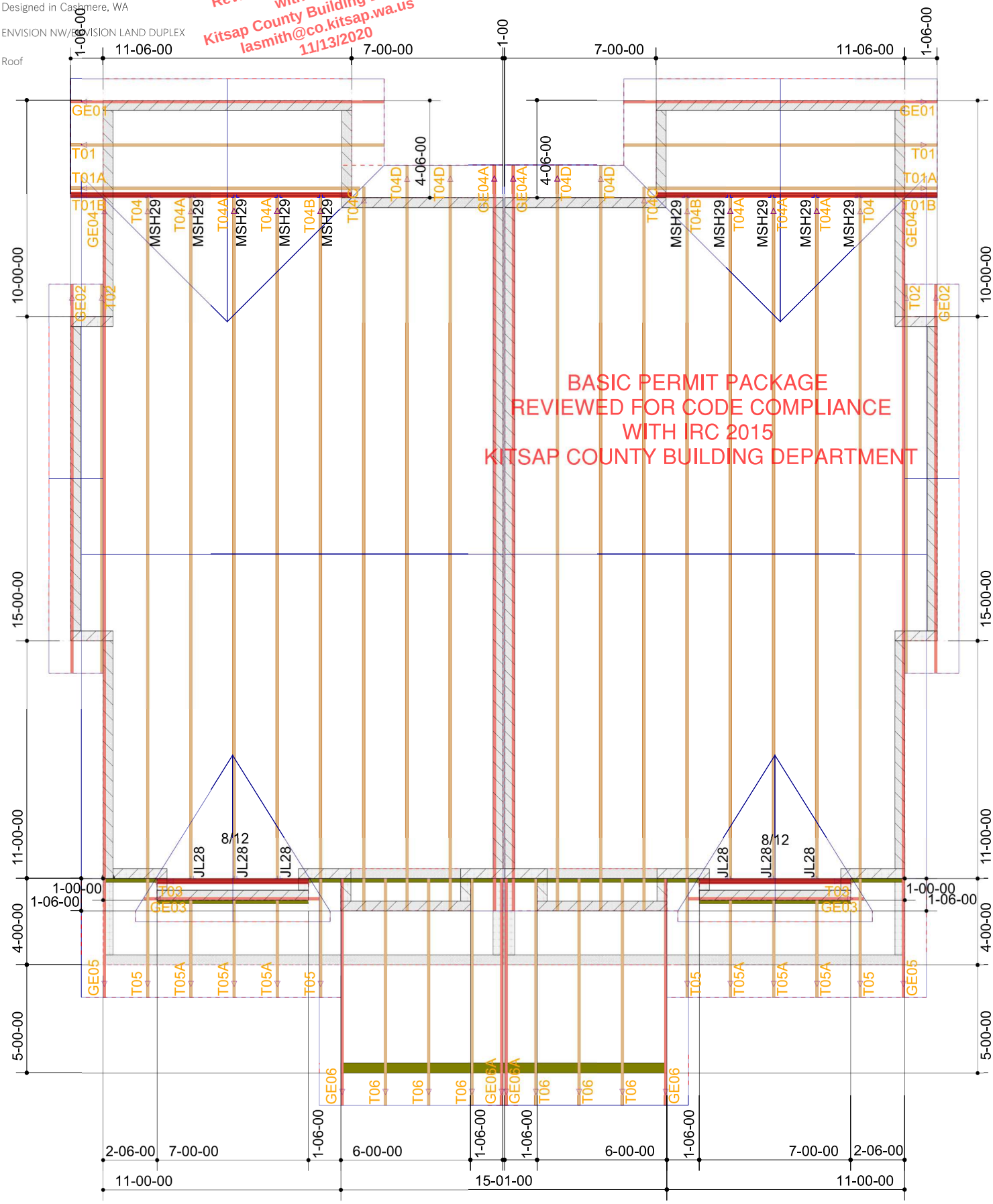
BID #1904005
Designed in Cashmere, WA

ENVISION NW/ENVISION LAND DUPLEX

Roof

7/22/2019

Reviewed for code compliance
with IRC 2015
Kitsap County Building Department
lasmith@co.kitsap.wa.us
11/13/2020



BASIC PERMIT PACKAGE
REVIEWED FOR CODE COMPLIANCE
WITH IRC 2015
KITSAP COUNTY BUILDING DEPARTMENT

BID #1904005
ENVISION NW/ENVISION LAND DUPLEX
SILVERDALE, WA 98383-9521

Sales:
Jeremiah Murphy

LOUWS TRUSS INCORPORATED

Roof: *5.00/12* **Overhang:** *1-06-00*

Ceiling: *Flat* **Spacing:** *24"*

30 PSF SNOW LOAD
All Gables dropped for 2x4 outlookers

Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE01	GABLE	2	1	Job Reference (optional)

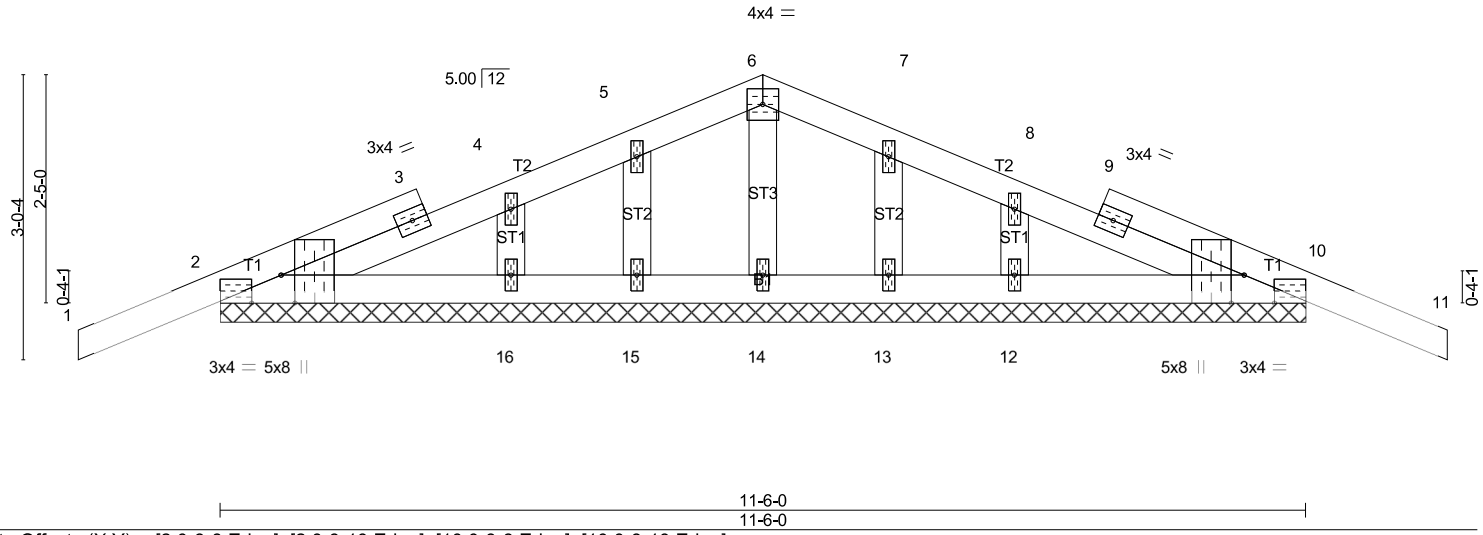
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:18:44 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-To3JWjrqdgNbfApa5cyIyFt5zQQxHQkEXYFTpvyvWM9

-1-6-0 | 5-9-0 | 11-6-0 | 13-0-0

1-6-0 | 5-9-0 | 5-9-0 | 1-6-0

Scale = 1:24.4



11-6-0

11-6-0

Plate Offsets (X,Y)— [2:0-3-8,Edge], [2:0-3-13,Edge], [10:0-3-8,Edge], [10:0-3-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	11	n/r	120	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.01	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	10	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 49 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
OTHERS 2x4 DF No.2

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 11-6-0.
(lb) - Max Horz 2=-38(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 16, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 14, 15, 16, 13, 12 except 2=263(LC 23), 10=263(LC 24)

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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-6-0 to 2-1-3, Exterior(2) 2-1-3 to 5-9-0, Corner(3) 5-9-0 to 9-4-3, Exterior(2) 9-4-3 to 13-0-0 zone; cantilever left and right exposed ; end vertical 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 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 15, 16, 13, 12.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE02	GABLE	2	1	Job Reference (optional)

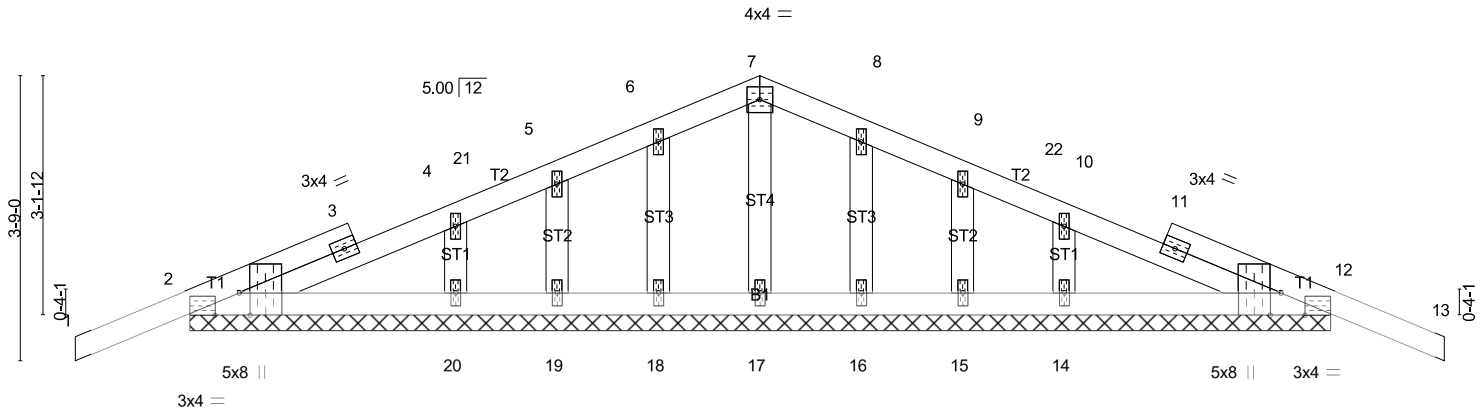
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:18:47 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-tNkS9kujwbIAWeY9mIV?atUcCdRVUnQgDWU7PEyvWM6

-1-6-0 | 7-6-0 | 15-0-0 | 16-6-0

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

Scale = 1:30.3



15-0-0

15-0-0

Plate Offsets (X,Y)— [2:0-3-8,Edge], [2:0-3-13,Edge], [12:0-3-8,Edge], [12:0-3-13,Edge]

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	30.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	13	n/r	120	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.01	13	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	12	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 67 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
OTHERS 2x4 DF No.2

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

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 15-0-0.
(lb) - Max Horz 2=49(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 18, 19, 20, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 17, 18, 19, 16, 15 except 2=271(LC 23), 12=271(LC 24), 20=253(LC 23), 14=253(LC 24)

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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-6-0 to 2-1-3, Exterior(2) 2-1-3 to 7-6-0, Corner(3) 7-6-0 to 11-1-3, Exterior(2) 11-1-3 to 16-6-0 zone; cantilever left and right exposed ; end vertical 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 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 18, 19, 20, 16, 15, 14.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #

19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE03	GABLE	2	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:18:50 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-HyQanmwbDW7IN5GkRt2iCW69CrTeh7H6vUin0ZyvWM3

-0-7-4 / 0-7-4 | 3-6-0 / 3-6-0 | 7-0-0 / 3-6-0 | 7-7-4 / 0-7-4

Scale = 1:20.2

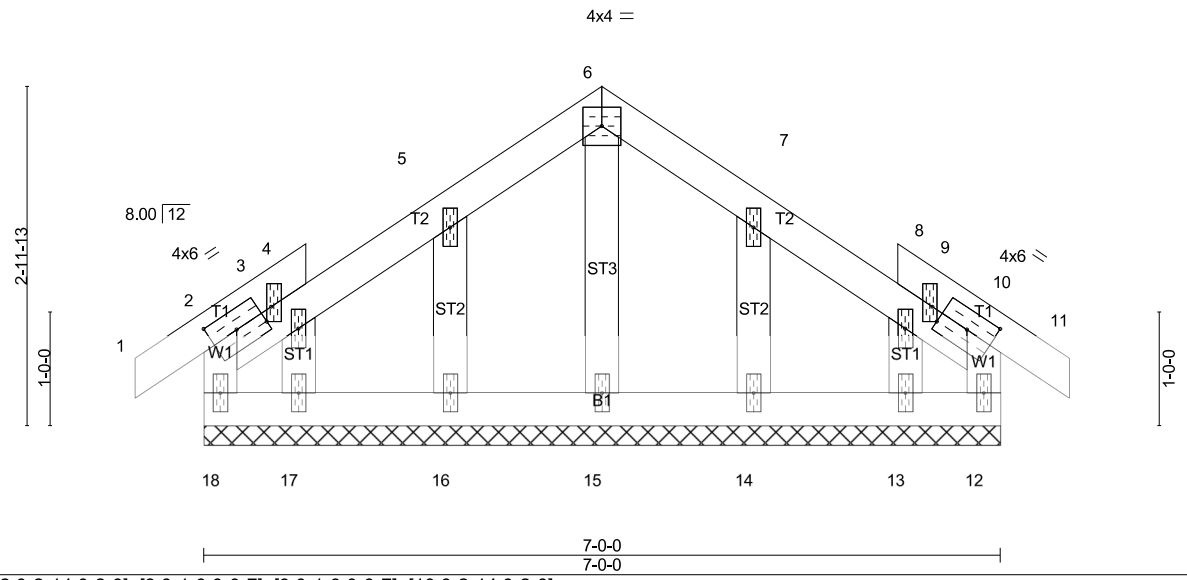


Plate Offsets (X,Y)— [2:0-2-14,0-2-0], [3:0-1-9,0-0-7], [9:0-1-9,0-0-7], [10:0-2-14,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	10	n/r	120	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	-0.00	12	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 37 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2
OTHERS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 12-13.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 7-0-0.
(lb) - Max Horz 18=-68(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 18, 12, 16, 17, 14, 13
Max Grav All reactions 250 lb or less at joint(s) 18, 12, 15, 16, 17, 14, 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-7-4 to 2-11-15, Exterior(2) 2-11-15 to 3-6-0, Corner(3) 3-6-0 to 6-10-4, Exterior(2) 6-10-4 to 7-7-4 zone; cantilever left and right exposed ; end vertical 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 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 12, 16, 17, 14, 13.
11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) No notches allowed in overhang and 704 from left end and 704 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

Established Basic Permit #
19-03646

Permit Number: 20-04893

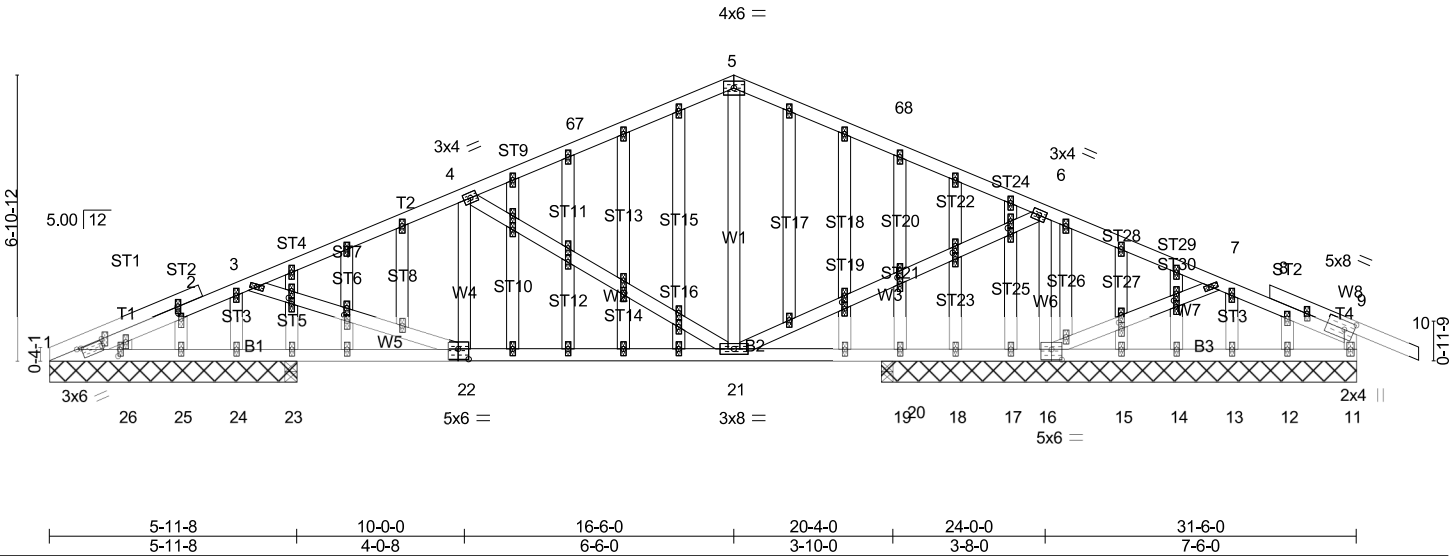
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE04	GABLE	2	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:18:54 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-Akf5d7z6HldAsjaVgj7eMMHh7Sf8dmGiq5g_9KyvWM?

5-0-0	10-0-0	16-6-0	24-0-0	28-0-0	31-6-0	33-0-0
5-0-0	5-0-0	6-6-0	7-6-0	4-0-0	3-6-0	1-6-0

Scale = 1:55.5



5-11-8	10-0-0	16-6-0	20-4-0	24-0-0	31-6-0
5-11-8	4-0-8	6-6-0	3-10-0	3-8-0	7-6-0

Plate Offsets (X,Y)– [1:0-1-3,0-0-4], [9:0-2-12,0-2-8], [16:0-3-0,0-3-0], [22:0-3-0,0-3-0], [26:0-2-0,0-0-8], [41:0-1-11,0-0-12], [44:0-1-11,0-0-12], [47:0-1-7,0-0-12], [48:0-2-0,0-0-3], [53:0-1-14,0-0-12], [55:0-1-14,0-0-12], [57:0-1-14,0-0-12], [59:0-1-14,0-0-12], [62:0-1-12,0-0-12], [64:0-1-12,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.12	21-22	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.19	21-22	>914	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.04	20	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 230 lb	FT = 0%

LUMBER-

TOP CHORD	2x4 DF No.2
BOT CHORD	2x4 DF No.2
WEBS	2x4 DF No.2
OTHERS	2x4 DF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-1-2 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 11-5-8 except (jt=length) 1=5-11-8, 24=5-11-8, 25=5-11-8, 26=5-11-8, 23=0-3-8, 23=0-3-8, 20=0-3-8.
(lb) - Max Horz 1=86(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 25, 26, 13, 12, 23, 20 except 1=-140(LC 12), 16=-262(LC 13), 11=-112(LC 23), 24=-112(LC 1), 19=-342(LC 1)
Max Grav All reactions 250 lb or less at joint(s) 24, 25, 19, 18, 17, 15, 14, 13, 12, 23, 23 except 1=716(LC 1), 16=1544(LC 1), 11=258(LC 24), 26=252(LC 1), 20=394(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2047/398, 2-3=-1951/401, 3-4=-1456/252, 4-67=-742/159, 5-67=-646/171, 5-68=-646/158, 6-68=-761/147, 6-7=-67/550, 7-8=-31/263, 9-11=-253/127
BOT CHORD 1-26=-431/1868, 25-26=-431/1868, 24-25=-431/1868, 23-24=-431/1868, 22-23=-431/1868, 21-22=-223/1284, 20-21=-428/131, 19-20=-428/131, 18-19=-428/131, 17-18=-428/131, 16-17=-428/131
WEBS 3-22=-614/220, 4-21=-824/226, 6-21=-151/1128, 6-16=-1423/257, 7-16=-251/94

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-7-3, Interior(1) 3-7-3 to 16-6-0, Exterior(2) 16-6-0 to 20-1-3, Interior(1) 20-1-3 to 33-0-0 zone; cantilever left and right exposed ; end vertical 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 1.5x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 26, 13, 12, 23, 20 except (jt=lb) 1=140, 16=262, 11=112, 24=112, 19=342.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

Established Basic Permit #

19-03646

Permit Number: 20-04893

NOTES-

10) No notches allowed in overhang and 0 from left end and 10600 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

Established Basic Permit #

19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE04A	Common Supported Gable	2	1	Job Reference (optional)

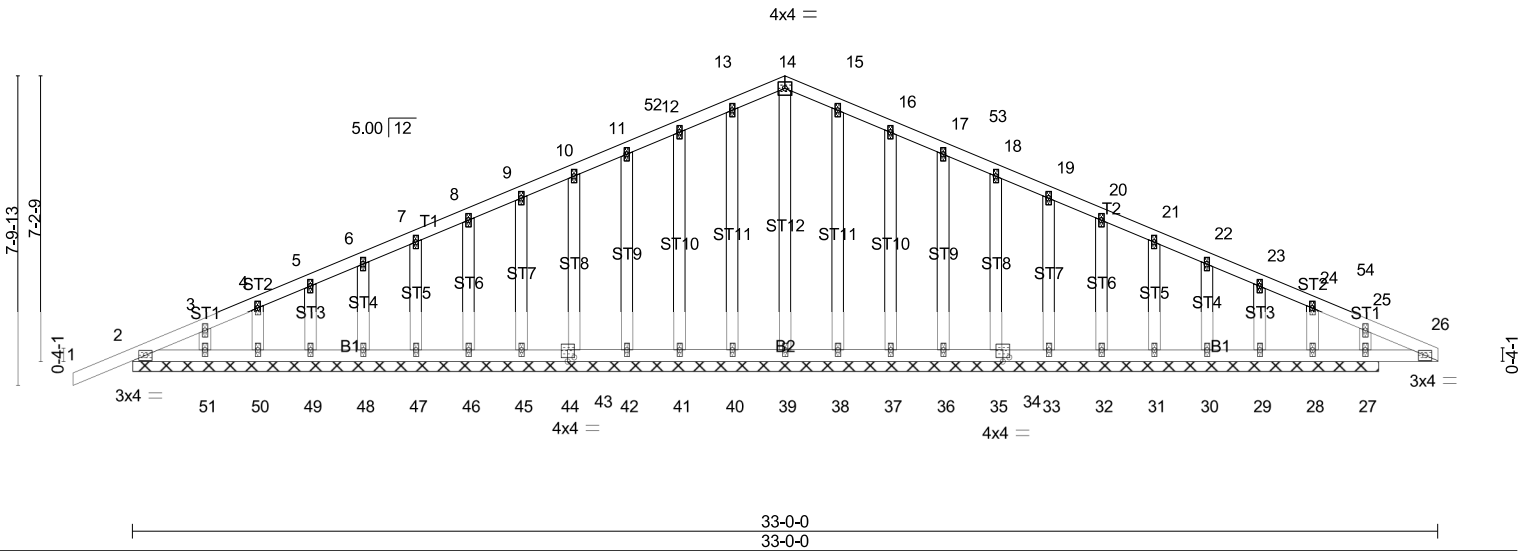
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:18:58 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-2VvcSV0cK_8cLKtHvYCaWCSUR3APZkqIIjeBH5yvWLx

-1-6-0 | 16-6-0 | 33-0-0

1-6-0 | 16-6-0 | 16-6-0

Scale = 1:58.2



33-0-0

33-0-0

Plate Offsets (X,Y)— [34:0-0-0,0-1-12], [35:0-2-0,0-1-4], [35:0-1-12,0-0-0], [43:0-1-12,0-0-0], [44:0-0-0,0-1-12], [44:0-2-0,0-1-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	1	n/r	120	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	27	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 204 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
OTHERS 2x4 DF No.2

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. All bearings 31-6-0.
(lb) - Max Horz 2=115(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 38, 37, 36, 35, 33, 32, 31, 30, 29, 28, 27
Max Grav All reactions 250 lb or less at joint(s) 2, 39, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 38, 37, 36, 35, 33, 32, 31, 30, 29, 28 except 27=292(LC 1)

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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-6-0 to 1-10-0, Exterior(2) 1-10-0 to 16-6-0, Corner(3) 16-6-0 to 20-1-3, Exterior(2) 20-1-3 to 33-0-0 zone; cantilever left and right exposed ; end vertical 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 1.5x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 40, 41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 38, 37, 36, 35, 33, 32, 31, 30, 29, 28, 27.
9) Non Standard bearing condition. Review required.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

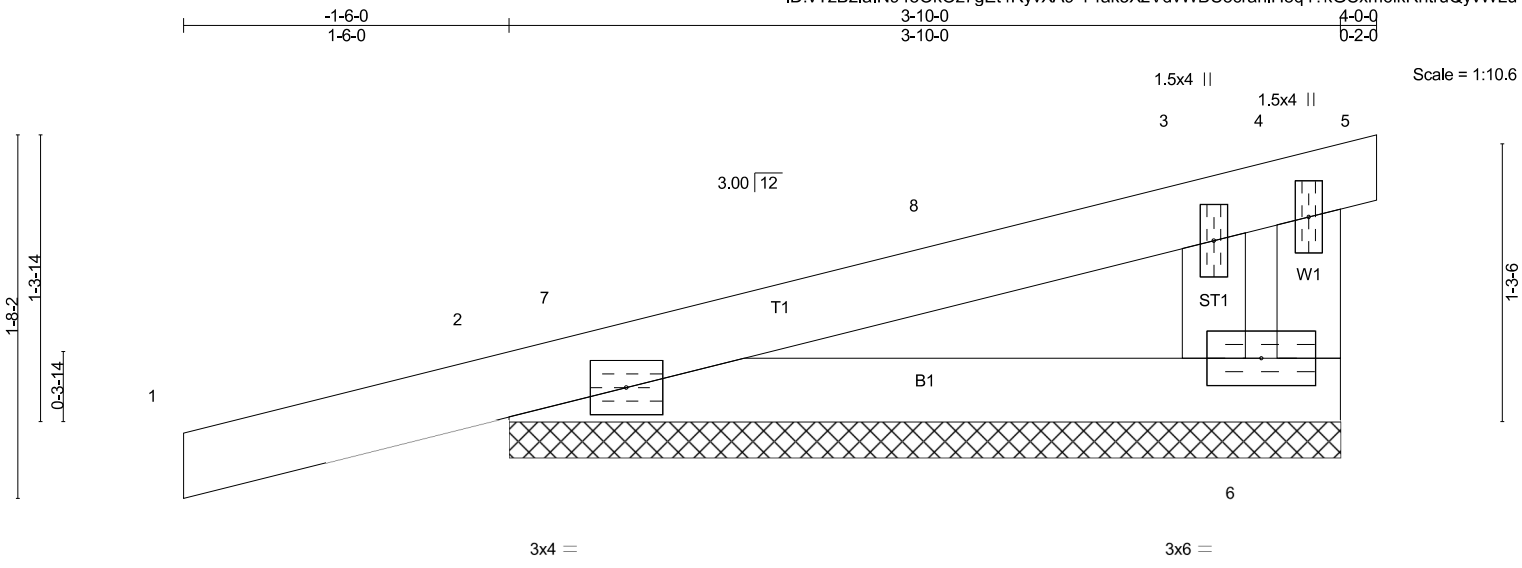
Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE05	Monopitch Supported Gable	2	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:01 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-T4ak5X2VdvWBCocrahIH8q4?kGCxm6ikRhtruQyvWLu



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	0.00	4	n/r	120	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	0.00	4	n/r	80		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-P							Weight: 15 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2
OTHERS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 6=174/3-10-0 (min. 0-1-8), 2=288/3-10-0 (min. 0-1-8)
Max Horz 2=41(LC 9)
Max Uplift6=-31(LC 12), 2=-88(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-6-0 to 2-1-3, Exterior(2) 2-1-3 to 4-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE06	MONOPITCH STRUCTURAL	2	1	Job Reference (optional)

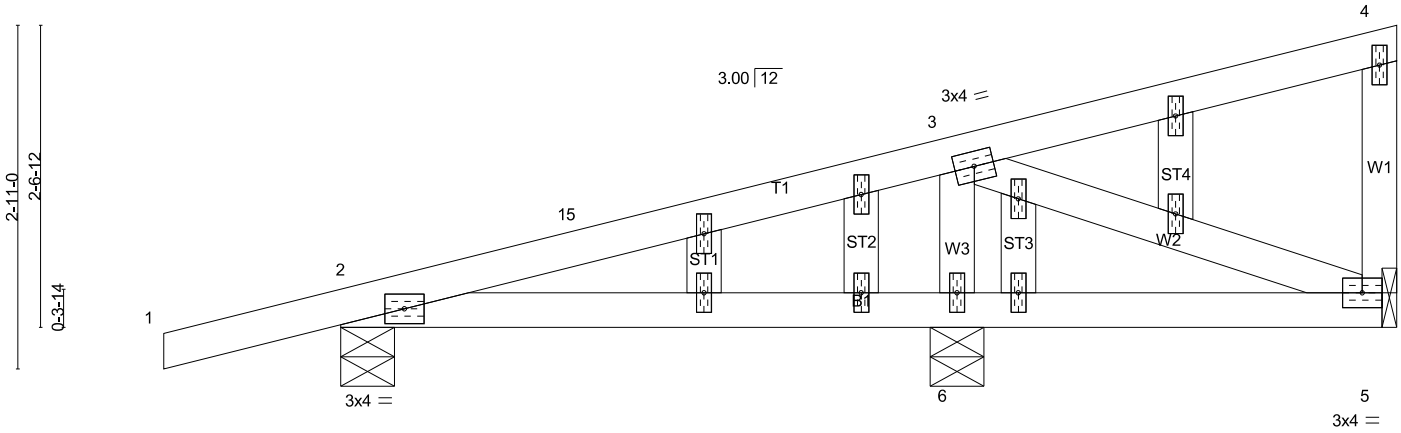
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:04 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-tfGtjY5Nwqum3FLQGpJ_mTiUDUCvzTLA7f5VVIyvWLr

-1-6-0 | 5-2-12 | 8-10-0 | 8-11-8

1-6-0 | 5-2-12 | 3-7-4 | 0-1-8

Scale = 1:19.5



5-2-12 | 8-10-0

5-2-12 | 3-7-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.02	2-6	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	2-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-P							Weight: 40 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2
OTHERS 2x4 DF No.2

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 5=114/Mechanical, 2=341/0-5-8 (min. 0-1-8), 6=445/0-5-8 (min. 0-1-8)
Max Horz 2=83(LC 9)
Max Uplift5=-27(LC 8), 2=-102(LC 8), 6=-68(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-357/132

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 8-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable studs spaced at 1-4-0 oc.
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) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 2=102.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #

19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	GE06A	MONOPITCH STRUCTURAL	2	1	Job Reference (optional)

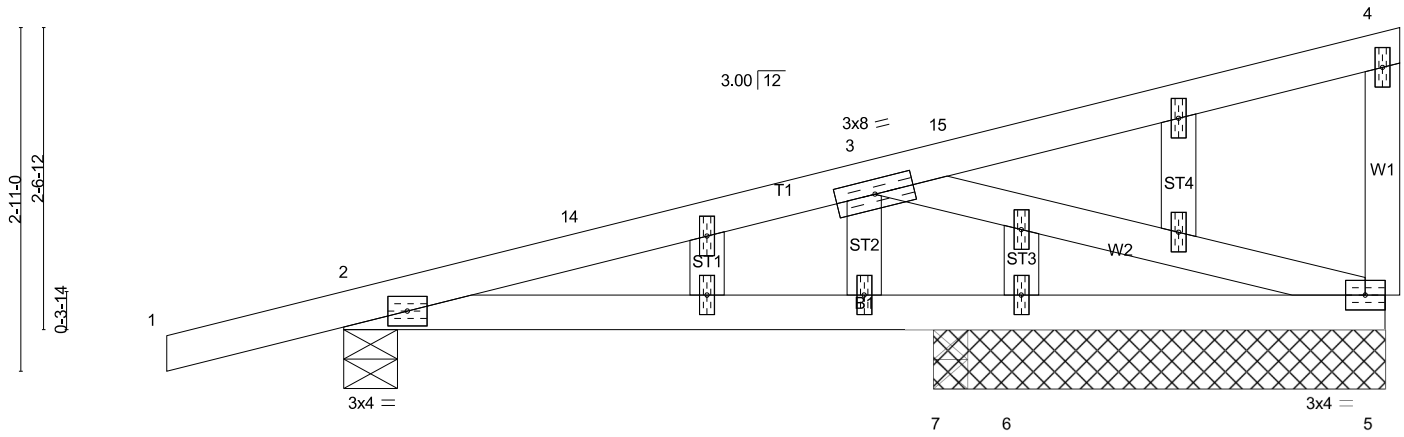
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:07 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-IEy?La7GDIGKwj3?xxshO5J0nhE2AnicpdK964yvWLo

-1-6-0 | 4-9-12 | 8-10-0 | 8-11-8

1-6-0 | 4-9-12 | 4-0-4 | 0-1-8

Scale = 1:19.5



5-3-8 | 8-10-0

5-3-8 | 3-6-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	2-7	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	-0.03	2-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.01	5	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-P							Weight: 39 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2
OTHERS 2x4 DF No.2

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 5=325/3-10-0 (min. 0-1-8), 2=489/0-5-8 (min. 0-1-8), 6=-17/3-10-0 (min. 0-1-8), 7=103/0-3-8 (min. 0-1-8)
Max Horz 2=83(LC 11)
Max Uplift5=-94(LC 12), 2=-150(LC 8), 6=-37(LC 3)
Max Grav 5=325(LC 1), 2=489(LC 1), 7=231(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-14=-710/210, 3-14=-636/215
BOT CHORD 2-7=-276/647, 6-7=-276/647, 5-6=-276/647
WEBS 3-5=-669/263

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 8-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) All plates are 1.5x4 MT20 unless otherwise indicated.
4) Gable studs spaced at 1-4-0 oc.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 2=150.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #

19-03646

Permit Number: 20-04893

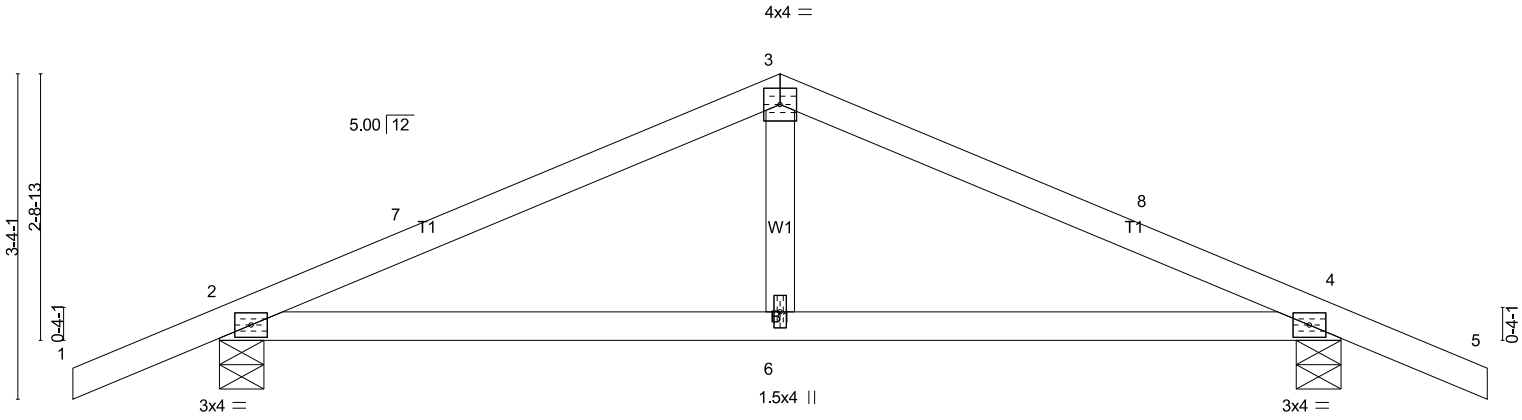
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T01	Common	2	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:09 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-Ec3mmG9WIMW290DO2Mu9TWPKBVvaejavGxpGAyyvWLm

-1-6-0 / 1-6-0 — 5-9-0 / 5-9-0 — 11-6-0 / 5-9-0 — 13-0-0 / 1-6-0

Scale = 1:23.6



5-9-0 / 5-9-0 — 11-6-0 / 5-9-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.02	2-6	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.05	2-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.01	4	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 40 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=625/0-5-8 (min. 0-1-8), 4=625/0-5-8 (min. 0-1-8)
Max Horz 2=43(LC 12)
Max Uplift2=-95(LC 12), 4=-95(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-735/99, 3-7=-649/116, 3-8=-649/116, 4-8=-735/100
BOT CHORD 2-6=-27/594, 4-6=-27/594

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 5-9-0, Exterior(2) 5-9-0 to 9-4-3, Interior(1) 9-4-3 to 13-0-0 zone; cantilever left and right exposed ; end vertical 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T01A	Common	2	1	Job Reference (optional)

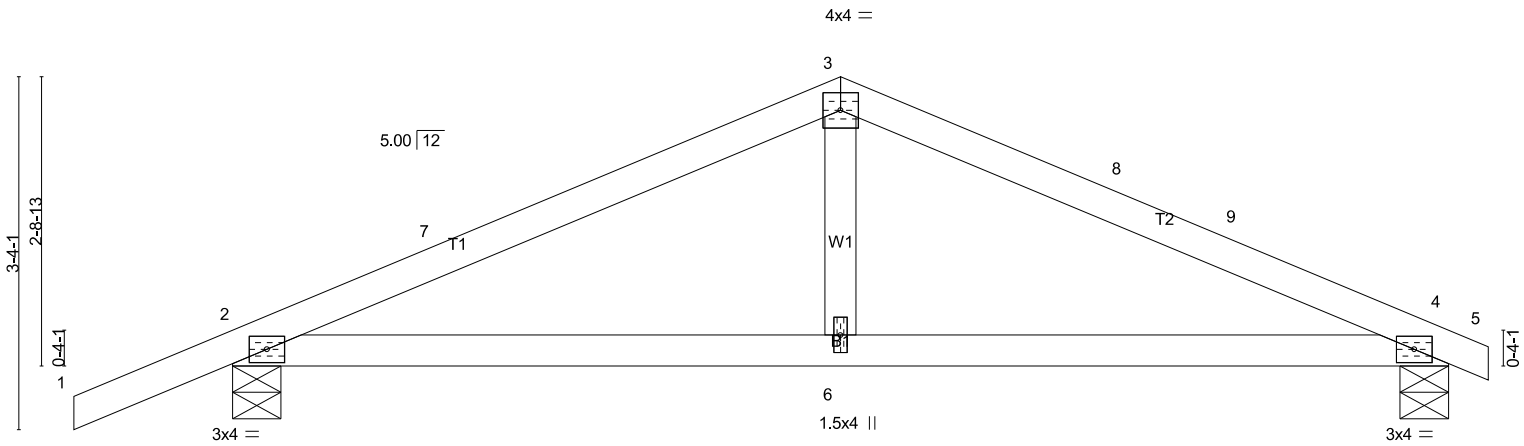
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:12 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-eBIuOHBO1Hud0UyzkVSs591phiupr4ILzv1wnHyvWLj

-1-6-0 | 5-9-0 | 11-6-0 | 11-10-8

1-6-0 | 5-9-0 | 5-9-0 | 0-4-8

Scale = 1:21.8



5-9-0 | 11-6-0

5-9-0 | 5-9-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.04	4-6	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.06	4-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.01	4	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 38 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=634/0-5-8 (min. 0-1-8), 4=533/0-5-8 (min. 0-1-8)
Max Horz 2=50(LC 16)
Max Uplift2=-96(LC 12), 4=-70(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-765/124, 3-7=-680/136, 3-8=-673/147, 8-9=-680/137, 4-9=-762/135
BOT CHORD 2-6=-71/622, 4-6=-71/622

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 5-9-0, Exterior(2) 5-9-0 to 9-4-3, Interior(1) 9-4-3 to 11-10-8 zone; cantilever left and right exposed ; end vertical 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #

19-03646

Permit Number: 20-04893

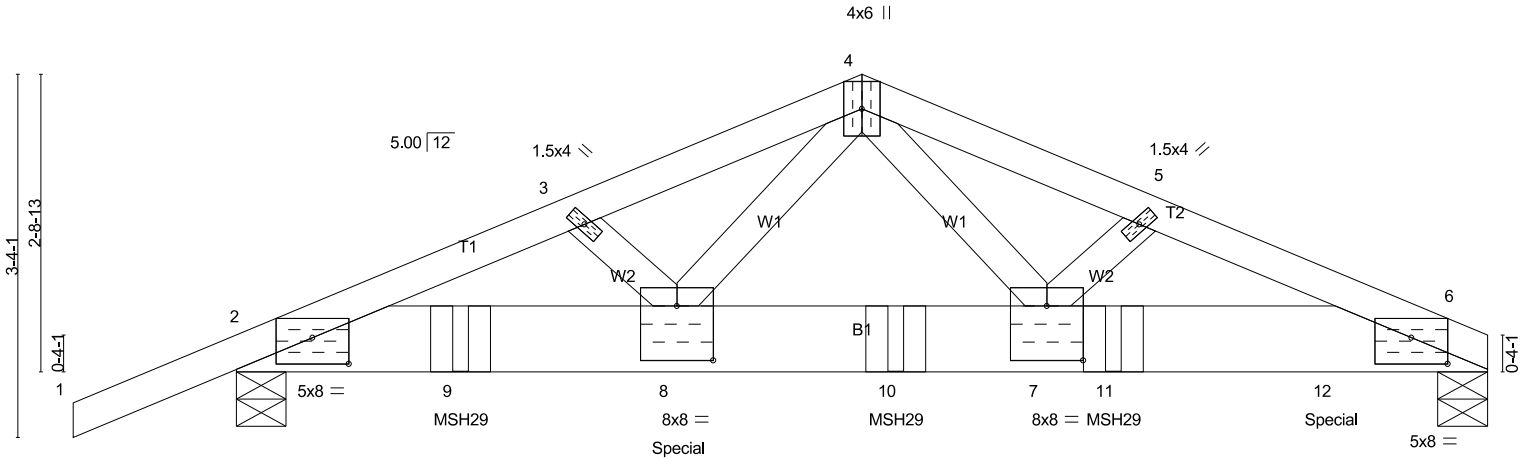
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T01B	Common Girder	2	2	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:16 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-Xy_PEfEv5WP3V5FkzKWoF?BWCJEMnpsxuX08w2yvWLf

-1-6-0	3-2-6	5-9-0	8-3-10	11-6-0
1-6-0	3-2-6	2-6-10	2-6-10	3-2-6

Scale = 1:21.2



4-0-10	7-5-6	11-6-0
4-0-10	3-4-13	4-0-10

Plate Offsets (X,Y)— [2:0-4-0,0-2-14], [6:0-4-0,0-2-14], [7:0-4-0,0-6-0], [8:0-4-0,0-6-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.09	7-8	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.02	6	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 123 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x8 DF SS
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=4162/0-5-8 (min. 0-2-4), 2=3919/0-5-8 (min. 0-2-1)
Max Horz 2=53(LC 8)
Max Uplift6=-539(LC 9), 2=-527(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7385/941, 3-4=-7254/927, 4-5=-7362/955, 5-6=-7490/970
BOT CHORD 2-9=-879/6785, 8-9=-879/6785, 8-10=-583/4766, 7-10=-583/4766, 7-11=-875/6895, 11-12=-875/6895, 6-12=-875/6895
WEBS 4-7=-443/3382, 4-8=-411/3217

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 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=539, 2=527.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use USP MSH29 (With 10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 4-0-0 oc max. starting at 2-0-12 from the left end to 8-0-12 to connect truss(es) T04 (1 ply 2x4 DF), T04A (1 ply 2x4 DF) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1392 lb down and 189 lb up at 4-0-12, and 1391 lb down and 189 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2

Established Basic Permit #
19-03646

Permit Number: 20-04893

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-74, 4-6=-74, 2-6=-16
Concentrated Loads (lb)
Vert: 8=-1392(B) 9=-1392(B) 10=-1392(B) 11=-1392(B) 12=-1391(B)

Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T02	Common	2	1	Job Reference (optional)

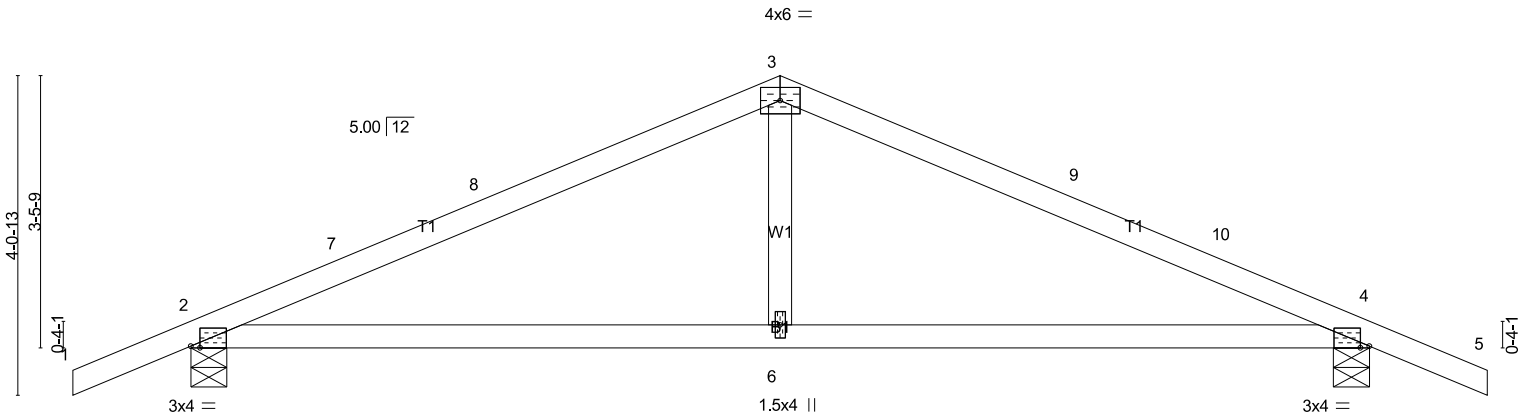
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:19 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-xXgYshGnORndMZ_JeT4VtdpxXXFL_FqNaUEoXNyvWLc

-1-6-0 | 7-6-0 | 15-0-0 | 16-6-0

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

Scale = 1:29.3



7-6-0 | 15-0-0

7-6-0 | 7-6-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.09	2-6	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.15	2-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.02	4	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 51 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=782/0-5-8 (min. 0-1-8), 4=782/0-5-8 (min. 0-1-8)
Max Horz 2=-53(LC 13)
Max Uplift2=-114(LC 12), 4=-114(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-7=-1017/114, 7-8=-909/124, 3-8=-908/136, 3-9=-908/136, 9-10=-909/124, 4-10=-1017/114
BOT CHORD 2-6=-41/833, 4-6=-41/833
WEBS 3-6=0/308

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 7-6-0, Exterior(2) 7-6-0 to 11-1-3, Interior(1) 11-1-3 to 16-6-0 zone; cantilever left and right exposed ; end vertical 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=114, 4=114.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T03	Common Girder	2	2	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:22 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-L6MgViJghM9CD0juJbdCVGRUtkKJBYKqGSTS7iyvWLZ

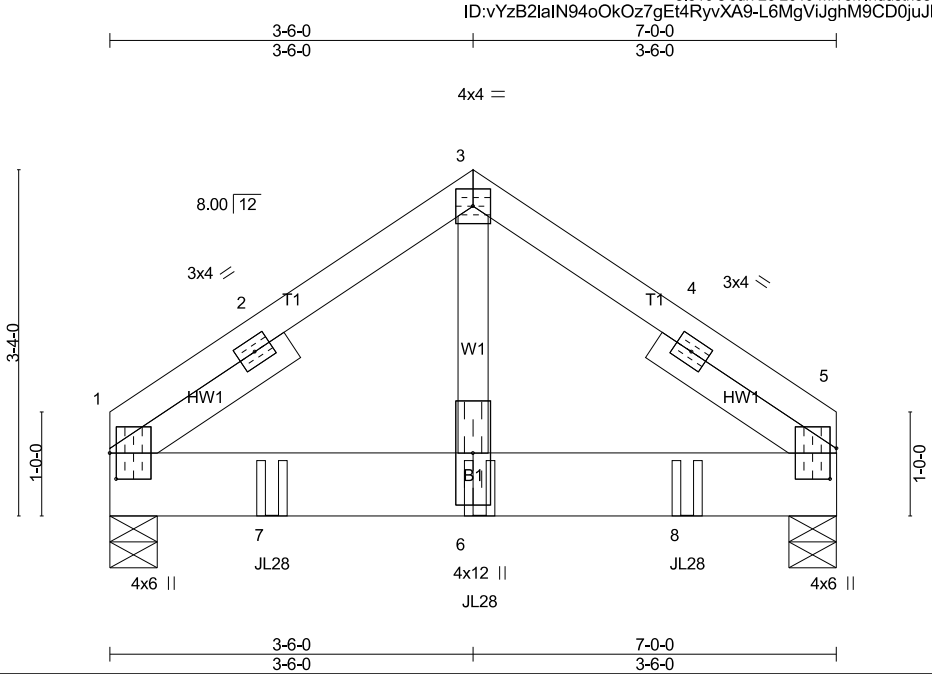


Plate Offsets (X,Y)— [1:0-3-0,0-0-12], [5:0-3-9,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.02	6	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.03	6	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.00	5	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-P							Weight: 81 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x8 DF SS
WEBS 2x4 DF No.2
SLIDER Left 2x4 DF No.2 -Œ 2-0-8, Right 2x4 DF No.2 -Œ 2-0-8

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. (lb/size) 1=2379/0-5-8 (min. 0-1-8), 5=2428/0-5-8 (min. 0-1-8)
Max Horz 1=-60(LC 23)
Max Uplift1=-285(LC 8), 5=-291(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2418/306, 2-3=-2350/314, 3-4=-2350/313, 4-5=-2417/306
BOT CHORD 1-7=-209/1825, 6-7=-209/1825, 6-8=-209/1825, 5-8=-209/1825
WEBS 3-6=-308/2719

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: 2x8 - 2 rows staggered at 0-6-0 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 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=285, 5=291.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use USP JL28 (With 10-16d nails into Girder & 6-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-6-12 from the left end to 5-6-12 to connect truss(es) T04A (1 ply 2x4 DF) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Continued on page 2

Established Basic Permit #
19-03646

Permit Number: 20-04893

LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-3=-74, 3-5=-74, 1-5=-16
Concentrated Loads (lb)
Vert: 6=-1392(B) 7=-1392(B) 8=-1392(B)

Established Basic Permit #
19-03646

Permit Number: 20-04893

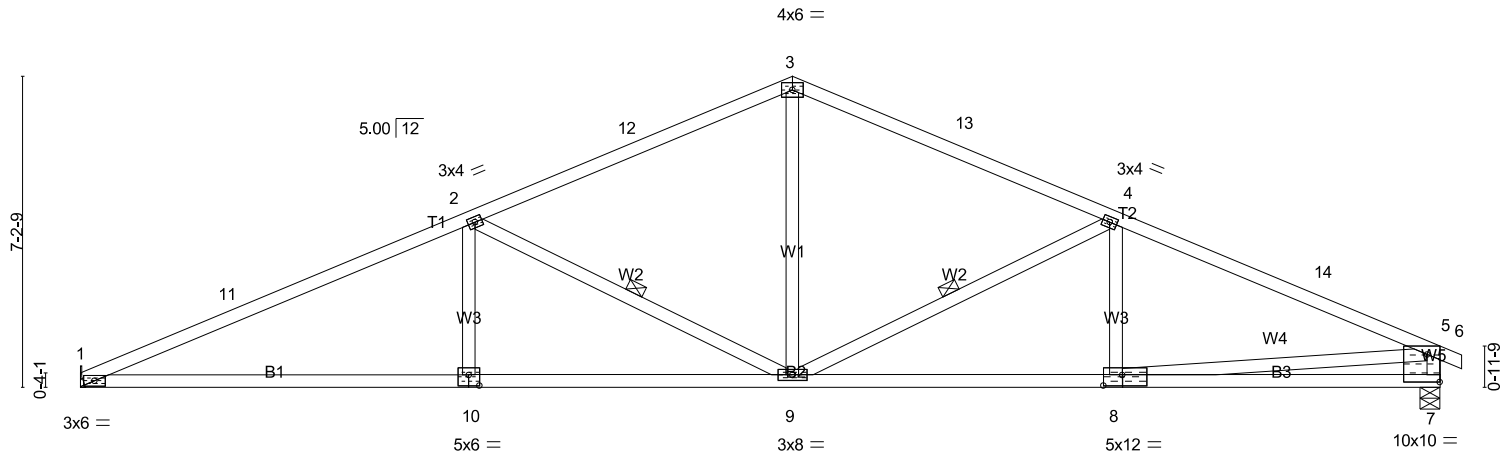
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T04	COMMON	2	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:25 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-mh1p7kLYzHXn4URT_jBv6u3yqxA5Nu?GyQh6k1yvWLW

9-0-0	16-6-0	24-0-0	31-6-0	32-0-2
9-0-0	7-6-0	7-6-0	7-6-0	0-6-2

Scale = 1:53.4



9-0-0	16-6-0	24-0-0	31-6-0
9-0-0	7-6-0	7-6-0	7-6-0

Plate Offsets (X,Y)— [7:Edge,0-7-11], [7:0-1-12,0-0-0], [8:0-5-4,0-3-0], [10:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.24	1-10	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.42	1-10	>901	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.09	7	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 140 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF 2400F 2.0E *Except*
T2: 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 1-10.
WEBS 1 Row at midpt 2-9, 4-9

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=1408/Mechanical, 7=1457/0-5-8 (min. 0-1-9)
Max Horz 1=96(LC 12)
Max Uplift1=-173(LC 12), 7=-175(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-2885/315, 2-11=-2771/333, 2-12=-1883/255, 3-12=-1758/277, 3-13=-1758/273, 4-13=-1875/262, 4-14=-2301/290, 5-14=-2489/275, 5-7=-1397/236
BOT CHORD 1-10=-329/2552, 9-10=-329/2552, 8-9=-202/2204, 7-8=-116/495
WEBS 2-10=0/324, 2-9=-1068/255, 3-9=-58/870, 4-9=-726/198, 5-8=-130/1718

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-12 to 3-7-15, Interior(1) 3-7-15 to 16-6-0, Exterior(2) 16-6-0 to 20-1-3, Interior(1) 20-1-3 to 32-0-2 zone; cantilever left and right exposed ; end vertical 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) 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=173, 7=175.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

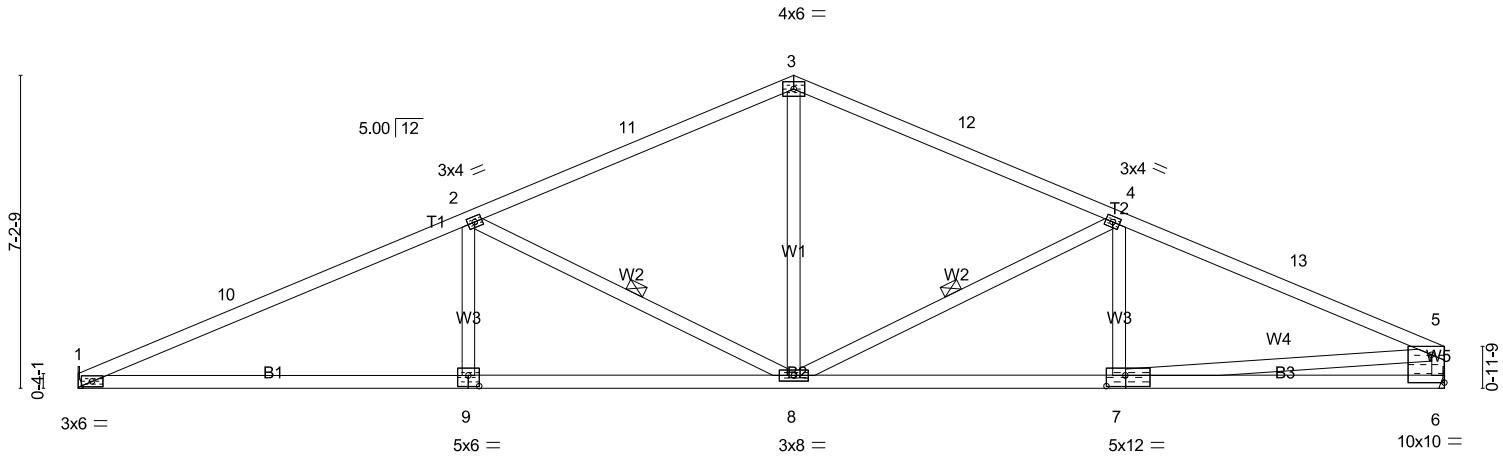
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T04A	COMMON	6	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:28 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-AGjyIlNRGCvMxxA2gskckXhSD9CpaEHieOwnLMyvWLT

9-0-0	16-6-0	24-0-0	31-6-0
9-0-0	7-6-0	7-6-0	7-6-0

Scale = 1:53.1



9-0-0	16-6-0	24-0-0	31-6-0
9-0-0	7-6-0	7-6-0	7-6-0

Plate Offsets (X,Y)— [6:Edge,0-7-11], [6:0-1-12,0-0-0], [7:0-5-4,0-3-0], [9:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.24	1-9	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.42	1-9	>900	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.09	6	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 140 lb	FT = 0%

LUMBER-

TOP CHORD 2x4 DF 2400F 2.0E *Except*
T2: 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 1-9.
WEBS 1 Row at midpt 2-8, 4-8

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=1408/Mechanical, 6=1408/Mechanical
Max Horz 1=100(LC 12)
Max Uplift1=-173(LC 12), 6=-162(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-2887/315, 2-10=-2773/333, 2-11=-1883/255, 3-11=-1758/277, 3-12=-1758/276, 4-12=-1877/254, 4-13=-2391/296, 5-13=-2493/282, 5-6=-1347/209
BOT CHORD 1-9=-333/2554, 8-9=-333/2554, 7-8=-225/2216, 6-7=-75/347
WEBS 2-9=0/324, 2-8=-1068/255, 3-8=-60/877, 4-8=-738/201, 5-7=-172/1878

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-12 to 3-7-15, Interior(1) 3-7-15 to 16-6-0, Exterior(2) 16-6-0 to 20-1-3, Interior(1) 20-1-3 to 31-4-4 zone; cantilever left and right exposed ; end vertical 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) 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=173, 6=162.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #

19-03646

Permit Number: 20-04893

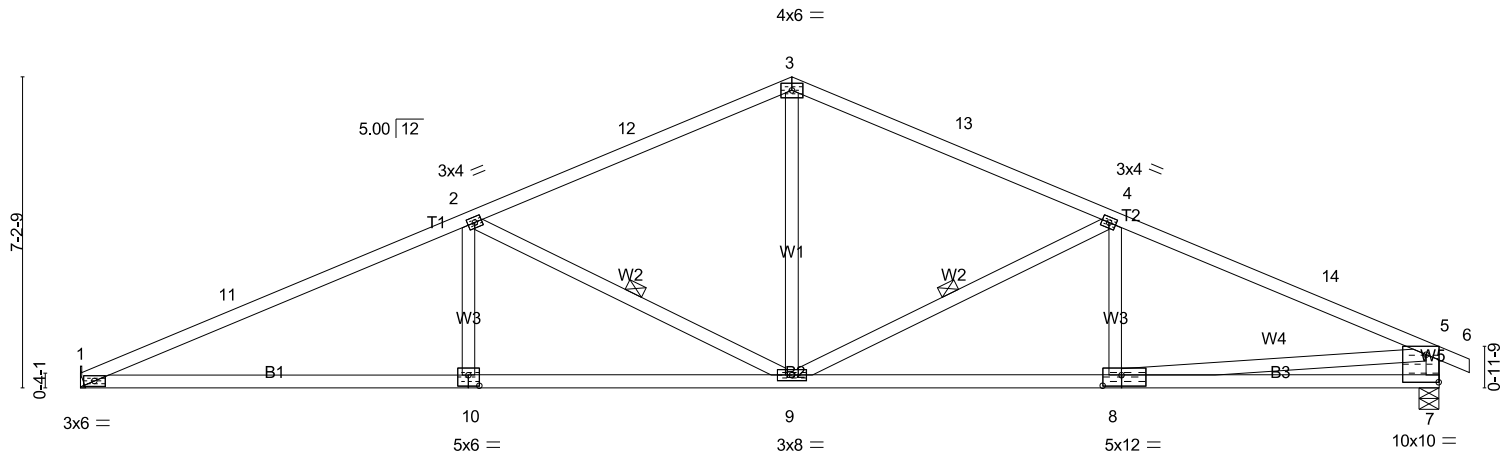
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T04B	COMMON	2	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:30 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-6friARPhopA3AFKQnHm4pymoYytH28D?6iPtQEyvWLR

9-0-0	16-6-0	24-0-0	31-6-0	32-2-8
9-0-0	7-6-0	7-6-0	7-6-0	0-8-8

Scale = 1:53.4



9-0-0	16-6-0	24-0-0	31-6-0
9-0-0	7-6-0	7-6-0	7-6-0

Plate Offsets (X,Y)— [7:Edge,0-7-11], [7:0-1-12,0-0-0], [8:0-5-4,0-3-0], [10:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.24	1-10	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.42	1-10	>901	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.09	7	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 141 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF 2400F 2.0E *Except*
T2: 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 1-10.
WEBS 1 Row at midpt 2-9, 4-9

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 1=1407/Mechanical, 7=1472/0-5-8 (min. 0-1-9)
Max Horz 1=95(LC 12)
Max Uplift1=-173(LC 12), 7=-179(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-11=-2884/315, 2-11=-2770/333, 2-12=-1882/255, 3-12=-1757/277, 3-13=-1757/272, 4-13=-1874/260, 4-14=-2298/287, 5-14=-2487/272, 5-7=-1412/244
BOT CHORD 1-10=-328/2551, 9-10=-328/2551, 8-9=-195/2202, 7-8=-112/483
WEBS 2-10=0/324, 2-9=-1068/255, 3-9=-58/870, 4-9=-725/197, 5-8=-130/1727

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-12 to 3-7-15, Interior(1) 3-7-15 to 16-6-0, Exterior(2) 16-6-0 to 20-1-3, Interior(1) 20-1-3 to 32-2-8 zone; cantilever left and right exposed ; end vertical 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) 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=173, 7=179.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

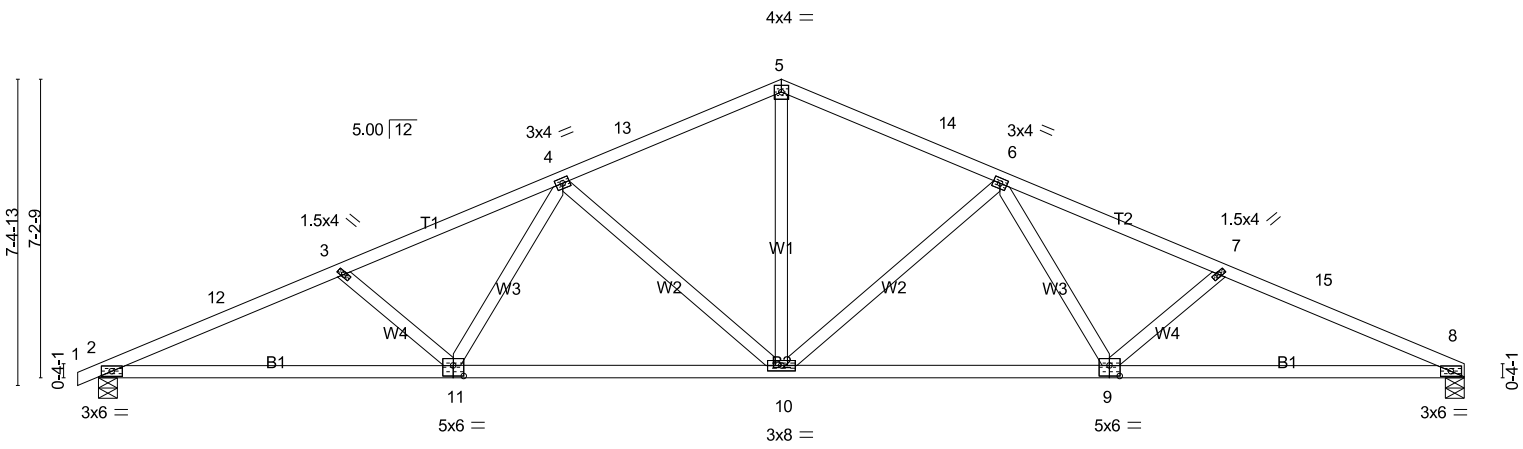
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T04C	Common	2	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:33 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-XEWroTRZ5kYe1i3?SPKnRaOMqAy1FR3RogdX0ZyvWLO

-0-6-0	5-11-3	11-2-10	16-6-0	21-9-6	27-0-13	33-0-0
0-6-0	5-11-3	5-3-6	5-3-6	5-3-6	5-3-6	5-11-3

Scale = 1:55.7



8-6-14	16-6-0	24-5-2	33-0-0
8-6-14	7-11-2	7-11-2	8-6-14

Plate Offsets (X,Y)— [9:0-3-0,0-3-0], [11:0-3-0,0-3-0]

LOADING (psf)		**SPACING-** 2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	30.0	Plate Grip DOL 1.15	TC	0.59	Vert(LL)	-0.21	10	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL 1.15	BC	0.77	Vert(CT)	-0.33	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr YES	WB	0.58	Horz(CT)	0.12	8	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014	Matrix-SH							Weight: 145 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-11-3 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 8=1464/0-5-8 (min. 0-1-9), 2=1519/0-5-8 (min. 0-1-10)
Max Horz 2=103(LC 12)
Max Uplift8=-175(LC 13), 2=-189(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-3132/367, 3-12=-3047/377, 3-4=-2805/330, 4-13=-1974/274, 5-13=-1893/289, 5-14=-1893/292, 6-14=-1974/277, 6-7=-2809/342, 7-15=-3031/381, 8-15=-3121/371
BOT CHORD 2-11=-394/2801, 10-11=-257/2294, 9-10=-199/2296, 8-9=-298/2807
WEBS 5-10=-106/1095, 6-10=-752/202, 6-9=-36/472, 7-9=-394/163, 4-10=-750/201, 4-11=-34/467, 3-11=-390/162

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-6-0 to 3-1-3, Interior(1) 3-1-3 to 16-6-0, Exterior(2) 16-6-0 to 20-1-3, Interior(1) 20-1-3 to 32-9-4 zone; cantilever left and right exposed ; end vertical 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=175, 2=189.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

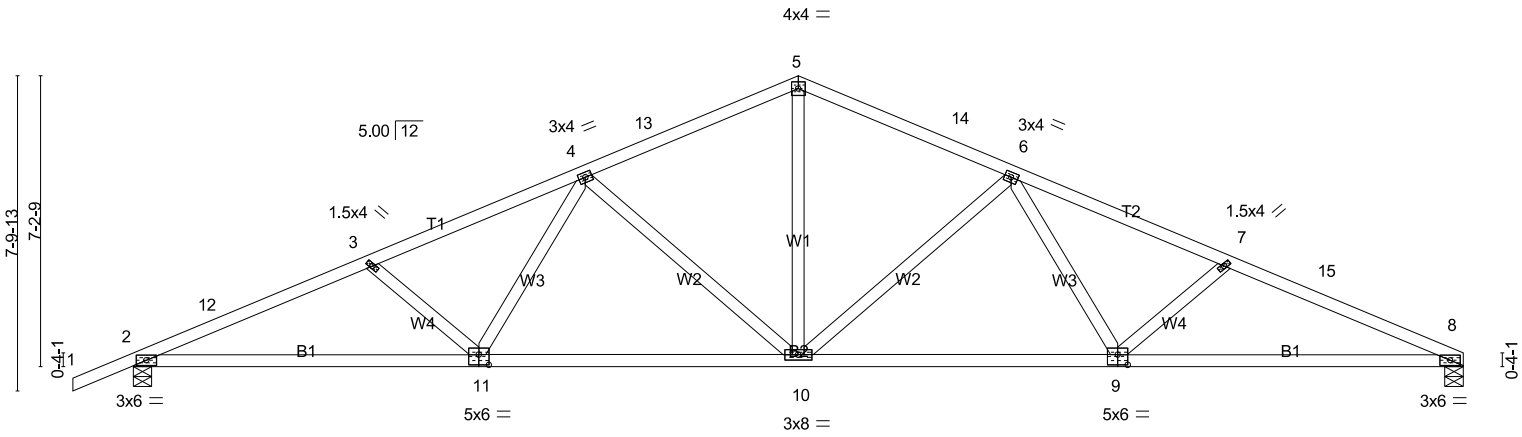
Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T04D	Common	4	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:36 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-xpCzRVUSOfwDuAna8XtU3D0t4NzISoouUesCduyvWLL

-1-6-0	5-11-3	11-2-10	16-6-0	21-9-6	27-0-13	33-0-0
1-6-0	5-11-3	5-3-6	5-3-6	5-3-6	5-3-6	5-11-3

Scale = 1:57.2



8-6-14	16-6-0	24-5-2	33-0-0
8-6-14	7-11-2	7-11-2	8-6-14

Plate Offsets (X,Y)— [9:0-3-0,0-3-0], [11:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.21	10-11	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.33	10-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.12	8	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-SH							Weight: 146 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 8=1461/0-5-8 (min. 0-1-9), 2=1596/0-5-8 (min. 0-1-11)
Max Horz 2=115(LC 12)
Max Uplift8=-174(LC 13), 2=-210(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-12=-3100/350, 3-12=-3022/367, 3-4=-2779/317, 4-13=-1968/267, 5-13=-1887/282, 5-14=-1887/291, 6-14=-1967/276, 6-7=-2802/340, 7-15=-3024/379, 8-15=-3114/369
BOT CHORD 2-11=-383/2767, 10-11=-252/2281, 9-10=-192/2289, 8-9=-298/2800
WEBS 5-10=-105/1091, 6-10=-752/202, 6-9=-36/471, 7-9=-394/163, 4-10=-741/198, 4-11=-28/448, 3-11=-376/157

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 16-6-0, Exterior(2) 16-6-0 to 20-1-3, Interior(1) 20-1-3 to 32-9-4 zone; cantilever left and right exposed ; end vertical 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=174, 2=210.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

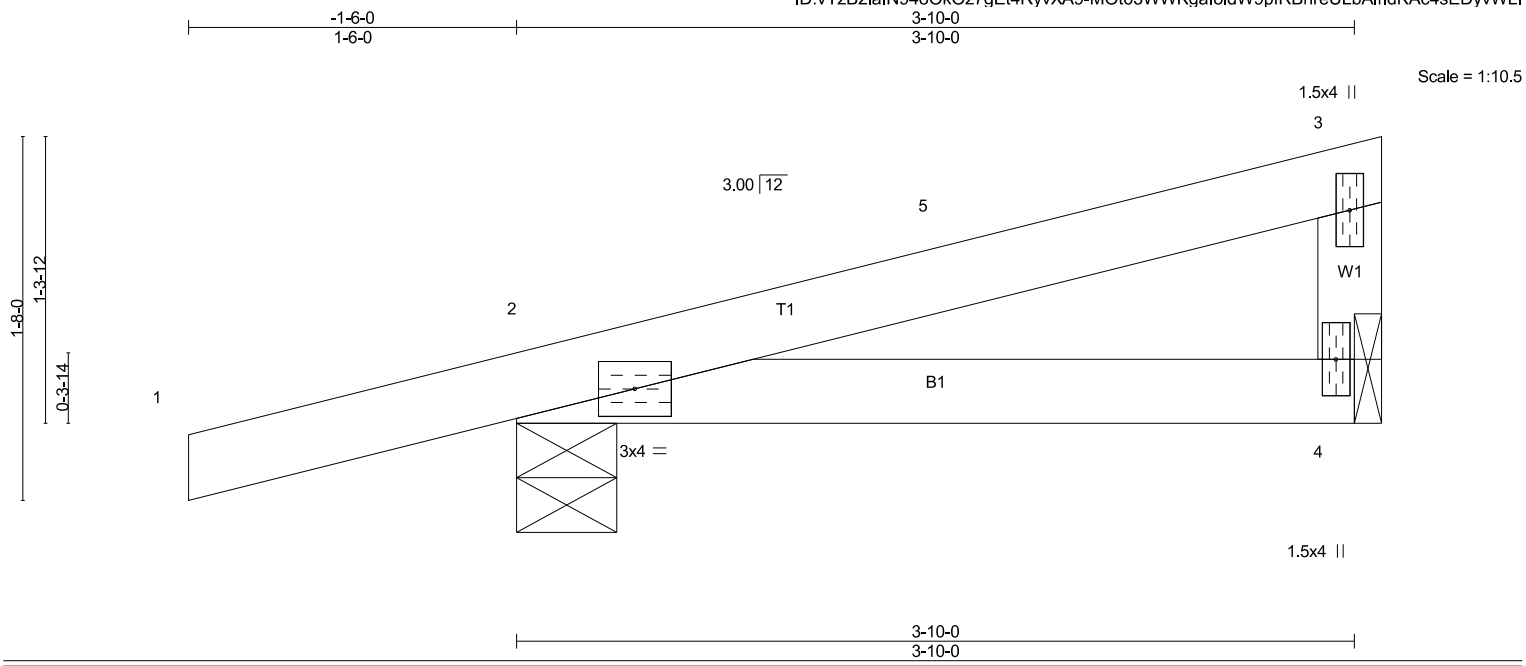
Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T05	MONOPITCH	4	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:39 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-MOt63WWKgaIoldW9pfRBhreULbAlfIdKAc4sEDyvWLI



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	2-4	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.02	2-4	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-P							Weight: 14 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 4=130/Mechanical, 2=320/0-5-8 (min. 0-1-8)
Max Horz 2=40(LC 9)
Max Uplift4=-20(LC 12), 2=-102(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 3-9-12 zone; cantilever left and right exposed ; end vertical 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=102.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

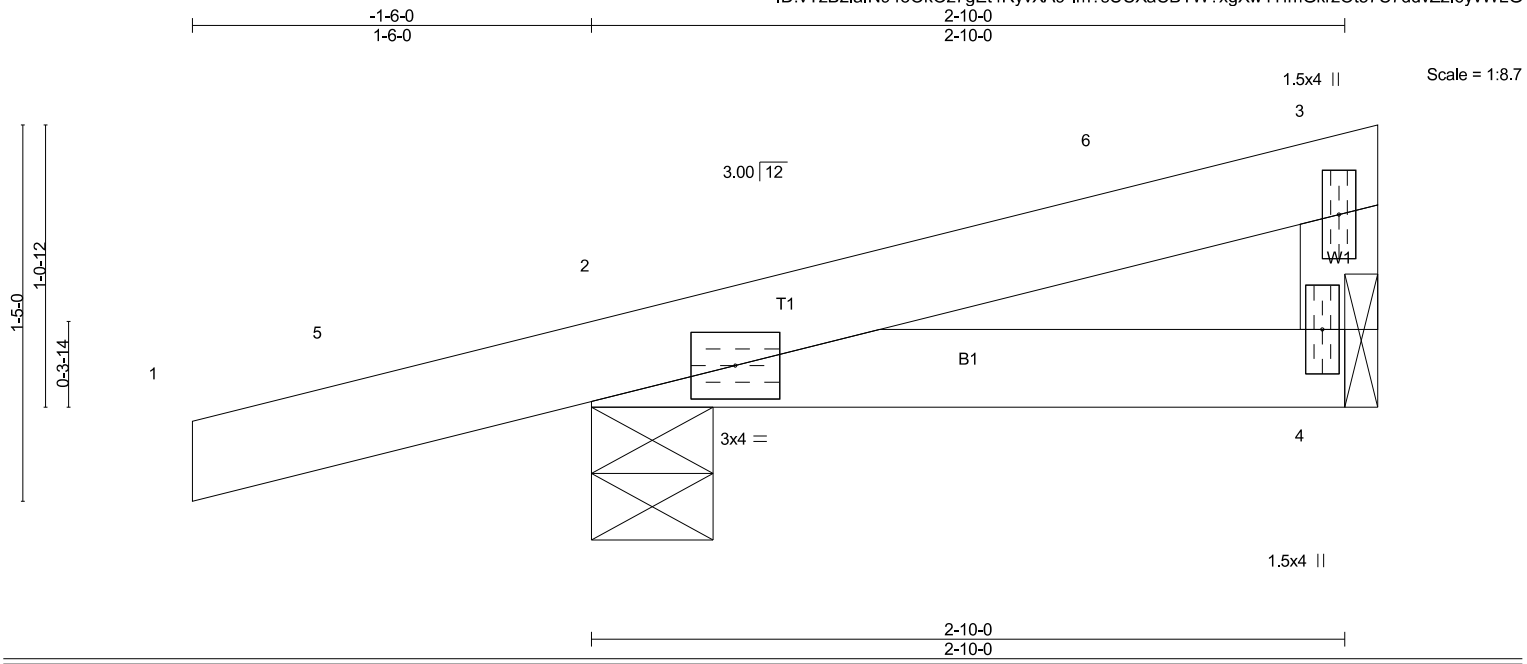
Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T05A	MONOPITCH	6	1	Job Reference (optional)

Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:41 2019 Page 1

ID:vYzB2laIN94oOkOz7gEt4RyvXA9-Im?sUCXaCBYW?xgXw4TfmGkrzOt57C7ddvZzI6yvWLG



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.00	2-4	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	2-4	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-P							Weight: 11 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 4=73/Mechanical, 2=287/0-5-8 (min. 0-1-8)
Max Horz 2=31(LC 9)
Max Uplift4=-9(LC 12), 2=-101(LC 8)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 2-9-12 zone; cantilever left and right exposed ; end vertical 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=101.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #
19-03646

Permit Number: 20-04893

Job	Truss	Truss Type	Qty	Ply	ENVISION NW/ENVISION LAND DUPLEX
1904005	T06	MONOPITCH	6	1	Job Reference (optional)

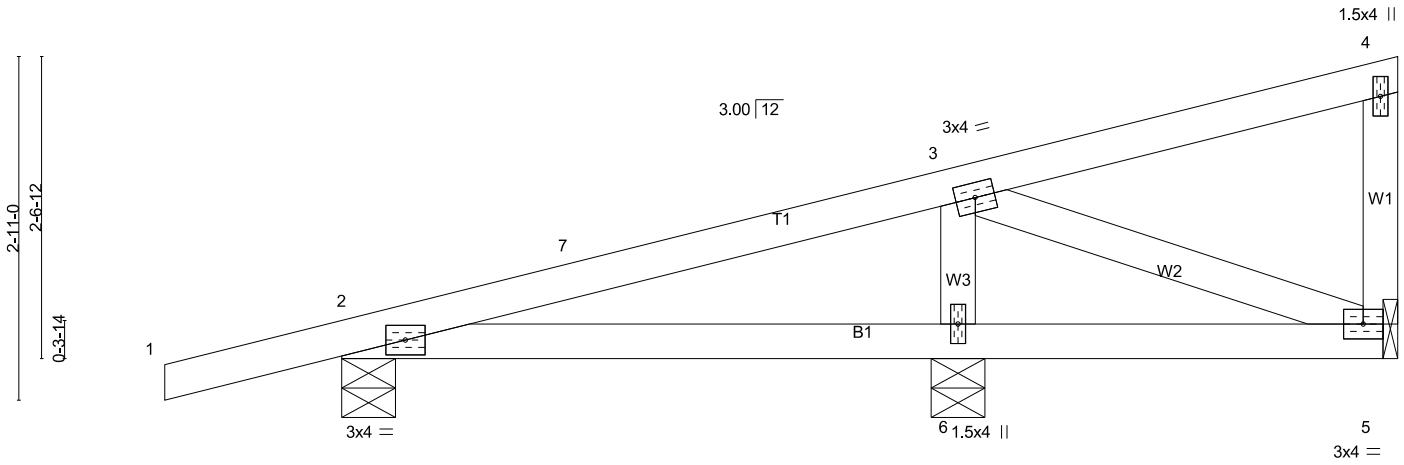
Louws Truss, Inc., Ferndale, WA 98248 — 8.310 s Jun 26 2019 MiTek Industries, Inc. Mon Jul 22 10:19:44 2019 Page 1

ID:vYzB2IaIN94oOkOz7gEt4RyvXA9-iLh?6EaTV6w4sPO6cD1MOvMJ7csFKYF3KtodvQyvWLD

-1-6-0 | 5-2-12 | 8-10-0 | 8-11-8

1-6-0 | 5-2-12 | 3-7-4 | 0-1-8

Scale = 1:19.5



5-2-12 | 8-10-0

5-2-12 | 3-7-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	30.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.02	2-6	>999	240	MT20	220/195
TCDL	7.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.03	2-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	8.0	Code IRC2015/TPI2014		Matrix-P							Weight: 35 lb	FT = 0%

LUMBER-
TOP CHORD 2x4 DF No.2
BOT CHORD 2x4 DF No.2
WEBS 2x4 DF No.2

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.

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 5=114/Mechanical, 2=341/0-5-8 (min. 0-1-8), 6=445/0-5-8 (min. 0-1-8)
Max Horz 2=83(LC 9)
Max Uplift5=-27(LC 8), 2=-102(LC 8), 6=-68(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-357/132

NOTES-
1) Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=4.2psf; BCDL=4.8psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-6-0 to 2-1-3, Interior(1) 2-1-3 to 8-9-12 zone; cantilever left and right exposed ; end vertical 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) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 2=102.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

Established Basic Permit #

19-03646

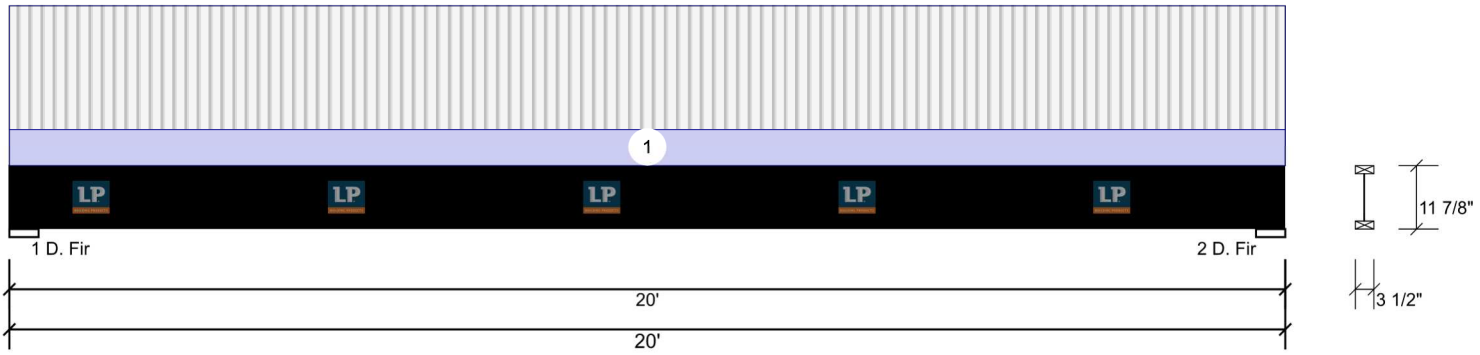
Permit Number: 20-04893

LP SolidStart® DESIGN SOFTWARE

Client:	Rachel Roupe - Envision Norhtwest	Date:	7/18/2019
Project:	DUPLEX 19120	Designer:	DAYTON CROYDON
Address:		Job Name:	DUPLEX 19120
		Project #:	IWP24857

J2 THIRD LEVEL LPI 56 11.875" - PASSED

Level: Level



Member Information

Type:	Joist	Application:	Floor
Spacing:	16" o.c.	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	23/32 APA Rated Sturd-I-FloorOSB Nailed and Glued
Importance:	Normal	Vibration:	OK
Temperature:	Temp <= 100°F	Vibration Span:	20-2-9 (95%)

Reactions PATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	533	160	0	0	0
2	533	160	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - D. Fir	5.500"	46%	160 / 533	693	L	D+L
2 - D. Fir	5.500"	46%	160 / 533	693	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3198 ft-lb	10'	10170 ft-lb	0.314 (31%)	D+L	L
Shear	666 lb	4 3/4"	2055 lb	0.324 (32%)	D+L	L
LL Defl inch	0.252 (L/915)	10' 1/16"	0.480 (L/480)	0.520 (52%)	L	L
TL Defl inch	0.328 (L/704)	10' 1/16"	0.960 (L/240)	0.340 (34%)	D+L	L
LL Bare Defl	0.280 (L/822)	10' 1/16"	0.640 (L/360)	0.440 (44%)	L	40 PSF L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.076", Long Term = 0.113"
3 Bottom flange braced at bearings.

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-4-0	12 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLR

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the structure(s)

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L238, ICC-ES: ESR-1305, LADBS: RR-25099, Florida: FL15401

INTERNATION WOOD PRODUCTS
14421 SE 98TH CT. , OREGON
USA
97015
503-650-9663

Clackamas EWP Department — IWP — Building a reputation... not resting on one.

Established Basic Permit # 19-03646

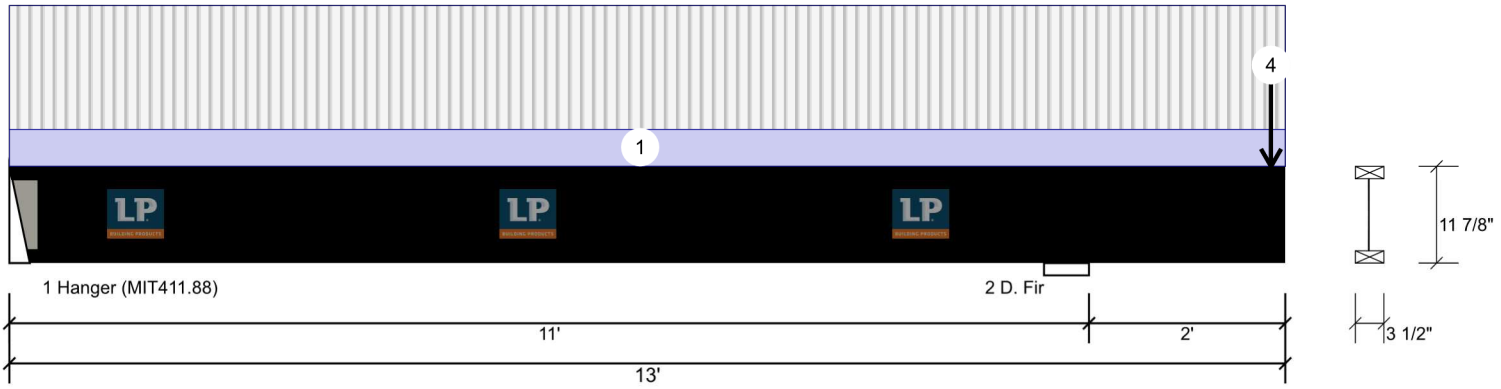
Permit Number: 20-04893

SOLIDSTART® DESIGN SOFTWARE

Client:	Rachel Roupe - Envision Norhtwest	Date:	7/18/2019
Project:	DUPLEX 19120	Designer:	DAYTON CROYDON
Address:		Job Name:	DUPLEX 19120
		Project #:	IWP24857

J2-13 SECOND LPI 56 11.875" - PASSED

Level: Level



Member Information

Type:	Joist	Application:	Floor
Spacing:	16" o.c.	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	23/32 APA Rated Sturd-I-FloorOSB Nailed and Glued
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	291 (-195)	(-36)	0 (-36)	0	0
2	1671	914	236	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.500"	14%	-36 / 291	255 (-231)	L_	D+L
2 - D. Fir	5.500"	70%	914 / 1671	2585	LL	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-3466 ft-lb	11'	10170 ft-lb	0.341 (34%)	D+L	_L
Pos Moment	431 ft-lb	3'8 1/16"	10170 ft-lb	0.042 (4%)	D+L	L_
Shear	1875 lb	11'	2055 lb	0.912 (91%)	D+L	LL
LL Defl inch	0.036 (L/3579)	6'3 3/8"	0.266 (L/480)	0.130 (13%)	L	_L
TL Defl inch	0.048 (L/2637)	6'5 1/4"	0.531 (L/240)	0.090 (9%)	D+L	_L
LL Cant	0.078 (2L/612)	Rt Cant	0.200 (2L/480)	0.392 (39%)	L	_L
TL Cant	0.123 (2L/391)	Rt Cant	0.300 (2L/240)	0.409 (41%)	D+L	_L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.013", Long Term = 0.019"
3 Fill all hanger nailing holes.
4 Tie-down connection required at bearing 1 for uplift 231 lb (Combination D+L, Load Case _L).
5 Bottom flange must be laterally braced at a maximum of 9'7" o.c.
6 Web stiffeners required at Bearing 1.

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-4-0	12 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLR
2	Point	12-10-4		160 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
	Bearing Length	0-3-12							
3	Point	12-10-4		102 PLF	0 PLF	150 PLF	0 PLF	0 PLF	ROOF

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the structure(s) specified.

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L238, ICC-ES: ESR-1305, LADBS: RR-25099, Florida: FL15401

INTERNATION WOOD PRODUCTS
14421 SE 98TH CT. , OREGON
USA
97015
503-650-9663

Clackamas EWP Department — IWP — Building a reputation... not resting on one.

Established Basic Permit # 19-03646

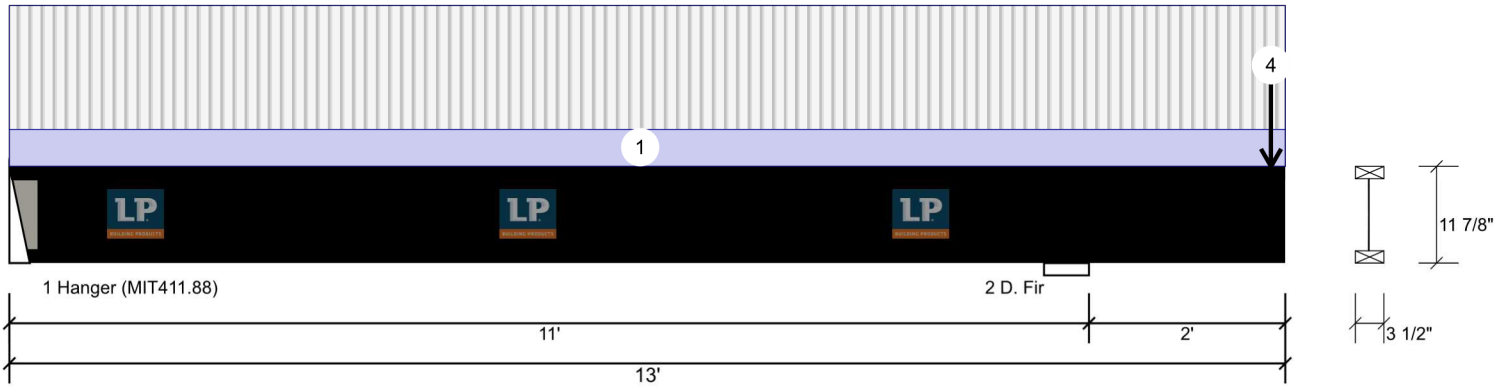
Permit Number: 20-04893

SOLIDSTART® DESIGN SOFTWARE

Client:	Rachel Roupe - Envision Norhtwest	Date:	7/18/2019
Project:	DUPLEX 19120	Designer:	DAYTON CROYDON
Address:		Job Name:	DUPLEX 19120
		Project #:	IWP24857

J2-13 SECOND LPI 56 11.875" - PASSED

Level: Level



...Continued from page 1

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
	Bearing Length	0-3-12							
4	Point	12-10-4		240 PLF	800 PLF	0 PLF	0 PLF	0 PLF	THRID FLR
	Bearing Length	0-3-12							

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the structure(s) listed.

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L238, ICC-ES: ESR-1305, LADBS: RR-25099, Florida: FL15401

INTERNATION WOOD PRODUCTS
14421 SE 98TH CT. , OREGON
USA
97015
503-650-9663

Clackamas EWP Department
IWP
Building a reputation... not resting on one.

Established Basic Permit # 19-03646

Permit Number: 20-04893

DUPLEX 19120 ENVISION NORTHWEST

Address

Tracking # IWP24857 - Main House (or right click to rename) **Itemized List (Q/L)**

Client / PO# Rachel Roupe - Envision Northwest **Report Time** 7/29/2019 2:34 PM

Estimator Dayton Croydon **Arch. Date** n/a **Struct. Date** n/a

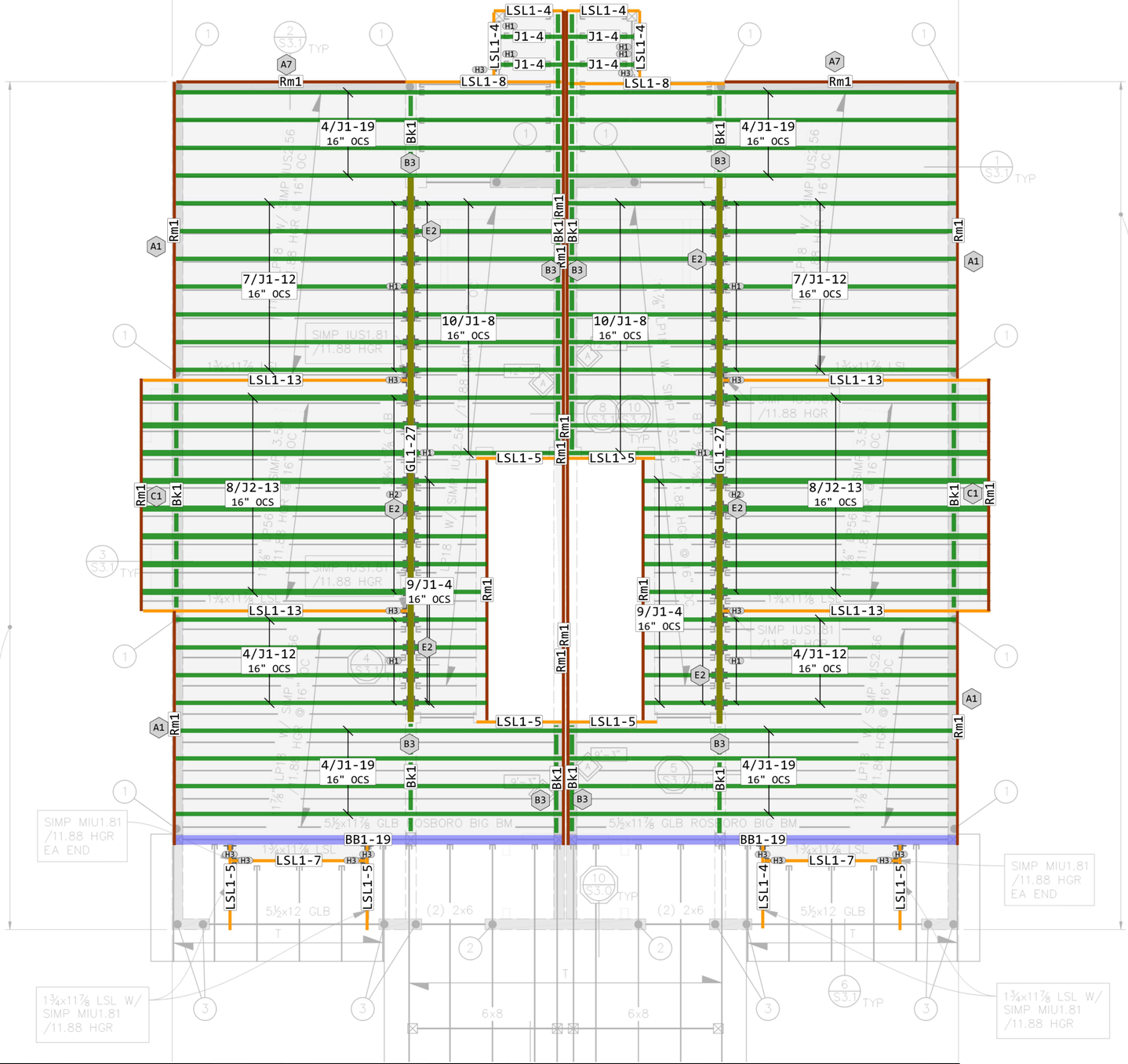
Line #	Quantity	Product Description	Product Application
		MAIN LEVEL FRAMING Materials	
1	38	5-7/16"x11-7/8" Rosboro BigBeam	Beam
1		2/19	Qty/Length
2	54	3-1/2"x11-7/8" Rosboro X-Beam	Beam
2		2/27	Qty/Length
3	137	1-3/4"x11-7/8" SolidStart LSL	Beam
3		4/13 2/8 2/7 7/5 5/4	Qty/Length
4	208	3-1/2"x11-7/8" LPI 56	Floor Joist
4		16/13	Qty/Length
5	816	2-1/2"x11-7/8" LPI 18	Floor Joist
5		16/19 22/12 20/8 22/4	Qty/Length
6	78	2-1/2"x11-7/8" R/L LPI 18	Floor Joist Blocking
7	208	1-3/4"x11-7/8" R/L SolidStart LSL	Rim
8	47	23/32"x4'x8'	Floor Decking
9	14	HU11 Simpson Strong Tie	Hanger
10	64	IUS2.56/11.88 Simpson Strong Tie	Hanger
11	16	IUS3.56/11.88 Simpson Strong Tie	Hanger
12	25	Construction Adhesive (1 Qt.)	Adhesive
		UPPER LEVEL FRAMING Materials	
13	38	3-1/2"x11-7/8" SolidStart LVL	Beam
13		2/19	Qty/Length
14	103	1-3/4"x11-7/8" SolidStart LSL	Beam
14		2/20 2/8 4/7 3/5 1/4	Qty/Length
15	422	3-1/2"x11-7/8" LPI 56	Floor Joist
15		10/20 8/19 10/7	Qty/Length
16	500	2-1/2"x11-7/8" LPI 18	Floor Joist
16		12/17 8/15 8/12 6/11 2/7	Qty/Length
17	46	2-1/2"x11-7/8" R/L LPI 18	Floor Joist Blocking
18	233	1-3/4"x11-7/8" R/L SolidStart LSL	Rim
19	41	23/32"x4'x8'	Floor Decking
20	2	HU11 Simpson Strong Tie	Hanger
21	6	IUS2.56/11.88 Simpson Strong Tie	Hanger
22	10	IUS3.56/11.88 Simpson Strong Tie	Hanger
23	24	Construction Adhesive (1 Qt.)	Adhesive

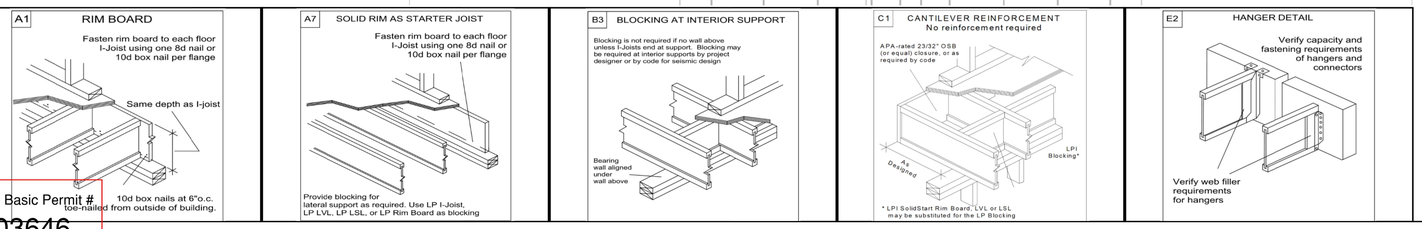
Established Basic Permit #

19-03646

Permit Number: 20-04893

Tag	Qty	Product	Len
Floor Joist			
J2	16	3-1/2"x11-7/8" LPI 56	13'
J1	16	2-1/2"x11-7/8" LPI 18	19'
J1	22	2-1/2"x11-7/8" LPI 18	12'
J1	20	2-1/2"x11-7/8" LPI 18	8'
J1	22	2-1/2"x11-7/8" LPI 18	4'
Floor Joist Blocking			
Bk1	78	2-1/2"x11-7/8" LPI 18	R/L
Beam			
LSL1	4	1-3/4"x11-7/8" SolidStart LSL	13'
LSL1	2	1-3/4"x11-7/8" SolidStart LSL	8'
LSL1	2	1-3/4"x11-7/8" SolidStart LSL	7'
LSL1	7	1-3/4"x11-7/8" SolidStart LSL	5'
LSL1	5	1-3/4"x11-7/8" SolidStart LSL	4'
Beam			
GL1	2	3-1/2"x11-7/8" Rosboro X-Beam	27'
Beam			
BB1	2	5-7/16"x11-7/8" Rosboro BigBeam	19'
Rim			
Rm1	208	1-3/4"x11-7/8" SolidStart LSL	R/L
Hanger			
H1	64	US2.56/11.88 Simpson Strong Tie	
H2	16	US3.56/11.88 Simpson Strong Tie	
H3	14	HU11 Simpson Strong Tie	
Floor Decking			
	47	23/32"x4'x8'	





Established Basic Permit #
19-03646

Permit Number: 20-04893

DUPLEX 19120 ENVISION NORTHWEST

SECOND LEVEL LAYOUT

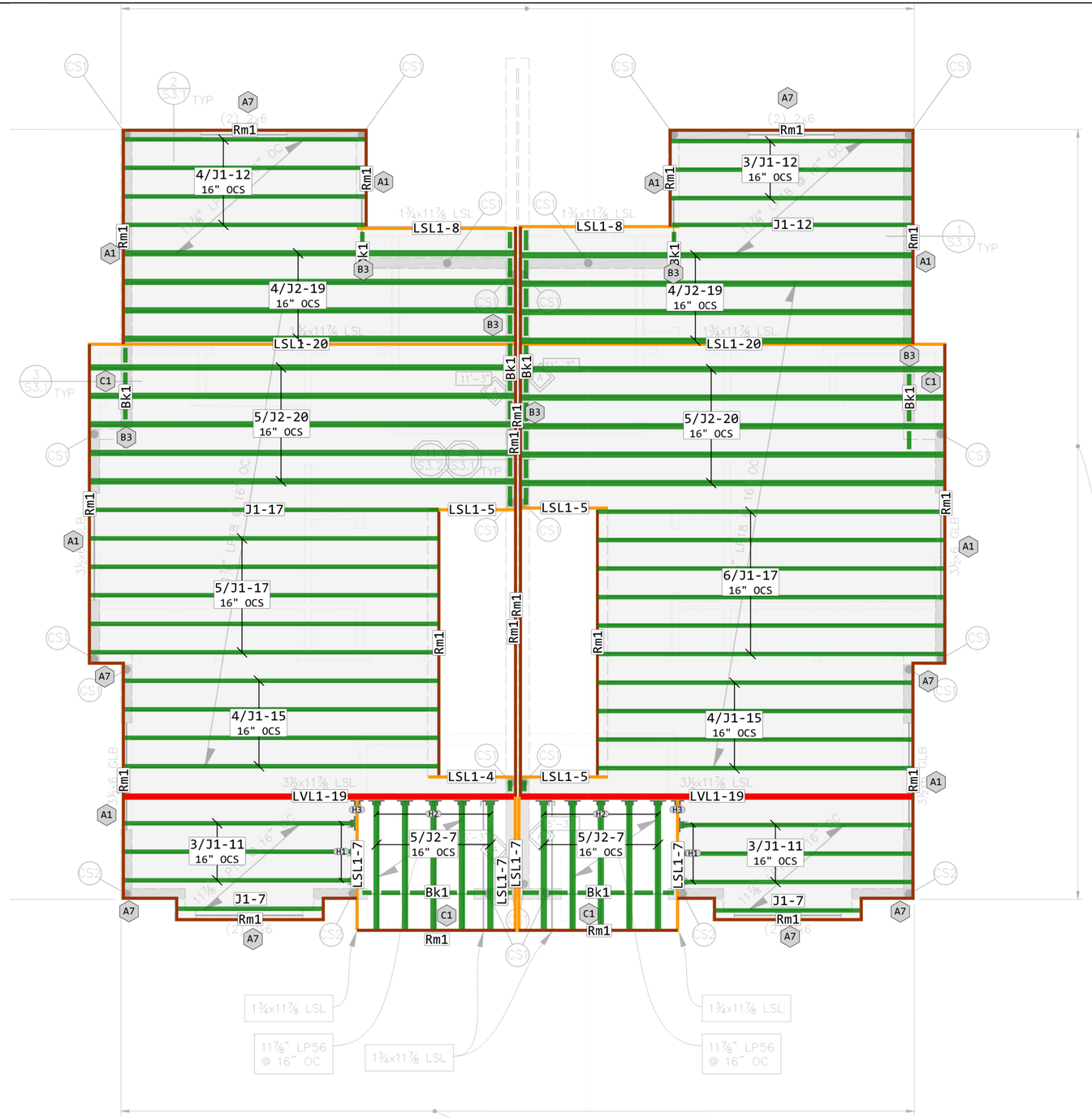
International Wood Products

These placement plans for the products specified were based on the information provided to us. This service is solely intended for product application assurance; it is not intended to circumvent the need for a design professional as determined by the building codes. The designer of record and/or builder/framer is responsible to assure these drawings are compatible with the overall project.

Estimator: **Dayton Croydon**

Tracking: **IWP24857**

Sheet 1 of 1



Tag	Qty	Product	Len
Floor Joist			
J1	12	2-1/2"x11-7/8" LPI 18	17'
J1	8	2-1/2"x11-7/8" LPI 18	15'
J1	8	2-1/2"x11-7/8" LPI 18	12'
J1	6	2-1/2"x11-7/8" LPI 18	11'
J1	2	2-1/2"x11-7/8" LPI 18	7'
J2	10	3-1/2"x11-7/8" LPI 56	20'
J2	8	3-1/2"x11-7/8" LPI 56	19'
J2	10	3-1/2"x11-7/8" LPI 56	7'
Floor Joist Blocking			
Bk1	46	2-1/2"x11-7/8" LPI 18	R/L
Beam			
LSL1	2	1-3/4"x11-7/8" SolidStart LSL	20'
LSL1	2	1-3/4"x11-7/8" SolidStart LSL	8'
LSL1	4	1-3/4"x11-7/8" SolidStart LSL	7'
LSL1	3	1-3/4"x11-7/8" SolidStart LSL	5'
LSL1	1	1-3/4"x11-7/8" SolidStart LSL	4'
Beam			
LVL1	2	3-1/2"x11-7/8" SolidStart LVL	19'
Rim			
Rm1	233	1-3/4"x11-7/8" SolidStart LSL	R/L
Hanger			
H1	6	US2.56/11.88 Simpson Strong Tie	
H2	10	US3.56/11.88 Simpson Strong Tie	
H3	2	HU11 Simpson Strong Tie	
Floor Decking			
	41	23/32"x4'x8'	

A1 RIM BOARD

Fasten rim board to each floor I-Joist using one 8d nail or 10d box nail per flange

Same depth as I-joist

10d box nails at 6"o.c. toe-nailed from outside of building.

A7 SOLID RIM AS STARTER JOIST

Fasten rim board to each floor I-Joist using one 8d nail or 10d box nail per flange

Provide blocking for lateral support as required. Use LP I-Joist, LP LVL, LP LSL, or LP Rim Board as blocking

B3 BLOCKING AT INTERIOR SUPPORT

Blocking is not required if no wall above unless I-Joists end at support. Blocking may be required at interior supports by project designer or by code for seismic design

Bearing wall aligned under wall above

C1 CANTILEVER REINFORCEMENT
No reinforcement required

APA-rated 23/32" OSB (or equal) closure, or as required by code

As Designed

LPI Blocking*

* LPI SolidStart Rim Board, LVL or LSL may be substituted for the LP Blocking

Established Basic Permit #
19-03646

Permit Number: 20-04893

DUPLEX 19120 ENVISION NORTHWEST

THIRD LEVEL LAYOUT

International Wood Products

These placement plans for the products specified were based on the information provided to us. This service is solely intended for product application assurance; it is not intended to circumvent the need for a design professional as determined by the building codes. The designer of record and/or builder/framer is responsible to assure these drawings are compatible with the overall project.

Estimator: **Dayton Croydon**

Tracking: **IWP24857**

Sheet 1 of 1