

Commentary

This month we have a guest contributor, so that you don't have to read my ramblings.

On the Road to Recovery

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Once Upon a Time in 2020, we were blindsided by COVID-19, for which we were woefully unprepared. The good thing is ‘Once Upon a Time Never Happens Again’.

We now need to quickly find a pathway forward and move down the Road to Recovery. No, we are not waiting until September to begin, as some have suggested!

With life under lockdowns, mixed messages from the medical community and negative media faulting political leaders, it seems the pandemic's creation was easier than the knowledge on how to cope with it. From experience, we developed a Flood Mitigation Plan, so let's put a Pandemic Mitigation Plan in place as we recover. The Plan should be a cooperative initiative that considers all aspects of economic and mental fallout along with an intelligent medical response.

So, what is the Road to Recovery, and what would it include? The initial days of recovery will indeed be challenging with a vast number of issues to address. Despite all the gloomy language in our traditional media, and geopolitical anxiety, the vision of growth must remain focused on our economy. If we do not address the economy first the rest of the recovery will be even more difficult.

I think we can all agree we need to begin by stopping the media's persistent ‘COVID chatter’ and begin talking about some of the many good things promised by the UCP, which they have managed to move forward on during these difficult 15 months. The following is just a sample of what to expect.

1. They have eliminated thousands of regulations through the Red Tape Reduction program. One regulation always leads to others, which creates costs to your industry and to consumers.

2. A referendum vote on reducing equalization payments will be on the Oct 18 Municipal election ballot. Alberta has contributed almost \$95 billion to Canada in recent years, compared to Ontario’s \$58 billion during the same time, for example.

3. Investigation is underway for an Alberta Pension Plan. Alberta has contributed 16.7% of total contributions to the National Plan, but only benefited 10.8% to retirees. This equates to a net contribution to the CPP of \$2.9B in 2017 despite a weak economy and \$27.9 billion over a decade. For context, over that same period, Ontario’s Contribution with their much larger population was \$7.4 billion.

4. In terms of COVID relief, a new Alberta Jobs Grant program of \$25,000 per employee has been made available to employers for hiring & training 22,000 unemployed Albertans and can help kick-start new graduate careers. An expanded program is offered when hiring the disabled.


Follow Shane @shanewenzel on Facebook, Twitter, LinkedIn, Instagram and YouTube.

If you have an idea for a commentary or would like to submit your own commentary for a future newsletter please let me know at dave@wwta.ab.ca

Economic Update

In Alberta, urban housing starts totaled 2,528 in June 2021, a year-over-year increase of 94.8%. Canadian housing starts increased by 25.2% over the same period. In Alberta, single-detached units increased by 85.2%, while apartment units, which comprised 27.5% of all units, increased by 124.2%. Once again, comparing housing starts to last year is a bit of an anomaly. June starts were down slightly from 2915 in May.

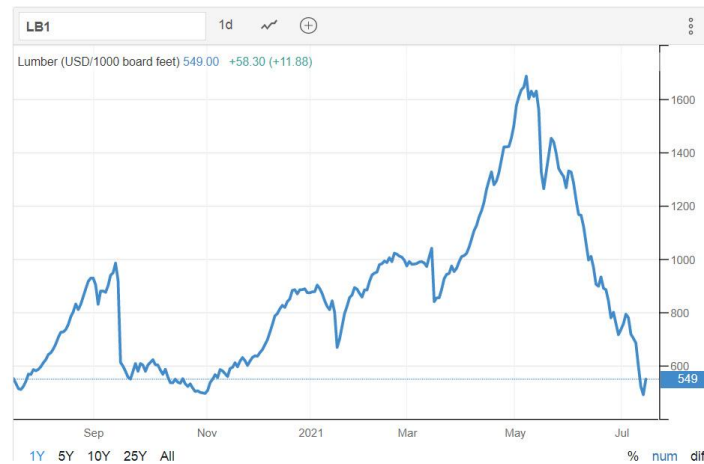
Housing Starts

TREND	JUNE			JAN - JUN (YR TO DATE)		
	2020	2021	% CHANGE	2020	2021	% CHANGE
	1,298	2,528	94.8%	9,883	14,141	43.1%

Adapted from Statistics Canada, Table 34-10-0143-01 (CMHC). This does not constitute an endorsement by Statistics Canada of this product.

Lumber up 0% YTD

Lumber, which at one point was among the world’s best-performing commodities as the pandemic sent construction demand soaring and stoked fears of inflation, has officially wiped out all of its staggering gains for the year. At one point, lumber futures were trading as high as \$1,733.50 per thousand board feet, more than quadruple the level of a year earlier.



Prices have declined on rising inventory levels and a “significant drop” in lumber demand at large retail stores, where do-it-yourself home renovators typically make their purchases, said Westline Capital Strategies Inc. Chief Executive Officer Greg Kuta, whose Ohio-based firm specializes in lumber-trading strategies. Lower renovations have made more wood available for home builders to buy, which has helped to pressure prices lower, Kuta said.

The market has even shrugged off more than 300 simultaneous wildfires and [rail car gridlock](#) in major producing regions British Columbia in Western Canada.

Still the current price level is historically high. Since the 1990s, lumber futures have mostly traded between \$200 to \$400 per thousand board feet, with the exception of 2018 when they shot above \$600. This “massive corrective free fall” indicates the market is resetting to reflect supply-demand expectations for the rest of the year, according to Kuta.

“I think lumber futures prices will continue to see severe, two-sided volatility vacillating in a more extreme price range of \$550 to \$1,200 for the remainder of 2021,” Kuta said in an email. “But any attempt to break back above the \$1,000 level should be aggressively sold by lumber producers.”

Lumber prices could find a “near-term floor around \$700–\$800 before moving higher again ahead of the fall construction season,” citing “a very disruptive fire season” as a likely upside catalyst for prices, ERA Forest Products Research said in a June 30 note. Paul Quinn, an analyst for RBC Capital Markets, said it is typical for prices to drift lower during the summer months, make a small rally in September, and drop again in November.

“We think 2022 spring prices will see a similar run as 2021, though likely not as high given the incremental capacity adds,” Quinn said, noting that new home construction demand is still accelerating. “We still expect prices will be higher than long-term averages going forward.”

Quality Control

This month the topic of discussion is **Plate Placement Tolerance**.

From the Truss Plate Institute of Canada Appendix G

G.4.2.1.1

Lumber on Edge During the truss manufacturing process, plates shall be positioned according to the Truss Shop Drawing and should be placed within the **6 mm (1/4")** plate placement translation tolerance and within the **plus and minus five degree (±5°)** plate rotation tolerance. In no case shall the positioning decrease the number of effective teeth in any member to less than the minimum number required for that member.

G.4.2.1.2

Lumber on Flat During the truss manufacturing process, plates shall be positioned according to the Truss Shop Drawing and should be placed within the **3 mm (1/8")** plate placement translation tolerance. In no case shall the positioning decrease the number of effective teeth in any member to less than the minimum number required for that member. Due to relative ease of locating plates parallel to and near the edge of lumber, **no allowance for rotational misplacement is required.**

Years ago when plated trusses were introduced they were pretty much designed so that the plate would be centered over the joint or “symmetrical” and therefore it was much easier to place the plates. This worked great, although not the most economical.

As design programs became better we were able to design more efficiently by moving the plate placement to the location that required the least amount of metal, thereby making the truss more economical. It is not very common to build a truss today without at least some off-set plates.

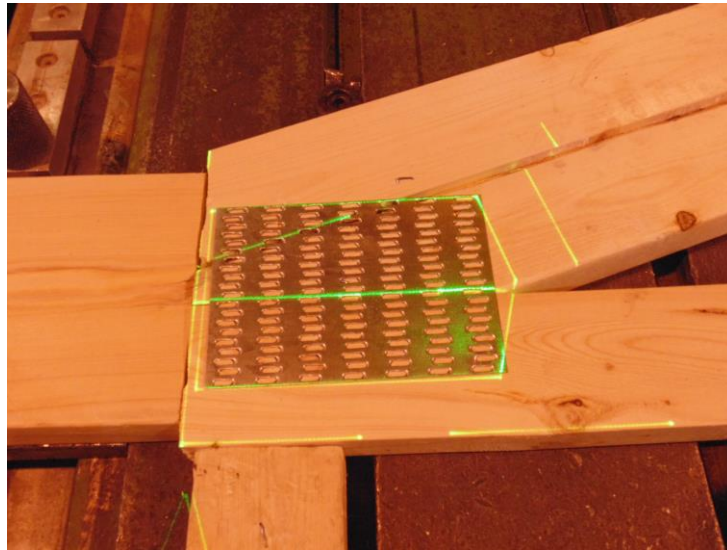
1/4” and 5° is not much tolerance and manufacturers must have a process to ensure that plates are placed correctly.

Use the X and Y co-ordinates on the shop drawing. This takes us back to geometry class and graphing to understand the off-sets, but it can be done using the information on the truss shop drawing.

PLATES		PLATE	W	LEN	Y	X
JT	TYPE					
B	TMV+p	MT20	2.0x	4.0		
C	TMWW-t	MT20	6.0x	10.0	3.25	4.00
D	TS-t	MT20	5.0x	6.0		
E, H, K, N						
E	TMWW-t	MT20	4.0x	5.0		
F	TTWW-m	MII16	9.0x	15.0	Edge	
G	TMWW+t	MT20	4.0x	5.0	2.00	2.00
I	TMW+w	MT20	2.0x	4.0		
J	TS-t	MII16	5.0x	12.5		
L	TMWW+t	MT20	4.0x	5.0	2.00	2.00
M	TTWW-m	MII16	9.0x	15.0	Edge	
O	TS-t	MT20	5.0x	6.0		
P	TMWW-t	MT20	6.0x	10.0	3.25	4.00
Q	TMV+p	MT20	2.0x	4.0		
S	BVMW1-l	MT20	6.0x	8.0	3.00	5.00

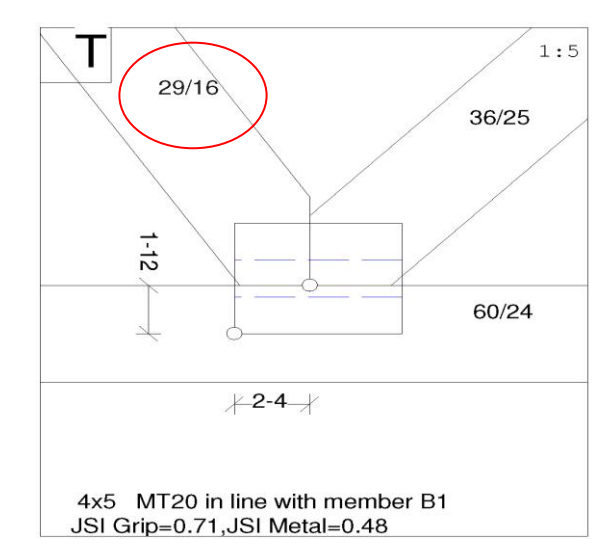
In the above table the plate (6x10) at Joint C is offset 3.25" vertically and 4" on the X axis or horizontally. It takes careful attention to detail to make sure the builders follow this method.

The next method that is commonly used is laser systems that project the plate location. This is much faster than the previous method; you just have to ensure that the calibration of the system is accurate and that you are projecting on the top of the lumber.



Lasers also indicate the lumber placement and tooth orientation.

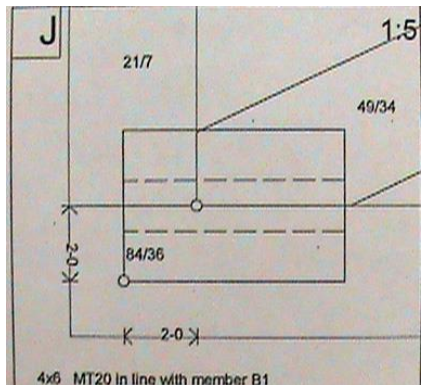
The third option is my favorite and it is simply printing out the joint details. I like this because they are easy to understand and give you information on the minimum tooth count. This is also the preferred method for doing a truss inspection because you can easily compare the picture to the actual plate placement.



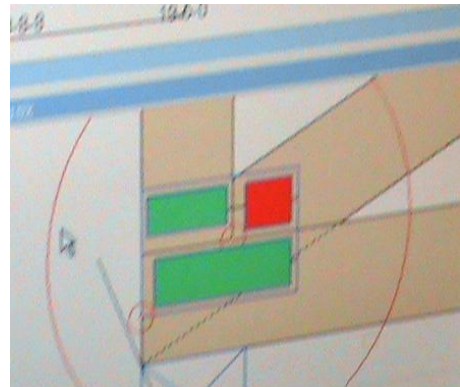
The plate at joint T is 1 ¾” into the bottom chord and 2 ¼” left of the center of the joint. This joint detail also is easy to reference because you can see where the plate crosses the lumber and the orientation of the teeth.

One of the most common questions I get is “does the plate still have to be within the tolerance if there is still the minimum number of teeth in the member?” For example in the joint T above if the plate is placed correctly there would be 29 teeth into the left web and a minimum of 16 are required to be effective. Is it acceptable to move the plate to the right by more than a ¼” if you still have 16 teeth into the web?

In order to answer the question you must understand that the job of the metal connector plate is to take the load out of one wood member through the teeth, transfer it across the plate and into the adjacent member through the teeth again. If there is not enough steel at the joint the plate may fail. So no, a tooth count alone will not allow you to exceed the tolerance. You could go back to design and move the plate to the actual location to see if it is still acceptable. In the picture below the plate was moved to the left and you can see it failed.



Although the plate into the web in joint J only needs 34 teeth you can see when the designer moves the plate flush to the verticle it fails.



Another question is get is about bottom chord splices. It is a natural tendency to want to not place the slots of the teeth over the actual splice in the lumber, because this is the weakest part of the plate, but in fact the plate will fail at the slots even if they are not over the splice as in the picture below, so place the place according to the shop drawing.



If a plant is not comfortable that they can meet these tolerances they should consider upsizing plates to accommodate any placing errors.

Health and Safety Toolbox

Similarly to the Quality topic the WWTA would like to give you a monthly item you can discuss when doing your Safety Toolbox meeting. This month we are going to focus on **Returning Back to Work** during the pandemic.

As Alberta enters Stage 3 of reopening and COVID-19 restrictions are reduced, people are returning to the workplace. With changing pandemic specific conditions, the hazard assessments may need to be reviewed or updated.

OHS legislation requires employers to protect the health and safety of workers at the worksite and others at or around the work site. This includes performing a hazard assessment to identify existing and potential workplace hazards. The hazard assessment must include those related to the COVID-19 virus. Employers must involve affected workers when doing a hazard assessment.

Factors to consider when assessing the potential hazards from COVID-19 include:

- Any orders of the Chief Medical Officer of Health that are applicable to the workplace
- Active cases or symptomatic workers at your worksite
- Active cases in the region
- Number of vaccinated workers, if available
- Presence of persons with health vulnerabilities
- Type and duration of interactions with other workers or the public
- Physical distancing at the workplace
- Type of work or activities performed
- How other hazards and controls at the work site might affect COVID-19 controls

Controlling the COVID-19 hazard

Based on the employer's hazard assessment and consideration of the potential for COVID-19 at the work site, hazards that cannot be eliminated must be controlled using the hierarchy of controls.

First choice: engineering controls. These control a hazard at the source. Depending on the workplace and processes, examples might include ventilation systems or physical barriers, such as Plexiglas. **Vaccinations are also considered to be an engineering control.**

Second choice: administrative controls. These change the way people work. Examples include worker training or hand hygiene, physical distancing, alternate work arrangements or regular workplace cleaning policies.

Third choice: personal protective equipment (PPE). PPE controls the hazard at the worker. PPE examples include gloves, eye protection, facemasks, or respirators.

If the hazard cannot be controlled by a single control method, the employer must use a combination of engineering, administrative and PPE to ensure worker protection.

Vaccination

Vaccination is an effective control to protect against the COVID-19 virus. The roll out of vaccines provides workers and all Albertans over the age 12 an opportunity to be immunized. Current evidence indicates vaccines are effective in preventing illness due to the infection.

Here is my disclaimer:

Employers should consider seeking legal advice on issues and laws relating to human rights, labour and employment, privacy, health information and OHS before asking for proof of vaccination or implementing mandatory vaccine requirements.

The WWTA also had the opportunity to hear a presentation from Dr. Hinshaw that employers may find useful and it can be viewed on the WWTA website.

<http://www.wwta.ab.ca/health-and-safety.html>

The Alberta Government has a new format OHS eNews you can subscribe to with all kinds of good material at: <https://ohs-pubstore.labour.alberta.ca/>

News and Events

I had an opportunity to do a ZOOM presentation to the Safety Code Officers through the Safety Codes Council in June. More than 100 Officers signed up for the presentation and they were given educational credits. The feedback was pretty good, but it may lead to them asking you more questions, as is usual when I do these presentations.

I talked on four topics:

- Permanent Bracing
- TPIC 2019 and the next Alberta Building Code
- EWP supply issues and substitution

- The new Standata BCI-19-023

The video for the presentation can be found on the Safety Codes Council website at:

<https://www.safetycodes.ab.ca/training-and-certification/education-resources/>

Alberta WoodWorks had a meeting to discuss their plans for the next year that I was also able to attend. We are eagerly awaiting their publication on light-weight commercial construction, but they have some interesting educational training sessions coming up that may interest you including EWP and Mid-Rise Construction July 30.

https://us06web.zoom.us/webinar/register/WN__VKaCtBHTzaX7s179pt4Rg

Onsite Quality Control Audits

If the pandemic remains at bay I am planning to resume onsite Q.C. audits in August. If you have any COVID-19 related concerns or restrictions for visitors please advise me.

WWTA Online Training

If you have not yet taken a look at the WWTA online training program I would encourage you to, as no doubt you will be hiring new workers in the near future and it is a good method to get them productive earlier and safer. If you want an overview of the program go to the WWTA website at: <http://www.wwta.ab.ca/truss-training-online.html>

Did You Know?

The WWTA bracing and installation guide has been turned into a 10 minute video for builders and can be found on the WWTA webpage at:

<http://www.wwta.ab.ca/builders.html>