COURT OF APPEALS
DIVISION III
OF THE STATE OF WASHINGTON
NO. 34435-5-III

95955-2

TERRY SCHILLING and JULIE SCHILLING, husband and wife, and ARTISAN, INC., a Washington corporation,

Appellants/Cross-Respondents,

vs.

PROBUILD COMPANY, LLC, a Washington limited liability company, d/b/a Lumbermens, and MITEK INDUSTRIES, INC. a foreign corporation,

Respondents/Cross-Appellants.

PETITION FOR REVIEW OF APPELLANTS/CROSS-RESPONDENTS TERRY SCHILLING and JULIE SCHILLING, and ARTISAN, INC.

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I. IDENTITY OF PETITIONERS

Petitioners are Terry Schilling and Julie Schilling, husband and wife (Schilling), and Artisan, Inc., a Washington corporation (Artisan), (collectively Petitioners).

II. COURT OF APPEALS DECISION

Petitioners seek review of the decision filed May 8, 2018, by Division III of the Court of Appeals in Cause No. 34435-5-III (Decision). The unpublished Decision is attached as **Appendix 1**

III. REVIEW ISSUES PRESENTED

1. As a matter of "substantial public interest," should the proven illegal "plan stamping" business practices of Respondents ProBuild Company, LLC, a Washington limited liability company (ProBuild), and MiTek Industries, Inc., a foreign corporation (MiTek) be allowed to continue?

2. As a matter of "substantial public interest," can a private party disclaim Washington's engineering statutes and Washington Administrative Codes (WAC's), which forbid plan stamping and require that an engineer exercise "direct supervision" over loadings chosen for a project? (RCW 18.43.070 and WAC 196-23-030; WAC 196-23-036).

3. Does the Decision conflict with other cases holding that statutory duties cannot be avoided by private contract as a matter of public policy?

Vedder v. Spellman, 78 Wn.2d 834, 480 P.2d 207 (1971); *Schlener v. Allstate Ins. Co.*, 121 Wn.App. 384, 88 P.3d 993 (2004); *Allstate Ins. Co. v. Welch*, 45 Wn.App. 740, 727 P.2d 268 (1986); *Employco Personnel Service, Inc. v. City of Seattle*, 117 Wn.2d 606, 817 P.2d 1373 (1991); and *Washington Federation of State Emp. AFL-CIO Council 28 v. Spokane Community College,* 90 Wn.2d 698, 585 P.2d 474 (1978).

4. Does the Decision conflict with other cases holding that on appeal from summary judgment, all facts and all inferences most favorable to the non-moving party be deemed true? *Transalta Centralia Generation LLC v. Sicklesteel*, 134 Wn.App. 819, 142 P.3d 209 (2006); *Vallandigham v. Clover Park Sch. Dist. No. 400*, 154 Wn.2d 16, 109 P.3d 805 (2005).

5. Does the Decision conflict with other cases holding that if disputed contract language can be given two or more meanings, a summary judgment dismissal cannot issue? *Martinez v. Miller Industries, Inc.*, 94 Wn.App. 935, 974 P.2d 1261 (1999); *Kries v. Wa-Spok Primary Care, LLC*, 190 Wn.App. 98, 362 P.3d 974 (2015).

6. Does the Decision conflict with other cases holding that a disclaimer which issues post-sale is without legal effect? *Potter v. Wilbur-Ellis Co.*, 62 Wn.App. 318, 814 P.2d 670 (1991), and *Hartwig Farms, Inc. v. Pacific Gamble Robinson Co.*, 28 Wn.App. 539, 625 P.2d 171 (1981).

7. As a matter of first impression and "substantial public interest" can a private industry entity, ANSI/TPI, nullify Washington's engineering statute duties, and does the Decision err in holding that certain ANSI/TPI rules were adopted and supersede statutory duties in Washington?

IV. STATEMENT OF THE CASE

1. Schilling/Artisan.

Petitioners Schilling are homeowners and petitioner Artisan is the general contractor hired to build the Schilling home. Custom trusses were needed to construct the home. Schilling contracted directly with ProBuild to manufacture these trusses. To be legally useable, purchased trusses must be accompanied by engineer-stamped truss plans. ProBuild contracted with MiTek to supply engineer-stamped plans for Schilling.

2. ProBuild/MiTek.

ProBuild manufactures and sells custom trusses in multiple states, including Washington. Manufactured wood trusses must be designed and engineered for each specific project and require metal connectors. Software programs have been developed by metal connector manufacturers, which allow unlicensed truss company salespeople to design trusses. Respondent MiTek has developed and owns one such software product. If a truss company (here, ProBuild) agrees to exclusively buy truss metal products from MiTek, it gets a license to use

MiTek's design software. MiTek contracts to engineer-stamp plans prepared using its software. Here, a ProBuild salesman designed the Schilling trusses using MiTek software, and a MiTek engineer-stamped those truss plans.

3. Washington Engineering Statutes and WAC's.

RCW 18.43.070 specifies what an engineer's stamp legally represents. It states:

> Such signature and stamping shall constitute a certification by the registrant that the same was prepared by or under his or her direct supervision and that to his or her knowledge and belief, the same was prepared in accordance with the requirements of the statute. [Emphasis added.]

What constitutes "direct supervision" is defined by former WAC 196-23-030, which states:

> Direct supervision is a combination of activities by which a licensee maintains control over those decisions that are the basis for the finding, conclusions, analysis, rationale, details and judgments that are embodied in the development and preparation of engineering or land surveying plans, specifications, plats, reports and related activities. [Emphasis added.]
>
> . . .
>
> Direct supervision requires providing personal direction, oversight, inspection, observation and supervision of the work being certified. [Emphasis added.]

In the fall of 2006, WAC 196-23-030 was recodified as new WAC 196-25-070 and the following explanatory language was added:

> ... Drawing or other document review after preparation without involvement in the design and development process as described above cannot be accepted as direct supervision. [Emphasis added.]

To summarize, truss specifications can be initially chosen by an unlicensed person and plans can be prepared using those specifications. Before those plans can be legally stamped, however, an engineer must know ("oversee") why the particular loadings were chosen and must confirm the loadings are correct for the project.

4. Plan Stamping.

The term "plan stamping" describes the practice of a licensed engineer stamping plans, which the engineer has neither created nor "directly supervised" for accuracy. The practice is illegal because RCW 18.43.070 makes an engineer stamp a "certification" that the engineer exercised "oversight", *i.e.*, "direct supervision" over the plan specifications being stamped. (*See,* WAC 196-23-030, now recodified as WAC 196-23-070).

Here, it is undisputed that ProBuild salesman, George Brooks (Brooks) used MiTek's software, to design the Schilling trusses. It was proven that Brooks, not MiTek, designed the trusses, because only Brooks

1) had the building plans; 2) knew the state and municipality where the Schilling home was being constructed; and 3) knew the local codes and contract requirements which the trusses had to meet.

Even though MiTek does not design the trusses, see the building plans, know what local building codes apply, know the qualifications or training of any designer, or confirm project loadings chosen are accurate, and it makes no effort to double check (directly supervise) any design information, on June 1, 2007, MiTek engineer, Palmer Tingey (Tingey), "plan stamped" the Schilling plans.

This illegal "plan stamping" conduct is not unique to the Schilling home. During discovery, plan stamping was disclosed as an existing business practice that ProBuild and MiTek have engaged in for years, a business practice which continues today. Accordingly, thousands of Washington homes have had their truss plans illegally "plan stamped" by MiTek.[1]

5. Pre-Complaint History.

Per the Schilling/ProBuild contract, on or about June 1, 2007, ProBuild's trusses were delivered to the jobsite and Petitioners received engineer-stamped truss plans. The post-sale stamped plans (*see* **Appendix 2**) on page 1 have the following language:

[1] Since an illegal stamp means a home violates the building code, at minimum until cured, this breach diminishes each home's resale value.

> The truss drawing(s) referenced below have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Lumbermen's Building Ctr. – 715. [Emphasis added.]
>
> . . .
>
> The seal on these drawings indicate acceptance of professional engineering responsibilities solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI/TPI-2002 Chapter 2. [Emphasis added.]

The City building official responsible for the Schilling job, Mr. William Rathbone (Rathbone), did not read this post-sale plan language as disclaiming Washington's engineer stamp obligations.

Rathbone instead understood this language to mean a MiTek engineer had complied with the statute's "direct supervision" requirements, but whether the trusses would fit correctly onto the building walls to which they were to be attached and/or whether *i.e.,* the final roof height and look would be what an owner desired, would not be the stamping engineer's responsibility.

The Schilling plans originally called for a tile roof. Brooks was asked to design the trusses to accommodate a tile roof. The Schilling plans as delivered showed the trusses would accommodate a 12 lb. top chord dead load (TCDL). ProBuild and MiTek have continuously claimed

that a 12 lb. TCDL will accommodate some tile roofs and therefore, the plan loadings are correct.

Inconsistent with that claim, before suit, ProBuild and MiTek inspected the Schilling home at Petitioners' request, to try to determine the cause for repeated garage ceiling cracking. By letter dated January 13, 2012, ProBuild representative, Frank Novak (Novak), disclosed to Schilling: "We designed your house with a load for heavy comp roofing and that is what was used." Stunned by this apparent admission the trusses were not designed to accommodate tile, on February 16, 2012, Petitioners filed suit against ProBuild and MiTek.

When suit was filed, independent of the loading issue, Petitioners had no knowledge that as a business practice, ProBuild and MiTek were engaged in illegal "plan stamping", the central issue presented by this appeal. It was not until Tingey's deposition, taken well-after lawsuit filing, that Petitioners first learned about ProBuild and MiTek's plan stamping practices. Once discovered, on May 9, 2014, Petitioners moved to amend their complaint to assert this new claim against MiTek and to identify plan stamping as an additional Consumer Protection Act (CPA) claim against ProBuild.

In error the Decision conflates this separate post-suit plan stamping claim with Petitioners' different truss loading claims. Each requires a separate legal analysis, which the Decision does not perform.

6. Superior Court/Appellate Court Decisions.

Confident illegal plan stamping violated Washington's CPA, in July 2014, Petitioners asked the superior court to issue partial summary judgment against ProBuild and MiTek. The court did so by order dated November 6, 2014. The court in part found "a statutory and WAC definition of 'direct supervision' did not occur in this case."

Despite being found liable, ProBuild and MiTek later moved to dismiss the lawsuit (including the new "plan stamping" CPA claims), due to an alleged statute of limitations bar. By later order dated April 15, 2016, the lawsuit was dismissed. On May 6, 2016, Petitioners appealed this dismissal order.

On appeal, Petitioners identified that central appeal issues were 1) whether ProBuild and MiTek's proven "plan stamping" practices were illegal because they violated Washington engineering statutes and WACs; 2) whether those illegal practices could be made legal by disputed post-sale language placed on the stamped plans; 3) whether disputed ANSI/TPI rules did or could change Washington statutory duties; and 4) whether accepting as true all record facts and inferences most favorable to

Petitioners, the Petitioners "should have known" (or could have known before discovery disclosed it), that ProBuild and MiTek were engaged in illegal plan stamping. (*See* Brief Excerpts **Appendix 3**).

Despite identifying plan stamping (and not whether disputed truss loadings were or were not correct) as the central appeal issue, the Decision does not directly address the Petitioners' plan stamping claims. (Petition **Appendix 1**).

Upon reading **Appendix 1**, this Court will find the Decision instead focuses principally on whether the loadings reflected by the truss plans were incorrect and when the Petitioners "should have known" about this different lawsuit claim issue.

Because whether "plan stamping" is now legal in Washington or can be made legal by a contested post-sale disclaimer, are matters of "substantial public interest," this Court should accept Decision review. Further, review is proper because the Decision's legal conclusions are objectively in direct conflict with abundant prior published case law.

7. Public Policy Plan Stamping Issues Needing Review.

It is Petitioners' position that 1) plan stamping is illegal under applicable statutes and cannot be privately contracted around or disclaimed by disclosure; 2) assuming, arguendo, statutory stamp requirements could be supplanted or disclaimed, Washington case law

makes post-sale attempts at disclaiming statutory obligations ineffective and unenforceable; 3) the MiTek truss plan language is not a disclaimer and cannot be deemed as such for summary judgment purposes; 4) the ANSI/TPI cannot supplant Washington's statutory stamp requirements, and any attempt to do so was never approved by Washington State; and 5) applying required language interpretation law, MiTek's disputed plan language does not inform Petitioners that Respondents are engaged in illegal plan stamping. Therefore, Petitioners' post-suit discovery of this separate CPA claim practice is not barred by the statute of limitations. For all of these reasons, review should be accepted.

V. ARGUMENT

1. Plan Stamping Is Not Legal.

It is undisputed that RCW 18.43.070 requires as "direct supervision," that an engineer know (oversee) why project loadings are chosen and must confirm they are project correct, before an engineer's stamp is affixed.

To dismiss Petitioners' lawsuit, the Decision now implicitly holds these statutory stamp requirements can be avoided by private contract and/or by post-sale disclaimer, and that MiTek's disputed plan language did this.

Prior case law however, holds statutory duties cannot be changed or disclaimed. *Travis v. Washington Horse Breeders Ass'n Inc.*, 111 Wn.2d 396, 405, 759 P.2d 418 (1988); *Schlener, supra; Allstate Ins. Co., supra*; *Employco Personnel Services Inc., supra*; *Potter, supra*; *McKee v. AT&T Corp.*, 164 Wn.2d 372, 191 P.3d 845 (2008). This Decision error should be reviewed.

2. Assuming Statutory "Direct Supervision" Requirements could be Legally Supplanted or Disclaimed, Were They?

The Decision implicitly finds the disputed plan language affixed to the plans post-sale by MiTek is legally effective, and therefore voided MiTek/Tingey's engineer stamp obligations.

This conclusion conflicts with published case law which holds a disclaimer issued after a sale has occurred is without legal effect. *Potter, supra*; *Hartwig Farms Inc., supra*; *Dorman v. International Harvester Co.*, 46 Cal.App.3d 11, 120 Cal.Rptr. 516 (1975).

Equally concerning, besides ignoring that statutory obligations cannot be disclaimed, the Decision in error also holds Petitioners "should have" read MiTek's disputed plan language as disclosing illegal plan stamping, a reading case law precludes.

3. The Appellate Court in Error, Adjudicated Ambiguous Plan Language.

Disputed language is "ambiguous" when its terms are uncertain or

are capable of being understood as having more than one meaning. *Western Farm Svc. Inc. v. Olsen*, 114 Wn.App. 508, 519, 59 P.3d 93 (2002); *Sons of Norway v. Boomer*, 10 Wn.App. 618, 519 P.2d 28 (1974); *Nashem v. Jacobson*, 6 Wn.App. 363, 367, 492 P.2d 1043 (1972).

Prior case law holds that disputed language must be interpreted as being consistent with the requirements of existing statutes and rules of law. *Bort v. Parker*, 110 Wn.App. 561, 42 P.3d 980, rev. denied 147 Wn.2d 1013, 56 P.3d 565 (2002); *Tanner Electric Cooperative v. Puget Sound Power & Light Co.*, 128 Wn.2d 656, 911 P.2d 1301 (1996). Courts cannot accept disputed language meanings which would render contract obligations illusory. *Taylor v. Shigaki*, 84 Wn.App. 723, 730, 930 P.2d 340 (1997). When more than one reasonable interpretation of disputed language is possible, a summary judgment cannot issue. *Wm. Dickson Co. v. Pierce County*, 128 Wn.App. 488, 494-495, 116 P.3d 409 (2005).

Applying the above required decisional law to disputed plan language, the first sentence on truss plan Page 1 states as follows:

> The truss drawing(s) referenced below have been prepared by MiTek Industries Inc. under my direct supervision based on the parameters provided by Lumbermen's Building Ctr-715. [Emphasis added.]

This language says (falsely) MiTek's engineer followed Washington's statutes by exercising "direct supervision" over the truss parameters provided by ProBuild.[2]

The next Page 1 disputed plan language states:

> The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss component shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI—2002, Chapter 2. [Emphasis added.]

The first sentence suggests the stamping engineer per Washington law is accepting responsibility for the plan-stamped trusses.

The second quoted sentence is, at best "ambiguous." Building official Rathbone testified he read this language to mean that whether the manufactured trusses would fit on the walls or are later erected as they are supposed to be (to the right height, etc.), are not truss facts being certified by the engineer's stamp.

Ignoring Rathbone's testimony, the Decision holds this contested plan language can only be read as disclosing plan stamping (a practice contrary to the requirements of existing statutes and law). This holding is in direct conflict with Washington's cited language interpretation case law.

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[2] It does not put the reader on notice that illegal plan stamping has occurred, because it does not disclose a failure to perform "direct supervision" by the stamping engineer.

Reading the second quoted sentence to mean that no "direct supervision" for the truss loadings occurred, also directly contradicts the "prepared under my direct supervision" statement made by MiTek's first plan sentence.

Washington case law requires disputed contract language to be interpreted in a manner which gives effect to all of a writing's provisions, over an interpretation which renders some at-issue language meaningless or illusory. *Newsom v. Miller*, 42 Wn.2d 727, 731, 258 P.2d 812 (1953); *Taylor v. Shigaki, supra.* The Decision ignores this case law. Its holding, which makes the "direct supervision" fact representation meaningless and illusory, conflicts with this case law.

As additional disputed language, MiTek and ProBuild cite to other "boilerplate" language at the bottom of each truss plan page which states:

> Warning – Verify design parameters and READ NOTE ON THIS AND INCLUDED MITEK REFERENCE PAGE M2-7473 BEFORE USE. Design valid for use only with MiTek connectors. This design is based only upon parameters shown and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer . . . [Emphasis added.]

This disputed language does not say verify plan "loadings" because plan stamping has occurred.

Rather, to determine what MiTek means by saying "verify design parameters," the sentence directs the reader to "READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE." That plan page is attached as **Appendix 4** to this petition. The "design parameters" discussed by this page are not truss loadings. They are instead exactly what Rathbone testified to, instructions about how to *e.g.,* properly install the trusses to the building walls.

Summarized, review should be accepted because in direct conflict with record facts and cited case law, the Decision holds disputed plan language can only be read as disclosing illegal plan stamping, which is a case law prohibited reading, that renders invalid Washington's engineer stamp requirements and makes meaningless the MiTek plan statement that "direct supervision" over plan preparation was performed.

4. The ANSI/TPI Sections Referenced by the Decision are not Washington Law.

In footnote 5, the Decision says that all provisions of the ANSI/TPI as it existed in 2002, were adopted by the International Building Code (IBC) and the International Residential Code (IRC), which in turn were adopted by Washington State. In footnote 10, the Decision says that because of ANSI/TPI adoption by the building codes, the legal responsibility for determining appropriate truss loadings falls on the

building's owner or contractor, so plan stamping is allowed, notwithstanding that Washington's engineering statutes differently say this is the legal obligation of the stamping engineer.

The Decision is incorrect in its facts and conclusions. Attached as petition **Appendix 5** is a copy of the ANSI/TPI-1-2002 Standards referenced by the Decision. On page 2 at the top, the document clearly states that "Appendix A sections are 'Non-Mandatory'". Attached as **Appendix 6** are also those pages of the IBC and IRC for 2003, which incorporate only some ANSI/TPI provisions. On IBC page 1, section 102.4, the IBC says in substance, that only specific parts of [ANSI/TPI-1-2002] as specifically referenced, are part of the IBC. Turning to the IBC appendix page which identifies those ANSI/TPI sections incorporated, only two IBC sections incorporate any part of the ANSI/TPI. Sections 2303.4 and 2306.1. Reading those sections, each section only incorporates the "manufacturing requirements of the ANSI/TPI-1" into the IBC. The "Non-Mandatory" Appendix A "duty" provisions of Chapter 2 are not incorporated into the IBC and therefore, contrary to the Decision, they are not Washington law.

Identically, the IRC through section R502.11.1 and section R802.10.2, similarly incorporate only the "design and manufacturing" provisions of the ANSI/TPI-1-2002 into the IRC. Neither section adopts

Chapter 2 of the ANSI/TPI as part of the IRC. Therefore, when the Washington State legislature adopted the IBC and IRC, Chapter 2 ANSI/TPI "duty" provisions did not become Washington law.

Despite diligent search, Schilling and Artisan have found no case anywhere in the nation (and MiTek and ProBuild have cited none), which holds the "Non-Mandatory" Chapter 2 of the ANSI/TPI-1-2002 is legally adopted by the IBC or IRC or has the force of law. This Decision error should be reversed.

The Decision, in part, also holds that due to disputed plan language, Petitioners "should have known" the "duty" provisions of the ANSI/TPI-1-2002 (not adopted by Washington State), control who must verify whether truss loadings chosen are project correct. That Decision holding is wrong. ANSI/TPI Chapter 2 is without legal effect and does not change Washington's engineer stamp duty requirements.

Furthermore, the Decision does not discuss (and this is another issue of first impression and "substantial public interest") why the ANSI/TPI-1 Chapter 2 provisions, which do directly conflict with Washington engineering statutes, could purportedly supersede these statutes.

VI. CONCLUSION

Deciding the plan stamping issues presented by this appeal is critically important. Rathbone testified he has not seen house plans prepared by a licensed architect or engineer in years. Tingey confirmed the only engineer involved with most residential homes is the stamping truss engineer. This means no one, besides a stamping engineer, is in a position to protect the public from design harm.

Unknown to Petitioners until after lawsuit filing, Brooks originally chose a 15 TCDL as being project correct for the Schilling home. Unknown to Petitioners until discovery revealed these facts, to increase plant profits, ProBuild later secretly changed Brooks' loading to a lesser load. Had Tingey performed the statutorily required direct supervision, this deceptive and potentially dangerous "for profit" conduct would have been disclosed and corrected. This is one reason why "direct supervision" is statutorily required before plans can be stamped.

Right now, under continuing ProBuild/MiTek business practices, as long as truss loadings chosen by a salesperson are numerically allowed somewhere (even though not where the home is being built), a MiTek engineer will illegally plan stamp ProBuild's designs.

Disregarding public safety, the Decision does not explain why, in conflict with Washington's statutes, it makes plan stamping now legal in

Washington. The Decision does not explain why in direct conflict with Washington case law, disclaiming crucial statutory duties is newly permitted.

In conflict with required language interpretation law, the Decision does not explain why MiTek's ambiguous language must be read as an attempted illegal post-sale plan stamping disclaimer, rather than its having the different legal meaning given by Rathbone and supported by **Appendix 4**.[3]

If plan stamping is now to be allowed in Washington State to the injury of it citizens, the public deserves to know why. Only by review can this Court answer that vital public policy question.

RESPECTFULLY SUBMITTED this 30 day of May, 2018.

LARSON BERG & PERKINS PLLC

James A. Perkins, WSBA #13330
Attorney for Petitioners

[3] Third-party Rathbone does not read it as an illegal disclaimer. Since this proves the language can be read differently, per cited law, it must be read differently.

DECLARATION OF SERVICE

On said day below, I sent via Federal Express for service, a true and correct copy of Terry and Julie Schilling and Artisan Inc.'s Petition for Review to:

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I declare under the penalty of perjury under Washington State laws, the foregoing is true and correct.

SIGNED this 1st day of June, 2018, at Yakima, WA.

Sonia R. Noe

APPENDIX 1

FILED
MAY 8, 2018
In the Office of the Clerk of Court
WA State Court of Appeals, Division III

IN THE COURT OF APPEALS OF THE STATE OF WASHINGTON
DIVISION THREE

TERRY SCHILLING and JULIE SCHILLING, husband and wife, and ARTISAN, INC., a Washington corporation, Appellants / Cross Respondents, v. PROBUILD COMPANY, LLC, a Washington limited liability company, d/b/a Lumbermens, and MITEK INDUSTRIES, INC., a foreign corporation, Respondents / Cross Appellants.	)	No. 34435-5-III UNPUBLISHED OPINION

PENNELL, A.C.J. — The parties cross appeal various orders on motions for summary judgment. Of primary significance to this appeal is the trial court's ultimate order dismissing all claims under the statute of limitations. Having conducted an independent review of the record, we agree with the trial court's statute of limitations analysis. The April 15, 2016, order of dismissal is therefore affirmed and all other summary judgment orders are vacated as moot.

FACTS[1]

In September 2005, Terry and Julie Schilling contracted with Artisan, Inc., owned by James Sevigny, to build a custom home in Union Gap, Washington. James Sevigny, through Artisan, was the general contractor for the project. Altius Construction Services, LLC, owned by James Sevigny's son, Josh (who was also an employee of Artisan), was the building designer. Construction of the home began in late 2006.

The roof for the Schillings' home was to be constructed with custom trusses.[2]

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[1] Because our review is limited to the defendants' motion for summary judgment regarding the statute of limitations, all facts are construed in the light most favorable to the plaintiffs. *See Jones v. Allstate Ins. Co.*, 146 Wn.2d 291, 300, 45 P.3d 1068 (2002).

[2] A truss is a single plane structural frame, formed by a series of triangles and used to support a building's roof. Trusses, commonly made of wood and connected with metal plates, are designed to support certain vertical weights or "loads." Clerk's Papers (CP) at 1522. The horizontal (or sloping) pieces that form the top and bottom of a truss are called chords. The sloping and vertical pieces of the truss that connect the chords are called the web.

Under the Union Gap Municipal Code, custom truss designs must be certified and stamped by a licensed Washington engineer.[3] Artisan solicited a bid from and contracted with ProBuild Company, LLC, doing business as Lumbermen's, to manufacture the trusses for the Schillings' residence.

Artisan had a longtime working relationship with ProBuild's salesman, George Brooks. Mr. Brooks was not an engineer, but he knew Artisan built high-end homes and that Artisan would expect the "'best of the best'" materials be used in its project. Clerk's Papers (CP) at 1559. Artisan submitted the Schillings' building design to Mr. Brooks so ProBuild could develop appropriate trusses.

The process used by ProBuild to manufacture trusses, such as the ones for the Schillings' residence, lies at the heart of this case. ProBuild's trusses are built with design help from MiTek Industries. MiTek operates in several states and sells metal plates and hardware to truss manufacturers such as ProBuild. As part of the sale of its products, MiTek licenses computer software to its customers to use in developing truss designs.

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[3] CP at 493, 2141-42. *See generally* former UNION GAP MUNICIPAL CODE 14.04.010(a), (b) (2004) (adopting the 2003 International Building Code (IBC) and the 2003 International Residential Code (IRC)).

ProBuild's manufacturing process begins with a ProBuild employee inputting truss design parameters, such as dimensions and load requirements,[4] into MiTek's design software. MiTek's software produces a preliminary truss design, including drawings. According to MiTek's agreement with its customers, if the law in the manufacturer's jurisdiction requires an engineer's stamp on the truss designs, then the truss parameter information can be sent to MiTek electronically for further review. A MiTek engineer will then run the design parameters received from the manufacturer through its software and develop the final designs. Because the same software and data are used for both the preliminary and final truss designs, the designs usually end up looking the same. However, since a MiTek engineer develops the final designs from raw data (the engineer does not review the preliminary drawings developed by the manufacturer), MiTek claims its engineers are able to certify their truss designs.

The design certification signed by a MiTek's engineer is accompanied by written explanations of the certification process. A signed and sealed coversheet states:

> The truss drawing(s) referenced below have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by [ProBuild].

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[4] The load requirements for a truss refer to the truss's weight-bearing capacity. The appropriate load for a truss can be dictated by either minimum building code requirements (which vary from jurisdiction to jurisdiction) or the unique requirements of a building plan.

> . . . .
> The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-2002[5] Chapter 2.

CP at 830.

In addition to the explanation set forth on the cover sheet, the other design pages bear a warning stating:

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[5] TRUSS PLATE INST., ANSI/TPI 1-2002: NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION (rev. Jan. 2005) (ANSI/TPI). ANSI/TPI establishes minimum requirements for the design and construction of the same type of trusses used in the Schillings' home. There is a dual purpose of ANSI/TPI chapter two: (1) define the standard duties and professional responsibilities of truss manufacturers and designers, owners, building designers, and contractors and (2) provide requirements to the owner, building designer, and contractor on the use of trusses. *Id.* § 2.1. Accordingly, a building owner, designer, or contractor (not the truss manufacturer or designer) is primarily responsible for all matters of structural system design, including the determination of truss dead loads and live loads. *Id.* §§ 2.3, 2.4, 2.5, 2.5.2. The truss manufacturer is to rely on the information provided, in writing, by the building owner, designer, or contractor, and the structural design documents created by the building designer or contractor. *Id.* §§ 2.5.2, 2.7.5. The truss designer/engineer is responsible for only the singular element of truss design and is entitled to rely on truss design criteria supplied by the owner, building designer, or contractor. *Id.* § 2.8. At the time the Schillings' home was constructed, both state and local law referenced and incorporated the ANSI/TPI. LAWS OF 2003, ch. 291, § 2 (State Building Code Act, chapter 19.27 RCW, adopting the IBC and IRC, both of which reference and incorporate ANSI/TPI); former UNION GAP MUNICIPAL CODE 14.04.010(a), (b) (2004); IBC §§ 2303.4 ("as required by [ANSI/]TPI"), 2306.1 (ANSI/TPI as standard); IRC §§ R106.1, R802.10.2 ("[D]esign and manufacture of . . . trusses shall comply with ANSI/TPI.").

> ***WARNING—Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.*** Design valid for use only with MiTek connectors. This design is based only upon parameters shown and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer—not truss designer.

CP at 831.

When Mr. Brooks initiated the truss design process for the Schillings' home, he referenced the house design plan supplied to him by Artisan. The plan did not enumerate the load requirements for the roof trusses. Instead, Mr. Brooks supplied the information. Mr. Brooks knew the Schillings' home design plan specified it should allow a "load roof for tile." CP at 2795. Also, because Mr. Brooks knew Artisan planned to use high-end tiles, his preliminary truss design specified that the Schillings' home should be able to bear a "15-pound dead load." *Id.* at 473.[6] This specification would have been designated with the abbreviation 15 TCDL.[7]

Pursuant to ProBuild's standard procedure, Mr. Brooks's initial truss designs were reviewed by a plant supervisor, Dennis Suttle. It was Mr. Suttle's job to ensure designs comported with local code requirements. But according to Mr. Brooks, Mr. Suttle also

---

[6] A dead load refers to a permanent load, such as the weight of the building materials. This is contrasted with a live load, which refers to transitory loads imposed by building occupants or moveable objects.

[7] Top chord dead load.

had a practice of changing design specifications to reduce costs. For example, Mr. Suttle would typically lower the TCDL for tile roofs from 15 pounds per square foot to 12. According to Mr. Suttle, many tile roofs are fully supported by a TCDL of 12. Consistent with Mr. Suttle's standard practice, the TCDL for the Schillings' home was lowered from 15 to 12 as a result of revisions made by Mr. Suttle.

ProBuild's final design parameters were eventually sent to MiTek for an engineer's certification. However, ProBuild did not wait for MiTek's certification to begin truss construction. Instead, ProBuild began manufacturing the trusses pursuant to the MiTek software's preliminary designs.

The truss designs for the Schillings' residence were certified by a MiTek engineer on June 1, 2007. Artisan received the certified designs a few days later. Each drawing in the certified truss design includes the parameters used to develop the trusses. Important to this case, each of the 59 drawings in the certified truss design for the Schillings' residence denotes the truss has a dead load capacity of 12 pounds per square foot (12 TCDL). The certified truss design for the Schillings' residence also bore MiTek's standard language regarding the limited nature of the certification and the warning regarding use.

When James and Josh Sevingny received MiTek's certified truss design from ProBuild, they did not review the document in any detail. Both men simply observed the papers contained an engineer's stamp. They then presented the certified design to the Union Gap Building Department examiner for approval. Although, James Sevingny knew back in 2007 that "[t]ypically a tile roof has 15 [TCDL]," CP at 3119, he did not notice that the trusses had been designed with a TCDL of 12 instead of 15. Nothing in the record indicates that either of the Sevingnys or anyone associated with the Schillings ever believed that a TCDL of 12 would have actually been appropriate for the Schillings' home.[8]

James and Josh Sevingny both explained they did not think it was their responsibility to verify that ProBuild's trusses met the design of the Schillings' home or code requirements. According to Josh Sevingny, he expected the truss manufacturer to know what kind of loading is required for a particular house by virtue of the house's location and design plans. James Sevingny explained he believed the engineer responsible for certifying the truss designs would have ensured the trusses met local building codes, local snow loads, and the terms of the building plans. He also believed

[8] To the contrary, the Schillings and Artisan have argued that they contracted for a TCDL of 15.

the local building official would, prior to final approval, make sure the truss designs met "the contract requirements." CP at 2802.

The Schillings moved into their home in the spring of 2008. Although a tile roof had been contemplated for the home, the final structure bore a composite roof. The Schillings' plan was to eventually replace the composite roof with tile, but a composite roof was used in the interim to reduce costs.

Shortly after the Schillings moved into their home they noticed cracks had formed in their garage ceiling. Artisan initially repaired the cracks, but they continued to reappear. After a couple of years, Artisan began to suspect there was a problem with the trusses.

Artisan contacted ProBuild about the cracks in the Schillings' ceiling and a ProBuild representative came out to the home for an inspection. However, the problem was not resolved. Artisan then contacted Tim Bardell, an engineer who had been involved in the design of the Schillings' residence. Mr. Bardell prepared an engineering report, dated April 18, 2011, that concluded the trusses used at the residence did not meet industry standards. Important to this case, Mr. Bardell concluded the trusses were not designed to bear the type of tile roof contemplated by the Schillings.

Mr. Bardell's report was sent to Artisan and also supplied to ProBuild and MiTek. In order to address concerns raised in the report, representatives from ProBuild and MiTek met with Mr. Bardell, the Schillings and James Sevigny at the Schillings' home on May 23, 2011. During this meeting, James Sevigny felt the MiTek representative was trying to convince everyone that Mr. Bardell's report was wrong and the cracks were not attributable to the trusses. Nevertheless, despite this apparent pressure, there is no indication that ProBuild or MiTek tried to confuse the Schillings or Artisan about the limited weight bearing capacity of a 12 TCDL truss. Because the Schillings had not yet installed a tile roof, the parties' debate over the cause of the ceiling cracks had nothing to do with the fact that the trusses were designed with a TCDL of 12 rather than 15.

Although James Sevigny thought the ProBuild and Mitek representatives were trying to mislead the Schillings and Artisan about the cause of the ceiling cracks, there was no sign they were actually misled. Mr. Bardell never changed his position regarding the trusses. The Schillings also were not placated. They hired a second engineer named Terry Powell to review the problem. Mr. Powell largely concurred with Mr. Bardell's analysis. Of particular significance to this litigation, Mr. Powell agreed the trusses on the Schillings' home were not designed to hold a tile roof.

On February 16, 2012, the Schillings and Artisan (the Plaintiffs) initiated suit against ProBuild and MiTek (the Defendants). The Plaintiffs alleged violations of the Consumer Protection Act (CPA), chapter 19.86 RCW, and breach of express and implied warranties under the Uniform Commercial Code—Sales (UCC), chapter 62A.2 RCW. In brief, the Plaintiffs contended (1) the roof trusses were defective because they were not designed to accommodate a sufficient load for the type of tile roof planned for the residence, and (2) the certified truss designs supplied by MiTek were inadequate because they were not signed by an engineer who had verified the appropriateness of the parameter information (such as load capacity) used to design the trusses.

ANALYSIS

The Plaintiffs' claims are all governed by a four-year statute of limitations. RCW 19.86.120 (CPA); RCW 62A.2-725(1) (UCC). Because the Plaintiffs' complaint was filed more than four years after the receipt of the Defendants' trusses and certified truss designs, we must assess whether there is a basis for delaying the accrual of these claims. Our review, under the applicable summary judgment standard, is de novo. *Hisle v. Todd Pac. Shipyards Corp.*, 151 Wn.2d 853, 860, 93 P.3d 108 (2004); *Shepard v. Holmes*, 185 Wn. App. 730, 741, 345 P.3d 786 (2014).

CPA claims

The CPA's four-year statute of limitations "begins to run when a party has the right to apply to a court for relief." *O'Neil v. Estate of Murtha*, 89 Wn. App. 67, 69-70, 947 P.2d 1252 (1997). A party has the right to apply to a court for relief "when the plaintiff can establish each element of the action." *Hudson v. Condon*, 101 Wn. App. 866, 874, 6 P.3d 615 (2000).

The discovery rule, an exception to the general rule of accrual, can apply to CPA claims. *Shepard*, 185 Wn. App. at 740; *Pickett v. Holland Am. Line-Westours, Inc.*, 101 Wn. App. 901, 913, 6 P.3d 63 (2000), *rev'd on other grounds*, 145 Wn.2d 178, 35 P.3d 351 (2001). Where the discovery rule applies, "a cause of action accrues when the plaintiff, through the exercise of due diligence, knew or should have known the basis for the cause of action." *Green v. Am. Pharm. Co.*, 86 Wn. App. 63, 66, 935 P.2d 652 (1997), *aff'd*, 136 Wn.2d 87, 960 P.2d 912 (1998).

The Plaintiffs' first claim is that the Defendants' trusses were not designed with appropriate load specifications for a tile roof. We therefore ask when the Plaintiffs knew, or with due diligence should have known, that the Defendants' trusses were inadequate. There is no dispute that the Plaintiffs did not actually know the loading information was inadequate until shortly before filing suit. So the real question is what the Plaintiffs

should have known and when they should have known it.

The record readily supports the trial court's conclusion that the Plaintiffs, through James Sevigny, should have known about the load limitations of the trusses on the day the certifications were delivered in early June 2007. James Sevigny admitted in his deposition that the type of tile roof planned for the Schillings' residence typically would call for trusses with a TCDL of 15. Yet each drawing in MiTek's certified truss designs plainly states the TCDL for every truss is 12. Had James Sevigny simply read the paperwork provided to him, he would have been alerted to the problem with the trusses on the date of the delivery. Accordingly, the discovery rule provides no basis for delaying accrual of Plaintiffs' claims regarding insufficient load parameters.[9] *Giraud v. Quincy Farm & Chem.*, 102 Wn. App. 443, 449, 6 P.3d 104 (2000) ("To invoke the discovery rule, the plaintiff must show that he or she *could not have* discovered the relevant facts earlier.") (emphasis added).

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[9] Even if Mr. Sevigny had not understood that a 12 TCDL truss was inadequate for a tile roof (a claim in tension with the Plaintiffs' argument that the 15 TCDL was "contract correct," Appellants'/Cross Resp'ts' Reply Br. at 1) the clear warnings on MiTek's certified truss design advised the parameters needed to be verified, as the truss design was based only on parameters provided by ProBuild, not any particular building. Had Mr. Sevigny read MiTek's warning and engaged in due diligence by checking the parameter information, he would have quickly known the trusses were not designed to bear a 15 pound tile roof.

The Plaintiffs also claim the MiTek engineer's truss design certification was inadequate because the engineer who certified the designs never assessed whether the load parameters used to design the Schillings' trusses were appropriate for the Schillings' residence. But again, this information was plainly disclosed on the truss certification paperwork. The certifications supplied by MiTek stated in nontechnical language that MiTek's truss designs were based solely on parameter information provided by ProBuild. The certification also made explicit that MiTek's engineer had not assessed the suitability of its truss designs for any particular building. Although the certification noted the truss designs had been prepared in reference to the Schillings' property in Yakima County, this notation of purchaser information did not in any way suggest that, contrary to MiTek's warning, an engineer had verified the appropriateness of the designs for the Schillings' particular residence.[10] Had Plaintiffs read the paperwork provided to them by MiTek in early June 2007, they would have known MiTek's engineer had not verified the "suitability and use" of its truss design for the Schillings' residence. CP at 830. Given

[10] This limitation is readily apparent from the face of the certification. It is further underscored by the certification's reference to the ANSI/TPI. As set forth in Note 5, *supra*, the ANSI/TPI clearly states the responsibility for determining appropriate truss load criteria falls on the building's owner, designer, or contractor, not the building's truss manufacturer or designer.

this circumstance, the discovery rule also does not apply to delay Plaintiffs' claims with respect to MiTek's design certification.

UCC breach of warranty claims

The UCC's four-year statute of limitations is stricter than the CPA's. Generally, the statute of limitations will begin to run on delivery of goods, regardless of whether a plaintiff knew or should have known about a cause of action. RCW 62A.2-725(2); *Kittitas Reclamation Dist. v. Spider Staging Corp.*, 107 Wn. App. 468, 472, 27 P.3d 645 (2001). However, RCW 62A.2-725(4) provides that the statute does not alter the law on the tolling of the statute of limitations. Thus, the doctrine of fraudulent concealment has been found to apply to RCW 62A.2-725. *Giraud*, 102 Wn. App. at 455.

The Plaintiffs do not dispute the fact they received the engineer-stamped truss designs in early June 2007. However, they allege the Defendants concealed that: (1) the change in the TCDL parameter occurred during ProBuild's preliminary design process, and (2) ProBuild, rather than MiTek, had prepared the truss designs and MiTek illegally plan stamped them. The Plaintiffs maintain these actions tolled the commencement of the statute of limitations until they discovered this information.

Plaintiffs' analysis misses the mark. As noted above, the Defendants have never concealed the actual load information used to design the Plaintiffs' trusses or the way in

which MiTek's engineers sign their certifications. Thus, the Plaintiffs had all the information necessary to file their complaint well within the statute of limitations period. *Giraud*, 102 Wn. App. at 455 (no fraudulent concealment when warning label gave plaintiffs sufficient access to information).

The Plaintiffs claim the Defendants engaged in fraudulent concealment when both MiTek and ProBuild disavowed any connection between the cracking in the Schillings' ceiling and their truss designs. The record does not support this position. It is apparent the Plaintiffs were never convinced by the Defendants' causation analysis. They continued to investigate the possibility of problems with the trusses despite the Defendants' assurances otherwise.

The Defendants' proffer with respect to fraudulent concealment is also inapposite. The allegedly fraudulent causation analysis of the Defendants for the ceiling cracks is unrelated to the Plaintiffs' breach of warranty claims. The damages allegedly suffered as a result of the Defendants' breach of warranty were the inability to install a tile roof and the reduced property value due to the possibility the truss design certification did not comply with local code; they had nothing to do with the Schillings' cracked ceiling. Nothing about the Defendants' conduct or ceiling crack analysis prevented the Plaintiffs

from recognizing their breach of warranty claims within the statute of limitations period and filing suit.

Because the Defendants never concealed the operative facts that would have permitted the Plaintiffs to file their breach of warranty claims within the limitations period, equitable tolling provides the Plaintiffs no relief from the Defendants' statute of limitations argument.

CONCLUSION

We affirm the trial court's April 15, 2016, order granting summary judgment to the Defendants based on the statute of limitations. All previous summary judgment orders issued by the superior court are vacated. We pass no judgment on the validity of any other superior court orders entered prior to the final order on summary judgment.

A majority of the panel has determined this opinion will not be printed in the Washington Appellate Reports, but it will be filed for public record pursuant to RCW 2.06.040.

Pennell, A.C.J.

WE CONCUR:

Korsmo, J.

Fearing, J.

APPENDIX 2

MiTek®
POWER TO PERFORM.

MiTek Industries, Inc.
7777 Greenback Lane
Suite 109
Citrus Heights, CA, 95610
Telephone 916/676-1900
Fax 916/676-1909

Re: 070315
Artisan/Schilling/070315

The truss drawing(s) referenced below have been prepared by MiTek Industries, Inc. under my direct supervision based on the parameters provided by Lumberman's Building Ctr-715.

Pages or sheets covered by this seal: R25515615 thru R25515673

My license renewal date for the state of Washington is August 1, 2008.

PALMER S. TINGEY
STATE OF WASHINGTON
30496
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES: 08-01-08

PLANS APPROVED
Union Gap Building Department
Date 7-03-07

June 1,2007
Tingey, Palmer

The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-2002 Chapter 2.

REVISED
7-2-07

D-15-2007
SCHILLING, TERRY & JULIE
26 Eagle Crest Drive
Yakima County Parcel #191207-31410

CITY COPY

12-2-00537-0 ___/___/_____

Terry Schilling & Julie Schilling / Artisan Inc. VS Probuild Co., LLC / Mitek Industries, Inc.

Pltfs. Ident. 20 Defts. Ident. _____

Pltfs. Exhibit _____ Defts. Exhibit _____

RECEIVED
JUL 02 2007
CITY OF UNION GAP

10

$1671

Job	Truss	Truss Type	Qty	Ply	Artisan/Schilling/070315*
070315	ADS1	SCISSOR	2	1	R25515615

LUMBERMENS, West Richland, WA, 99353 — Job Reference (optional)

6.500 s Apr 2 2007 MiTek Industries, Inc. Fri Jun 01 12:04:55 2007 Page 1

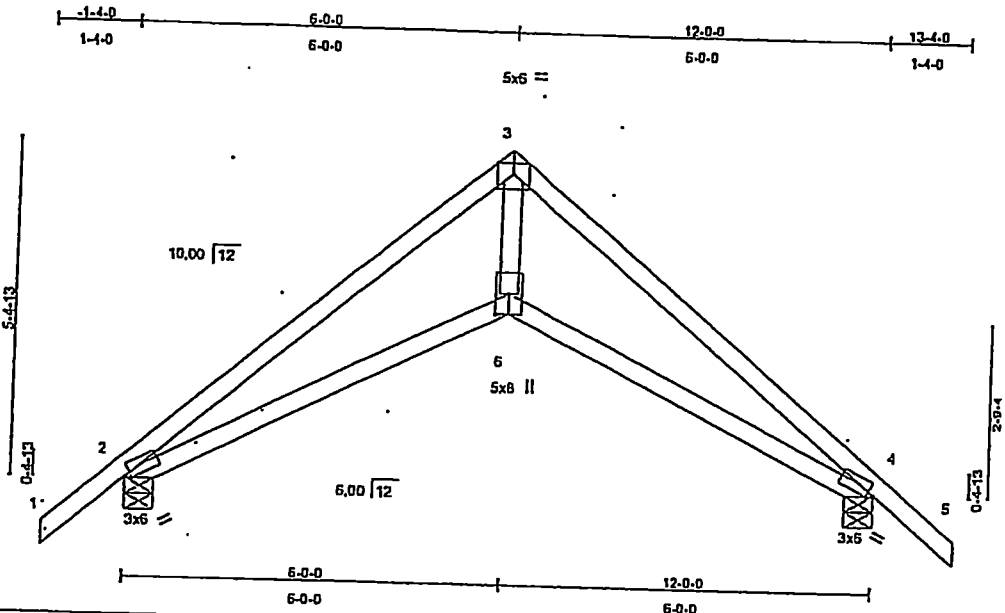


Plate Offsets (X,Y): [2:0-1-1,Edge], [4:0-1-1,Edge], [6:0-3-15,0-2-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plates Increase	1.15	TC	0.45	Vert(LL)	-0.05	6	>999	360	MT20	197/144
TCDL	12.0	Lumber Increase	1.15	BC	0.27	Vert(TL)	-0.11	2-6	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(TL)	0.12	4	n/a	n/a		
BCDL	8.0	Code IRC2003/TPI2002		(Matrix)		Wind(LL)	0.01	2-6	>999	240	Weight: 40 lb	

LUMBER
TOP CHORD 2 X 4 SPF 1650F 1.5E
BOT CHORD 2 X 4 SPF 1650F 1.5E
WEBS 2 X 4 SPF Stud

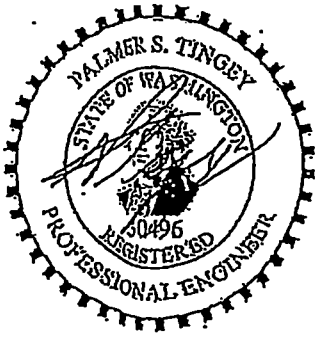
BRACING
TOP CHORD Structural wood sheathing directly applied or 5-11-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=708/0-5-8, 4=708/0-5-8
Max Uplift 2=-121(LC 3), 4=-122(LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/68, 2-3=-1255/0, 3-4=-1255/0, 4-5=0/68
BOT CHORD 2-6=0/950, 4-6=0/950
WEBS 3-6=0/952

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 85mph; h=10ft; TCDL=4.2psf; BCDL=4.8psf; Category II; Exp C; enclosed; C-C Interior(1); cantilever left and right exposed ; Lumber DOL=1.33 plate grip DOL=1.33.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) Bearing at joint(s) 2, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2 and 122 lb uplift at joint 4.
6) This truss is designed in accordance with the 2003 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



EXPIRES: 08-01-08

June 1,2007

MiTek
POWER TO PERFORM
7777 Greenback Lane, Suite 109
Citrus Heights, CA 95610

1672

APPENDIX 3

COURT OF APPEALS
DIVISION III
OF THE STATE OF WASHINGTON
NO. 344355-III

TERRY SCHILLING and JULIE SCHILLING, husband and wife, and ARTISAN, INC., a Washington corporation,

Appellants/Cross-Respondents

vs.

PROBUILD COMPANY, LLC, a Washington limited liability company, d/b/a Lumbermens, and MITEK INDUSTRIES, INC., a foreign corporation,

Respondents/Cross-Appellants

BRIEF OF APPELLANTS/CROSS-RESPONDENTS

JAMES A. PERKINS, WSBA #13330
Larson Berg & Perkins PLLC
105 North Third Street
Yakima, WA 98901
(509) 457-1515

and by order dated April 15, 2016, the lawsuit was dismissed. (CP 3191-3199). On April 25, 2016, Schilling and Artisan moved the court to reconsider its lawsuit dismissal. (CP 3207-3262). On May 2, 2016, the court denied the motion for reconsideration. (CP 3477). This appeal was then filed on May 6, 2016. (CP 3478).

C. ARGUMENT

1. Argument Summary

This appeal, together with ProBuild and MiTek's cross-appeal, present an important first impression, public interest issue. All rulings now challenged on appeal are connected to, and in most cases controlled by, this first impression issue. The issue (which ProBuild and MiTek want to obfuscate or ignore) is whether "plan stamping" is a deceptive, illegal, and warranty breaching practice, which violates Washington engineering statutes and WACs.

The term "plan stamping" describes the practice of a licensed engineer affixing his stamp to a set of plans, which he has neither created nor "directly supervised" for accuracy. (CP 270-271).

It is undisputed that RCW 18.47.070 says an engineer stamp constitutes a "certification" that the document being stamped was "prepared by or under [an engineer's] direct supervision." WAC 196-23-030 (now recodified as WAC 196-23-070) also says "direct supervision"

requires the engineer to provide "personal direction, oversight... and supervision of the work being certified" and that "... review after preparation without involvement in the design and development process... cannot be accepted as direct supervision."

Accordingly, Washington's engineering statutes and WACs do make "plan stamping" illegal in Washington state.

Turning to proven record facts, discovery disclosed the Schilling truss plan was created by Brooks (CP 394, 472-473; 503; 1558-1559) who was not a licensed engineer, using MiTek's truss design software.[4] (CP 394, 1038). Brooks - not MiTek - designed the trusses, because, as between the two, only Brooks had the building plans (CP 688), only Brooks knew in what state and municipality the home was being constructed, and only Brooks knew the local codes and contract requirements, which the truss plans had to meet. (CP 395-397; 692).

As noted, once truss plans are created, normally neither the plans nor the trusses can be used unless a licensed engineer stamps the plans. (CP 453-454; 502-503; 914; 981; 2142). To encourage the purchase of its truss construction components, MiTek employs engineers who are

[4] MiTek's own advertising admits that truss company employees, rather than its engineers, design the trusses. "Our engineering department is available to review and seal our customer's designs." (CP 821). MiTek's software training manual similarly states, "As a designer, every moment of your time is valuable." (CP 824). Tingey testified he has never used MiTek software to actually develop a truss plan package. (CP 689).

licensed in all 50 states to stamp the truss plans created by unlicensed third-party truss company designers. (CP 821).

Before stamping the plans, MiTek engineers perform no acts of "direct supervision" whatsoever. (CP 1881). Indeed, MiTek admitted it does not determine whether the truss company individual using its software has had effective training. (CP 482). It is instead entirely possible for an individual with no formal education, to simply sit through MiTek's online computer training program to try and become trained. (CP 482). Since MiTek almost never sees the building plans for a particular project (CP 204; 395-396; 482-483), MiTek does not know what truss design information a draftsman has used for design work, and MiTek does not double check any information which a designer supplies, for accuracy. (CP 457; 697). MiTek also does not know, and relies upon the truss designer to accurately identify and use, any required local building code specifications. (CP 484-487).

In spite of the fact that MiTek did not design the trusses, did not see the building plans, did not know what codes actually applied, did not know the qualifications or training of the truss designer, and made no effort to double check any of these crucial pieces of information, on June 1, 2007, Tingey for MiTek, affixed his engineering stamp to the Schilling truss plans. (CP 316).

ProBuild knows MiTek engineers "plan stamp" the truss plans ProBuild's unlicensed employees create. (CP 979-984; 1468; 1470; 1473; 1558-1563). Nevertheless, to sell trusses, ProBuild warrants that customers will receive a set of "lawfully stamped" truss plans. (CP 1562; 2928). ProBuild then delivers to customers (as it did to Schilling and Artisan), a truss plan package that falsely states the stamping MiTek engineer supposedly designed the trusses after performing the "direct supervision" required by law.[5] (CP 316).

Likewise, MiTek puts on the illegally plan-stamped document, the false statement that purportedly its engineers have "directly supervised" the designs (CP 316). It then states the following: "The stamp indicates acceptance of engineering responsibility solely for the truss components shown." (CP 316).

Reasonably read, Rathbone understood this language to mean that MiTek had designed the truss plans and that Tingey, as engineer, had discharged his statutory obligations to determine that the trusses were code and contract correct for the Schilling home. (CP 708-709; 2142).

Post-lawsuit, ProBuild and MiTek now assert the second paragraph placed on plan page 1 is intended to "disclaim" MiTek's responsibility to

[5] Because MiTek knows that "plan stamping" is illegal, before the Schilling job, it sent a letter to its truss company clients, telling them to in essence, conceal the true facts about who actually designs the trusses. (CP 270-271).

exercise "direct supervision" over the truss plans, before affixing an engineer's stamp.

Schilling and Artisan contend instead that 1) the language used cannot be read as being a disclaimer; 2) post-sale disclaimers are legally invalid in Washington State (*Hartwig Farms, Inc. v. Pacific Gamble Robinson Co.*, 28 Wn.App. 539, 625 P.2d 171 (1981)); and 3) express warranty and statutory obligations cannot be disclaimed. *Travis v. Washington Horse Breeders Ass'n, Inc.*, 111 Wn.2d 396, 405, 759 P.2d 418 (1988); *Schlener v. Allstate Ins. Co.*, 121 Wn.App. 384, 88 P.3d 993 (2004); *Allstate Ins. Co. v. Welch*, 45 Wn.App. 740, 727 P.2d 268 (1986); *Employco Personnel Services, Inc. v. City of Seattle*, 117 Wn.2d 606, 817 P.2d 1373 (1991); *Potter v. Wilbur-Ellis Co.*, 62 Wn.App. 318, 814 P.2d 670 (1991).

Surprisingly, after ruling that MiTek and ProBuild had illegally "plan stamped" the Schilling plans (CP 1881), when ProBuild and MiTek filed dismissal motions, the lower court held MiTek's 2007 truss plans disclosed all of MiTek's illegal CPA and warranty breach conduct and that ProBuild and MiTek's many concealment acts had not tolled the UCC's SOL. (CP 3186-3187).

As will be shown, the court erred in its analysis and this error must be reversed.

2. *Appellate Review Standards and Procedures*

On appeal, the review standard for summary judgment orders is de novo and the court accepts as true, all facts and inferences most favorable to the non-moving party. *Transalta Centralia Generation LLC v. Sicklesteel*, 134 Wn.App. 819, 825, 142 P.3d 209 (2006); *Vallandigham v. Clover Park Sch. Dist. No. 400*, 154 Wn.2d 16, 26, 109 P.3d 805 (2005); *Douglas v. Jepson*, 88 Wn.App. 342, 945 P.2d 244 (1997).

3. *The Trial Court Erred by Dismissing the Amended Complaint's CPA Claims*

CPA liability can arise from different types of deceptive acts. For example, a CPA claim can be predicated upon a "per se" violation of a statute. *Klem v. Washington Mut. Bank*, 176 Wn.2d 771, 295 P.3d 1179 (2013). Alternatively, liability can be based on unregulated conduct which is still found to violate the public interest. *Klem* at 787; *Panog v. Farmers Ins. Co. of Washington*, 166 Wn.2d 27, 48, 204 P.3d 885 (2009). Since different types of acts can each establish CPA liability, a separate SOL's analysis must be applied when multiple deceptive acts are alleged, to properly determine whether CPA liability is time barred.

Under RCW 19.86.120, the SOL for each CPA violation is four years "after the cause of action accrues." A CPA claim "accrues" when "the claimant discovered or in the exercise of due diligence, should have

discovered" the particular deceptive act on which the claim is based. *Mayer v. STO Industries, Inc.*, 123 Wn.App. 443, 98 P.3d 116 (2004).

Applying a proper SOL analysis, in the initial complaint, a CPA claim was asserted against ProBuild only, because in early-2012, Schilling and Artisan learned the truss loadings used were wrong for the type of tile roof Artisan was to install. (CP 3062-3063). Schilling and Artisan therefore believed ProBuild had acted "deceptively" to sell trusses which could not accommodate the Schilling home's particular tile roof and had later concealed these facts to try and avoid being sued. (CP 2920-2925).

After lawsuit filing, however, during discovery, it was learned that several additional deceptive acts had occurred, which independently violated the CPA and which separately supported CPA claims against ProBuild and MiTek, regardless of the truss loadings used. (CP 217-229)

Indeed, crucial to a correct SOL analysis is that the loadings chosen by ProBuild could be proven at trial to be correct, yet ProBuild and MiTek would both still be liable for violating the CPA, because the plans sold to Schilling are not lawfully stamped.

This liability is confirmed by Rathbone, who testified that illegally stamped plans are not code compliant. (CP 2142). Accordingly, the Schilling home currently violates CUG codes, causing Schilling damage,

whether or not the truss loadings used would allow for "some" tile roofs.[6] (CP 2142).

One newly discovered "per se" deceptive act was MiTek's violating Washington statutes and WACs by affixing an engineer's stamp to the Schilling plans, without "directly supervising" the plans being stamped. (CP 396-397; 403-407; 457-458; 486-487; 636-637; 639-640; 1881). In addition, MiTek acted "deceptively" to falsely represent as fact on the Schilling plans, that they were supposedly prepared by MiTek under Tingey's "direct supervision," (CP 316) when actually, Brooks for ProBuild, designed and created the plans without Tingey's involvement. (CP 472-473; 503; 1558-1559).

One post-lawsuit-discovered ProBuild deceptive act, was its selling the engineer-stamped plans to Schilling despite knowing the plans were illegally stamped, in violation of Washington statutes and WACs. (CP 636-637; 639-640; 979-984; 1037-1038; 1558-1563).

As an additional deceptive act, Schilling and Artisan also learned, after deposing Brooks, that ProBuild had changed Brooks' correct truss loadings and had replaced them with plant "default" loadings, which were not contract correct. (CP 1558-1563). Since none of these deceptive acts

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[6] Similar illegal plan stamping recently happened in California, causing thousands of homes to violate code, with the result that the market value of these homes was adversely affected. (CP 3065-3066).

were known prior to lawsuit discovery, a motion to amend was made and granted to assert these new CPA claims. (CP 424).

It follows that Schilling and Artisan filed all lawsuit CPA claims well within four years of them being "first discovered," making the later CPA claims' dismissal a reversible error.

Wanting to push the "discovery" date for the lawsuit's CPA claims back to a date before February 16, 2008 (which would be four years before the Schilling/Artisan complaint was filed), MiTek and ProBuild have argued that 1) the plans disclosed that incorrect loadings had been used; and 2) the 2007 "disclaimer" language placed upon the plans' first page disclosed the illegal "plan stamping" which was occurring. Neither assertion is correct.

First, it is false that the plans disclosed incorrect loadings. Schilling, Artisan, and Rathbone had no reason to question the plan loadings when received, because they did not facially preclude tile use. Indeed ProBuild and MiTek have persistently claimed post-lawsuit that these loadings are actually contract and code correct.[7] (CP 1038).

[7] Post-lawsuit, MiTek and ProBuild have both asserted the loadings used are contract compliant because they can accommodate "some tile." (CP 1038). This testimony alone creates a material fact dispute about what the stamped truss plan loadings did or did not communicate to Schilling and Artisan when delivered.

Since it was not thereafter " first discovered" until Brooks was deposed on March 19, 2014 (CP 2925; 2927-2933; 2966-2996) that ProBuild had deceptively changed the plan loadings Brooks had chosen (which Schilling and Artisan now claim make them contract incorrect), this CPA claim is not time barred.

Indeed, to be analytically correct on this point, it is important not to conflate the legal difference between a warranty breach act and a "deceptive" act which accrues CPA liability. (CP 2925; 2927-2933; 2966-2996). The two claims are not synonymous. *Eastlake Const. Co., Inc. v. Hess*, 102 Wn.2d 30, 686 P.2d 465 (1984). While both may occur in the same case, the claims are legally different.

Here, while choosing incorrect loadings may have breached a warranty, it was ProBuild's different undisclosed change of Brooks' initial loadings that is CPA actionable deceptive conduct. Since Schilling and Artisan had no knowledge of this deceptive conduct until after the lawsuit was filed (CP 2925; 2927-2933), and since suit was brought within four years of discovering this conduct, this particular deceptive CPA claim should not have been dismissed.

Second, it is false that the 2007 "disclaimer" language placed by MiTek upon the Schilling plans' first page, disclosed illegal plan stamping was occurring.

The initial plan sentence represents that MiTek purportedly prepared the plans, by Tingey applying "direct supervision." This declaratory statement tells the reader there has been no "plan stamping," because Washington statutes were followed. (CP 316).

The first sentence of the second paragraph states: "The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown." (CP 316). This tells the reader MiTek is accepting engineering responsibility for the trusses, so again, no illegal "plan stamping" is disclosed.

Contrary to these affirmative fact statements, MiTek and ProBuild now claim the final page sentence must be read to say MiTek (and through it, ProBuild) is nevertheless disclaiming statutory engineer stamp responsibilities. Not so.

To begin with, under Washington law, contract language is ambiguous when its terms are uncertain or when its terms are capable of being understood as having more than one meaning. *Western Farm Svc., Inc. v. Olsen*, 114 Wn.App. 508, 519, 59 P.3d 93 (2002); *Sons of Norway v. Boomer*, 10 Wn.App. 618, 519 P.2d 28 (1974); *Nashem v. Jacobson*, 6 Wn.App. 363, 367, 492 P.2d 1043 (1972).

If two or more meanings are reasonable, a fact question is presented. *GMAC v. Everett Chevrolet, Inc.*, 179 Wn.App. 126, 135, 317 P.3d 1074, *rev. denied*, 181 Wn.2d 1008, 335 P.3d 941 (2014); *Kries v. Wa-Spok Primary Care, LLC*, 190 Wn.App. 98, 120, 362 P.3d 974 (2015).

Here, the at-issue second sentence not only can be read differently, it was read differently by Rathbone, who understood this sentence to simply mean that whether the trusses would properly fit on top of the building walls, would be someone's responsibility, other than the MiTek engineer. (CP 3388-3389).

On appeal from summary judgment, all facts most favorable to the non-moving party are accepted as true. It follows that since this sentence can be read (and has been read by a knowledgeable witness) as not disclaiming statutory stamping responsibility, this language cannot be read as a disclaimer.

Directly on point is the recent case *Landstar Inway, Inc. v. Samrow*, 181 Wn.App. 109, 325 P.3d 327 (2014). In that case (as here), a non-moving party asked the court to reconsider a summary judgment dismissal order, because the court had mistakenly mischaracterized the language of an at-issue document. The lower court denied reconsideration and the Court of Appeals reversed, holding the erroneous reading of the

document not only justified reconsideration, but the trial court's refusal to reconsider, was itself an "abuse of discretion" mandating reversal.

> Finally, summary judgment is proper if the written contract, viewed in light of the parties' objective manifestations, has only one reasonable reading. [Citation.]
>
> . . .
>
> Because more than one reasonable interpretation is possible here, the trial court erred when it granted the County's motion for summary judgment. Accordingly, we reverse and remand for a hearing on the merits.

Wm. Dickson Co. v. Pierce County, 128 Wn.App. 488, 494-495, 116 P.3d 409 (2005). [Emphasis added.]

To read the contested plan sentence as a disclaimer, would also violate Washington's contract interpretation rules.

Specifically, Washington courts are required to interpret the language of a writing in a manner which gives effect to all of a writing's provisions, over an interpretation which renders some of the language meaningless. *Newsom v. Miller*, 42 Wn.2d 727, 731, 258 P.2d 812 (1953). Washington courts similarly do not give effect to language interpretations which would render contract obligations illusory. *Taylor v. Shigaki*, 84 Wn.App. 723, 730, 930 P.2d 340 (1997).

Contract language in Washington must also be interpreted as being consistent with the requirements of existing statutes and rules of law. *Bort*

v. Parker, 110 Wn.App. 561, 42 P.3d 980, *rev. denied,* 147 Wn.2d 1013, 56 P.3d 565 (2002).

Finally, Washington courts have held that summary judgment requiring the interpretation of a contract provision should be denied when 1) the interpretation depends on the use of extrinsic evidence; or 2) more than one reasonable inference can be drawn from the extrinsic evidence. *Scott Galvanizing, Inc. v. NW Enviroservices, Inc.*, 120 Wn.2d 573, 582, 844 P.2d 428 (1993).

Here, the first sentence of MiTek's plan language says the plans have been prepared by MiTek, *i.e.*, in accordance with Washington's engineer stamping laws. ProBuild and MiTek now say the second sentence of the next paragraph must be read to inconsistently "disclaim" those laws have been followed. Such a reading 1) would make what is written completely inconsistent; 2) would make what is written in conflict with Washington law; and 3) would make ProBuild's contract obligation to provide legally stamped truss plans illusory. It follows that as a matter of law, the disputed sentence is not a disclaimer and does not disclose illegal plan stamping.

Once it is correctly concluded that plan stamping was not disclosed by the 2007 plans, the CPA SOL becomes moot, because the record then

shows it was not until lawsuit discovery in 2013, that the illegal plan stamping conduct was actually first disclosed. (CP 2924; 2932).

It is also Washington law that when a non-moving party "should have discovered" the elements of a cause of action so as to start the running of a SOL, is ordinarily a question of fact. *Adcox v. Children's Orthopedic Hosp. & Med. Ctr.*, 123 Wn.2d 15, 34-35, 864 P.2d 921 (1993); *Honcoop v. State*, 111 Wn.2d 182, 194, 759 P.2d 1188 (1988).

So too, whether a plaintiff has exercised "due diligence" to discover particular facts is itself a question of fact, not resolvable by a court on summary judgment. *Mayer v. City of Seattle*, 102 Wn.App. 66, 76, 10 P.3d 408 (2000).

Here, Schilling and Artisan do dispute that they had any knowledge or any reason to know of ProBuild's and/or MiTek's illegal plan stamping or load changing practices, until those facts were first disclosed by post-lawsuit depositions. (CP 2924; 2932). Since this testimony must be accepted as true, lawsuit CPA claims should not have been dismissed and the lower court erred by doing so.

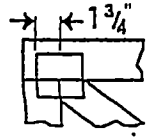
4. ***The Trial Court Erred in Dismissing the Complaint's Warranty Breach Claims***

Under RCW 62A.2-725 a claim for warranty breach must be brought within four years from the date goods are delivered.

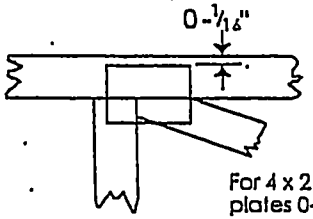
APPENDIX 4

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0-1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

* Plate location details available in MiTek 20/20 software or upon request.

PLATE SIZE

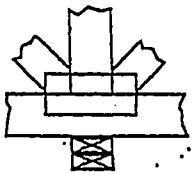
4 X 4

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION

Indicated by symbol shown and/or by text in the bracing section of the output. Use T, I or Eliminator bracing if indicated.

BEARING

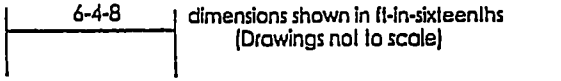


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

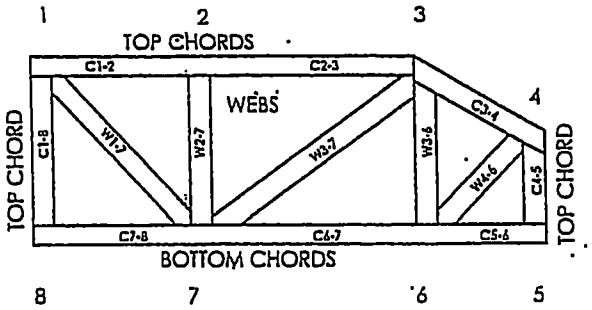
Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI1: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ER-5243, 9604B, 95-43, 96-31, 9667A
NER-487, NER-561
95110, 84-32, 96-67, ER-3907, 9432A

MiTek®
POWER TO PERFORM.™

MiTek Engineering Reference Sheet: MII-7473

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI1.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

APPENDIX 5

Commentary & Appendices to

NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION

TRUSS PLATE INSTITUTE

APPENDIX A
(NON-MANDATORY)

NATIONAL STANDARD AND RECOMMENDED GUIDELINES ON RESPONSIBILITIES FOR CONSTRUCTION USING METAL PLATE CONNECTED WOOD TRUSSES - ANSI/TPI/WTCA 4-2002

1.0 INTRODUCTION: NATIONAL STANDARD AND RECOMMENDED GUIDELINES

In 1995, the Wood Truss Council of America (WTCA) published WTCA 1-1995, *Standard Responsibilities in the Design Process Involving Metal Plate Connected Wood Trusses*. WTCA 1-1995 was published through an open consensus based committee approach and provided a guideline involving responsibilities associated with the use of metal plate connected wood trusses ("Trusses") in construction.

The purpose of this document is to: (a) define as a Standard the usual duties and responsibilities of the Truss Manufacturer and Truss Designer for the benefit of the Owner, Building Designer and Contractor (referred to as the "Standard"); and (b) to provide recommended guidelines to the Owner, Building Designer and Contractor on matters related to the use of Trusses (referred to as the "Guidelines"). A proper recognition of the Standard and Guidelines involving Trusses will result in better understanding of the expectations of all involved in construction using trusses, more effective and efficient use of trusses, and safer and more economic structures.

As parties may expand or limit their individual responsibilities by contract or agreement, the Standard should not be used to establish legal responsibilities where such responsibilities are otherwise established in a contract or agreement. The Standard however will likely be used as the framework establishing a Truss Manufacturer's and Truss Designer's scope of work in their contracts for the design, manufacturing, sale and/or delivery of Trusses.

2.0 DEFINITIONS

2.1 *Architect:* Any registered architect who designs all or a part of the Building Structural System and/or who produces all or part of the Building Structural System Design Documents.

2.2 *Building:* A structure intended for supporting or sheltering a specific use or occupancy.

2.3 *Building Structural System:* The completed combination of Structural Elements, Trusses, connections and systems, which serve to support the Building's self weight, the applicable live load, and environmental loads.

2.4 *Building Designer:* The Owner of the Building or the individual or organization who contracts with the Owner for the design of the Building Structural System and/or who produces the Building Structural System Design Documents. The Building Designer may be an Architect (see Section 2.1) or Engineer (see Section 2.8).

2.5 *Building Structural System Design Documents*: The architectural drawings, structural drawings, and any other drawings, specifications and addenda, which set forth the overall structural design of the Building Structural System.

2.6 *Contract*: A legally recognized document between two or more parties and includes the agreement between the Truss Manufacturer and its customer which sets forth the terms and conditions (and scope of work) applicable to the Truss Manufacturer.

2.7 *Contractor:* The Owner of the Building or the individual or organization who contracts with the Owner for the construction of the Building Structural System.

2.8 *Engineer:* Any registered engineer who designs all or a part of the Building Structural System and/or who produces all or a part of the Building Structural System Design Documents.

2.9 *Legal Requirements:* Applicable provisions of all statutes, laws, rules, regulations, ordinances, codes, or orders of any governmental authority of the United States of America, any state, and any political subdivision or quasi-governmental authority of any of the same, including, but not limited to, departments, commissions, boards, bureaus, agencies, counties, municipalities, provinces, and other instrumentalities.

2.10 *Local Building Official*: The individual or organization who in accordance with the Legal Requirements may impose requirements on Truss Manufacturers and Truss Designers relating to the Trusses and the Truss Submittals.

2.11 *Owner:* The individual or organization who owns the Building, and: (a) either designs and prepares, or retains the Building Designer to design and prepare, the Building's Structural System and the Building Structural System Design Documents; and (b) either constructs, or retains the Contractor to construct, the Building's Structural System.

2.12 *Structural Element:* A single joist, rafter, beam, or other structural member (not including the Trusses) designed by others and supplied for the Building Structural System by either the Truss Manufacturer or others.

2.13 *Structural Element Submittals:* Documentation relating to the Structural Elements that are supplied by the Truss Manufacturer, if required by the Contract, submitted by the Truss Manufacturer to the Local Building Official, Owner, Building Designer and/or Contractor for their review and/or approval.

2.14 *Truss:* An individual metal plate connected wood element manufactured by the Truss Manufacturer, and supplied for the Building Structural System.

2.15 *Truss Designer*: The individual or organization responsible for the design of Trusses in accordance with this Standard, the Truss Design Standard and all Legal Requirements. The Truss Designer is also referred to as a *Truss Design Engineer* when the Truss design calculations and/or Truss Design Drawings resulting from the design of the Trusses shall be sealed by an engineer.

2.16 *Truss Design Drawing*: The graphic depiction of an individual Truss.

2.17 *Truss Design Standard:* The latest approved edition of ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction.*

2.18 *Truss Manufacturer*: An individual or organization regularly engaged in the manufacturing of Trusses and who manufactures Trusses and who may supply Structural Elements for the Building Structural System.

2.19 *Truss Placement Plan*: The drawing supplied by the Truss Manufacturer identifying the location assumed for each Truss.

2.20 *Truss Submittals*: The Truss Design Drawings, and the Truss Placement Plan if required by the Contract, submitted to the Local Building Official, Owner, Building Designer and/or Contractor for their review and/or approval.

3.0 REQUIREMENTS OF BUILDING OWNER AND QUALIFICATIONS OF BUILDING DESIGNER AND CONTRACTOR

3.1 To the extent the Legal Requirements require the involvement of an Architect or Engineer as Building Designer, the Owner and not the Truss Manufacturer or Truss Designer, shall be responsible to comply with such requirements.

3.2 To the extent the Legal Requirements require the involvement of a licensed Contractor, the Owner and not the Truss Manufacturer or Truss Designer, shall be responsible to comply with such requirements.

3.3 The Owner, either directly or by Contract with the Building Designer and/or the Contractor (and not the Truss Manufacturer or Truss Designer except as otherwise set forth in this Standard), shall be responsible for all matters of the design and construction of the Building Structural System in accordance with all Legal Requirements.

4.0 BUILDING STRUCTURAL SYSTEM DESIGN DOCUMENTS

4.1 The Building Structural System Design Documents shall provide that the intended function of each Structural Element and Truss shall not be affected by adverse influences including, but not limited to: moisture, temperature, and corrosive chemicals and gases.

4.2 The Building Structural System Design Documents shall be sufficiently accurate and reliable to be used for facilitating the supply of the Structural Elements and for developing the design of the Trusses for the Building, and shall provide the following:

4.2.1 All Structural Element and Truss orientations and locations;

4.2.2 Information to fully determine all Truss profiles;

4.2.3 All Structural Element and Truss bearing conditions;

4.2.4 The location, direction, and magnitude of all dead and live loads applicable to each Structural Element and Truss including, but not limited to, loads attributable to: roof, floor, partition, mechanical, fire sprinkler, attic, storage, rain, wind, snow, snow drift, and seismic forces;

4.2.5 All Structural Element and Truss anchorage designs required to resist uplift, gravity, and lateral loads;

4.2.6 Allowable vertical and horizontal deflection criteria;

4.2.7 Proper transfer of design loads affecting the Structural Elements and Trusses;

4.2.8 Adequate connections between Trusses and between Structural Elements, including Truss to Structural Element connections, except as noted in the Truss Design Standard.

4.3 The Truss Manufacturer and Truss Designer shall not be responsible for the adequacy of the design of the Building Structural System or the adequacy of the Building Structural System Design Documents. The Truss Manufacturer and Truss Designer are not responsible to evaluate the effect of the Trusses designed on the Building's Structural System. The Truss Manufacturer is furthermore not responsible to evaluate the effect of the Structural Elements supplied on the Building Structural System.

5.0 CONSTRUCTION RELATED ITEMS

5.1 Truss Submittals and Structural Element Submittals, and any supplemental information provided by the Truss Manufacturer, shall be provided to the Contractor or the individual or organization responsible for the installation of the Trusses and Structural Elements.

5.2 The Truss Manufacturer and Truss Designer shall not be responsible for determining appropriate field storage, handling, and installation measures for the Trusses and Structural Elements. Either the Owner, Building Designer or Contractor, as determined by Contract or as set forth in the Building Structural System Design Documents, shall determine the requirements of, provide all materials for, and install adequate temporary bracing for the Building Structural System.

5.3 The Truss Manufacturer and Truss Designer shall not be responsible to review or inspect Trusses delivered or to review and inspect Trusses after erection for any problems, including dislodged/missing connectors, cracked, dislodged or broken members, or any other damage that may impair the structural integrity of the Truss. In the event that damage to the Truss is discovered that would likely impair the structural integrity of the Truss, the area within the Building shall remain clear and free of plumbing, electrical, mechanical, bridging, bracing, etc. until such field repairs have been properly completed.

5.4 Where required by Contract, the Truss Manufacturer shall be notified in writing as to the need and extent of any Truss repair or replacement required. In such event, all Truss repairs shall be approved in writing by a Truss Designer or other qualified person prior to the performance of the repair.

5.5 The Truss Manufacturer and Truss Designer are not responsible for, nor do the Truss Manufacturer and Truss Designer have control of, construction means, methods, techniques, sequences, procedures, programs and safety in connection with the handling, storing, installation and bracing of the Trusses. The Truss Manufacturer and Truss Designer are furthermore not responsible for the failure to carry out the construction work related to the Trusses and the Structural Elements in accordance with the handling and installation information and/or the Building Structural System Design Documents.

5.6 The Truss Manufacturer and Truss Designer are not responsible for the permanent bracing for the Building, including all the Trusses and Structural Elements. Although the approximate location for permanent bracing of Truss members subject to buckling due to compression forces will be indicated on the Truss Design Drawings to prevent truss member buckling due to design loads, it is the responsibility of others to specify how the permanent lateral bracing is to be anchored or restrained to prevent lateral movement if all Truss members buckle together. Consideration shall be given to one of the following methods for providing this restraint or anchorage: (a) anchorage to end walls designed to resist the lateral loading; (b) permanent diagonal bracing in the plane of the Truss members; or (c) other means when demonstrated by the Building Designer or other qualified person to provide equivalent lateral resistance.

6.0 TRUSS MANUFACTURER RESPONSIBILITIES

6.1 The Truss Manufacturer shall communicate the truss design criteria and requirements from the Building Structural System Design Documents and those requirements set forth in writing by the Owner, Building Designer or Contractor, to the Truss Designer.

6.2 Where required by Contract, Legal Requirements or the Local Building Official, the Truss Manufacturer shall provide Truss Design Drawing(s) sealed by a Truss Design Engineer.

6.3 Where required by Contract, Legal Requirements or the Local Building Official, the Truss Manufacturer shall submit the Truss Submittals and Structural Element Submittals to the Local Building Official, Owner, Building Designer and/or Contractor for review and/or approval.

6.4 In preparing the Truss Submittals and the Structural Element Submittals, the Truss Manufacturer shall rely on the accuracy and completeness of information furnished in writing by the Owner, Building Designer or Contractor, and by the Building Structural System Design Documents.

6.5 The Truss Manufacturer shall manufacture the Trusses in accordance with the final and approved (if applicable) Truss Design Drawings, using the quality criteria required of the Truss Design Standard.

6.6 Where required by the Contract, the Truss Manufacturer shall prepare the Truss Placement Plan. The Truss Placement Plan shall be permitted to include identifying marks for other products, including Structural Elements otherwise supplied by the Truss Manufacturer so that they may be more easily identified by the Contractor during field erection. As the Truss Placement Plan serves only as a guide for Truss installation and requires no engineering input, it does not require the seal of a Truss Design Engineer.

7.0 TRUSS DESIGNER RESPONSIBILITIES

7.1 The Truss Designer shall prepare the Truss Design Drawings based on the truss design criteria and requirements set forth in writing by the Owner, Building Designer or Contractor, by the Building Structural System Design Documents, and in conformance with the requirements set forth in the Truss Design Standard.

7.2 The Truss Designer is only responsible for the singular element design depicted on the Truss Design Drawing.

7.3 The Truss Designer is also referred to as a Truss Design Engineer when the Truss design calculations and/or Truss Design Drawings resulting from the design of the Trusses shall be sealed by an engineer as required by the Contract, the Legal Requirements or the Local Building Official. The Truss Design Engineer shall define the scope of work undertaken with respect to sealed Truss Design Drawings as required by Legal Requirements.

7.4 To the greatest extent possible, repair designs shall be based on: applicable wood engineering standards such as the Truss Design Standard, the *National Design Specification® for Wood Construction*, NDS® and other code recognized reports and standards; design loads specified in the Building Structural System Design Documents, or otherwise specified in writing, and used in the preparation of the original Truss Design Drawing(s); the determination of forces and moments present at the repair location based on structural analysis; and re-evaluation of all member stresses and deflections and joint designs (plating) for the repaired condition using the Truss Design Standard design criteria.

APPENDIX 6

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INTERNATIONAL BUILDING CODE®

2003

CHAPTER 1
ADMINISTRATION

SECTION 101
GENERAL

101.1 Title. These regulations shall be known as the *Building Code* of [NAME OF JURISDICTION], hereinafter referred to as "this code."

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exceptions:

1. Detached one- and two-family dwellings and multiple single-family dwellings (town houses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the *International Residential Code.*
2. Existing buildings undergoing repair, alterations or additions and change of occupancy shall be permitted to comply with the *International Existing Building Code.*

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted.

101.3 Intent. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations.

101.4 Referenced codes. The other codes listed in Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

101.4.1 Electrical. The provisions of the ICC *Electrical Code* shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings and appurtenances thereto.

101.4.2 Gas. The provisions of the *International Fuel Gas Code* shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

101.4.3 Mechanical. The provisions of the *International Mechanical Code* shall apply to the installation, alterations, repairs and replacement of mechanical systems, including equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

101.4.4 Plumbing. The provisions of the *International Plumbing Code* shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. The provisions of the *International Private Sewage Disposal Code* shall apply to private sewage disposal systems.

101.4.5 Property maintenance. The provisions of the *International Property Maintenance Code* shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators and occupants; and occupancy of existing premises and structures.

101.4.6 Fire prevention. The provisions of the *International Fire Code* shall apply to matters affecting or relating to structures, processes and premises from the hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices; from conditions hazardous to life, property or public welfare in the occupancy of structures or premises; and from the construction, extension, repair, alteration or removal of fire suppression and alarm systems or fire hazards in the structure or on the premises from occupancy or operation.

101.4.7 Energy. The provisions of the *International Energy Conservation Code* shall apply to all matters governing the design and construction of buildings for energy efficiency.

SECTION 102
APPLICABILITY

102.1 General. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

102.2 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

102.3 Application of references. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of this code.

102.4 Referenced codes and standards. The codes and standards referenced in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.

TMS—continued

402—02	Building Code for Masonry Structures	1405.5, 1405.5.3, 1405.9, 1604.3.4, 1704.5, 1704.5.1, Table 1704.5.1, 1704.5.2, Table 1704.5.3, 1708.1.1, 1708.1.2, 1708.1.3, 1805.5.2, 1812.7, 2101.2.3, 2101.2.4, 2101.2.5, 2103.11.6, 2106.1, 2106.1.1.1, 2106.1.1.2, 2106.1.1.3, 2106.3, 2106.4, 2106.5, 2106.6, 2107.1, 2107.2, 2107.2.1, 2107.2.2, 2107.2.4, 2107.2.5, 2107.2.6, 2108.1, 2108.2, 2108.4, 2109.1, 2109.2.3.1, 2109.2.3.2
602—02	Specification for Masonry Structures	1405.5.1, 1405.9.1, Table 1704.5.1, Table 1704.5.3, 1805.5.2, 2103.11.7, 2104.1, 2104.1.1, 2104.3

TPI

Truss Plate Institute
583 D'Onofrio Drive, Suite 200
Madison, WI 53719

Standard reference number	Title	Referenced in code section number
TPI 1—2002	National Design Standards for Metal-Plate-Connected Wood Truss Construction	2303.4, 2306.1

UL

Underwriters Laboratories
333 Pfingsten Road
Northbrook, IL 60062-2096

Standard reference number	Title	Referenced in code section number
10A—1998	Tin Clad Fire Doors—with Revisions through July 1998	715.3
10B—1997	Fire Tests of Door Assemblies	715.3.2
10C—1998	Positive Pressure Fire Tests of Door Assemblies—with Revisions through November 2001	715.3.1, 715.3.3
14B—1998	Sliding Hardware for Standard Horizontally Mounted Tin Clad Fire Doors—with Revisions through July 2000	715.3
14C—1996	Swinging Hardware for Standard Tin Clad Fire Doors Mounted Singly and in Pairs	715.3
103—1998	Factory-Built Chimneys for Residential Type and Building Heating Appliances—with Revisions through March 1999	717.2.5, 2111.11
127—1996	Factory-Built Fireplaces—with Revisions through November 1999	717.2.5
268—1996	Smoke Detectors for Fire Protective Signaling Systems—with Revisions through January 1999	407.6, 907.2.6.1
300—1996	Fire Testing of Fire Extinguishing Systems for Protection of Restaurant Cooking Areas—with Revisions through December 1998	904.11
555—99	Fire Dampers—with Revisions through October 2000	716.3
555C—96	Ceiling Dampers	716.3, 716.6.2
555S—99	Smoke Dampers—with Revisions through December 1999	716.3, 716.3.1.1
580—94	Test for Uplift Resistance of Roof Assemblies—with Revisions through February 1998	1504.3.1, 1504.3.2
641—95	Type L Low-Temperature Venting Systems—with Revisions through April 1999	2113.11.1.4
790—97	Tests for Fire Resistance of Roof Covering Materials—with Revisions through July 1998	1505.1, 2603.6, 2610.2, 2610.3
864—96	Control Units for Fire Protective Signaling Systems—with Revisions through March 1999	909.12
1040—96	Fire Test of Insulated Wall Construction—with Revisions through April 2001	1407.10.3, 2603.4, 2603.8
1256—98	Fire Test of Roof Deck Construction—with Revisions through March 2000	1508.1, 2603.3, 2603.4.1.5
1479—94	Fire Tests of Through-Penetration Firestops	712.3.1.2, 712.4.1.2
1715—97	Fire Test of Interior Finish Material	1407.10.2, 1407.10.3, 2603.4, 2603.8
1777—96	Chimney Liners—with Revisions through July 1998	2113.11.1, 2113.19
1784—01	Air Leakage Tests of Door Assemblies	707.14.1, 710.5.2, 715.3.3, 715.3.5.1
1897—98	Uplift Tests for Roof Covering Systems—with Revisions through December 1999	1504.3.1
1975—96	Fire Test of Foamed Plastics Used for Decorative Purposes	402.10, 402.14.5
2079—98	Tests for Fire Resistance of Building Joint Systems	702.1, 712.3
2200—98	Stationary Engine Generator Assemblies	2702.1.1

crease in the listed classification when subjected to the Standard Rain Test" (ASTM D 2898).

2303.2.2 Strength adjustments. Design values for untreated lumber and wood structural panels, as specified in Section 2303.1, shall be adjusted for fire-retardant-treated wood. Adjustments to design values shall be based on an approved method of investigation that takes into consideration the effects of the anticipated temperature and humidity to which the fire-retardant-treated wood will be subjected, the type of treatment and redrying procedures.

2303.2.2.1 Wood structural panels. The effect of treatment and the method of redrying after treatment, and exposure to high temperatures and high humidities on the flexure properties of fire-retardant-treated softwood plywood shall be determined in accordance with ASTM D 5516. The test data developed by ASTM D 5516 shall be used to develop adjustment factors, maximum loads and spans, or both, for untreated plywood design values in accordance with ASTM D 6305. Each manufacturer shall publish the allowable maximum loads and spans for service as floor and roof sheathing for its treatment.

2303.2.2.2 Lumber. For each species of wood treated, the effect of the treatment and the method of redrying after treatment and exposure to high temperatures and high humidities on the allowable design properties of fire-retardant-treated lumber shall be determined in accordance with ASTM D 5664. The test data developed by ASTM D 5664 shall be used to develop modification factors for use at or near room temperature and at elevated temperatures and humidity in accordance with an approved method of investigation. Each manufacturer shall publish the modification factors for service at temperatures of not less than 80°F (26.7°C) and for roof framing. The roof framing modification factors shall take into consideration the climatological location.

2303.2.3 Exposure to weather, damp or wet locations. Where fire-retardant-treated wood is exposed to weather, or damp or wet locations, it shall be identified as "Exterior" to indicate there is no increase in the listed flame spread index as defined in Section 2303.2 when subjected to ASTM D 2898.

2303.2.4 Interior applications. Interior fire-retardant-treated wood shall have moisture content of not over 28 percent when tested in accordance with ASTM D 3201 procedures at 92-percent relative humidity. Interior fire-retardant-treated wood shall be tested in accordance with Section 2303.2.2.1 or 2303.2.2.2. Interior fire-retardant-treated wood designated as Type A shall be tested in accordance with the provisions of this section.

2303.2.5 Moisture content. Fire-retardant-treated wood shall be dried to a moisture content of 19 percent or less for lumber and 15 percent or less for wood structural panels before use. For wood kiln dried after treatment (KDAT), the kiln temperatures shall not exceed those used in kiln drying the lumber and plywood submitted for the tests described in Section 2303.2.2.1 for plywood and 2303.2.2.2 for lumber.

2303.2.6 Type I and II construction applications. See Section 603.1 for limitations on the use of fire-retardant-treated wood in buildings of Type I or II construction.

2303.3 Hardwood and plywood. Hardwood and decorative plywood shall be manufactured and identified as required in HPVA HP-1.

2303.4 Trusses. Metal-plate-connected wood trusses shall be manufactured as required by TPI 1. Each manufacturer of trusses using metal plate connectors shall retain an approved agency to make unscheduled inspections of truss manufacturing and delivery operations. The inspection shall cover all phases of truss operations, including lumber storage, handling, cutting fixtures, presses or rollers, manufacturing, bundling and banding.

2303.4.1 Truss design drawings. Truss construction documents shall be prepared by a registered design professional and shall be provided to the building official and approved prior to installation. These construction documents shall include, at a minimum, the information specified below. Truss shop drawings shall be provided with the shipment of trusses delivered to the job site.

1. Slope or depth, span and spacing;
2. Location of joints;
3. Required bearing widths;
4. Design loads as applicable;
5. Top chord live load (including snow loads);
6. Top chord dead load;
7. Bottom chord live load;
8. Bottom chord dead load;
9. Concentrated loads and their points of application;
10. Controlling wind and earthquake loads;
11. Adjustments to lumber and metal connector plate design value for conditions of use;
12. Each reaction force and direction;
13. Metal connector plate type, size, thickness or gage, and the dimensioned location of each metal connector plate except where symmetrically located relative to the joint interface;
14. Lumber size, species and grade for each member;
15. Connection requirements for:
    - 15.1. Truss to truss girder;
    - 15.2. Truss ply to ply; and
    - 15.3. Field splices.
16. Calculated deflection ratio or maximum deflection for live and total load;
17. Maximum axial compression forces in the truss members to design the size, connections and anchorage of the permanent continuous lateral bracing. Forces shall be shown on the truss construction documents or on supplemental documents; and
18. Required permanent truss member bracing location.

compression chord force, C, equal to the tension chord uplift force, T, calculated in Section 2305.3.7.2.4.

2305.3.7.2.8 Load path. A load path to the foundation shall be provided for each uplift force, T and t, for each shear force, V and v, and for each compression chord force, C. Elements resisting shear wall forces contributed by multiple stories shall be designed for the sum of forces contributed by each story.

2305.3.7.2.9 Deflection of shear walls with openings. The controlling deflection of a blocked shear wall with openings uniformly nailed throughout shall be taken as the maximum individual deflection of the shear wall segments calculated in accordance with Section 2305.3.2, divided by the appropriate shear resistance adjustment factors of Table 2305.3.7.2.

2305.3.8 Summing shear capacities. The shear values for shear panels of different capacities applied to the same side of the wall are not cumulative except as allowed in Table 2306.4.1.

The shear values for material of the same type and capacity applied to both faces of the same wall are cumulative. Where the material capacities are not equal, the allowable shear shall be either two times the smaller shear capacity or the capacity of the stronger side, whichever is greater.

Summing shear capacities of dissimilar materials applied to opposite faces or to the same wall line is not allowed.

Exception: For wind design, the allowable shear capacity of shear wall segments sheathed with a combination of wood structural panels and gypsum wallboard on opposite faces, fiberboard structural sheathing and gypsum wallboard on opposite faces or hardboard panel siding and gypsum wallboard on opposite faces shall equal the sum of the sheathing capacities of each face separately.

2305.3.9 Adhesives. Adhesive attachment of shear wall sheathing is not permitted as a substitute for mechanical fasteners, and shall not be used in shear wall strength calculations alone, or in combination with mechanical fasteners in Seismic Design Category D, E or F.

2305.3.10 Sill plate size and anchorage in Seismic Design Category D, E or F. Two-inch (51 mm) nominal wood sill plates for shear walls shall include steel plate washers, a minimum of $^3/_{16}$ inch by 2 inches by 2 inches (4.76 mm by 51 mm by 51 mm) in size, between the sill plate and nut. Sill plates resisting a design load greater than 490 plf (LRFD) (7154 N/m) or 350 plf (ASD) (5110 N/m) shall not be less than a 3-inch (76 mm) nominal member. Where a single 3-inch (76 mm) nominal sill plate is used, 2-20d box end nails shall be substituted for 2-16d common end nails found in Line 8 of Table 2304.9.1.

Exception: In shear walls where the design load is less than 840 plf (LRFD) (12 264 N/m) or 600 plf (ASD) (8760 N/m), the sill plate is permitted to be a 2-inch (51 mm) nominal member if the sill plate is anchored by two times the number of bolts required by design and $^3/_{16}$ inch by 2 inch by 2 inch (4.76 mm by 51 mm by 51 mm) plate washers are used.

SECTION 2306
ALLOWABLE STRESS DESIGN

2306.1 Allowable stress design. The structural analysis and construction of wood elements in structures using allowable design methods shall be in accordance with the following applicable standards:

American Forest & Paper Association.

AF & PA NDS National Design Specification for Wood Construction

American Institute of Timber Construction.

AITC 104	Typical Construction Details
AITC 110	Standard Appearance Grades for Structural Glued Laminated Timber
AITC 112	Standard for Tongue-and-Groove Heavy Timber Roof Decking
AITC 113	Standard for Dimensions of Structural Glued Laminated Timber
AITC 117	Standard Specifications for Structural Glued Laminated Timber of Softwood Species
AITC 119	Structural Standard Specifications for Glued Laminated Timber of Hardwood Species
AITC A190.1	Structural Glued Laminated Timber
AITC 200	Inspection Manual
AITC 500	Determination of Design Values for Structural Glued Laminated Timber

Truss Plate Institute, Inc.

TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction

American Society of Agricultural Engineers.

ASAE EP 484.2	Diaphragm Design of Metal-Clad, Post-Frame Rectangular Buildings
ASAE EP 486.1	Shallow Post Foundation Design
ASAE 559	Design Requirements and Bending Properties for Mechanically Laminated Columns

APA—The Engineered Wood Association.

Plywood Design Specification

Plywood Design Specification Supplement 1 - Design & Fabrication of Plywood Curved Panels.

R502.1 Identification.
R502.2 Design and construction.
R502.3 Allowable joist spans.
R502.4 Joists under bearing partitions.
R502.5 Allowable girder spans.
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SECTION R502 WOOD FLOOR FRAMING

R502.1 Identification.

Load-bearing dimension lumber for joists, beams and girders shall be identified by a grade mark of a lumber grading or inspection agency that has been approved by an accreditation body that complies with DOC PS 20. In lieu of a grade mark, a certificate of inspection issued by a lumber grading or inspection agency meeting the requirements of this section shall be accepted.

R502.1.1 Preservatively treated lumber.

Preservatively treated dimension lumber shall also be identified as required by Section R319.1.

R502.1.2 Blocking and subflooring.

Blocking shall be a minimum of utility grade lumber. Subflooring may be a minimum of utility grade lumber or No. 4 common grade boards.

R502.1.3 End-jointed lumber.

Approved end-jointed lumber identified by a grade mark conforming to Section R501.2 may be used interchangeably with solid-sawn members of the same species and grade.

R502.1.4 Prefabricated wood I-joists.

Structural capacities and design provisions for prefabricated wood I-joists shall be established and monitored in accordance with ASTM D 5055.

R502.1.5 Structural glued laminated timbers.

Glued laminated timbers shall be manufactured and identified as required in AITC A190.1 and ASTM D 3737.

R502.2 Design and construction.

Floors shall be designed and constructed in accordance with the provisions of this chapter, Figure R502.2 and Sections R319 and R320 or in accordance with AF&PA/NDS.

FIGURE R502.2 FLOOR CONSTRUCTION

For SI: 1 inch = 25.4 mm

R502.8.1 Sawn lumber.

Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of members 4 inches (102 mm) or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches (51 mm) to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches (51 mm) to the notch.

R502.8.2 Engineered wood products.

Cuts, notches and holes bored in trusses, laminated veneer lumber, glue-laminated members or I-joists are not permitted unless the effects of such penetrations are specifically considered in the design of the member.

R502.9 Fastening.

Floor framing shall be nailed in accordance with Table R602.3(1). Where posts and beam or girder construction is used to support floor framing, positive connections shall be provided to ensure against uplift and lateral displacement.

R502.10 Framing of openings.

Openings in floor framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet (1219 mm), the header joist may be a single member the same size as the floor joist. Single trimmer joists may be used to carry a single header joist that is located within 3 feet (914 mm) of the trimmer joist bearing. When the header joist span exceeds 4 feet (1219 mm), the trimmer joists and the header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header joist to trimmer joist connections when the header joist span exceeds 6 feet (1829 mm). Tail joists over 12 feet (3658 mm) long shall be supported at the header by framing anchors or on ledger strips not less than 2 inches by 2 inches (51 mm by 51 mm).

R502.11 Wood trusses.

R502.11.1 Design.

Wood trusses shall be designed in accordance with approved engineering practice. The design and manufacture of metal plate connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional where required by the statutes of the jurisdiction in which the project is to be constructed in accordance with Section R106.1.

R502.11.2 Bracing.

Trusses shall be braced to prevent rotation and provide lateral stability in accordance with the requirements specified in the construction documents for the building and on the individual truss design drawings. In the absence of specific bracing requirements, trusses shall be braced in accordance with the TPI, HIB.

R502.11.3 Alterations to trusses.

Truss members and components shall not be cut, notched, spliced or otherwise altered in any way without the approval of a registered design professional. Alterations resulting in the addition of load (e.g., HVAC equipment, water heater, etc.), that exceed the design load for the truss, shall not be permitted without verification that the truss is capable of supporting the additional loading.

R502.11.4 Truss design drawings.

Truss design drawings, prepared in compliance with Section R502.11.1, shall be provided to the building official and approved prior to installation. Truss design drawing shall be provided with the shipment of trusses delivered to the job site. Truss design drawings shall include, at a minimum, the information specified below:

1. Slope or depth, span, and spacing.

2. Location of all joints.

3. Required bearing widths.

4. Design loads as applicable.

4.1. Top chord live load (including snow loads).

4.2. Top chord dead load.

4.3. Bottom chord live load.

R802.1 Identification.
R802.2 Design and construction.
R802.3 Framing details.
R802.4 Allowable ceiling joist spans.
R802.5 Allowable rafter spans.
R802.6 Bearing.
802.7 Cutting and notching.
R802.8 Lateral support.
R802.9 Framing of openings.
R802.10 Wood trusses.
R802.11 Roof tie-down.
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SECTION R802 WOOD ROOF FRAMING

R802.1 Identification.

Load-bearing dimension lumber for rafters, trusses and ceiling joists shall be identified by a grade mark of a lumber grading or inspection agency that has been approved by an accreditation body that complies with DOC PS 20. In lieu of a grade mark, a certificate of inspection issued by a lumber grading or inspection agency meeting the requirements of this section shall be accepted.

R802.1.1 Blocking.

Blocking shall be a minimum of utility grade lumber.

R802.1.2 End-jointed lumber.

Approved end-jointed lumber identified by a grade mark conforming to Section R802.1 may be used interchangeably with solid-sawn members of the same species and grade.

R802.1.3 Fire-retardant-treated wood.

Fire-retardant-treated wood is any wood product which, when impregnated with chemicals by a pressure process or other means during manufacture, shall have, when tested in accordance with ASTM E 84, a listed flame spread index of 25 or less and show no evidence of significant progressive combustion when the test is continued for an additional 20-minute period. In addition, the flame front shall not progress more than 10.5 feet (3200 mm) beyond the center line of the burners at any time during the test.

R802.1.3.1 Labeling.

Fire-retardant-treated lumber and wood structural panels shall be labeled. The label shall contain:

9.3. Field splices.

10. Calculated deflection ratio and/or maximum description for live and total load.

11. Maximum axial compression forces in the truss members to enable the building designer to design the size, connections and anchorage of the permanent continuous lateral bracing. Forces shall be shown on the truss design drawing or on supplemental documents.

12. Required permanent truss member bracing location.

R802.10.2 Design.

Wood trusses shall be designed in accordance with accepted engineering practice. The design and manufacture of metal plate connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional where required by the statutes of the jurisdiction in which the project is to be constructed in accordance with Section R106.1.

R802.10.3 Bracing.

Trusses shall be braced to prevent rotation and provide lateral stability in accordance with the requirements specified in the construction documents for the building and on the individual truss design drawings. In the absence of specific bracing requirements, trusses shall be braced in accordance with TPI/HIB.

R802.10.4 Alterations to trusses.

Truss members shall not be cut, notched, drilled, spliced or otherwise altered in any way without the approval of a registered design professional. Alterations resulting in the addition of load (e.g., HVAC equipment, water heater) that exceeds the design load for the truss shall not be permitted without verification that the truss is capable of supporting such additional loading.

R802.10.5 Truss to wall connection.

Trusses shall be connected to wall plates by the use of approved connectors having a resistance to uplift of not less than 175 pounds (79.45 kg.) and shall be installed in accordance with the manufacturer's specifications. For roof assemblies subject to wind uplift pressures of 20 pounds per square foot (0.958 kN/m^2) or greater, as established in Table R301.2(2), adjusted for height and exposure per Table R301.2(3), see section R802.11.

R802.11 Roof tie-down.

R802.11.1 Uplift resistance.

Roof assemblies which are subject to wind uplift pressures of 20 pounds per square foot (0.958 kN/m^2) or greater shall have roof rafters or trusses attached to their supporting wall assemblies by connections capable of providing the resistance required in Table R802.11. Wind uplift pressures shall be determined using an effective wind area of 100 square feet (9.3 m^2) and Zone 1 in Table R301.2(2), as adjusted for height and exposure per Table R301.2(3).

A continuous load path shall be provided to transmit the uplift forces from the rafter or truss ties to the foundation.

TABLE R802.11 REQUIRED STRENGTH OF TRUSS OR RAFTER CONNECTIONS TO RESIST WIND UPLIFT FORCES [a, b, c, e, f]

BASIC WIND SPEED (3-second gust)	ROOF SPAN (feet)							OVERHANGS[d] (pounds/feet)
	12	20	24	28	32	36	40	
85	-72	-120	-145	-169	-193	-217	-241	-38.55
90	-91	-151	-181	-212	-242	-272	-302	-43.22
100	-131	-218	-262	-305	-349	-393	-436	-53.36
110	-175	-292	-351	-409	-467	-526	-584	-64.56

For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mph = 1.61 km/hr, 1 pound/foot = 14.5939 N/m, 1 pound = 0.454 kg.

a. The uplift connection requirements are based on a 30 foot mean roof height located in Exposure B. For Exposures C and D and for other mean roof heights, multiply the above loads by the Adjustment Coefficients in Table R301.2(3).

b. The uplift connection requirements are based on the framing being spaced 24 inches on center. Multiply by 0.67 for framing spaced 16 inches on center and multiply by 0.5 for framing spaced 12 inches on center.

APPENDIX 7

West's Revised Code of Washington Annotated
Title 18. Businesses and Professions (Refs & Annos)
Chapter 18.43. Engineers and Land Surveyors (Refs & Annos)

West's RCWA 18.43.070

18.43.070. Certificates and seals

Effective: July 22, 2011
Currentness

The director of licensing shall issue a certificate of registration upon payment of a registration fee as provided for in this chapter, to any applicant who, in the opinion of the board, has satisfactorily met all the requirements of this chapter. In case of a registered engineer, the certificate shall authorize the practice of "professional engineering" and specify the branch or branches in which specialized, and in case of a registered land surveyor, the certificate shall authorize the practice of "land surveying."

In case of engineer-in-training, the certificate shall state that the applicant has successfully passed the examination in fundamental engineering subjects required by the board and has been enrolled as an "engineer-in-training." In case of land-surveyor-in-training, the certificate shall state that the applicant has successfully passed the examination in fundamental surveying subjects required by the board and has been enrolled as a "land-surveyor-in-training." All certificates of registration shall show the full name of the registrant, shall have a serial number, and shall be signed by the chair and the secretary of the board and by the director of licensing.

The issuance of a certificate of registration by the director of licensing shall be prima facie evidence that the person named therein is entitled to all the rights and privileges of a registered professional engineer or a registered land surveyor, while the said certificate remains unrevoked and unexpired.

Each registrant hereunder shall upon registration obtain a seal of the design authorized by the board, bearing the registrant's name and the legend "registered professional engineer" or "registered land surveyor." Plans, specifications, plats, and reports prepared by the registrant shall be signed, dated, and stamped with said seal or facsimile thereof. Such signature and stamping shall constitute a certification by the registrant that the same was prepared by or under his or her direct supervision and that to his or her knowledge and belief the same was prepared in accordance with the requirements of the statute. It shall be unlawful for anyone to stamp or seal any document with said seal or facsimile thereof after the certificate of registrant named thereon has expired or been revoked, unless said certificate shall have been renewed or reissued.

Credits

[2011 c 336 § 482, eff. July 22, 2011; 1995 c 356 § 4; 1991 c 19 § 5; 1959 c 297 § 4; 1947 c 283 § 10; Rem. Supp. 1947 § 8306-27. Prior: 1935 c 167 §§ 8, 13; RRS § 8306-8, 13.]

West's RCWA 18.43.070, WA ST 18.43.070
Current with all effective legislation from the 2018 Regular Session of the Washington Legislature.

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