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Lee Urban- Director of Planning and Development
Michael J. Nugent- Inspections Division Director

PIZZA OVEN HOOD

Kitchen Exhaust System Checklist and Code Provisions

Dear Applicant,

The following is a checklist to assist you in filing for a permit for a Kitchen Exhaust system. The applicable Mechanical Code provisions have also been attached. Please complete this and submit job specific construction documents that demonstrate compliance with the attached information.

REVIEWED
 REJECTED
 RETURN AS CORRECTED

Contractor is responsible for the design, fabrication, installation, and maintenance of the kitchen exhaust system. This check is for review of drawings during the review process. The contractor must provide the drawings and specifications with the permit application. This check is for review of the project and general conformance with the applicable code provisions. The contractor is responsible for the design, fabrication, installation, and maintenance of the kitchen exhaust system. This check is for review of the project and general conformance with the applicable code provisions. The contractor is responsible for the design, fabrication, installation, and maintenance of the kitchen exhaust system. This check is for review of the project and general conformance with the applicable code provisions.

Type of System:

Type I _____ Type II 2

(Type I systems are systems that vent fryers, grills, broilers, ovens, and steamers. Type II systems are systems that vent steamers and other non grease producing equipment.)

Type of Materials:

Is the hood Stainless steel or other type of steel? STAINLESS If Other, what Type? _____

Is the duct work Stainless steel or other type of steel? _____ If Other, what type? COLD ROLLED

Thickness of the steel for the hood 18

Thickness of the duct for the hood 16

Type of Hood and Duct supports 3/8" S.S. CHAIN
1/2" x 1/2" ANGLE ON DUCT

Type of seams and Joints WELDED

R. WATNEY ENGINEERING, P.A.
10 South Street
Portland, ME 04104
P. Watney Date D3-01-06

P182



PIZZA OVEN HOOD

Grease Gutters provided? YES

Hood Clearance from Combustibles materials 18"

Duct Clearance from Combustibles materials 6"

Vibration Isolation System: NONE REQUIRED RPW

Air Velocity within the duct system 900 FPM RPW

Grease accumulation prevention system REMOVABLE GREASE CUP RPW

Cleanouts N/A

Grease Duct enclosure THERMA CERAMICS FIRE MASTER

Exhaust Termination ROOF

Fire Suppression system RANGE GUARD

Exhaust fan mounting and clearance from the roof or wall 10' FROM PROPERTY LINE, VERTICAL DISCHARGE WITH OUTLET 40" MIN. ABOVE ROOF RPW

Exhaust fan distance from other vents or openings 10'

Exhaust fan height above adjoining grade N/A RPW

Hood Specs

Style of hood Box EXHAUST ONLY

Type of Filter: ALUMINUM MESH

Height of filter above nearest cooking surface: 42"

Capacity of hood in CFM 900 RPW

Make up Air system description and capacity NATURAL VENTILATION RPW



PORTLAND MAINE

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Lee Urban- Director of Planning and Development
Michael J. Nugent- Inspections Division Director

MAIN HOOD

Kitchen Exhaust System Checklist and Code Provisions

REVIEWED
 REVISE AND RESUBMIT
 REJECTED
 FURNISH AS CORRECTED

Dear Applicant,

The following is a checklist to assist you in filing for a permit for a kitchen exhaust system. The applicable Mechanical Code provisions have also been attached. Please complete this and submit job specific construction documents that demonstrate compliance with the attached information.

Corrections or comments made on the sheet during this review do not relieve contractor of compliance with requirements of the drawings. This check is only for review of design concept and general compliance with the design concept of the project. The contractor is responsible for confirming all quantities and dimensions; selecting fabrication processes and techniques; coordinating his or her work with other trades and performing all work in a safe and satisfactory manner.

WHITNEY ENGINEERING, P.A.
10 Danforth Street
Portland, Maine 04101
R. Whitney Date 09-01-06

Type of System:

Type I X Type II _____

(Type I systems are systems that vent fryers, grills, broilers, ovens or waffle irons. Type II systems are systems that vent steamers and other non grease producing appliances)

Type of Materials:

Is the hood Stainless steel or other type of steel? STAINLESS If Other, what Type? _____

Is the duct work Stainless steel or other type of steel? _____ If Other, what type? COLD ROLLED STEEL

Thickness of the steel for the hood 18

Thickness of the duct for the hood 16

Type of Hood and Duct supports 3/8" CHAIN ON HOOD
1/2" ANGLE ON DUCT

Type of seams and Joints ALL WELDED

P1 \$2

MAIN HOOD

MAIN HOOD

Grease Gutters provided? YES

Hood Clearance from Combustibles materials 18"

Duct Clearance from Combustibles materials 6"

Vibration Isolation System: NONE REQUIRED RPW

Air Velocity within the duct system 1,519 FPM RPW

Grease accumulation prevention system REMOVABLE GREASE CUP RPW

Cleanouts 1

Grease Duct enclosure THERMAL CERAMICS INS MASTER

Exhaust Termination ROOF

Fire Suppression system RANGE GUARD

Exhaust fan mounting and clearance from the roof or wall 10' FROM PROPERTY RPW
LINE, VERTICAL DISCHARGE WITH OUTLET 40° MIN. ABOVE ROOF

Exhaust fan distance from other vents or openings 10'

Exhaust fan height above adjoining grade N/A RPW

Hood Specs

Style of hood BOX MAKE UP AIR

Type of Filter: ALUMINUM BAFFLE

Height of filter above nearest cooking surface: MIN 42"

Capacity of hood in CFM 2,700 RPW

Make up Air system description and capacity
FILTERED AIR SUPPLY 3/4 HP 2,160 CFM RPW
CAPACITY

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 06-0290	Date Applied For: 03/03/2006	CBL: 111 A010001
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Location of Construction: 425 FOREST AVE	Owner Name: FLETCHER IRENE E & WENDAL	Owner Address: 48 REVERE ST	Phone:
Business Name:	Contractor Name: Atlantic Restaurant Services	Contractor Address: 34 Albion Road Windham	Phone (207) 653-0645
Ressee/Buyer's Name	Phone:	Permit Type: Hood Systems, Commerical	

Proposed Use: Commercial/ install Kitchen exhaust system- 2 hoods- 1 w/make up	Proposed Project Description: install Kitchen exhaust system- 2 hoods- 1 w/make up air
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Dept: Zoning	Status: Pending	Reviewer:	Approval Date:	Ok to Issue: <input type="checkbox"/>
Note:				
Dept: Building	Status: Pending	Reviewer: Mike Nugent	Approval Date:	Ok to Issue: <input type="checkbox"/>
Note:				
Dept: Fire	Status: Approved with Conditions	Reviewer: Cptn Greg Cass	Approval Date: 03/06/2006	Ok to Issue: <input checked="" type="checkbox"/>
Note:				
1) Install shall comply with NFPA 96				

Comments:
3/7/2006-mjn: Advised Mark Weimer that the Truss manufacturer has to certify that the trusses will hold the additional loads.

**MiTek Industries, Inc.**

14515 North Outer Forty Drive
Suite 300
Chesterfield, MO 63017-5746
Telephone 314/434-1200
Fax 314/434-5343

Re: **a444399**

Rufus Deering, Wendell - - Vlad

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

Pages or sheets covered by this seal: I10040980 thru **I10040981**

My license renewal date for the state of Maine is December 31, 2007.



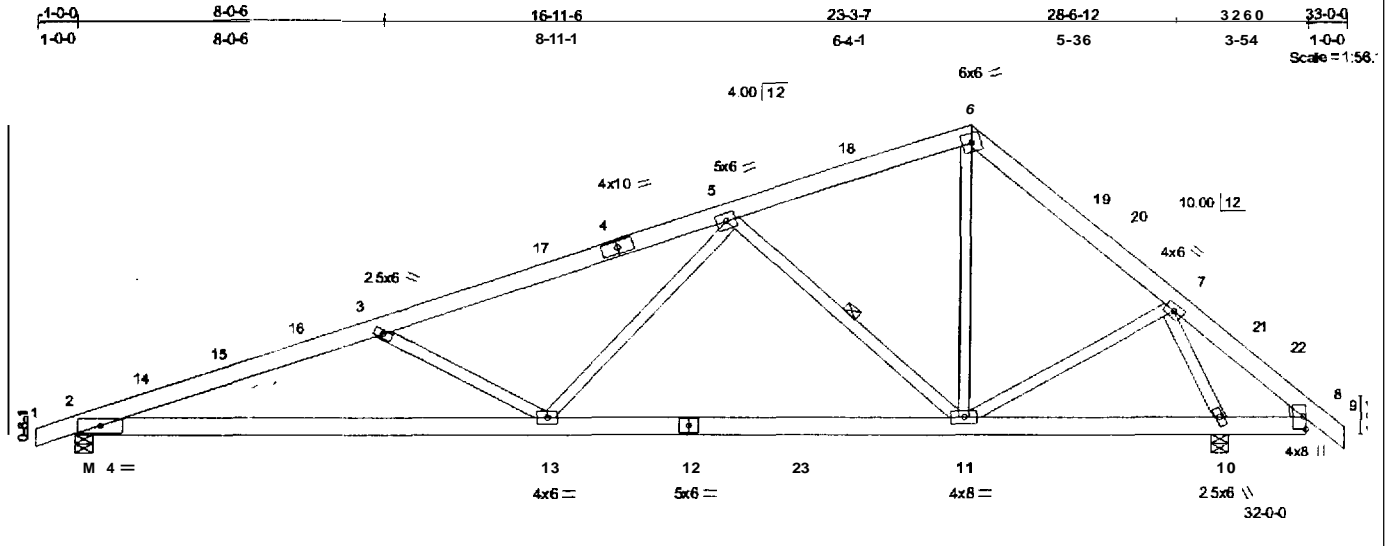
March 21, 2006

Garcia, Juan

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.

Job 444399	Truss 001	Truss Type DUAL PITCH	Qty 30	Ply 1	Rufus Deering, Wendell -- Vlad	11004096
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Wood Structures, Inc. Biddeford, ME 04005 Job Reference (optional) 6.200 s Oct. 18.2005 MITek Industries, Inc. Tue Mar 21 11:49:45 2006 Pag 1



LOADING (psf) CLL 50.0 Roof Snow=50.0 CDL 10.0 CLL 20 CDL 10.0	SPACING 2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IBC2003/TP12002	C/SI TC 0.82 BC 0.88 WB 0.63 (Matrix)	DEFL in (loc) l/defl Lld Vert(LL) -0.37 11-13 >957 240 Vert(TL) -0.56 2-13 >631 180 Horz(TL) 0.13 10 n/a n/a	PLATES GRIP MT20 197/144 Weight: 169 lb
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E ACTIONS (lb/size) 2=2253/0-5-8, 10=2577/0-5-8

Max Horz 2= 552 (load case 7)
Max Uplift 2= 945 (load case 6), 10= 934 (load case 9)
Max Grav 2= 3219 (load case 2), 10= 2727 (load case 23)

FORCES (lb) - Maximum Compression/Maximum Tension

OP CHORD 1-2=0/54, 2-14=-7219/1958, 14-15=-7022/1964, 15-1 -6988/1965, 3-1 -6803/1977, 3-17=-5449/1445, 4-17=-5179/1445, 4-5=-5075/1459, 5-18=-2122/678, 6-18=-1896/696, 6-19=-2247/809, 19-20=-2274/790, 7-20=-2309/789, 7-21=-319/816, 21-22=-329/640, 8-22=-340/442, 8-9=0/63

OT CHORD 2-13=-2014/6632, 12-13=-1054/3840, 12-23=-1054/3840, 11-23=-1054/3840, 10-11=-186/751, 8-10=-394/378

MEMBERS 3-13=-1983/829, 5-13=-384/1705, 5-11=-2759/939, 6-11=-437/1499, 7-11=-308/1188, 7-10=-2747/1093

NOTES (12)

Wind: ASCE 7-02; 120mph; h=35ft; TCCL=5.0psf; BCDL=5.0psf; Category II; Exp C; enclosed; MWFRS gable end zone and C-C Exterior(2) 1-0-0 to 2-0-0, Interior(1) 2-0-0 to 20-3-7, Exterior(2) 20-3-7 to 26-3-7, Interior(1) 26-3-7 to 30-0-0, Exterior(2) 30-0-0 to 33-0-0 zone; cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C of a members and forces, and for MWFRS for reactions specified.

TCLL: ASCE 7-02; PF=50.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1

Unbalanced snow loads have been considered for this design.

This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 50.0 psf on overhangs non-concurrent with other live loads

This truss is not designed to support a ceiling and is not intended for use where aesthetics are a consideration.

This truss has been designed for a 10.0 psf bottom chord live load non concurrent with any other live loads.

This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.

* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a red angle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.

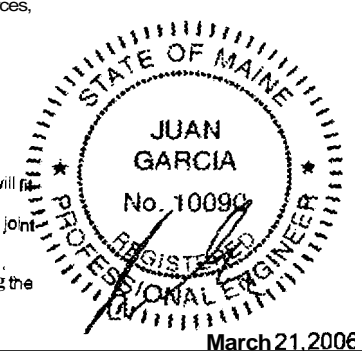
Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 945 lb uplift at joint 2 and 934 lb uplift at joint 10.

1) This truss is designed in accordance with the 2003 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.

2) This truss has been designed for a moving concentrated load of 140.0 lb dead located at all mid panels and at all panel points along the Top Chord, concurrent with live and dead loads.

3) Drawing prepared exclusively for manufacturing by Wood Structures Inc.

Continued on page 2



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT7473 BEFORE USE
Design valid for use only with Mittek 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. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI1 Quality Criteria, D58-89 and SCS1 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

14515 N. Outer Party,
Suite #300
Chesterfield, MO 63017



job	Truss	Truss Type	Qty	Ply	Rufus Deering, Wendell -- Vlad	11004098
1444399	001	DUAL PITCH	30	1	Job Reference (optional)	

Wood Structures, Inc., Biddeford, ME 04005

6.200 s Oct 18 2005 MiTek Industries, Inc. Tue Mar 21 11:49:45 2006 Pag 2

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT743 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.
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 erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding
 fabrication, quality control, storage, delivery, erection and bracing, consult ANSITP11 Quality Criteria, DSB-89 and BCS11 Building Component
 Safety Information available from Truss Plate Institute, 5830 Onofrio Drive, Madison, WI 53719.

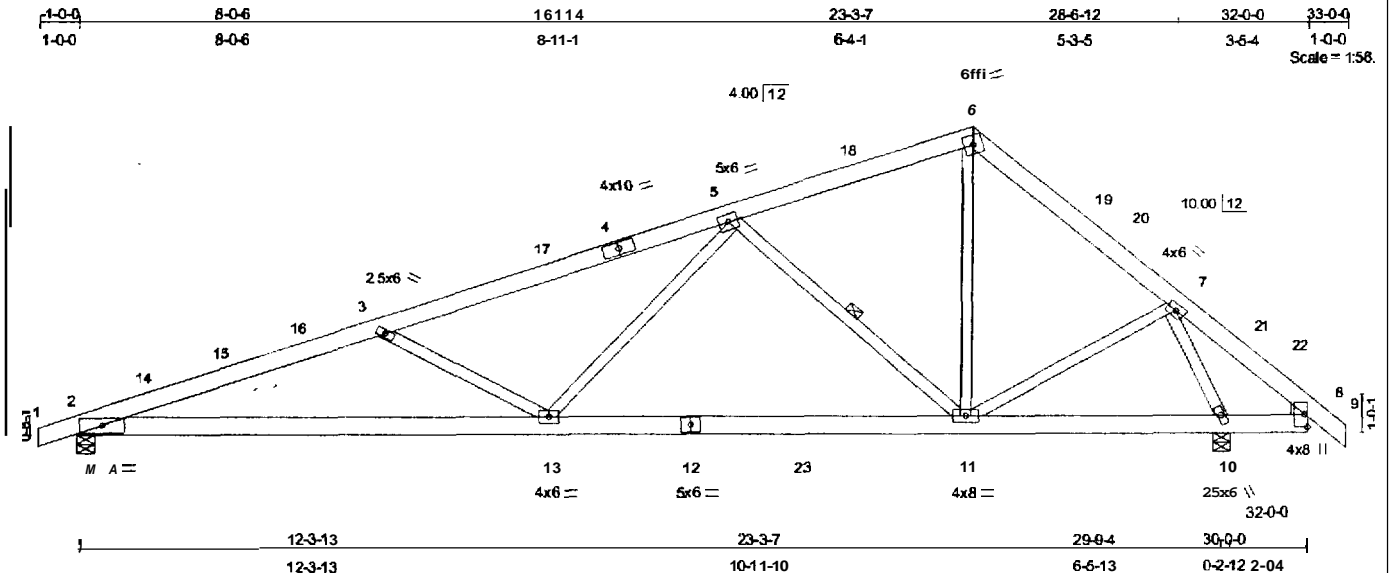
14615 N. Outer Forty
Suite #300
Chesterfield, MO 63017



Job A444399	Truss 002	Truss Type GESTR	Qty 2	Ply 1	Rufus Deering, Wendell -- Vlad	1100409
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Wood Structures, Inc, Biddeford, ME 04005

Job Reference (optional)
6.200 s Oct 18 2005 MiTek Industries, Inc. Tue Mar 21 11:49:45 2006 Pa



LOADING (psf) TCLL 50.0 (Roof Snow=50.0) TCDL 10.0 BCLL 0.0 BCDL 40.0	SPACING 2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IBC2003/TP12002	CSI TC 0.82 ac 0.88 WB 0.63 (Matrix)	DEFL in (lac) l/defl L/d Vert(LL) -0.37 11-13 2957 240 Vert(TL) -0.56 2-13 >631 180 Horz(TL) 0.13 10 n/a n/a	PLATES MT20 GRIP 1971144 Weight: 169 lb
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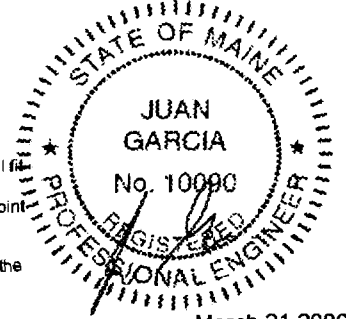
LUMBER
 TOP CHORD 2 X 6 SPF 1650F 1.5E
 BOT CHORD 2 X 6 SPF 1650F 1.5E
 WEBS 2 X 4 SPF 1650F 1.5E
WEDGE
 Right: 2 X 4 SYP No.2

BRACING
 TOP CHORD Structural wood sheathing directly applied or 2-4-6 oc purlins
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 5-11

REACTIONS (lb/size) 2=2253/0-5-8, 10=2577/0-5-8
 Max Horz 2=552(load case 7)
 Max Uplift 2=-945(load case 6), 10=-934(load case 9)
 Max Grav 2=3219(load case 2), 10=2727(load case 23)

FORCES (lb) -Maximum Compression/Maximum Tension
TOP CHORD 1-2-0154, 2-14=-7219/1958, 14-15=-7022/1964, 15-16=-6988/1965, 3-16=6803/1977, 3-17=-5449/1445, 4-17=-5179/1445, 4-5=-5075/1459, 5-18=-2122/678, 6-18=-1896/696, 6-19=-2247/809, 19-20=-2274/790, 7-20=-2309/789, 7-21=-319/816, 21-22=-329/640, 8-22=-340/442, 8-9=0/63
BOT CHORD 2-13=-2014/6632, 12-13=-1054/3840, 12-23=-1054/3840, 11-23=-1054/3840, 10-11=-186/751, 8-10=-394/378
WEBS 3-13=-1983/829, 5-13=-384/1705, 5-11=-2759/939, 6-11=437/1499, 7-11=-308/1188, 7-10=-2747/1093

- NOTES** (12)
- 1) Wind: ASCE 7-02 120mph; h=35ft; TCCL=5.0psf; BCDL=5.0psf; Category II; Exp C; enclosed; MWFRS gable end zone and G-C Interior(2) 1-0-0 to 2-0-0, Interior(1) 2-0-4 to 20-3-7, Exterior(2) 20-3-7 to 26-3-7, Interior(1) 26-3-7 to 30-0-0, Exterior(2) 30-0-0 to 33-0-0; no cantilever left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
 - 2) TGLL: ASCE 7-02; Pf=50.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Cf= 1
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 50.0 psf on overhangs non-concurrent with other live loads.
 - 5) This truss is designed to support a ceiling and is not intended for use where aesthetics are a consideration.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load non concurrent with any other live loads.
 - 7) This truss requires plate inspection per the Tooth Count Method when this truss is chosen for quality assurance inspection.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide will fit between the bottom chord and any other members.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 945 lb uplift at joint 2 and 934 lb uplift at joint 10.
 - 10) This truss is designed in accordance with the 2003 International Building Code section 2306.1 and referenced standard ANSI/TP1 1.
 - 11) This truss has been designed for a moving concentrated load of 140.0 lb dead located at all mid panels and at all panel points along the Top Chord, concurrent with live and dead loads.
 - 12) Drawing prepared exclusively for manufacturing by Wood Structures Inc.



March 21, 2006

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT7473 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. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TP1 Quality Criteria, D58-89 and SCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

1451 S. Outer Fary
 Suite #300
 Chesterfield, MO 63017

lot	Truss	Truss Type	Qty	Ply	Rufus Deering, Wendell -- Vlad	11004098
44439f	002	GE STR	2	1		

Wood Structures, Inc., Biddeford, ME 04005

6.200 s Oct 18 2005 MiTek Industries, Inc. Tue Mar 21 11:48:48 2006 Page 2

LOAD CASE(S) Standard

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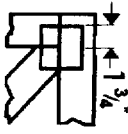
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE M17473 BEFORE USE.
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 Safety Information available from Truss Plate Institute, 583 D Onofrio Drive, Madison, WI 53719.

14615 N. Outer Fwy,
Suite #300
Chesterfield, MO 63017

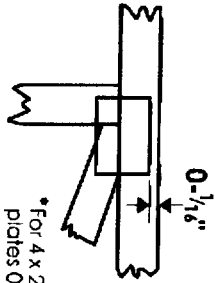


Symbols

PLATE LOCATION AND ORIENTATION



*Center plate on joint unless x, y offsets are indicated. Dimensions are in fractions. Apply plates to both sides of truss and securely seat.



*For 4 x 2 orientation, locate plates 0-1/8" 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

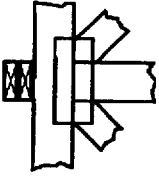
The first dimension is the width perpendicular to slots. Second dimension is the length parallel to slots.

LETTERED BRACING



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

BEARING

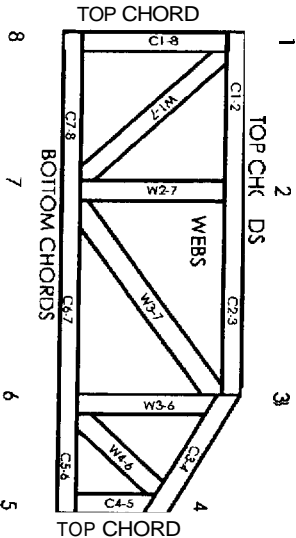
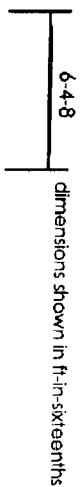


Indicates location where bearing (support) occur. Icons vary but reaction section indicates joint number where bearing occur.

Industry Standards:

- ANSI/FP11: National Design Specification for Metal Plate Connected Wood Truss Construction.
- DSB-89: Design Standard for Bracing.
- BCS11: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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.

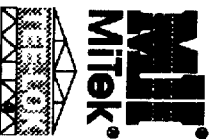
CONNECTOR PLATE CODE APPROVALS

BOCA	96-31, 95-43, 96-20-1, 96-67, 84-32
ICBO	4922, 5243, 5363, 3907
SBCCI	9667, 9730, 96048, 9511, 9432A

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCS11.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members or tightly against each other.
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/FP11.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/FP11.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant or preservative treated lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions shown indicate minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided of spacing shown on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of a professional engineer.
- Install and load vertically unless indicated otherwise.



MITek Engineering Reference Sheet: MI11-7473