

NATIONAL  
**FRAME**  
B U I L D E R M A G A Z I N E

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**RESEARCH & TECHNOLOGY**  
Shear Wall and Diaphragm  
Trusses

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# Hello & Welcome



**2020** has already been quite a year...and it's not over yet. There are still four whole months of unknown to look forward to and NFBA wants to be your resource for keeping your post-frame business running smoothly and efficiently, and for keeping your employees and jobsites safe.

We are all in this fight together and sharing resources with your fellow contractors is just one way to be a part of the solution. Whether it is industry-specific best practices or merely a suggestion, NFBA is always looking for well-written magazine articles, educational webinar or speaker suggestions, and helpful information from just about any reliable resource. Who better to look to than our own readership? As you come across any helpful information in your day-to-day activities, please consider sharing that resource with NFBA Staff. It can be as simple as a quick email or phone call and NFBA will vet that resource and take all the necessary steps to share it legally and efficiently with the Membership in a timely manner.

This sharing of information can work the other way as well. Don't have a resource on-hand but need help finding a solution to a problem or new situation? Your Association is here to help! Just send it my way and we will do our best to get you the information you need.

Remember, one of the biggest benefits of being a part of an organization as widespread as the National Frame Building Association is the likelihood that someone else has already been through what you are going through now. If you are not currently an NFBA member, I strongly suggest you take a few minutes to consider the benefits of joining. Now is a perfect time to gain an extra ally for your business and give us a try.

Until next time, stay safe and healthy.

**Rachel Pinkus**  
Editor





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Level Edge Construction, Strasburg, PA

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# A MESSAGE FROM

**MATT GREINER**  
PRESIDENT, NFBA BOARD OF DIRECTORS

**2020** is over half-way completed; like many of you I do not quite know how to describe this year. Most builders I talk to from around the country are experiencing similar ups and downs. NFBA brings us together to celebrate victories and work through challenges on a common platform.

On the upside, it seems like sales numbers are up for most companies which is fantastic. Q3 is in full-swing, time to hunker down and get some buildings up! On the downside, anyone directly connected to the lumber market (nearly every post frame builder) is facing nearly unprecedented challenges with rapidly rising lumber costs. COVID-19 continues to be an immense challenge; we have all heard so much about it, I hesitate when mentioning it!

By the time you read this, any information regarding the lumber is likely obsolete. I held a phone call with lumber industry professionals before writing this message, trying to make sense of what we are experiencing. Like many of you, I have binding contracts and building quotes floating out there that are based off much lower lumber costs that what we will incur. This will have negative effects on profit margins. It seems the erratic market is driven by a few factors including COVID-19, inability to move product due to transportation shortages, and high demand for home products. In some cases, it seems Canadian buyers have first purchasing options, leaving American purchasers with short supply. 16' lumber is now being chopped down into studs leaving even less lumber for the typical post frame building. We have a massive supply shortage. Heavy demand continues; however, it seems that confidence in the duration of the present demand is not high enough to trigger rapid increase in production. Therefore, it seems a large drop in lumber prices is likely, however it is highly uncertain as to when. Furthermore, there is a shortage of wood preservative chemicals which could have even more negative effects on the post frame industry.

Companies are advised to review and consider the



language in sales contracts and proposals regarding pricing guarantees as well as the terms of your purchasing contracts. Be sure you understand the language and how it may bind your company. Consider taking appropriate steps to protect your company and hopefully gain back any losses if and when costs return back to more normal levels.

NFBA continues to press forward vigilantly, representing the post frame industry and the loyal NFBA membership base. Active projects include an ongoing fall protection study, continued firewall research and design, and curriculum development for post frame crew members. Webinars have been held with information distributed regarding how to navigate COVID-19 challenges, all of which have been extremely valuable. A webinar discussing non-diaphragm buildings was recently held which had many positive reviews. We continue to look forward to next year's Expo in Nashville with high hopes that the global pandemic will be well under control by then.

I hope everyone is staying safe, keeping a positive attitude, staying thankful for all that continues to be good in the world. I hope to see you soon. Best wishes on the remainder of 2020.

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## MEMBERSHIP ANNOUNCEMENT

**N**FBA is moving to a calendar year membership. We are prorating your dues for the remainder of 2020 and, moving forward, your dues invoice will arrive in October for the following year. Make sure you are utilizing all of your membership benefits! If you have any questions about your benefits, please email Morgan Arwood at [marwood@nfba.org](mailto:marwood@nfba.org) or contact us at 800-557-6957 for help. Thank you for your continued support of NFBA. We appreciate you!

# CONSIDERATIONS FOR CHOOSING FASTENERS TO CONSTRUCT POST-FRAME BUILDINGS

Elkhart Lake, WI June 17, 2020 – When builders are searching for someone to supply them with fasteners, too often the sole determining factor is based on price. That would be OK if all fasteners were the same. Unfortunately, this is not the case and there are questions that need to be asked to determine the best quality fastener for your building.

PRODUCT DEVELOPING

When you purchase doors, windows, posts, trusses and panels to construct a post-frame building for any use, one of the primary considerations is the quality and corresponding life expectancy of those products. You want to know how long a post will last in the soil or how long the paint will hold up on the panels. It should be the same with fasteners. Like any other product durability is a major factor in the final decision process. We all hear it time and time again, but it's worth a reminder ... the building you erect will serve your customer only as long as the component with the shortest life expectancy.

## Ask about testing

If a fastener supplier can't offer you any kind of testing results, there's a reason. Almost all suppliers have conducted some kind of testing and it's not too complicated to understand the differences. The most common and decisive test is a salt spray test required to meet ASTM B117.

In a controlled environment within a laboratory, fasteners are subjected to a steady spray of salt water. Fasteners coated with a standard zinc coating may begin to show signs of weathering, also known as rust, in 100 hours. In a field application, this translates into a fastener showing signs of corrosion as early as a year or two. Find a supplier that tests fasteners for 1,000 hours or even 3,000 hours. Fasteners that endure even the 1,000-hour test, will last 20 years or more in the field before showing

signs of corrosion.

## Ask about materials

Whether you're fastening sheets with a Galvalume or galvanized substrate, the material your fastener is made of must be compatible for the longest service life. Stainless steel 304 fasteners will cause galvanic corrosion with either Galvalume or galvanized panels, meaning the panel will sacrifice itself. Obviously, that shortens the lifespan of the panels and ultimately, the building.

With Galvalume or galvanized panels, it's recommended you use a mechanically zinc galvanized carbon steel fastener. For both, all fasteners should have a top coating for additional protection.

## Ask about paint

The two most common methods of fastener color matching are wet paint and powder coating. Wet painted fasteners are easier to color match and they are not subject to chipping. Powder coated fasteners are subject to chipping with no way to repair that chip. Wet painted fasteners can be touched up in the field without removal.

When it comes to paint providing additional corrosion protection, it's important to remember, adhesion is everything. Paint can only add protection if it remains on the part.

Don Benson  
Sales & Marketing  
Manager  
East Coast Fasteners



Al Geisthardt  
Product Development  
East Coast Fasteners





In a controlled environment within a laboratory, fasteners are subjected to a steady spray of salt water

### Ask about the drilling points

Obviously, to have a fastener do its job, it's necessary to get the fastener through the panel and into the framing. Think about it ... every time you put a hole in that panel, you're compromising the integrity of that panel. That's why it's important to get through the panel immediately and cleanly.

The point of the fastener is integral to success. The development of the mini driller point has made it much easier to achieve the immediate and clean piercing of the panel, especially where there are overlaps and you're going through multiple panels ... in some cases three or four panels where you're working on details, like the ridge cap or valleys.

Suppliers offer a variety of fasteners with a variety of drilling points. Ask for what's best for your job.

### Ask about service

A good supplier will be able to get you what you want, when you want it, while providing you value. Working with an experienced sales staff and a company with a solid reputation within the post-frame industry goes a long way to helping you become a reputable builder.

### About the author

*East Coast Fasteners produces durable, long-lasting fasteners for all combinations of building materials and provides products to solve moisture issues like leaky gaps in roofs or sidewalls by supplying closures and pipe flashings to post-frame, residential and commercial builders across America. To learn more, call 800-558-5895 or visit [www.plyco.com](http://www.plyco.com).*

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Complete the application form at [www.nfba.org](http://www.nfba.org) and become an Accredited Post-Frame Builder today!

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Inasmuch as it is my belief that my reputation in the building industry is dependent upon my devotion to the highest ideals of honesty, courtesy, and integrity, as evidenced by my willingness to conduct business in a spirit of fairness and equality for all, and inasmuch as the National Frame Building Association has dedicated itself to the same high ideals of professional responsibility, I hereby agree to abide by and to conduct business in accordance with the following Code of Ethics:

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4. I shall endeavor to **abide by present and future building standards** of the National Frame Building Association.
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# SHEAR WALL AND DIAPHRAGM TRUSSES

In the field of engineering, a truss is a structural assembly formed by connecting individual framing members together such that the entire assembly is a series of connected triangles.

Dave Bohnhoff, PE, Emeritus Professor  
University of Wisconsin-Madison



**W**hen connected into such triangular configurations, the forces induced in the individual framing members (when the truss is loaded) are largely aligned along the member axes. This results in principle stresses within each truss member that are relatively uniform in direction and magnitude at every location within the member. Such uniformity is highly desirable as it translates into an efficient use of framing material. By sizing each truss member so that it is stressed near its maximum allowable limit when the truss is under a design load, the overall truss becomes an extremely efficient structural assembly from a material usage perspective, and thus the economical choice for many applications.

Virtually all wood trusses are planar (2-D) assemblies (as opposed to 3-dimensional space frames) whose individual members are joined with metal connector plates. Within the post-frame building industry, planar trusses are commonly used as roof trusses, girder trusses and mezzanine floor supports. In each of these three cases, the trusses are largely used to transfer vertical components of building loads to posts and other vertical supports.

Another use for planar trusses in post-frame buildings is for transfer of horizontal components of building loads. Two trusses that can serve this purpose are herein referred to as shear wall trusses and diaphragm trusses. Because

of their limited use, and hence unfamiliarity among many practitioners, these two truss applications are the focus of this article.

## Shear Wall Trusses

A shear wall is a wall that is designed and constructed to transfer in-plane horizontal forces from one elevation to another. This transfer of lateral force is commonly referred to as shear force transfer or simply as shear transfer, and hence the name shear wall. Wood-framed shear walls are generally formed via the proper attachment of structural sheathing (e.g. wood panels, corrugated steel sheathing) or diagonal bracing to a wood frame. Alternatively, a wood-framed shear wall can be formed by properly attaching a planar truss to wall framing. Any truss used in such a manner is herein defined as a shear wall truss.

Figure 1 shows a shear wall truss in the sidewall of a post-frame dairy freestall barn. As with most shear wall trusses used in post-frame buildings, the truss in figure 1 is a parallel chord truss (a.k.a. flat truss) placed against the inside of exterior girts with its chords attached to adjacent posts. Note that the bottom truss web member has been preservative-treated because of its location near grade. In this case, the shear wall truss was used in place of corrugated steel sheathing so as to enable greater natural airflow through the wall.



Figure 1. Shear wall truss in the end bay of a dairy freestall barn.

The purpose of the shear wall truss in figure 1 is to help transfer lateral forces from the roof diaphragm into the ground. In other words, it keeps the roof diaphragm from shifting parallel-to-the-ridge when wind forces act on endwalls. Because it is used in most buildings to help transfer wind forces, some designers refer to trusses like that in figure 1 as “wind trusses”. However, use of the term “wind truss” does not recognize the fact that the truss helps resist earthquake-induced and other forces that would rack the wall.

Although there are different ways to use diagonal bracing to achieve the same effect as the shear wall truss in figure 1, adequately connecting the diagonal bracing is generally more difficult. Also, unlike most diagonal bracing, a shear wall truss can

be used to quickly lock in post plumb and spacing.

## Diaphragm Trusses

A diaphragm truss is herein defined as a parallel chord truss located in the plane of a roof between adjacent rafters or truss top chords (figure 2), or located in the plane of the ceiling between adjacent ceiling joists or truss bottom chords. As its name implies, a diaphragm truss is a truss that functions as a diaphragm, which is to say that it functions as a structural element in the transfer of lateral loads to shear walls. When placed between roof rafters and/or truss top chords in a post-frame building, a diaphragm truss transfers components of wind load (acting normal to the endwall of the building) from the endwall to the sidewalls of the building.

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**Figure 2. Portion of a diaphragm truss in an end bay**

Figure 3 graphically illustrates the transfer of endwall applied forces by two diaphragm trusses (one on each side of the ridge). Each of these trusses is attached to a rake rafter, to the top chord of the first interior truss, and to the underside of purlins. Use of diaphragm trusses for the transfer of endwall forces is generally only required when (1) a floating roof system is used and attached directly to purlins (i.e. there is no wood panel substrate), and (2) no other diagonal bracing or cabling exists to transfer endwall loads to the sidewalls. Given that a floating roof system (i.e., roof cladding attached directly to purlins with sliding clips) is relatively uncommon on post-frame buildings, the need for diaphragm trusses as permanent structural elements in post-frame buildings is rare.

Most diaphragm trusses are used during construction to establish and maintain a straight endwall, and to keep purlins and trusses from shifting before and during roof panel application

(a practice I first observed in use by Leo Souder of M.P.B. Builders Inc. in Ripon, WI). Using diaphragm trusses to prevent lateral movement of trusses during construction is extremely effective. When installed in the first erected bay of the building, **diaphragm trusses often eliminate the need to add temporary diagonal bracing to purlin rows as remaining trusses and purlins are installed.**

In cases where a roof is clad with wood or metal panels that are through-fastened to purlins (and thus provide significant diaphragm action), diaphragm trusses essentially become redundant structural elements. That said, there are some designers that are not comfortable relying solely on through-fastened panels for diaphragm action, and there are buildings and building environments that can preclude reliance on metal-clad wood

frame diaphragms. In such cases, the inclusion of diaphragm trusses in post-frame building design is an attractive option, especially in wider and taller buildings where (1) the total wind force acting on an endwall can be large, (2) maintaining a straight endwall becomes more difficult, and (3) the need for substantial lateral truss bracing during erection becomes increasingly critical.

A diaphragm truss located in the plane of a ceiling can be more effective, and is often less expensive in endwall-to-sidewall load transfer than diaphragm trusses located in a roof plane. Another structural reason for locating a diaphragm truss in a ceiling plane is to resist forces induced by installation of flexible/fabric ceilings that are held in place by tensioning polyester strapping between endwalls (e.g. polyethylene Tri-Ply ceilings).

Finally, while it is common to place diaphragm trusses in both end bays of a building to maintain straight endwalls, there may be applications where locating diaphragm trusses in one or

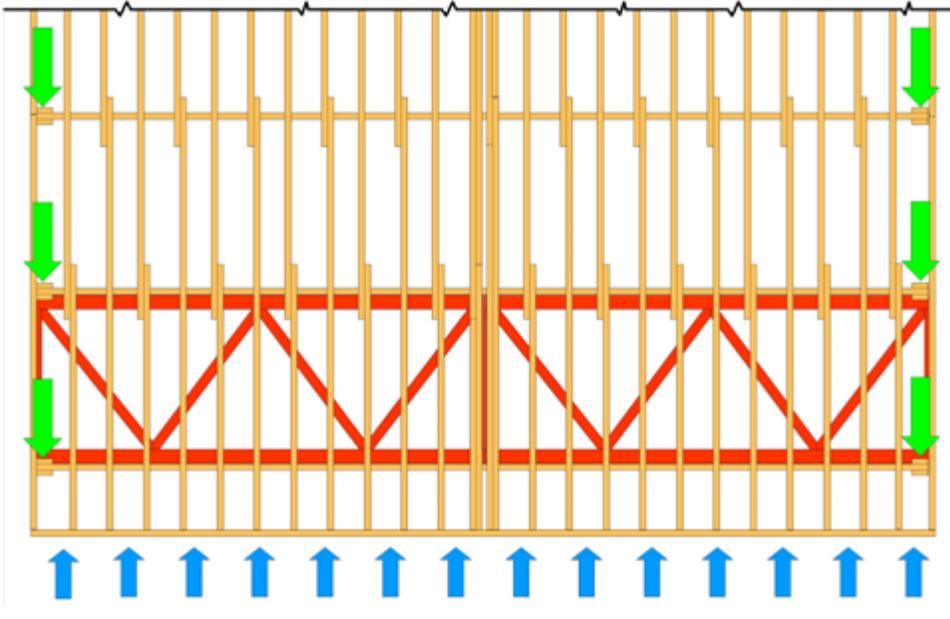


Figure 3. Diaphragm action provided by diaphragm trusses (in red) located between roof rafters/truss top chords but in contact with purlins-on-edge. Wind forces (blue arrows) are transferred to sidewalls by the diaphragm trusses, where they are ultimately resisted by post anchors and/or soil pushing against embedded posts (green arrows).

more interior bays may be needed or desirable (1) from a permanent bracing perspective, and (2) when using diaphragm trusses to replace temporary diagonal bracing during roof truss erection. Some factors affecting this need include overall building length, overall building width, bay width, magnitude of design loads, location of shear walls that can transfer load from diaphragm trusses, connections between purlins and roof trusses, diaphragm truss connections, and diaphragm truss characteristics.

### Structural Engineering Criteria

At present, there are no specific engineering standard(s) or other documents covering the incorporation of shear wall trusses and diaphragm trusses into post-frame buildings. This leaves structural modeling and other major design-related decisions to the engineer-of-record.

In the absence of standard procedures, engineers typically err on the conservative side of design. With respect to a shear wall truss, a conservative design begins with the assumption that the truss alone transfers (from eave to grade) the entire shear load to which that portion of the wall is subjected. In other words, when sizing shear wall truss components,

it is assumed that the posts (to which the truss will be attached) do not transfer shear, but do help prevent truss chord buckling. To determine shear wall truss component forces, model the truss as an independent component, with the shear force applied along the top of the truss, and the bottom/base of each chord pinned to a support. Each resulting support reaction is equivalent to the minimum total force that must be transferred from the truss chord into the

post. Continual transfer of this total force is obtained by evenly spacing chord-to-post connections along the entire post-chord interface. In the end, this continual load transfer results in forces in truss components that are less than those used to size the truss components – hence a conservative design.

Diaphragm truss design varies slightly depending on whether a single diaphragm truss or multiple diaphragm trusses are located in the same bay between sidewalls. Multiple trusses require engineering of the on-site connections used to join the chords of adjacent trusses. Multiple trusses are required when there is an abrupt change in roof slope (as shown in figure 3) or ceiling slope, or when the distance to be spanned between sidewalls is sufficiently large to necessitate the on-site connection of a series of individual trusses to form a single assembly.

For a conservative design, model diaphragm trusses as if they alone transfer all endwall loads to the sidewalls, and then size individual truss components accordingly.

The most efficient way to transfer load from a diaphragm truss into a sidewall is to connect the entire edge of the diaphragm truss

continued on page: 18

continued from page: 17

directly to (1) the framing member to which the top edge of structural wall sheathing is fastened, or if used, (2) the top of a shear wall truss.

Clearly specify (on contract documents) structural connection details between (1) diaphragm trusses and shear walls, (2) multiple diaphragm trusses in the same building bay, (3) shear wall trusses and posts, and (4) shear wall trusses and roof framing. Engineering details of other connections may also be required. This would include connections between diaphragm truss chords and the ledgers, rafters, joists and/or trusses that are

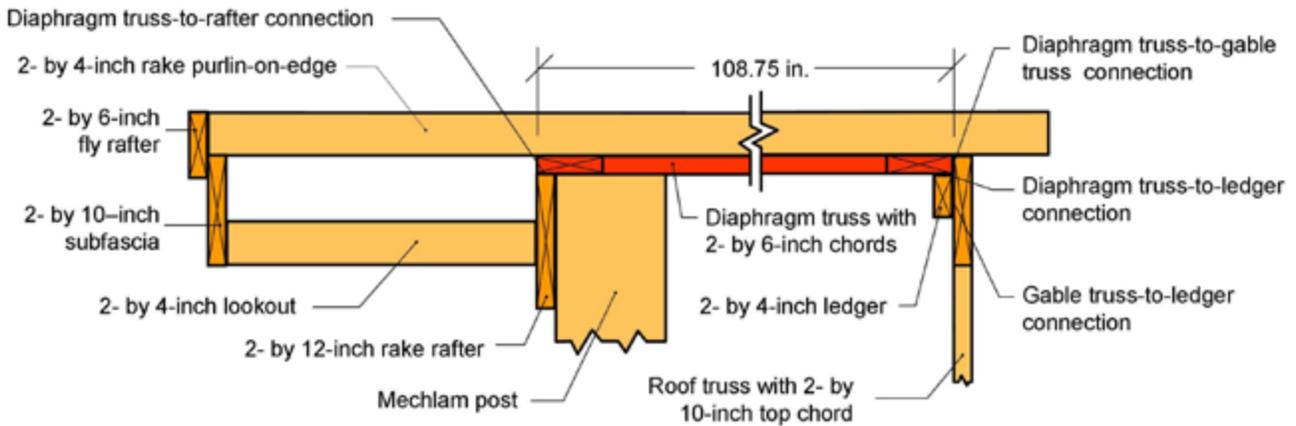
used to reduce the buckling potential of the chords.

Web members in shear wall and diaphragm trusses are relatively long, and when fabricated from 2-by lumber, will generally require out-of-truss-plane support to prevent buckling. Depending upon their orientation and spacing, purlins and girts can provide some of this support. Alternatively, thicker lumber can be used in truss fabrication, webs can be L- or T-braced, or 2-ply trusses could be used.

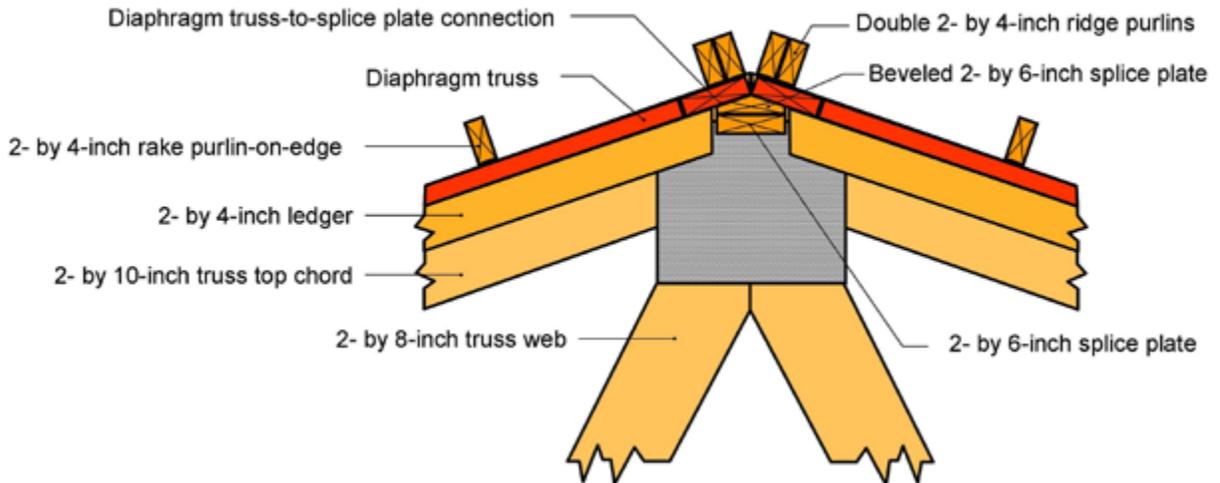
### Installation

One of the major benefits of shear wall trusses

#### Parallel-to-Ridge Cross-Section Thru Diaphragm Truss



#### Perpendicular-to-Ridge Cross-Section Thru Diaphragm Trusses



Cross-sections through diaphragm trusses (red elements) shown in figures 2, 5 and 6. Lumber sizes are nominal.

and diaphragm trusses is the structural stability, and ease of component plumbing and alignment they provide prior to cladding attachment. For this reason, it's generally beneficial to install them as early as possible in the framing process, as they can speed and improve the quality of overall construction.

Installation of shear wall trusses is a fairly quick process since they are relatively short (truss length does not exceed wall height) and they can generally be positioned from the ground without powered lifting equipment. They are typically positioned between posts and in contact with exterior girts.

Diaphragm trusses are commonly placed in contact with the underside of purlins as shown in figure 4 – a position that enables on-edge purlins to provide critical buckling support for diaphragm truss web members. In this case, the diaphragm truss is attached to the top of the rake rafter and to a nominal 2-by-4-inch ledger attached to the side of the interior truss.

Like regular roof trusses, the length and out-of-plane flexibility of diaphragm trusses requires special handling during installation to prevent damage to plated joints. Because they must be oriented horizontally, it is imperative that diaphragm trusses be strapped at multiple locations to a stiffback, spreader bar, or strongback prior to being lifted for placement.

The simplest, and most direct method for diaphragm truss installation is to (1) complete endwall framing, (2) set the first interior truss and then temporarily brace it to the endwall, (3) use a telehandler to set the diaphragm truss into its final position, and then (4) complete all connections between the diaphragm truss and the endwall and interior truss.

When roof framing for an individual bay is assembled on the ground and lifted into place (figure 5) a diaphragm truss makes it easy to square the assembly and also provides tremendous rigidity to the overall assembly. This construction option generally requires an on-site crane.

A third diaphragm truss installation option (and one I have used and prefer) is to attach purlins along with as much rake overhang structure as



Figure 5. Ground assembly of a bay of roof framing that includes two diaphragm trusses (one on each side of the ridge).

possible to the diaphragm truss prior to lifting it in place (figure 6). This approach significantly reduces working at height, and placement of the assembly can generally be managed with a telehandler.



Figure 6. Diaphragm truss with attached purlins and rake overhang framing. Shown in an up-side-down position just prior placement.

## Summary

Shear wall and diaphragm trusses provide a very efficient means for transferring horizontal components of building forces from their point of application to the building's foundation. In addition to this horizontal load-transfer role, diaphragm trusses also serve to maintain a straight eave line during construction, and reduce the amount of temporary diagonal bracing required in the roof plane during truss placement. Engineering of both shear wall trusses and diaphragm trusses is relatively straight forward, with proper use highly dependent on properly engineered and installed connections.

*About the author:* David R. Bohnhoff is a registered professional engineer and emeritus professor of Biological Systems Engineering at the University of Wisconsin-Madison.

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# SAFETY AND OSHA UPDATE

## Do I need to record an employee's case of COVID-19 on my OSHA Log?

BY Gary Auman  
NFBA Legal Counsel



Let us begin with an update on the COVID-19 Pandemic. This first section applies to all employers with eleven or more employees. OSHA has stated that COVID-19 is a recordable illness and must be recorded on an employer's 300 log, if the following three criteria are met

1. The employee has a confirmed case of COVID-19, as defined by the CDC (meaning that the employee has had at least one respiratory specimen that tested positive for SARS-CoV-2).
2. The case is work-related as defined by 29 CFR §1904.5; and
3. The illness results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or the illness is a significant injury or illness diagnosed by a physician or other licensed health care professional.

The first step simply requires that you determine whether your employee has tested positive for COVID-19. If the answer is “no,” you won't record the illness on your 300 log. An employee report of symptoms, without a confirmed positive test, is not sufficient to make an illness recordable. But, now that COVID-19 tests are easier to come by in most locations, we should expect to see more employees with confirmed positive cases.

Assuming your employee has tested positive for COVID-19, you must move on to the second step, and determine whether the illness is

work-related. This can be tricky, depending on whether there are other cases of COVID-19 in your workforce, and whether there is community spread of the virus in your area.

To comply with the recordkeeping requirements of 29 CFR 1904, employers must make a “reasonable determination” as to whether an employee's COVID-19 case is work related. To make a “reasonable determination, you must first ask your employee how he believes he contracted the illness. Your employee's answer is likely to fall into one of three categories: (1) your employee believes he contracted the virus from someone outside of work; (2) your employee believes he contracted the virus at work; or (3) your employee will not know how he contracted the virus. If your employee reports that he contracted the virus outside of work (for example, he reports that he caught it from close contact with a friend or relative known to have COVID-19), your inquiry can probably stop with this information, unless you also have known COVID-19 spread within your workforce.

But, if your employee reports that he does not know where he contracted the virus, or that he believes he was exposed to the virus at work, you must proceed to ask follow up questions about the employee's in and out of work activities. During this inquiry, you must be mindful of the employee's privacy and avoid questions that could expose you to liability under the ADA, Title VII, ADEA, etc. For example, you could ask your employee if anyone he lives with has tested positive for COVID-19, continued on page: 24

continued from page: 23

whether he has been in close contact (within 6 feet for more than 15 minutes) of a person known to have COVID-19, whether he has recently attended any large gatherings, and similar generic questions. You may find it helpful to prepare—in advance—a list of questions you will ask employees who report COVID-19 cases. You might also wish to have your questions reviewed by your employment counsel, to ensure your questions will not violate one of the many other laws that employers are required to comply with concerning employee privacy, protected status, etc.

Last, you should review the employee's work environment for potential sources of exposure. According to OSHA, cases are “likely work related” when there is no alternative explanation other than workplace exposure, and either: (1) several cases develop among workers who work closely together; (2) the virus is contracted shortly after a lengthy and close exposure to a customer or coworker who has the virus; or (3) the employee's job duties involve frequent and close exposure to the general public in a locality with ongoing community transmission. On the other hand, an employee's COVID-19 illness is likely not work-related if the employee is the only worker in his work area to contract the virus; his job duties do not include frequent contact with the general public; or if the employee, outside of work, closely associates with someone who has COVID-19.

You should be prepared to undertake this inquiry for COVID-19 cases reported by your own employees, as well as workers (not employed by you) that you supervise and/or control. For example, if you have temporary workers on your jobsite, or if you exercise control over a subcontractor's employees, you will be required to record their work-related COVID-19 cases on your OSHA log unless the temporary employment agency agrees to log it on their 300 log. Remember it must be recorded on one log or the other, so this is something you might want to deal with in your contract with the temporary employment agency (see 29 CFR 1904.31(b)(2) and 1904.31(b)(4)). For that reason, you will need to make a reasonable determination as to

the work-relatedness of those cases as well.

You must only record the case of COVID-19 if the case is “more likely than not” work-related. If you have conducted a reasonable investigation into the work-relatedness of the illness and cannot determine whether a workplace exposure played a causal role, the illness is not recordable. If it is a close call, and you decide not to record the illness, you would be well-served to document the reasons you decided not to record the illness on your log.

You will have seven days to record a case on your OSHA log. Thus, you will have about a week to investigate the source of the employee's illness and make your “reasonable determination” as to work-relatedness. If you initially determine that a case is not work related, but later learn that it is, you must record the illness at that time. To avoid a potential OSHA citation for untimely recording, you should document the reason you initially determined the illness was not work related, in addition to the date you learned information suggesting otherwise. Further, if you initially determine that the illness is work-related, but later learn that it is not, you should line through the entry on your OSHA log. (Do Not erase it!)

Assuming that your employee tested positive for COVID-19, and that you have determined the illness is work-related, you will need to determine whether the illness meets one of the other recording criteria (i.e. resulting in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or the illness is a significant injury or illness diagnosed by a physician or other licensed health care professional). Cases of COVID-19 will virtually always result in days away from work, and thus, there will be few, if any, situations where the third recording criteria is not met.

As always, the obligation to record work-related cases of COVID-19, along with other illnesses and injuries, only applies to employers with more than 10 employees in a calendar year.

**Do I need to report a case of COVID-19 to OSHA?**

This section applies to employers of any size. Only serious illnesses and injuries must be reported to OSHA – i.e. injuries and illnesses resulting in death, in-patient hospitalization, amputation and/or loss of an eye. Although work-related COVID-19 infections may result in hospitalization or even death, they are only reportable to OSHA under certain circumstances. A hospitalization must only be reported if the employee is admitted to the in-patient unit of the hospital for treatment within 24 hours of the work-related incident (i.e. exposure). It will likely be difficult to determine when an employee’s work-related exposure occurred, and thus, difficult to determine whether the hospitalization occurred within 24 hours for purposes of reporting. If an employee dies from a work-related case of COVID-19, the death

is reportable if it occurs within 30 days of the work-related exposure.

## General OSHA Issues and Updates

### Confidentiality of Injury and Illness Records

On June 4th, 2020 Magistrate Donna M. Ryu ruled against the Department of Labor in the case of *The Center of Investigative Reporting v. DOL* and held that employer injury and illness records filed with OSHA are not confidential and can be obtained by the media and/or just about anyone else under a Freedom of Information Act request. The decision seems to be based in some part on the 2016 rule proposed by OSHA (Dr. Michaels) that was not adopted and that would have posted all such records filed with OSHA on the OSHA website. This was referred to in 2016 as the “shaming rule” continued on page: 26

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for obvious reasons. The rule did not reach the final rule stage, but now Magistrate Ryu has brought back at least some of what Dr. Michaels was trying to accomplish at that time.

In addition to the above, The D.C. Circuit Court of Appeals dismissed the attempt by the AFL-CIO to force OSHA to promulgate an emergency temporary standard on the COVID-19 pandemic. This decision was by a three-judge panel of the Court. The AFL-CIO has filed for an en banc hearing to have the entire bench of the D.C. Circuit hear the case.

### Working with Subcontractors

Be careful with how you treat the employees of subcontractors regarding safety compliance. Be sure you address this issue in your contract with your subs. Be sure you have a clear procedure for ensuring the safety compliance you require in your contract with your sub. In most cases I suspect that you will have procedures that maintain an arms-length relationship with your subs. So,

be sure any employee you have in charge of overseeing the work of your subs strictly and consistently follows those procedures. I have recently become aware of a situation in which a company was cited for a fall protection violation where OSHA has taken the position that the contractor had a duty to ensure (guarantee) the safety of the employees of the sub's employees. The compliance officer intercepted the principle's employee as he was on his way to advise the site supervisor for the sub of the safety infraction, but before he could do so, OSHA has taken the position that the contractor's site supervisor should have dealt directly with the individual employees of the sub.

### Multi-State Operations

If you are a contractor who works in multiple states or a company covered by the general industry standards and has facilities in more than one state you must be in compliance with the OSHA standards for the states in which you may work if they are state plan states. For example, in Utah, a company with an employee who has a serious injury must report to Utah OSHA within eight hours even if the employee was not hospitalized. The State of Washington I believe is unique in that they not only require you to determine the integrity of walking a working surfaces (Federal OSHA standard at 1926.501(a)(2)) they require you to guarantee that the walking/working surface will support the weight of the employee and his/her equipment who will work on it. Getting back to the pandemic, Nevada has promulgated an emergency temporary standard limiting the number of employees in an aerial lift, scissors lift or JLG basket to one person. The point of this paragraph is to remind you that you are not just bound to the safety regulations in the state in which you are headquartered or in which you have your principle facility, but also to those to which you send employees or open new facilities.

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## Back to COVID-19

In the absence of a temporary emergency OSHA standard relating to COVID-19, OSHA continues to issue guidance and enforce safety and health practices under the general duty clause. OSHA issued more guidance for construction contractors in June, advising employers to perform a job hazard analysis at the beginning of each work day to determine whether the work for the upcoming day will place them in the lower, medium or high risk category, and then act appropriately with engineering and/or administrative controls. I recently heard comments from a New England federal OSHA compliance officer that he expects the construction company to reevaluate their work, as far as exposure potential, throughout the day and adjust safeguards appropriately. The implication here is that whenever conditions on the site change in any way, a new JHA should be performed.

OSHA has defined the lower risk for construction as work that allows workers to remain six feet apart with little contact with the public. Medium risk work requires workers to be within six feet of each other and with customers, visitors and the public. High risk are those sites occupied by other workers customers or residents suspected or known to have COVID-19. In the guidance, OSHA lists engineering controls as closing doors whenever possible or erecting barriers such as plastic sheeting. OSHA recommends that employers continually reassess these barriers. For administrative controls, employers should follow CDC guidance and train employees on the spread of the disease.

Recommended training is extensive. It includes such things as training employees to recognize the signs and symptoms of COVID-19, and how the disease is spread. You should also train employees in all policies and procedures applicable to the employee's duties and provide information on social distancing and PPE. Remind employees to stay home if sick, how to properly wear face coverings and about EPA-approved cleaning chemicals. As with all other safety issues, you need to determine how to apply your safety progressive discipline program to COVID-19 pandemic issues.

The above measures are what OSHA considers to be "feasible" recommendations or guidance. For OSHA to allege a violation of the general duty clause, it must prove that an employer did not implement feasible work practices, administrative controls and engineering controls. So, if you determine that any of this guidance is not feasible or creates a greater hazard, you should document the analysis that led to your conclusion in case you are cited for a general duty clause violation. An example of greater hazard might be an increased risk of a heat related illness created by requiring employees to wear face coverings in a high or extremely high heat index environment.

As you can see, even though we do not have an emergency temporary standard from federal OSHA we can see that we are dealing with an ever-changing landscape.





Being prepared for a potential recession is more pertinent now than ever. To ensure stability during different economic cycles, contractors should always be focused on protecting the value of their assets.

# RECESSION READINESS: VALUE PROTECTION STRATEGIES FOR CONTRACTORS

Construction contractor optimism for 2020 is high, and backlogs are strong, but the question on every contractor's mind seems to be, "When is the next recession?" Former Federal Reserve Chair Janet Yellen believes "there is always some chance of recession in any year." [1] Based on reports from multiple national construction economists, 2020 is forecasted to be a year of continued, yet slowing, growth.

BY Laura Cataldo



An outlook of slowing growth is supported by FMI Corp.'s projection [2] that U.S. construction spending for all sectors will increase from \$1.35 trillion in 2019 to \$1.46 trillion in 2022. This will be a much more modest growth rate than the national nonresidential increases of 21.1% over the last 5 years, primarily led by strong growth in lodging, office, and amusement and recreation markets. Private office, education, hospital, and warehouse markets are forecast to lead nonresidential construction growth through 2020.

## Protecting Asset Value Is Not Limited to the Balance Sheet

Being prepared for a potential recession is more pertinent now than ever. To ensure stability during different economic cycles, contractors should always be focused on protecting the value of their assets. Value protection is a holistic and enterprise-wide effort to protect your strategic resources/assets and is not limited to your financial balance sheet. Your most valuable asset is your human capital—employees are responsible for your ability to make (or lose) money on every project. With workforce challenges topping the list of every industry's concerns, contractors must formalize their strategies to recruit and retain

human capital to succeed in the rapidly changing marketplace.

This is the first in a series of articles on human capital, beginning from a wide viewpoint to address the critical need to have a well-defined strategy in place. In this article, we answer the questions:

- What is strategy?
- How do you evaluate the potential for success?
- Why does strategy matter in a discussion on human capital?

## A Well-defined Strategy Is the Starting Point for All Value Protection

Baker Tilly has developed a performance model that provides a framework for best-in-class business practices (see Figure 1). At the center of the performance model is strategy. In an industry that is rapidly changing due to new technologies, owner demands, tighter project timelines, and workforce shortages, strategy addresses how you will succeed. Having clearly defined strategic initiatives allows your company to be successful in the competitive marketplace. Without defined strategic goals, it is impossible to build an organizational structure and hire or train employees to meet the organization's changing needs.

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By looking at new markets and diversifying their portfolios, companies can better prepare themselves for an economic downturn. Growth opportunities are unique to each company and may include any of the following:

- Revenue growth,
- Geographic expansion,
- New service lines,
- Merger or acquisition, and
- Bottom- versus top-line growth.

### Economic Indicators and Construction Outlook

Economists monitor many different economic indicators when preparing outlooks (consumer price index, interest rates, unemployment, etc.). All market segments experience a continuous cycle of expansion and retraction, the depth and length of which signal a recession.

Contractors should watch changing trends in the markets in which they work and strategically diversify into expanding markets to successfully ride the tides of growing markets.

Strategic diversification happens when you redirect your sales and marketing efforts to align with growing markets and move away from those in decline. For example, ITR Economics' ITR Trend Report for November 2019 indicated that both education and hospital spending will experience accelerating growth in 2020, while office and warehouse construction spending is forecasted to significantly slow.[3] Companies can take this data and strategically diversify toward education and hospital markets, away from those on a decline. Diversifying your markets can help stabilize your company so that when one market turns, you have

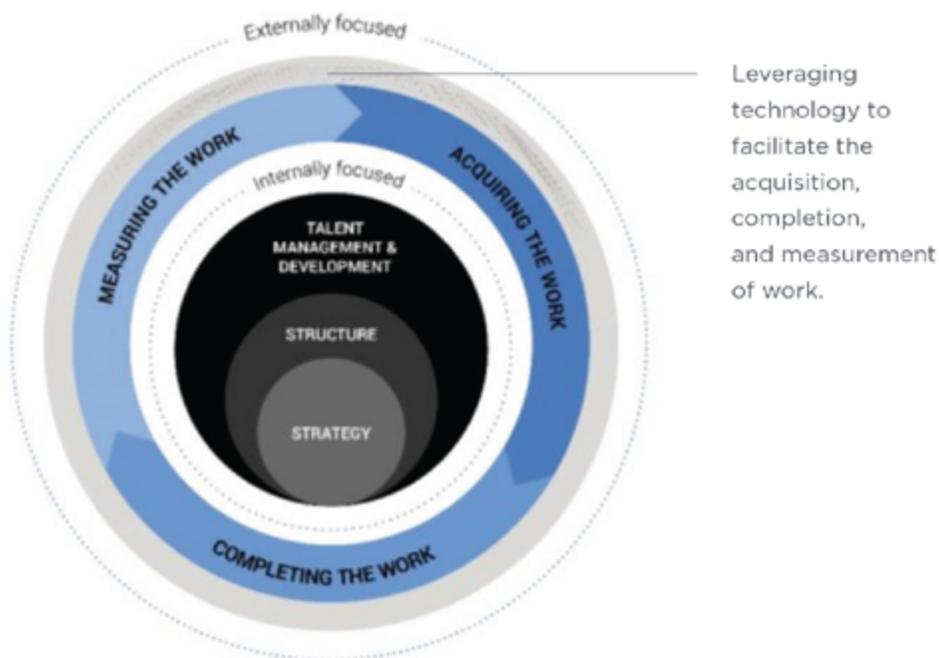
others to rely on.

### Building a Framework for Strategic Growth

Improving profitability starts with a clear picture of what you want your company to be and answering these key questions:

- Which markets or service line offerings are we pursuing?
- Which customers do we want (or not want)?
- What advantages do we bring to this market?
- Is growth focused on the top line or bottom line?

Answering those questions can give you a better idea of what kind of growth you want to see in the future and where you want your company to be before an economic downturn hits. When you think about your company's growth plan, making a strategy framework can be a helpful way to keep your vision, mission, and values at



**FIGURE 1: Performance Model**

The performance model shows how internally and externally areas of focus fit together to create a strong strategic plan.

the forefront of your mind while including all the different components that go into your plan.

The first step of a diversification decision is looking at the markets that have an accelerated growth on the horizon and deciding which have potential for your company to enter. This process evaluates current competitors and purchasers in that market in order to decide if it is the right fit for your company.

Before you can enter into a new market, it is critical to assess both your internal strengths/weaknesses and external opportunities/threats. This process can give you a better understanding of how your company can compete in the market so you can be more prepared to make decisions about your future growth strategy.

### Managing the Risk of Profit Potential

Do you remember the loveable children’s cartoon Bob the Builder? His signature yellow hard hat and red toolbox are as recognizable as his famous saying: “Can we build it? YES, WE CAN!” When presented with a project opportunity, many contractors quickly respond with enthusiasm like Bob’s before thoroughly considering whether taking on the project makes sense for their business.

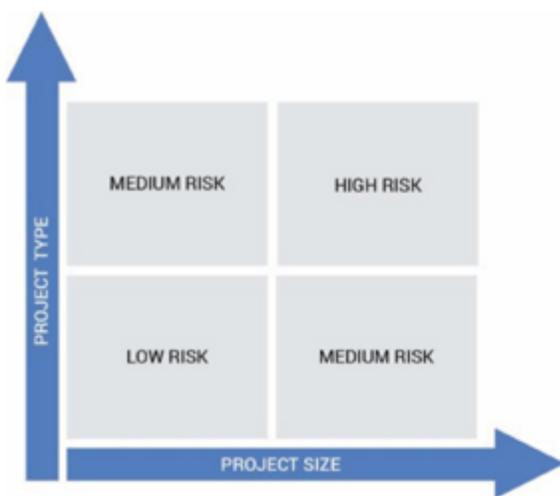
Thomas C. Schleifer, Ph.D., former Professor at Arizona State University, wrote, “many construction professionals believe they can design or build anything. The pertinent question is, can we build or design it at a profit. Construction isn’t that hard. Construction at a profit is.”[4]

Being awarded the project often results in the famous adage, “the good news is, we won the project; and the bad news is, we won the project.” Fortunately, there is a better way to evaluate projects that balances the excitement and optimism of a win with the practical need to make a profit.

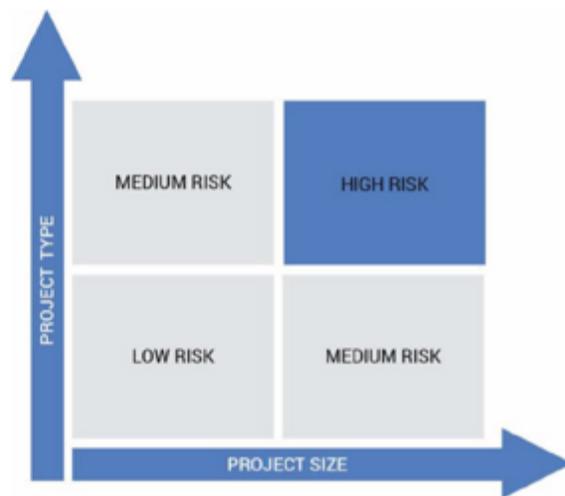
When in a tough situation like this, many organizations utilize a go/no-go test to evaluate the viability of a potential project, applying criteria such as:

- Prior experience/relationship with the client,
- Geographic location,
- Payment history, and
- Other likely bidders.

However, this test does not include a risk assessment of profit potential. If profit potential is not already a criterion in your business development efforts, consider incorporating a risk matrix continued on page: 32



**FIGURE 2: Risk Matrix**  
Using a risk matrix can help you identify success in a potential project.



**FIGURE 3: Risk Matrix—Example 1**  
In the \$7.5 million shopping complex example, the project is identified as high risk due to a large project size and unique project type.

continued from page: 31

into the discussion before saying yes to the next opportunity.

A classic risk matrix such as that shown in Figure 2 is an effective tool for examining a project's potential success.

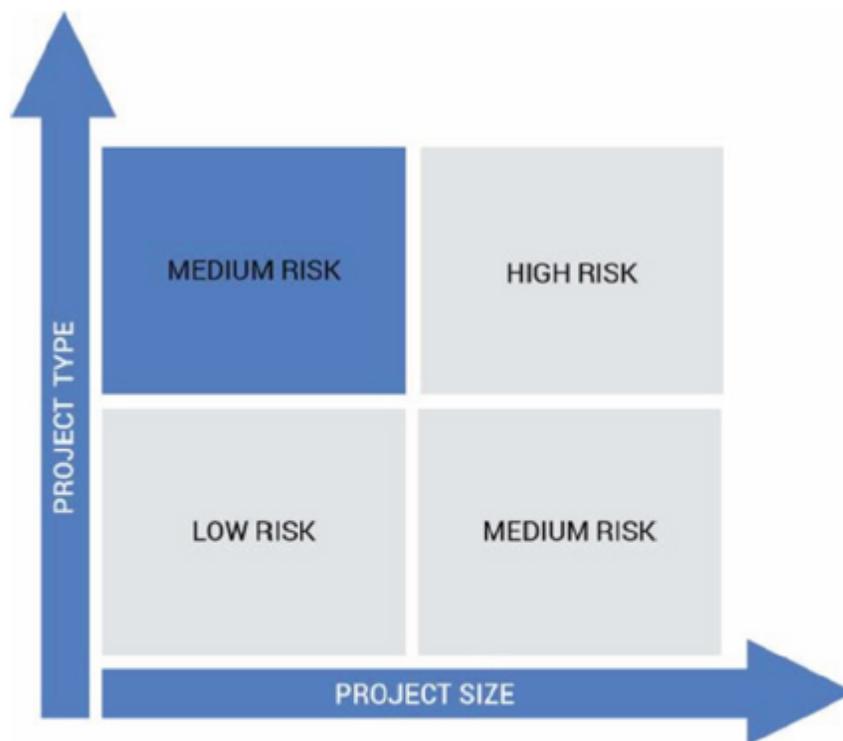
Many criteria can impact project profitability; however, the 4 most important parameters relate to how well the project aligns with your previous project success.

- Project size
- Project type
- Geographic area
- Project owner

Consider the following example of how to use the matrix to evaluate the potential risk of a new opportunity. An insulation contractor is asked to bid on a new 60,000 square foot, \$7.5 million shopping complex in a nearby Chicagoland suburb. The majority of the contractor's project experience is negotiated high-end manufacturing construction (average project size of \$3.5 million) with an area general contractor, who is the driving force behind the new complex. This is a perfect win-win opportunity for both the client and the company. Now is the time for the company to ask itself, can we build it? Before saying yes, it is important to evaluate the risk.

To evaluate the 4 aforementioned critical experience criteria that compare profitability and risk, use the risk matrix. Based on the previously described scenario, project size and type are the 2 key criteria to consider because they differ from the contractor's experience.

**Project size:** In volume, this opportunity is almost double the company's average project size. A standard



**FIGURE 4: Risk Matrix—Example 2**

In the same scenario, but changing the project size, the risk of the project decreases to medium risk.

rule is to consider a project high risk if it is more than 10% larger than past profitable projects. The key word here is profitable. A project twice as large as past profitable experience is high risk.

**Project type:** This project is not comparable to the type of work the company has profitably completed in the past.

Without profitable experience with projects of comparable size and kind of work, this project has a high risk of being unsuccessful or highly unprofitable (see Figure 3).

Using the same scenario as above but changing the project size to \$4 million (closer to the 10% acceptable increase) results in a considerably different analysis. With the change in the project size, it is much lower in risk (see Figure 4), and other factors—such as relationship with the owner, project

complexity, and available resources (manpower, equipment, etc.)—can be taken into consideration when making the go/no-go decision.

While you should consider many factors when pursuing a project, evaluating the risk of the 4 critical experience criteria should be part of the process. It is always exciting to think about new opportunities for your company, but keep Tom Schleifer's advice in the back of your mind: Rather than considering whether or not you can build it, consider if you can build it at a profit.

## Organizational Structure that Supports Strategy

It is critical to have your strategy mapped out before you determine the best structure for your company. A strategy is successful when supported internally by standardized processes and procedures. Management and employees both need to be on board for the new strategy and understand how the company is going to get there. Components of the organization's structure to review for alignment with future growth include:

- Value-added business systems and process,
- Predictable project outcomes through standardized execution,
- Measurable outcomes, and
- Incentivizing long-term behavior.

Business processes can either help or hinder an organization's ability to achieve its goals. By assessing current practices, identifying problem areas, redefining the process, defining new measures, and training your employees, you are supporting strategy with predictable and scalable practices.

Defining measurable outcomes is a critical component of change. Measurements could be the number of new prospects contacted, annual revenue, or profit margin. It is hard to know if you have achieved your goal if you cannot measure, and you cannot improve what you do not measure. A future article in this series will address compensation

trends and the increased use of performance-based compensation. Defining the measurements that evaluate success is important when considering implementing this compensation strategy.

Diversifying your company's portfolio can help you stay ahead of the game when an inevitable economic downturn occurs. Remember to align your company's vision, mission, and values with the strategy. Review the plan on a regular basis to ensure it remains pertinent to your changing business and adapt accordingly—in good times and bad.

Now that we have thoroughly explained the reasoning behind a well-defined strategy being at the core of all business decisions, we will further develop this knowledge in future articles, discussing organizational structures that support strategic goals and the protection and enhancement of human capital.

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**About the author:** Laura Cataldo is a Senior Manager with Baker Tilly ([www.bakertilly.com](http://www.bakertilly.com)), specializing in work with construction companies. She has experience in evaluating business practices and assisting with management challenges in construction-related firms of all sizes. She can be reached at [laura.cataldo@bakertilly.com](mailto:laura.cataldo@bakertilly.com).

# INSIDE THE FRAME

# TODD CARLSON

Each Issue of Frame Builder Magazine will feature an article by NFBA Membership Director, Morgan Arwood, giving an inside, personal look at the lives of one of the many volunteer members that dedicate their time and treasure to NFBA and the post-frame industry.

BY Morgan Arwood  
NFBA Membership Director



A.J. MANUFACTURING BLOOMER, WI  
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Todd Carlson was born and raised in Eau Claire, Wisconsin. The older brother to his talented artist sister and favorite son of his parents, Gary and Paulette. Todd grew up on a hobby farm and apple orchard in the rolling hills outside of town and enjoyed pitching in with chores, time in the shop, and the support of his folks at just about every baseball game and wrestling match he in which participated. He attended college at Wartburg College in Waverly, IA and began dating his wife (Maureen) before returning to Eau Claire after graduation.

Todd has always enjoyed spending time on job sites, around construction, and farm equipment and his early career path was in agricultural/consumer product sales and dealership management graduating to a dozen years selling and managing one, then several, branch locations in the heavy highway, forestry, paving, and construction equipment industry. The last three years included a relocation of his family, across the state, back to western WI. Professional connections and an opportunity to join A.J. Manufacturing was how he was first introduced to manufacturing and the Post Frame Industry.

Todd's time at A.J. (16 years) and within the industry has galvanized his belief that customers, no matter the industry, market, size, or location all want the same things. They want to be treated fairly, presented

options that meet their needs, and then have that product or service delivered on-time, as ordered, without issue. It seems simple, but as we all know it can be a challenge to execute consistently. What he enjoys most is working with a great team that takes pride in their work and really does care to do their best for customers (friends). All business is about relationships.

Todd has been married to his lovely wife Maureen for 29 years and they have two adult children, Ryan and Kelly who currently reside in Eau Claire. Ryan is a sheet metal apprentice and Kelly is attending college.

Maureen and Todd are empty nesters and enjoy time together in the summer on Lake Wissota, tandem-biking, car rides and travel to a warm destination in the winter. In Todd's free time he enjoys restoration of vintage machines (motorcycles, scooters, tractors, wood & fiberglass boats, cars, and snowmobiles). He especially enjoys riding snowmobile during Wisconsin's short but often severe winters.

Throughout Todd's time as an NFBA member and board of director member has been invaluable as he has matured and grown to appreciate working with others who have vast amounts of experience, talent, and genuine care for others. He has enjoyed serving, giving back to the industry through thoughtful deliberation of difficult issues, looking forward for areas of risk and opportunity, and by making friends along the way with the best of our industry. "The NFBA means more to me than ever as I prepare to take a less active role and watch, with supreme confidence, the next generation take the lead and that includes our staff and partners that make it all happen."



Finished restoration of 1969 Challenger snowmobile



Snowmobiling in Idaho



Ryan, Maureen, Todd, and Kelly



1950 Hal Kelly race boat restoration



First tractor for our 6yr old niece Norah



Vintage and Customized Mitsubishi Silver Pigeon scooters



For more than 40 years, the National Frame Building Association (NFBA) has represented the interests of builders, suppliers, distributors, academics, and code and design professionals serving the U.S. post-frame industry. Its mission is to lead and support members in their efforts to promote the growth and expansion of post-frame construction projects.

## Join NFBA for access to resources that help you build your post-frame business.

### Education

With the right information you can make smarter business decisions. You'll stay ahead of the competition while impressing your customers.

- **Technical Resources**—Learn best practices and new developments directly relevant to your business.
- **Frame Building Expo Seminars**—Attend discounted seminars at the Frame Building Expo.
- **Industry Trend Data**—Benchmark your performance against peers' performance and identify growth opportunities.

### Growth

Opportunities abound for you to increase your business's bottom line.

- **Business Referrals**—Lead-generation programs send referrals straight to your inbox.
- **Penetration of New Markets**—NFBA's market development program advances post frame into new markets.
- **Exposure**—Be seen in directory listings in the **NFBA Directory** and on the **NFBA website**.

### Advocacy

NFBA is the voice of the post-frame industry, and members gain instant credibility when they join.

- **Legal and Technical Expertise**—Obtain guidance from NFBA's experts at no additional charge.
- **Safety Programs**—Show your commitment to safety and earn goodwill from employers and customers.
- **Credibility**—Participate in the Accredited Post-Frame Builder program to earn credibility with customers.

## NFBA Membership Categories

### • **BUILDER MEMBERSHIP (\$475-\$3,300)**

Any individual proprietorship, corporation, or other legal entity that is engaged in the business of manufacturing, distributing, marketing, or constructing of post-frame buildings or post-frame building packages. Dues are structured incrementally by annual gross volume of business in millions of dollars.

### • **NATIONAL SUPPLIER PARTNER MEMBERSHIP (\$1,625)**

Any individual proprietorship, corporation, or other legal entity that is engaged in the manufacture or supply of post-frame building components but is not selling building packages and assuming design responsibility for the building. *This category applies to supplier companies that provide services or products in seven states or more. Includes a \$500 assessment that will be put toward the **Post-Frame Advantage Initiative**.*

### • **REGIONAL SUPPLIER PARTNER MEMBERSHIP (\$1,325)**

Any individual proprietorship, corporation, or other legal entity that is engaged in the manufacture or supply of post-frame building components but is not selling building packages and assuming design responsibility for the building. *This category applies to supplier companies that provide services or products in six states or fewer. Includes a \$500 assessment that will be put toward the **Post-Frame Advantage Initiative**.*

• **BUILDING MATERIAL DEALER PARTNER MEMBERSHIP (\$570)** Any individual proprietorship, corporation, or other legal entity that is engaged in the sale or distribution of lumber, trusses, or building kits to the post-frame building industry. *Includes a \$220 assessment that will be put toward the **Post-Frame Advantage Initiative**.*

### • **BRANCH/DEALER MEMBERSHIP (\$100) (Dealer 1st Year Only)**

Any individual proprietorship, corporation, or other legal entity that operates as a branch office (i.e., is wholly owned by, and operates under the same name as, a regular NFBA member) or as a dealer for another company with a different name that is a regular NFBA member in good standing.

### • **DESIGN/CODE PROFESSIONAL MEMBERSHIP (\$120)**

Any individual who is engaged in the business of building design, is a licensed professional engineer or architect, or is involved in building inspection or code development and enforcement.

### • **ACADEMIC MEMBERSHIP (\$100)**

Any individual who is primarily associated with an academic institution and has a particular interest in the post-frame building industry.

### • **ASSOCIATE MEMBERSHIP (\$325)**

Any company engaged in a business rendering service to the industry but not qualifying for any other membership division.

### • **STATEWIDE LISTINGS (\$100 each)**

Market your business in multiple states in which you provide services by purchasing statewide listings. Listings in all states, excluding Alaska and Hawaii, are available for purchase. Your organization will appear in all selected states in the "Find a Provider" NFBA website search results and in the **NFBA directory**.



# National Frame Building Association Membership Application

This application must be completed in its entirety, or your membership cannot be processed.

Company Name \_\_\_\_\_  
Company Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_  
Company E-mail (example: info@) \_\_\_\_\_  
Primary Contact (will also be billing contact) \_\_\_\_\_  
Title \_\_\_\_\_  
E-mail \_\_\_\_\_

Referred by \_\_\_\_\_ Company \_\_\_\_\_  
E-mail \_\_\_\_\_

## A. Membership Level

### Builder Membership

Select category according to your annual gross business volume (in millions).

0-1 \$475       1+ to 3 \$700       3+ to 6 \$1,280

6+ to 10 \$2,000       10+ \$3,300

Please indicate below what type of structures you erect or work on:

- Agricultural Buildings     Commercial Buildings     Residential Buildings  
 Industrial Buildings     Horse Barns/Facilities     Suburban Garages  
 Institutions (churches, schools, public buildings)    Other \_\_\_\_\_

**National Supplier Partner Membership**       \$1,625

(\$1,125 Membership Dues, \$500 PFMI Assessment)

**Regional Supplier Partner Membership**       \$1,325

(\$825 Membership Dues, \$500 PFMI Assessment)

**Building Material Dealer Partner Membership**       \$570

(\$350 Membership Dues, \$220 PFMI Assessment)

Please indicate below which products or services you provide or work on:

- |   |                                     |  |
|---|-------------------------------------|--|
| <input type="checkbox"/> Building Accessories       | <input type="checkbox"/> Foundation | <input type="checkbox"/> Skylights                 |
| <input type="checkbox"/> Building Posts and Columns | <input type="checkbox"/> Products   | <input type="checkbox"/> Software                  |
| <input type="checkbox"/> Business Resources         | <input type="checkbox"/> Framing    | <input type="checkbox"/> Storm Management Products |
| <input type="checkbox"/> Chemicals                  | <input type="checkbox"/> Hardware   | <input type="checkbox"/> Structural Components     |
| <input type="checkbox"/> Coatings                   | <input type="checkbox"/> HVAC       | <input type="checkbox"/> Tools                     |
| <input type="checkbox"/> DIY Building Packages      | <input type="checkbox"/> Insulation | <input type="checkbox"/> Trusses                   |
| <input type="checkbox"/> Doors                      | <input type="checkbox"/> Lumber     | <input type="checkbox"/> Walls                     |
| <input type="checkbox"/> Engineered Components      | <input type="checkbox"/> Machinery  | <input type="checkbox"/> Windows                   |
| <input type="checkbox"/> Equine                     | <input type="checkbox"/> Roofing    | <input type="checkbox"/> Other                     |
| <input type="checkbox"/> Fasteners                  | <input type="checkbox"/> Siding     |  |

**Branch/Dealer Membership (Dealer 1st Year Only)**       \$100

Above, write the name and location of the parent NFBA member company's head office.

**Design/Code Professional Membership**       \$120

Please indicate below which services you offer:

- Academic     Engineering     Architecture     Design Consulting  
 Structural Analysis    Other: \_\_\_\_\_

Please indicate the types of structures you can work on:

- Agricultural Buildings       Commercial Buildings  
 Residential Buildings       Industrial Buildings  
 Horse Barns/Facilities       Suburban Garages  
 Institutions (churches, schools, public buildings)

**Academic Membership**       \$100

**Associate Membership**       \$325

**Section A Total \$** \_\_\_\_\_

## Additional Company Contacts

Company Owner's Name \_\_\_\_\_  
E-mail \_\_\_\_\_  
Marketing Contact Name \_\_\_\_\_  
E-mail \_\_\_\_\_  
Technical Contact Name \_\_\_\_\_  
E-mail \_\_\_\_\_

## B. Unified Chapter Dues (Mandatory)

Companies located in unified chapter states must pay an additional \$25 for chapter membership. These companies will hold membership in both their local chapter and the national organization. If you are located in a unified chapter state, please select your local chapter:

**Atlantic Northeast (CT, MA, ME, NH, NJ, NY, PA, RI, VT)**       \$25

**Mid Atlantic (DE, MD, NC, SC, VA, WV)**       \$25

**Heartland (AR, KS, LA, MO, OK, TX)**       \$25

**Section B Total \$** \_\_\_\_\_

## C. Statewide Listing (Optional)

Please indicate on the line below the additional statewide listings you would like to purchase. (Cost for each additional listing is \$100.)

\_\_\_\_\_ additional listing(s) at \$100 each

**Section C Total \$** \_\_\_\_\_

**Total of sections A, B, C**      **\$** \_\_\_\_\_

The undersigned hereby certifies that the above information is true and that, if accepted for membership by the National Frame Building Association, I/we will abide by the bylaws of the association and voluntarily agree to adhere to the association's Standards of Professional Conduct.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Payment Information (select one):

Check enclosed     Visa     MasterCard     AMEX     Discover

Name on card (please print) \_\_\_\_\_

Account Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

Billing Zip Code \_\_\_\_\_

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Return completed form with payment to  
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**www.nfba.org**



# JOHNNY HOSTETLER, H & H CUSTOM HOMES, LLC LOUDONVILLE, OH

Congratulations to NFBA “Crew Foreman of the Month” for July, Johnny Hostetler of H & H Custom Homes, LLC located in Loudonville, Ohio.

H & H Custom Homes, LLC is an Amish-owned and operated company located in central Ohio specializing in log and timber frame homes, custom post frame buildings both residential and commercial such as barns, garages and agricultural buildings, as well as other light building work.

“Johnny Hostetler has been with the company for 22 years and is our go-to foreman.” Says Craig Henderson. “When anything needs to be done right, you can

always count on Johnny. He has one goal in mind and that is to build your dream project the way you want it. Aside from his superb craftsmanship, Johnny is also able to work very efficiently and professionally, which in turn, saves the company money.”





## NATHAN FISHER, LEVEL EDGE CONSTRUCTION STRASBURG, PA

Congratulations to NFBA “Crew Foreman of the Month” for August, Nathan Fisher of Level Edge Construction located in Strasburg, PA.

Nathan Fisher, better known to Level Edge Construction and his crew as Nate, has been working for Level Edge since he was 16 years old, in 2016! He has been a teachable and dedicated worker. In just 2 short years Nate had quickly climbed the ladder, figuratively and literally, to foreman of his own crew. Nate has a passion for building and a strong desire to help those around him personally and professionally. “He is organized, has a good handle on materials at the site, and communicates well with the project manager.” Says Elam Stoltzfoos, Owner of Level Edge Construction. “He consistently finishes jobs within or under the estimated man-hours. He works alongside his crew to get the job done with the utmost of integrity. We are continually impressed with the level of pride that he takes in his work. Nate continues to earn the praises of project managers, general contractor supervisors,

and our residential customers alike for his work ethic, the work ethic of his crew, and his attention to detail. We are thankful to have the talent of Nathan Fisher here at Level Edge Construction. Congratulations Nate!



# WHATS NEXT



SEP  
9<sup>TH</sup>

**NFBA WEBINAR**  
 DIAPHRAGM DESIGN OF POST FRAME USING  
 DAFI – ENGINEERING DETAILS  
 1:00PM - 2:00PM CENTRAL  
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SEP  
23<sup>RD</sup>

**NFBA WEBINAR**  
 SIMPLIFIED METHOD FOR SHALLOW POST AND  
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SEP  
23<sup>RD</sup>  
**(CANCELED)**

**CFBA GOLF OUTING (CANCELED)**  
 CANADIAN FARM BUILDERS ASSOCIATION  
 ANNUAL GOLF TOURNAMENT  
 We regret to inform you that the Canadian  
 Farm Builders Association Golf Tournament  
 for 2020 has been cancelled due to concerns  
 with COVID-19. We have a date selected for  
 us all to look forward to in 2021: September  
 22nd, 2021 – please mark your calendars!



OCT  
7<sup>TH</sup>

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 UNIVERSAL METHOD FOR SHALLOW POST AND  
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OCT  
21<sup>ST</sup>

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 DESIGN AID  
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NOV  
4<sup>TH</sup>

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NOV  
18<sup>TH</sup>

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 2015 POST-FRAME BUILDING DESIGN MANUAL-  
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DEC  
2<sup>ND</sup>

**NFBA WEBINAR**  
 2019 NON-DIAPHRAGM PF DESIGN GUIDE  
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 POST-FRAME BUILDING SYSTEMS)  
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DEC  
16<sup>TH</sup>

**NFBA WEBINAR**  
 NON-DIAPHRAGM STRUCTURAL DESIGN  
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 MODERN POST-FRAME STRUCTURAL DESIGN  
 PRACTICE: AN INTRODUCTION)  
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# NFBA Frame Builder Magazine

## Advertising Information and Contract



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NFBA is the only national trade association that represents post-frame industry professionals. The association exists to support its members and stimulate the growth of the post-frame industry. For more than 50 years, NFBA has provided its members with the necessary industry tools and code resources, education, access to technical and legal experts, builder accreditation programs, post-frame market development updates, and networking opportunities.

*Frame Builder Magazine* is the association's bi-monthly publication with a combined print and digital circulation of more than 10,000 decision makers and key contacts across the country. Focusing on the topics that matter most to Post-Frame Industry Professionals, *Frame Builder Magazine* is the premier resource tool to reach NFBA members.

	Editorial Calendar	Ad Deadline
January	Conference Promo	12/1
March	Post Convention Highlights	2/1
May	Industry News	4/1
July	Industry News	6/1
September	Conference Preview	8/1
November	Conference Promo	10/1

Issue Month	Size	Orientation or Placement	Rate
Jan	_____	_____	_____
Mar	_____	_____	_____
May	_____	_____	_____
Jul	_____	_____	_____
Sep	_____	_____	_____
Nov	_____	_____	_____
Total Cost			_____

### NFBA Magazine Advertising Rates

B/W Ads	Number of Issues		
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Full Page	\$ 2,900	\$2,755	\$2,617
1/2 Page	\$ 1,800	\$1,710	\$1,625
1/4 Page	\$ 1,050	\$998	\$948
Color Ads	1X	3X	6X
Full Page	\$ 3,800	\$3,610	\$3,430
1/2 Page	\$ 2,700	\$2,565	\$2,437
1/4 Page	\$ 1,900	\$1,805	\$1,715
Back Cover	\$ 4,750	\$4,513	\$4,287
Inside Front	\$ 4,500	\$4,275	\$4,061
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### NFBA Magazine Advertising Specifications

AD	BLEED	TRIM	LIVE AREA
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Carroll Hamann NFBA 800-557-6957

# WHAT TO DO WHEN SCARED WORKERS DO NOT RESPOND TO WORK DUE TO COVID-19

Some essential workers are refusing to come to work out of fear of contracting COVID-19. Their employers must weigh the employees' legal rights and understandable health concerns with the organizations' business needs. It can be a tough balancing act.

BY Allen Smith, J.D.



“A good first step for an employer to respond to an essential worker who’s expressing fears of returning to work is to actively listen to the employee and have a conversation,” said Brian McGinnis, an attorney with Fox Rothschild in Philadelphia, Pennsylvania. “What are their specific concerns? Are they reasonable?”

Mr. McGinnis said that employers should consider whether they already have addressed those concerns or if additional steps are needed. Often, having a conversation with the employee “will avoid an unneeded escalation,” he said.

## Employees’ Legal Rights

What if that does not work? Tread cautiously, as employees have many legal protections.

An employer usually can discipline workers for violating its attendance policy. But there are exceptions to that rule, noted Robin Samuel, an attorney with Baker McKenzie in Los Angeles, California. Putting hesitant employees on leave may be a better choice than firing them.

Christine Snyder, an attorney with Tucker Ellis in Cleveland, Ohio, cautioned, “If an employer permits employees to use vacation or PTO (paid time off) for leave, it may soon find itself without a workforce sufficient to maintain operations.

Therefore, an employer may want to rely upon the terms of its existing time-off policy, which typically requires approval to use vacation or PTO, to require that leave for this reason be unpaid.”

## Occupational Safety and Health (OSH) Act

Employees can refuse to work if they reasonably believe they are in imminent danger, according to the OSH Act. They must have a reasonable belief that there is a threat of death or serious physical harm likely to occur immediately or within a short period for this protection to apply.

Mr. Samuel explained that an employee can refuse to come to work if:

- The employee has a specific fear of infection that is based on fact—not just a generalized fear of contracting COVID-19 infection in the workplace.
- The employer cannot address the employee’s specific fear in a manner designed to ensure a safe working environment.

## The National Labor Relations Act (NLRA)

The NLRA grants employees at unionized and nonunionized employers the right to join together to engage in protected concerted activity. Employees who assert such rights, including by joining together to refuse to work in unsafe



conditions, are generally protected from discipline, Mr. Samuel noted.

“That said, the refusal must be reasonable and based on a good-faith belief that working conditions are unsafe,” said Bret Cohen, an attorney with Nelson Mullins in Boston, Massachusetts.

#### **The Americans with Disabilities Act (ADA)**

Employers should accommodate employees who request altered worksite arrangements, remote work, or time off from work due to underlying medical conditions that may put them at greater risk from COVID-19, Mr. Samuel said.

The U. S. Equal Employment Opportunity Commission’s guidance on COVID-19 and the ADA (available at: <https://tinyurl.com/yagh3epb>) notes that accommodations may include changes to the work environment to reduce contact with others, such as using

Plexiglas separators or other barriers between workstations.

The Age Discrimination in Employment Act, unlike the ADA, does not have a reasonable-accommodation requirement, pointed out Isaac Mamaysky, an attorney with Potomac Law Group in New York, New York. Nonetheless, he “would encourage employers to be flexible in response to leave requests from vulnerable employees,” such as older essential workers, as the right thing to do and to bolster employee relations.

#### **Families First Coronavirus Response Act (FFCRA)**

If a health care provider advises an employee to self-quarantine because the employee is particularly vulnerable to COVID-19, the employee may be eligible for paid sick leave under FFCRA, Mr. Cohen noted. The FFCRA applies to employers with fewer than 500

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employees, and the quarantine must prevent the employee from working or teleworking.

FFCRA regulations permit employers to require documentation for paid sick leave, noted John Hargrove, an attorney with Bradley in Birmingham, Alabama.

Employers may relax documentation requirements due to the difficulty some employees could have obtaining access to medical providers during

the pandemic and to encourage ill employees to stay away from work, said Pankit Doshi, an attorney with McDermott Will & Emery in San Francisco, California.

### **Hazard Pay**

Although not currently mandated by federal law, hazard pay—extra pay for doing dangerous work—might be appropriate for an employer to offer to essential workers, Mr. McGinnis said.

If hazard pay is offered, similarly situated employees should be treated the same, he said. Otherwise, the employer risks facing a discrimination claim.

Andrew Turnbull, an attorney with Morrison & Foerster in McLean, Virginia, noted that companies with multistate operations may have legitimate reasons for offering hazard pay to employees working at locations with a high risk of exposure and not where the risk is minimal.

Hazard pay might be a good choice for public-facing jobs, where employees may not be able to observe social distancing, said Román Hernández, an attorney with Troutman Sanders in Portland, Oregon.

Some localities require hazard pay in some circumstances, Mr. Doshi noted. These localities include Augusta, Georgia; Birmingham, Alabama; and Kanawha County, West Virginia.

### **Inform and Protect Workers**

Lindsay Ryan, an attorney with Polsinelli in Los

Angeles, California, said that employers should keep employees apprised of all measures the employer is taking to maintain a safe workplace, consistent with guidance from the U.S. Centers for Disease Control and Prevention (CDC), the Occupational Safety and Health Administration, and local health authorities.

If employers have the means to do so, they should screen employees each day by taking their temperatures, and send workers who have fevers home, Ms. Snyder said. Alternatively, employers can require employees to take their own temperatures before reporting to work, she added.

“Finally, in light of recent CDC guidance regarding the use of cloth masks to prevent infection, employers should allow employees to wear masks in the workplace and consider providing employees with cloth masks if they are able to acquire them,” she said.

*About the Author: Allen Smith, J.D., is a Manager, Workplace Law Content, and has worked at the Society for Human Resource Management (SHRM) since 2005. Previously, he was a writer and editor at Thompson Publishing Group, editing the ADA Compliance Guide and The Leave & Disability Coordination Handbook, and writing articles for their accompanying newsletters. He earned his law degree from the University of North Carolina School of Law and Bachelor's degree in history from Davidson College, cum laude. This article is reprinted from [www.shrm.org](http://www.shrm.org) with permission from SHRM. Copyright 2020, SHRM. All rights reserved. NIA has a new partnership with SHRM and will be publishing HR articles throughout 2020.*

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