

June 10, 2025

Job Name: 25139a-ds2 value build

D-Number: D5157  
Design Program: Mitek SE

The Truss Manufacturer (TM) is Carolina Structural Systems.

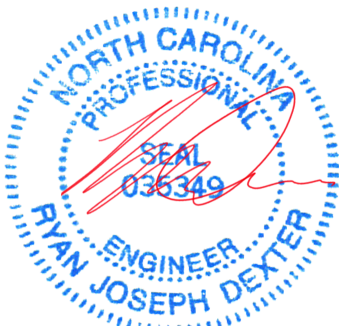
The TM has Communicated Truss Design Criteria (TDC) to DrJ Engineering, LLC (DrJ). Refer to the individual Truss Design Drawings (TDDs) for specifics.

The TM has obtained, through the TM's Customer, the TDC and Truss design requirements from the Construction Documents and/or one of the Construction Professionals. The TM has communicated the TDC and any related Truss design requirements to DrJ. This Communication includes transfer of TDC and any related Truss design requirements using proprietary Truss industry Software. DrJ designs each individual Truss, as illustrated on each TDD, relying upon the accuracy and completeness of Communicated information.

The seal on the Cover/Truss Index Sheet and on the individual TDD represents acceptance of responsibility for the review of the TDC and the design of each individual Truss. Each Truss then becomes one element of a Building Structural System (BSS). For any other BSS information needed, please contact the TM. The TM is responsible for supplying the truss-to-truss connector type. Contact the TM for questions regarding truss-to-truss connector type, application and/or installation.

All dimensions are reproduced from the referenced Building Designer's plans.

**⚠ WARNING:** Always review the handling, storage, installation, lateral restraint, and diagonal bracing information provided by the TM through their delivery of the Truss Submittal Package (TSP). Do not cut or alter any part of a Truss or Structural Element. Never stack building material without proper lateral restraint and diagonal bracing. Never overload/exceed the design load shown on any TDD or Structural Element design drawing (SEDD). Property damage and/or personal injury happen when there is complacency regarding safety items. DrJ presumes the TM submits their TSP to be reviewed, approved and used by one or more of the following: Building Owner, Building Official, Building Designer, Registered Design Professional in Responsible Charge, Contractor, and/or Framers.



COL# P-1038

June 10, 2025

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Ryan J. Dexter, P.E.  
Truss Design Engineer

## SCOPE OF WORK & DEFINITIONS

DrJ is a professional engineering company, which is defined as an Approved Source. In addition, DrJ is an ANAB accredited ISO/IEC 17065 Approved Agency. Approval or acceptance of the work of an Approved Source is determined by the Approved Source employing properly licensed professional engineers. Similarly, approval or acceptance of an Approved Agency is by the Approved Agency being a properly accredited third party certification body.

The DrJ scope of work is to undertake the structural analysis needed to create the TDDs listed here. TDDs prepared by DrJ are Instruments of Service for use solely for the named Project. This includes documents in electronic form. DrJ shall be deemed the author and owner of its Instruments of Service and shall retain all copyrights, common law, and other reserved rights. The Instruments of Service shall not be used by anyone for future additions or alterations of this Project or for other Projects without prior written instruction by DrJ. Any unauthorized use of the Instruments of Service shall be at the sole risk of the TM and/or other user, and DrJ shall not have liability for this use.

For its engineering evaluation and structural design work, DrJ relies upon the accuracy of published raw material (e.g., lumber, OSB, etc.) and manufactured product design values. In addition, DrJ relies upon a product manufacturer's published product, material, design, and/or method of construction pursuant to an ISO/IEC 17065 technical evaluation report or a sealed and signed report, which includes but is not limited to design values, applications, conditions of use, quality, installation, bracing, and repair requirements. DrJ makes no representation or warranty with respect to raw material or manufactured product performance.

Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of TPI 1, the National Design Specification® for Wood Construction (NDS), applicable professional engineering law, Appendix A: Commentary/Definitions (visit [www.drjcertification.org/AppendixA](http://www.drjcertification.org/AppendixA)), Appendix B: Project/Deliverables (visit [www.drjcertification.org/AppendixB](http://www.drjcertification.org/AppendixB)), definitions created within Design Drawings and/or definitions within Reference Sheets. Terms not defined shall have ordinarily accepted meanings as the context implies.

All pages of this document must be presented together to be considered complete.

## CONSTRUCTION MATERIALS: LUMBER, METAL PLATE CONNECTORS (MPCS) & OTHER FASTENERS

Commodity lumber Design Values, specified in the NDS, are defined as strength and stiffness property values of structural lumber products published for design use. These values are determined for specific grades and species/species groups. Sawn lumber used for load-supporting purposes, including end-jointed, edge-glued, machine stress-rated, or machine evaluated lumber, shall be identified by the Grade mark of a lumber grading or inspection agency that has been approved by an Accreditation Body that complies with the latest edition of the DOC PS 20 American Softwood Lumber Standard or equivalent. Approved end-jointed lumber is permitted to be used interchangeably with solid-sawn members of the same species and grade. End-jointed lumber used in an assembly required to have a fire-resistance rating shall have the designation "Heat Resistant Adhesive" or "HRA" included in its grade mark. DrJ relies upon each lumber manufacturer to provide building code conforming Design Values, conditions of use, quality, and repair requirements as well as compliance with DOC PS 20 and the NDS Supplement, as pertinent.

MPCs are presumed to be manufactured, tested, and identified in accordance with TPI 1. The design and performance of each Truss rely upon the MPC manufacturer's published ISO/IEC 17065 technical evaluation report and/or a sealed and signed Research Report that delineates design values, performance, application, installation, conditions of use, quality, and repair requirements.

The NDS provides design values for generic fastener types (e.g., bolts, nails, wood screws, spikes, timber rivets, drift pins, steel side plates, etc.).

Structural capacities for commodity and proprietary fastener types and steel side plates are presumed to be established, monitored, manufactured, and identified in accordance with ASTM A36, ASTM A153/A153-16A, ASTM A307, ASTM A576, ASTM A576 GR1015 Modified, ASTM F606/F606M, ASTM A641/A641M, ASTM A653 Structural Grade (GR) 33, ASTM A653M SR 33, ASTM A675 GR60, ASTM A1011 SS GR33, ASTM D1761, ASTM D5764, ASTM D7147, ASTM F606/F606M, ASTM F680, ASTM F1575, ASTM F1667, including Supplement 1, ASTM F3359, and/or ASTM SAE J429 GR 2, as pertinent.

For proprietary manufactured structural fastener products and steel side plates, DrJ relies upon the manufacturer's published ISO/IEC 17065 technical evaluation report and/or a sealed and signed Research Report that delineates design values, performance, application, installation, conditions of use, quality, and repair requirements.

DrJ relies upon quality assurance being performed by an Approved Agency and/or Approved Source (e.g., ISO/IEC 17020, professional engineer, etc.).

DrJ makes no representation or warranty and is not liable for: 1) the accuracy of the TM's Communication, 2) lumber Design Values, 3) MPC design values, 4) the accuracy of Software, 5) building code compliance of any Structural Element as used in the BSS, 6) the existence of Grade Marks on lumber, 7) the contents of any TSP, and/or 8) the design values, quality or installation of any commodity or proprietary product. Appendix A: Commentary/Definitions (visit [www.drjcertification.org/AppendixA](http://www.drjcertification.org/AppendixA)), Appendix B: Project/Deliverables (visit [www.drjcertification.org/AppendixB](http://www.drjcertification.org/AppendixB)), and the DrJ Reference Sheet contain additional pertinent information.

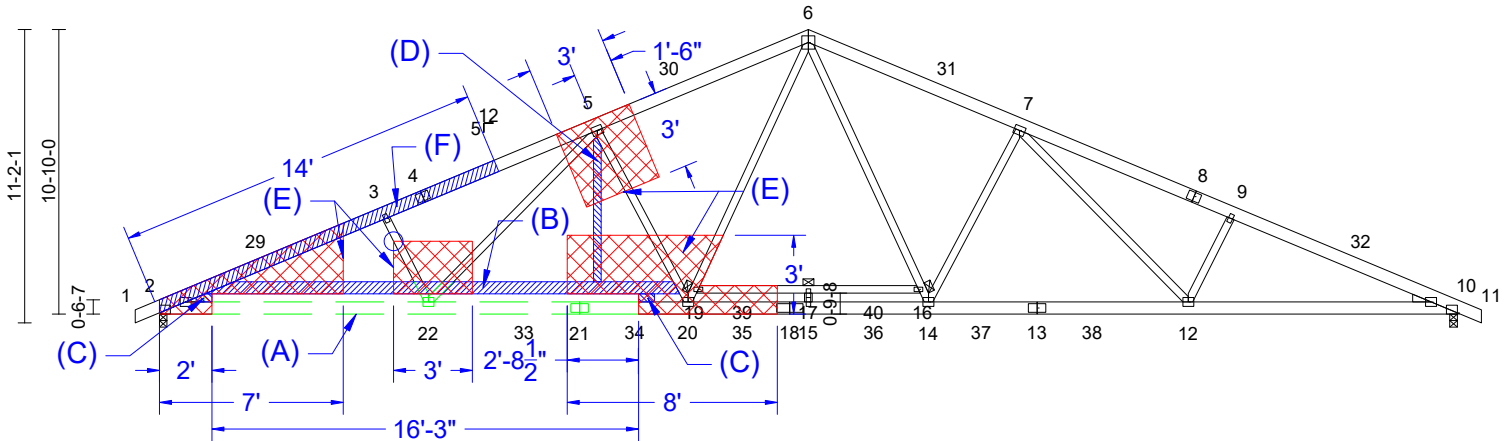
Job	Truss	Truss Type	Qty	Ply		D5157
Olaniyi 2024-SAN-071	A04	Common	6	1	Job Reference (optional)	171555473 p. 3 of 5

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Feb 20 14:54:24

## REPAIR:

### 1) CUT 16'-3" WIDE X 9-1/4" TALL TRAY CEILING AS SHOWN.

- NOTE - THIS REPAIR IS VALID FOR THE DESIGN CONDITIONS PROVIDED IN THIS TRUSS REPAIR DRAWING. IT'S ADEQUACY FOR THE ACTUAL CONDITIONS MUST BE VERIFIED BY OTHERS.
- REFER TO ORIGINAL TRUSS DESIGN DRAWING FOR ADDITIONAL NOTES.
- IF TRUSS IS IN PLACE, SHORE UP TRUSS TO RELIEVE ANY LOAD IT MAY BE SUPPORTING BEFORE BEGINNING REPAIR.
- UNLESS OTHERWISE SPECIFIED, REMOVE ALL ELECTRICAL, MECHANICAL, PLUMBING, ETC. RUNS INTERFERING WITH THE REPAIR MATERIALS AND RE-ROUTE. DO NOT CUT, DRILL, NOTCH, OR MODIFY REPAIR MATERIALS.



(A) LUMBER AND CONNECTOR PLATES TO BE CUT CLEANLY AND ACCURATELY AND THE REMAINING PLATE(S) MUST BE FULLY EMBEDDED AND UNDISTURBED. DO NOT OVERCUT.

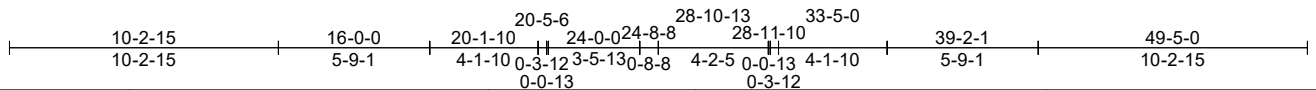
(B) ADD (1) NEW 1-3/4" x 5-1/2" LVL (MINIMUM 2600F 2.0E) MEMBER(S) AS SHOWN - CUT TO FIT TIGHT.

(C) ADD (2) NEW 2 X 8 SP NO.2 MEMBER(S) AS SHOWN - CUT TO FIT TIGHT.

(D) ADD (1) NEW 2 X 4 NO.2 MEMBER(S) AS SHOWN - CUT TO FIT TIGHT.

(E) APPLY 23/32" 48/24 OR 24 OC SPAN RATED OSB GUSSETS TO EACH SIDE OF TRUSS. ATTACH EACH GUSSET WITH 16d (3.5" x 0.131") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2x4s - 2 ROWS AND 2x6s - 3 ROWS ALL ROWS SPACED @ 4" OC INTO EACH MEMBER. STAGGER SPACING FROM FRONT SIDE TO BACK SIDE FOR A NET 2" OC. CIRCLE ON CORNER OF GUSSET REPRESENTS INTERSECTION LOCATION WITH MEMBER.

(F) APPLY 1-3/4" x 5-1/2" x 14' LVL (MINIMUM 2600F 2.0E) SCABS TO EACH SIDE OF TRUSS AS SHOWN. "PACK-OUT" GAP BETWEEN SCAB AND SIDE OF TRUSS WITH 3-1/2" WIDE STRIPS OF 23/32" OSB FILLERS. ATTACH OSB FILLERS TO TRUSS WITH 2-ROWS OF 10d (3" x 0.131") NAILS SPACED AT 6" OC. ATTACH EACH SCAB THROUGH OSB WITH (2) ROWS OF 16d (3.5" x 0.131") NAILS SPACED @ 4" OC. STAGGER NAIL SPACING FROM FRONT SIDE AND BACK SIDE FOR A NET 2" OC SPACING IN THE TRUSS MEMBER.



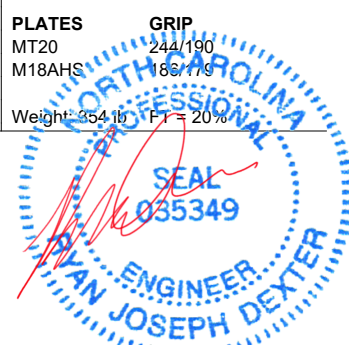
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.37	17	>999	240	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.66	17	>898	180	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.18	10	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 354 lb FT = 20%

## LUMBER

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1 \*Except\* 16-19:2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 17-15:2x4 SP No.3  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

## BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.



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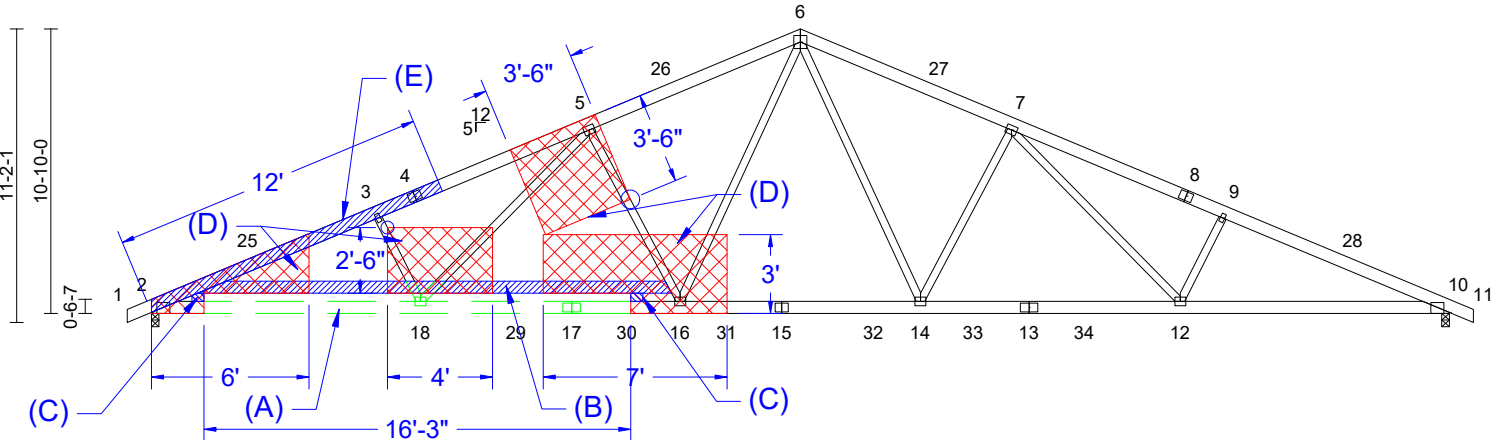
Job	Truss	Truss Type	Qty	Ply	
Olaniyi 2024-SAN-071	A05	Common	3	1	
Job Reference (optional)					D5157 171555474 p. 4 of 5

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Feb 20 14:54:24

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- REFER TO ORIGINAL TRUSS DESIGN DRAWING FOR ADDITIONAL NOTES.
- IF TRUSS IS IN PLACE, SHORE UP TRUSS TO RELIEVE ANY LOAD IT MAY BE SUPPORTING BEFORE BEGINNING REPAIR.
- UNLESS OTHERWISE SPECIFIED, REMOVE ALL ELECTRICAL, MECHANICAL, PLUMBING, ETC. RUNS INTERFERING WITH THE REPAIR MATERIALS AND RE-ROUTE. DO NOT CUT, DRILL, NOTCH, OR MODIFY REPAIR MATERIALS.



(A) LUMBER AND CONNECTOR PLATES TO BE CUT CLEANLY AND ACCURATELY AND THE REMAINING PLATE(S) MUST BE FULLY EMBEDDED AND UNDISTURBED. DO NOT OVERCUT.

(B) ADD (1) NEW 1-3/4" x 5-1/2" LVL (MINIMUM 2600F 2.0E) MEMBER(S) AS SHOWN - CUT TO FIT TIGHT.

(C) ADD (2) NEW 2 X 6 SP NO.2 MEMBER(S) AS SHOWN - CUT TO FIT TIGHT.

(D) APPLY 23/32" 48/24 OR 24 OC SPAN RATED OSB GUSSETS TO EACH SIDE OF TRUSS. ATTACH EACH GUSSET WITH 16d (3.5" x 0.131") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2x4s - 2 ROWS AND 2x6s - 3 ROWS ALL ROWS SPACED @ 4" OC INTO EACH MEMBER. STAGGER SPACING FROM FRONT SIDE TO BACK SIDE FOR A NET 2" OC. CIRCLE ON CORNER OF GUSSET REPRESENTS INTERSECTION LOCATION WITH MEMBER.

(E) APPLY 2x6x12' SP No. 1 SCABS TO EACH SIDE OF TRUSS AS SHOWN. "PACK-OUT" GAP BETWEEN SCAB AND SIDE OF TRUSS WITH 3-1/2" WIDE STRIPS OF 23/32" OSB FILLERS. ATTACH OSB FILLERS TO TRUSS WITH 2-ROWS OF 10d (3" x 0.131") NAILS SPACED AT 6" OC. ATTACH EACH SCAB THROUGH OSB WITH (2) ROWS OF 16d (3.5" X 0.131") NAILS SPACED @ 4" OC. STAGGER NAIL SPACING FROM FRONT SIDE AND BACK SIDE FOR A NET 2" OC SPACING IN THE TRUSS MEMBER.

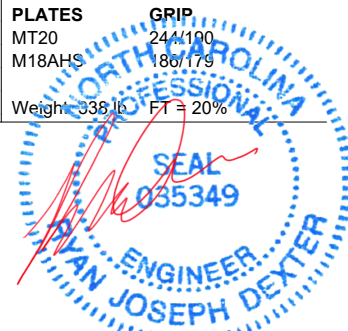
10-2-15		20-1-10		29-3-6		39-2-1		49-5-0				
10-2-15		9-10-11		9-1-12		9-10-11		10-2-15				
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.30	16-18	>999	240	MT20	24x190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.53	16-18	>999	180	M18AHS	18x179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.16	10	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS							Weight	338 lb
											FT	20%

## LUMBER

TOP CHORD 2x6 SP No.1  
BOT CHORD 2x6 SP No.1  
WEBS 2x4 SP No.2

## BRACING

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.



COL# P-1038  
June 10, 2025

# DrJ Reference Sheet



**WARNING!** Always review the handling, storage, installation, lateral restraint, and diagonal bracing information provided by the Truss Manufacturer (TM) through their delivery of the Truss Submittal Package (TSP). Do not cut or alter any part of a Truss or Structural Element. Never stack building material without proper lateral restraint and diagonal bracing. Never overload/exceed the design load shown on any Truss Design Drawing (TDD) or Structural Element Design Drawing (SEDD). Property damage and/or personal injury happen when there is complacency regarding safety items. DrJ presumes the TM submits their TSP to be reviewed, approved and used by one or more of the following: Building Owner, Building Official, Building Designer, Registered Design Professional in Responsible Charge, Contractor, and/or Framers.

## SCOPE OF WORK AND DEFINITIONS

The TM has obtained, through TM's Customer, the Truss Design Criteria (TDC) and Truss design requirements from the Construction Documents and/or the Construction Professionals. The TM has Communicated the TDC and any related Truss design requirements to DrJ. This Communication includes transfer of TDC and any related Truss design requirements using proprietary Truss industry Software. DrJ designs each individual Truss, as illustrated on each TDD, relying upon the accuracy and completeness of Communicated information.

DrJ presumes that the Communicated TDC and Truss design requirements conform to ANSI/TPI 1-2014, National Design Standard for Metal Plate Connected Wood Trusses (TPI 1). This includes but is not limited to: (a) allowable vertical, horizontal, or other required deflection criteria; (b) any lateral thrust developed by scissors-type Trusses; (c) modeling requirements for scissors trusses; (d) any dead load, live load and in-service creep deflection criteria for floors or flat roofs; (e) any floor or roof camber requirements; (f) any Truss-to-Truss or Truss-to-adjacent structural member differential deflection criteria; (g) any special floor truss deflection criteria and/or vibration criteria including but not limited to strongback bridging requirements; (h) any dead load, live load, and in-service creep deflection criteria for floors supporting stone or ceramic tile finishes; (i) any conditions where moisture, temperature, corrosive chemicals, and gases are expected to result in a wood moisture content exceeding 19% and/or sustained temperatures exceeding 150°F; (j) any conditions where wood preservatives or other sources of corrosion may affect the truss design; (k) standard and unique design loads; (l) standard and unique truss spacing; and (m) building code used for the design of the Building Structural System.

DrJ designs each individual Truss, as illustrated on each TDD, relying upon the accuracy and completeness of Communicated information.

The seal on the Cover/Truss Index Sheet and on the individual TDD represents acceptance of responsibility for the review of the TDC and the design of each individual Truss. Each Truss then becomes one element of a Building Structural System (BSS). For any other BSS information needed, please contact the TM, and/or any of the following Construction Professionals: Building Owner, Building Designer, building Registered Design Professional in Responsible Charge, and/or Contractor (e.g., general, MEP, Framers, etc.).

DrJ is a professional engineering company, which is defined as an Approved Source. In addition, DrJ is an ANAB accredited ISO/IEC 17065 Approved Agency. Building Official Acceptance of an Approved Source is determined by the Approved Source employing properly licensed professional engineers. Similarly, acceptance of an Approved Agency is by the Approved Agency being a properly accredited third party certification body. The DrJ scope of work is to undertake the structural analysis needed to create the TDDs listed here. TDDs prepared by DrJ are Instruments of Service for use solely for the named Project. This includes documents in electronic form. DrJ shall be deemed the author and owner of its Instruments of Service and shall retain all copyrights, common law statutory, and other reserved rights. The Instruments of Service shall not be used by anyone for future additions or alterations of this Project or for other Projects without prior written instruction by DrJ. Any unauthorized use of the Instruments of Service shall be at the sole risk of the TM and/or other user, and DrJ shall not have liability for this use. As permitted by the applicable material chapters and referenced standards of the listed building code, DrJ structural design may use strength design, load and resistance factor design, allowable stress design, empirical design, and/or conventional construction methods, as pertinent. The TDD defines the individual Truss that safely supports the factored loads or nominal loads, in load combinations defined in the listed building code, without exceeding the appropriate strength limit states or allowable stresses, as pertinent.

For its engineering evaluation and structural design work, DrJ relies upon the accuracy of published raw material (e.g., lumber, OSB, etc.) and manufactured product design values (e.g., I-joists, LVL, wood structural panels, metal connector plates, fasteners, etc.). In addition, DrJ relies upon a product manufacturer's published product, material, design and/or method of construction pursuant to an ISO/IEC 17065 technical evaluation report or a sealed and signed report, which includes but is not limited to design values, applications, conditions of use, quality, installation, bracing, and repair requirements. DrJ makes no representation or warranty with respect to raw material or manufactured product performance.

When the TM has provided a Truss Placement Diagram (TPD) in its TSP, it is an Illustration that identifies the assumed location of each individually identified Truss to aid Truss installation. Contact the TM for questions regarding the TPD and DrJ Truss installation. The TM is responsible for supplying the truss-to-truss connector type. Contact the TM for questions regarding truss-to-truss connector type, application, and/or installation.

All dimensions are reproduced from the referenced Building Designer's plans.

Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of TPI 1, the National Design Specification® for Wood Construction (NDS), applicable professional engineering law, Appendix A: Commentary/Definitions, Appendix B: Project/Deliverables, definitions created within Design Drawings, and/or definitions within Reference Sheets. Terms not defined shall have ordinarily accepted meanings as the context implies.

Compliance with the referenced building code is confirmed when: (1) the "for construction" TDDs have been examined for conformance with the local building code and requirements of pertinent laws, (2) any non-conformance is provided in writing to DrJ stating the reasons for the non-conformance, (3) the non-conformance is cured, (4) the plan examination and approval of the TDDs is complete, and (5) required inspections are complete.

All pages of this document must be presented together to be considered complete.

## TRUSS DESIGN

Each TDD is created by various Software developers and produces engineering analysis. Software generates framing layout, design, manufacturing, and/or management data/output consistent with the TM's business procedures, inventory and Selectable Software Parameters. Software is used under a Software license agreement between the TM and Software developer.

Reliance upon the Software company, by the TM and DrJ, includes but is not limited to: all Software warranties, its use of accepted engineering mechanics models, its use of appropriate design equations, its use of accurate mathematical analysis, its use of any needed calibration to testing, its accuracy in the context of TPI 1 and/or NDS requirements, that output derived from the Software is appropriate for the pertinent building code and for the end use intended when used in accordance with Software instructions and guidance from the Software developer, and any unique characteristics delineated by the Software output for each singular Truss and its TDD or TRD. Given Service reliance upon proprietary Software, DrJ cannot be responsible for any interruption of the use of Software outside of the control of DrJ. Each TDD indicates the minimum lumber species, size and grade required to be used. Lumber with higher Design Values can be substituted.

Each TDD indicates the plate type, minimum size, orientation, and location for each truss joint. Use of Metal Plate Connectors (MPCs) with wider widths and/or longer lengths of the same gauge are permitted.

Each TDD presumes that the top chords are sheathed or continuous lateral restraint members (i.e., purlins) are provided at the spacing indicated on TDD (e.g., 24 in. o.c. maximum). Graphical representation of lateral restraint members (i.e., web member restraint, purlins, etc.), if shown on the TDD, do not illustrate the size or orientation of the restraint along the top chord, bottom chord, and/or web members.

Attachment of a purlin gable (e.g., hip frames, lay-in gables, etc.) to the supporting hip Trusses satisfies the compression bracing requirements for the top chord of hip Trusses. Refer to the TDD to locate hip Trusses that have been designed to have this type of top chord compression bracing.

Sheathing applied in the plane of the Truss is NOT considered in the design of the individual Truss unless specifically noted otherwise (i.e., a Gable End Truss has not been designed using composite stiffness analysis). Each TDD presumes Trusses are installed vertically. Each TDD presumes dry and non-treated lumber is used.

When fire-retardant, preservative-treated, or green lumber is used it is specifically noted on each TDD where it is used.

DrJ presumes that the Truss depicted on each TDD meets the minimum manufacturing quality requirements specified in Chapter 3 of TPI 1 so that design assumptions are met. DrJ also relies upon quality assurance being performed by an accredited agency (e.g., ISO/IEC 17020, professional engineer, etc.). DrJ makes no representation or warranty regarding the performance of each manufactured Truss.

## CONSTRUCTION MATERIALS: Lumber, Metal Plate Connectors & Other Fasteners

Commodity lumber Design Values, specified in the NDS, are defined as strength and stiffness property values of structural lumber products published for design use. These values are determined for specific grades and species/species groups. Sawn lumber used for load-supporting purposes, including end-jointed, edge-glued, machine stress-rated, or machine-evaluated lumber, shall be identified by the Grade mark of a lumber grading or inspection agency that has been approved by an Accreditation Body that complies with the latest edition of the DOC PS 20 American Softwood Lumber Standard or equivalent. Approved end-jointed lumber is permitted to be used interchangeably with solid-sawn members of the same species and grade. End-jointed lumber used in an assembly required to have a fire-resistance rating shall have the designation "Heat Resistant Adhesive" or "HRA" included in its grade mark. DrJ relies upon each lumber manufacturer to provide building code conforming Design Values, conditions of use, quality, and repair requirements as well as compliance with DOC PS 20 and the NDS Supplement, as pertinent.

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The DrJ Reference Sheet will be updated annually on 12/31 of each year and supersedes all prior versions and understandings with respect to the DrJ Reference Sheet.

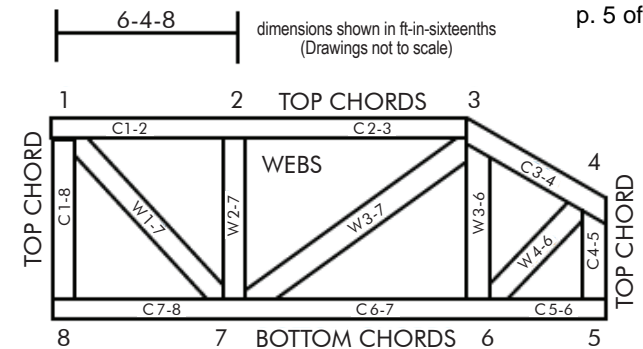
The DrJ Reference Sheet may also be updated periodically during the year upon Communication of DrJ to TM.

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## NUMBERING SYSTEM

D5157

p. 5 of 5

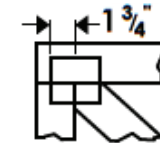


JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

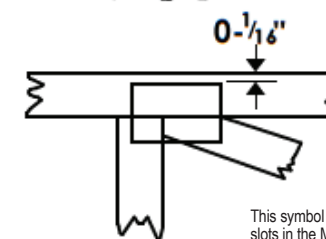
CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## Symbols

### PLATE LOCATION AND ORIENTATION



Center plate on joint unless x,y offsets are indicated. Dimensions are in ft-in-sixteenths (x-x-x). Apply MCPs 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 the MCP.

This symbol indicates the required direction of slots in the MCP.

\*MCP location details available upon request from TM

### MCP SIZE

4 x 4

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

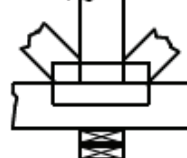
### LATERAL RESTRAINT LOCATION



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

NOTE - LATERAL RESTRAINTS MUST BE BRACED. REFER TO BCS! OR AS SPECIFIED BY THE BD.

### BEARING



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