281 VA 2015 Warren 19021700OPT A2 15 ATTIC 1 Job Reference (optional) 8.240 s Feb 11 2019 MiTek Industries, Inc. Wed Apr 10 11:46:49 2019 Page 1 ID:B3Zv6XULS7RyEf4Zj2p1\_vzIDLW-Skiz1OyBC6y6dg3nDQ1I5LABLzP4iUQS9s\_53yzS8YK 18-4-8 7-8-12 11-6-5 12-3<sub>7</sub>8 15-4-8 21-5-822-2-11 26-0-4 33-9-0 0-9-3 3-1-0 3-1-0 0-9-3 7-8-12 3-9-9 3-0-0 3-9-9 7-8-12 Scale = 1:77.7 5x6 = 2x5 || 5x6 \= 9.00 12 Е G 7x6 / 7x6 < W4 5x4 // D Н 5x8 < 5x4 < 5x6 // 5x8 // 5x6 < Q 7x6 🗸 7x6 <> 2x5 || В √W2 W/1 0-5-8N B1 🛚 B2 <del>∐B</del>1 Ø × 0 Μ Р L 7x8 = 7x8 = 5x8 <> 0.510698/ 3x6 || 3x6 || 0<sub>7</sub>10<sub>7</sub>8 0-10-8 7-8-12 16-10-8 26-0-4 32-10-8 33-9₁0 6-10-4 9-1-12 9-1-12 6-10-4 0-10-8 Plate Offsets (X,Y)-- [A:0-4-2,0-2-8], [K:0-4-2,0-2-8] LOADING (psf) SPACING-CSI. TC DEFL. (loc) L-N I/defl L/d **PLATES** GRIP Plate Grip DOL 1.15 0.70 -0.26 >765 244/190 TCLL 30.0 Vert(LL) 240 MT20 BC WB TCDL 3/2r()(COT) 10.0 Lumber DOL Rep Stress Incr 1.15 0.76 -0.33 N-P >593 180 BCLL 0.0 0.22 Horz(CT) 0.02 n/a Code IRC2015/TPI2014 Weight: 289 lb **BCDI** 10.0 Matrix-MSH Attic -0.26L-N 844 360 FT = 20%BRACING-TOP CHORD LUMBER-Structural wood sheathing directly applied or 5-3-2 oc purlins, except

**BOT CHORD** 

**JOINTS** 

2-0-0 oc purlins (6-0-0 max.): E-G.

1 Brace at Jt(s): Q

Rigid ceiling directly applied or 8-4-3 oc bracing.

Qty

Job

TOP CHORD 2x6 SP No 2 BOT CHORD 2x10 SP No.1 **WEBS** 

2x4 SP No.2 \*Except\*

W2: 2x6 SP No.2, W4: 2x4 SP No.3

Truss

Truss Type

REACTIONS. (lb/size) A=1403/0-4-0, K=1403/0-4-0, N=668/0-3-8

Max Horz A=-220(LC 6) Max Grav A=1403(LC 1), K=1403(LC 1), N=1476(LC 16)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD A-B=-1473/41, B-C=-1281/130, C-D=-1098/171, D-E=-428/62, E-F=-210/49, F-G=-210/49, G-H=-428/63, H-I=-1098/171, I-J=-1281/130, J-K=-1473/41

BOT CHORD A-P=0/1017, O-P=0/1017, N-O=0/1017, M-N=0/1017, L-M=0/1017, K-L=0/1017

**WEBS** B-P=-378/190, J-L=-378/188, D-Q=-886/203, H-Q=-886/203, F-Q=0/75

### NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) Provide adequate drainage to prevent water ponding.
  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) Ceiling dead load (5.0 psf) on member(s). B-D, H-J, D-Q, H-Q

- 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. N-P, L-N
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

10) Attic room checked for L/360 deflection.

Job Truss Truss Type Qty 281 VA 2015 Warren 2 19021700OPT A2E GABLE 1 Job Reference (optional) 8.240 s Feb 11 2019 MiTek Industries, Inc. Wed Apr 10 11:46:51 2019 Page 1 ID:B3Zv6XULS7RyEf4Zj2p1\_vzIDLW-O6qjS3\_SjkCqszDAKr3DAmFgMnEIAPzkcATC7qzS8YI 14-6-0 17-6-0 32-10-8 14-6-0 3-0-0 Scale = 1:74.55x6 = 5x6 < 9.00 12 .1 T3 Κ Н G √ 3x6 // M 3x6 <> Ν Е 11-5-0 0 D **≸**∏6 Р C **≸**∏5 S Q SITI3 3-0-0 SH R 0-6-8 HW<sup>1</sup> R2 3x8 || 3x6 <> Ζ S AG ΑF ΑE AD AC W V U AH AB 3x6 =3x6 =14-6-0 17-6-0 32-10-8 14-6-0 3-0-0 15-4-8 Plate Offsets (X,Y)-- [A:0-3-8,Edge], [A:0-0-0,0-4-15], [A:0-0-0,0-0-15], [I:0-3-0,0-0-4], [J:0-3-0,0-0-4], [Y:0-2-6,0-1-8], [AB:0-2-6,0-1-8] CSI. TC BC LOADING (psf) SPACING-DEFL L/d **PLATES** GRIP Plate Grip DOL 244/190 TCLL 30.0 1.15 0.16 Vert(LL) n/a n/a 999 MT20 TCDL 10.0 Lumber DOL 1.15 0.11 Vert(CT) n/a n/a 999 BCLL 0.0 Rep Stress Incr YES WB 0.15 R Horz(CT) 0.01 n/a **BCDI** 10.0 Code IRC2015/TPI2014 Matrix-SH Weight: 247 lb FT = 20%LUMBER-BRACING-TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except

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

Left: 2x4 SP No.2

**BOT CHORD** 

2-0-0 oc purlins (6-0-0 max.): I-J.

Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt H-AC, G-AD, K-X, L-W, I-AA, J-Z

REACTIONS. (lb/size) A=144/32-10-8, AC=153/32-10-8, AD=208/32-10-8, AE=197/32-10-8, AF=208/32-10-8, AG=167/32-10-8, AH=292/32-10-8, X=153/32-10-8, V=196/32-10-8, AF=208/32-10-8, AF=208/32-10 U=213/32-10-8, T=149/32-10-8, S=335/32-10-8, R=158/32-10-8, AA=217/32-10-8, Z=217/32-10-8

Max Horz A=-215(LC 6)

Max UpliftA=-62(LC 10), AC=-46(LC 10), AD=-49(LC 10), AF=-49(LC 10), AF=-49(LC 10), AG=-37(LC 10), AH=-94(LC 10), X=-44(LC 11), W=-50(LC 11), V=-45(LC 11), U=-49(LC 11), AF=-49(LC 10), A T=-35(LC 11), S=-78(LC 11)

Max Grav A=192(LC 20), AC=153(LC 22), AD=208(LC 1), AE=197(LC 22), AF=208(LC 1), AG=167(LC 22), AH=299(LC 18), X=153(LC 23), W=208(LC 19), V=196(LC 23), U=213(LC 1), T=149(LC 23), S=335(LC 23), R=165(LC 21), AA=306(LC 21), Z=296(LC 21)

FORCES. (lb) - Maximum Compression/Maximum Tension TOP CHORD A-B=-229/194, B-C=-172/143, C-D=-152/13

A-B=-229/194, B-C=-172/143, C-D=-152/132, D-E=-142/117, E-F=-95/127, F-G=-130/156, G-H=-167/189, H-I=-199/222, I-J=-166/190,

J-K=-199/222, K-L=-167/182, L-M=-118/125, M-N=-54/72, N-O=-88/63, O-P=-91/52, P-Q=-124/60, Q-R=-177/109

A-AH=-97/159, AG-AH=-97/159, AF-AG=-97/159, AF-AG=-97/159, AF-AG=-97/159, AD-AE=-97/159, AC-AD=-97/159, AF-AC=-97/159, AA-AB=-97/159, AF-AG=-97/159, AF-AG=-

O-U=-167/73, P-T=-130/60, Q-S=-245/102, I-AA=-181/37, J-Z=-171/37

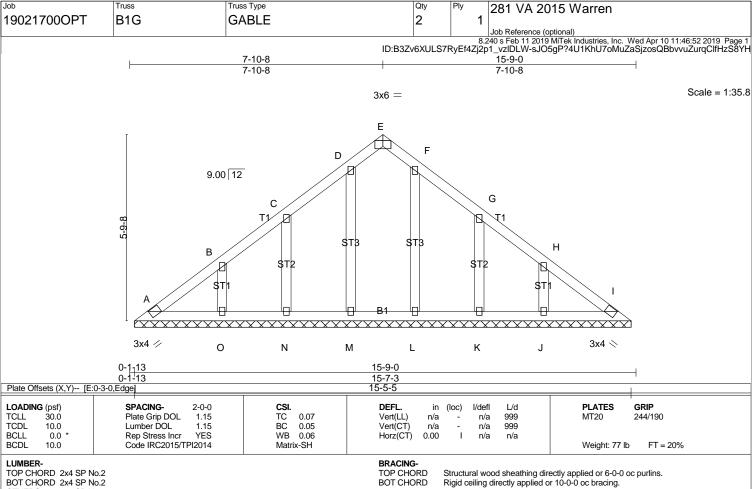
### NOTES-

**BOT CHORD WEBS** 

WEDGE

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasce91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) Truss designed for wind loads in the plane of the truss only4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x3 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.7) Gable studs spaced at 2-0-0 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, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint A, 46 lb uplift at joint AC, 49 lb uplift at joint AD 46 lb uplift at joint AE, 49 lb uplift at joint AF, 37 lb uplift at joint AG, 94 lb uplift at joint AH, 44 lb uplift at joint X, 50 lb uplift at joint W, 45 lb uplift at joint V, 49 Ib uplift at joint U. 35 lb uplift at joint T and 78 lb uplift at joint S.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

13) Attic room checked for L/360 deflection.



BOT CHORD 2x4 SP No.2 **OTHERS** 2x4 SP No.3

BOT CHORD

(lb/size) A=111/15-5-5, I=111/15-5-5, M=180/15-5-5, N=191/15-5-5, O=247/15-5-5, L=180/15-5-5, K=191/15-5-5, J=247/15-5-5 REACTIONS.

Max Uplittl=-8(LC 10), N=-52(LC 10), O=-56(LC 10), K=-54(LC 11), J=-55(LC 11)
Max Grav A=122(LC 19), I=117(LC 20), M=180(LC 1), N=192(LC 21), O=247(LC 1), L=180(LC 1), K=192(LC 22), J=247(LC 1)

FORCES. (lb) - Maximum Compression/Maximum Tension

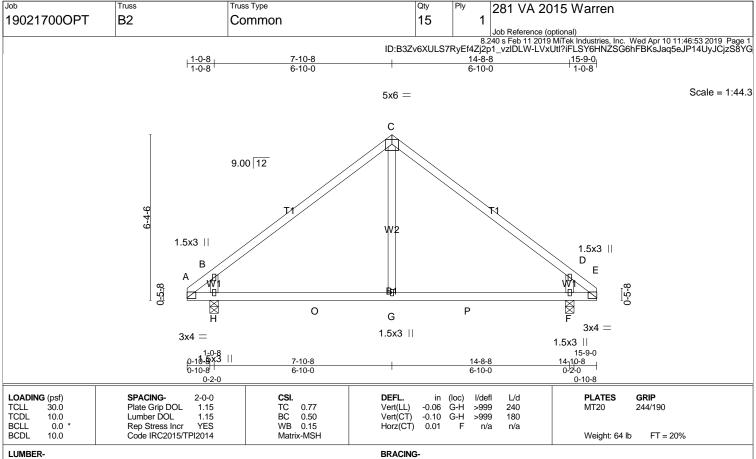
A-B=-136/88, B-C=-104/50, C-D=-87/38, D-E=-68/43, F-F=-68/43, F-G=-80/27, G-H=-95/34, H-I=-127/88 A-O=-77/117, N-O=-77/117, M-N=-77/117, L-M=-77/117, K-L=-77/117, J-K=-77/117, I-J=-77/117 TOP CHORD BOT CHORD

**WEBS** D-M=-139/32, C-N=-158/77, B-O=-185/76, F-L=-139/23, G-K=-158/79, H-J=-185/76

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
  2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) Truss designed for wind loads in the plane of the truss only.4) All plates are 2x3 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.

- 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 bettem should be used. \* 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 8 lb uplift at joint M, 52 lb uplift at joint N, 56 lb uplift at joint O, 54 Ib uplift at joint K and 55 lb uplift at joint J.
- 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.



TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 4-10-5 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3

REACTIONS. (Ib/size) F=788/0-4-0, H=788/0-4-0 Max Horz H=114(LC 7) Max UpliftF=-10(LC 11), H=-10(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD

A-B--419/0, B-C:-721/78, C-D:-727/78, D-E:-419/0 A-H=0/484, H-O=0/484, G-O=0/484, G-P=0/484, F-P=0/484, E-F=0/484 C-G=0/315, D-F:-776/305, B-H:-776/305 BOT CHORD

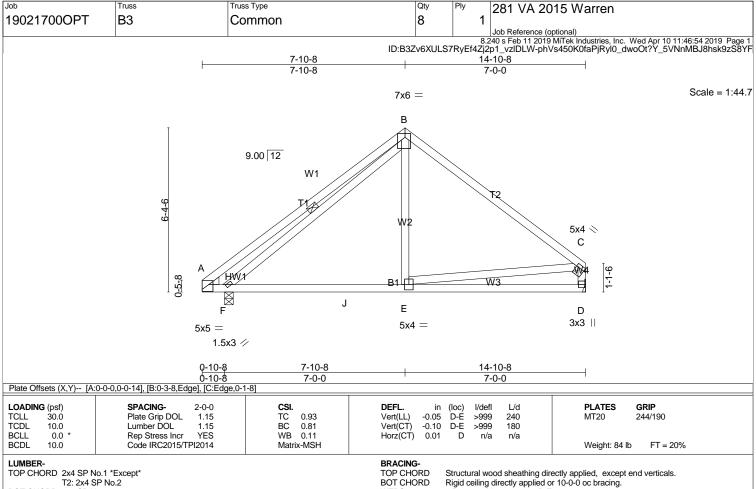
WEBS

- 1) Unbalanced roof live loads have been considered for this design.
  2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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, with BCDL = 10.0psf.

  5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint F and 10 lb uplift at joint H.

  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.



1 Row at midpt

B-F

WEBS

TOP CHORD 2x4 SP No.1 \*Except\* T2: 2x4 SP No.2

BOT CHORD 2x4 SP No.2 WERS 2x4 SP No.3 WEDGE

Left: 2x4 SP No.2

REACTIONS. (lb/size) D=691/Mechanical, F=782/0-4-0

Max Horz F=125(LC 9) Max UpliftD=-4(LC 11), F=-9(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension TOP CHORD BOT CHORD A-B=-704/235, B-C=-718/71, C-D=-628/71 A-F=-66/402, F-J=0/460, E-J=0/460, D-E=-77/275

B-E=0/283, B-F=-233/120, C-E=-40/281 WEBS

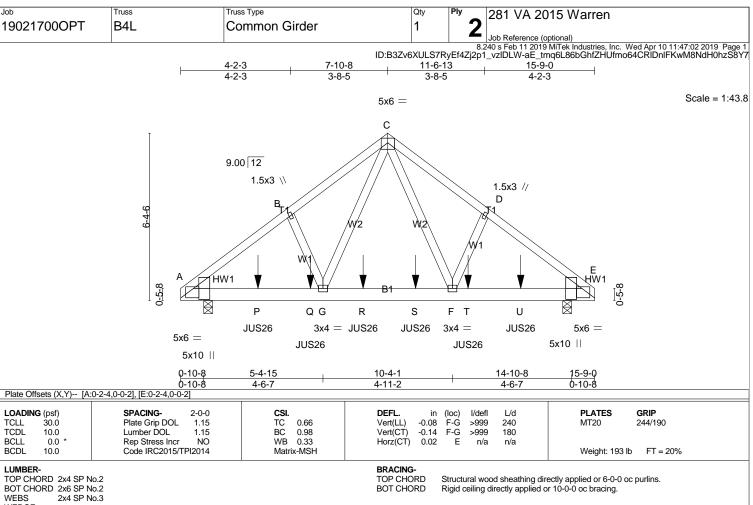
## NOTES-

Unbalanced roof live loads have been considered for this design.
 Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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, with BCDL = 10.0psf.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint D and 9 lb uplift at joint F. 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.



WEDGE

Left: 2x6 SP No.2, Right: 2x6 SP No.2

**REACTIONS.** (lb/size) A=2781/0-4-0, E=2818/0-4-0 Max Horz A=114(LC 5)

Max UpliftA=-59(LC 8), E=-60(LC 9)

FORCES. (lb) - Maximum Compression/Maximum Tension TOP CHORD A-B=-2908/83, B-C=-2749/137, C-D=-2756/137, D-E=-2915/83

BOT CHORD

A-P=-80/2188, P-Q=-80/2188, G-Q=-80/2188, G-R=-6/1578, R-S=-6/1578, F-S=-6/1578, F-T=-24/2194, T-U=-24/2194, E-U=-24/2194 C-F=-90/1574, D-F=-201/175, C-G=-90/1560, B-G=-201/176 WFBS

- 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) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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

7) Provide mechánical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint A and 60 lb uplift at joint E. 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 JUS26 (With 4-10d nails into Girder & 4-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-11-4 from the left end to 12-11-4 to

connect truss(es) B3 (1 ply 2x4 SP) to back face of bottom chord. 10) Fill all nail holes where hanger is in contact with lumber.

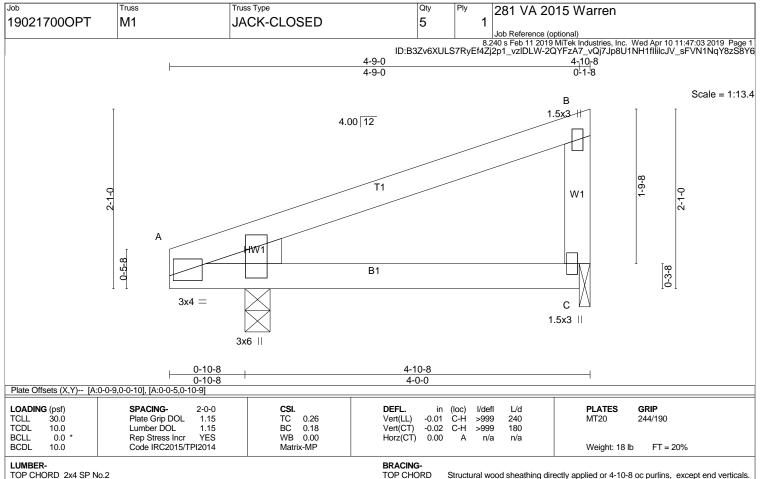
### LOAD CASE(S) Standard

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

Vert: A-C=-80, C-E=-80, H-L=-20

Concentrated Loads (lb)

Vert: P=-671(B) Q=-671(B) R=-671(B) S=-671(B) T=-671(B) U=-671(B)



Structural wood sheathing directly applied or 4-10-8 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 **WEBS** 2x4 SP No.3

WEDGE Left: 2x4 SP No.2

**REACTIONS.** (lb/size) A=290/0-3-8, C=183/0-1-8 Max Horz A=55(LC 9)

Max UpliftA=-13(LC 6), C=-17(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension

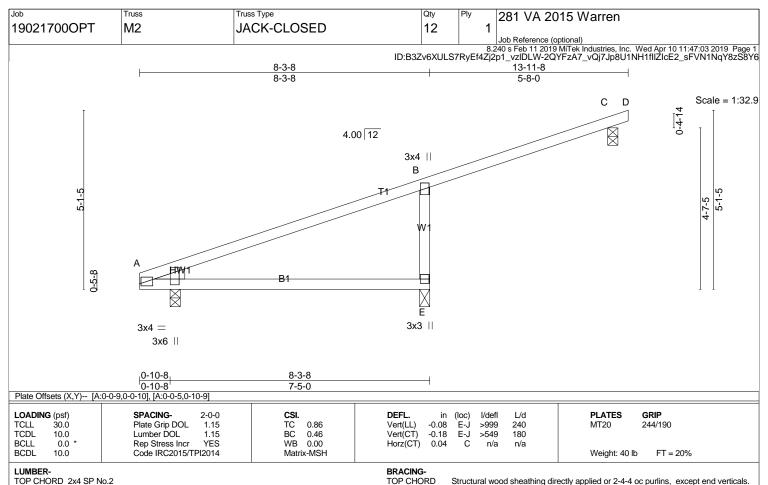
TOP CHORD A-B=-57/32, B-C=-130/51

BOT CHORD A-C=-25/27

### NOTES-

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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
- 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) Bearing at joint(s) C considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) C.
  6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint A and 17 lb uplift at joint C.
  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.



Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals. Rigid ceiling directly applied or 10-0-0 oc bracing.

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 **WEBS** 2x4 SP No.3

WEDGE Left: 2x4 SP No.2

**REACTIONS.** (lb/size) E=675/0-3-8, A=413/0-3-8, C=192/0-3-8 Max Horz A=133(LC 7)

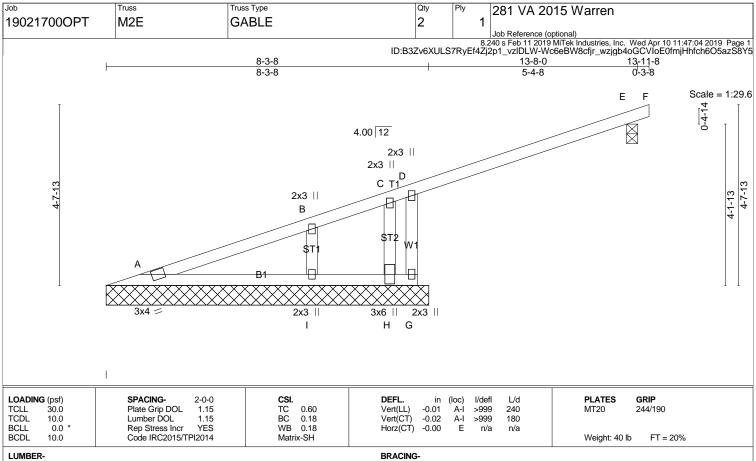
Max UpliftE=-119(LC 10), C=-50(LC 6)

FORCES. (lb) - Maximum Compression/Maximum Tension TOP CHORD A-B=-153/32, B-C=-86/36, C-D=-11/0, B-E=-574/226

BOT CHORD A-E=-15/67

### NOTES-

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 119 lb uplift at joint E and 50 lb uplift at joint C.
- 5) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) C.
  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.



TOP CHORD BOT CHORD

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

LUMBER-

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

**REACTIONS.** (lb/size) A=179/8-3-8, G=805/8-3-8, H=-473/8-3-8, I=458/8-3-8, E=215/0-3-8

Max Horz A=131(LC 6)

Max UpliftG=-204(LC 6), H=-473(LC 1), I=-42(LC 6), E=-56(LC 6) Max GravA=179(LC 1), G=805(LC 1), H=122(LC 6), I=458(LC 1), E=215(LC 1)

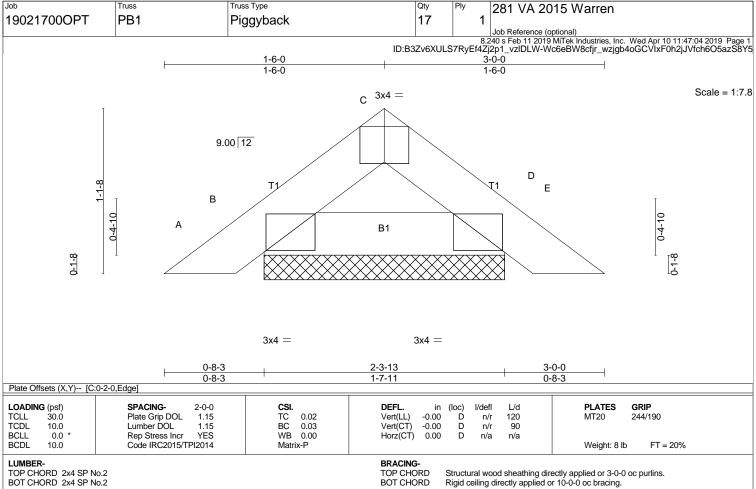
FORCES. (lb) - Maximum Compression/Maximum Tension TOP CHORD A-B=-169/70, B-C=-111/32, C-D=-159/158, D-E=-86/43, E-F=-11/0

BOT CHORD A-I=0/0, H-I=0/0, G-H=0/0

**WEBS** C-H=-177/435, B-I=-330/131, D-G=-773/325

### NOTES-

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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
- 2) Truss designed for wind loads in the plane of the truss only.
- 3) Gable studs spaced at 2-0-0 oc.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 204 lb uplift at joint G, 473 lb uplift at joint H, 42 lb uplift at joint I
- 7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) E. 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.



LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2

**REACTIONS.** (lb/size) B=117/1-7-11, D=117/1-7-11 Max Horz B=-18(LC 8)

Max UpliftB=-8(LC 10), D=-8(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension TOP CHORD A-B=0/18, B-C=-64/11, C-D=-64/11, D-E=0/18

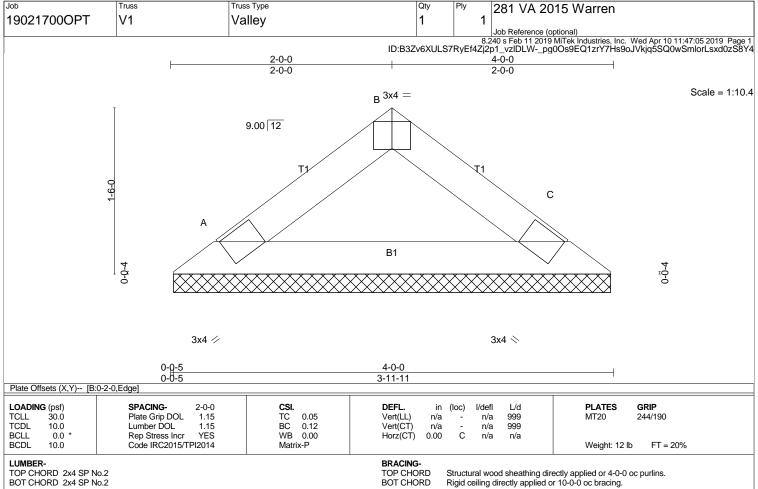
BOT CHORD B-D=-0/33

# NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
  2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint B and 8 lb uplift at joint D.
- 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.

  8) See standard piggyback truss connection detail for connection to base truss.



**REACTIONS.** (lb/size) A=156/3-11-5, C=156/3-11-5 Max Horz A=-23(LC 8)

Max UpliftA=-2(LC 10), C=-2(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension TOP CHORD A-B=-134/32, B-C=-134/32

BOT CHORD A-C=-6/83

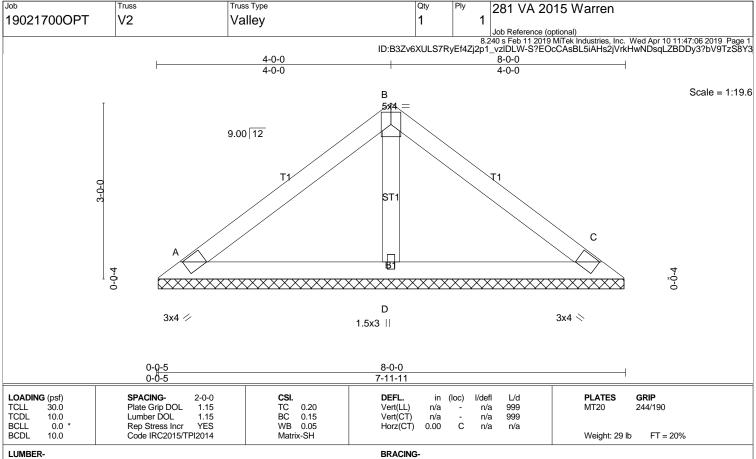
- 1) Unbalanced roof live loads have been considered for this design.
  2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  3) Gable requires continuous bottom chord bearing.

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

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.



LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 **OTHERS** 2x4 SP No.3

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

**REACTIONS.** (Ib/size) A=180/7-11-5, C=180/7-11-5, D=353/7-11-5 Max Horz A=-52(LC 6)

Max UpliftA=-9(LC 10), C=-15(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension

A-B=-141/48, B-C=-141/46 A-D=-8/52, C-D=-8/52 TOP CHORD BOT CHORD WEBS B-D=-219/34

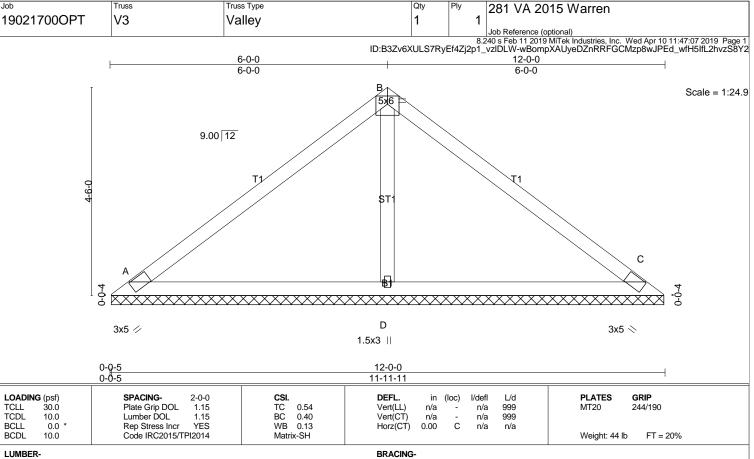
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint A and 15 lb uplift at joint C.

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.



TOP CHORD BOT CHORD

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

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 **OTHERS** 2x4 SP No.3

**REACTIONS.** (lb/size) A=280/11-11-5, C=280/11-11-5, D=552/11-11-5 Max Horz A=-81(LC 6)

Max UpliftA=-14(LC 10), C=-24(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD A-B=-221/75, B-C=-221/72 BOT CHORD A-D=-13/81, C-D=-13/81

WEBS B-D=-342/48

- 1) Unbalanced roof live loads have been considered for this design.
  2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(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) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint A and 24 lb uplift at joint C.
- 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.