



Lumber design values are in accordance with ANSI/TPI 1 section 6.3  
These truss designs rely on lumber values established by others.

RE: 4363597 - EARL PEELER

**Site Information:**

Customer Info: EARL PEELER Project Name: Peeler Res. Model: Custom  
Lot/Block: N/A Subdivision: N/A  
Address: TBD, TBD  
City: Columbia Cty State: FL

**MiTek, Inc.**

16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

Name: License #:  
Address:  
City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: FBC2023/TPI2014 Design Program: MiTek 20/20 8.8  
Wind Code: ASCE 7-22 Wind Speed: 130 mph  
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 2 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T35752683	T01	12/7/24
2	T35752684	T01G	12/7/24



This item has been digitally signed and sealed by ORegan, Philip, PE on the date adjacent to the seal.  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

The truss drawing(s) referenced above have been prepared by  
MiTek USA, Inc. under my direct supervision based on the parameters  
provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: ORegan, Philip  
My license renewal date for the state of Florida is February 28, 2025.

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



Philip J. O'Regan PE No. 58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

December 7, 2024

ORegan, Philip

1 of 1

Job 4363597	Truss T01	Truss Type Roof Special	Qty 22	Ply 1	EARL PEELER	T35752683
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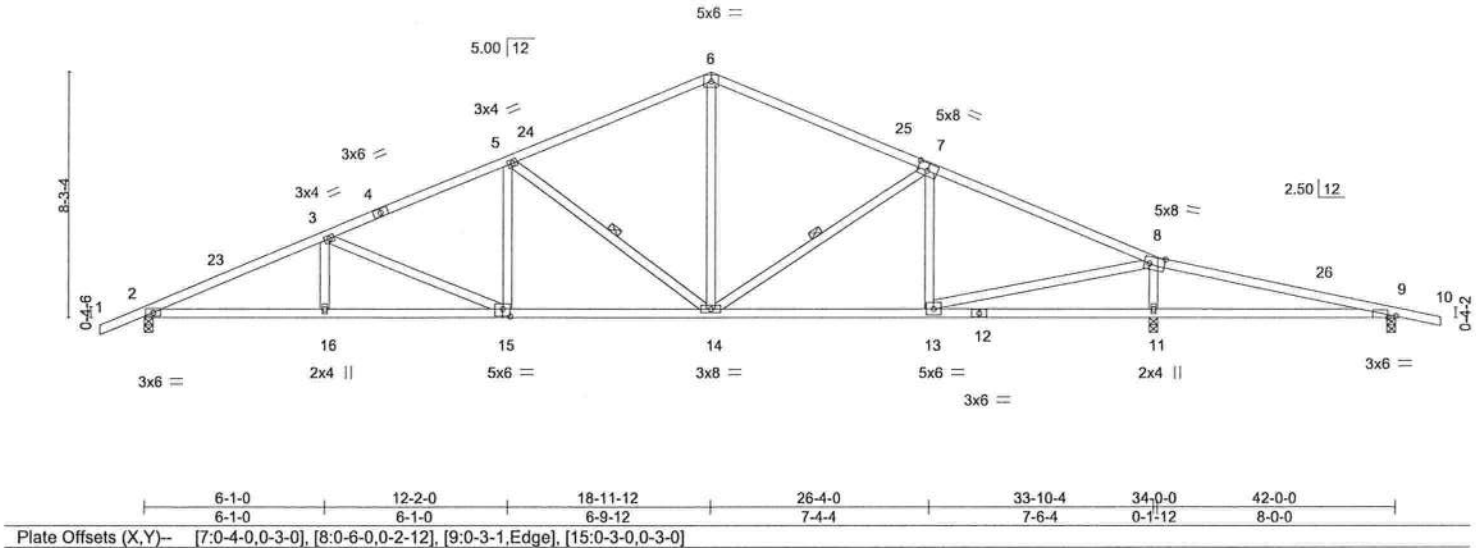
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.830 s Nov 8 2024 MiTek Industries, Inc. Fri Dec 6 12:07:05 2024 Page 1

ID:FERUQ85bu4DsM9nwj12Y1syC5zX-wV4Y5gv7kyXY9ENE0Y8ue7o\_cYc50R0Gu7AEBdyBhcq

1-6-0	6-1-0	12-2-0	18-11-12	26-4-0	34-0-0	42-0-0	43-6-0
1-6-0	6-1-0	6-1-0	6-9-12	7-4-4	7-8-0	8-0-0	1-6-0

Scale = 1:74.5



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.65	Vert(LL) 0.27 11-22 >359 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.67	Vert(CT) 0.23 11-22 >433 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.08 11 n/a n/a		
	Code FBC2023/TPI2014			Weight: 211 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 5-8-7 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-14, 7-14

<b>REACTIONS.</b>	(size) 2=0-3-8, 11=0-3-8, 9=0-3-8
	Max Horz 2=190(LC 16)
	Max Uplift 2=555(LC 12), 11=628(LC 13), 9=316(LC 9)
	Max Grav 2=1316(LC 1), 11=1647(LC 1), 9=333(LC 26)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2660/1046, 3-5=-2128/898, 5-6=-1471/724, 6-7=-1481/721, 7-8=-1649/691
BOT CHORD	2-16=-1054/2405, 15-16=-1054/2405, 14-15=-749/1900, 13-14=-497/1456, 11-13=-270/153
WEBS	3-15=-544/330, 5-15=-92/419, 5-14=-779/476, 6-14=-275/728, 7-14=-320/285, 7-13=-264/212, 8-13=-593/1767, 8-11=-1430/638

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 -1-6-0 to 2-8-6, Zone1 2-8-6 to 18-11-12, Zone2 18-11-12 to 24-11-0, Zone1 24-11-0 to 43-6-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=555, 11=628, 9=316.

This item has been digitally signed and sealed by O'Regan, Philip, PE on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

December 7, 2024

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcsccomponents.com)

**MiTek®**  
16023 Swingley Ridge Rd.  
Chesterfield, MO 63017  
314.434.1200 / MiTek-US.com

Job	Truss	Truss Type	Qty	Ply	EARL PEELER	T35752684
4363597	T01G	GABLE	2	1		

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.830 s Nov 8 2024 MiTek Industries, Inc. Fri Dec 6 12:07:06 2024 Page 1

ID:FERUQ85bu4DsM9nwi2Y1syC5zX-OiewJ0wdVFPnOyQaF7BKL9Py\_YI?lQ6fvnj3yBhpc

1-6-0 18-11-12 34-0-0 42-0-0 43-6-0  
1-6-0 18-11-12 15-0-4 8-0-0 1-6-0

Scale = 1:77.0

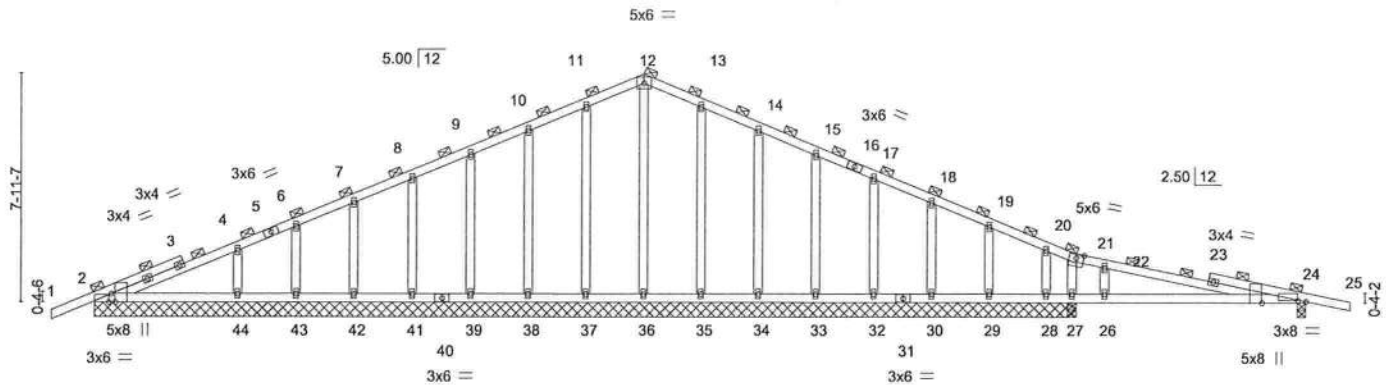


Plate Offsets (X,Y)=[		2:0-3-8,Edge], [2:0-1-1,Edge], [21:0-3-0,0-1-10], [24:0-0-9,Edge], [24:0-3-6,0-0-7]		34-0-0 42-0-0		34-0-0 8-0-0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.25	TC 0.61	Vert(LL)	-0.08 24-26	>999	240
TCDL 7.0	Lumber DOL	1.25	BC 0.57	Vert(CT)	-0.17 24-26	>561	180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.01 24	n/a	n/a
BCDL 10.0	Code	FBC2023/TPI2014	Matrix-S				
				Weight: 241 lb FT = 20%			

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
OTHERS 2x4 SP No.3

**BRACING-**  
TOP CHORD 2-0-0 oc purlins (6-0-0 max.).  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** All bearings 34-0-0 except (jt=length) 24=0-3-8.  
(lb) - Max Horz 2=183(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 37, 38, 39, 41, 42, 43, 35, 34, 33, 32, 30 except  
24=206(LC 9), 44=166(LC 12), 29=117(LC 13), 28=459(LC 26), 27=418(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 36, 37, 38, 39, 41, 42, 43, 35, 34, 33, 32, 30, 29, 28  
except 24=329(LC 26), 44=328(LC 25), 27=874(LC 26), 27=873(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 10-11=40/283, 11-12=55/353, 12-13=55/353, 13-14=40/284  
BOT CHORD 2-44=102/273, 43-44=102/273, 42-43=102/273, 41-42=102/273, 39-41=102/273,  
38-39=102/273, 37-38=102/273, 36-37=102/273, 35-36=102/273, 34-35=102/273,  
33-34=102/273, 32-33=102/273, 30-32=102/273, 29-30=102/273, 28-29=102/273,  
27-28=102/273, 26-27=83/263, 24-26=83/263  
WEBS 4-44=228/328, 22-26=178/348, 21-27=270/101

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-22; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl.,  
GCpi=0.18; MWFRS (envelope) gable end zone and C-C Zone3 zone; C-C for members and forces & MWFRS for reactions shown;  
Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry  
Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific  
to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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 2-0-0 wide  
will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 37, 38, 39, 41,  
42, 43, 35, 34, 33, 32, 30 except (jt=length) 24=206, 44=166, 29=117, 28=459, 27=418.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

This item has been  
digitally signed and  
sealed by O'Regan, Philip, PE  
on the date indicated here.  
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signature must be verified  
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Philip J. O'Regan PE No.58126  
MiTek Inc. DBA MiTek USA FL Cert 6634  
16023 Swingley Ridge Rd. Chesterfield, MO 63017  
Date:

December 7, 2024

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinstitute.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcsccomponents.com)

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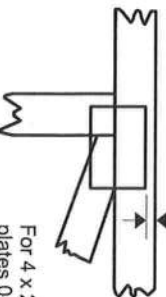
# Symbols

## 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.



0-<sup>1</sup>/<sub>16</sub>"



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

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

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

## PLATE SIZE

4 X 4

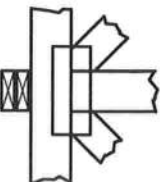
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

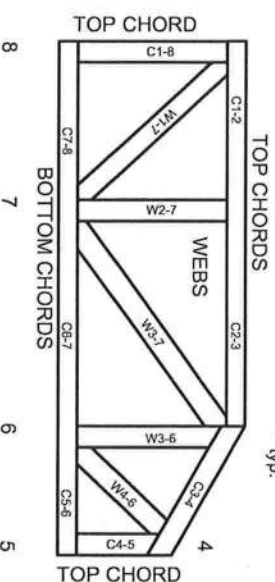
## Industry Standards:

ANSI/TP11: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)

1 2 3 Joint ID typ.



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-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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# 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 BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor T bracing should be considered.
- 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 to bear tightly against each other.
- Place plates on each face of truss at each joint and embed fully. Knots and ware at joint locations are regulated by ANSI/TP1 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
- 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, preservative treated, or green 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 indicated are 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 at spacing indicated 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 an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.



Architectural floor plan of a room with a grid layout. The room is 46'-00" wide and 42'-00" deep. It features a central area labeled 'AHU' (Air Handling Unit) and a vertical strip labeled 'T01 (22)'. The plan includes dimensions for the overall room and specific sections, as well as labels for 'T01G' at the top and bottom edges.

46-00-00

Summations of limited excerpts of the Code, ANSI/TPI 1-2014, and BCSI, and associated commentary, are provided within the truss submittal package in the Builders FirstSource Component Truss Responsibility and Liability Disclosure. These critical excerpts include, among other elements, critical safety information as well as specific Scope-of-Work assignments (and limitations of the same) for the Owner, Contractor, Building Designer, Truss Designer, and Truss Manufacturer. It is essential that ALL parties to the design and use of the Trusses review and become familiar with the information provided in the Builders FirstSource Component Truss Responsibility and Liability Disclosure, as well as the referenced sources, prior to performing work on the associated project.



**Builders**  
FirstSource.

025-4714

Prepared By:

Henry Moody

## TOTAL HEATING AND COOLING REQUIREMENTS

Page 2

For:

Name: Earl Peeler

Address:

City:

(✓) Check Constr. Type	ITEM	AREA SQUARE FEET	DESIGN TEMPERATURE DIFFERENCE					DESIGN TEMP		HEATING (BTUH LOSS)	COOLING MULT. (CIRCLE)	COOLING (BTUH GAIN)	
			30°	35°	40°	45°	50°	90°	95°				
	Gross Wall Area	1440											
	Glass Area (From page 1)	144								7920		4310	
	Partitions, Frame												
	Finished 1 side, No Insulation		17	19	22	25	28			6.5	10.0		
	Finished 2 sides, No Insulation		9	11	12	14	16			4.5	6.0		
	Finished 2 sides, R-5		4	5	5.5	6	7			2.5	3.5		
	Finished 2 sides, R-11		2	3	3	4	4			2.0	2.5		
	Other												
	Doors (Excluding glass)												
	No weatherstripping		135	160	180	200	225			10.0	13.0		
	Weatherstripped		70	85	95	110	120			10.0	13.0	468	
	R-5 Insulation, No weatherstripping		123	144	164	185	205			4.3	5.5		
	R-5 Insulation, weatherstripping		68	79	90	101	113			4.0	5.0		
	Other												
	Net Exterior Walls												
	CBS Furred, No Insulation		9	10	12	13	14			4.5	6.0		
	CBS Furred, R-3 Insulation		5	6	7	8	8			3.0	4.2		
	CBS Furred, R-4 Insulation		4	5	6	6	7			2.7	3.8		
	CBS Furred, R-5 Insulation		4	5	5	6	6			2.5	3.5		
	Frame, No Insulation		8	9	10	11	13			5.5	7.0		
	Frame, R-11 Insulation		2	2	3	3	4			2.5	3.0	3780	
	Frame, R-14 Insulation		1.5	1.7	2	2.5	3			2	2.8		
	Other												
	Ceiling under attic	Roof											
	No Insulation	DK LT	18	21	24	27	30			9	7	10	8.5
	R-11 Insulation	DK LT	2.4	2.8	3.2	3.5	3.9			2.5	2	3	2.5
	R-19 Insulation	DK LT	1.5	1.7	1.9	2.2	2.4			1.5	1.5	2	1.5
	R-22 Insulation	DK LT	1.2	1.5	1.7	1.9	2.1			1.5	1.0	1.5	1.5
	R-26 Insulation	DK LT	1.1	1.3	1.4	1.6	1.8			1.3	1	1.5	1.2
	R-30 Insulation	DK LT	1	1.1	1.3	1.4	1.6			1.1	.9	1.3	1.0
	Other												
	Floor, Concrete Slab	Perimeter Ft.											
	No Edge Insulation		35	40	40	45	45			0	0		
	Other												
	Subtotal									17153		10591	
	People @ 300 & Appl. @ 1200											7200	
	Sensible BTUH Gain											17791	
	Duct BTUH Loss & Gain												
	2 In. Flex. or 1 In. Rigid									1716	.10	1790	
	1½ In. Rigid										.075		
	Total BTUH Loss									18369			
	Subtotal BTUH Gain											19591	
	x 1.3 = Total BTUH Gain											25442	

Calculated Heating Requirements 18869

Size of Unit Chosen

% Oversized

% Undersized

BTUH

BTUH

Calculated Cooling Requirements 25442

Size of Unit Chosen 30,000

% Oversized

% Undersized

BTUH

BTUH