

STEEL BUILT

COLD-FORMED STEEL FRAMING

Where Steel Meets Smart Effort.

Steel Frames, Built Before the Site Starts.

Pre-built cold-formed steel framing packages
for builders, developers and project owners.

We turn steel coil into accurate C-profiles, wall frames,
truss or whole packages before site work begins.

Planned in the office. Built in the factory. Assembled
on site.

Coil
roll-formed

Profile
cut & punched

Frame Package
ready for site



Mid-Rise / Mixed-Use Steel Framing

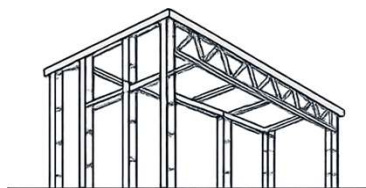


Multi-Storey CFS Construction



Residential Steel Frame Concept

One system.
Many building types.
Pre-planned. Manufactured. Ready.



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Cold-formed steel - How?

Flat coil becomes a C-section.

The machine does not melt or weld the steel. Rollers slowly bend galvanized sheet steel into the desired profile the structure.

The result is a repeatable member: web, flange, lip and thickness controlled before site.

From Coil to C-Section

This page shows the actual logic: coil enters roll-forming, rollers shape it and the final C-section becomes the building block of the framing package.

01 Roll-forming concept

Roll Forming Process



Steel strip feeds through staged rollers.

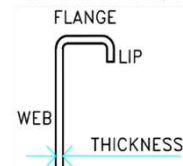
02 Real forming rollers



The actual rollers control the final shape.

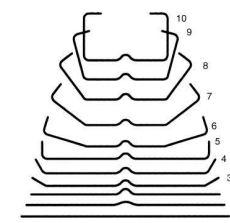
03 C-section anatomy

Cold-Formed Steel C Shape



A cold-formed steel (CFS) stud has three parts: a web, flange and lip. Thickness is given in mils.
Web, flange, lip and thickness define the member.

04 Profile variation



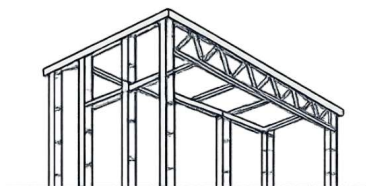
Different profiles suit different framing needs.

TAKEAWAY

C-sections are the basic building blocks of cold-formed steel framing.

They are used to make wall panels, floor joists, roof members, trusses, tracks and other framing parts.

Source basis: BuildSteel CFS 101 explains that sheet steel is roll-formed at room temperature into studs, track, joists and other shapes; CFS members use web, flange, lip and mil thickness.



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The delivery story.

Factory-built frames. Site-fixed structure.

The goal is simple: reduce loose work on site and deliver a framing package the crew can follow.

The builder sees a cleaner sequence: fewer loose parts, clearer labels and less searching on site.

How the frame moves from factory to site

After the product is defined, the frame follows a controlled path: assemble, label, transport and fix on site from drawings.



1. Factory assembly

Members become wall frames on tables or work zones.



2. Bundle + transport

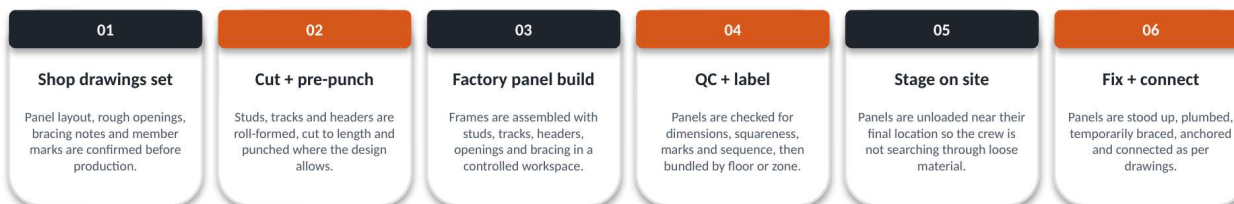
Panels are strapped, sequenced and loaded for delivery.



3. Stand + fix on site

Panels are placed, braced, anchored and connected.

The controlled sequence a builder can understand



Customer takeaway: the site receives a planned frame package, not a pile of unknown pieces.

Source basis: BuildSteel panelization guidance, AISC CFS Primer and AISI S230. Final delivery method varies by project.



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BUILDER PLANNING | CAPACITY

Production basis

How much structure can we make?

Use this for early planning only. Final schedule comes after drawings, takeoff, coil readiness and manufacturing-file review.

Not a site installation rate.

Daily production capacity

Approximate shop output after approved drawings, modelling and manufacturing files are ready.

100–150 m²/day

Framed structure area manufactured per working day

≈ 1,075–1,615 sq.ft/day

500–750 m²/week

Approximate 5 working-day shop output

≈ 5,380–8,070 sq.ft/week

1

500 m² project

Planning basis: about 4–6 shop working days after release to production.

2

1,000 m² project

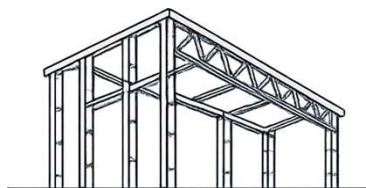
Planning basis: about 7–10 shop working days after release to production.

3

Output changes with

Wall/truss mix, openings, gauges, panelization level, revisions, QC and crew setup.

Builder answer: “For early planning, our shop basis is about 100–150 m²/day of framed structure, subject to design complexity and final manufacturing review.”



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The question every customer asks first.

Why choose steel when wood already works?

Because today's site has tighter labour, tighter timelines and more trade coordination pressure.

Steel helps when the project needs a frame that is predictable, coordinated and ready to follow.

The value is fewer site surprises

A customer does not buy steel because it sounds modern. They buy it when it reduces field cutting, trade clashes, fire-risk concerns and schedule pressure.

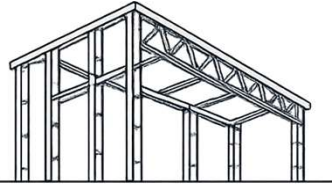
Steel Built answer: reduce the unknowns before site work gets busy.

Fire. Weight. MEP/HVAC. Schedule. Quality. All planned before installation.

01	02	03	04	05
Fire / Insurance	Weight	MEP / HVAC	Schedule	Quality
Non-combustible steel can support fire-risk and insurance discussions. Final premiums depend on the insurer and project.	Light-gauge framing reduces material weight and can help with handling, logistics and structural planning.	Service holes and routes can be planned before manufacturing, reducing field drilling and last-minute trade fights.	More work happens off site: modelling, cutting, punching, bundling and labelling can support a cleaner install sequence.	Steel does not warp, shrink or split like wood. Straight members make follow-on trades easier to coordinate.

The strongest selling point is not "steel." It is fewer expensive surprises during framing.

Fire rating, insurance, engineering and MEP/HVAC outcomes must be reviewed project by project.



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The comparison that matters.

Site-built wood vs pre-planned steel

Wood is familiar. Steel becomes convincing when the customer sees what moves off the job site.

Less field cutting. Cleaner trade planning. A frame package built to follow drawings.

Wood keeps more work on site. Steel moves work upstream.

The decision becomes clearer when the site workload is compared side by side.



WOOD: the site becomes the workshop

Material

Loose stock, sorting and offcuts stay on site.

Trades

MEP/HVAC routes are often solved during framing.

Labour

More result depends on field measuring and cutting.

Control

Late conflicts are discovered when crews are already working.



STEEL: the site receives the package

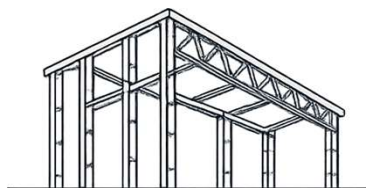
Profiles arrive cut, punched and labelled.

Service paths can be coordinated before production.

More result comes from accurate modelling and planned sequence.

Conflicts can be caught before delivery and manufacturing.

If the project needs fewer site decisions, steel starts making sense.



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The cost.

Steel may not always be the cheapest line item.

But steel can be the better project cost when time, waste, fire risk, labour pressure and trade coordination are counted.

That is the real comparison: not material price only, but total framing impact.

Cost comparison: wood frame vs pre-built steel frame

Wood range comes from Ontario framing-cost articles. Steel range is an early-budget estimate informed by BuildSteel/SFIA case studies, prefab cost studies and typical CFS premiums in the Canadian market.

2,000 sq.ft example

Installed framing range, material + labour

Wood

\$22k–\$60k

CFS / LGSF

\$34k–\$64k

Article basis: Wood \$11–\$30/sq.ft installed. Steel early-budget estimate: \$17–\$32/sq.ft installed.
Use this for budgeting only. Final quotes depend on drawings, gauge, panelization, labour and location.

Where steel can recover the higher upfront line item

Time

Prefab/off-site work can reduce schedule by about 20–50%.
Faster handover can reduce site overhead and carrying costs.

Waste

Wood site waste is often around 10–15%.
CFS is often closer to 2–5%, which can recover roughly 5–10% of package value.

Fire / insurance

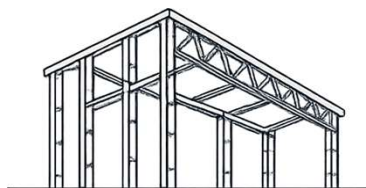
CFS is non-combustible, so fire risk is lower.
Insurance savings vary by insurer, but this can help builders-risk cost and risk review.

Labour

Panelized, labelled framing can reduce site framing labour by about 10–20% on well-planned jobs.
It also helps MEP/HVAC coordination and reduces site cutting.

Realistic message: steel may cost more upfront, but schedule, waste, labour and fire-risk savings can close part of the gap.

Sources: Ontario framing-cost articles for wood range. Steel range informed by BuildSteel/SFIA case studies, McKinsey prefab analysis, CSSBI/CISC and AISI S230. Budget only.



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The risk.

Insurance is not only a paper cost.

For a builder, insurance affects lender comfort, construction risk, project budget and sometimes whether enough coverage is available.

The material choice becomes part of the risk conversation.

Why insurance matters in a framing decision

Simple explanation using Canadian market signals. This is not a guaranteed premium quote.

1 Builder's Risk

Insurance during construction. It protects the project while the building is exposed to fire, theft, water, wind and site losses.

2 Why wood is watched

Canadian insurance material says wood-frame projects can face high premiums, limited capacity and restrictive warranties.

3 Why non-combustible helps

CFS is non-combustible. That does not guarantee savings, but it gives the broker a stronger risk story to present.

Canadian numbers a builder can understand

1-4%

Common Canadian broker estimate for course-of-construction / builder's risk as a share of total construction cost.

\$0.053

Average wood-frame builder's risk rate per \$100 per month in a Canadian mid-rise study.

\$0.008

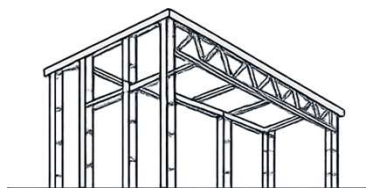
Average concrete / non-combustible benchmark rate per \$100 per month in the same study.

\$10M vs \$150M

Canadian underwriting example: frame project capacity listed at \$10M, non-combustible/fire-resistive at \$150M.

Builder takeaway: steel does not promise a fixed insurance saving, but it improves the risk discussion because the frame is non-combustible.

Source lines: Nexus Insurance Brokers; GLOBE Advisors / Concrete Council of Canada; Marsh Canada; Excess Underwriting; CSSBI/CISC.



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The example.

Now put the risk in dollars.

The insurance line may look small compared to total construction cost, but on larger projects it becomes real money.

A material that lowers risk can help protect the project budget.

Example: what the insurance rate difference can mean

Based on the Canadian study rate comparison: wood \$0.053 vs non-combustible benchmark \$0.008 per \$100 per month.

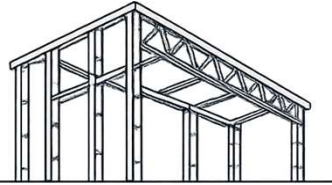
Formula used: $\text{Project Value} \div 100 \times \text{monthly rate} \times 12 \text{ months}$

Project value	Wood rate cost	Non-comb. benchmark	Possible gap	Why it matters
\$10M	\$63,600	\$9,600	\$54,000	one large custom / small multi-unit
\$25M	\$159,000	\$24,000	\$135,000	townhomes / mid-size development
\$50M	\$318,000	\$48,000	\$270,000	larger multi-unit project

This is not a CFS premium quote.

It shows why builders should ask their broker to compare construction types.

Source lines: GLOBE Advisors Canadian mid-rise insurance study; CCMPA summary; Marsh Canada wood-frame facility; Excess Underwriting capacity guide; CSSBI/CISC on CFS.



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The switch page.

How to move from wood plans to a steel frame package.

A builder does not need to learn steel overnight. They need a clean conversion path: drawings in, reviewed CFS package out.

The mistake is treating CFS like a direct 2x6 replacement. The right move is to convert the load path, member sizes, connections and installation package before material is made.

The simple switch plan: no guessing on site

Steel Built turns familiar building drawings into a coordinated cold-formed steel framing package that can be reviewed, manufactured and installed.

01

Confirm the project

Plans, elevations, sections, roof shape, location and expected scope are checked first.

02

Translate to CFS logic

Studs, tracks, joists, trusses, openings, bracing zones and panel breaks are laid out.

03

Review the structure

Snow, wind, gravity loads, lateral path, deflection and connections are checked before production.

04

Package for site

Shop drawings, labels, bundles, cut lists and install sequence turn the design into a site-ready package.

What we need from the builder

- ✓ Architectural drawings
- ✓ Project location and code stage
- ✓ Known structural drawings if available
- ✓ MEP/HVAC route concerns
- ✓ Target delivery / install plan

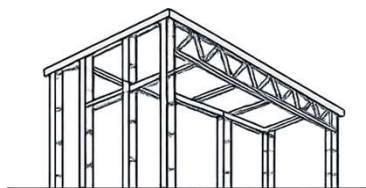
What Steel Built returns

- ✓ CFS model and member layout
- ✓ Framing / panel drawings
- ✓ Takeoff and manufacturing data
- ✓ Engineer-review package support
- ✓ Labelled material ready for site

Builder takeaway

The switch is not “change wood to steel.” It is a controlled handoff from drawings → CFS design logic → engineering review → labelled site package.

Source basis: BuildSteel CFS 101 and specification checklist; Scottsdale wood-to-CFS conversion case; AISI S202 delegated design guidance; CSSBI/CISC CSA S136 resources.



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The proof .

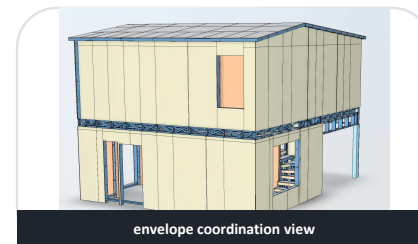
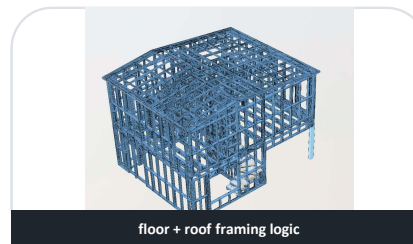
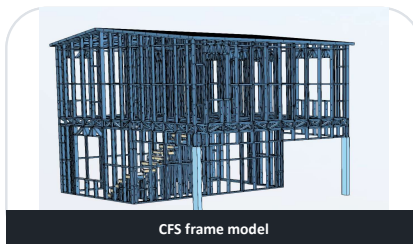
From wood drawings to steel model.

These are sample projects drafted by our team using Vertex BD, then structurally checked and coordinated through STRAP workflow.

The goal is not to trace drawings. The goal is to convert the building into a buildable cold-formed steel framing package.

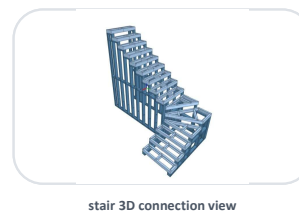
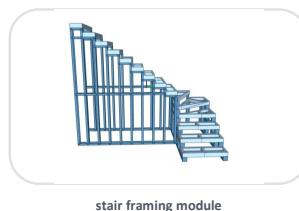
Sample project work: conversion, modelling and structural coordination

CMHC-style wood-frame catalogue drawings can become a practical steel workflow: model the frame, check the load path and prepare a package that can be reviewed, manufactured and installed.



Our workflow: Architectural base → Vertex BD CFS model → member layout + takeoff → STRAP structural check → coordinated package for review/manufacturing

This shows capability to convert a wood-framed concept into a steel framing system, not just redraw the same building.



What this proves

We can translate drawings into CFS framing logic, coordinate engineering review and prepare buildable information for production.

Source basis: CMHC Housing Design Catalogue provides standardized low-rise design packages; Vertex BD supports CFS panel drawings, cut lists, material reports and manufacturing data. Structural output remains project-specific and subject to engineer review.



Where Steel Is Already Proven in Canada

These are not concept ideas. Cold-formed steel is already being used in real Canadian projects.



Sheridan College Student Residence

Trafalgar Campus, Oakville, Ontario

Load-bearing cold-formed steel was used to keep construction moving through a Canadian winter.



Doulton Drive Residence

Mississauga, Ontario

A high-performance custom home built with a noncombustible steel frame.



Colborne Street Project

Brantford, Ontario

A Canadian case study showing cold-formed steel used in multi-residential construction.



Where steel is a strong fit

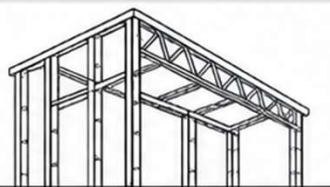
- ✓ Mid-rise multi-unit housing
- ✓ Student housing and institutional projects
- ✓ High-performance custom homes
- ✓ Modular and portable commercial buildings
- ✓ Projects where noncombustible construction, speed and clean installation matter



Important to understand

Canadian codes do not require steel for every building. But in many larger Part 3 buildings, noncombustible construction is required, and steel is one of the clearest ways to meet that requirement.

Project references based on Canadian case-study listings from BuildSteel, SFIA and CISC/CSSBI.



The trend page.

Why steel fits where Canadian building is headed.

Canada needs more homes, tighter schedules and better labour efficiency.

That does not automatically mean every project must use steel. But it does mean systems that are faster, repeatable and easier to coordinate will keep gaining ground.

That is where pre-planned steel starts to make sense.

Real Canadian numbers behind the shift

The pressure on the market is growing. Steel aligns well with the way Canada now needs to build.

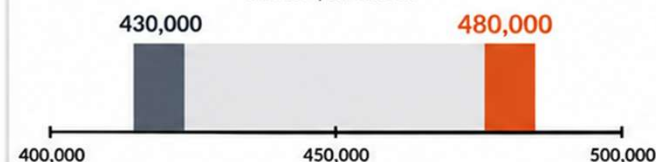
Construction hiring pressure by 2034



BuildForce Canada says the industry must hire 380,500 workers by 2034.

Housing starts needed each year until 2035

homes / year needed



CMHC says Canada needs about 430,000 to 480,000 housing starts per year to meet projected demand.



Speed advantage

Up to 60%
shorter construction period

CISC notes that offsite fabrication, short lead times and ease of erection can reduce construction periods.



Time-related cost impact

3% to 5%
project value

CISC notes that time-related savings can amount to roughly 3% to 5% of total project value.



Why this matters

Less site pressure

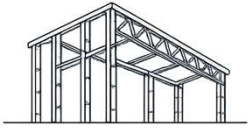
Panelized cold-formed steel helps reduce site labour pressure and supports cleaner, more controlled delivery.



Builder takeaway

When the market needs more homes and the workforce is under pressure, systems that are faster, repeatable and easier to coordinate become more valuable. That is why steel is becoming a stronger option in the next phase of Canadian construction.

Source basis: CMHC, Canada's Housing Supply Shortages: A New Framework (2025); BuildForce Canada, Construction and Maintenance Looking Forward 2025-2034; CISC, Lower Costs and Why Steel.



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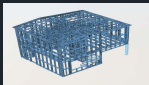
Built on manufacturing roots.

Why Choose Steel Built Systems?

A Canadian CFS expansion backed by real manufacturing experience.

Our background started with precast concrete manufacturing in India and has grown into cold-formed steel drafting, modelling and production planning in Canada.

Steel Built Systems brings that production discipline into Canadian CFS frame manufacturing, with drafting services already active and manufacturing planned from August.



How we reached here

From precast manufacturing to Canadian cold-formed steel framing.

2008

Sangam Prefab Concrete Product Pvt. Ltd.

Precast concrete manufacturing roots. Main products include railway platform components for Indian Railways and other light precast concrete products.

India

Operating manufacturing base

Annual turnover is approximately ₹6 crore, about CAD \$0.9M at current exchange rates. Figure is shown as business background and is exchange-rate dependent.

Canada

CFS drafting services active

We currently provide drafting, modelling, shop drawing and coordination support to cold-formed steel frame manufacturers.

Aug 2026

Steel Built Systems manufacturing

Expanding into Canadian CFS frame manufacturing: model review, takeoff, production files, shop drawings and site-ready steel frame packages.

Business takeaway

A practical expansion path: manufacturing experience, active CFS drafting work and a planned Ontario production setup under Steel Built Systems.

CAD equivalent is approximate and exchange-rate dependent. Supporting company documents can be provided during business review.