

# Mark Morris, P.E.

#126, 1317-M, Summerville, SC 29483

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The truss drawing(s) listed below have been prepared by **Atlantic Building Components** under my direct supervision based on the parameters provided by the truss designers.

AST #: 26655

JOB: 21-1986-F02

JOB NAME: LOT 1153 CARRIAGE CIRCLE

Wind Code: N/A

Wind Speed: Vult= N/A

Exposure Category: N/A

Mean Roof Height (feet): N/A

*8 Truss Design(s)*

Trusses:

F01, F02, F03, F04, F06, F07, F08, F09



5/7/2021

**Mark Morris**

*Warning !—Verify design parameters and read notes before use.*

This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 Guide to

|                          |       |            |     |     |  |
|--------------------------|-------|------------|-----|-----|--|
| Job                      | Truss | Truss Type | Qty | Ply | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1986-F02              | F01   | Floor      | 15  | 1   |  |
| Job Reference (optional) |       |            |     |     | # 26655  |

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri May 7 16:58:39 2021 Page 1  
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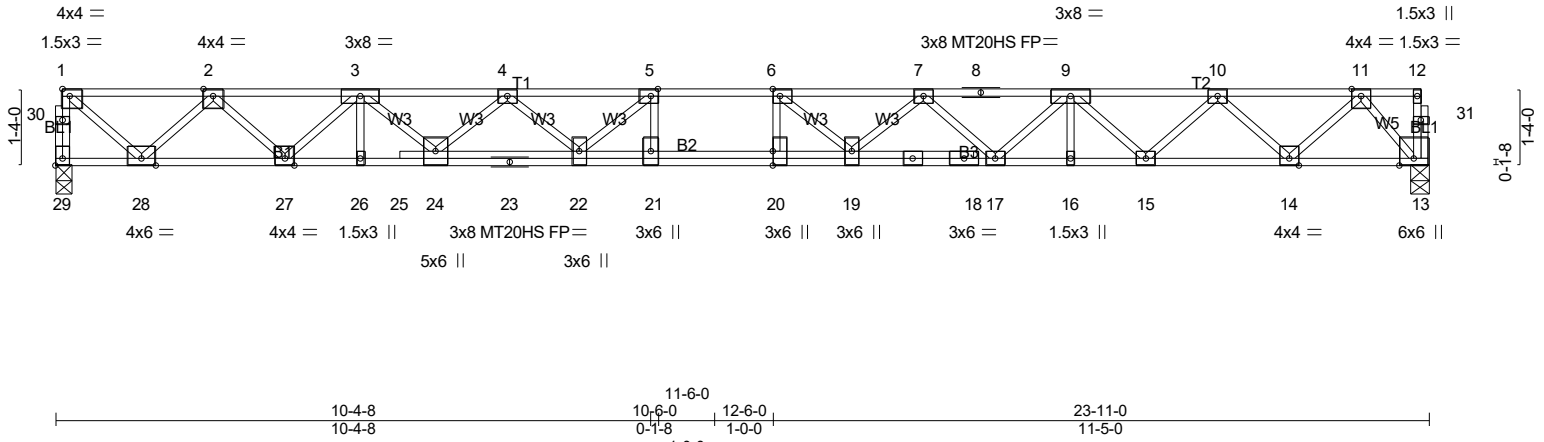
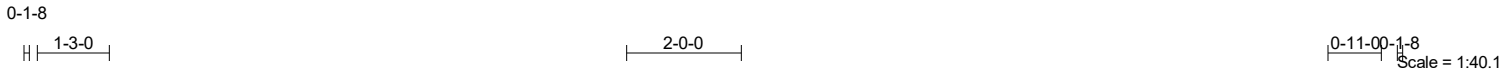


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge], [20:0-3-0,0-0-0], [29:Edge,0-1-8]

| LOADING (psf) | SPACING-             | CSI.      | DEFL.          | in (loc) | l/defl | L/d | PLATES         | GRIP          |
|---------------|----------------------|-----------|----------------|----------|--------|-----|----------------|---------------|
| TCLL 40.0     | 1-7-3                | TC 0.68   | Vert(LL) -0.47 | 20       | >601   | 480 | MT20           | 244/190       |
| TCDL 10.0     | Plate Grip DOL 1.00  | BC 0.92   | Vert(CT) -0.65 | 20       | >437   | 360 | MT20HS         | 187/143       |
| BCLL 0.0      | Lumber DOL 1.00      | WB 0.67   | Horz(CT) 0.09  | 13       | n/a    | n/a |                |               |
| BCLD 5.0      | Rep Stress Incr YES  | Matrix-SH |                |          |        |     |                |               |
|               | Code IRC2018/TPI2014 |           |                |          |        |     |                |               |
|               |                      |           |                |          |        |     | Weight: 138 lb | FT = 0%F, 0%E |

**LUMBER-**  
 TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-11-11 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 17-19.

**REACTIONS.** (lb/size) 29=1036/0-3-8 (min. 0-1-8), 13=1036/0-3-8 (min. 0-1-8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 29-30=-1031/0, 1-30=-1029/0, 1-2=-1081/0, 2-3=-2772/0, 3-4=-4179/0, 4-5=-5007/0, 5-6=-5313/0, 6-7=-5141/0, 7-8=-4344/0, 8-9=-4344/0, 9-10=-3263/0, 10-11=-1760/0  
 BOT CHORD 27-28=0/2046, 26-27=0/3492, 25-26=0/3492, 24-25=0/3487, 23-24=0/4707, 22-23=0/4707, 21-22=0/5313, 20-21=0/5313, 19-20=0/5313, 18-19=0/4847, 17-18=0/4846, 16-17=0/3924, 15-16=0/3924, 14-15=0/2620, 13-14=0/877  
 WEBS 5-21=-228/336, 6-20=-288/264, 5-22=-720/90, 4-22=0/492, 4-24=-715/0, 3-24=0/913, 3-27=-979/0, 2-27=0/1009, 2-28=-1342/0, 1-28=0/1397, 6-19=-592/200, 7-19=0/483, 7-17=-699/0, 9-17=0/571, 9-15=-898/0, 10-15=0/895, 10-14=-1196/0, 11-14=0/1227, 11-13=-1343/0

- NOTES-** (6-7)
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 3x4 MT20 unless otherwise indicated.
  - 4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 7) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



5/7/2021

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|                          |       |                       |     |     |  |
|--------------------------|-------|-----------------------|-----|-----|--|
| Job                      | Truss | Truss Type            | Qty | Ply | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1986-F02              | F02   | Floor Supported Gable | 2   | 1   |  |
| Job Reference (optional) |       |                       |     |     | # 26655  |

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0<sub>1</sub>-8

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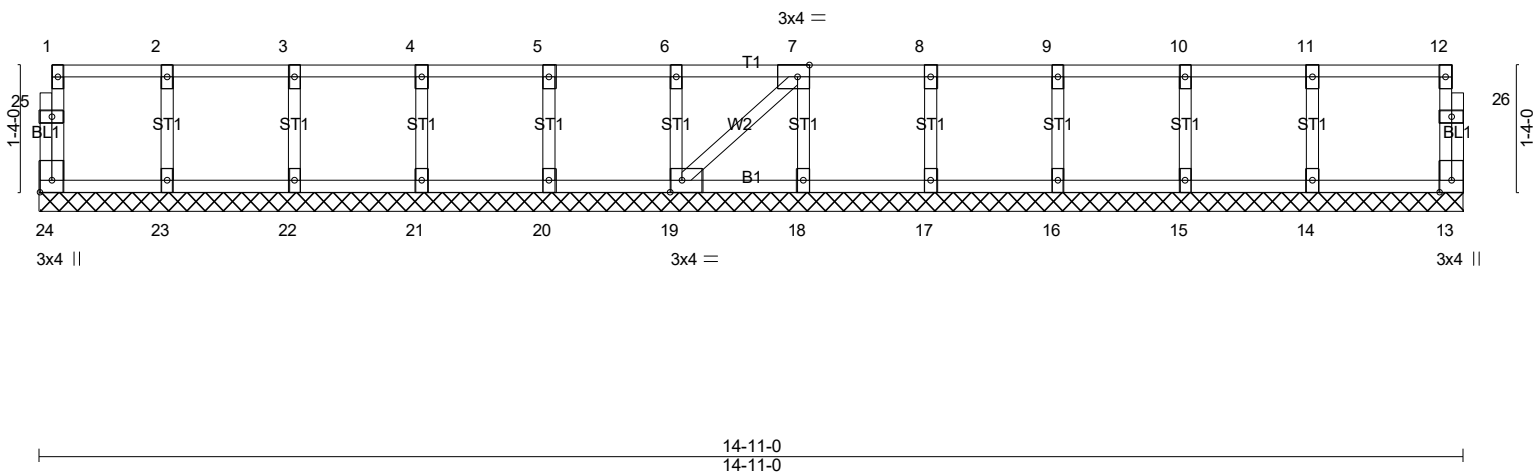


Plate Offsets (X,Y)-- [7:0-1-8,Edge], [19:0-1-8,Edge], [24:Edge,0-1-8]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.      | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP          |
|---------------|----------------------|-------|-----------|----------|----------|--------|-----|---------------|---------------|
| TCLL 40.0     | Plate Grip DOL       | 1.00  | TC 0.07   | Vert(LL) | n/a      | -      | n/a | MT20          | 244/190       |
| TCDL 10.0     | Lumber DOL           | 1.00  | BC 0.01   | Vert(CT) | n/a      | -      | n/a |               |               |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.04   | Horz(CT) | 0.00     | 13     | n/a |               |               |
| BCDL 5.0      | Code IRC2018/TPI2014 |       | Matrix-SH |          |          |        |     |               |               |
|               |                      |       |           |          |          |        |     | Weight: 68 lb | FT = 0%F, 0%E |

**LUMBER-**  
 TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 14-11-0.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

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

- NOTES-** (7-8)
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



5/7/2021

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|                    |              |                     |          |          |  |
|--------------------|--------------|---------------------|----------|----------|--|
| Job<br>21-1986-F02 | Truss<br>F03 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C.<br># 26655 |
|--------------------|--------------|---------------------|----------|----------|--|

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0<sub>1</sub>-8

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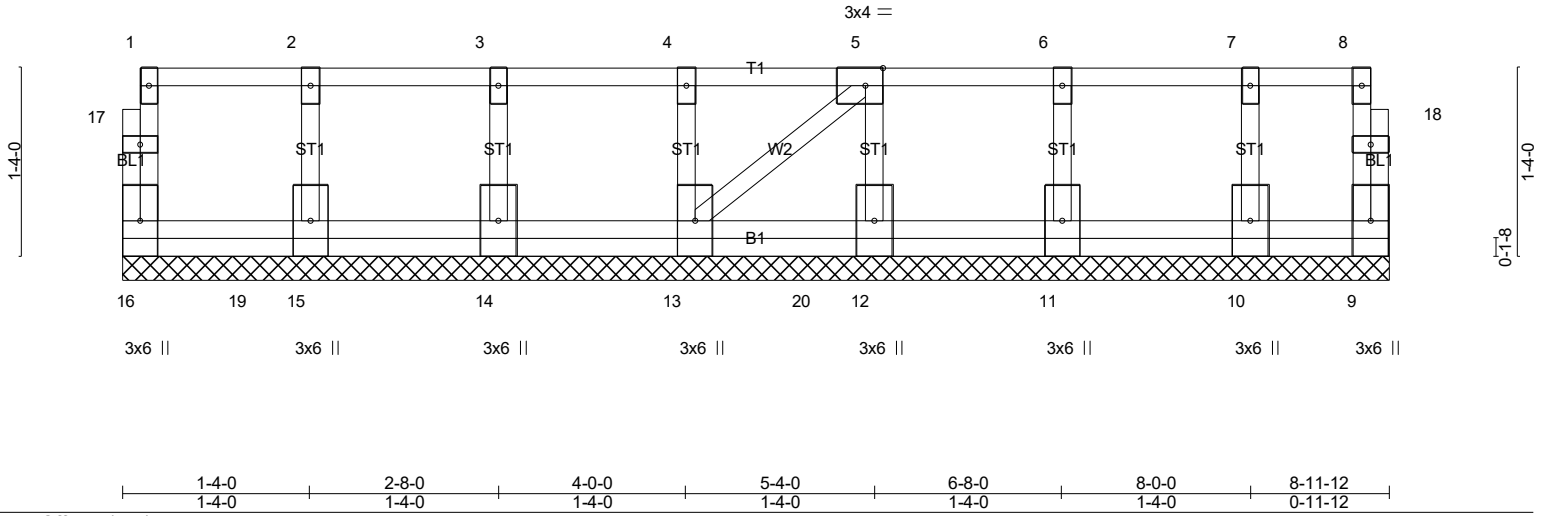


Plate Offsets (X,Y)-- [5:0-1-8,Edge]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP          |
|---------------|----------------------|----------|----------|----------|--------|-----|---------------|---------------|
| TCLL 40.0     | 2-0-0                | TC 0.07  | Vert(LL) | n/a      | -      | n/a | MT20          | 244/190       |
| TCDL 10.0     | Plate Grip DOL 1.00  | BC 0.02  | Vert(CT) | n/a      | -      | n/a |               |               |
| BCLL 0.0      | Lumber DOL 1.00      | WB 0.03  | Horz(CT) | 0.00     | 9      | n/a |               |               |
| BCDL 5.0      | Rep Stress Incr NO   | Matrix-P |          |          |        |     |               |               |
|               | Code IRC2018/TPI2014 |          |          |          |        |     | Weight: 56 lb | FT = 0%F, 0%E |

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 8-11-12.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 16, 9, 15, 14, 13, 12, 11, 10

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

- NOTES-** (10-11)
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 68 lb down at 0-11-0, 68 lb down at 2-11-0, and 68 lb down at 4-11-0, and 68 lb down at 6-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 9-16=-10, 1-8=-100  
Concentrated Loads (lb)  
Vert: 14=-68(F) 11=-68(F) 19=-68(F) 20=-68(F)  
2) Dead: Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (plf)  
Vert: 9-16=-10, 1-8=-100



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**Continued on Page 2** Design parameters and read notes before use. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer – not truss designer or truss engineer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to ensure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TPI 1 *National Design Standard for Metal Plate Connected Wood Truss Construction* and BCSI 1-03 *Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses* from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719.

|             |       |            |     |     |  |
|-------------|-------|------------|-----|-----|--|
| Job         | Truss | Truss Type | Qty | Ply | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1986-F02 | F03   | GABLE      | 1   | 1   | Job Reference (optional) # 26655                                   |

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**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 14=-68(F) 11=-68(F) 19=-68(F) 20=-68(F)



5/7/2021

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|                    |              |                     |          |          |  |
|--------------------|--------------|---------------------|----------|----------|--|
| Job<br>21-1986-F02 | Truss<br>F04 | Truss Type<br>Floor | Qty<br>2 | Ply<br>1 | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C.<br># 26655 |
|--------------------|--------------|---------------------|----------|----------|--|

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri May 7 16:58:42 2021 Page 1  
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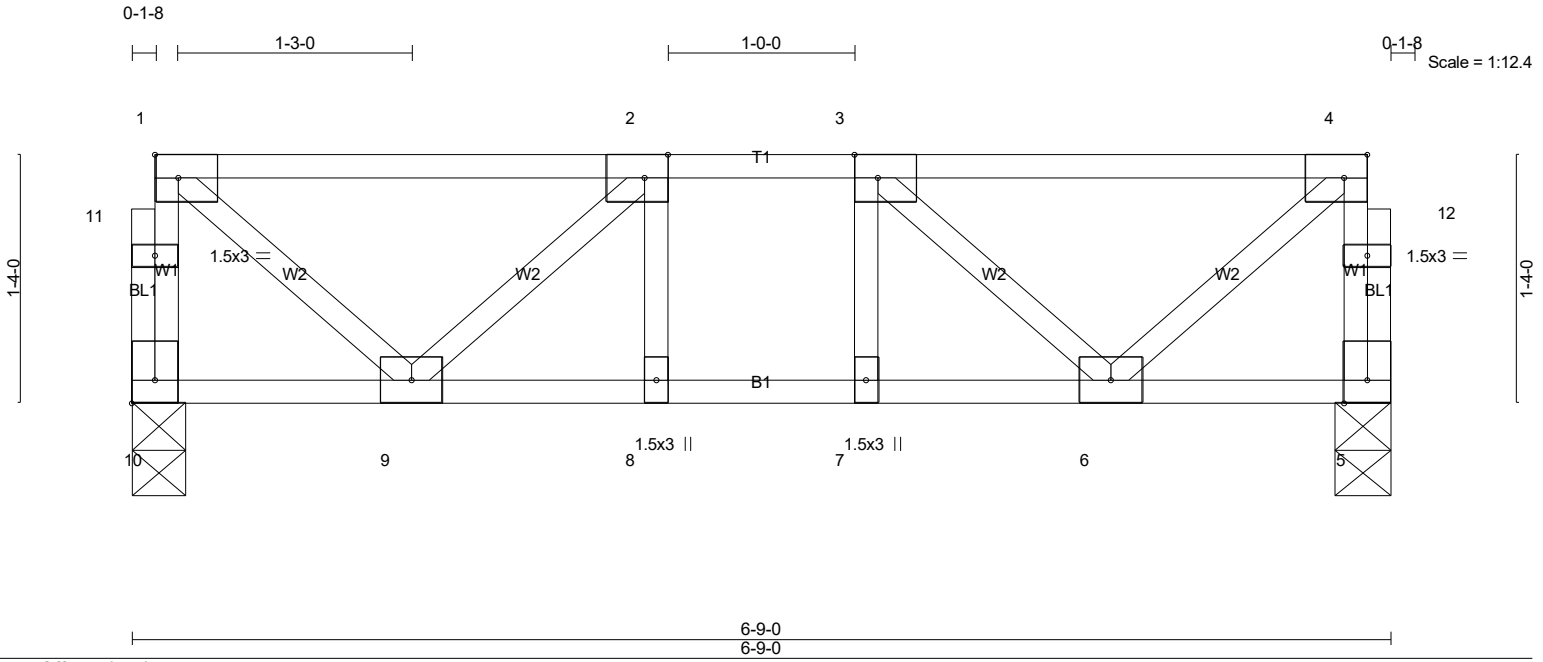


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [4:0-1-8,Edge], [10:Edge,0-1-8]

|                      |                      |       |             |              |       |       |        |     |               |               |
|----------------------|----------------------|-------|-------------|--------------|-------|-------|--------|-----|---------------|---------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> | in    | (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b>   |
| TCLL 40.0            | Plate Grip DOL       | 1.00  | TC 0.32     | Vert(LL)     | -0.02 | 8-9   | >999   | 480 | MT20          | 244/190       |
| TCDL 10.0            | Lumber DOL           | 1.00  | BC 0.22     | Vert(CT)     | -0.02 | 8-9   | >999   | 360 |               |               |
| BCLL 0.0             | Rep Stress Incr      | YES   | WB 0.17     | Horz(CT)     | 0.00  | 5     | n/a    | n/a |               |               |
| BCDL 5.0             | Code IRC2018/TPI2014 |       | Matrix-SH   |              |       |       |        |     | Weight: 39 lb | FT = 0%F, 0%E |

|                             |   |
|-----------------------------|---|
| <b>LUMBER-</b>              | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.1(flat) | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP No.1(flat) | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SP No.3(flat)      |   |

**REACTIONS.** (lb/size) 10=351/0-3-8 (min. 0-1-8), 5=351/0-3-8 (min. 0-1-8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 10-11=-346/0, 1-11=-345/0, 5-12=-346/0, 4-12=-345/0, 1-2=-273/0, 2-3=-510/0, 3-4=-273/0  
BOT CHORD 8-9=0/510, 7-8=0/510, 6-7=0/510  
WEBS 1-9=0/347, 4-6=0/347, 2-9=-323/0, 3-6=-323/0

- NOTES-** (5-6)
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



5/7/2021

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|                    |              |                     |          |          |  |
|--------------------|--------------|---------------------|----------|----------|--|
| Job<br>21-1986-F02 | Truss<br>F06 | Truss Type<br>Floor | Qty<br>1 | Ply<br>1 | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C.<br># 26655 |
|--------------------|--------------|---------------------|----------|----------|--|

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri May 7 16:58:43 2021 Page 1  
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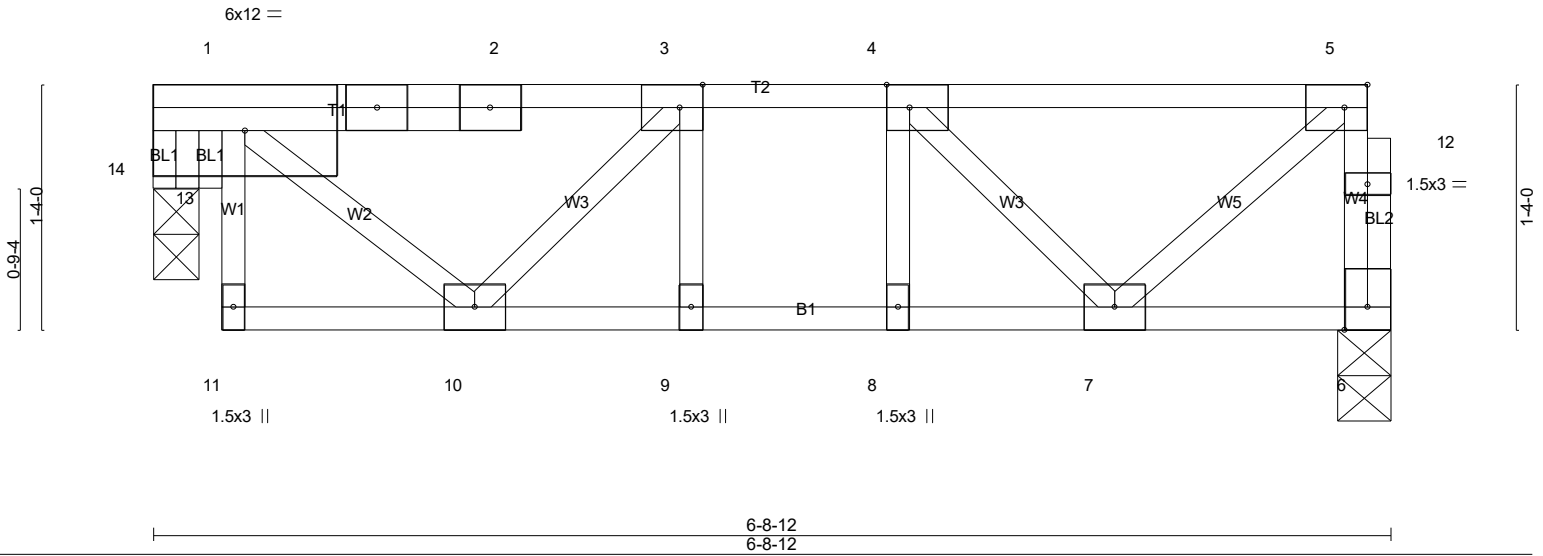


Plate Offsets (X,Y)-- [3:0-1-8,Edge], [4:0-1-8,Edge], [5:0-1-8,Edge]

| LOADING (psf) | SPACING-             | CSI.     | DEFL.          | in (loc) | l/defl | L/d | PLATES        | GRIP          |
|---------------|----------------------|----------|----------------|----------|--------|-----|---------------|---------------|
| TCLL 40.0     | 2-0-0                | TC 0.51  | Vert(LL) -0.01 | 9        | >999   | 480 | MT20          | 244/190       |
| TCDL 10.0     | Plate Grip DOL 1.00  | BC 0.19  | Vert(CT) -0.02 | 9        | >999   | 360 |               |               |
| BCLL 0.0      | Lumber DOL 1.00      | WB 0.17  | Horz(CT) 0.01  | 6        | n/a    | n/a |               |               |
| BCDL 5.0      | Rep Stress Incr YES  | Matrix-P |                |          |        |     |               |               |
|               | Code IRC2018/TPI2014 |          |                |          |        |     | Weight: 41 lb | FT = 0%F, 0%E |

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** (lb/size) 6=346/0-3-8 (min. 0-1-8), 14=326/0-3-0 (min. 0-1-8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 6-12=-341/0, 5-12=-341/0, 1-2=-305/0, 2-3=-301/0, 3-4=-484/0, 4-5=-274/0  
BOT CHORD 9-10=0/484, 8-9=0/484, 7-8=0/484  
WEBS 1-10=0/304, 5-7=0/349, 3-10=-263/0, 4-7=-301/0, 1-14=-402/0

- NOTES-** (7-8)
- Unbalanced floor live loads have been considered for this design.
  - All plates are 3x4 MT20 unless otherwise indicated.
  - Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



5/7/2021

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|             |       |                       |     |     |  |
|-------------|-------|-----------------------|-----|-----|--|
| Job         | Truss | Truss Type            | Qty | Ply | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N |
| 21-1986-F02 | F07   | Floor Supported Gable | 1   | 1   | # 26655  |

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri May 7 16:58:44 2021 Page 1  
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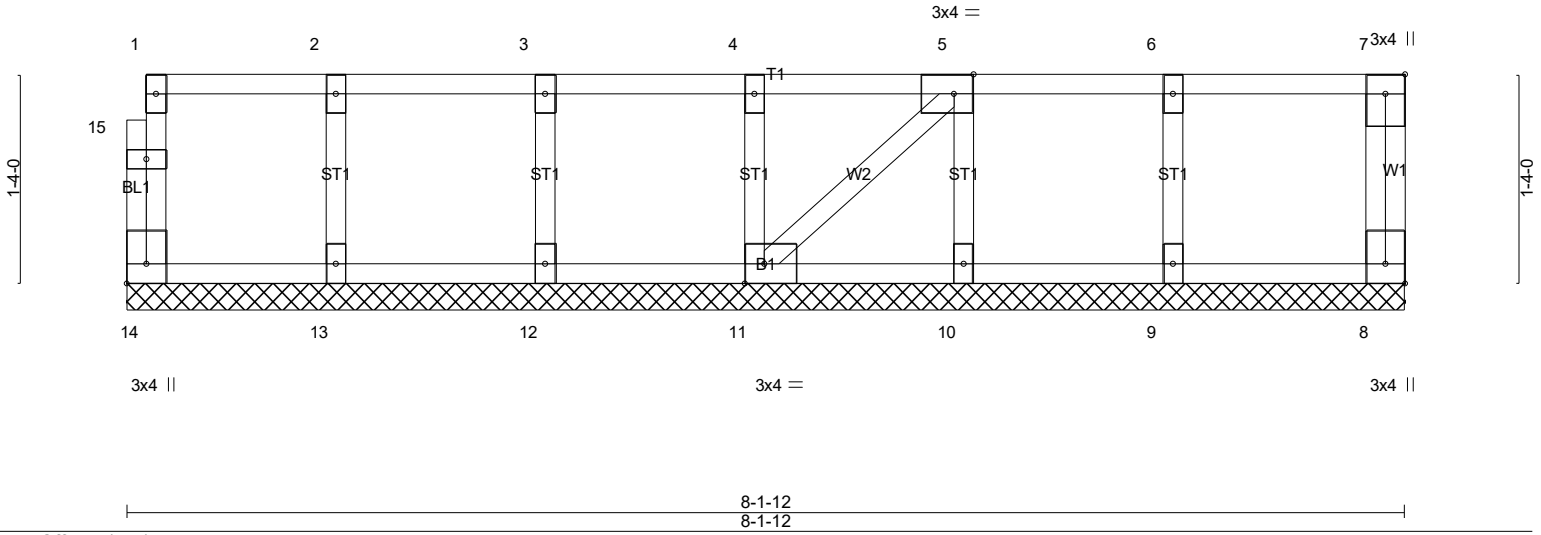


Plate Offsets (X,Y)-- [5:0-1-8,Edge], [8:Edge,0-1-8], [11:0-1-8,Edge], [14:Edge,0-1-8]

|                      |                      |       |             |              |      |       |        |     |               |               |
|----------------------|----------------------|-------|-------------|--------------|------|-------|--------|-----|---------------|---------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> | in   | (loc) | l/defl | L/d | <b>PLATES</b> | <b>GRIP</b>   |
| TCLL 40.0            | Plate Grip DOL       | 1.00  | TC 0.07     | Vert(LL)     | n/a  | -     | n/a    | 999 | MT20          | 244/190       |
| TCDL 10.0            | Lumber DOL           | 1.00  | BC 0.01     | Vert(CT)     | n/a  | -     | n/a    | 999 |               |               |
| BCLL 0.0             | Rep Stress Incr      | YES   | WB 0.03     | Horz(CT)     | 0.00 | 8     | n/a    | n/a |               |               |
| BCDL 5.0             | Code IRC2018/TPI2014 |       | Matrix-P    |              |      |       |        |     | Weight: 41 lb | FT = 0%F, 0%E |

**LUMBER-**  
 TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 8-1-12.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

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

- NOTES-** (8-9)
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



5/7/2021

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|                    |              |                                     |          |          |  |  |
|--------------------|--------------|-------------------------------------|----------|----------|--|--|
| Job<br>21-1986-F02 | Truss<br>F08 | Truss Type<br>Floor Supported Gable | Qty<br>1 | Ply<br>1 | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N | Job Reference (optional)<br><b># 26655</b> |
|--------------------|--------------|-------------------------------------|----------|----------|--|--|

8.430 s Feb 12 2021 MiTek Industries, Inc. Fri May 7 16:58:45 2021 Page 1  
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Q-1-8

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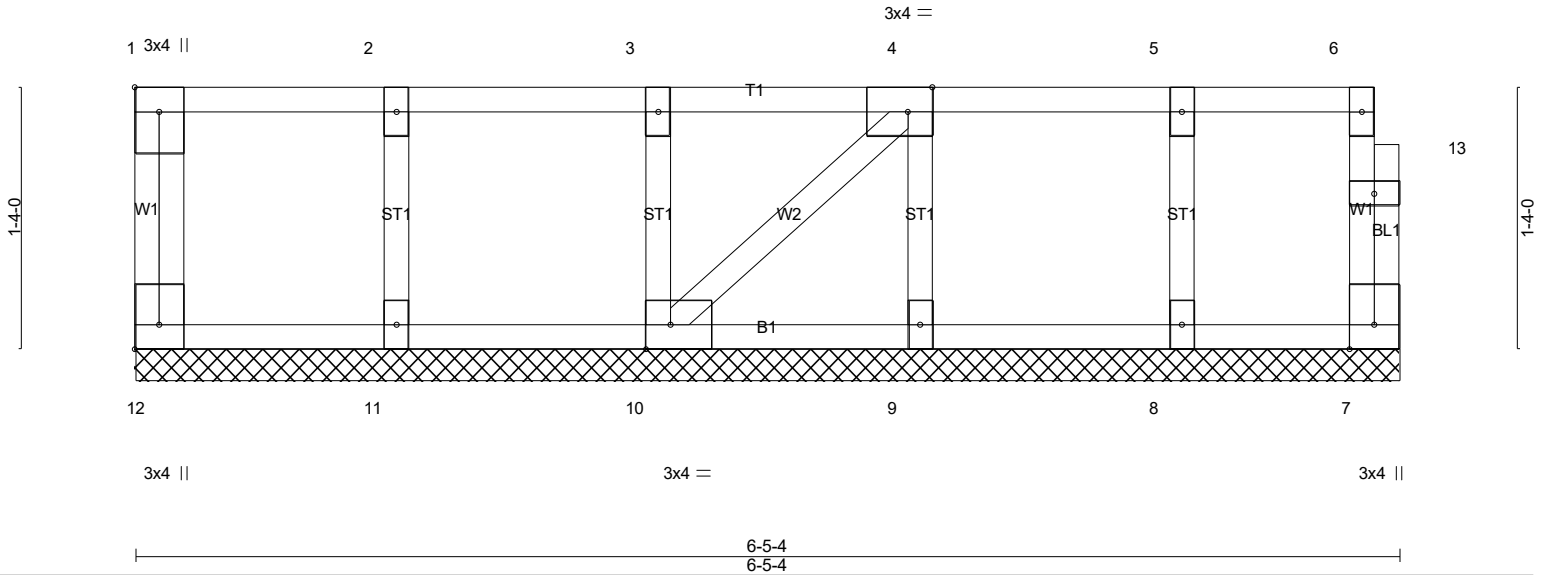


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [10:0-1-8,Edge], [12:Edge,0-1-8]

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in   | (loc) | l/defl | L/d | PLATES        | GRIP          |
|---------------|----------------------|-------|----------|----------|------|-------|--------|-----|---------------|---------------|
| TCLL 40.0     | Plate Grip DOL       | 1.00  | TC 0.06  | Vert(LL) | n/a  | -     | n/a    | 999 | MT20          | 244/190       |
| TCDL 10.0     | Lumber DOL           | 1.00  | BC 0.01  | Vert(CT) | n/a  | -     | n/a    | 999 |               |               |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.03  | Horz(CT) | 0.00 | 7     | n/a    | n/a |               |               |
| BCDL 5.0      | Code IRC2018/TPI2014 |       | Matrix-P |          |      |       |        |     | Weight: 34 lb | FT = 0%F, 0%E |

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 6-5-4.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 12, 7, 11, 10, 9, 8

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

- NOTES-** (8-9)
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
  - Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard

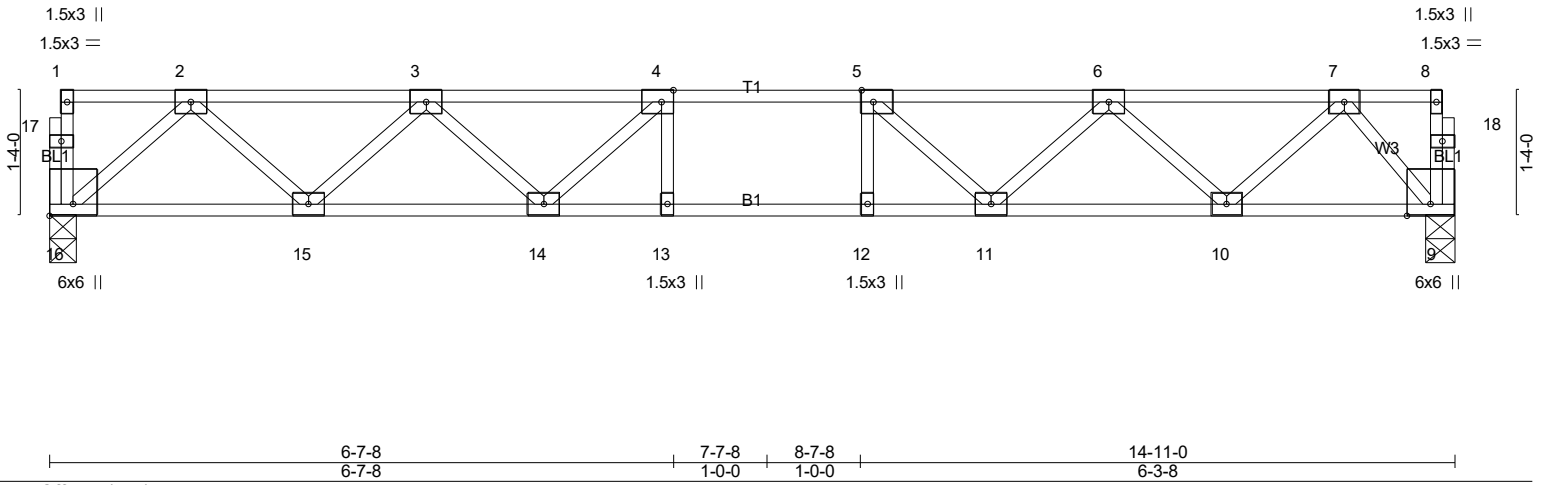
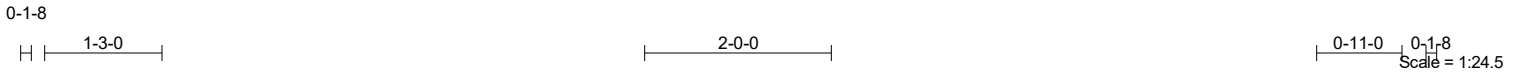


5/7/2021

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|                    |              |                     |          |          |   |
|--------------------|--------------|---------------------|----------|----------|---|
| Job<br>21-1986-F02 | Truss<br>F09 | Truss Type<br>Floor | Qty<br>3 | Ply<br>1 | LOT 1153 CARRIAGE CIRCLE   156 SPRUCE HOLLOW CIRCLE SPRING LAKE, N.C.<br>Job Reference (optional)<br><b># 26655</b> |
|--------------------|--------------|---------------------|----------|----------|---|

8.430 s Feb 12 2021 MITek Industries, Inc. Fri May 7 16:58:46 2021 Page 1  
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| LOADING (psf) | SPACING-             | CSI.      | DEFL.                         | PLATES        | GRIP          |
|---------------|----------------------|-----------|-------------------------------|---------------|---------------|
| TCLL 40.0     | 2-0-0                | TC 0.38   | in (loc) l/defl L/d           | MT20          | 244/190       |
| TCDL 10.0     | Plate Grip DOL 1.00  | BC 0.72   | Vert(LL) -0.13 13-14 >999 480 |               |               |
| BCLL 0.0      | Lumber DOL 1.00      | WB 0.39   | Vert(CT) -0.17 13-14 >999 360 |               |               |
| BCDL 5.0      | Rep Stress Incr YES  | Matrix-SH | Horz(CT) 0.04 9 n/a n/a       |               |               |
|               | Code IRC2018/TPI2014 |           |                               | Weight: 77 lb | FT = 0%F, 0%E |

**LUMBER-**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)

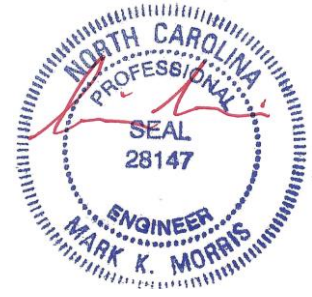
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 16=800/0-3-8 (min. 0-1-8), 9=800/0-3-8 (min. 0-1-8)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1415/0, 3-4=-2194/0, 4-5=-2424/0, 5-6=-2124/0, 6-7=-1266/0  
BOT CHORD 15-16=0/855, 14-15=0/1945, 13-14=0/2424, 12-13=0/2424, 11-12=0/2424, 10-11=0/1830, 9-10=0/672  
WEBS 4-14=-489/0, 3-14=0/406, 3-15=-738/0, 2-15=0/778, 2-16=-1136/0, 5-11=-555/0, 6-11=0/449, 6-10=-785/0, 7-10=0/826, 7-9=-1029/0

- NOTES-** (5-6)
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x4 MT20 unless otherwise indicated.
  - 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 5) Graphical web bracing representation does not depict the size, type or the orientation of the brace on the web. Symbol only indicates that the member must be braced.
  - 6) Bearing symbols are only graphical representations of a possible bearing condition. Bearing symbols are not considered in the structural design of the truss to support the loads indicated.

**LOAD CASE(S)** Standard



5/7/2021

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