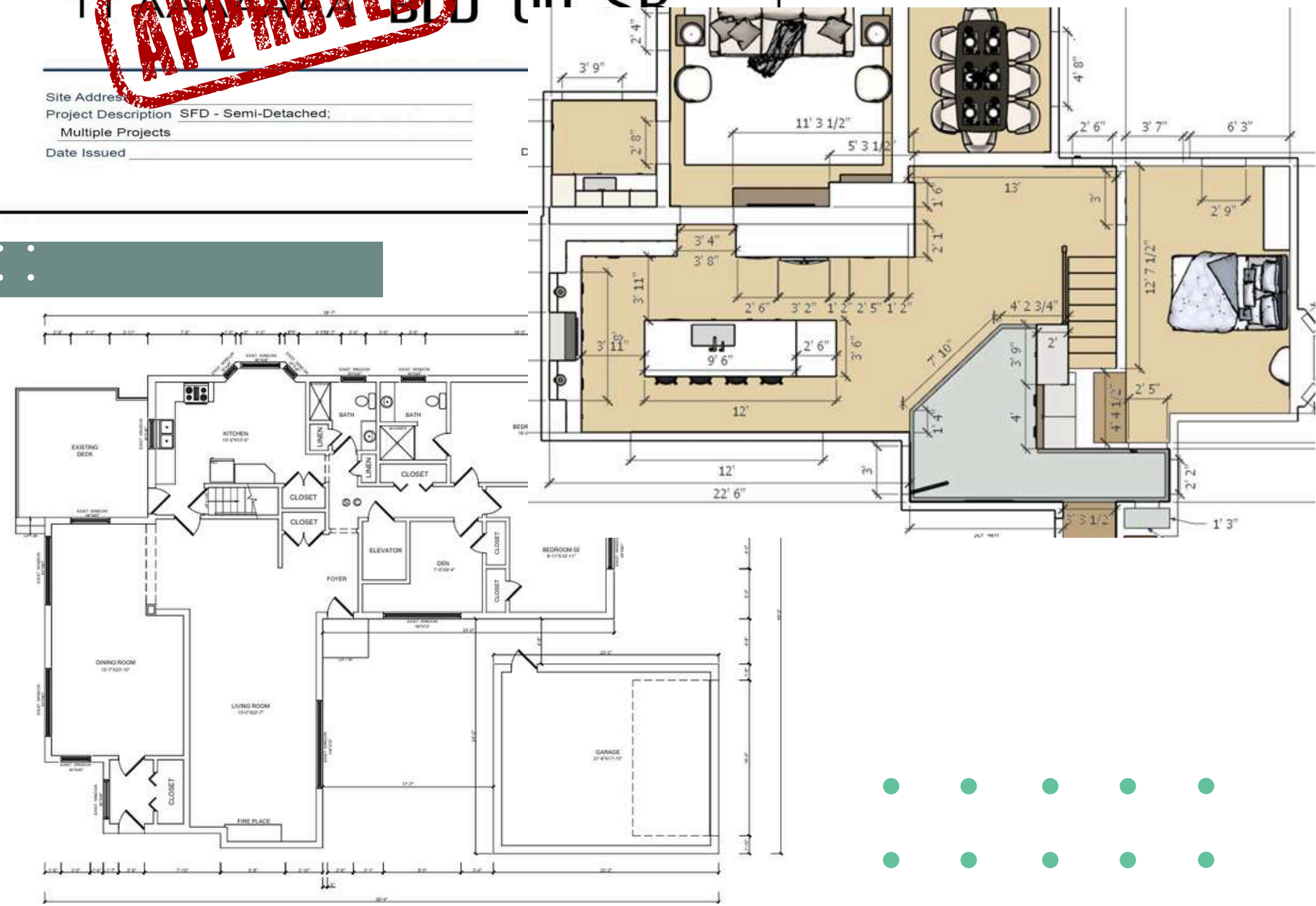
This card must be kept posted in a conspicuous place on site of construction.

1 APPROVED BID ON CD



Site Address _____
Project Description SFD - Semi-Detached;
Multiple Projects _____
Date Issued _____

Do You Need a Permit to Remove a Wall in Ontario?



Yes, if the wall is load-bearing, a building permit is required.

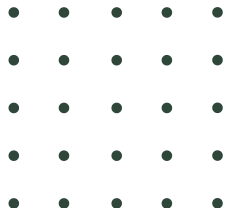
In Ontario, permits ensure that:

- Structural modifications meet Ontario Building Code requirements
- Proper load calculations are completed
- Inspections are carried out at key stages

For most projects, you will also need engineered drawings stamped by a structural engineer before work can begin.

At CMY Renovations, we handle the entire permit process on your behalf, ensuring everything is approved and built to code

Timeline for Load-Bearing Wall Removal



A common concern is how long the process takes. Typical Timeline in the GTA:

- Engineering & Permits: 1–3 weeks
- Structural Work (Beam Install): 1–3 days
- Framing & Drywall: 3–7 days
- Full Finishing: 1–3 weeks

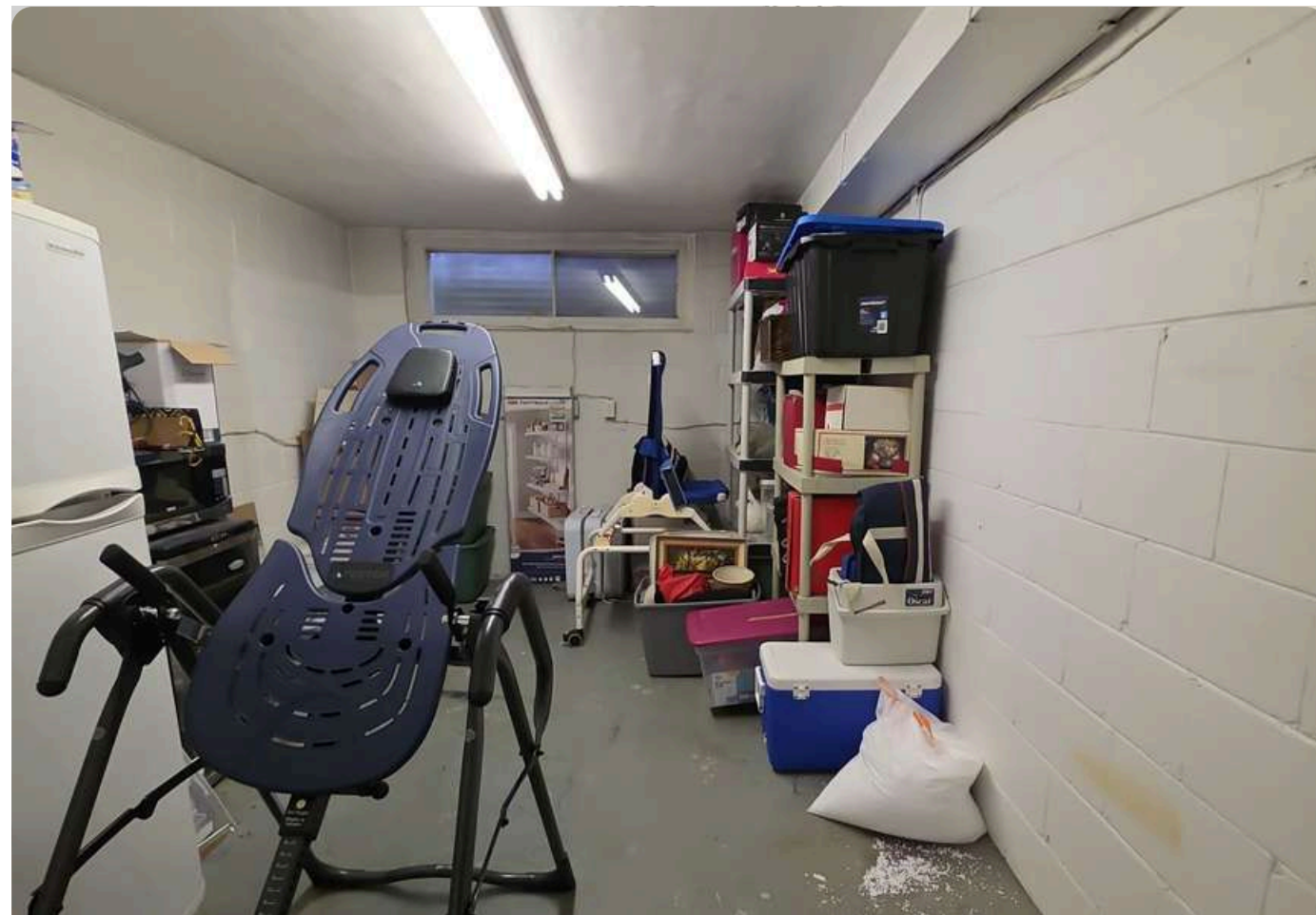
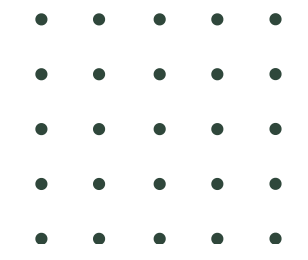
While the structural work itself is relatively quick, the overall project timeline depends on finishing details and the scope of renovation.

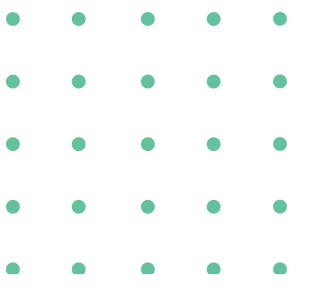




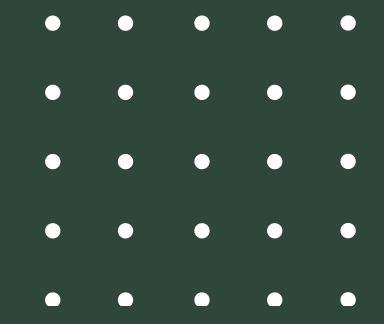
BEFORE AND AFTER

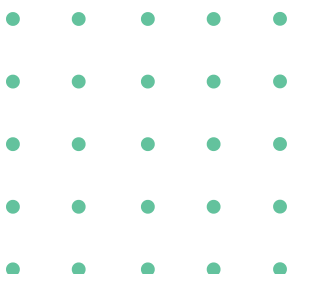
What a difference a wall makes, until it's gone. Removing a load-bearing wall completely transforms the space, turning closed-off rooms into a bright, open, and connected home. Same footprint, entirely new feel. Removing load bearing walls allows for more flexible design options, giving homeowners the freedom to create layouts that better suit modern living.



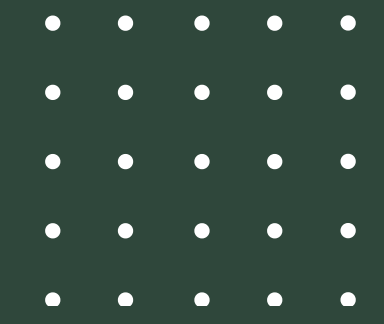
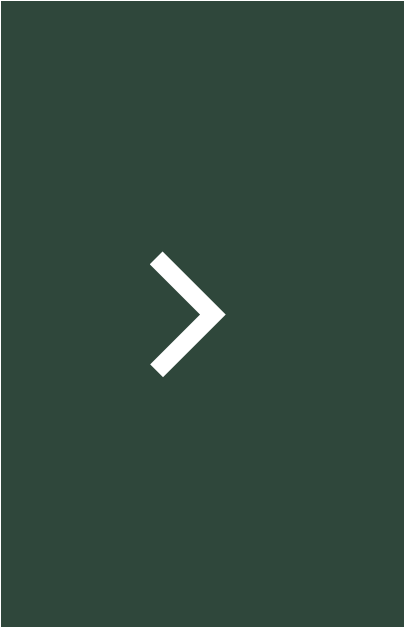


BEFORE AND AFTER





BEFORE AND AFTER



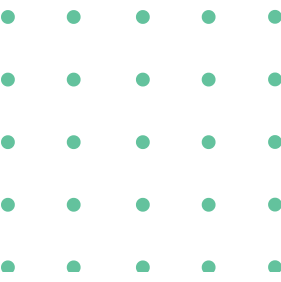


BEFORE AND AFTER

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Structural Beams FAQs



When is it possible to install a flush mount beam?

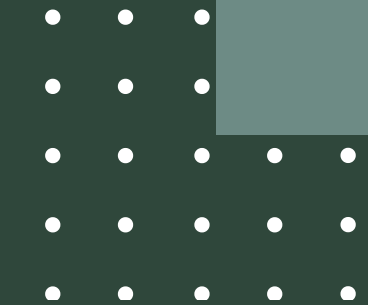
A flush mount beam is possible in most situations where there are no major obstructions, such as HVAC ductwork, plumbing, or significant electrical, running through the joist space above the load-bearing wall. When the cavity is clear, the beam can be installed within the ceiling for a seamless, flush finish.

When is it not possible?

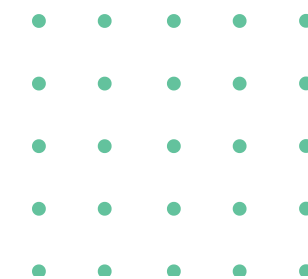
A flush mount beam may not be feasible when relocating mechanical systems like plumbing, HVAC, or electrical is not practical or cost-effective. It is also typically not possible when the load-bearing wall is adjacent to a cathedral or two-storey ceiling, where there is no joist space available to accommodate the beam.

When is a T-connection possible?

A T-connection is possible in most cases and is commonly used when removing intersecting load-bearing walls. It allows one beam to transfer its load into another beam, especially in situations where a column is being eliminated, creating a more open and unobstructed space.



Structural Beams FAQs



When is a T-connection not possible?

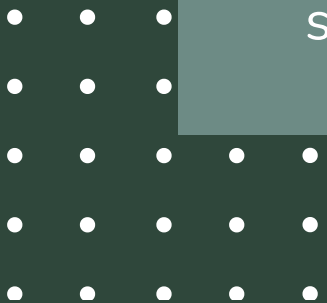
A T-connection can be challenging when there are existing parallel steel or wood beams running straight from the front to the back of the home. In these cases, tying into the structure becomes more complex. While it may still be possible, it requires a detailed on-site assessment by both the engineer and contractor to determine the best approach.

Why is an undermount beam the easiest installation?

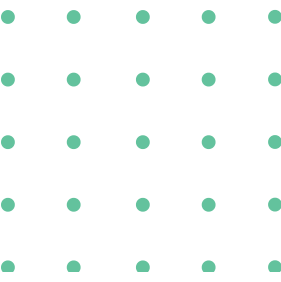
Undermount beam installations are typically the most straightforward because they do not require cutting into existing floor joists. This means we can often avoid major modifications to plumbing, HVAC, or electrical systems within the joist cavities. It also eliminates the need for installing joist hangers, making the process more efficient and less invasive.

Will my ceilings always be damaged, and why?

Some temporary ceiling removal is required to complete the work. The extent of damage depends on the type of beam installation, flush mount beams usually require more extensive ceiling access, while undermount beams typically involve only minor drywall removal. In all cases, this is cosmetic and temporary, with no impact on the structural integrity of the home.



Structural Beams FAQs



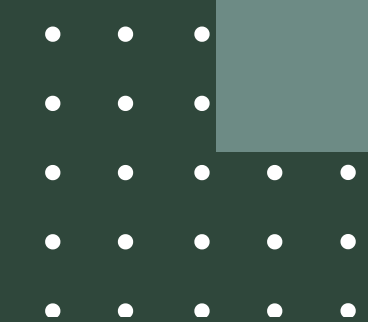
Will there be any deflection in the house structure?

There may be a very slight amount of deflection within the beam itself, which is fully accounted for in the engineering design. This movement is minimal and not visible within the overall house structure.

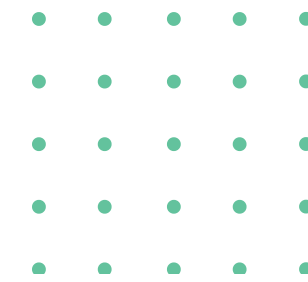
What if I have stucco or popcorn ceilings and want a structural opening?

When stucco or popcorn ceilings are involved, the process becomes more complex, as these finishes cannot be seamlessly matched. If a load-bearing wall is being removed, we advise that the ceiling finish and any plaster mouldings may need to be removed and replaced. This typically involves refinishing the ceiling to a smooth, flat surface and installing new mouldings or trim for a clean, cohesive look.

It's also important to check whether the stucco ceiling has been painted, especially with spray paint, as this can make removal significantly more difficult, and in some cases, not feasible. In those situations, applying a full plaster coat over the existing stucco may be required to achieve a smooth finish.



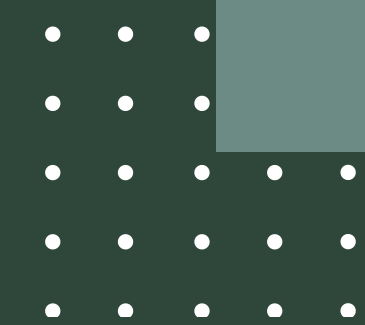
Structural Beams FAQs



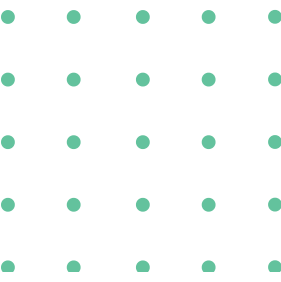
If the wall does not line up perfectly, can I still open the wall?

If the load-bearing wall on the ground floor or top floor does not align with a load-bearing wall or support in the basement or lower level, for example, the beam in the basement is not directly underneath the load-bearing wall on the ground floor, it is still possible to remove the wall using a couple of options.

1. We might have to install a transfer beam within the floor system to transfer the load from the wall or column to the beam and then to the side foundation walls. In most cases, if we are removing or redoing the flooring in the house, this option is preferred.
2. We can also install a continuous column going straight from the main floor down to the basement, with new footings added if required as per engineering. This helps avoid major work on the main floor, however it may result in minor damage in the basement if it is finished. In some cases, new footings may also be required on the basement concrete floor depending on the engineering design.



Structural Beams FAQs



When do I need footings in the basement?

As explained above, in cases where there is no column and the wall does not align with the beam, a new footing is required.

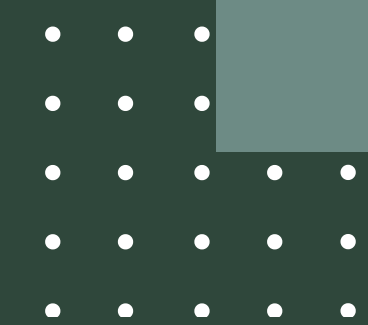
Secondly, if the existing footing is not sufficient or is not engineered to carry the new load being transferred to it, a new footing may be recommended by the engineer.

Lastly, if a column is landing on a beam and the beam itself is not designed to carry the additional load being placed on it, then a new column in the basement along with a new footing may be required as per engineering.

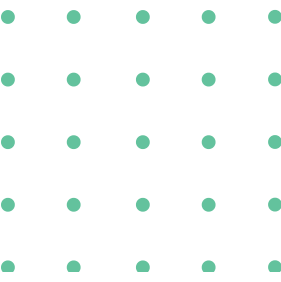
What is the size of the beam?

Beam size varies based on the home's structure, age, number of storeys, and the loads it must carry. It is determined by a structural engineer using calculations for dead load, live load, and snow load. Every renovation is different, so beam sizing must be engineered specifically for each project.

continued...



Structural Beams FAQs



Although there is a general rule of thumb that the beam depth often relates to the span, for example, a 10-foot opening may typically require an LVL beam around 10 inches in height. If steel is used, it is often approximately 2 inches shallower, so an 8-inch steel beam may be used for a similar span. This is only a guideline and not an exact measurement, and final sizing must always be confirmed by an engineer.

If I don't install a column, does the beam increase in size?

As explained above, if the clear span increases, the beam size will also increase. For example, if the span increases from 10 feet to 20 feet, the beam depth will need to increase significantly.

When a column is added, the span is reduced, and the beam size can be reduced accordingly.

Do my roof trusses and roof design have implications on a structural opening on all floors below?

Yes. Roof trusses and roof design do have a direct impact on structural openings on all floors below. If a wall opening is located directly under a roof truss bearing point or connection, the roof loads, including snow load, must be accounted for and transferred safely through the structure. This can affect the sizing and design of beams, columns, and any supporting elements below.

For this reason, the roof structure is always considered when designing any structural opening in the floors beneath it.



Contact us

CALL US: 647-767-9475

EMAIL US: INFO@CMYRENOVATIONS.CA

VISIT US ONLINE: WWW.CMYRENOVATIONS.CA

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THANK YOU

For your attention

Your home is a story in motion, where every detail, texture, and color reflects who you are. Renovation is design in action. It is not just about beauty, it's about creating a space that nurtures, inspires, and welcomes those you love. When thoughtfully designed, every corner has a purpose, every surface a meaning, and every room becomes a place where memories are made

LET'S BUILD SOMETHING YOU'LL LOVE



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