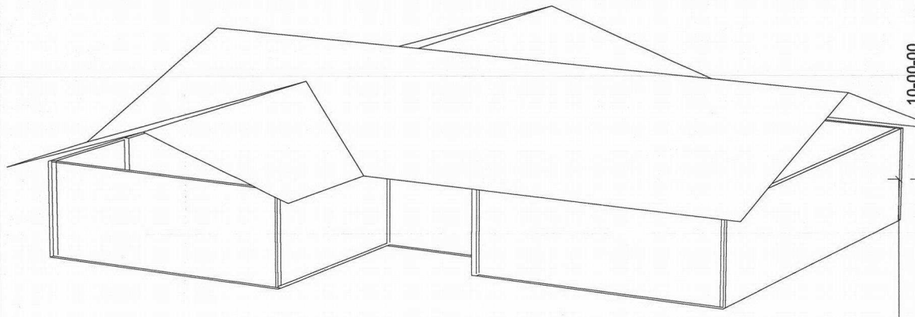
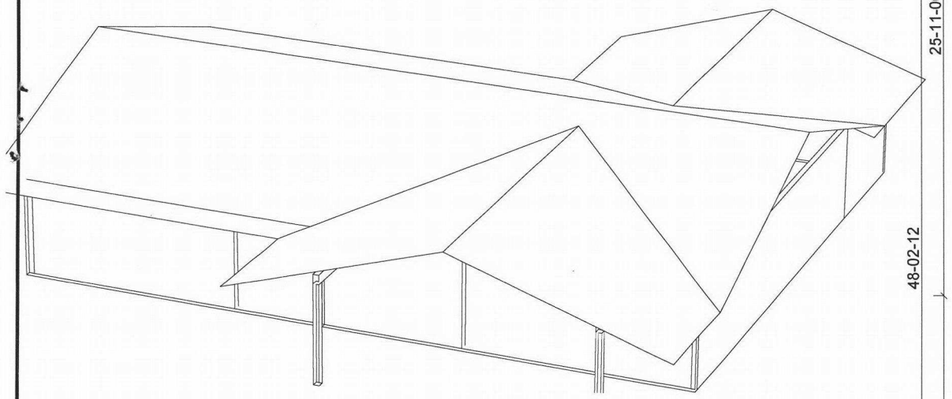
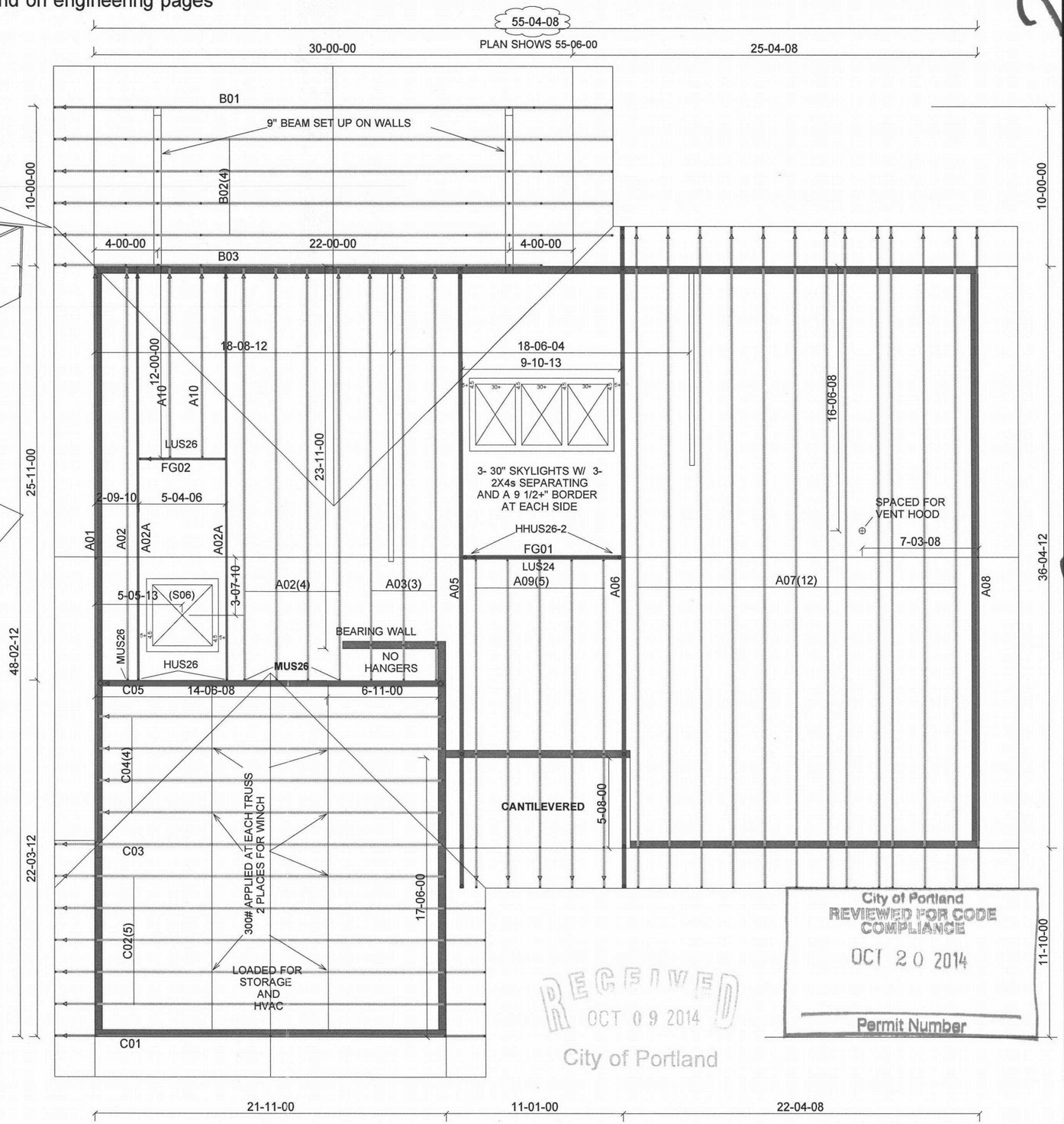
Triangle shape indicates left end on engineering pages







Reviewed by
Cascade Engineering, Inc.

[X] NO EXCEPTIONS TAKEN [ ] REVISE AND RESUBMIT
[ ] REVISE AS NOTED [ ] REJECTED

This review is for general conformance with the design intent and contract documents. Coordination with other trades and verification of dimensions is the responsibility of the contractor.

Date 10/07/2014 Reviewed by JJB

*This review stamp, also covers the truss calculations stamped by the truss company's licensed engineer (Ryan Joseph Dexter).

TC LL = 25
TC DL = 7
BC LL = 0
BC DL = 10
Total Load = 42
Wind Speed = 115 mph
Exposure = B
Roof pitch = 3.875/12
Overhang = 30" 2X6

Do not cut, drill, notch or modify truss members without prior approval from truss manufacturer

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See the individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structural stability of the structure. The design of the truss supporting structure, including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of wood trusses" available from the Truss Plate Institute, 583 D'Onofrio Drive; Madison, WI 53179

PROBuild
5350 SW 107th Ave
Beaverton, OR 97005
Phone: 971-371-5971

SCALE: NTS
JOB #: J1404154
DATE: 10/6/2014
DRAWN BY: Louis Swing
BUILDER: Mike Church
PROJECT: John Berthold
ADDRESS: 2300 SW 15th Ave, Portland,

14-1845

RT - 1

DrJ ENGINEERING LLC

DrJ Engineering, LLC
(FKA: DrJ Consulting, LLC)
6300 Enterprise Lane
Madison, Wisconsin 53719

1

Re: J1404154
Mike Church

MiTek 20/20 7.4

The Truss Design Drawing(s) (TDD[s]) referenced have been prepared based on the construction documents provided by the Building Designer indicating the nature and character of the work. The design criteria therein have been transferred to DrJ Engineering (DrJ) by ProBuild (Clackamas).

These TDDs are specialty component designs and may be part of the project's deferred or phased submittals. As a Truss Design Engineer (i.e., Specialty Engineer), the seal here and on any TDD represents an acceptance of professional engineering responsibility for the design of the single Truss depicted on the TDD only. The Building Designer is responsible for and shall coordinate and review the TDDs for compatibility with their written engineering requirements. Please review all TDDs and all related notes.

Pages or sheets covered by this seal: I8835399 thru I8835418

My license renewal date for the state of Oregon is December 31, 2015.

Important Notice: Each TDD uses Metal Connector Plate (MCP) design values published by MCP manufacturers. Any referenced connectors use design values published by the connector manufacturer or the American Wood Council per the National Design Specification (NDS) for Wood Construction. The TDD further uses lumber design values published by the applicable lumber rules-writing agency as approved by the American Lumber Standards Committee. These are incorporated into lumber design provisions and equations created by the American Wood Council and input into modeling and analysis TDD software created and owned by the MCP manufacturers. The lumber design values correspond with the grade stamp identified by the Truss Manufacturer on the lumber prior to cross cutting. The lumber grading rules published by the rules-writing agency shall apply to the Owner, Building Designer and Contractor. All capitalized terms are as defined in ANSI/TPI 1, the National Design Standard for Metal Plate Connected Wood Truss Construction (TPI 1).

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2011
RYAN JOSEPH DEXTER
RENEWAL DATE: 12/31/2015

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

REGEIVED
OCT
City of Portland

October 7,2014

Ryan Dexter, P.E.

The design assumptions, loading conditions, suitability and use of this set of Truss designs for any Building is the responsibility of the Owner, the Owner's authorized agent or the Building Designer, in the context of the IRC, the IBC, the local building code and TPI 1.The approval of the TDD and any field use of the Truss, including handling, storage, installation and bracing, shall be the responsibility of the Building Designer and Contractor. All notes set out in the TDD and the practices and guidelines of Building Component Safety Information (BCSI) published by TPI and SBCA are referenced for general guidance. TPI 1 defines the responsibilities and duties of the Truss Designer, Truss Design Engineer and Truss Manufacturer, unless otherwise defined by a Contract agreed upon in writing by the parties involved. The Truss Design Engineer is NOT the Building Designer or Truss System Engineer for any Building.

14-18757 DS 01 KS
-SCAN-

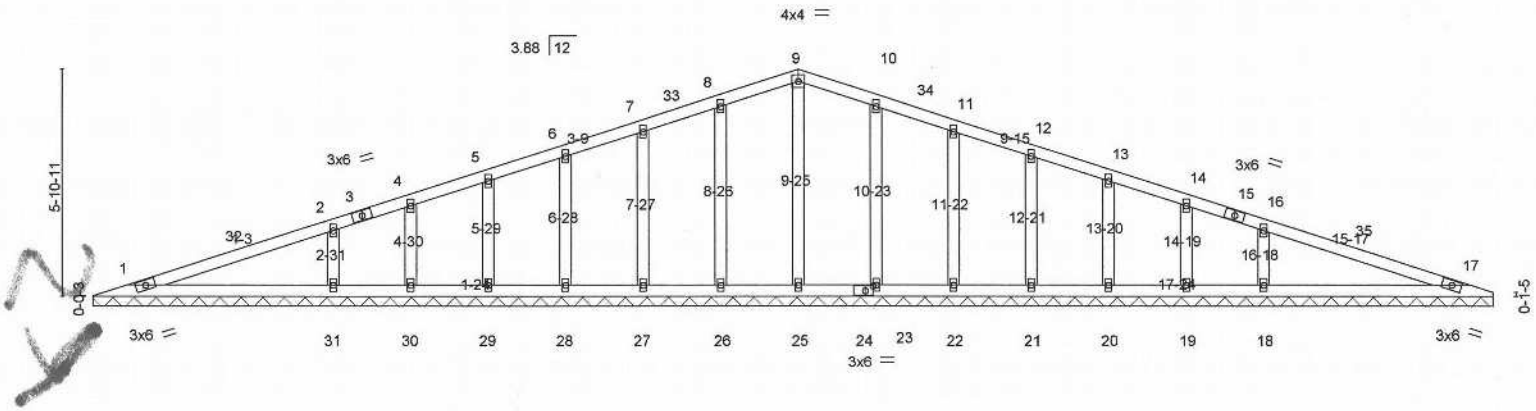
Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	A01	GABLE	1	1	I88353
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:25 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-yK6r6DRES?pNKUPc48uFgRH1_IubdZCt71mLvHyW45i

18-2-6 / 18-2-6 — 36-1-4 / 17-10-14

Scale = 1:59.5



36-1-4 / 36-1-4

Plate Offsets (X,Y): [24:0-2-6,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(TL)	0.00	17	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 158 lb	FT = 10%

LUMBER
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
OTHERS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS All bearings 36-1-4.
(lb) - Max Horz 1=-76(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 17 except 31=-191(LC 8), 18=-191(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 17 except 31=475(LC 12), 18=475(LC 13)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-29/261, 9-10=-29/261
WEBS 2-31=-330/308, 16-18=-330/308

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=2ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Corner(3) 0-10-12 to 3-10-12, Exterior(2) 3-10-12 to 15-2-6, Corner(3) 15-2-6 to 18-2-6, Exterior(2) 21-2-6 to 32-6-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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 2-0-0 wide will fit between the bottom chord and any other members.
9) A plate rating reduction of 20% has been applied for the green lumber members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 17 except (jt=lb) 31=191, 18=191.
11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

City of Portland REVIEWED FOR CODE COMPLIANCE OCT 20 2014 Permit Number

REGISTERED PROFESSIONAL ENGINEER 85525PE OREGON JULY 12, 2011 RYAN JOSEPH DEXTER

RENEWAL DATE: 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

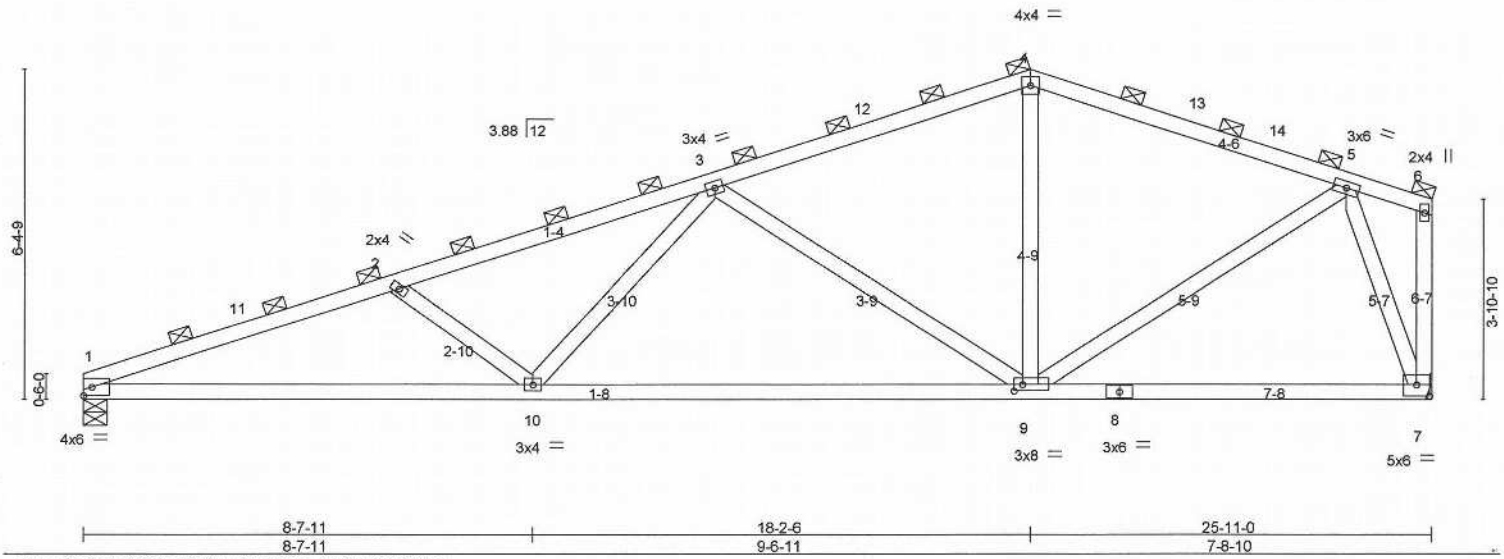
Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835400
J1404154	A02	COMMON	5	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:26 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-QWgDJZRsDIxEye_oerPUCfq7_i6mMp50MhWuRjyW45h

6-0-13	12-1-9	18-2-6	24-3-3	25-11-0
6-0-13	6-0-13	6-0-13	6-0-13	1-7-13

Scale = 1:44.5



8-7-11	18-2-6	25-11-0
8-7-11	9-6-11	7-8-10

Plate Offsets (X,Y): [7:0-3-0,0-2-12], [9:0-1-15,0-1-8]

LOADING (psf)		SPACING	2-3-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.51	Vert(LL)	-0.14	9-10	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.65	Vert(TL)	-0.46	9-10	>662	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.95	Horz(TL)	0.08	7	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 123 lb	FT = 10%

LUMBER

TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
WEBS 2x4 DF Std G *Except*
6-7: 2x4 DF No.1&Btr G

BRACING

TOP CHORD 2-0-0 oc purlins (3-6-1 max.), except end verticals (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 6-6-5 oc bracing.

REACTIONS (lb/size) 1=1207/0-5-8 (min. 0-1-8), 7=1207/Mechanical
Max Horz 1=201(LC 8)
Max Uplift 1=-399(LC 8), 7=-428(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-2812/955, 2-11=-2751/965, 2-3=-2479/817, 3-12=-1221/449, 4-12=-1140/456, 4-13=-1140/455, 13-14=-1152/448, 5-14=-1220/441
BOT CHORD 1-10=-1040/2594, 9-10=-744/1911, 8-9=-201/460, 7-8=-201/460
WEBS 2-10=-387/303, 3-10=-87/607, 3-9=-1004/493, 4-9=-55/396, 5-9=-163/755, 5-7=-1340/586

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 15-2-6, Exterior(2) 15-2-6 to 18-2-6, Interior(1) 21-2-6 to 22-9-3 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=399, 7=428.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

City of Portland REVIEWED FOR CODE COMPLIANCE OCT 20 2014 Permit Number

REGISTERED PROFESSIONAL ENGINEER 85525PE OREGON JULY 12, 2011 RYAN JOSEPH DEXTER

RENEWAL DATE: 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

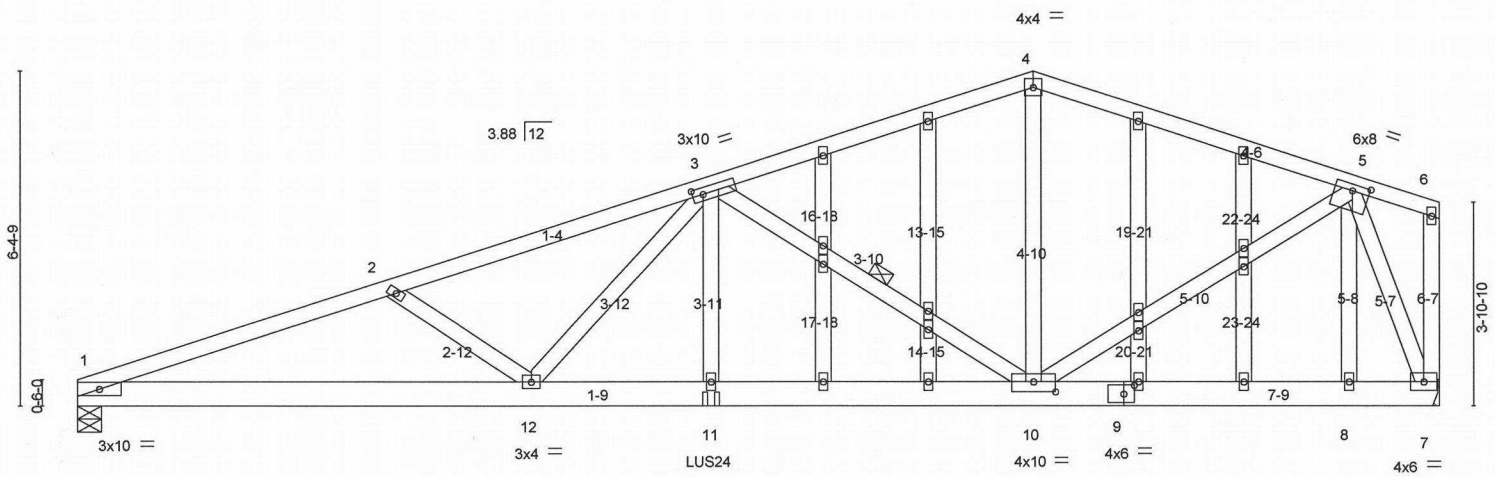
Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835481
J1404154	A02A	GABLE	2	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:28 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-Nvn_kET7kwBxBx8BlGRyI4vOPVmtqmRJq???VcyW45f

6-0-13	12-0-12	12-1-9	18-2-6	24-3-3	25-11-0
6-0-13	5-11-15	0-0-13	6-0-13	6-0-13	1-7-13

Scale = 1:43.9



8-7-11	12-0-12	18-2-6	25-11-0
8-7-11	3-5-1	6-1-10	7-8-10

Plate Offsets (X,Y): [3:0-2-6,0-1-8], [5:0-4-0,0-1-8], [9:0-2-6,0-2-0], [10:0-5-0,0-2-4]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.84	Vert(LL)	-0.16	11-12	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.80	Vert(TL)	-0.37	1-12	>823	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.71	Horz(TL)	0.09	7	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 175 lb	FT = 10%

LUMBER

TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G *Except*
6-7: 2x4 DF No.1&Btr G
OTHERS 2x4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 7-4-7 oc bracing.
WEBS 1 Row at midpt 3-10

REACTIONS (lb/size) 1=1610/0-5-8 (min. 0-1-11), 7=1921/Mechanical
Max Horz 1=175(LC 7)
Max Uplift 1=-419(LC 7), 7=-279(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-4111/1078, 2-3=-3848/939, 3-4=-1989/396, 4-5=-1991/394
BOT CHORD 1-12=-1133/3815, 11-12=-832/3364, 10-11=-832/3364, 9-10=-111/739, 8-9=-111/739, 7-8=-117/734
WEBS 2-12=-254/273, 3-12=-126/396, 3-10=-1897/653, 4-10=-85/629, 5-10=-207/1240, 5-7=-2234/355, 3-11=-184/717

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) A plate rating reduction of 20% has been applied for the green lumber members.
9) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=419, 7=279.
11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
13) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
14) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 12-0-12 from the left end to connect truss(es) FG02 (1 ply 2x6 DF) to front face of bottom chord.
15) Fill all nail holes where hanger is in contact with lumber.
16) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

City of Portland REVIEWED FOR CODE COMPLIANCE OCT 20 2014 Permit Number

REGISTERED PROFESSIONAL ENGINEER 85525PE OREGON JULY 12, 2011 RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-64, 3-4=-107(F=-43), 4-6=-107(F=-43), 1-11=-20, 7-11=-33(F=-13)
   Concentrated Loads (lb)
   Vert: 11=-618(F)
2) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-14, 3-4=-23(F=-9), 4-6=-23(F=-9), 1-11=-40, 7-11=-53(F=-13)
   Concentrated Loads (lb)
   Vert: 11=-363(F)
3) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=25, 3-4=16(F=-9), 4-6=9(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=-34, 4-6=26
   Concentrated Loads (lb)
   Vert: 11=274(F)
4) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=18, 3-4=9(F=-9), 4-6=16(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=-26, 4-6=34
   Concentrated Loads (lb)
   Vert: 11=274(F)
5) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=-9, 3-4=-19(F=-9), 4-6=-5(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=1, 4-6=13
   Concentrated Loads (lb)
   Vert: 11=274(F)
6) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=4, 3-4=-5(F=-9), 4-6=-19(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=-13, 4-6=-1
   Concentrated Loads (lb)
   Vert: 11=274(F)
7) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=41, 3-4=31(F=-9), 4-6=31(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=-49, 4-6=49
   Concentrated Loads (lb)
   Vert: 11=274(F)
8) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=41, 3-4=31(F=-9), 4-6=31(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=-49, 4-6=49
   Concentrated Loads (lb)
   Vert: 11=274(F)
9) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=-9, 3-4=-19(F=-9), 4-6=-19(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=1, 4-6=-1
   Concentrated Loads (lb)
   Vert: 11=274(F)
10) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-3=-9, 3-4=-19(F=-9), 4-6=-19(F=-9), 1-11=-12, 7-11=-25(F=-13)
   Horz: 1-4=1, 4-6=-1
   Concentrated Loads (lb)
   Vert: 11=274(F)
11) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-64, 3-4=-107(F=-43), 4-6=-57(F=-43), 1-11=-20, 7-11=-33(F=-13)
   Concentrated Loads (lb)
   Vert: 11=-618(F)
12) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-14, 3-4=-57(F=-43), 4-6=-107(F=-43), 1-11=-20, 7-11=-33(F=-13)
   Concentrated Loads (lb)
   Vert: 11=-618(F)

Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835402
J1404154	A03	Common	3	1	Job Reference (optional)	

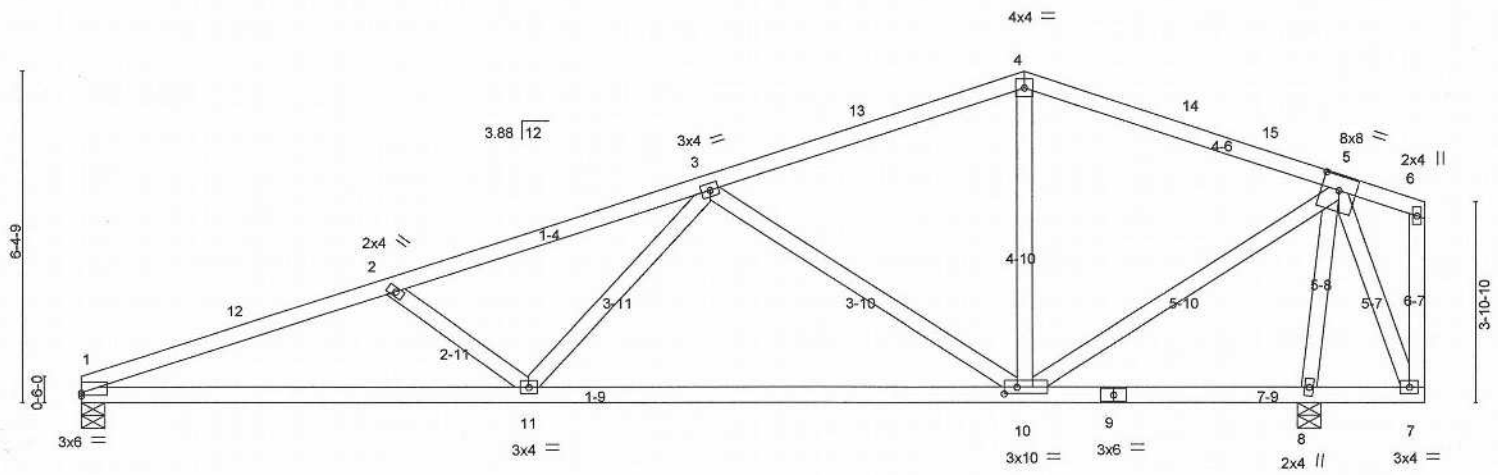
Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:29 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-r5LMyaUlVDJop5jNJzzBqHSh0vAPZBKS2fkY22yW45e

6-0-13 | 12-1-9 | 18-2-6 | 24-3-3 | 25-11-0

6-0-13 | 6-0-13 | 6-0-13 | 6-0-13 | 1-7-13

Scale = 1:44.5



8-7-11 | 18-2-6 | 23-8-4 | 25-11-0

8-7-11 | 9-6-11 | 5-5-14 | 2-2-12

Plate Offsets (X,Y): [1:0-0-0,0-0-10], [5:0-4-0,0-3-4], [10:0-3-0,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.33	Vert(LL)	-0.14	10-11	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.53	Vert(TL)	-0.45	10-11	>625	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(TL)	0.05	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 128 lb	FT = 10%

LUMBER

TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
WEBS 2x4 DF Std G *Except*
6-7: 2x4 DF No.1&Btr G

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=977/0-5-8 (min. 0-1-8), 8=1169/0-5-8 (min. 0-1-8)
Max Horz 1=179(LC 9)
Max Uplift 1=-321(LC 8), 8=-471(LC 9)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-2229/751, 2-12=-2175/759, 2-3=-1925/625, 3-13=-781/296, 4-13=-709/302, 4-14=-709/301, 14-15=-720/295, 5-15=-781/289
BOT CHORD 1-11=-833/2052, 10-11=-564/1420
WEBS 2-11=-353/276, 3-11=-80/561, 3-10=-903/440, 5-10=-288/964, 5-8=-1102/493

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 15-2-6, Exterior(2) 15-2-6 to 18-2-6, Interior(1) 21-2-6 to 22-9-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=321, 8=471.
7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

City of Portland REVIEWED FOR CODE COMPLIANCE OCT 20 2014 Permit Number

REGISTERED PROFESSIONAL ENGINEER 85525PE OREGON JULY 12, 2011 RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

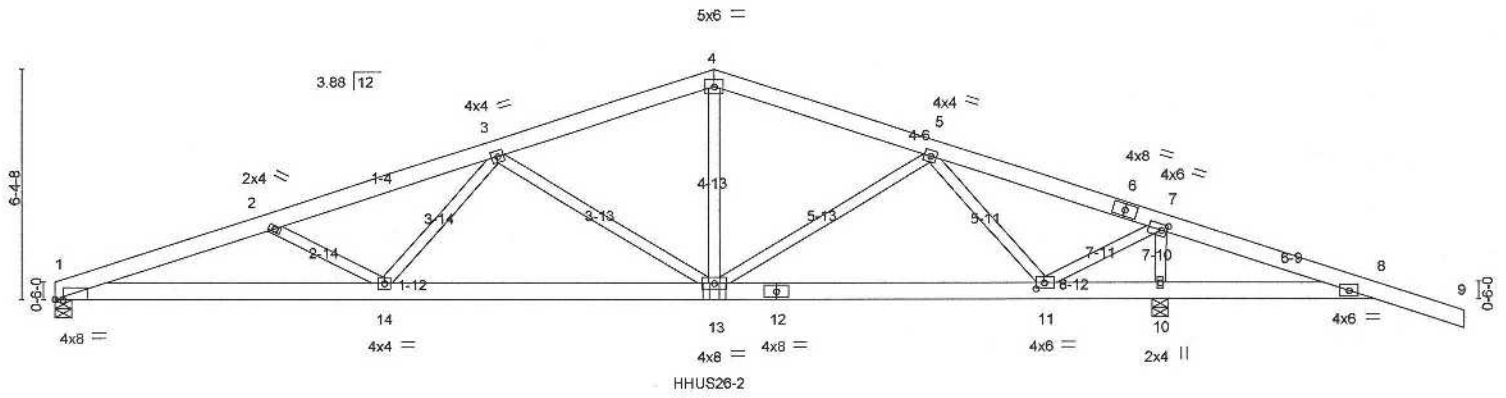
Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835403
J1404154	A05	COMMON	1	2	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:29 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-r5LMyaUlVDJop5jNJzzBqHSgVv5vZCBS2fkY22yW45e

6-0-13	12-2-11	18-2-6	24-2-1	30-3-15	36-4-12	38-10-12
6-0-13	6-1-14	5-11-11	5-11-11	6-1-14	6-0-13	2-6-0

Scale: 3/16"=1'



9-1-3	18-2-6	27-3-9	30-8-12	36-4-12
9-1-3	9-1-3	9-1-3	3-5-3	5-8-0

Plate Offsets (X,Y): [1:0-2-11,Edge], [7:0-1-12,0-2-0], [11:0-2-12,0-2-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.43	Vert(LL)	-0.16	13-14	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.88	Vert(TL)	-0.45	13-14	>806	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.80	Horz(TL)	0.10	10	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 432 lb	FT = 10%

LUMBER
TOP CHORD 2x6 DF No.2
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 1=3622/0-5-8 (min. 0-1-15), 10=3426/0-5-8 (min. 0-1-13)
Max Horz 1=-96(LC 5)
Max Uplift 10=-850(LC 8)

1071 ?

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-9155/0, 2-3=-8031/0, 3-4=-4727/214, 4-5=-4585/198, 5-6=-2153/0, 6-7=-2157/0, 7-8=-966/1183
BOT CHORD 1-14=0/8549, 13-14=0/6553, 12-13=0/3337, 11-12=0/3337, 10-11=-1234/1053, 8-10=-1063/1009
WEBS 4-13=0/2164, 5-13=0/1177, 5-11=-2304/525, 7-11=-652/3631, 3-13=-2711/0, 3-14=0/1511, 2-14=-1238/111, 7-10=-3214/788

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=5ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=850.
9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
11) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
12) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 18-2-6 from the left end to connect truss(es) FG01 (2 ply 2x6 DF) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2013
RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015

October 7,2014

LOAD CASE(S) Standard

Continued on page 2

DrJ ENGINEERING LLC

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-189(F=-125), 4-9=-64, 1-13=-59(F=-39), 8-13=-20
   Concentrated Loads (lb)
   Vert: 13=-909(B)
2) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-41(F=-27), 4-9=-14, 1-13=-79(F=-39), 8-13=-40
   Concentrated Loads (lb)
   Vert: 13=-644(B)
3) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=-2(F=-27), 4-8=18, 8-9=11, 1-13=-51(F=-39), 8-13=-12
   Horz: 1-4=-34, 4-8=26, 8-9=20
   Concentrated Loads (lb)
   Vert: 13=382(B)
4) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=-9(F=-27), 4-8=25, 8-9=45, 1-13=-51(F=-39), 10-13=-12, 8-10=14
   Horz: 1-4=-26, 4-8=34, 8-9=53
   Concentrated Loads (lb)
   Vert: 13=382(B)
5) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=-37(F=-27), 4-8=4, 8-9=11, 1-13=-51(F=-39), 8-13=-12
   Horz: 1-4=1, 4-8=13, 8-9=20
   Concentrated Loads (lb)
   Vert: 13=382(B)
6) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=-23(F=-27), 4-8=-9, 8-9=-3, 1-13=-51(F=-39), 10-13=-12, 8-10=14
   Horz: 1-4=-13, 4-8=-1, 8-9=6
   Concentrated Loads (lb)
   Vert: 13=382(B)
7) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=14(F=-27), 4-8=41, 8-9=60, 1-13=-51(F=-39), 8-13=-12
   Horz: 1-4=-49, 4-8=49, 8-9=68
   Concentrated Loads (lb)
   Vert: 13=382(B)
8) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=14(F=-27), 4-8=41, 8-9=60, 1-13=-51(F=-39), 10-13=-12, 8-10=14
   Horz: 1-4=-49, 4-8=49, 8-9=68
   Concentrated Loads (lb)
   Vert: 13=382(B)
9) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=-37(F=-27), 4-8=-9, 8-9=-3, 1-13=-51(F=-39), 8-13=-12
   Horz: 1-4=1, 4-8=-1, 8-9=6
   Concentrated Loads (lb)
   Vert: 13=382(B)
10) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-4=-37(F=-27), 4-8=-9, 8-9=-3, 1-13=-51(F=-39), 10-13=-12, 8-10=14
   Horz: 1-4=1, 4-8=-1, 8-9=6
   Concentrated Loads (lb)
   Vert: 13=382(B)
11) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-189(F=-125), 4-9=-14, 1-13=-59(F=-39), 8-13=-20
   Concentrated Loads (lb)
   Vert: 13=-909(B)
12) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-139(F=-125), 4-9=-64, 1-13=-59(F=-39), 8-13=-20
   Concentrated Loads (lb)
   Vert: 13=-909(B)

Job	Truss	Truss Type	Qty	Ply	Mike Church	
J1404154	A06	COMMON	1	2	Job Reference (optional)	I8835404

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:30 2014 Page 1

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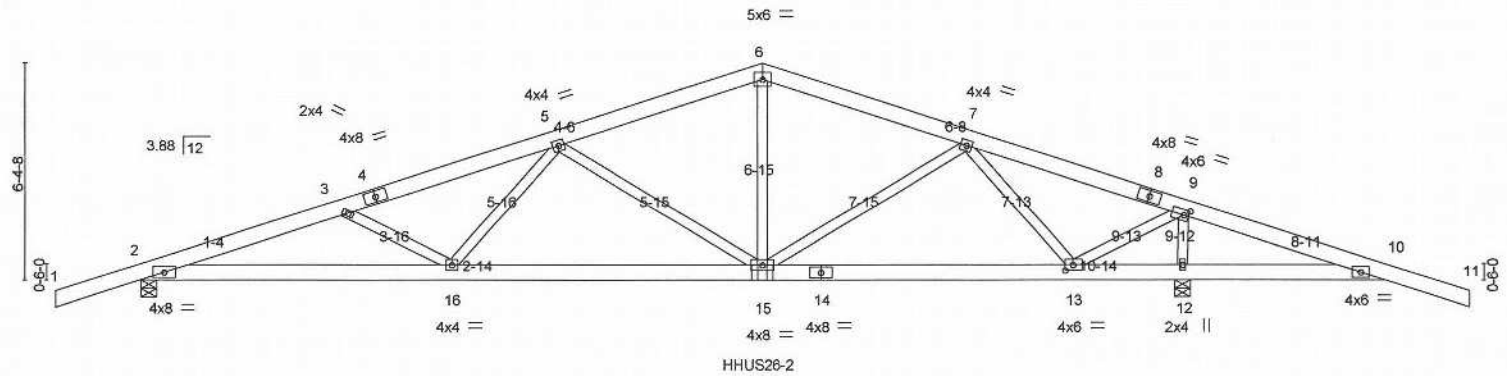
-2-6-0	6-0-13	12-2-11	18-2-6	24-2-1	30-3-15	36-4-12	38-10-12
2-6-0	6-0-13	6-1-14	5-11-11	5-11-11	6-1-14	6-0-13	2-6-0

Scale = 1:67.8



HHUS26-2

9-1-3	18-2-6	27-3-9	30-8-12	36-4-12
9-1-3	9-1-3	9-1-3	3-5-3	5-8-0

Plate Offsets (X,Y): [9:0-1-12,0-2-0], [13:0-2-12,0-2-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.39	Vert(LL)	-0.16	15-16	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.78	Vert(TL)	-0.45	15-16	>810	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(TL)	0.10	12	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 443 lb	FT = 10%

LUMBER
TOP CHORD 2x6 DF No.2
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=4145/0-5-8 (min. 0-2-3), 12=3380/0-5-8 (min. 0-1-13)
Max Horz 2=91(LC 6)
Max Uplift 12=-836(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-8840/0, 3-4=-7768/0, 4-5=-7606/0, 5-6=-4632/184, 6-7=-4489/169, 7-8=-2099/0, 8-9=-2104/0, 9-10=-967/1184
BOT CHORD 2-16=0/8191, 15-16=0/6398, 14-15=0/3266, 13-14=0/3266, 12-13=-1232/1053, 10-12=-1064/1009
WEBS 6-15=0/2109, 7-15=0/1152, 7-13=-2271/514, 9-13=-634/3570, 5-15=-2634/0, 5-16=0/1366, 3-16=-1107/85, 9-12=-3167/774

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=5ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=836.
9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
11) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 18-2-6 from the left end to connect truss(es) FG01 (2 ply 2x6 DF) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

RENEWAL DATE: 12/31/2015

October 7,2014

Continued on page 2

DrJ ENGINEERING LLC

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-6=-189, 6-11=-64, 2-15=-59, 10-15=-20

Concentrated Loads (lb)

Vert: 15=-872(F)

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

DrJ ENGINEERING LLC

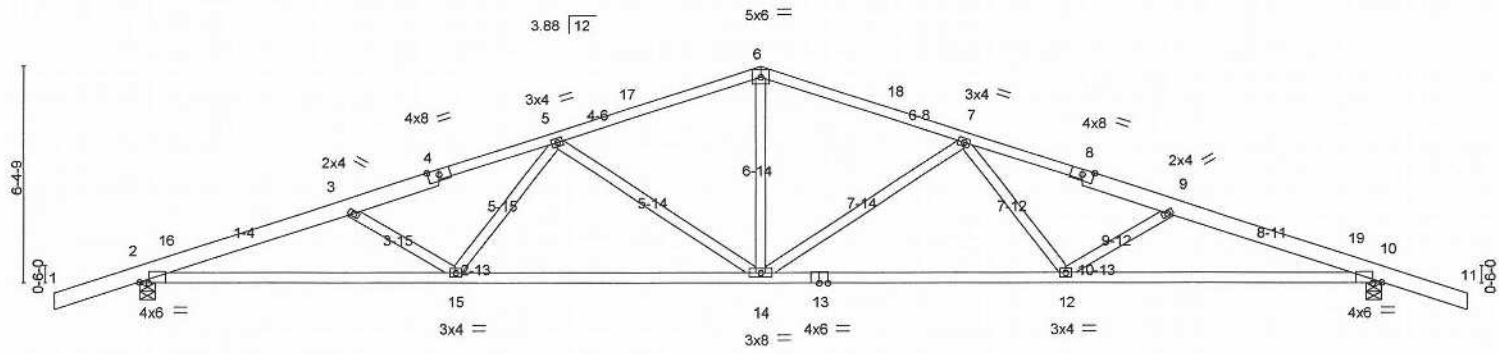
Job	Truss	Truss Type	Qty	Ply	Mike Church	
J1404154	A07	MOD. QUEEN	12	1	Job Reference (optional)	I8835405

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:31 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-nUT6NGV?1rZW3PtlQO?fviX07jqe161IWzDf6xyW45c

-2-6-0	6-3-7	12-2-14	18-2-6	24-1-14	30-1-5	36-4-12	38-10-12
2-6-0	6-3-7	5-11-8	5-11-8	5-11-8	5-11-8	6-3-7	2-6-0

Scale = 1:67.8



9-3-3	18-2-6	27-1-9	36-4-12
9-3-3	8-11-3	8-11-3	9-3-3

Plate Offsets (X,Y): [2:0-3-2,Edge], [10:0-3-2,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.42	Vert(LL)	-0.24	12-14	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.60	Vert(TL)	-0.68	12-14	>633	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.78	Horz(TL)	0.20	10	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 179 lb	FT = 10%

LUMBER

TOP CHORD 2x4 DF No.1&Btr G *Except* 1-4,8-11: 2x6 DF No.2
BOT CHORD 2x4 DF No.1&Btr G
WEBS 2x4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-6-6 oc bracing.

REACTIONS (lb/size) 2=1684/0-5-8 (min. 0-1-13), 10=1684/0-5-8 (min. 0-1-13)
Max Horz 2=-101(LC 6)
Max Uplift 2=-681(LC 8), 10=-681(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-16=-3689/1219, 3-16=-3620/1234, 3-4=-3353/1094, 4-5=-3252/1104, 5-17=-2398/864, 6-17=-2328/872, 6-18=-2328/872, 7-18=-2398/864, 7-8=-3252/1104, 8-9=-3353/1094, 9-19=-3620/1234, 10-19=-3689/1219
BOT CHORD 2-15=-1044/3411, 14-15=-834/2887, 13-14=-834/2887, 12-13=-834/2887, 10-12=-1044/3411
WEBS 3-15=-351/238, 5-15=-15/490, 5-14=-839/387, 6-14=-341/1121, 7-14=-839/387, 7-12=-15/490, 9-12=-351/238

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=36ft; eave=5ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) -2-6-0 to 1-1-11, Interior(1) 1-1-11 to 14-6-11, Exterior(2) 14-6-11 to 18-2-6, Interior(1) 21-10-1 to 35-3-1 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=681, 10=681.
7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835406
J1404154	A08	GABLE	1	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:32 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-Fg1VacWdo8hNgZSy_6WuSw4D16H?mkyvkdzDeNyW45b

-2-6-0 | 18-2-6 | 36-4-12 | 38-10-12

2-6-0 | 18-2-6 | 18-2-6 | 2-6-0

Scale = 1:70.0

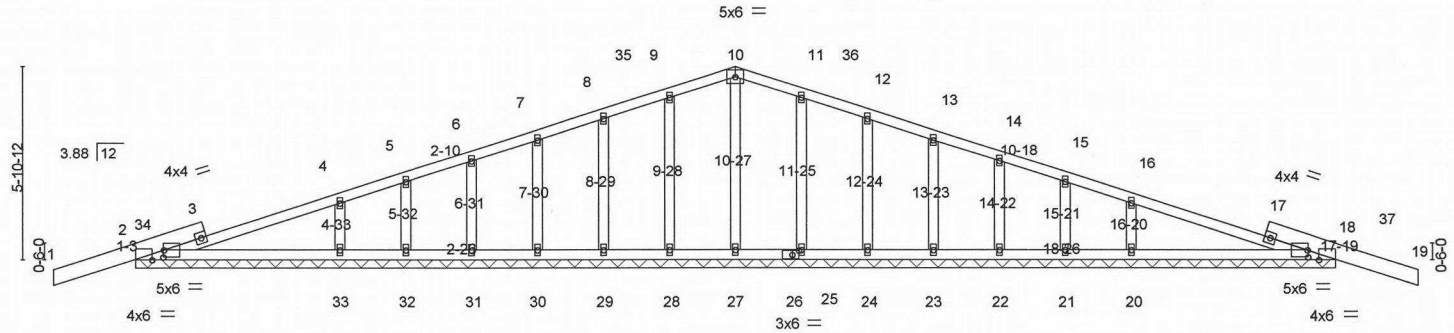


Plate Offsets (X,Y): [2:0-4-4,Edge], [2:0-0-4,0-2-9], [18:0-4-4,Edge], [18:0-0-4,0-2-9], [26:0-2-6,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.22	Vert(LL)	0.02	19	n/r	180	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.15	Vert(TL)	0.05	19	n/r	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(TL)	0.01	18	n/a	n/a		
BCDL	10.0	Code	IRC2009/TPI2007	(Matrix)		Wind(LL)	0.01	19	n/r	90	Weight: 179 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF No.2 *Except*
2-10,10-18: 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
OTHERS 2x4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS All bearings 36-4-12.
(lb) - Max Horz 2=-86(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 28, 29, 30, 31, 32, 25, 24, 23, 22, 21 except 18=-250(LC 8), 2=-250(LC 8), 33=-133(LC 8), 20=-133(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 27, 28, 29, 30, 31, 32, 25, 24, 23, 22, 21 except 18=393(LC 13), 2=393(LC 12), 33=473(LC 12), 20=473(LC 13)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=0/257, 10-11=0/257
WEBS 4-33=-336/203, 16-20=-336/203

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=2ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Corner(3) -2-6-0 to 0-6-0, Exterior(2) 0-6-0 to 15-2-6, Corner(3) 15-2-6 to 18-2-6, Exterior(2) 21-2-6 to 35-10-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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 2-0-0 wide will fit between the bottom chord and any other members.
9) A plate rating reduction of 20% has been applied for the green lumber members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 28, 29, 30, 31, 32, 25, 24, 23, 22, 21 except (jt=lb) 18=250, 2=250, 33=133, 20=133.
11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2011
RYAN JOSEPH DEXTER

RENEWAL DATE: 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	A09	MONO TRUSS	5	1	I8835407
					Job Reference (optional)

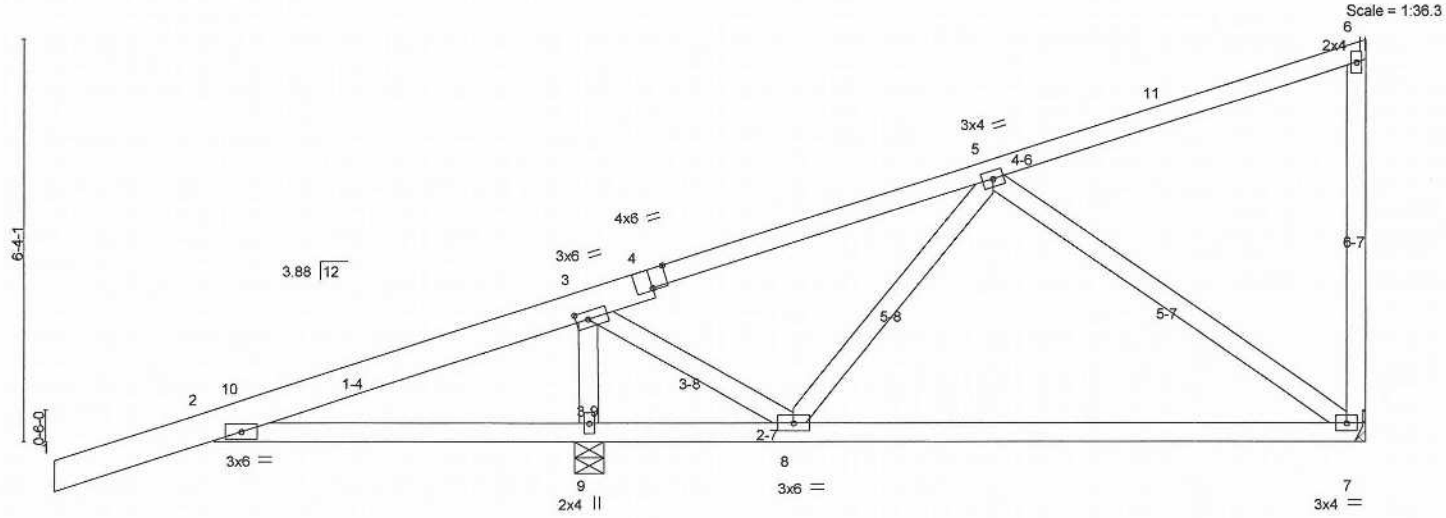
Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:32 2014 Page 1

ID:WXB4QIyhvkRdarV00i9R7xzgYY_-Fg1VacWdo8hNgZSy_6WuSw4AG6DTmemvkdzDeNyW45b

-2-6-0 | 6-0-13 | 12-2-11 | 18-0-14

2-6-0 | 6-0-13 | 6-1-14 | 5-10-3

Scale = 1:36.3



5-8-0 | 9-1-3 | 18-0-14

5-8-0 | 3-5-3 | 8-11-11

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

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.40	Vert(LL)	-0.16	7-8	>898	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.44	Vert(TL)	-0.48	7-8	>298	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(TL)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 94 lb	FT = 10%

LUMBER

TOP CHORD 2x4 DF No.1&Btr G *Except* 1-4: 2x6 DF No.2

BOT CHORD 2x4 DF No.1&Btr G

WEBS 2x4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 5-11-6 oc bracing.

REACTIONS (lb/size) 7=289/Mechanical, 9=1377/0-5-8 (min. 0-1-8)
Max Horz 9=342(LC 9)
Max Uplift 7=-114(LC 9), 9=-743(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-10=-1370/1117, 3-10=-1369/1237, 3-4=-681/156, 4-5=-673/282

BOT CHORD 2-9=-1105/1387, 8-9=-1167/1108

WEBS 3-8=-689/1116, 5-8=-517/643, 3-9=-1318/797

NOTES

1) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) -2-6-0 to 0-6-0, Interior(1) 0-6-0 to 14-11-1, Exterior(2) 14-11-1 to 17-11-1 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) A plate rating reduction of 20% has been applied for the green lumber members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=114, 9=743.
7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2013
RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015

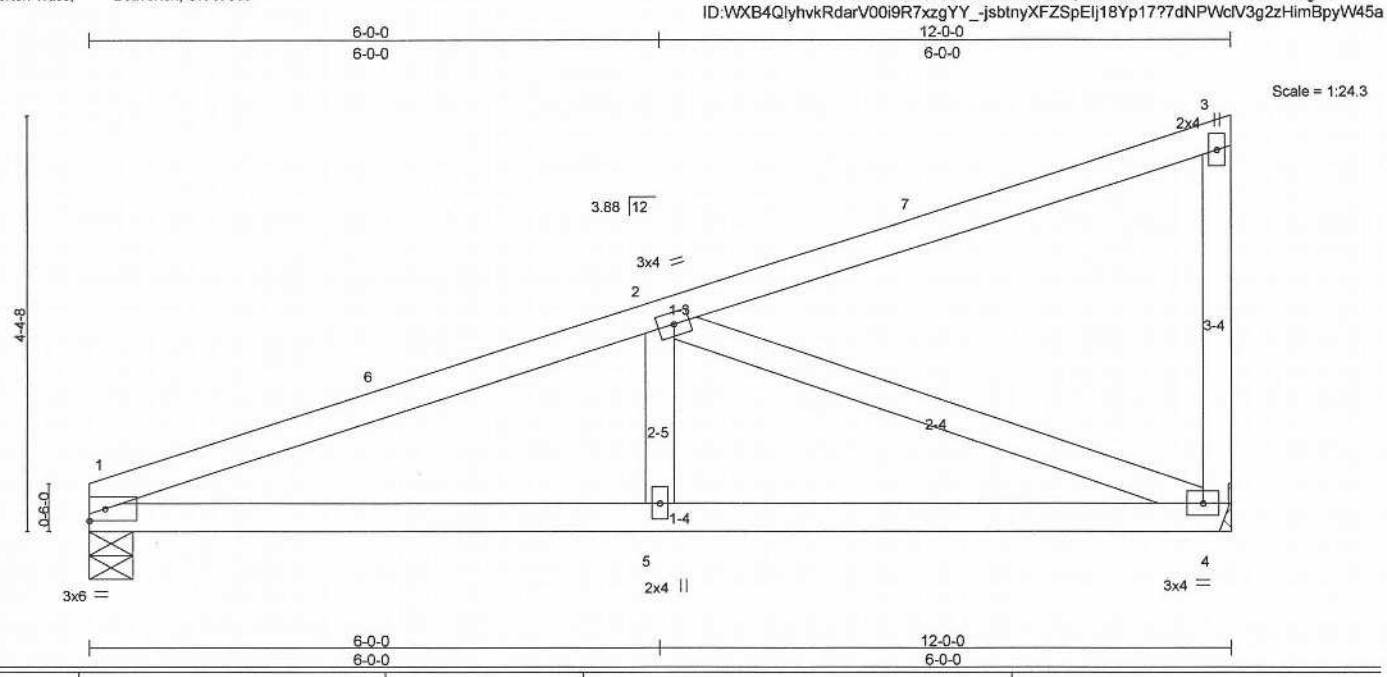
October 7,2014

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835409
J1404154	A10	Monopitch	2	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:33 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-jsbtnyXFZSpElj18Yp17?7dNPWclV3g2zHimBpyW45a



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.31	Vert(LL)	0.04	1-5	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.24	Vert(TL)	-0.10	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(TL)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2009/TPI2007	(Matrix)							Weight: 50 lb	FT = 10%

LUMBER
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
WEBS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=488/0-5-8 (min. 0-1-8), 4=488/Mechanical
Max Horz 1=198(LC 8)
Max Uplift 1=-133(LC 8), 4=-202(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-920/203, 2-6=-804/213
BOT CHORD 1-5=-343/813, 4-5=-343/813
WEBS 2-5=0/279, 2-4=-865/365

NOTES
1) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 8-10-4, Exterior(2) 8-10-4 to 11-10-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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.
4) A plate rating reduction of 20% has been applied for the green lumber members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=133, 4=202.
7) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

RENEWAL DATE 12/31/2015

October 7,2014

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

DrJ ENGINEERING LLC

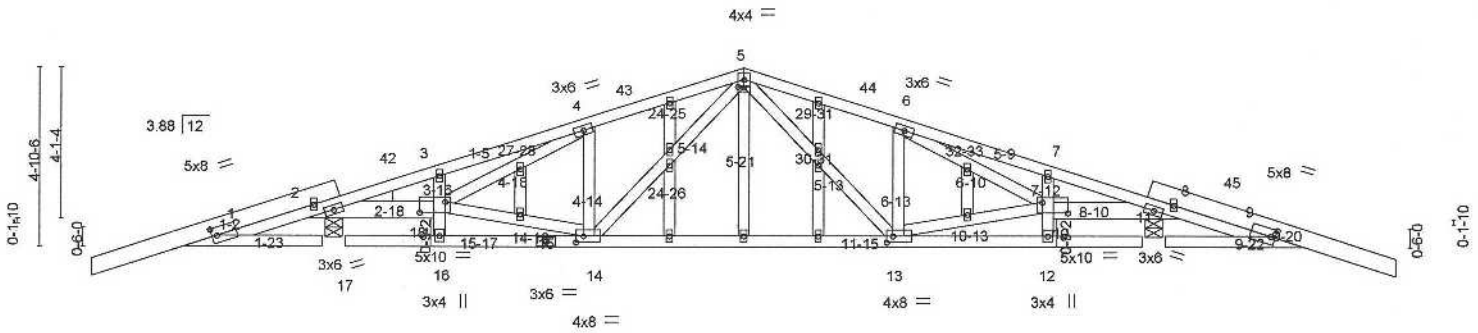
Job	Truss	Truss Type	Qty	Ply	Mike Church	
J1404154	B01	GABLE	1	1	Job Reference (optional)	I8835409

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:34 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-B39F?IYuKmx5wsbK6XYMXL9aDwtOEYnBCxSJjGyW45Z

-4-5-4	-1-11-4	4-9-0	8-10-14	13-0-12	17-2-10	21-4-8	26-1-8	28-0-12	30-6-12
2-6-0	1-11-4	4-9-0	4-1-14	4-1-14	4-1-14	4-1-14	4-9-0	1-11-4	2-6-0

Scale = 1:62.2



1-10-0		4-9-0	8-10-14	17-2-10	21-4-8	24-3-8	26-1-8
1-7-0	1-7-0 0-3-0	2-11-0	4-1-14	8-3-12	4-1-14	2-11-0	0-3-0 1-7-0

Plate Offsets (X,Y): [1:0-1-8,0-2-8], [5:0-2-0,0-0-4], [9:0-1-8,0-2-8], [10:0-8-4,0-3-8], [13:0-1-15,0-2-0], [14:0-2-7,0-2-0], [18:0-8-4,0-3-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.18	Vert(LL)	-0.11	13-14	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.54	Vert(TL)	-0.36	13-14	>773	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(TL)	0.05	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix-M)							Weight: 196 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF 2250F 1.7E *Except* 1-5,5-9: 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G *Except* 2-18,8-10: 2x6 DF No.2
WEBS 2x4 DF Std G
OTHERS 2x4 DF Std G
WEDGE
Left: 2x4 SYP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 16-18, 10-12

REACTIONS (lb/size) 2=1158/0-5-8 (min. 0-1-8), 8=1158/0-5-8 (min. 0-1-8)
Max Horz 2=-60(LC 6)
Max Uplift 2=-425(LC 8), 8=-425(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-42=-540/271, 2-3=-2015/415, 3-4=-1991/500, 4-43=-1474/525, 5-43=-1428/534, 5-44=-1428/534, 6-44=-1474/525, 6-7=-1991/500, 7-8=-2015/415, 8-45=-540/271
BOT CHORD 2-37=-255/422, 2-2=0/485, 2-18=-299/1869, 15-16=-132/362, 14-15=-132/362, 13-14=-228/1073, 12-13=-132/362, 8-10=-299/1869, 8-41=-255/422
WEBS 5-13=-116/491, 6-13=-428/215, 10-13=-183/1037, 6-10=-37/576, 5-14=-116/491, 4-14=-428/215, 14-18=-183/1037, 4-18=-37/576

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=25ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) -0-7-3 to 2-4-13, Interior(1) 2-4-13 to 10-0-12, Exterior(2) 10-0-12 to 13-0-12, Interior(1) 16-0-12 to 23-8-11 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) A plate rating reduction of 20% has been applied for the green lumber members.
9) Solid blocking is required on both sides of the truss at joint(s), 2.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=425, 8=425.
11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2

RENEWAL DATE 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	B01	GABLE	1	1	I8835409
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:34 2014 Page 2

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NOTES

14) No notches allowed in overhang and 40504 from left end and 40504 from right end or 12" along rake from scarf, whichever is larger. Minimum 1.5x4 tie plates required at 2-0-0 o.c. maximum between the stacking chords. For edge-wise notching, provide at least one tie plate between each notch.

LOAD CASE(S) Standard

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

DrJ ENGINEERING LLC

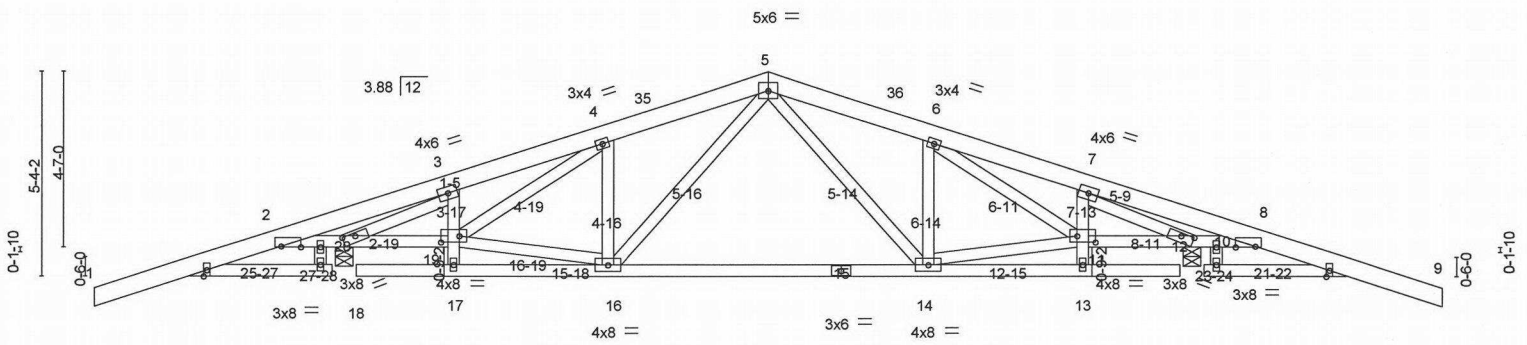
Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835410
J1404154	B02	ROOF SPECIAL	4	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:36 2014 Page 1

ID:WXB4QIyhvkRdarV00i9R7xzgYY_-8RG?QzZ8sNBp9AljDybqcmFuRkb9iSOUfFxQn8yW45X

-4-5-4	4-9-0	8-10-14	13-0-12	17-2-10	21-4-8	26-1-8	30-6-12
4-5-4	4-9-0	4-1-14	4-1-14	4-1-14	4-1-14	4-9-0	4-5-4

Scale = 1:60.1



1-10-0	1-7-0	4-9-0	8-10-14	17-2-10	21-4-8	24-3-8	26-1-8
	1-7-0 0-3-0	2-11-0	4-1-14	8-3-12	4-1-14	2-11-0	24-6-8 0-3-0 1-7-0

Plate Offsets (X,Y): [2:0-6-2,Edge], [8:0-6-2,Edge], [10:0-4-0,0-1-0], [11:0-5-12,0-2-0], [19:0-5-12,0-2-0], [20:0-4-0,0-1-0]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.26	Vert(LL)	-0.10	14-16	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.39	Vert(TL)	-0.32	14-16	>833	180		
BCLL	0.0 *	Rep Stress Incr	Yes	WB	0.45	Horz(TL)	0.03	10	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix-M)		Wind(LL)	0.58	1-2	>101	90	Weight: 194 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF 2250F 1.7E
BOT CHORD 2x4 DF No.1&Btr G *Except*
3-17,7-13: 2x4 DF Std G
WEBS 2x4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
10-0-0 oc bracing: 17-19, 11-13

REACTIONS (lb/size) 20=1423/0-5-8 (min. 0-1-8), 10=1423/0-5-8 (min. 0-1-8)
Max Horz 20=82(LC 4)
Max Uplift20=-666(LC 8), 10=-666(LC 9)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2515/1770, 3-4=-926/0, 4-35=-1053/242, 5-35=-1004/250, 5-36=-1004/250, 6-36=-1053/242, 6-7=-926/0, 7-8=-2515/1770
BOT CHORD 2-20=-1507/2296, 19-20=0/902, 3-19=-262/391, 15-16=0/790, 14-15=0/790, 7-11=-262/391, 10-11=0/902, 8-10=-1507/2296
WEBS 5-14=-13/308, 6-14=-251/83, 11-14=0/918, 6-11=-269/695, 5-16=-13/308, 4-16=-251/83, 16-19=0/918, 4-19=-269/695, 3-20=-2283/1421, 7-10=-2283/1421

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) -4-5-4 to -1-5-4, Interior(1) -1-5-4 to 10-0-12, Exterior(2) 10-0-12 to 13-0-12, Interior(1) 16-0-12 to 27-6-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=666, 10=666.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2011
RYAN JOSEPH DEXTER

RENEWAL DATE: 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835411
J1404154	B03	ROOF SPECIAL	1	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:37 2014 Page 1

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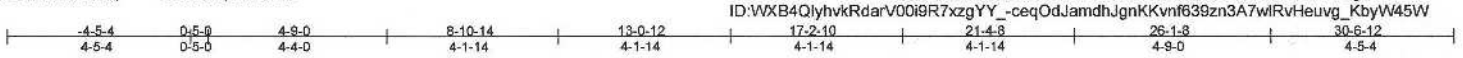

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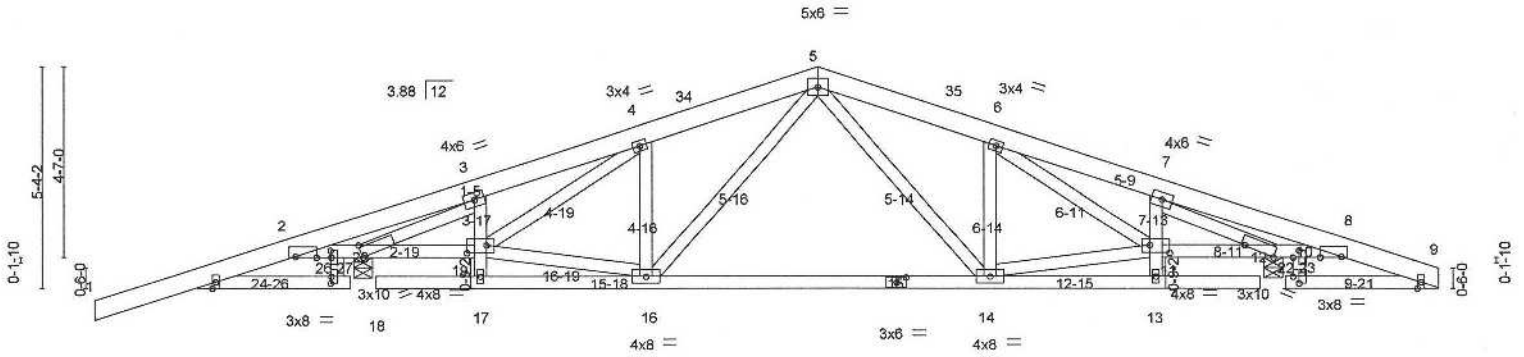

Plate Offsets (X,Y): [2:0-6-2,Edge], [8:0-6-2,Edge], [10:Edge,0-0-4], [11:0-5-12,0-2-4], [15:0-2-12,0-1-8], [19:0-5-12,0-2-4], [20:Edge,0-3-13], [22:0-2-0,0-1-13], [23:0-2-0,0-1-13], [26:0-2-0,0-0-4], [27:0-2-0,0-0-4]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.26	Vert(LL)	-0.10	14-16	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.43	Vert(TL)	-0.32	14-16	>829	180		
BCLL	0.0 *	Rep Stress Incr	Yes	WB	0.47	Horz(TL)	0.04	10	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix-M)		Wind(LL)	0.57	1-2	>102	90	Weight: 188 lb	FT = 10%

LUMBER

TOP CHORD 2x6 DF 2250F 1.7E
BOT CHORD 2x4 DF No.1&Btr G *Except* 3-17,7-13: 2x4 DF Std G
WEBS 2x4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 17-19, 11-13

REACTIONS (lb/size) 20=1457/0-5-8 (min. 0-1-9), 10=1229/0-5-8 (min. 0-1-8)
Max Horz 20=98(LC 4)
Max Uplift 20=-701(LC 8), 10=-483(LC 9)

City of Portland
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OCT 20 2014
Permit Number

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-2502/1768, 3-4=-940/0, 4-34=-1122/298, 5-34=-1073/307, 5-35=-1151/385, 6-35=-1200/377, 6-7=-1240/224, 7-8=-746/462
BOT CHORD 2-20=-1506/2282, 19-20=0/916, 3-19=-284/407, 15-16=-68/866, 14-15=-68/866, 10-11=-62/1196, 8-10=-356/793
WEBS 5-14=-110/409, 6-14=-351/187, 11-14=-135/1032, 5-16=0/304, 4-16=-251/86, 16-19=-83/980, 4-19=-277/691, 3-20=-2339/1495, 7-10=-1731/694

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) -4-5-4 to -1-5-4, Interior(1) -1-5-4 to 10-0-12, Exterior(2) 10-0-12 to 13-0-12, Interior(1) 16-0-12 to 24-10-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=701, 10=483.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2013
RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

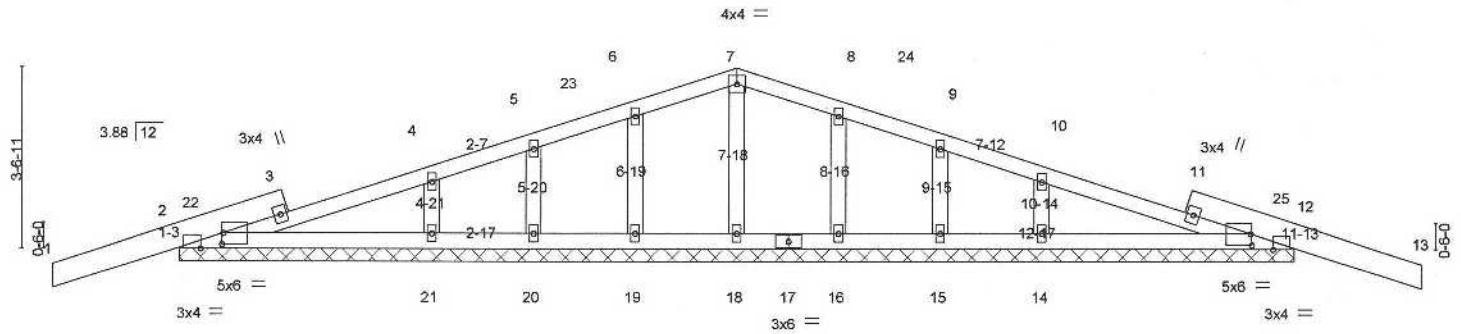
Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	C01	GABLE	1	1	I8835412
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:38 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-4qOmrfbOO_RXOUv6LMdIhBKG4XLLAT_n7ZQXs1yW45V

-2-6-0	10-11-8	21-11-0	24-5-0
2-6-0	10-11-8	10-11-8	2-6-0

Scale = 1:45.5



21-11-0
21-11-0

Plate Offsets (X,Y): [2:0-5-4,Edge], [2:0-0-4,0-2-9], [12:0-0-4,0-2-9], [12:0-5-4,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.18	Vert(LL)	-0.01	13	n/r	180	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.09	Vert(TL)	0.00	12-13	n/r	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)		Wind(LL)	0.00	13	n/r	90	Weight: 98 lb	FT = 10%

LUMBER
TOP CHORD 2x6 DF No.2 *Except*
2-7,7-12: 2x4 DF No.1&Btr G
BOT CHORD 2x4 DF No.1&Btr G
OTHERS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS All bearings 21-11-0.
(lb) - Max Horz 2=-54(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 19, 20, 21, 16, 15, 14 except 12=-260(LC 8), 2=-260(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 18, 19, 20, 16, 15 except 12=373(LC 13), 2=373(LC 12), 21=332(LC 12), 14=332(LC 13)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=2ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Corner(3) -2-6-0 to 0-6-0, Exterior(2) 0-6-0 to 7-11-8, Corner(3) 7-11-8 to 10-11-8, Exterior(2) 13-11-8 to 21-5-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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 2-0-0 wide will fit between the bottom chord and any other members.
9) A plate rating reduction of 20% has been applied for the green lumber members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 20, 21, 16, 15, 14 except (jt=lb) 12=260, 2=260.
11) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 20TY
RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015
October 7,2014

DrJ ENGINEERING LLC

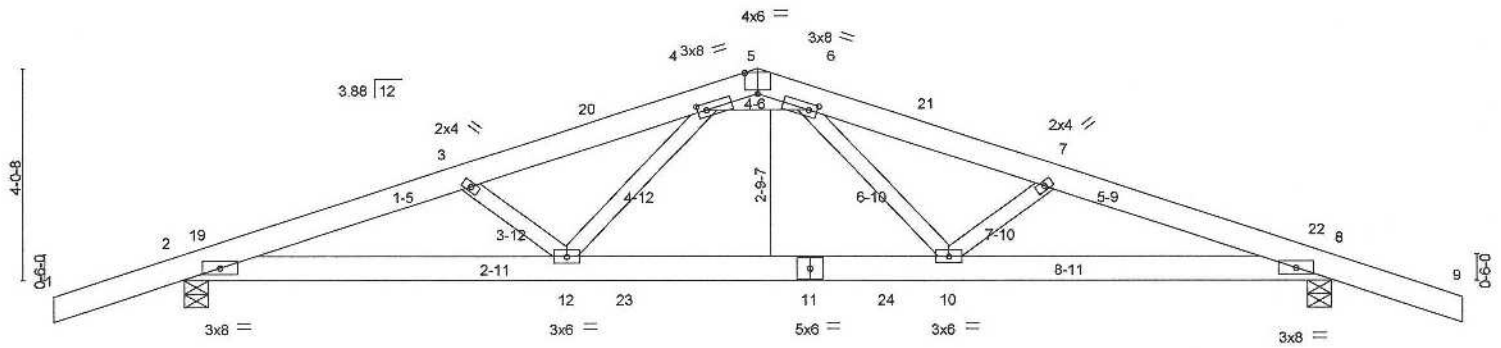
Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835413
J1404154	C02	COMMON	5	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:38 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-4qOmrfbOO_RXOUv6LMdIhBKE7XCBAMxn7ZQXs1yW45V

-2-6-0	5-5-12	10-11-8	16-5-4	21-11-0	24-5-0
2-6-0	5-5-12	5-5-12	5-5-12	5-5-12	2-6-0

Scale = 1:44.1



7-3-11	14-7-5	21-11-0
7-3-11	7-3-11	7-3-11

Plate Offsets (X,Y): [4:0-2-0,0-1-8], [5:0-3-0,Edge], [6:0-2-0,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.31	Vert(LL)	-0.13	10-12	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.67	Vert(TL)	-0.40	10-12	>650	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.45	Horz(TL)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix-M)							Weight: 128 lb	FT = 10%

LUMBER
TOP CHORD 2x6 DF No.2
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-10-15 oc bracing.

REACTIONS (lb/size) 8=1572/0-5-8 (min. 0-1-11), 2=1572/0-5-8 (min. 0-1-11)
Max Horz 2=59(LC 7)
Max Uplift 8=-499(LC 8), 2=-499(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-19=-2174/278, 2-3=-3544/770, 3-20=-3347/669, 4-20=-3303/675, 6-21=-3303/675, 7-21=-3347/669, 7-8=-3544/770, 8-22=-2174/278
BOT CHORD 2-12=-616/3317, 12-23=-429/2567, 11-23=-429/2567, 11-24=-429/2567, 10-24=-429/2567, 8-10=-616/3317
WEBS 6-10=-79/1015, 7-10=-287/200, 4-12=-79/1015, 3-12=-287/200, 4-6=-2433/651

City of Portland
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OCT 20 2014
Permit Number

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) -2-6-0 to 0-6-0, Interior(1) 0-6-0 to 7-11-8, Exterior(2) 7-11-8 to 10-11-8, Interior(1) 13-11-8 to 21-5-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 10-11-8 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=499, 2=499.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 300 lb down and 126 lb up at 14-7-5, and 300 lb down and 126 lb up at 7-3-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2011
RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-64, 5-9=-64, 12-16=-20, 10-12=-45(F=-25), 10-13=-20

October 7,2014

Continued on page 2

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	C02	COMMON	5	1	I8835413
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:38 2014 Page 2

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-4qOmrfbOO_RXOUv6LMdIhBKE7XCBAMxn7ZQXs1yW45V

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 10=-300(F) 12=-300(F) 23=-100 24=-100

City of Portland
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OCT 20 2014
Permit Number

DrJ ENGINEERING LLC

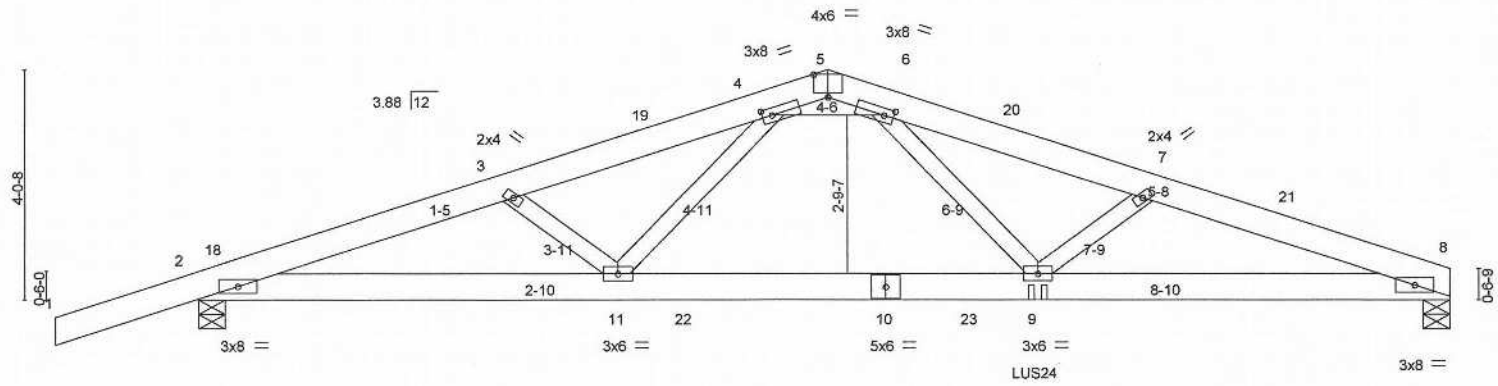
Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835414
J1404154	C03	COMMON	1	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:39 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-Y0y82?b09IZN0eUlu48XEOtPqxYSvpxxLD94OTyW45U

-2-6-0	5-5-12	10-11-8	16-5-4	21-9-6
2-6-0	5-5-12	5-5-12	5-5-12	5-4-2

Scale = 1:40.2



7-3-11	14-7-5	21-9-6
7-3-11	7-3-11	7-2-1

Plate Offsets (X,Y): [4:0-2-0,0-1-8], [5:0-3-0,Edge], [6:0-2-0,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.31	Vert(LL)	-0.13	9-11	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.67	Vert(TL)	-0.40	9-11	>650	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.46	Horz(TL)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix-M)							Weight: 122 lb	FT = 10%

LUMBER
TOP CHORD 2x6 DF No.2
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-0-2 oc bracing.

REACTIONS (lb/size) 8=1395/0-5-8 (min. 0-1-8), 2=1578/0-5-8 (min. 0-1-11)
Max Horz 2=70(LC 4)
Max Uplift 8=-339(LC 8), 2=-506(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-18=-2182/296, 2-3=-3560/786, 3-19=-3365/701, 4-19=-3320/707, 6-20=-3348/761, 7-20=-3393/757, 7-21=-3548/853, 8-21=-3602/847
BOT CHORD 2-11=-689/3332, 11-22=-529/2587, 10-22=-529/2587, 10-23=-529/2587, 9-23=-529/2587, 8-9=-754/3377
WEBS 6-9=-128/1051, 7-9=-312/230, 4-11=-73/1014, 3-11=-286/197, 4-6=-2444/673

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) -2-6-0 to 0-6-0, Interior(1) 0-6-0 to 7-11-8, Exterior(2) 7-11-8 to 10-11-8, Interior(1) 13-11-8 to 18-9-6 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 10-11-8 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=339, 2=506.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 14-7-5 from the left end to connect truss(es) (1 ply 2x4 HF) to front face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 300 lb down and 126 lb up at 7-3-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

RENEWAL DATE: 12/31/2015

October 7,2014

Continued on page 2

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	C03	COMMON	1	1	I8835414
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:39 2014 Page 2

ID:WXB4QIyhvkRdarV00I9R7xzgYY_-Y0y82?b09IZN0eUlu48XEOtPqxYSvpxxLD94OTyW45U

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-5=-64, 5-8=-64, 11-15=-20, 9-11=-45(F=-25), 9-12=-20

Concentrated Loads (lb)

Vert: 9=-300(F) 11=-300(F) 22=-100 23=-100

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

DrJ ENGINEERING LLC

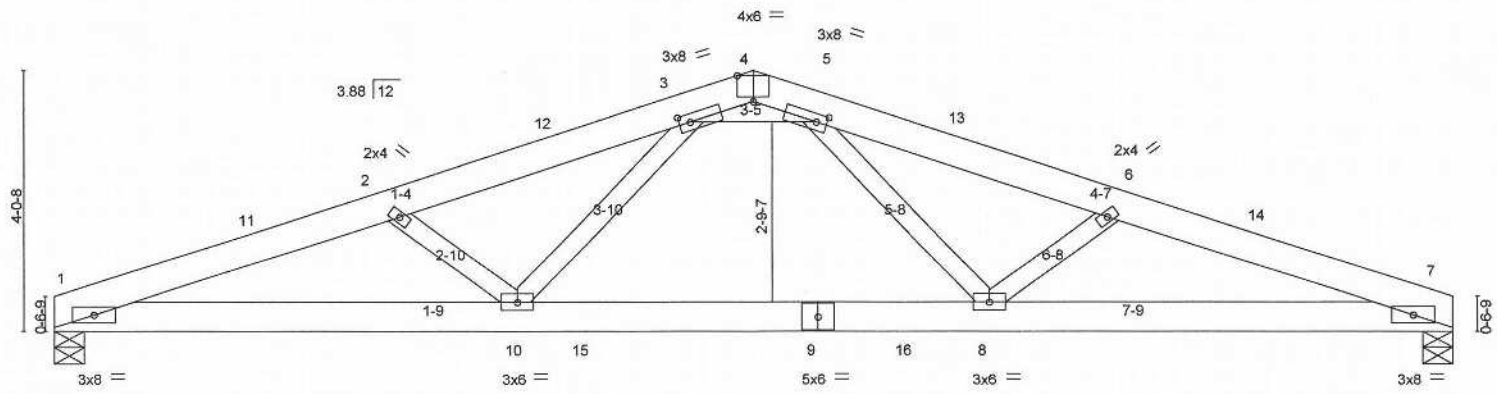
Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835415
J1404154	C04	COMMON	4	1	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:40 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-0DWWFLcewciEen3USnfmncPaoLu8eG_4atvewvyW45T

5-4-2	10-9-14	16-3-10	21-7-12
5-4-2	5-5-12	5-5-12	5-4-2

Scale = 1:35.7



7-2-1	14-5-11	21-7-12
7-2-1	7-3-11	7-2-1

Plate Offsets (X,Y): [3:0-2-0,0-1-8], [4:0-3-0,Edge], [5:0-2-0,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.30	Vert(LL)	-0.13	8-10	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.64	Vert(TL)	-0.39	8-10	>650	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.48	Horz(TL)	0.08	7	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 115 lb	FT = 10%

LUMBER
TOP CHORD 2x6 DF No.2
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-10-8 oc bracing.

REACTIONS (lb/size) 1=1382/0-5-8 (min. 0-1-8), 7=1380/0-5-8 (min. 0-1-8)
Max Horz 1=-49(LC 6)
Max Uplift 1=-338(LC 8), 7=-340(LC 8)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-3578/867, 2-11=-3514/874, 2-12=-3355/780, 3-12=-3311/785, 5-13=-3305/791, 6-13=-3349/786, 6-14=-3507/880, 7-14=-3571/873
BOT CHORD 1-10=-771/3318, 10-15=-544/2507, 9-15=-544/2507, 9-16=-544/2507, 8-16=-544/2507, 7-8=-777/3312
WEBS 5-8=-133/1070, 6-8=-281/232, 3-10=-124/1078, 2-10=-283/231, 3-5=-2381/712

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights) and C-C Exterior(2) 0-4-6 to 3-4-6, Interior(1) 3-4-6 to 7-11-8, Exterior(2) 7-11-8 to 10-11-8, Interior(1) 13-11-8 to 18-6-10 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 10-9-14 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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.
6) A plate rating reduction of 20% has been applied for the green lumber members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=338, 7=340.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 300 lb down and 126 lb up at 7-3-11, and 300 lb down and 126 lb up at 14-7-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

RENEWAL DATE: 12/31/2015

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-64, 4-7=-64, 1-10=-20, 8-10=-45(F=-25), 7-8=-20

October 7,2014

Continued on page 2

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	C04	COMMON	4	1	I8835415
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:40 2014 Page 2

ID:WXB4QIyhvkRdarV00i9R7xzgYY_-0DWWFLcewciEen3USnfmncPaoLu8eG_4atvewvyW45T

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 8=-300(F) 10=-300(F) 15=-100 16=-100

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church	I8835416
J1404154	C05	COMMON GIRDER	1	3	Job Reference (optional)	

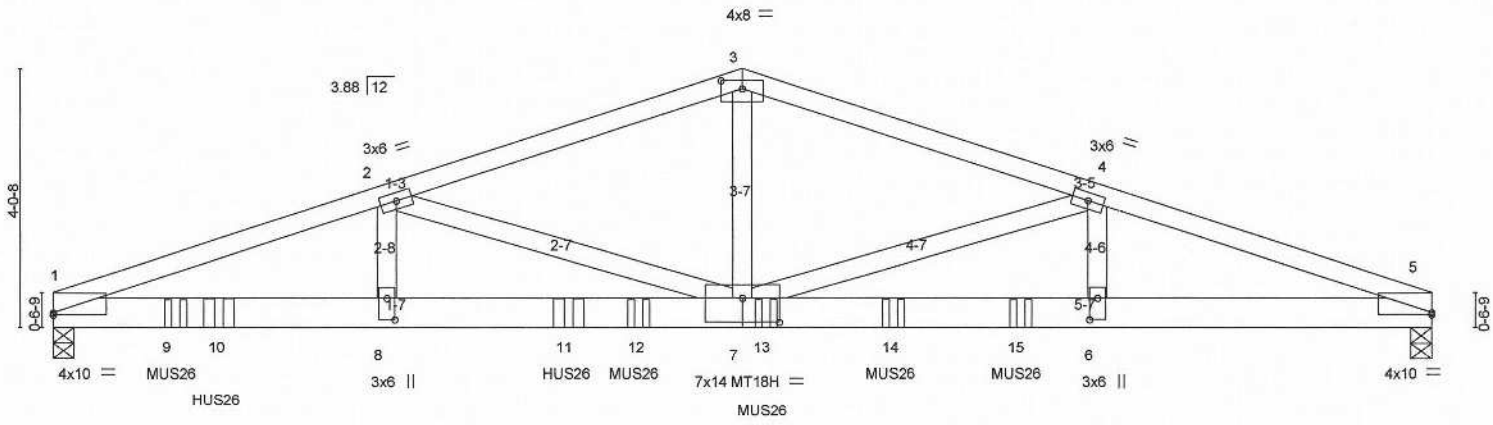
Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:40 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-0DWWFLcewciEen3USnfmncPV_Lsre9j4atvewvyW45T

5-2-14 | 10-9-14 | 16-4-14 | 21-7-12

5-2-14 | 5-7-0 | 5-7-0 | 5-2-14

Scale = 1:36.3



5-2-14 | 10-9-14 | 16-4-14 | 21-7-12

5-2-14 | 5-7-0 | 5-7-0 | 5-2-14

Plate Offsets (X,Y): [1:0-0-0,0-0-7], [3:0-4-0,0-1-8], [5:0-0-0,0-0-7], [6:0-4-0,0-1-8], [7:0-7-0,0-4-8], [8:0-4-0,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.61	Vert(LL)	-0.21	7-8	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.79	Vert(TL)	-0.48	7-8	>530	180	MT18H	220/195
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.94	Horz(TL)	0.11	5	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 305 lb	FT = 10%

LUMBER

TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x6 DF 2250F 1.7E
WEBS 2x4 DF Std G

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=6928/0-3-14 (min. 0-2-7), 5=4598/0-3-14 (min. 0-1-10)
Max Horz 1=50(LC 6)
Max Uplift 1=-1917(LC 7), 5=-1478(LC 7)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-15235/4254, 2-3=-11013/3404, 3-4=-10998/3403, 4-5=-12885/4175
BOT CHORD 1-9=-3954/14299, 9-10=-3954/14299, 8-10=-3954/14299, 8-11=-3954/14299, 11-12=-3954/14299, 7-12=-3954/14299, 7-13=-3868/12044, 13-14=-3868/12044, 14-15=-3868/12044, 6-15=-3868/12044, 5-6=-3868/12044
WEBS 3-7=-1892/6392, 4-7=-1749/817, 4-6=-428/1259, 2-7=-4125/907, 2-8=-446/2701

City of Portland
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OCT 20 2014
Permit Number

NOTES

1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * 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.
8) A plate rating reduction of 20% has been applied for the green lumber members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1917, 5=1478.
10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
12) Use Simpson Strong-Tie MUS26 (6-10d Girder, 4-10d Truss) or equivalent spaced at 7-3-4 oc max. starting at 1-11-2 from the left end to 15-2-6 to connect truss(es) A02 (1 ply 2x4 DF) to back face of bottom chord.
13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 5-5-14 oc max. starting at 2-7-4 from the left end to 8-1-2 to connect truss(es) A02A (1 ply 2x6 DF) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

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REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2013
RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015

October 7,2014

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	C05	COMMON GIRDER	1	3	I8835416
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:40 2014 Page 2

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-0DVWFLcewciEen3USnfmncPV_Lsre9j4atvewvyW45T

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-3=-64, 3-5=-64, 1-5=-20

Concentrated Loads (lb)

Vert: 9=-1187(B) 10=-1901(B) 11=-1901(B) 12=-1187(B) 13=-1187(B) 14=-1187(B) 15=-1187(B)

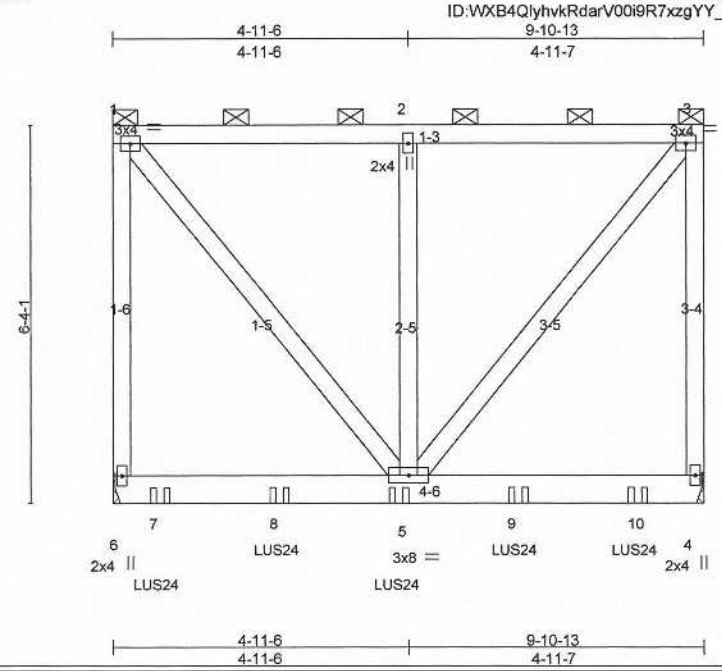
DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church	I883541
J1404154	FG01	FLAT GIRDER	1	2	Job Reference (optional)	

Pro-Build Beaverton Truss, Beaverton, OR 97005

7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:41 2014 Page 1

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-UP4uThdHgvq5Fxeg0VA?JpyoulMxNoGDpXeBTMyW45S



LOADING (psf)		SPACING	1-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.08	Vert(LL)	-0.01	4-5	>999	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.16	Vert(TL)	-0.03	4-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.15	Horz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 155 lb	FT = 10%

LUMBER
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 6=929/Mechanical, 4=892/Mechanical
Max Uplift6=-370(LC 3), 4=-355(LC 3)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-6=-605/255, 1-2=-439/175, 2-3=-439/175, 3-4=-605/255
WEBS 1-5=-278/701, 3-5=-278/701

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OCT 20 2014
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NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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.
7) A plate rating reduction of 20% has been applied for the green lumber members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=370, 4=355.
10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 0-9-8 from the left end to 8-9-8 to connect truss(es) A09 (1 ply 2x4 DF) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2011
RYAN JOSEPH DEXTER

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-32, 4-6=-10

RENEWAL DATE: 12/31/2015

October 7,2014

Continued on page 2

DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	FG01	FLAT GIRDER	1	2	I8835417
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:41 2014 Page 2

ID:WXB4QlyhvkRdarV00i9R7xzgYY_-UP4uThdHgvq5Fxeg0VA?JpyoulMxNoGDpXeBTMyW45S

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 5=-284(F) 7=-284(F) 8=-284(F) 9=-284(F) 10=-284(F)

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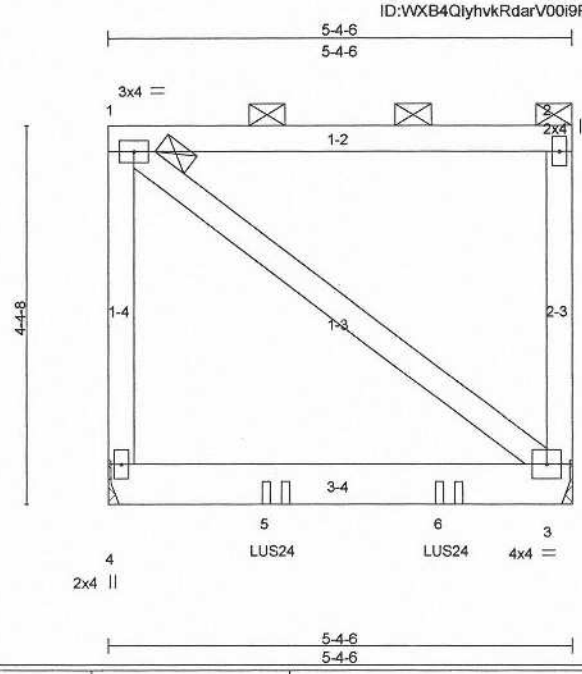
DrJ ENGINEERING LLC

Job	Truss	Truss Type	Qty	Ply	Mike Church
J1404154	FG02	FLAT GIRDER	1	1	I8835419
					Job Reference (optional)

Pro-Build Beaverton Truss, Beaverton, OR 97005 — 7.430 s Oct 14 2013 MiTek Industries, Inc. Mon Oct 06 16:54:41 2014 Page 1

ID:WXB4QIyhvkRdarV00i9R7xzgYY_-UP4uThdHgvq5Fxeg0VA?JpynGIB8NqgDpXeBTMyW45S



Scale = 1:26.7

LOADING (psf)		SPACING	1-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plates Increase	1.15	TC	0.19	Vert(LL)	0.07	3-4	>856	240	MT20	220/195
TCDL	7.0	Lumber Increase	1.15	BC	0.85	Vert(TL)	-0.16	3-4	>383	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		(Matrix)							Weight: 37 lb	FT = 10%

LUMBER
TOP CHORD 2x4 DF No.1&Btr G
BOT CHORD 2x6 DF No.2
WEBS 2x4 DF Std G

BRACING
TOP CHORD 2-0-0 oc purlins: 1-2, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-9-15 oc bracing.

REACTIONS (lb/size) 4=541/Mechanical, 3=638/Mechanical
Max Uplift 4=-220(LC 3), 3=-262(LC 3)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES
1) Wind: ASCE 7-05; 115mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=0ft; L=0ft; eave=4ft; Cat. II; Exp B; enclosed; MWFRS (all heights); cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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.
5) A plate rating reduction of 20% has been applied for the green lumber members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=220, 3=262.
8) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) "Fix heels only" Member end fixity model was used in the analysis and design of this truss.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-11-4 from the left end to 3-11-4 to connect truss(es) A10 (1 ply 2x4 DF) to back face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-32, 3-4=-10
Concentrated Loads (lb)
Vert: 5=-483(B) 6=-483(B)

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

REGISTERED PROFESSIONAL ENGINEER
85525PE
OREGON
JULY 12, 2011
RYAN JOSEPH DEXTER

RENEWAL DATE 12/31/2015
October 7,2014

DrJ ENGINEERING LLC

General Safety Notes

Failure to Follow Could Cause property damage or personal injury.

1. Please thoroughly review the "Customer's Acknowledgement of ProBuild Standard Terms for Manufactured Products" form.
2. Please thoroughly review all Truss Design Drawing (TDD) cover sheet notes and TDD notes, verify design parameters and review all connection detail notes. Important work scope and responsibilities are defined therein.
3. All capitalized terms are as defined in ANSI/TPI 1, the National Design Standard for Metal Plate Connected Wood Truss Construction (TPI 1).
4. TPI 1 defines the responsibilities and duties of the Truss Designer (TD), Truss Design Engineer (TDE) and Truss Manufacturer (TM), unless otherwise defined by a Contract agreed upon in writing by the parties involved.
5. As a TDE (i.e., Speciality Engineer), the seal on any TDD represents an acceptance of professional engineering responsibility for the design of the single Truss depicted on the TDD only, under TPI 1.
6. ProBuild and DrJ Engineering (DrJ) are NOT the Building Designer or Truss System Engineer for any building.
7. The design assumptions, loading conditions, load paths, suitability and use of Trusses for any Building is the responsibility of the Owner, the Owner's authorized agent or the Building Designer (BD),in the context of the IRC, the IBC, the local building code and TPI 1.
8. The approval of the TDD and any field use of the Truss, including handling, storage, installation and bracing, shall be the responsibility of the BD and Contractor (GC).
9. All notes set forth in the TDD and the practices and guidelines of Building Component Safety Information (BCSI) published by the Truss Plate Institute and the Structural Building Component Association (SBCA) are referenced for general guidance.
10. Structural submittals (i.e., shop drawings) shall be reviewed by the BD for compatibility with the design of the building or structure, including submittal documents prepared by others, deferred submittal documents and phased submittal documents. This review shall include a notation indicating that the reviewed documents have been found to be in general conformance with the design of the building (or to make specific corrections noted and to return for review). In the absence of this notation, ProBuild will provide its Customer with the design assumptions used per the construction documents, to design the individual structural building components (i.e., Trusses) per TPI 1.
11. ProBuild and DrJ shall be permitted to rely on the accuracy and completeness of project contract and construction documents including any specifications that have been furnished to ProBuild in writing by the BD for the building.
12. The BD shall provide information that is sufficiently accurate and reliable to be able to design the trusses in the context of the following serviceability issues including, but not limited to: (a) Allowable vertical, horizontal or other required deflection criteria; (b) Any dead load, live load and in-service creep deflection criteria for floors or flat roofs subject to ponding loads; (c) Any floor or roof camber requirements; (d) Any differential deflection criteriafrom truss-to-truss or truss-to-adjacent structural member; (e) Any deflection and vibration criteria for floor trusses including any strongback bridging requirements, and any dead load, live load, and in-service creep deflection criteria for floor trusses supporting stone or ceramic tile finishes; (f) Moisture, temperature, corrosive chemicals and gases expected to result in a wood moisture content exceeding 19 percent, sustained temperatures exceeding 150 degrees F, and/or corrosion potential from wood preservatives or other sources that may be detrimental to Trusses.
13. Due to the lateral thrust developed by scissors-type Trusses, if scissors-type Trusses are part of this design, consideration should be given to bearing wall conditions. Bearing walls supporting scissors-type Trusses should be designed in such a manner that the walls will safely withstand the lateral forces of the Trusses. Consideration of effects on the design of the bearing and the associated wall or beam/header assembly is not a part of this set of TDDs and is not the responsibility of ProBuild or DrJ. Advice from the BD or any RDP should be secured relative to these items if they are not provided in the construction documents.
14. Unless specifically noted in writing otherwise, neither ProBuild nor DrJ have performed any of the following engineering services as it relates to the building that is going to be built: (a) The trusses and any related structural elements are not designed to support any masonry loading conditions, which require special engineering; (b) Areas of the construction documents that do not use truss framing need to be designed by others; (c) All beam, header and related structural element designs are to be performed by others. If any of the previously listed services are required by the Owner, the Owner's authorized agent or the BD, please call 608-628-1453 for assistance.
15. The structural building component (SBC) submittal including the TDDs sealed by a TDE where required by the legal requirements or the local jurisdiction, a Truss Placement Diagram (TPD) if required by the construction documents, and the required permanent individual truss member restraint per the TDDs, the appropriate BCSI B-series summary sheets to facilitate proper truss and structural component lateral restraint (LR) and diagonal bracing (DB), any SBC installation information and any related truss and SBC details shall be supplied to the GC/Truss Installer.
16. The GC, after reviewing and/or approving the SBC submittal package, shall forward it to the BD for review.
17. Where required by the project contract or construction documents, including any specifications, a TPD identifying the location of each truss, as assumed by ProBuild based on its review of the project contract documents, will be provided. When the TPD (i.e., structural submittals or shop drawings) serves only as a guide for truss installation, it does not require the seal of any RDP.
18. Review the complete contents of the SBC submittal package, the TDDs included (i.e., front, back, text and graphics), any TPDs and any related SBC information before attempting to install the trusses. Reviewing graphics alone is not sufficient.
19. Truss manufacturing quality control shall be performed per TPI 1, Chapter 3, and monitored by a third party inspection agency.
20. Unless specified by the BD in writing and noted on the TDD, these TDDs are not applicable for use with fire-retardant, preservative-treated or green lumber.
21. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
22. Lumber used shall be of the species, size and grade, and in all respects, equal to or better than that specified.
23. Temporary LR and DB is required to be installed during construction for the purposes of holding trusses in their proper location, plumb and in plane, until permanent individual truss member LR, DB and permanent building stability bracing are completely installed (see BCSI-B1, BCSI-B2, BCSI-B3, BCSI-B7, and BCSI-B10 as applicable).
24. Top chords must be sheathed or continuous LRs (i.e., purlins) provided at the spacing indicated on TDD (e.g., 24 in. o.c. maximum).
25. If no ceiling is installed or bottom chord LR is specified in writing by the BD, bottom chords require continuous LR at 10 ft. o.c. spacing, or less, along with DB as specified in BCSI-B1, BCSI-B3, BCSI-B7 or BCSI-B10 as applicable.
26. Graphical representation of LR members (i.e., purlins), if shown on the TDD, do not depict the size or orientation of the restraint along the top and/or bottom chord and/or web members.
27. The size, connections and anchorage of the permanent continuous truss chord and web member LR and DB must be designed by others in such a way as to support the imposed load along the clear span of the LR and DB, or as specified in BCSI-B1, BCSI-B3, BCSI-B7 or BCSI-B10 as applicable.
28. Additional permanent building stability bracing for the truss system (e.g., diagonal, X-bracing, etc.) may be required and is to be specified by the BD. DB in accordance with BCSI-B3 may be sufficient.
29. The SBCs shall be examined upon delivery to the jobsite and also after they are erected and installed for: (a) dislodged or missing connectors; (b) cracked, dislodged or broken members; or (c) any other damage that may impair the structural integrity of the SBC. Any unreported damage to any SBC during any part of the handling and installation process shall void the ProBuild product warranty.
30. During truss installation, never exceed the design loading shown on the TDD and never stack materials on trusses with inadequate LR and DB (see BCSI-B4). Never overload any structural elements with stacks of building materials to a level greater than defined in BCSI-B4.
31. Connections not shown on the TDDs are the responsibility of others.
32. Do not cut or alter a truss member, a truss plate or any related structural element member without prior approval of an RDP or TDE.
33. Install and load trusses vertically unless otherwise indicated in writing by the BD or as specifically defined on the TDD or TPD.
34. Sheathing applied in the plane of the truss is not considered in the design of the individual truss components (e.g., a gable-end truss has no composite stiffness analysis performed) unless specifically noted.
35. Attachment of the purlin gable (i.e., hip frames or lay-in gables) to the supporting hip trusses satisfies the LR and DB requirements for the top chord of the hip trusses. Refer to the TDD for the individual trusses braced in this manner.
36. These trusses are designed using MiTek standard engineering analysis methods and associated software in accordance with TPI 1 and related proprietary information.

Each Truss Design Drawing (TDD) uses Metal Connector Plate (MCP) design values published by MCP manufacturers. Any referenced connectors use design values published by the connector manufacturer or the American Wood Council per the National Design Specification (NDS) for Wood Construction. The TDD further uses lumber design values published by the applicable lumber rules-writing agency as approved by the American Lumber Standards Committee. These are incorporated into lumber design provisions and equations created by the American Wood Council and input into modeling and analysis TDD software created and owned by the MCP manufacturers. The lumber design values correspond with the grade stamp identified by the TM on the lumber prior to cross cutting. The lumber grading rules published by the rules-writing agency shall apply to the Owner, BD and GC.

The "WARNING" note found on the bottom of each TDD references this document by calling it the "DrJ Reference Sheet (rev. 10-14)"

DrJ Engineering, LLC
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Madison, WI 53719
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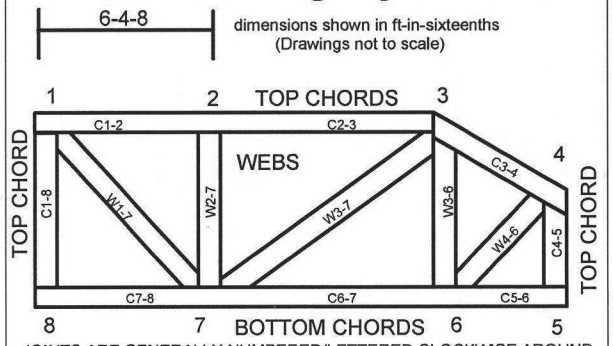
Numbering System

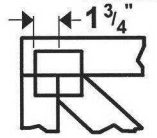


JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

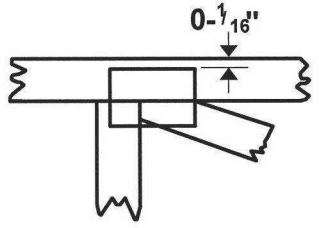
CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

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.

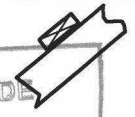
* Plate location details available in MiTek 20/20 software or upon reque

PLATE SIZE

4 x 4

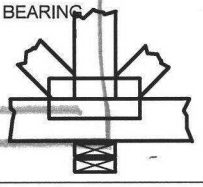
The first dimension is the plate width measured perpendi to slots. Second dimension is the length parallel to slots.

LATERAL RESTRAINT LOCATION

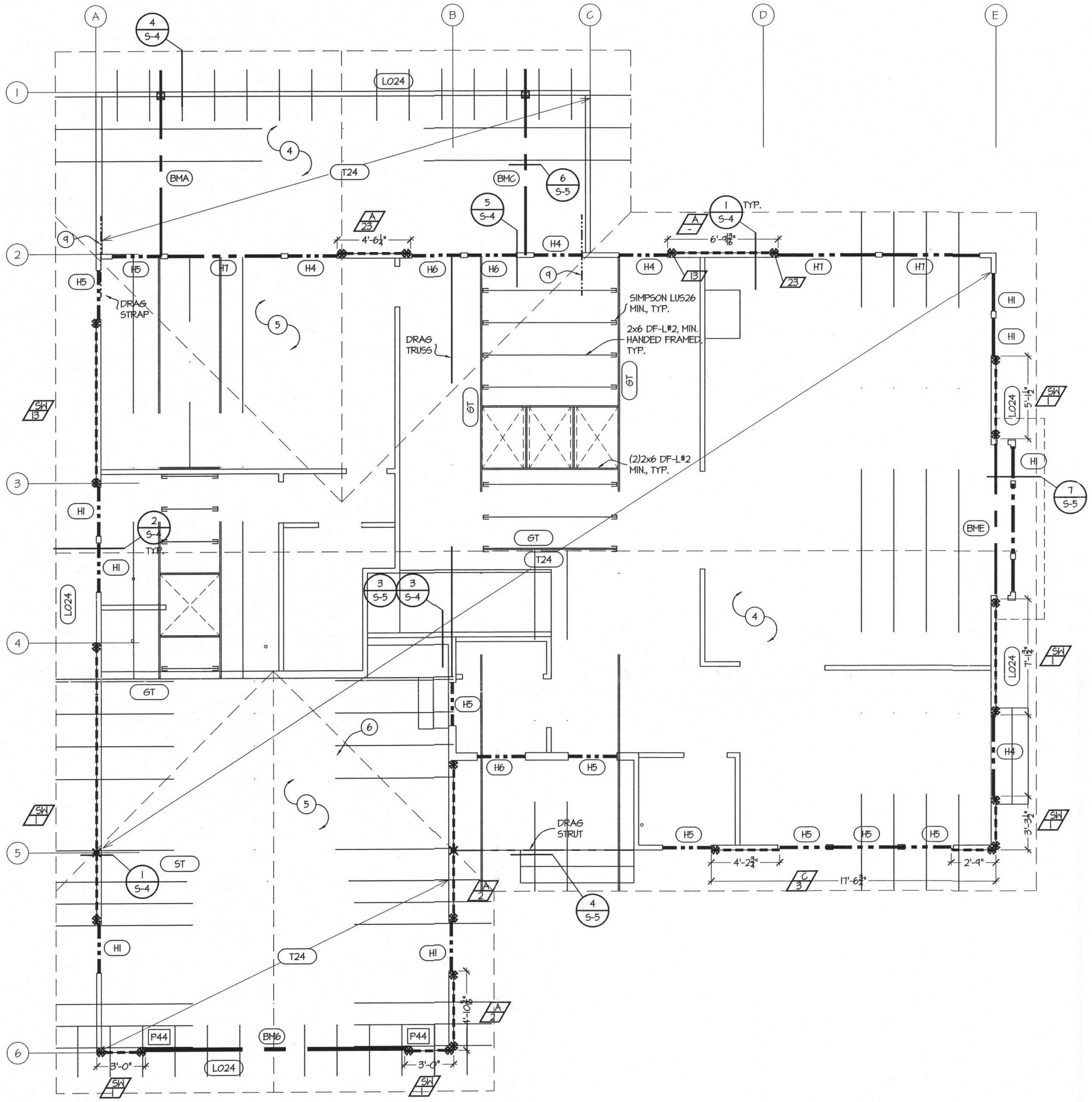


Indicated by symbol shown and/or by text in the bracing section of the output. Use T- , L- , or I-Reinforcement or proprietay bracing (e.g. eliminator) if indicated.
NOTE - LATERAL RESTRAINTS MUST BE BRACED. REFER TO BCSI OR AS SPECIFIED BY THE BUILDIN DESIGNER

BEARING



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



1 / S-3 ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

<u>Roof Framing Plan Notes</u>

1. PROVIDE BEAMS AND HEADERS AS NOTED ON PLANS WITH A MINIMUM (2) 2X6 DFL #2 OVER ALL OPENINGS IN ALL EXTERIOR AND BEARING WALLS.
2. PROVIDE POSTS AS NOTED ON PLANS WITH A MINUMUM DOUBLE STUD POST UNDER ALL BEAMS, HEADERS, AND GIRDER TRUSSES.
3. PROVIDE WALL STUDS AS NOTED ON PLANS WITH A MINIMUM 2X6 DFL #2 AT 24" O.C. AT ALL EXTERIOR AND BEARING WALLS, AND A MINIMUM 2X4 STUD GRADE AT 24" O.C. AT INTERIOR AND PARTITION WALLS.
4. TYPICAL ROOF SHEATHING TO BE 1/2" APA RATED PLYWOOD WITH 8d NAILS AT 6/12. SEE (1 / S-5)
5. 2X6 OVERFRAMING AT 24" O.C. WITH 2X4 POSTS AT 48" O.C. TO FRAMING BELOW. SEE (6 / S-4)
6. PROVIDE FULL SHEATHING ON TRUSSES OR JOISTS UNDER OVERFRAMING.
7. PROVIDE MINIMUM 20" X 30" ACCESS TO ALL ATTIC SPACES.
8. PROVIDE SOLID BLOCKING AT ALL CEILING HUNG FIXTURE LOCATIONS.
9. SIMPSON MST160 DRAG STRAP w/ BLOCK FOR 2 TRUSS BAYS, SIMILAR TO DETAIL (5 / S-4)

ATTIC VENTING CALCULATIONS

MINIMUM ATTIC VENTILATION REQUIRED BY IBC 1203.2:
FLOOR AREA: 2310 SQUARE FEET
REQUIRED VENT AREA (WITH VAPOR BARRIER AND HIGH & LOW VENTS)
2310*144/300 = 1109 IN. SQ.

PROVIDED VENT AREA:
-EAVE VENTS:
1" DIA. SCREENED HOLES AT 8" O.C. IN 80 LINEAL FEET, 12/8*0.79*80 = 94 SQ. IN.
-GABLE VENTS:
(3) 12"X16" GABLE VENTS, 3*12*16 = 576 IN.SQ.
-ROOF VENTS:
(3) 8" DIA. ROOF VENTS, 3*175 = 530 IN.SQ.

TOTAL PROVIDED = 94+576+530 = 1200 SQ. IN.

TRUSS SCHEDULE	
T24	MFGR. ROOF TRUSSES @ 24" O.C.
GT	MFGR. ROOF GIRDER TRUSS
ST	MFGR. ROOF SHEAR TRUSS
LO24	2X4 DF #2 LOOKOUTS @ 24" O.C.

BEAM SCHEDULE		LEFT	RIGHT
BMA	5-1/2" X 9" GLB	AC/6X6 POST	HTS/(2) 2x4
BMC	5-1/2" X 9" GLB	AC/6X6 POST	HTS/(2) 2x4
BME	4 X 6 DF-L #2	DBL. STUD	DBL. STUD
BM2	5-1/8" X 13 1/2" GLB	AC/6X6 POST	AC/6X6 POST
BM3	5-1/8" X 12" GLB	AC/6X6 POST	AC/6X6 POST
BM6	3-1/2" X 12" GLB	ACE\4x4	ACE\4x4
BM3.5	4 X 10 DF-L #2	LUS410	AC/4x4
BMA.5	4 X 10 DF-L #2	(2) H2A	LUS410

HEADER SCHEDULE		LEFT	RIGHT
H1	(2) 2 X 6 DF #2	DBL. STUD	DBL. STUD
H2	(2) 2 X 8 DF #2	DBL. STUD	DBL. STUD
H3	(2) 2 X 10 DF #2	DBL. STUD	DBL. STUD
H4	4 X 6 DF #2	DBL. STUD	DBL. STUD
H5	4 X 8 DF #2	DBL. STUD	DBL. STUD
H6	4 X 10 DF #2	DBL. STUD	DBL. STUD
H7	4 X 12 DF #1	DBL. STUD	DBL. STUD

WALL SCHEDULE	
W616	2 X 6 DF #2 @ 16" O.C.
W416	2 X 4 DF #2 @ 16" O.C.
W424	2 X 4 DF Std. @ 24" O.C.

POST SCHEDULE		
P226	(2) 2 X 6 DF #2	(TYP.)
P224	(2) 2 X 4 DF #2	
P326	(3) 2 X 6 DF #2	
P44	4 X 4 DF #2	
P46	4 X 6 DF #2	
P66	6 X 6 DF #1	

HOLDOWN SCHEDULE ❋

TYPE	MODEL	BOLT DIA.	END DIST.	FASTENERS	MIN. POST
1	DTT2Z	1/2"	-	(8) SDS 1/4"X2-1/2"	(2) 2X
2	MSTCM60	-	18"	SEE 9/S-6	4X
3	MSTCM60	-	18"	SEE 9/S-6	4X
13	CMSTC16	-	20"	(50) 0.148"X3"	(2) 2X
23	MSTC66B3	-	21"	(56) 0.162"X3-1/2"	(2) 2X

SHEAR WALL SCHEDULE

TYPE	APA RATED SHEATHING (Z1)	SIDE	STUDS/ BLOCKING	EDGE NAILING (Z2)	SILL BOLTS (Z5)	SOLE PLATE TO RIM OR SILL PLATE (Z4)
SW	7/16"	ONE	2X	0.131"X2-1/2" @ 6"	1/2"Φ@36"OC	0.162"X3-1/2" @ 6"
A	7/16"	ONE	2X	0.131"X2-1/2" @ 4"	1/2"Φ@24"OC	0.162"X3-1/2" @ 4"
B	7/16"	ONE	3X	0.131"X2-1/2" @ 3"	1/2"Φ@18"OC	0.162"X3-1/2" @ 4"
C	7/16"	BOTH	2X	0.131"X2-1/2" @ 4"	1/2"Φ@12"OC	0.162"X3-1/2" @ 2"

* STUDS AND BLOCKING SHALL BE OF SPECIFIED SIZE AT ALL PLYWOOD JOINTS
(2) 2X MAY BE SUBSTITUTED FOR 3X WHERE 2X'S ARE NAILED TOGETHER WITH 10d AT 3" O.C. STAGGERED
NAILING: 0.131"x2-1/2" = 8d, 0.148"x3" = 10d, 0.162" x 3-1/2" = 16d
SILL BOLTS: 1/2" DIA SIMPSON TITENS BOLTS EMBEDDED 3-1/2" IN TO CONCRETE MAY BE SUBSTITUTED FOR 1/2" DIA CAST IN BOLT REQUIREMENT

City of Portland
REVIEWED FOR CODE COMPLIANCE
OCT 20 2014
Permit Number

RECEIVED
OCT 09 2014
BDS DOCUMENT SERVICES

-SCAN-

#	Date	Revisions
0	7-15-14	ISSUE FOR PERMIT
1	10-7-14	UPDATED TRUSS LAYOUT

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503-846-1131

BERTHOLD REMODEL
2300 SW 15TH AVE
PORTLAND, OR 97201

14-181757 DFS 01 RS

REGISTERED PROFESSIONAL ENGINEER
OREGON
DMITRI S. WRIGHT
EXPIRES: 6/30/16

Scale AS NOTED
Drawn By JJB
Checked DSW
Date 10/7/14
Job # 14121

Sheet #
S-3