

RE: 24050019 23 Serenity - B329 B LH CP Trenco 818 Soundside Rd Edenton, NC 27932

## Site Information:

| Customer: David Weekley Homes | Project Name: 24050019 |
|-------------------------------|------------------------|
| Lot/Block: 23                 | Model:                 |
| Address: 35 Welcome Ave       | Subdivision: Serenity  |
| City: Fuquay-Varina           | State: NC              |

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

Design Code: IRC2018/TPI2014 Wind Code: ASCE 7-16 Roof Load: 40.0 psf Design Program: MiTek 20/20 8.7 Wind Speed: 130 mph Floor Load: N/A psf

This package includes 44 individual, dated Truss Design Drawings and 0 Additional Drawings.

| 2       164576254       BSE       4/1/2024       22       164576274       C1       4/         3       164576255       B       4/1/2024       23       164576275       A7GR       4/         4       164576256       DSE       4/1/2024       24       164576276       A6       4/         5       164576257       D       4/1/2024       25       164576277       A5       4/         6       164576258       D1       4/1/2024       26       164576278       JGE       4/         7       164576260       B2       4/1/2024       27       164576280       V11       4/         9       164576261       B3       4/1/2024       29       164576281       V12       4/         10       164576263       B5GR       4/1/2024       30       164576283       V14       4/         11       164576265       HGE       4/1/2024       31       164576285       V2       4/         12       164576265       HGE       4/1/2024       32       164576285       V2       4/         13       164576266       H       4/1/2024       33       164576286       V3       4/ | <pre>///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024 ///2024</pre> |
|---|--|
| 17       164576269       A4SE       4/1/2024       37       164576269       V6       4/         18       164576270       A4       4/1/2024       38       164576290       PB1       4/         19       164576271       A2       4/1/2024       39       164576291       FGE       4/         20       164576272       A1       4/1/2024       40       164576292       F       4/  | 1/2024<br>1/1/2024<br>1/1/2024<br>1/1/2024   |

The truss drawing(s) referenced above have been prepared by

Truss Engineering Co. under my direct supervision

based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Tony Miller

My license renewal date for the state of North Carolina is December 31, 2024

North Carolina COA: C-0844

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



Tony Miller



## RE: 24050019 - 23 Serenity - B329 B LH CP

Trenco 818 Soundside Rd Edenton, NC 27932

## Site Information:

Project Customer: David Weekley Homes Project Name: 24050019 Lot/Block: 23 Subdivision: Serenity Address: 35 Welcome Ave City, County: Fuquay-Varina State: NC

| Seal#     | Truss Name  | Date   |
|-----------|---|--|
| 164576293 | ISE   | 4/1/2024   |
| 164576294 | I   | 4/1/2024   |
| 164576295 | С   | 4/1/2024   |
| 164576296 | KGR   | 4/1/2024   |
|           | Seal#<br>164576293<br>164576294<br>164576295<br>164576296 | Seal#         Truss Name           I64576293         ISE           I64576294         I           I64576295         C           I64576296         KGR |

| Job      | Truss | Truss Type             | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------------------|-----|-----|----------------------------|-----------|
| 24050019 | GGE   | Common Supported Gable | 1   | 1   | Job Reference (optional)   | 164576253 |



| Scale = 1:40.1  |  |  |  |   |   |   |  |  |                                    |  |   |                                       |  |   |                            |
|---|--|--|--|---|---|---|--|--|------------------------------------|--|---|---------------------------------------|--|---|----------------------------|
| Plate Offsets (   | (X, Y): [2:0   | -2-8,0-0-3],   | [10:0-2-8,0-2-11]  |   |   |   |  |  |                                    |  |   |                                       |  |   |                            |
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL     |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC20     | 18/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.08<br>0.03<br>0.07   | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)   | in<br>n/a<br>n/a<br>0.00           | (loc)<br>-<br>-<br>10                      | l/defl<br>n/a<br>n/a<br>n/a   | L/d<br>999<br>999<br>n/a              | PLATES<br>MT20<br>Weight: 78 lb  | <b>GRIP</b><br>244/190<br>FT = 20%            |                            |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>OTHERS<br>SLIDER<br>BRACING | 2x4 SP N<br>2x4 SP N<br>2x4 SP N<br>Left 2x4 S<br>No.3 0-  | lo.2<br>lo.2<br>lo.3<br>SP No.3 (<br>-11-14  | )-11-14, Right 2x4 S   | P <sup>\</sup>                            | BOT CHORD   | 2-18=-39/117, 1<br>15-16=-39/117, 1<br>13-14=-39/117, 1<br>0-12=-39/117<br>6-15=-106/0, 5-1<br>3-18=-113/116, 8<br>8-13=-186/119, 9   | 7-18=-39/1<br>14-15=-39,<br>12-13=-39,<br>16=-219/10<br>7-14=-219,<br>9-12=-113,   | 17, 16-17=-39<br>(117,<br>(117,<br>(117,<br>7, 4-17=-186/<br>(107,<br>(116)                          | 9/117,<br>/119,                    | 11) * Th<br>on t<br>3-06<br>cho<br>12) N/A | his truss<br>he botto<br>6-00 tall<br>rd and a  | has be<br>m choi<br>by 2-0<br>ny othe | een designed for<br>rd in all areas wh<br>0-00 wide will fit<br>er members.  | a live load o<br>here a rectar<br>between the | f 20.0psf<br>gle<br>bottom |
| TOP CHORD<br>BOT CHORD  | Structura<br>6-0-0 oc<br>Rigid ceil<br>bracing.  | I wood shea<br>purlins.<br>ling directly   | athing directly applie applied or 10-0-0 oc  | ed or I                                   | <ul> <li>or NOTES</li> <li>1) Unbalanced roof live loads have been considered for this design.</li> <li>2) Wind: ASCE 7-16; Vult=130mph (3-second gust)</li> </ul>                    |   |  |  |                                    |  | 13) This truss is designed in accordance with the 2018<br>International Residential Code sections R502.11.1 and<br>R802.10.2 and referenced standard ANSUZ.11.1 |                                       |  |   |                            |
| REACTIONS   | Rigid ceiling directly applied or 10-0-0 oc<br>bracing.         this de<br>2           (size)         2=13-11-0, 10=13-11-0,<br>12=13-11-0, 13=13-11-0,<br>14=13-11-0, 15=13-11-0,<br>18=13-11-0, 17=13-11-0,<br>23=13-11-0         2)         Wind:<br>Vasd=<br>11; Exp<br>and C           Max Horiz         2=-123 (LC 12), 19=-123 (LC 12),<br>12=-68 (LC 15), 13=-60 (LC 15),<br>14=-60 (LC 15), 16=-61 (LC 14),<br>17=-59 (LC 14), 18=-77 (LC 14),<br>2 = 200 (LC 14), 18=-77 (LC 14),<br>2 = |  |  |   | Vasd=103rr<br>II; Exp B; E<br>and C-C Cd<br>to 3-11-8, C<br>9-11-8 to 1<br>cantilever la<br>right exposs<br>for reaction<br>DOL=1.60<br>3) Truss desi<br>only. For s                  | asd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.<br>; Exp B; Enclosed; MWFRS (envelope) exterior zone<br>nd C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8<br>) 3-11-8, Corner(3R) 3-11-8 to 9-11-8, Exterior(2N)<br>-11-8 to 11-9-8, Corner(3E) 11-9-8 to 14-9-8 zone;<br>antilever left and right exposed ; end vertical left and<br>ght exposed;C-C for members and forces & MWFRS<br>or reactions shown; Lumber DOL=1.60 plate grip<br>IOL=1.60<br>Fruss designed for wind loads in the plane of the truss<br>nly. For studs exposed to wind (normal to the face), |  |  |                                    |  | LOAD CASE(S) Standard   |                                       |  |   |                            |
|   | Max Grav   | 19=-47 (L)<br>2=129 (LC<br>12=126 (L<br>14=259 (L<br>16=259 (L<br>18=136 (L<br>23=112 (L | C 10), 23=-13 (LC 1<br>26), 10=112 (LC 2<br>C 26), 13=227 (LC 2<br>C 26), 13=146 (LC 2<br>C 21), 17=227 (LC 2<br>C 21), 17=227 (LC 2<br>C 25), 19=129 (LC 2<br>C 22) | 1)<br>2),<br>22),<br>33),<br>21),<br>26), | see Standa<br>or consult of<br>TCLL: ASC<br>Plate DOL=<br>DOL=1.15)<br>Cs=1.00; C<br>Unbalance  | rd Industry Gable<br>qualified building o<br>E 7-16; Pr=20.0 p<br>=1.15); Pf=20.0 ps<br>; Is=1.0; Rough C<br>:t=1.10<br>d snow loads have   | End Deta<br>designer as<br>osf (roof LL<br>of (Lum DC<br>at B; Fully<br>e been cor | ils as applicat<br>s per ANSI/TF<br>:: Lum DOL=1<br>DL=1.15 Plate<br>Exp.; Ce=0.9<br>psidered for th | ble,<br>Pl 1.<br>I.15<br>);<br>nis |  |   | 1                                     | SEA  | RO  |                            |
| FORCES<br>TOP CHORD   | 23=112 (LC 22)<br>(lb) - Maximum Compression/Maximum<br>Tension<br>D 1-2=0/29, 2-3=-71/76, 3-4=-93/76,<br>4-5=-82/79, 5-6=-91/152, 6-7=-91/152,<br>7-8=-75/79, 8-9=-61/34, 9-10=-70/58,<br>10-11=0/29  |  |  |   | <ul> <li>design.</li> <li>This truss h<br/>load of 12.0<br/>overhangs</li> <li>All plates a</li> <li>Gable requ</li> <li>Gable stud</li> <li>This truss h<br/>chord live h</li> </ul> | design.<br>This truss has been designed for greater of min roof live<br>load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on<br>overhangs non-concurrent with other live loads.<br>All plates are 2x4 MT20 unless otherwise indicated.<br>Gable requires continuous bottom chord bearing.<br>Gable studs spaced at 2-0-0 oc.<br>This truss has been designed for a 10.0 psf bottom<br>chord live load oneconcurrent with any other live loads   |  |  |                                    |  |   | 94<br>EER.ER<br>MILLER                | in the second se |   |                            |

April 1,2024

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



| Job      | Truss | Truss Type              | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|-------------------------|-----|-----|----------------------------|-----------|
| 24050019 | BSE   | Common Structural Gable | 1   | 1   | Job Reference (optional)   | 164576254 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:40 ID:PsmVvbhMaAB85kbfL?kTkHzMCsP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



| Scale = 1:60.9  |  |  |  |   | 10-5-12   |  |  | 0-1-12   |  |   | 0  | -11-0  |  |  |   |
|---|--|--|--|---|---|--|--|--|--|---|--|--|--|--|---|
| Plate Offsets (   | X, Y): [2:0  | -2-13,0-0-3]   | ], [18:0-2-13,0-0-3]   |   |   |  |  |  |  |   |  |  |  |  |   |
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL   |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC20   | )18/TPI2014   | <b>CSI</b><br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.49<br>0.41<br>0.11   | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)   | in<br>0.07<br>-0.10<br>0.02  | (loc)<br>20-36<br>20-36<br>18   | l/defl<br>>999<br>>999<br>n/a  | L/d<br>240<br>180<br>n/a   | PLATES<br>MT20<br>Weight: 154 It   | <b>GRIP</b><br>244/190   | %   |
| BEDL         10.0           LUMBER         TOP CHORD         2x4 SP No.2           BOT CHORD         2x4 SP No.2         WEBS         2x4 SP No.3           OTHERS         2x4 SP No.3         OTHERS         2x4 SP No.3           SLIDER         Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0         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.           JOINTS         1 Brace at Jt(s): 11, 13         13           REACTIONS         (size)         2=10-5-8, 18=0-5-8, 22=0-3-8, 27=10-5-8, 26=10-5-8, 27=10-5-8, 28=10-5-8, 34=0-5-8           Max Hagia         2.04 (I/C 10)         28.04 (I/C 10) |  |  |  | No.3<br>ed or<br>c  | BOT CHORD<br>WEBS<br>1) Unbalance<br>this design<br>2) Wind: ASC<br>Vasd=103<br>II; Exp B; F<br>and C-C E<br>1-11-8 to 8  | 2-27=-47/201, 26-<br>25-26=-47/201, 24<br>23-24=-47/201, 22<br>18-20=-125/532<br>10-11=-51/29, 8-9<br>6-25=-137/78, 5-2<br>12-13=-81/51, 14-<br>ed roof live loads hav<br>b.<br>CE 7-16; Vult=130m;<br>mph; TCDL=6.0psf;<br>Enclosed; MWFRS (<br>ixterior(2E) -0-10-8 t<br>3-11-8, Exterior(2R)  | 27=-47/2<br>-25=-47<br>-23=0/5<br>=-134/58<br>6=-146/7<br>15=-15/6<br>ve been<br>bh (3-see<br>BCDL=6<br>envelope<br>o 1-11-8<br>8-11-8 tr  | 201,<br>/201,<br>/201,<br>32, 20-22=0/5<br>8, 7-24=-158/5<br>(8, 4-27=-135<br>5, 16-20=0/28<br>considered fo<br>cond gust)<br>6.0psf; h=25ft;<br>9 exterior zor<br>, Interior (1)<br>0 14-11-8, Inte   | 532,<br>99,<br>/113,<br>7<br>r<br>; Cat.<br>ne<br>erior                          | 10) * Th<br>on t<br>3-00<br>cho<br>11) One<br>recc<br>UPI<br>is fo<br>12) This<br>Inte<br>R80<br>13) Gra<br>or ti<br>bott | his truss<br>che botto<br>6-00 tall<br>rd and a<br>e H2.5A<br>commence<br>LIFT at j<br>or uplift or<br>s truss is<br>rnationa<br>02.10.2 a<br>phical p<br>he orien<br>com choi | has be<br>om choi<br>by 2-0<br>iny oth<br>Simpsi<br>led to c<br>oint 18<br>only an<br>a desig<br>and refu<br>urlin re<br>tation cr<br>d. | en designed for<br>rd in all areas w<br>0-00 wide will fi<br>er members.<br>on Strong-Tie c<br>connect truss to<br>. This connection<br>d does not const<br>d does not const<br>dential Code se<br>erenced standa<br>presentation do<br>of the purlin alor | r a live load<br>there a recta<br>t between the<br>onnectors<br>bearing wal<br>on<br>sider lateral<br>the with the<br>ctions R502.<br>trid ANSI/TPI<br>bes not depic<br>ing the top an | of 20.0psf<br>ingle<br>le bottom<br>Is due to<br>forces.<br>2018<br>.11.1 and<br>1.<br>ct the size<br>nd/or |
| FORCES<br>TOP CHORD   | Max Horiz<br>Max Uplift<br>Max Grav<br>(lb) - Max<br>Tension<br>1-2=0/29<br>5-6=-215<br>8-10=-20<br>12-14=-2<br>16-18=-7<br>9-11=-58<br>13-15=-5 | 24=10-5-8<br>27=10-5-8<br>2=-27 (LC<br>2=-27 (LC<br>24=-123 (l<br>26=-51 (L<br>28=-27 (LC<br>22=447 (LC<br>22=447 (LC<br>22=447 (LC<br>22=447 (L<br>25=145 (L<br>27=168 (L<br>34=669 (L<br>cimum Com<br>, 2-4=-251/ <sup>-</sup><br>/68, 6-7=-19<br>0/112, 10-1<br>01/73, 14-1<br>0/172, 11-1<br>51/171, 15- | 8, 25=10-5-8, 26=10<br>8, 28=10-5-8, 34=0-5<br>C 12), 28=-201 (LC<br>10), 18=-80 (LC 15<br>LC 14), 27=-112 (LC<br>C 14), 27=-112 (LC<br>C 14), 27=-112 (LC<br>C 10), 34=-80 (LC 1<br>C 26), 18=669 (LC 1<br>C 25), 26=175 (LC<br>C 25), 26=175 (LC<br>C 25), 28=247 (LC 1<br>C 25), 28=247 (LC 1<br>B 200, 28=247 (LC 1)<br>112, 4-5=-224/82,<br>99/60, 7-8=-192/100<br>2=-185/113,<br>6=-220/57,<br>9=0/29, 9-23=-449/0<br>3=-596/200,<br>16=-542/168 | h-5-8,<br>5-8<br>12)<br>5),<br>14),<br>14),<br>14),<br>(5)<br>),<br>1),<br>26),<br>0, | <ul> <li>(1) 14-11-4</li> <li>zone; cant</li> <li>and right e</li> <li>MWFRS fc</li> <li>grip DOL=</li> <li>3) Truss dess</li> <li>only. For s</li> <li>see Stand-</li> <li>or consult</li> <li>4) TCLL: ASC</li> <li>Plate DOL</li> <li>DOL=1.15</li> <li>Cs=1.00; (2)</li> <li>Cs=1.00; (2)</li> <li>Unbalance</li> <li>design.</li> <li>6) This truss</li> <li>load of 12.</li> <li>overhangs</li> <li>7) All plates a</li> <li>8) Gable stuce</li> <li>9) This truss</li> <li>chord live</li> </ul> | 8 to 21-9-8, Exteriori<br>illever left and right e<br>xeposed;C-C for mer<br>pr reactions shown; 1<br>1.60<br>signed for wind loads<br>studs exposed to win<br>ard Industry Gable E<br>qualified building de<br>CE 7-16; Pr=20.0 ps<br>=1.15); Pf=20.0 psf<br>); Is=1.0; Rough Cai<br>Ct=1.10<br>ad snow loads have<br>has been designed<br>0 psf or 1.00 times f<br>a non-concurrent with<br>are 2x4 MT20 unless<br>Is spaced at 2-0-0 o<br>has been designed<br>load nonconcurrent | 2E) 21-5<br>exposed<br>nbers ar<br>Lumber I<br>a in the p<br>nd (norm<br>rnd Deta<br>signer a<br>f (roof LI<br>(Lum DC<br>a B; Fully<br>been col<br>for great<br>lat roof I<br>a other I<br>is otherwic<br>c.<br>for a 10.<br>with any | 9-8 to 24-9-8<br>; end vertical<br>d forces &<br>DOL=1.60 pla<br>lane of the tru<br>al to the face)<br>ils as applicat<br>s per ANSI/TF<br>.: Lum DOL='<br>DL=1.15 Plate<br>Exp.; Ce=0.9<br>nsidered for th<br>er of min roof<br>oad of 20.0 ps<br>ve loads.<br>se indicated.<br>0 psf bottom<br>other live load | left<br>ate<br>Jss<br>ble,<br>Pl 1.<br>1.15<br>9;<br>his<br>live<br>sf on<br>ds. |   |  | ) Star   | SEA<br>0235  | ARO<br>AL<br>594   | A III A MARINA A III  |

April 1,2024

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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTP11 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)



| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | В     | Common     | 7   | 1   | Job Reference (optional)   | 164576255 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:39

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#### Scale = 1:60.8 Plate Offsets (X, Y): [2:0-3-5,0-0-3], [8:0-3-5,0-0-3]

| L <b>oading</b><br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>3CLL<br>3CDL   | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018              | 8/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH  | 0.85<br>0.70<br>0.27   | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)   | in<br>-0.16<br>-0.23<br>-0.03  | (loc)<br>10-12<br>10-12<br>2 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 126 lb | <b>GRIP</b><br>244/190<br>FT = 20% |   |
|---|---|---|--|---|--|--|--|--|------------------------------|-------------------------------|--------------------------|----------------------------------|------------------------------------|---|
| LUMBER<br>TOP CHORD<br>30T CHORD<br>WEBS<br>SLIDER<br>BRACING<br>TOP CHORD<br>30T CHORD<br>REACTIONS  | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>Left 2x4 SP No.3 1<br>1-6-0<br>Structural wood shea<br>2-2-0 oc purlins.<br>Rigid ceiling directly<br>bracing.<br>(size) 2=0-5-8, 8<br>Max Horiz 8=201 (LC<br>Max Uplift 2=-99 (LC<br>Max Grav 2=1136 (L   | I-6-0, Right 2x4 SP<br>athing directly applie<br>applied or 10-0-0 or<br>3=0-5-8<br>C 13)<br>: 14), 8=-99 (LC 15)<br>.C 25), 8=1136 (LC :   | 3)<br>No.3 4)<br>5)<br>ed or<br>2 6)<br>7)<br>26) 8) | TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15);<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>This truss ha<br>load of 12.0<br>overhangs n<br>This truss ha<br>chord live loa<br>* This truss fa<br>on the bottor<br>3-06-00 tall b<br>chord and ar<br>One H2 55 AS | 57-16; Pr=20.0 psf<br>.15); Pf=20.0 psf<br>ls=1.0; Rough Cat<br>=1.10<br>snow loads have b<br>s been designed f<br>psf or 1.00 times fl<br>on-concurrent with<br>s been designed<br>ad nonconcurrent v<br>as been designed<br>n chord in all areas<br>by 2-00-00 wide wi<br>y other members,<br>Simpson Strong-Tic | f (roof LI<br>Lum DC<br>B; Fully<br>been con<br>or great<br>at roof I<br>other li<br>or a 10.<br>with any<br>for a liv<br>s where<br>II fit betw<br>with BC<br>a conne | L: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.9<br>asidered for t<br>er of min rool<br>bad of 20.0 p<br>ve loads.<br>D psf bottom<br>other live load<br>e load of 20.1<br>a rectangle<br>veen the bott<br>CDL = 10.0ps<br>ctors | 1.15<br>e<br>9;<br>his<br>f live<br>sof on<br>ads.<br>Opsf<br>om<br>f. |                              |                               |                          |                                  |                                    |   |
| FORCES<br>TOP CHORD<br>BOT CHORD<br>WEBS  | (lb) - Maximum Com<br>Tension<br>5-6=-1566/217, 6-8=<br>1-2=0/29, 2-4=-1647<br>2-12=-101/1296, 10-<br>8-10=-209/1296<br>5-12=-128/709, 4-12   | pression/Maximum<br>1647/152, 8-9=0/29<br>//152, 4-5=-1566/217<br>-12=0/844,<br>2=-384/223,   | 9,<br>7 9)<br>LC                                     | recommende<br>UPLIFT at jt(<br>and does no<br>This truss is<br>International<br>R802.10.2 at  | ad to connect truss<br>s) 2 and 8. This co<br>t consider lateral for<br>designed in accorror<br>Residential Code<br>nd referenced stan<br>Standard   | to bear<br>onnectio<br>orces.<br>dance w<br>sections<br>dard At  | ing walls due<br>n is for uplift<br>ith the 2018<br>\$ R502.11.1 a<br>ISI/TPI 1.   | e to<br>only<br>and  |                              |                               |                          |                                  |                                    |   |
| NOTES<br>I) Unbalance<br>this design<br>2) Wind: ASC<br>Vasd=103<br>II; Exp B;<br>and C-C E<br>to 8-11-8,<br>14-11-8 to<br>cantilever<br>right expo<br>for reaction<br>DOL 4 CC | 5-10=-128/709, 6-10<br>ed roof live loads have<br>D.<br>DE 7-16; Vult=130mph<br>imph; TCDL=6.0psf; B(<br>Enclosed; MWFRS (en<br>ixterior(2E) -0-10-8 to 2<br>Exterior(2E) 20-10-8 to 2<br>Exterior(2E) 2-0-10-8 | =-384/223<br>been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft;<br>velope) exterior zon<br>2-1-8, Interior (1) 2-1<br>14-11-8, Interior (1)<br>1-9-8 to 24-9-8 zone<br>; end vertical left ann<br>and forces & MWFR<br>L=1.60 plate grip | Cat.<br>le<br>l-8<br>ə;<br>d<br>S                    |   |  |  |  |  |                              |                               |                          | SEA<br>0235                      |                                    | Anna anna anna anna anna anna anna anna |

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 8-11-8, Exterior(2R) 8-11-8 to 14-11-8, Interior (1) 14-11-8 to 21-9-8, Exterior(2E) 21-9-8 to 24-9-8 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

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Community Community

April 1,2024

| Job      | Truss | Truss Type             | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------------------|-----|-----|----------------------------|-----------|
| 24050019 | DSE   | Common Supported Gable | 1   | 1   | Job Reference (optional)   | 164576256 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:scQGvP9BX7kqzqHzzoTKtTzMCKE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



#### Scale = 1:50.5

#### Plate Offsets (X, Y): [2:0-2-8,0-0-3], [14:0-2-13,0-0-3], [20:0-3-0,0-3-0]

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC20                              | 18/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.08<br>0.04<br>0.14  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>n/a<br>n/a<br>0.00                   | (loc)<br>-<br>-<br>14   | l/defl<br>n/a<br>n/a<br>n/a  | L/d<br>999<br>999<br>n/a  | PLATES<br>MT20<br>Weight: 124 lb   | <b>GRIP</b><br>244/190<br>FT = 20%   |  |
|--|--|--|--|--|---|---|---|---|--|---|--|---|--|--|--|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>OTHERS<br>SLIDER<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS | 2x4 SP N<br>2x4 SP N<br>2x4 SP N<br>Left 2x4 S<br>1-6-0<br>Structura<br>6-0-0 oc<br>Rigid ceil<br>bracing.<br>(size) | lo.2<br>lo.2<br>lo.3<br>SP No.3 1<br>l wood shea<br>purlins.<br>ing directly<br>2=19-11-0<br>16-19-11  | -6-0, Right 2x4 SP №<br>athing directly applie<br>applied or 10-0-0 oc<br>0, 14=19-11-0,<br>0 17-19-11-0   | T<br>No.3 E<br>d or<br>V   | OP CHORD  | I-2=0/29, 2-4=-145/<br>5-6=-105/90, 6-7=-9<br>3-9=-113/184, 9-10=<br>11-12=-73/40, 12-14<br>2-24=-55/128, 22-22<br>22-23=-55/128, 12-2<br>9-21=-55/128, 18-1<br>17-18=-55/128, 16-1<br>14-16=-55/128<br>3-20=-141/28, 7-21=<br>5-23=-143/85, 4-24=<br>10-18=-182/91, 11-1<br>12-16=-145/103 | 128, 4<br>2/125,<br>87/12<br>-=-55/1<br>22=-55/<br>9=-55/<br>7=-55/<br>219/8<br>145/1<br>7=-14    | 5=-116/97,<br>7-8=-113/184<br>5, 10-11=-63/<br>66, 14-15=0/2<br>28,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128,<br>128, | ,<br>61,<br>29<br>91,<br>9/84,             | <ol> <li>Thi load ove</li> <li>Thi load ove</li> <li>All 8) Gal</li> <li>Gal</li> <li>Gal</li> <li>Gal</li> <li>Thi chc</li> <li>Thi chc</li> <li>Thi 3-0</li> <li>Chc</li> <li>Thi 3-0</li> <li>Thi 3-0</li></ol> | s truss h<br>d of 12.0<br>rhangs r<br>blates ar<br>ble requi<br>ble studs<br>s truss h<br>rd live lo<br>bis truss<br>he botto<br>6-00 tall<br>rd and a | as bee<br>psf or<br>ion-co<br>e 2x4<br>res col<br>space<br>ad nor<br>has bee<br>m cho<br>by 2-0<br>ny oth | en designed for g<br>1.00 times flat r<br>ncurrent with oth<br>MT20 unless oth<br>ntinuous bottom<br>ed at 2-0-0 oc.<br>en designed for a<br>nconcurrent with<br>een designed for<br>rd in all areas wi<br>0-00 wide will fit<br>er members. | reater of mir<br>sof load of 2<br>er live loads<br>erwise indic<br>chord bearir<br>10.0 psf bo<br>any other lin<br>a live load c<br>here a rectar<br>between the | n roof live<br>0.0 psf on<br>;<br>ated.<br>1g.<br>ttom<br><i>ve</i> loads.<br>of 20.0psf<br>ngle<br>e bottom |
|  | Max Horiz<br>Max Uplift  | 16=19-11:<br>20=19-11:<br>20=19-11:<br>22=19-11:<br>29=19-11:<br>29=19-11:<br>29=19-11:<br>29=19-11:<br>29=43 (LC<br>16=-86 (L<br>18=-62 (L)<br>21=-58 (L)<br>23=-50 (L)<br>25=-43 (L) | -0, 1/=19-11-0,<br>-0, 19=19-11-0,<br>-0, 23=19-11-0,<br>-0, 25=19-11-0,<br>-0, 25=19-11-0,<br>-0<br>2 13), 25=170 (LC 13<br>-10), 14=-3 (LC 11),<br>C 15), 17=-52 (LC 14),<br>C 15), 19=-56 (LC 14)<br>C 14), 22=-61 (LC 14)<br>C 14), 24=-94 (LC 14)<br>C 10), 29=-3 (LC 11) | N<br>1<br>2<br>3)<br>5),<br>5),<br>4),<br>4),                      | <ul> <li>IOTES</li> <li>Unbalanced<br/>this design.</li> <li>Wind: ASCE<br/>Vasd=103mg<br/>II; Exp B; En<br/>and C-C Cor<br/>1-11-8 to 6-1<br/>(2N) 12-11-8<br/>zone; cantile<br/>and right exp<br/>MWFRS for I<br/>grip DOL=1.6</li> </ul> | roof live loads have<br>7-16; Vult=130mph<br>ph; TCDL=6.0psf; Bi<br>closed; MWFRS (er<br>ner(3E) -0-10-8 to 1<br>1-8, Corner(3R) 6-1<br>to 17-9-8, Corner(3<br>ver left and right exp<br>osed;C-C for memb<br>reactions shown; Lu<br>50   | been (<br>(3-sec<br>CDL=6<br>velope<br>-11-8,<br>1-8 to<br>3E) 17-<br>bosed<br>bers an<br>imber I | considered for<br>ond gust)<br>.0psf; h=25ft;<br>s) exterior zon<br>Exterior(2N)<br>12-11-8, Exte<br>9-8 to 20-9-8<br>c end vertical I<br>d forces &<br>DOL=1.60 plat   | Cat.<br>e<br>rior<br>eft                   | 13) Bev<br>sur<br>14) Thi<br>Inte<br>R8(  | reled pla<br>face with<br>s truss is<br>rnationa<br>02.10.2 a  | te or s<br>truss<br>desig<br>I Resid<br>and ref   | him required to p<br>chord at joint(s)<br>ned in accordan<br>dential Code sec<br>erenced standar   | provide full b<br>14, 29.<br>ce with the 2<br>tions R502.1<br>d ANSI/TPI   | earing<br>2018<br>11.1 and<br>1.   |
| FORCES   | Max Grav<br>(Ib) - Max<br>Tension  | 2=167 (LC<br>16=178 (L<br>18=222 (L<br>20=167 (L<br>22=222 (L<br>24=187 (L<br>29=146 (L  | ; 26), 14=146 (LC 22<br>C 26), 17=166 (LC 2<br>C 22), 19=259 (LC 2<br>C 28), 21=259 (LC 2<br>C 21), 23=165 (LC 2<br>C 21), 23=165 (LC 2<br>C 25), 25=167 (LC 2<br>C 22)<br>pression/Maximum  | 2), 3<br>(26), 3<br>(22), 2<br>(21), 2<br>(25), 2<br>(26), 4<br>(5 | <ul> <li>gin bote 11(1)</li> <li>Truss design<br/>only. For stu<br/>see Standard<br/>or consult qu</li> <li>TCLL: ASCE<br/>Plate DOL=1</li> <li>DOL=1.15); I<br/>Cs=1.00; Ct=</li> <li>Unbalanced<br/>design.</li> </ul>                    | dis exposed to wind<br>dis exposed to wind<br>dindustry Gable En<br>alified building desi<br>7-16; Pr=20.0 psf (<br>.15); Pf=20.0 psf (L<br>s=1.0; Rough Cat E<br>1.10<br>snow loads have be  | n the p<br>(norm<br>d Deta<br>gner as<br>roof LL<br>um DC<br>3; Fully<br>een cor                  | ane of the tru:<br>al to the face)<br>ils as applicab<br>s per ANSI/TP<br>:: Lum DOL=1<br>JL=1.15 Plate<br>Exp.; Ce=0.9<br>asidered for th  | ss<br>,<br>lle,<br>,l11.<br>,15<br>;<br>is |   | - Comment  |   | SEA<br>0235  | L<br>94<br>EEFR. LP  | ANNUMATION AND AND AND AND AND AND AND AND AND AN  |

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

and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road Edenton, NC 27932

April 1,2024

| Job                            | Truss                    | Truss Type             | Qty          | Ply           | 23 Serenity - B329 B LH CP                            |           |
|--------------------------------|--------------------------|------------------------|--------------|---------------|---|-----------|
| 24050019                       | DSE                      | Common Supported Gable |              | 1             | Job Reference (optional)                              | 164576256 |
| Carter Components (Sanford, NC | C), Sanford, NC - 27332, | Run: 9.03 S 8.73 Mar   | 21 2024 Prir | nt: 8.730 S M | ar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 | Page: 2   |

LOAD CASE(S) Standard

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:scQGvP9BX7kqzqHzzoTKtTzMCKE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent outlapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | D     | Common     | 9   | 1   | Job Reference (optional)   | 164576257 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:hUF6be117ILO98xsq?mlx9zMCKP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



| L | 9-11-8 | 19-11-0 |   |
|---|--------|---------|---|
| Г | 9-11-8 | 9-11-8  | 7 |
|   |        |         |   |

#### Scale = 1:54.7 Plate Offsets (X, Y): [2:0-3-8,Edge], [8:0-3-13,Edge], [10:0-4-0,0-3-0]

|  |  | , 01,   | . , , , , , , , , , , , , , , , , , , ,   | ,   |  |  |  |   |  |                              |                               |                          | -                                |                                      |
|--|--|---|---|---|--|--|--|---|--|------------------------------|-------------------------------|--------------------------|----------------------------------|--------------------------------------|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL<br>LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>SLIDER  | 2x4 SP No.<br>2x4 SP No.<br>2x4 SP No.<br>Left 2x4 SP<br>1-6-0   | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0<br>20.0<br>10.0<br>20.0<br>10.0<br>2.2<br>.2<br>.3<br>3<br>No.3 1             | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2011<br>3) | B/TPI2014<br>TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15); I<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>This truss ha | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH<br>7-16; Pr=20.0 psf<br>.15); Pf=20.0 psf (<br>is=1.0; Rough Cat<br>=1.10<br>snow loads have b<br>is been designed for | 0.51<br>0.83<br>0.27<br>(roof LL<br>Lum DC<br>B; Fully<br>been cor | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)<br>L: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.<br>asidered for t | in<br>-0.13<br>-0.27<br>0.02<br>:1.15<br>9;<br>his<br>f live | (loc)<br>10-17<br>10-17<br>8 | l/defl<br>>999<br>>875<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 101 lb | <b>GRIP</b><br>244/190<br>FT = 20%   |
| BRACING       Structural wood sheathing directly applied or 10-0 oc       Ioad of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.         BOT CHORD       Rigid ceiling directly applied or 10-0 oc       6)       This truss has been designed for a 10.0 psf bottom   |  |   |   |   |  |  |  |   |  |                              |                               |                          |                                  |                                      |
| Actions       (size)       2=0-5-8, 8=0-5-8       row of the bottom       row of the bottom       row of the bottom       row of the bottom         Max Horiz       2=170 (LC 13)       3-06-00 tall by 2-00-00 wide will fit between the bottom       row of the bottom       row of the bottom         Max Grav       2=897 (LC 21), 8=897 (LC 22)       8)       One H2.5A Simpson Strong-Tie connectors       Non-top-Tie connectors |  |   |   |   |  |  |  |   |  |                              |                               |                          |                                  |                                      |
| FORCES<br>TOP CHORD<br>BOT CHORD<br>WEBS   | Max Grav       2=897 (LC 21), 8=897 (LC 22)       8)         Max Grav       2=897 (LC 21), 8=897 (LC 22)       8)         One H2.5A Simpson Strong-Tie connectors       recommended to connect truss to bearing walls due to         DP CHORD       1-2=0/29, 2-4=-1006/147, 4-5=-875/137, 5-6=-875/137, 6-8=-1006/147, 8-9=0/29       9)         DT CHORD       2-8=-193/897       9)         DT CHORD       5-10=-29(593, 6-10=-366/183, 4-10=-366/183       4-10=-366/183   |   |   |   |  |  |  |   |  |                              |                               |                          |                                  |                                      |
| NOTES<br>1) Unbalance<br>this design<br>2) Wind: ASC<br>Vasd=103<br>II; Exp B; f<br>and C-C E<br>to 6-11-8,<br>12-11-8 to<br>cantilever<br>right expos<br>for reaction<br>DOL=1.60   | ed roof live loa<br>n.<br>CE 7-16; Vult-<br>mmh; TCDL=<br>Enclosed; MV<br>Exterior(2E) -0<br>Exterior(2E) -0<br>Exterior(2E) -0<br>(2E) -0<br>Exterior(2E) -0<br>E | ads have<br>=130mph<br>6.0psf; BC<br>VFRS (en<br>)-10-8 to 2<br>6-11-8 to<br>rior(2E) 1<br>exposed<br>nembers a<br>imber DO | been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft;<br>(velope) exterior zone<br>2-1-8, Interior (1) 2-1<br>12-11-8, Interior (1)<br>7-9-8 to 20-9-8 zone<br>; end vertical left and<br>and forces & MWFRS<br>L=1.60 plate grip | LC<br>Cat.<br>8<br>8                          | DAD CASE(S)  | Standard   |  |   |  |                              | Winning                       |                          | SEA<br>0235                      | RO<br>14<br>94<br>94<br>11<br>1,2024 |
| WARN   | NNG - Verify desi  | gn paramete   | rs and READ NOTES ON T  | HIS AND IN                                    | CLUDED MITEK RI  | EFERENCE PAGE MII-7  | '473 rev. 1  | /2/2023 BEFORI  | E USE.   |                              |                               |                          | ENGINEER                         |                                      |

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | D1    | Common     | 2   | 1   | Job Reference (optional)   | 164576258 |

Run; 9.03 S 8.73 Mar 21 2024 Print; 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:Z\_zCtCt8BmiE58RMZm1ivPzMCKc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



| 9-11-8 | 19-11-0 |
|--------|---------|
| 9-11-8 | 9-11-8  |
|        |         |

#### Scale = 1:54.7 Plate Offsets (X, Y): [2:0-3-13,Edge], [8:0-3-8,Edge], [9:0-4-0,0-3-0]

|   |  |  |  |   |  |   |  |  |                            |                               |                          | -                               |                                    |
|---|--|--|--|---|--|---|--|--|----------------------------|-------------------------------|--------------------------|---------------------------------|------------------------------------|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL   | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2017    | 8/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH  | 0.51<br>0.83<br>0.27  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)   | in<br>-0.13<br>-0.28<br>0.02   | (loc)<br>9-12<br>9-12<br>8 | l/defl<br>>999<br>>868<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 99 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>SLIDER<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS  | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>Left 2x4 SP No.3 1<br>1-6-0<br>Structural wood she<br>5-4-1 oc purlins.<br>Rigid ceiling directly<br>bracing.<br>(size) 2=0-5-8, 8<br>Max Horiz 2=165 (LC<br>Max Uplift 2=-85 (LC<br>Max Grav 2=897 (LC   | 1-6-0, Right 2x4 SP<br>athing directly applie<br>applied or 10-0-0 or<br>3=0-5-8<br>C 13)<br>C 14), 8=-67 (LC 15)<br>C 21), 8=843 (LC 22   | 3)<br>No.3 4)<br>5)<br>ed or<br>c 6)<br>7) | TCLL: ASCE<br>Plate DOL=:<br>DOL=1.15);<br>Cs=1.00; Ct<br>Unbalanced<br>design.<br>This truss ha<br>load of 12.0<br>overhangs n<br>This truss ha<br>chord live lo<br>* This truss<br>on the botto<br>3-06-00 tall<br>chord and a<br>One H2.5A i | 7-16; Pr=20.0 ps<br>1.15); Pf=20.0 ps<br>Is=1.0; Rough Ca<br>=1.10<br>snow loads have<br>as been designed<br>ps for 1.00 times f<br>ion-concurrent with<br>as been designed<br>ad nonconcurrent<br>has been designed<br>m chord in all area<br>by 2-00-00 wide w<br>ny other members<br>Simpson Strono-T | f (roof Ll<br>(Lum DC<br>t B; Fully<br>been cor<br>for great<br>fat roof lin<br>other lif<br>for a 10.<br>with any<br>d for a liv<br>is where<br>ill fit betv | .: Lum DOL=<br>DL=1.15 Plat<br>Exp.; Ce=0.<br>hsidered for the<br>er of min roo<br>bad of 20.0 p<br>ve loads.<br>0 psf bottom<br>other live low<br>the live low<br>a rectangle<br>veen the bott<br>ctors | =1.15<br>e<br>.9;<br>this<br>of live<br>osf on<br>ads.<br>.0psf<br>tom |                            |                               |                          |                                 |                                    |
| FORCES<br>TOP CHORD<br>BOT CHORD  | (Ib) - Maximum Com<br>Tension<br>1-2=0/29, 2-4=-1007<br>5-6=-877/139, 6-8=-<br>2-8=-200/903  | pression/Maximum<br>7/148, 4-5=-876/139<br>1010/149  | ,<br>,<br>9)                               | recommend<br>UPLIFT at jt<br>and does no<br>This truss is<br>International  | (s) 8 and 2. This c<br>ot consider lateral f<br>designed in accor<br>I Residential Code  | s to bear<br>onnectio<br>orces.<br>dance w<br>sections  | ing walls due<br>n is for uplift<br>ith the 2018<br>s R502.11.1  | e to<br>only<br>and  |                            |                               |                          |                                 |                                    |
| NOTES<br>NOTES<br>1) Unbalanc<br>this desig<br>2) Wind: AS<br>Vasd=102<br>II; Exp B;<br>and C-C I<br>to 6-11-8,<br>12-11-8 to<br>zone; can<br>and right<br>MWFRS fi<br>grip DOL | 5-9=-31/595, 6-9=-3<br>ed roof live loads have<br>n.<br>CE 7-16; Vult=130mph<br>3mph; TCDL=6.0psf; Bf<br>Enclosed; MWFRS (er<br>Exterior(2R) 6-11-8 to<br>the Sterior(2R) 6-11-8 to<br>the Sterior(2R) 6-11-8 to<br>the Sterior(2R) 6-11-8 to<br>the Sterior(2R) for the Sterior<br>tilever left and right exp<br>exposed;C-C for memb<br>for reactions shown; Lu<br>=1.60 | been considered fo<br>(3-second gust)<br>CDL=6.0psf; h=25ft;<br>ivelope) exterior zor<br>2-1-8, Interior (1) 2-<br>12-11-8, Interior (1)<br>16-11-0 to 19-11-0<br>bosed ; end vertical<br>pers and forces &<br>mber DOL=1.60 pla | Cat.<br>Cat.<br>1-8<br>left<br>te          | R802.10.2 a   | Standard   | ndara An  | ISI/TPL1.  |  |                            | · Kanture                     |                          | SEA<br>0235                     | ROLIN<br>10<br>94<br>EER. ER.      |

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818 Soundside Road Edenton, NC 27932

11111111111 April 1,2024

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | B1    | Нір        | 1   | 1   | Job Reference (optional)   | 164576259 |

Run: 9.03 S 8 73 Mar 21 2024 Print: 8 730 S Mar 21 2024 MiTek Industries. Inc. Fri Mar 29 10:41:39

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ID:A4ZwKcHPRJy?7vzWsgkq2UzMCQX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f -0-10-8 24-9-8 5-4-10 18-6-6 10-5-13 13-5-3 23-11-0 5-4-10 5-1-2 2-11-6 5-1-3 5-4-11 0-10-8 5x6 = 4x8= ÷⊤ -5 29 6 7-7-14 12 8 è 3x5 🍫 3x5 28 30 31 27 4 7 7-6-3 7-6-3 7-11-1 26 32 3x5 🍫 3x5. 25 33 24 34 8 8-0 10 15 14 13 12 11 2x4 II 3x5= 3x5= 3x8= 2x4 II 3x6 II 3x6 i 5-4-10 10-4-1 13-6-15 18-6-6 23-11-0 5-4-10 4-11-6 3-2-14 4-11-7 5-4-11 Scale = 1:55.7 Plate Offsets (X, Y): [2:0-3-9,0-0-3], [5:0-3-0,0-2-3], [6:0-4-0,0-1-9], [9:0-3-9,0-0-3] Spacing 2-0-0 CSI DEFL in (loc) l/defl L/d PLATES GRIP (psf) TCLL (roof) 20.0 Plate Grip DOL 1.15 тс 0.57 Vert(LL) -0.06 14-15 >999 240 MT20 244/190 Snow (Pf) 20.0 Lumber DOL 1.15 BC 0.56 Vert(CT) -0.12 14-15 >999 180 10.0 Rep Stress Incr WB Horz(CT) YES 0.34 0.05 9 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH Weight: 146 lb 10.0 FT = 20% 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) LUMBER 2x4 SP No.2 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. TOP CHORD II; Exp B; Enclosed; MWFRS (envelope) exterior zone BOT CHORD 2x4 SP No.2 and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 2x4 SP No.3 Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 to 6-2-14. Exterior(2R) 6-2-14 to 17-8-2. Interior (1) 17-8-2 to 21-9-8, Exterior(2E) 21-9-8 to 24-9-8 zone; -- 1-6-0 cantilever left and right exposed ; end vertical left and BRACING right exposed C-C for members and forces & MWERS TOP CHORD Structural wood sheathing directly applied or for reactions shown; Lumber DOL=1.60 plate grip 4-1-6 oc purlins, except DOL=1.60 2-0-0 oc purlins (5-9-6 max.): 5-6. 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate bracing. DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; REACTIONS 2=0-5-8, 9=0-5-8 (size) Cs=1.00; Ct=1.10 Max Horiz 2=176 (LC 13) 4) Unbalanced snow loads have been considered for this Max Uplift 2=-104 (LC 14), 9=-104 (LC 15) desian. Max Grav 2=1209 (LC 41), 9=1209 (LC 41) 5) This truss has been designed for greater of min roof live (Ib) - Maximum Compression/Maximum load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on Tension overhangs non-concurrent with other live loads. TOP CHORD 1-2=0/29, 2-4=-1647/136, 4-5=-1287/169, Provide adequate drainage to prevent water ponding. 6) 5-6=-957/181, 6-7=-1288/169, This truss has been designed for a 10.0 psf bottom 7) chord live load nonconcurrent with any other live loads.

7-9=-1646/137, 9-10=0/29 BOT CHORD 2-15=-171/1305, 14-15=-135/1305, 12-14=-10/954, 11-12=-16/1305, 9-11=-76/1305 WEBS 4-15=0/191, 4-14=-452/158, 5-14=-47/363, 5-12=-148/153, 6-12=-38/362, 7-12=-451/158, 7-11=0/190

#### NOTES

FORCES

Loading

TCDL

BCLL

BCDL

WEBS

SLIDER

1) Unbalanced roof live loads have been considered for this design.

3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only

on the bottom chord in all areas where a rectangle

\* This truss has been designed for a live load of 20.0psf

and does not consider lateral forces. 10) 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.

11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

8)



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Edenton, NC 27932

| Job      | Truss | Truss Type   | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|--------------|-----|-----|----------------------------|-----------|
| 24050019 | B2    | Roof Special | 1   | 1   | Job Reference (optional)   | 164576260 |

Scale = 1:58

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries. Inc. Fri Mar 29 10:41:39 ID:TVbG3FBSnMPMdQCxlwaQaIzMCPM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



|              |                         |                        | -                   | -                |  |             |                 |             |       |         |     |                |  |         |
|--------------|-------------------------|------------------------|---------------------|------------------|--|-------------|-----------------|-------------|-------|---------|-----|----------------|--|---------|
| Loading      | (psf)                   | Spacing                | 2-0-0               |                  | CSI  |             | DEFL            | in          | (loc) | l/defl  | L/d | PLATES         | GRIP   |         |
| TCLL (roof)  | 20.0                    | Plate Grip DOL         | 1.15                |                  | TC   | 0.49        | Vert(LL)        | -0.11       | 12-22 | >999    | 240 | MT20           | 244/190  |         |
| Snow (Pf)    | 20.0                    | Lumber DOL             | 1.15                |                  | BC   | 0.61        | Vert(CT)        | -0.23       | 12-22 | >999    | 180 |                |  |         |
| TCDL         | 10.0                    | Rep Stress Incr        | YES                 |                  | WB   | 0.67        | Horz(CT)        | 0.04        | 10    | n/a     | n/a |                |  |         |
| BCLL         | 0.0*                    | Code                   | IRC2018             | 3/TPI2014        | Matrix-MSH                                   |             |                 |             |       |         |     |                |  |         |
| BCDL         | 10.0                    |                        |                     |                  |  |             |                 |             |       |         |     | Weight: 146 lb | FT = 20%   | 6       |
| LUMBER       |                         |                        | 2)                  | Wind: ASCE       | 7-16: Vult=130mp                             | h (3-seo    | cond aust)      |             | LOAD  | CASE(S) | Sta | ndard          |  |         |
| TOP CHORD    | 2x4 SP No.2             |                        | ,                   | Vasd=103m        | oh; TCDL=6.0psf;                             | BCDL=6      | .0psf; h=25ft   | ; Cat.      |       | (-)     |     |                |  |         |
| BOT CHORD    | 2x4 SP No.2             |                        |                     | II; Exp B; En    | closed; MWFRS (e                             | envelope    | e) exterior zoi | ne          |       |         |     |                |  |         |
| WEBS         | 2x4 SP No.3             |                        |                     | and C-C Exte     | erior(2E) -0-10-8 to                         | 2-1-8,      | Interior (1) 2- | 1-8         |       |         |     |                |  |         |
| SLIDER       | Left 2x4 SP No.3 1      | I-6-0. Right 2x4 SP I  | No.3                | to 6-11-8, Ex    | terior(2R) 6-11-8 t                          | o 9-11-8    | 8, Exterior(2E  | )           |       |         |     |                |  |         |
|              | 1-6-0                   | , ,                    |                     | 9-11-8 to 10-    | 11-3, Interior (1) 1                         | 0-11-3 t    | o 11-11-3, Ex   | kterior     |       |         |     |                |  |         |
| BRACING      |                         |                        |                     | (2R) 11-11-3     | to 17-11-3, Interio                          | or (1) 17   | -11-3 to 21-9   | -8,         |       |         |     |                |  |         |
| TOP CHORD    | Structural wood shea    | athing directly applie | ed or               | Exterior(2E)     | 21-9-8 to 24-9-8 z                           | one; car    | tilever left ar | nd          |       |         |     |                |  |         |
|              | 4-8-4 oc purlins, exc   | ept                    |                     | right expose     | d; end vertical left                         | and righ    | nt exposed;C    | -C          |       |         |     |                |  |         |
|              | 2-0-0 oc purlins (5-3   | -9 max.): 6-7.         |                     | for members      | and forces & MW                              | FRS for     | reactions sho   | own;        |       |         |     |                |  |         |
| BOT CHORD    | Rigid ceiling directly  | applied or 10-0-0 oc   | >                   | Lumber DOL       | .=1.60 plate grip D                          | OL=1.60     | )               |             |       |         |     |                |  |         |
|              | bracing.                |                        | 2)                  |                  | 7 40. Dr. 00.0 mai                           | (*****      |                 | 4 45        |       |         |     |                |  |         |
| REACTIONS    | (size) 2=0-5-8, 1       | 0=0-5-8                | 3)                  | IULL: ASUE       | 15); Pf=20.0 pst                             |             | LUM DOL=        | 1.15        |       |         |     |                |  |         |
|              | Max Horiz 2=170 (LC     | C 13)                  |                     |                  | .15), PI=20.0 pSI (<br>lc=1.0: Rough Cot     |             | Exp : Co_0 (    | ;           |       |         |     |                |  |         |
|              | Max Uplift 2=-88 (LC    | 14), 10=-120 (LC 1     | 5)                  | $C_{S}=1.00$ Ct- | -1 10, Kough Cat                             | B, Fully    | Exp., Ce=0.3    | 9,          |       |         |     |                |  |         |
|              | Max Grav 2=1031 (L      | .C 21), 10=1093 (LC    | (43) <sub>4</sub> ) | Unbalanced       | snow loads have h                            | een cor     | sidered for t   | his         |       |         |     |                |  |         |
| FORCES       | (lb) - Maximum Com      | pression/Maximum       | ''                  | design.          |  |             |                 | 10          |       |         |     |                |  |         |
|              | Tension                 |                        | 5)                  | This truss ha    | is been desianed f                           | or areat    | er of min roof  | live        |       |         |     |                |  |         |
| TOP CHORD    | 1-2=0/29, 2-4=-1409     | /146, 4-5=-1114/180    | ), '                | load of 12.0     | psf or 1.00 times fl                         | at roof le  | ad of 20.0 p    | sf on       |       |         |     |                |  |         |
|              | 5-6=-1154/218, 6-7=     | -975/182,              |                     | overhangs n      | on-concurrent with                           | other liv   | /e loads.       |             |       |         |     |                |  |         |
|              | 7-8=-1229/173, 8-10     | =-1479/185, 10-11=     | 0/29 6)             | Provide adeo     | quate drainage to p                          | prevent     | water ponding   | g.          |       |         |     |                | 111.   |         |
| BOT CHORD    | 2-15=-152/1103, 14-     | 15=-111/1103,          | 7)                  | This truss ha    | is been designed f                           | or a 10.0   | ) psf bottom    |             |       |         |     | What CA        | D-"1   |         |
|              | 12-14=0/949, 10-12=     | =-111/1166             |                     | chord live loa   | ad nonconcurrent v                           | vith any    | other live loa  | ıds.        |       |         |     | "aln un        | 70/ °  | 11,     |
| WEBS         | 4-15=0/198, 4-14=-4     | 03/149, 5-14=-155/1    | 1031, 8)            | * This truss h   | nas been designed                            | for a liv   | e load of 20.0  | Opsf        |       |         | S   | an idea        | Air A  | 21.     |
|              | 6-14=-835/190, 6-12     | =-176/110, 7-12=0/3    | 354,                | on the bottor    | n chord in all area                          | s where     | a rectangle     |             |       |         | N.S | 220/           | NY S   | 2 -     |
|              | 8-12=-354/152           |                        |                     | 3-06-00 tall t   | by 2-00-00 wide wi                           | Il fit betv | veen the bott   | om          |       |         |     | .0.            | 1  | 1       |
| NOTES        |                         |                        |                     | chord and ar     | ly other members.                            |             |                 |             |       |         |     | ×              |  | 1 2     |
| 1) Unbalance | ed roof live loads have | been considered for    | . 9)                | One H2.5A S      | Simpson Strong-11                            | e conne     | ctors           | 4.0         |       |         | :   | SEA            |  | : =     |
| this desigr  | n.                      |                        |                     | LIDLIET of it/   |  | lo bear     | ing waits due   | lU<br>Fonly |       |         | :   | 0225           | 1  | : =     |
|              |                         |                        |                     | and does not     | 5) Z anu TU. This (<br>t consider lateral fr |             | on is for upin  | Unity       |       | =       |     | 0235           | 94   | ; = = - |
|              |                         |                        | 10                  | ) This trues is  | designed in accord                           | dance w     | ith the 2018    |             |       |         |     |                |  |         |
|              |                         |                        | 10                  | International    | Residential Code                             | sections    | R502 11 1 2     | nd          |       |         | -   | . A.           | ai   | 3       |
|              |                         |                        |                     | R802.10.2 a      | nd referenced star                           | dard AN     | ISI/TPI 1.      |             |       |         | 21  | NGINE          | E  | とご      |
|              |                         |                        | 11                  | ) Graphical pu   | rlin representation                          | does no     | ot depict the   | size        |       |         | 11  | UNA CONTRACTOR | 1.14   | 1       |
|              |                         |                        |                     | or the orienta   | ation of the purlin a                        | long the    | top and/or      | -           |       |         |     | IL R N         | ML   | N       |
|              |                         |                        |                     | bottom chord     | j  | 0           |                 |             |       |         |     | 111111         | mm   |         |
|              |                         |                        |                     |                  |  |             |                 |             |       |         |     |                | CONTRACTOR OF THE OWNER OF |         |

April 1,2024

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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BC2E Building Component Schut beformation, available from the Structure Building Component Advanciation (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

| Job      | Truss | Truss Type   | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|--------------|-----|-----|----------------------------|-----------|
| 24050019 | B3    | Roof Special | 1   | 1   | Job Reference (optional)   | 164576261 |

TCDL

BCLL

Run; 9.03 S 8.73 Mar 21 2024 Print; 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:40 ID:TJBYmhpRm1q7EGckE7?N93zMCOZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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| BCDL   | 10.0   |          |   |  |   |              |       | Weight: 137 lb | FT = 20% |   |
|--|--|----------|---|--|---|--------------|-------|----------------|----------|---|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>SLIDER | 2x4 SP No.2 *Except* 7-10:2x4 SP No.1<br>2x4 SP No.2<br>2x4 SP No.3<br>Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3<br>1-6-0  | 2)       | Wind: ASCE<br>Vasd=103mp<br>II; Exp B; En<br>and C-C Exte<br>to 6-11-8, Ex<br>9-11-8 to 12- | 7-16; Vult=130mph (3-sec<br>oh; TCDL=6.0psf; BCDL=6<br>closed; MWFRS (envelope<br>erior(2E) -0-10-8 to 2-1-8,<br>tterior(2R) 6-11-8 to 9-11-8<br>5-3, Interior (1) 12-5-3 to 2 | ond gust)<br>.0psf; h=25ft; Cat.<br>.) exterior zone<br>Interior (1) 2-1-8<br>3, Exterior(2E)<br>I3-5-3, Exterior | LOAD CASE(S) | Stand | lard           |          |   |
| BRACING<br>TOP CHORD                               | Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (4-8-8 max.): 6-7.   |          | (2R) 13-5-3 t<br>Exterior(2E)<br>right exposed<br>for members                               | o 19-5-3, Interior (1) 19-5-<br>21-9-8 to 24-9-8 zone; car<br>d ; end vertical left and righ<br>and forces & MWFRS for<br>=1 60 plate grin DOI =1 60                           | 3 to 21-9-8,<br>itilever left and<br>it exposed;C-C<br>reactions shown;   |              |       |                |          |   |
| BOT CHORD  | Rigid ceiling directly applied or 10-0-0 oc bracing.           (size)         2=0-5-8, 9=0-5-8           Max Horiz         2=170 (LC 13)           Max Uplift         2=-88 (LC 14), 9=-120 (LC 15)           May Gray         2=1116 (LC 25)           May Gray         2=116 (LC 51) | 3)       | TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15);<br>Cs=1.00; Ct=                                     | 7-16; Pr=20.0 psf (roof LL<br>.15); Pf=20.0 psf (Lum DC<br>Is=1.0; Rough Cat B; Fully<br>=1.10   | ,<br>L: Lum DOL=1.15<br>JL=1.15 Plate<br>Exp.; Ce=0.9;  |              |       |                |          |   |
| FORCES   | (Ib) - Maximum Compression/Maximum   | 4)       | Unbalanced<br>design.   | snow loads have been cor   | isidered for this   |              |       |                |          |   |
| TOP CHORD  | 1-2=0/29, 2-4=-1675/151, 4-5=-1634/218,<br>5-6=-1741/249, 6-7=-1441/184,<br>7-9=-1639/162, 9-10=0/29   | 5)<br>6) | load of 12.0<br>overhangs n   | psf or 1.00 times flat roof k<br>on-concurrent with other liv  | ad of 20.0 psf on<br>/e loads.  |              |       |                |          |   |
| BOT CHORD  | 2-14=-156/1323, 12-14=0/977,<br>11-12=-9/1221, 9-11=-196/1228  | 7)       | This truss ha   | is been designed for a 10.0  | ) psf bottom<br>other live loads  |              |       | "TH CA         | 80.14    |   |
| WEBS   | 4-14=-334/189, 5-14=-124/555,<br>5-12=-164/1160, 6-12=-1129/180,<br>7-12=-57/307, 7-11=0/266   | 8)       | * This truss h<br>on the bottor<br>3-06-00 tall b   | nas been designed for a liv<br>n chord in all areas where<br>by 2-00-00 wide will fit betw   | e load of 20.0psf<br>a rectangle<br>veen the bottom   | 3            | i de  | A FESSI        | mile     | 2                                       |
| NOTES<br>1) Unbalance<br>this design               | ed roof live loads have been considered for<br>n.  | 9)       | chord and ar<br>One H2.5A S<br>recommende<br>UPLIFT at jt(<br>and does no                   | by other members, with BC<br>Simpson Strong-Tie conne-<br>ed to connect truss to bear<br>s) 2 and 9. This connection<br>t consider lateral forces.                             | DL = 10.0psf.<br>ctors<br>ing walls due to<br>n is for uplift only  |              |       | SEAL<br>02359  | 4        | ann an |

- 10) 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

mann April 1,2024

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| Job      | Truss | Truss Type   | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|--------------|-----|-----|----------------------------|-----------|
| 24050019 | B4    | Roof Special | 1   | 1   | Job Reference (optional)   | 164576262 |

Scale = 1:54.7

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:40 ID:MMyUAt3cpTU9GVinz1tl/UZMCOE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



| L 7-1-5 | 13-9-7 | 18-0-15 | 23-11-0 |
|---------|--------|---------|---------|
| 7-1-5   | 6-8-1  | 4-3-8   | 5-10-1  |
|         |        |         |         |

## Plate Offsets (X, Y): [2:0-3-9,0-0-3], [6:0-5-0,0-2-0], [7:0-3-0,0-2-3], [9:0-2-13,0-0-3]

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC201  | 8/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.60<br>0.52<br>0.37  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>-0.07<br>-0.16<br>0.05  | (loc)<br>12-14<br>12-14<br>9 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 134 lb | <b>GRIP</b><br>244/190<br>FT = 20% |       |
|--|---|--|---|--|---|---|---|---|------------------------------|-------------------------------|--------------------------|----------------------------------|------------------------------------|-------|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>SLIDER<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>REACTIONS | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>Left 2x4 SP No.3<br>1-6-0<br>Structural wood she<br>3-11-11 oc purlins,<br>2-0-0 oc purlins (4<br>Rigid ceiling directly<br>bracing.<br>1 Row at midpt<br>(size) 2=0-5-8,<br>Max Horiz 2=170 (L<br>Max Uplift 2=-88 (LC<br>Max Grav 2=1074 ( | 1-6-0, Right 2x4 SP<br>eathing directly applie<br>except<br>4-5 max.): 6-7.<br>/ applied or 10-0-0 or<br>6-14<br>9=0-5-8<br>C 13)<br>C 14), 9=-120 (LC 15<br>LC 44), 9=-1142 (LC - | 2)<br>No.3<br>ed or<br>C 3)<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>()<br>() | Wind: ASCE<br>Vasd=103mp<br>II; Exp B; En<br>and C-C Extr<br>to 6-11-8, Ex<br>12-11-8 to 14<br>Interior (1) 20<br>24-9-8 zone;<br>vertical left a<br>forces & MW<br>DOL=1.60 pl<br>TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15); I<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>This truss ha | 7-16; Vult=130mp<br>bh; TCDL=6.0psf; E<br>closed; MWFRS (e<br>erior(2E) -0-10-8 to<br>tterior(2E) 6-11-8 td<br>4-11-3, Exterior(2R<br>0-11-3 to 21-9-8, E<br>cantilever left and<br>nd right exposed;C<br>/FRS for reactions<br>ate grip DOL=1.60<br>; 7-16; Pr=20.0 psf<br>.15); Pf=20.0 psf.15); Pf=20.0 psf.15); Pf=20.0 psf.15); Pf=20.0 psf.15); Pf=20.0 psf.15); Pf=20.0 | h (3-sec<br>3CDL=6<br>nvelope<br>2-1-8,<br>5 12-11.<br>) 14-11.<br>xterior(2<br>right ex<br>-C for n<br>shown;<br>(roof LL<br>Lum DC<br>B; Fully<br>een cor<br>or great | ond gust)<br>.0psf; h=25ft<br>b) exterior zo<br>Interior (1) 2-<br>.8, Interior (1)<br>3 to 20-11-3<br>2E) 21-9-8 to<br>posed ; end<br>nembers and<br>Lumber<br>.: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.<br>Insidered for t<br>er of min roo | t; Cat.<br>ne<br>-1-8<br>)<br>;<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>,<br>, |                              |                               |                          |                                  |                                    |       |
| FORCES   | (lb) - Maximum Con<br>Tension   | npression/Maximum  | -,  | load of 12.0<br>overhangs n  | psf or 1.00 times fla<br>on-concurrent with   | at roof lo<br>other liv   | oad of 20.0 p<br>ve loads.  | osf on  |                              |                               |                          |                                  |                                    |       |
| TOP CHORD  | 1-2=0/29, 2-4=-143<br>5-6=-872/168, 6-7=<br>7-9=-1388/170, 9-10   | 4/170, 4-5=-1328/214<br>-1444/202,<br>0=0/45   | 4, 6)<br>7)   | Provide adeo<br>This truss ha<br>chord live loa  | quate drainage to p<br>is been designed fo<br>ad nonconcurrent w  | revent<br>or a 10.0<br>/ith anv   | vater pondin<br>) psf bottom<br>other live loa  | ıg.<br>ads.   |                              |                               |                          |                                  | inin,                              |       |
| BOT CHORD  | 2-14=-160/1141, 12<br>11-12=-33/1084, 9-  | -14=-47/1418,<br>11=-133/1088  | 8)  | * This truss h<br>on the bottor  | nas been designed<br>n chord in all areas   | for a liv<br>where  | e load of 20.<br>a rectangle  | 0psf  |                              |                               | S.                       | RTHUA                            | ROLI                               |       |
| WEBS   | 4-14=-329/182, 5-1<br>6-14=-962/160, 6-1<br>7-11=0/173  | 4=-108/933,<br>2=-248/98, 7-12=-38/  | /507,<br>9)   | 3-06-00 tall b<br>chord and ar<br>One H2.5A S  | by 2-00-00 wide wil<br>ny other members.<br>Simpson Strong-Tie  | l fit betv  | veen the bott   | tom   |                              | -                             | Ľ¥                       |                                  | miles.                             | ann a |
| NOTES<br>1) Unbalance<br>this design   | ed roof live loads have<br>n.   | been considered for  | r<br>10   | recommende<br>UPLIFT at jt(<br>and does not<br>) This truss is<br>International<br>R802.10.2 at  | ed to connect truss<br>s) 2 and 9. This co<br>t consider lateral for<br>designed in accoro<br>Residential Code s<br>and referenced stan   | to bear<br>nnectio<br>rces.<br>lance w<br>sections<br>dard AN   | ing walls due<br>n is for uplift<br>th the 2018<br>R502.11.1 a<br>ISI/TPI 1.  | e to<br>only<br>and   |                              | THE REAL PROPERTY OF          |                          | SEA<br>0235                      | L<br>94                            |       |

 Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

April 1,2024

Page: 1

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| Job      | Truss | Truss Type          | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|---------------------|-----|-----|----------------------------|-----------|
| 24050019 | B5GR  | Roof Special Girder | 1   | 2   | Job Reference (optional)   | 164576263 |

7-6-14

Scale = 1:54.7

Loading

TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL



LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x6 SP No.2 WEBS 2x4 SP No.3 WEDGE Right: 2x4 SP No.3 BRACING TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-6. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. **REACTIONS** (size) 2=0-5-8.7=0-5-8 Max Horiz 2=165 (LC 9) Max Uplift 2=-114 (LC 12), 7=-231 (LC 13) Max Grav 2=1271 (LC 40), 7=1936 (LC 39) FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/29, 2-3=-1795/150, 3-4=-1509/209, 4-5=-1468/184, 5-6=-2120/319, 6-7=-2684/336 BOT CHORD 2-12=-175/1431, 11-12=-155/1431, 10-11=-161/2325, 8-10=-164/2327, 7-8=-200/2168 WFBS 3-12=0/145, 3-11=-379/166, 4-11=-115/1213, 5-11=-1521/260, 5-10=-54/89, 5-8=-275/260, 6-8=-81/1179 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 00 Bottom chords connected as follows: 2x6 - 2 rows

staggered at 0-9-0 oc. Web 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 5) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 6) Unbalanced snow loads have been considered for this design.
- 7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding. 8) 9) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) LGT2 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 2. This connection is for uplift only and does not consider lateral forces.
- 12) 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.

- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Use Simpson Strong-Tie HTU26-2 (20-10d Girder, 14-10d Truss, Single Ply Girder) or equivalent at 20-0-8 from the left end to connect truss(es) to front face of bottom chord.
- 15) Fill all nail holes where hanger is in contact with lumber. 16) LGT2 Hurricane ties must have two studs in line below

#### the truss. LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate 1)
  - Increase=1.15 Uniform Loads (lb/ft)
    - Vert: 1-4=-60, 4-5=-60, 5-6=-60, 6-7=-60, 13-16=-20 Concentrated Loads (lb)
    - Vert: 19=-1056 (F)



818 Soundside Road

Edenton, NC 27932

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

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | D1A   | Common     | 2   | 1   | Job Reference (optional)   | 164576264 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:CsyuH\_9hORxEgU9Gof?ehgzMCMp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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| 9-11-8 | 19-11-0 |
|--------|---------|
| 9-11-8 | 9-11-8  |
|        |         |

#### Scale = 1:54.7 Plate Offsets (X, Y): [2:0-3-13,Edge], [8:0-3-8,Edge], [9:0-4-0,0-3-0]

| Loading (<br>TCLL (roof) 2<br>Snow (Pf) 2<br>TCDL 2<br>BCLL<br>BCDL 4   | psf)         Spacing         2-           20.0         Plate Grip DOL         1.           20.0         Lumber DOL         1.           10.0         Rep Stress Incr         YI           0.0*         Code         IR | 0-0<br>15<br>15<br>ES<br>C2018 | 5/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.51<br>0.83<br>0.27                                     | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)                                       | in<br>-0.13<br>-0.28<br>0.02 | (loc)<br>9-12<br>9-12<br>8 | l/defl<br>>999<br>>868<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 99 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
|---|--|--------------------------------|---|---|--|--|------------------------------|----------------------------|-------------------------------|--------------------------|---------------------------------|------------------------------------|
| LUMBER<br>TOP CHORD 2x4 SP No.2<br>BOT CHORD 2x4 SP No.2<br>WEBS 2x4 SP No.3<br>SLIDER Left 2x4 SP N<br>1-6-0               | lo.3 1-6-0, Right 2x4 SP No.3  | 3)                             | TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15); I<br>Cs=1.00; Ct=<br>Unbalanced<br>design.  | 7-16; Pr=20.0 psf (<br>.15); Pf=20.0 psf (L<br>s=1.0; Rough Cat E<br>=1.10<br>snow loads have be                      | roof LL<br>um DC<br>3; Fully<br>een cor                  | :: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.9                                   | 1.15<br>9;<br>nis            |                            |                               |                          |                                 |                                    |
| BRACING<br>TOP CHORD Structural woo<br>5-4-1 oc purli<br>BOT CHORD Rigid ceiling o<br>bracing.                              | od sheathing directly applied or<br>ns.<br>directly applied or 10-0-0 oc   | 5)<br>6)                       | This truss ha<br>load of 12.0 p<br>overhangs no<br>This truss ha<br>chord live loa  | s been designed for<br>osf or 1.00 times flat<br>on-concurrent with o<br>s been designed for<br>ad nonconcurrent with | r greate<br>t roof le<br>other liv<br>r a 10.0<br>th any | er of min roof<br>bad of 20.0 p<br>ve loads.<br>) psf bottom<br>other live loa | live<br>sf on<br>ds.         |                            |                               |                          |                                 |                                    |
| REACTIONS (size) 2=(<br>Max Horiz 2='<br>Max Uplift 2=-<br>Max Grav 2=(   | 0-5-8, 8= Mechanical<br>165 (LC 13)<br>•85 (LC 14), 8=-67 (LC 15)<br>397 (LC 21), 8=843 (LC 22)  | 7)                             | * This truss h<br>on the botton<br>3-06-00 tall b<br>chord and an<br>Refer to girde | as been designed f<br>n chord in all areas<br>by 2-00-00 wide will<br>by other members.<br>er(s) for truss to trus    | or a liv<br>where<br>fit betv                            | e load of 20.0<br>a rectangle<br>veen the botto<br>nections.                   | Opsf<br>om                   |                            |                               |                          |                                 |                                    |
| FORCES (lb) - Maximum<br>Tension<br>TOP CHORD 1-2=0/29. 2-4   | m Compression/Maximum<br>=-1007/148, 4-5=-876/139,   | 9)                             | Provide mecl<br>bearing plate   | hanical connection<br>capable of withstar   | (by oth<br>nding 6                                       | ers) of truss t<br>7 lb uplift at j  | o<br>oint                    |                            |                               |                          |                                 |                                    |
| 5-6=-877/139<br>BOT CHORD 2-8=-200/903<br>WEBS 5-9=-31/595,   | 6-9=-370/184, 4-9=-366/183   | 10)                            | One H2.5A S<br>recommende<br>UPLIFT at jt(  | Simpson Strong-Tie<br>ed to connect truss t<br>s) 2. This connectio   | conne<br>o beari<br>n is for                             | ctors<br>ing walls due<br>uplift only ar                                       | to<br>nd                     |                            |                               |                          |                                 | lu.                                |
| NOTES   |  |                                | does not con  | sider lateral forces.   |  |  |                              |                            |                               |                          | N' CA                           | Dill                               |
| <ol> <li>Unbalanced roof live loads<br/>this design.</li> <li>Wind: ASCE 7-16; Vult=1:<br/>Vast=103mph; TCDL=6 (</li> </ol> | s have been considered for<br>30mph (3-second gust)  | 11)                            | This truss is<br>International<br>R802.10.2 ar                                      | designed in accorda<br>Residential Code so<br>nd referenced stand<br>Standard   | ance w<br>ections<br>ard AN                              | ith the 2018<br>R502.11.1 a<br>ISI/TPI 1.                                      | ind                          |                            |                               | N. N.                    | ORTH CA                         | HOLIT                              |

II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 6-11-8, Exterior(2R) 6-11-8 to 12-11-8, Interior (1) 12-11-8 to 16-11-0, Exterior(2E) 16-11-0 to 19-11-0 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



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| Job      | Truss | Truss Type             | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------------------|-----|-----|----------------------------|-----------|
| 24050019 | HGE   | Common Supported Gable | 1   | 1   | Job Reference (optional)   | 164576265 |

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#### Scale = 1:40.2

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCCL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018,   | /TPI2014  | <b>CSI</b><br>TC<br>BC<br>WB<br>Matrix-MR   | 0.13<br>0.06<br>0.12  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>n/a<br>n/a<br>0.00  | (loc)<br>-<br>-<br>12   | l/defl<br>n/a<br>n/a<br>n/a  | L/d<br>999<br>999<br>n/a   | PLATES<br>MT20<br>Weight: 86 lb   | <b>GRIP</b><br>244/190<br>FT = 20%   |   |
|--|---|---|--|---|---|---|---|---|---|--|--|---|--|---|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>2x4 SP No.3<br>Structural wood shee<br>6-0-0 oc purlins, exc<br>Rigid ceiling directly<br>bracing.<br>(size) 12=14-5-8<br>15=14-5-8<br>(15=14-5-8<br>Max Horiz 20=-159 (I<br>14=-56 (LI<br>17=-59 (LI<br>19=-98 (LI<br>14=229 (LI<br>16=180 (L<br>18=229 (LI<br>20=159 (LI | athing directly applied<br>cept end verticals.<br>applied or 6-0-0 oc<br>3, 13=14-5-8, 14=14-5<br>3, 16=14-5-8, 17=14-5<br>4, 19=14-5-8, 20=14-5<br>LC 12)<br>C 11), 13=-92 (LC 15<br>C 15), 15=-59 (LC 14<br>C 14), 20=-96 (LC 10<br>.C 25), 13=171 (LC 24<br>C 28), 17=259 (LC 22<br>.C 28), 17=259 (LC 24<br>.C 21), 19=182 (LC 24<br>.C 26) | $\begin{array}{c} 1) \\ 2) \\ 1 \text{ or } \\ 5-8, \\ 5-8, \\ 5-8, \\ 3) \\ 5-8, \\ 3) \\ 1, \\ 2), \\ 2), \\ 5), \\ 5), \\ 6) \end{array}$ | Unbalanced r<br>this design.<br>Wind: ASCE<br>Vasd=103mp<br>II; Exp B; End<br>and C-C Corr<br>to 4-2-12, Co<br>10-2-12 to 12<br>cantilever left<br>right exposed<br>for reactions :<br>DOL=1.60<br>Truss design<br>only. For stu<br>see Standard<br>or consult qu<br>TCL: ASCE<br>Plate DOL=1<br>DOL=1.5); II:<br>Cs=1.00; Ct=<br>Unbalanced s<br>design.<br>This truss has<br>load of 12.0 p | oof live loads have<br>7-16; Vult=130mph<br>h; TCDL=6.0psf; B<br>idosed; MWFRS (er<br>ter(3E) -0-10-8 to 2<br>rner(3R) 4-2-12 to<br>-4-0, Corner(3E) 1:<br>and right exposed<br>(C-C for members<br>shown; Lumber DC<br>ted for wind loads in<br>ds exposed to winc<br>Industry Gable En<br>alified building desi<br>7-16; Pr=20.0 psf (L<br>s=1.0; Rough Cat E<br>1.10<br>shown loads have be<br>s been designed fo<br>isf or 1.00 times fla | been of<br>a (3-sec<br>CDL=6<br>hvelope<br>2-1-8, E<br>10-2-12<br>2-4-0 to<br>; end v<br>and for<br>DL=1.60<br>n the pl<br>d (norm<br>d Detai<br>gner as<br>(roof LL<br>.um DC<br>3; Fully<br>een cor<br>r greate<br>t roof k | considered fo<br>ond gust)<br>.0psf; h=25ft;<br>) exterior zor<br>xterior(2N) 2:<br>2; Exterior(2N) 15-4-0 zone<br>ertical left an<br>ertical left an<br>ces & MWFR<br>plate grip<br>ane of the tru<br>al to the face)<br>is as applicat<br>a; per ANSI/TF<br>: Lum DOL='<br>uL=1.15 Plate<br>Exp.; Ce=0.9<br>isidered for th<br>er of min roof<br>pad of 20.0 ps | r<br>( Cat.<br>ne<br>-1-8<br>I)<br>;;<br>d<br>(S<br>uss<br>),<br>ble,<br>PI 1.<br>1.15<br>;;<br>live<br>sf on | <ul> <li>13) Provise</li> <li>bea</li> <li>20,</li> <li>uplifi</li> <li>15,</li> <li>14) This</li> <li>Inte</li> <li>R80</li> <li>LOAD C</li> </ul> | vide met<br>ring plat<br>75 lb up<br>ft at joint<br>56 lb up<br>t truss is<br>rnationa<br>(2.10.2 a<br><b>CASE(S</b> ) | chanicc<br>e capa<br>lift at jc<br>18, 99<br>desig<br>desig<br>I Resic<br>I Resic<br>nd refr<br>Star | al connection (by<br>able of withstandi<br>joint 12, 59 lb uplif<br>8 lb uplift at joint<br>joint 14 and 92 lb<br>ned in accordand<br>dential Code sec<br>erenced standar<br>indard | others) of tri<br>ng 96 lb uplif<br>ft at joint 17,<br>19, 59 lb uplif<br>uplift at joint<br>with the 20<br>ions R502.11<br>d ANSI/TPI 1 | uss to<br>t at joint<br>55 lb<br>ft at joint<br>13.<br>018<br>1.1 and |
| FORCES<br>TOP CHORD  | (lb) - Maximum Com<br>Tension<br>2-20=-124/107, 1-2=<br>3-4=-64/94, 4-5=-60/<br>6-7=-96/241, 7-8=-60<br>9-10=-77/80, 10-11=   | pression/Maximum<br>0/34, 2-3=-97/98,<br>(172, 5-6=-96/241,<br>0/172, 8-9=-52/95,<br>0/34, 10-12=-112/91  | 7)<br>8)<br>9)   | overhangs no<br>All plates are<br>Gable require<br>Truss to be fu<br>braced again   | 2x4 MT20 unless of<br>scontinuous botto<br>illy sheathed from of<br>st lateral movemen  | other liv<br>otherwis<br>m chor<br>one fac<br>it (i.e. d  | ve loads.<br>se indicated.<br>d bearing.<br>e or securely<br>iagonal web).  |   |   | -  | and a  | OPTH CA   | ROLIN  | 111111  |
| BOT CHORD  | 19-20=-78/90, 18-19<br>16-17=-78/90, 12-13<br>6-16=-192/16, 5-17=<br>4-18=-188/116, 3-19<br>7-15=-219/101, 8-14<br>9-13=-112/100  | =-78/90, 17-18=-78/9<br>=-78/90, 14-15=-78/9<br>=-78/90<br>-219/101,<br>=-123/89,<br>=-188/115,   | 0, 11)<br>0, 12)   | This truss has<br>chord live loa<br>* This truss h<br>on the bottom<br>3-06-00 tall b<br>chord and an   | spaced at 2-0-0 oc.<br>s been designed fo<br>d nonconcurrent w<br>as been designed f<br>a chord in all areas<br>y 2-00-00 wide will<br>y other members.   | r a 10.0<br>ith any<br>for a liv<br>where<br>fit betw   | ) psf bottom<br>other live load<br>e load of 20.0<br>a rectangle<br>veen the botto  | ds.<br>)psf<br>om   |   | 1111111  |  | SEA<br>0235   | L<br>94<br>E.E.R. E.P.   |   |
| NULES  |   |   |  |   |   |   |   |   |   |  |  | 11, R.  | MIL  |   |

### NOTES

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and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road Edenton, NC 27932

Annun Million

April 1,2024

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | н     | Common     | 5   | 1   | Job Reference (optional)   | 164576266 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:42 ID:bfGOJ8MZD?XWYZ9mx9bVf?zMDGf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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|  | 7-2-12 | 1 | 14-5-8 |  |
|--|--------|---|--------|--|
|  | 7-2-12 | I | 7-2-12 |  |
| Scale = 1:45.3                                       |        |   |        |  |
| Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,Edge] |        |   |        |  |

|  | X, 1). [2.0-5-0,Euge],  | [4.0-0-0,Luge]  |   |  |   |  |  |  |                          |                               |                          |                                 |                                    |              |
|--|---|---|---|--|---|--|--|--|--------------------------|-------------------------------|--------------------------|---------------------------------|------------------------------------|--------------|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018   | 8/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.93<br>0.45<br>0.14   | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)   | in<br>-0.05<br>-0.10<br>0.01                           | (loc)<br>7-8<br>7-8<br>6 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 81 lb | <b>GRIP</b><br>244/190<br>FT = 20% |              |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>REACTIONS<br>FORCES<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>NOTES<br>1) Unbalance<br>this design<br>2) Wind: ASC<br>Vasd=103<br>II; Exp B; I<br>and C-C E<br>to 4-2-12,<br>10-2-12 to<br>cantilever<br>right expos<br>members i<br>Lumber DOL<br>DOL=1.15<br>Cs=1.00; ( | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3 *Excep<br>Structural wood she<br>2-2-0 oc purlins, exi<br>Rigid ceiling directly<br>bracing.<br>(size) 6=0-3-0, 8<br>Max Horiz 8=-159 (L<br>Max Uplift 6=-65 (LC<br>(lb) - Maximum Com<br>Tension<br>1-2=0/34, 2-3=-666/,<br>4-5=0/34, 2-3=-666/,<br>7-8=-234/435, 6-7=-<br>3-7=-125/283, 2-7=-<br>ed roof live loads have<br>b.<br>CE 7-16; Vult=130mph<br>imph; TCDL=6.0psf; Bt<br>Enclosed; MWFRS (er<br>Exterior(2R) 4-2-12 to<br>12-4-0, Exterior(2R) 4-2-12 to<br>12-4-0, Exterior(2R) 4-2-12 to<br>12-4-0, Exterior(2R) 4-2-12 to<br>14-60 pite exposed<br>sed; porch left and righ<br>and forces & MWFRS<br>OL=1.60 pite grip DO<br>CE 7-16; Pr=20.0 psf (L<br>=1.15); Pf=20.0 psf (L<br>=); Is=1.0; Rough Cat E<br>Cl=1.10 | t* 8-2,6-4:2x4 SP No<br>athing directly applie<br>cept end verticals.<br>applied or 10-0-0 oc<br>3=0-3-0<br>C 12)<br>2 (5), 8=-65 (LC 14)<br>C 22), 8=705 (LC 21)<br>pression/Maximum<br>278, 3-4=-666/278,<br>258, 4-6=-642/254<br>157/435<br>138/267, 4-7=-143/2<br>been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft;<br>hvelope) exterior zon<br>2-1-8, Interior (1) 2-1<br>10-2-12, Interior (1) 2-1<br>10-2-12, Interior (1)<br>2-4-0 to 15-4-0 zone;<br>end vertical left and<br>t exposed;C-C for<br>for reactions shown;<br>DL=1.60<br>roof LL: Lum DOL=1<br>um DOL=1.15 Plate<br>3; Fully Exp.; Ce=0.9 | 4)<br>5).2<br>dor 6)<br>7)<br>8)<br>9)<br>67<br>Cat.<br>e<br>-8<br>-8<br>-8<br>-8<br>-8<br>-15<br>; | Unbalanced<br>design.<br>This truss ha<br>load of 12.0<br>overhangs n<br>This truss ha<br>chord live loa<br>* This truss ha<br>on the bottor<br>3-06-00 tall t<br>chord and ar<br>One H2.5A S<br>recommende<br>UPLIFT at jtt<br>and does no<br>This truss is<br>International<br>R802.10.2 a | snow loads have I<br>as been designed f<br>psf or 1.00 times f<br>on-concurrent with<br>as been designed<br>that nonconcurrent to<br>has been designed<br>on chord in all area<br>by 2-00-00 wide win<br>y other members.<br>Simpson Strong-Ti<br>ed to connect truss<br>(s) 8 and 6. This co<br>t consider lateral fi<br>designed in accor<br>Residential Code<br>nd referenced star<br>Standard | been cor<br>for great<br>lat roof lu<br>n other li<br>for a 10./<br>with any<br>d for a liv<br>s where<br>ill fit betw<br>e conne<br>s to bear<br>onnectio<br>onnectio<br>onnectio<br>onnectio<br>onnectio<br>onnectio<br>ance w<br>sections<br>ndard AN | nsidered for t<br>er of min roo<br>bad of 20.0 p<br>ve loads.<br>0 psf bottom<br>other live loa<br>e load of 20.<br>a rectangle<br>veen the bot<br>ctors<br>ing walls due<br>n is for uplift<br>ith the 2018<br>\$ R502.11.1<br>USI/TPI 1. | this<br>f live<br>sof on<br>ads.<br>0psf<br>tom<br>and |                          | Withhere                      |                          | SEA<br>0235                     | L<br>94<br>FER. FR. 11<br>1,2024   | . Ammuniting |
| WARN   | ING - Verify design paramete  | ers and READ NOTES ON   | THIS AND IN   | CLUDED MITEK R   | EFERENCE PAGE MII-  | 7473 rev. 1  | /2/2023 BEFOR  | E USE.   |                          |                               |                          | ENGINEER                        | ING BY                             |              |

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| Job      | Truss | Truss Type    | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|---------------|-----|-----|----------------------------|-----------|
| 24050019 | EGR   | Common Girder | 1   | 2   | Job Reference (optional)   | 164576267 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:Ws\_ekb?PSj8j0DmtCOLcX6zMBu1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:58.5

#### Plate Offsets (X, Y): [9:0-3-8,0-4-4], [10:0-5-0,0-4-8], [11:0-3-8,0-4-4]

| Loading       | (psf)                                      | Spacing                | 2-0-0  |                                   | CSI                   | 0.29      | DEFL             | in<br>0.07 | (loc)   | l/defl    | L/d              | PLATES               | GRIP        | 20            |
|---------------|--|------------------------|--------|-----------------------------------|-----------------------|-----------|------------------|------------|---------|-----------|------------------|----------------------|-------------|---------------|
| Spow (Df)     | 20.0                                       |                        | 1.15   |                                   |                       | 0.30      | Vert(LL)         | -0.07      | 10-11   | >999      | 100              | 101120               | 244/13      | 0             |
|               | 20.0                                       | Ron Stross Incr        | NO     |                                   |                       | 0.75      |                  | -0.12      | 0-11    | >999      | n/o              |                      |             |               |
|               | 10.0                                       | Codo                   |        | 9/TDI2014                         | Motrix MSH            | 0.70      | 11012(01)        | 0.02       | 0       | n/a       | n/a              |                      |             |               |
|               | 10.0                                       | Code                   | 11(020 | 0/11/12/014                       | Induix-Inior I        |           |                  |            |         |           |                  | Weight: 266 lb       | ) FT - 2    | 20%           |
| BODL          | 10.0                                       |                        |        |                                   |                       |           |                  |            |         |           |                  | Weight. 200 lb       |             | .070          |
| LUMBER        |  |                        | 3      | ) Unbalanced                      | roof live loads have  | been o    | considered fo    | or         | 15) LG  | T2 Hurrio | cane ti          | es must have tw      | /o studs ir | n line below  |
| TOP CHORD     | 2x4 SP No.2                                |                        |        | this design.                      |                       |           |                  |            | the     | truss.    |                  |                      |             |               |
| BOT CHORD     | 2x6 SP No.2                                |                        | 4      | ) Wind: ASCE                      | 7-16; Vult=130mpl     | n (3-seo  | cond gust)       |            | 16) Hai | nger(s) a | r othe           | r connection dev     | vice(s) sha | all be        |
| WEBS          | 2x4 SP No.3 *Excep                         | t* 12-2,8-6:2x6 SP I   | No.2   | Vasd=103m                         | oh; TCDL=6.0psf; B    | CDL=6     | 0.0psf; h=25ft;  | ; Cat.     | pro     | vided su  | fficien          | t to support cond    | centrated   | load(s) 657   |
| BRACING       |  |                        |        | II; Exp B; En                     | closed; MWFRS (e      | nvelope   | e) exterior zor  | ne;        | lb c    | lown and  | 1 104 I          | b up at 18-4-4 c     | on bottom   | chord. The    |
| TOP CHORD     | Structural wood shea                       | athing directly applie | ed or  | cantilever let                    | t and right exposed   | ; end \   | /ertical left an | a          | des     | ign/sele  | ction d          | of such connection   | on device(  | (s) is the    |
|               | 5-7-0 oc purlins, exe                      | cept end verticals.    |        | ngni expose                       | a; Lumber DOL=1.6     | o plate   | grip DOL=1.      | 60         | res     | ponsibili |                  | iners.               |             |               |
| BOT CHORD     | <ul> <li>Rigid ceiling directly</li> </ul> | applied or 10-0-0 o    | ю<br>5 |                                   | 7-16 Pr-20 0 pef      | (roof L   |                  | 1 15       | LOAD    | CASE(S    | ) Sta            | ndard                |             |               |
|               | bracing.                                   |                        | 5      | Plate DOI =1                      | 15): Pf=20.0 psf (I   |           | )I =1 15 Plate   | 1.15       | 1) De   | ead + Sr  | 10W (D           | alanced): Lumbe      | er increase | e=1.15, Plate |
| REACTIONS     | (size) 8=0-5-8, 1                          | 2=0-5-8                |        | DOI = 1.15                        | Is=1 0. Rough Cat I   | B' Fully  | Exp : Ce=0.9     | ,<br>J.    |         | crease=   | 1.15<br>20dc (l  | h/ft)                |             |               |
|               | Max Horiz 12=191 (L                        | .C 11)                 |        | Cs=1.00: Ct=                      | =1.10                 | 2, 1 unj  | _, 00 0ic        | ,          | 0       | Vort 1    |                  | 0/IL)<br>2.4-60.46-6 | 0 6 7 6     | 0 9 12 20     |
|               | Max Uplift 8=-688 (L                       | C 13), 12=-619 (LC     | 12) 6  | Unbalanced                        | snow loads have b     | een cor   | nsidered for th  | his        | C       | ven. 1-2  | 2=-00,<br>ted Lo | 2-4=-00, 4-0=-0      | 0, 0-7=-00  | 0, 0-12=-20   |
|               | Max Grav 8=4392 (L                         | -C 20), 12=3720 (LC    | C 19)  | design.                           |                       |           |                  |            | 0       | Vort 10   | 630              | (B) 9628 (B)         | 8638 (1     | B) 13-1038    |
| FORCES        | (lb) - Maximum Com                         | pression/Maximum       | 7      | ) This truss ha                   | as been designed fo   | r great   | er of min roof   | live       |         | (B) 14=   | -803 (           | B) 15=-801 (B)       | 16=-628     | (B) 17=-628   |
|               | Tension                                    |                        | _      | load of 12.0                      | psf or 1.00 times fla | t roof le | oad of 20.0 p    | sf on      |         | (B), 18=  | -631 (           | B)                   |             | (2), 020      |
| TOP CHORD     | 1-2=0/37, 2-3=-4819                        | /802, 3-4=-3792/66     | i5,    | overhangs n                       | on-concurrent with    | other liv | ve loads.        |            |         | ( ), -    |                  | . /                  |             |               |
|               | 4-5=-3792/665, 5-6=                        | -4604/724, 6-7=0/3     | 57, 8  | ) This truss ha                   | is been designed fo   | r a 10.0  | D psf bottom     |            |         |           |                  |                      |             |               |
|               | 2-12=-3049/012, 0-8                        | 1-666/2040             | •      | chord live loa                    | ad nonconcurrent w    | ith any   | other live loa   | ids.       |         |           |                  |                      |             |               |
| BOT CHORL     | 8-9112/556                                 | 1=-000/3940,           | 9      | ) " I his truss r                 | has been designed     | for a liv | e load of 20.0   | Upst       |         |           |                  |                      |             |               |
| WEBS          | 4-10=-638/3766 5-1                         | 0=-999/243             |        | 3-06-00 tall b                    | 2-00-00 wide will     | fit betv  | a reclarigie     | om         |         |           |                  |                      |             |               |
|               | 5-9=-115/918, 3-10=                        | -1185/329,             |        | chord and ar                      | v other members.      | in bett   | veen ine bola    | 0111       |         |           |                  |                      | 111         |               |
|               | 3-11=-216/1060, 2-1                        | 1=-520/3585,           | 1      | 0) LGT2 Simps                     | on Strona-Tie conn    | ectors    | recommende       | d to       |         |           |                  | WITH U               | ARO         | 11,           |
|               | 6-9=-450/3290                              |                        |        | connect trus                      | s to bearing walls d  | ue to U   | PLIFT at jt(s)   | 12         |         |           | N                | a state              | SiA.        | INT.          |
| NOTES         |  |                        |        | and 8. This c                     | connection is for up  | ift only  | and does not     | t          |         |           | 53               | F                    | SIN.        | la'r          |
| 1) 2-ply trus | s to be connected toget                    | ther with 10d          |        | consider late                     | eral forces.          |           |                  |            |         |           | : ~              | and the              | - A         | an -          |
| (0.131"x3     | B") nails as follows:                      |                        | 1      | <ol> <li>This truss is</li> </ol> | designed in accord    | ance w    | ith the 2018     |            |         |           |                  | :X                   | N           | 1 3           |
| Top chor      | ds connected as follows                    | s: 2x4 - 1 row at 0-9  | -0     | International                     | Residential Code s    | ections   | R502.11.1 a      | and        |         |           |                  | SE4                  | 41          | 1 E           |
| oc, 2x6 -     | 2 rows staggered at 0-9                    | 9-0 oc.                |        | R802.10.2 a                       | nd referenced stand   | ard AN    | NSI/TPI 1.       |            |         | E         |                  | 0000                 | -04         | : E           |
| Bottom c      | hords connected as follo                   | ows: 2x6 - 2 rows      | 1      | 2) Use Simpsoi                    | n Strong-Tie LUS26    | ) (4-100  | Girder, 4-10     | a          |         |           |                  | 0235                 | 94          | 1 E           |
| staggere      | d at 0-9-0 oc.                             |                        |        | russ) or equ                      | uivalent at 4-0-12 fr |           | ieir end to      |            |         | -         |                  | <b>1</b>             |             | 1 2           |
| Web con       | nected as follows: 2x4 -                   | 1 row at 0-9-0 oc.     |        | connect (fus                      | S(ES) IO DACK IACE C  | ι ροποι   | n chora.         |            |         |           | -                |                      |             |               |

 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. 13) Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 18-0-12 to connect truss(es) to back face of bottom chord.

14) Fill all nail holes where hanger is in contact with lumber.

BENCO

April 1,2024

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| Job      | Truss | Truss Type             | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------------------|-----|-----|----------------------------|-----------|
| 24050019 | EGE   | Common Supported Gable | 1   | 1   | Job Reference (optional)   | 164576268 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:\_esNCUIUPIWo4zacA9qaZdzMD57-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



18-7-0

#### Scale = 1:50.8

Plate Offsets (X, Y): [7:0-2-8,Edge]

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL   | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018   | 8/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH  | 0.10<br>0.05<br>0.13  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>n/a<br>n/a<br>0.00  | (loc)<br>-<br>-<br>14                       | l/defl<br>n/a<br>n/a<br>n/a                        | L/d<br>999<br>999<br>n/a   | PLATES<br>MT20<br>Weight: 126 lb   | <b>GRIP</b><br>244/190<br>FT = 20%                             |             |
|---|---|---|---|--|--|---|---|---|---|--|--|--|--|-------------|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>OTHERS<br>BRACING | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>2x4 SP No.3  |   | W   | EBS 6<br>4<br>9<br>1<br>1<br>0TES  | -20=-160/19, 8-18<br>-22=-158/85, 3-23<br>-17=-215/115, 10-<br>1-15=-170/165, 3-<br>1-14=-203/94   | =-160/0<br>=-180/1<br>16=-158<br>24=-20   | , 5-21=-215/1<br>52,<br>3/85,<br>1/145,   | 115,  | 12) * Th<br>on t<br>3-06<br>choi<br>13) N/A | is truss<br>he botto<br>S-00 tall<br>rd and a      | has be<br>m cho<br>by 2-0<br>ny oth  | een designed for<br>rd in all areas w<br>0-00 wide will fit<br>er members. | a live load of 20.0p<br>here a rectangle<br>between the botton | √sf<br>n    |
| REACTIONS   | Structural wood she<br>6-0-0 oc purlins, ex<br>Rigid ceiling directly<br>bracing.<br>(size) 14=18-7-(<br>21=18-7-(<br>24=18-7-(<br>Max Horiz 24=191 (L<br>Max Uplift 14=-1 (LC<br>21=-72 (L<br>23=-126 (<br>Max Grav 14=172 (L<br>18=-196 (L)   | athing directly applied<br>cept end verticals.<br>applied or 10-0-0 oc<br>0, 15=18-7-0, 16=18-<br>0, 18=18-7-0, 20=18-<br>0, 18=18-7-0, 23=18-<br>0, 13)<br>11), 15=-120 (LC 15<br>C 15), 17=-75 (LC 15<br>C 14), 22=-53 (LC 14<br>LC 14), 24=-39 (LC 14<br>LC 22), 15=205 (LC 2<br>C 22), 27=257 (LC 2<br>C 22), 27=26 (LC 2 | (1)<br>(1)<br>(2)<br>(7-0,<br>(7-0,<br>(7-0,<br>(5)),<br>(5),<br>(5),<br>(1),<br>(1),<br>(2),<br>(2),<br>(2),<br>(1)) | Unbalanced i<br>this design.<br>Wind: ASCE<br>Vasd=103mg<br>II; Exp B; End<br>and C-C Corr<br>to 6-3-8, Corr<br>12-1-12 to 16<br>cantilever leff<br>right exposed<br>for reactions<br>DOL=1.60<br>Truss design<br>only. For stu<br>see Standard<br>or consult qu     | oof live loads have<br>7-16; Vult=130mpt<br>h; TCDL=6.0psf; B<br>closed; MWFRS (er<br>er(3E) -0-10-8 to 2<br>ner(3R) 6-3-8 to 12<br>-5-8, Corner(3E) 1<br>and right exposed<br>(;C-C for members<br>shown; Lumber DC<br>led for wind loads i<br>ds exposed to wind<br>laffed building desi   | been of<br>(3-sec<br>CDL=6<br>nvelope<br>2-1-8, E<br>-1-12, I<br>6-5-8 to<br>; end v<br>and for<br>DL=1.60<br>In the pid<br>d (norm<br>id Deta<br>igner as  | considered fo<br>.0psf; h=25ft;<br>.0 exterior zor<br>xterior(2N) 2:<br>Exterior(2N) 2:<br>Exterior(2N)<br>0: 19-5-8 zone<br>vertical left an<br>ces & MWFR<br>0 plate grip<br>ane of the tr.<br>al to the face<br>is as applical<br>s per ANS/TF | r<br>; Cat.<br>he<br>-1-8<br>;;<br>dd<br>RS<br>Jss<br>),<br>ble,<br>PI 1. | 14) This<br>Inte<br>R80<br>LOAD C           | truss is<br>rnationa<br>2.10.2 a<br><b>CASE(S)</b> | desig<br>I Resid<br>Ind ref<br>Star  | ned in accordan<br>Jential Code sec<br>erenced standar<br>ndard            | ce with the 2018<br>tions R502.11.1 and<br>d ANSI/TPI 1.       | d           |
| FORCES<br>TOP CHORD<br>BOT CHORD                              | 21=257 (L<br>23=217 (L<br>(lb) - Maximum Com<br>Tension<br>2-24=-137/124, 1-2=<br>3-4=-104/80, 4-5=-9<br>6-7=-70/125, 7-8=-7<br>9-10=-74/61, 10-11=<br>12-13=0/34, 12-14=-<br>23-24=-79/191, 20-2<br>21-22=-79/191, 20-2<br>18-20=-79/191, 17-1<br>16-17=-79/191, 15-1<br>14-15=-79/191 | C 21), 22=195 (LC 2<br>C 25), 24=195 (LC 2<br>pression/Maximum<br>60/34, 2-3=-58/59,<br>0/70, 5-6=-81/137,<br>0/125, 8-9=-81/137,<br>10/125, 8-9=-81/137,<br>1-75/35, 11-12=-54/94<br>139/144<br>33=-79/191,<br>8=-79/191,<br>6=-79/191,  | (1), 4)<br>(6)<br>(5)<br>(6)<br>(4,<br>(7)<br>(8)<br>(9)<br>(10)<br>(11)  | TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15); I<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>This truss ha<br>load of 12.0 p<br>overhangs no<br>All plates are<br>Gable require<br>Truss to be fu<br>braced again<br>0) Gable studs si<br>) This truss ha<br>chord live loa | 7-16; Pr=20.0 psf (L<br>15); Pf=20.0 psf (L<br>s=1.0; Rough Cat E<br>1.10<br>snow loads have be<br>s been designed for<br>bosf or 1.00 times fla<br>on-concurrent with<br>2x4 MT20 unless c<br>es continuous botto<br>ully sheathed from est<br>tateral movement<br>spaced at 2-0-0 oc.<br>s been designed for<br>d nonconcurrent with | (roof LL<br>Lum DC<br>3; Fully<br>een cor<br>or greate<br>troof lo<br>other liv<br>other liv<br>othe | .: Lum DOL=:<br>IL=1.15 Plate<br>Exp.; Ce=0.9<br>asidered for th<br>er of min roof<br>pad of 20.0 ps<br>ve loads.<br>se indicated.<br>d bearing.<br>e or securely<br>iagonal web)<br>D psf bottom<br>other live loa                               | 1.15<br>9;<br>nis<br>live<br>sf on  |   |  | and the second s | SEA<br>0235  | L<br>94<br>MILLER  | - ANNIH TEL |

April 1,2024

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4

| Job      | Truss | Truss Type                      | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|---------------------------------|-----|-----|----------------------------|-----------|
| 24050019 | A4SE  | Piggyback Base Structural Gable | 1   | 1   | Job Reference (optional)   | 164576269 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:36 ID:97jmf?YRCesUy9xFwEmOuVzMC0N-RtC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

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| Job      | Truss | Truss Type     | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|----------------|-----|-----|----------------------------|-----------|
| 24050019 | A4    | Piggyback Base | 3   | 1   | Job Reference (optional)   | 164576270 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:36 ID:SHDhqqFqYTAFw4NPKQp\_EkzMC?T-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

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| Job      | Truss | Truss Type     | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|----------------|-----|-----|----------------------------|-----------|
| 24050019 | A2    | Piggyback Base | 2   | 1   | Job Reference (optional)   | 164576271 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:36 ID:xNT20ti5HLIEJWYTMdz761zMBzb-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

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| Job      | Truss | Truss Type     | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|----------------|-----|-----|----------------------------|-----------|
| 24050019 | A1    | Piggyback Base | 1   | 1   | Job Reference (optional)   | 164576272 |

Run: 9.03 S 8 73 Mar 21 2024 Print: 8 730 S Mar 21 2024 MiTek Industries. Inc. Fri Mar 29 10:41:36 ID:AN2tTm0PAKZYRWXSt4QE9WzMBzB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



| WEBS         | 2x4 SP No.3 *Except* 17-6,16-7,17-7:2x4 SP<br>No.2   | • |
|--------------|--|---|
| BRACING      |  |   |
| TOP CHORD    | Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.                              |   |
| BOT CHORD    | Rigid ceiling directly applied or 6-0-0 oc bracing.  | 3 |
| WEBS<br>WEBS | 1 Row at midpt 6-17, 8-16, 5-17<br>2 Rows at 1/3 pts 7-16  |   |
| REACTIONS    | (size) 11=0-5-8, 16=0-5-8, 20=0-5-8<br>Max Horiz 20=-178 (LC 15)   | 4 |
|              | Max Uplift 11=-115 (LC 15), 16=-166 (LC 15)<br>20=-137 (LC 14)   | 5 |
|              | Max Grav 11=707 (LC 39), 16=2835 (LC 47),<br>20=995 (LC 37)  | 6 |
| FORCES       | (lb) - Maximum Compression/Maximum<br>Tension  | 7 |
| TOP CHORD    | 1-2=0/27, 2-3=-640/174, 3-5=-1146/200,<br>5-6=-285/196, 6-7=-163/178, 7-8=0/819,<br>8-10=-298/121, 10-11=-998/167, 11-12=0/23<br>2-20=-499/173             | 8 |
| BOT CHORD    | 19-20=-250/1110, 17-19=-107/709,<br>16-17=-710/281, 14-16=-54/189,<br>13-14=-46/817, 11-13=-46/817   | 9 |
| WEBS         | 3-19=-327/205, 5-19=-26/739, 6-17=-386/64,<br>7-16=-2035/180, 8-14=0/649, 10-13=0/346,<br>3-20=-796/40, 7-17=-169/1505,<br>8-16=-1156/232, 10-14=-868/190, | 1 |
| NOTES        | 5-1/=-101//240   | 1 |

Unbalanced roof live loads have been considered for 1) this design.

to 13-5-3. Exterior(2R) 13-5-3 to 31-5-13. Interior (1) 31-5-13 to 42-6-0, Exterior(2E) 42-6-0 to 47-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed C-C for members and forces & MWERS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this desian.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 20, 11, and 16. This connection is for uplift only and does not consider lateral forces.
- 0) 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.
- 1) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



818 Soundside Road

Edenton, NC 27932

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | A     | Attic      | 2   | 1   | Job Reference (optional)   | 164576273 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:34 ID:ZPnjiVCN8PSJoBx1Aeirw9zMBNV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

818 Soundside Road

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | A     | Attic      | 2   | 1   | Job Reference (optional)   | 164576273 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:34 ID:ZPnjiVCN8PSJoBx1Aeirw9zMBNV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

 Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | C1    | Attic      | 3   | 1   | Job Reference (optional)   | 164576274 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:41 ID:dn7xJiax1KrXXAjJYqfRnIzMBFG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

1-2-4





| Scale = 1:94.5        |                  |                  |                  |                  |
|-----------------------|------------------|------------------|------------------|------------------|
| Plate Offsets (X, Y): | [2:Edge,0-2-12], | [4:0-3-0,0-3-0], | [7:0-4-13,Edge], | [21:0-3-8,0-2-0] |

| Loading     | (psf)                                  | Spacing                          | 2-0-0    |                                | CSI                                      |                   | DEFL                                | in        | (loc)    | l/defl                | L/d              | PLATES                                 | GRIP          |         |
|-------------|--|----------------------------------|----------|--------------------------------|--|-------------------|-------------------------------------|-----------|----------|-----------------------|------------------|--|---------------|---------|
| TCLL (roof) | 20.0                                   | Plate Grip DOL                   | 1.15     |                                | TC                                       | 0.83              | Vert(LL)                            | -0.41     | 16-18    | >664                  | 240              | MT20                                   | 244/190       |         |
| Snow (Pf)   | 20.0                                   | Lumber DOL                       | 1.15     |                                | BC                                       | 0.84              | Vert(CT)                            | -0.73     | 16-18    | >370                  | 180              |  |               |         |
| TCDL        | 10.0                                   | Rep Stress Incr                  | YES      |                                | WB                                       | 0.87              | Horz(CT)                            | 0.04      | 8        | n/a                   | n/a              |  |               |         |
| BCLL        | 0.0*                                   | Code                             | IRC2018  | 3/TPI2014                      | Matrix-MSH                               |                   | Attic                               | -0.15     | 10-15    | >419                  | 360              |  |               |         |
| BCDL        | 10.0                                   |                                  |          |                                |  |                   |                                     |           |          |                       |                  | Weight: 215 lb                         | FT = 20%      |         |
| LUMBER      |  |                                  | 1)       | Wind: ASCE                     | 7-16; Vult=130mpl                        | n (3-seo          | cond gust)                          | _         | 12) This | s truss is            | desig            | ned in accordanc                       | e with the 20 | 18      |
| TOP CHORD   | 2x4 SP No.2                            |                                  |          | Vasd=103mp                     | oh; TCDL=6.0psf; E                       | SCDL=6            | 0.0psf; h=25ft;                     | Cat.      | Inte     | rnationa              | I Resi           | dential Code sect                      | ons R502.1    | 1.1 and |
| BOT CHORD   | 2x4 SP No.1 *Excep<br>17-8:2x4 SP No.2 | ot* 15-10:2x4 SP No.3            | 3,       | II; Exp B; End<br>and C-C Exte | closed; MWFRS (e<br>erior(2E) -0-10-8 to | nvelope<br>2-1-8, | e) exterior zon<br>Interior (1) 2-1 | e<br> -8  | 13) Atti | )2.10.2 a<br>c room c | and ref<br>hecke | erenced standard<br>d for L/360 deflec | tion.         |         |
| WEBS        | 2x4 SP No.3 *Excep                     | ot* 5-16,6-9,21-8:2x4            | SP       | to 19-9-4, Ex                  | terior(2E) 19-9-4 to                     | 22-9-4            | zone; cantile                       | ver       | LOAD     | CASE(S)               | ) Sta            | ndard                                  |               |         |
|             | 2400F 2.0E, 20-21:2                    | 2x4 SP No.2, 8-7:2x6             | SP       | left and right                 | exposed ; end vert                       | ical left         | exposed;C-C                         | tor       |          |                       |                  |  |               |         |
|             | No.2                                   |                                  |          | members and                    | d forces & MWFRS                         | for rea           | ctions shown;                       |           |          |                       |                  |  |               |         |
| BRACING     |  |                                  |          | Lumber DOL                     | =1.60 plate grip DC                      | JL=1.6            | J                                   |           |          |                       |                  |  |               |         |
| TOP CHORD   | Structural wood she                    | athing directly applie           | d or     | TOULARCE                       | 7 16: Dr 20.0 pof                        | (reaf L           |                                     | 15        |          |                       |                  |  |               |         |
|             | 4-5-4 oc purlins, ex                   | cept end verticals.              | 2)       | Plate DOI =1                   | 15) Pf=20.0 psi                          |                   | LUIII DOLE I                        | .15       |          |                       |                  |  |               |         |
| BOT CHORD   | Rigid ceiling directly<br>bracing.     | applied or 6-0-0 oc              |          | DOL=1.15); I                   | s=1.0; Rough Cat                         | B; Fully          | Exp.; Ce=0.9                        | ;         |          |                       |                  |  |               |         |
| WEBS        | 1 Row at midpt                         | 4-16, 3-19, 5-21, 8-2            | 1        | Cs=1.00; Ct=                   | 1.10                                     |                   |                                     |           |          |                       |                  |  |               |         |
| JOINTS      | 1 Brace at Jt(s): 21                   |                                  | 3)       | Unbalanced                     | snow loads have b                        | een cor           | isidered for th                     | IS        |          |                       |                  |  |               |         |
| REACTIONS   | (size) 8= Mecha                        | anical, 19=0-5-8                 | 4)       | This trues ha                  | s been designed fo                       | or areat          | er of min roof                      | livo      |          |                       |                  |  |               |         |
|             | Max Horiz 19=421 (I                    | _C 14)                           | 4)       | load of 12 0 r                 | s been designed it                       | n yreat           | ad of 20.0 ps                       | fon       |          |                       |                  |  |               |         |
|             | Max Uplift 8=-28 (LC                   | C 14), 19=-2 (LC 14)             |          | overhands no                   | on-concurrent with                       | other li          | ve loads                            |           |          |                       |                  |  |               |         |
|             | Max Grav 8=1740 (I                     | LC 5), 19=1168 (LC 5             | 5) 5)    | This truss ha                  | s been designed fo                       | or a 10           | 0 psf bottom                        |           |          |                       |                  |  |               |         |
| FORCES      | (lb) - Maximum Corr                    | pression/Maximum                 | -,       | chord live loa                 | ad nonconcurrent w                       | ith any           | other live load                     | ds.       |          |                       |                  |  |               |         |
|             | Tension                                |                                  | 6)       | * This truss h                 | as been designed                         | for a liv         | e load of 20.0                      | psf       |          |                       |                  |  |               |         |
| TOP CHORD   | 1-2=0/27, 2-3=-463/                    | 97, 3-5=-1601/0,                 | ,        | on the botton                  | n chord in all areas                     | where             | a rectangle                         |           |          |                       |                  |  | 11.           |         |
|             | 5-6=-154/950, 6-7=-                    | 42/663, 2-19=-398/13             | 34,      | 3-06-00 tall b                 | y 2-00-00 wide will                      | fit betv          | veen the botto                      | m         |          |                       |                  | AD IN THE                              | Dille         |         |
|             | 7-8=-285/2782                          |                                  |          | chord and an                   | y other members,                         | with BC           | DL = 10.0psf.                       |           |          |                       |                  | THUA                                   | HOIL          |         |
| BOT CHORD   | 18-19=-326/1557, 1                     | 6-18=-188/1248,                  | 7)       | Ceiling dead                   | load (5.0 psf) on m                      | nember            | (s). 20-21; Wa                      | all       |          |                       | 5                | N-++= 58                               | in A.         | 1       |
|             | 14-16=-110/1395, 1                     | 2-14=0/883,                      |          | dead load (5.                  | .0psf) on member(s                       | s).15-20          | ), 10-21                            |           |          |                       | :0               | OFF                                    | ANIN-         | 12      |
|             | 9-12=-115/11, 8-9=-                    | 34/481, 13-15=-350/0             | ), 8)    | Bottom chord                   | l live load (40.0 pst                    | ) and a           | dditional botto                     | m         |          |                       | 3.7              | 1997 M J                               | let           |         |
|             | 11-13=-350/0, 10-11                    | 1=-350/0                         |          | chord dead lo                  | oad (5.0 psf) applie                     | d only            | to room. 13-15                      | 5,        |          |                       | 2                |  |               |         |
| WEB5        | 3-18=-109/191, 4-10                    | 0=-47/007,<br>16 66/770 15 00 0/ | 750 0    | 11-13, 10-11                   |  |                   |                                     |           |          |                       |                  | SEA                                    |               | =       |
|             | 5 20-0/762 0 10- 1                     | 0/550 10 21-0/111                | 758, 9j  | Refer to girde                 | er(s) for truss to tru                   | ss conr           | nections.                           | _         |          | =                     | :                | 0005                                   | 24            | =       |
|             | 6-21-640/181 20-2                      | 20/550, 10-21=0/111              | , 10     | ) Provide meci                 | nanical connection                       | (by oth           | ers) of truss to                    | )<br>Dint |          | =                     | :                | 0235                                   | 94 :          | -       |
|             | 3-19=-1302/0 14-15                     | 5=-628/164                       |          |                                |  |                   | o io upint at jo                    | JIII      |          | -                     |                  |  |               | -       |
|             | 13-14=-71/174 10-1                     | 12=0/1108, 11-12=-4              | 57/5. 11 | ) One H2 54 9                  | Simpson Strong-Tie                       | conne             | ctors                               |           |          |                       | -                | ·                                      | ai            | 3       |
|             | 5-21=-2256/178, 8-2                    | 21=-4861/349,                    | , 11     | recommende                     | d to connect truss                       | to bear           | ing walls due                       | to        |          |                       | 21               | NGINI                                  | ENA           | 8       |
|             | 7-21=-3055/262                         | ,                                |          | UPLIFT at it(                  | s) 19. This connect                      | tion is f         | or uplift only a                    | nd        |          |                       | 11,              | UNA                                    | 1. 1.         | \$      |
| NOTES       |  |                                  |          | does not con                   | sider lateral forces                     |                   |                                     | -         |          |                       |                  | IN R I                                 | MILLIN        |         |
|             |  |                                  |          |                                |  |                   |                                     |           |          |                       |                  | - minin                                | mm            |         |
|             |  |                                  |          |                                |  |                   |                                     |           |          |                       |                  |  | 0.50          |         |

April 1,2024

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| Job      | Truss | Truss Type  | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|-------------|-----|-----|----------------------------|-----------|
| 24050019 | A7GR  | Flat Girder | 1   | 1   | Job Reference (optional)   | 164576275 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:39 ID:MzC3fFp7GD?OvuFJV4QSxMzMCl5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:75.5

## Plate Offsets (X, Y): [7:0-3-8,0-2-0], [16:0-5-0,0-4-8], [17:0-2-12,0-3-8]

|  |   |  |   | -  |   |   |   |  |   |   |   |   |   |   |
|--|---|--|---|--|---|---|---|--|---|---|---|---|---|---|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>NO<br>IRC2018      | J/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.98<br>0.58<br>0.90  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>-0.11<br>-0.19<br>0.03                         | (loc)<br>19-21<br>19-21<br>13   | l/defl<br>>999<br>>999<br>n/a   | L/d<br>240<br>180<br>n/a  | PLATES<br>MT20<br>Weight: 299 lb  | <b>GRIP</b><br>244/190<br>FT = 20%        | 6   |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>REACTIONS | 2x4 SP No.1 *Excep<br>2x6 SP No.2<br>2x4 SP No.3 *Excep<br>SP No.2<br>2-0-0 oc purlins (4-0<br>end verticals.<br>Rigid ceiling directly<br>bracing.<br>1 Row at midpt<br>(size) 13= Mech<br>23=0-5-8<br>Max Horiz 23=119 (L<br>Max Uplift 13=-242 (<br>23=-354 (<br>Max Grav 13=1058) | t* 9-12:2x4 SP No.2<br>t* 22-1,16-7,13-11:2x<br>-0 max.): 1-12, excep<br>applied or 4-7-7 oc<br>6-17<br>ianical, 17=0-5-8,<br>LC 9)<br>LC 8), 17=-962 (LC 9)<br>LC 8)<br>(LC 1), 17=4129 (LC 1)                            | 1)<br>4<br>2)<br>3)<br>4)<br>5)<br>),<br>6) | Wind: ASCE<br>Vasd=103mp<br>II; Exp B; En<br>cantilever lef<br>right exposed<br>TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15);<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>Provide adeo<br>This truss ha<br>chord live loa<br>• This truss P<br>on the bottor<br>3-06-00 tall b | 7-16; Vult=130mpf<br>bh; TCDL=6.0psf; E<br>closed; MWFRS (e<br>t and right exposed<br>d; Lumber DOL=1.6<br>7-16; Pr=20.0 psf<br>.15); Pf=20.0 psf (I<br>Is=1.0; Rough Cat I<br>=1.10<br>snow loads have be<br>quate drainage to p<br>is been designed fo<br>ad nonconcurrent w<br>has been designed<br>n chord in all areas<br>by 2-00-00 wide will | n (3-sec<br>GCDL=6<br>nvelope<br>1; end v<br>30 plate<br>(roof LL<br>Lum DC<br>3; Fully<br>een cor<br>revent v<br>for a 10.<br>for a liv<br>where<br>fit betv | ond gust)<br>.0psf; h=25ft;<br>b) exterior zon-<br>retrical left and<br>grip DOL=1.6<br>.: Lum DOL=1<br>DL=1.15 Plate<br>Exp.; Ce=0.9;<br>isidered for th<br>water ponding<br>0 psf bottom<br>other live load<br>e load of 20.00<br>a rectangle<br>veen the botto | Cat.<br>e;<br>d<br>.15<br>;<br>is<br>ds.<br>psf<br>m | 13) "NA<br>(0.1<br>14) In ti<br>of ti<br><b>LOAD (</b><br>1) De<br>In<br>Ur | AILED" in<br>148"x3.22 he LOAE he truss<br><b>CASE(S)</b> he truss<br><b>CASE(S)</b> he truss<br>crease=' niform LC<br>Vert: 1=<br>6=-106 25=-106 25=-106 33=-106 33=-106 33=-106 41=-106 41=-106 41=-106 45=-28 he | dicate<br>5") toe<br>0 CAS<br>are no<br>0 Sta<br>1.15<br>0 ds (l<br>12=-60<br>ted Lo<br>-40 (F<br>(F), 18<br>5 (F), 2<br>5 (F), 3<br>5 (F), 3<br>5 (F), 4<br>6 (F), 4 | s 3-10d (0.148"x<br>-nails per NDS g<br>E(S) section, loa<br>ted as front (F) c<br>ndard<br>alanced): Lumbe<br>b/ft)<br>0, 13-23=-20<br>ads (Ib)<br>), 20=-28 (F), 3=<br>=-28 (F), 16=-28<br>(6=-106 (F), 27=-<br>0=-106 (F), 31=-<br>t4=-106 (F), 35=-<br>8=-106 (F), 43=-<br>=-28 (F). 47=-28 |   | =-28 (F),<br>)6 (F),<br>=-106 (F),<br>=-106 (F),<br>=-106 (F),<br>=-106 (F),<br>=-28 (F),<br>3 (F), |
| FORCES<br>TOP CHORD  | (b) - Maximum Com<br>Tension<br>1-23=-1415/378, 1-2<br>2-3=-1811/438, 3-4=<br>4-6=-1865/443, 6-7=<br>8-10=-1110/291, 10-<br>11-12=-63/44, 12-13   | 2=-1811/438,<br>1865/443,<br>552/2286, 7-8=-81/2<br>-11=-110/291,<br>=-220/98  | 7)<br>8)<br>09, <u>9)</u>                   | chord and ar<br>Refer to girde<br>Provide meci<br>bearing plate<br>13.<br>One H2.5A S<br>recommende  | y other members.<br>er(s) for truss to tru<br>hanical connection<br>e capable of withsta<br>Simpson Strong-Tie<br>ed to connect truss<br>s) 23. This connect  | ss conr<br>(by oth<br>nding 2<br>conne<br>to bear   | nections.<br>ers) of truss to<br>42 lb uplift at j<br>ctors<br>ng walls due t<br>or uplift only at  | )<br>joint<br>to                                     |   | 49=-28<br>53=-28<br>57=-28<br>61=-28  | (F), 50<br>(F), 54<br>(F), 58<br>(F)  | =-28 (F), 51=-28<br>=-28 (F), 55=-28<br>=-28 (F), 55=-28<br>=-28 (F), 59=-28  | (F), 52=-28<br>(F), 56=-28<br>(F), 60=-28 | ; (F),<br>} (F),<br>} (F),  |
| BOT CHORD<br>WEBS<br>NOTES   | 22-23=-95/101, 21-2<br>19-21=-611/2380, 11<br>17-18=-93/243, 15-1<br>14-15=-299/1184, 12<br>1-22=-500/2128, 2-2<br>3-22=-688/180, 3-21<br>4-19=-575/261, 6-19<br>6-17=-3088/725, 7-1<br>7-16=-580/2558, 8-1<br>8-15=-312/1403, 10-<br>11-15=-90/23, 11-14                             | 22=-611/2380,<br>8-19=-93/243,<br>7=-2286/553,<br>3-14=-299/1184<br>22=-621/284,<br>=0/276, 3-19=-624/16<br>)=-466/1963, 6-18=0/2<br>7=-2090/604,<br>6=-1381/445,<br>6=-1381/445,<br>15=-553/250,<br>1=0/308, 11-13=-1376/ | 10)<br>247, 11)<br>12)<br>/319              | does not con<br>H10A Simps<br>connect truss<br>This connect<br>lateral forces<br>This truss is<br>International<br>R802.10.2 ai<br>Graphical pu<br>or the orienta<br>bottom choro  | si sciar lateral forces<br>on Strong-Tie conn<br>s to bearing walls d<br>ion is for uplift only<br>i.<br>designed in accord<br>Residential Code s<br>nd referenced stand<br>rlin representation<br>ation of the purlin al<br>d.   | ectors  <br>ue to U<br>and dc<br>ance w<br>sections<br>dard AN<br>does no<br>ong the  | recommended<br>PLIFT at jt(s)<br>es not conside<br>ith the 2018<br>R502.11.1 ar<br>ISI/TPI 1.<br>ot depict the si<br>top and/or   | I to<br>17.<br>er<br>nd                              |   | THIMM   |   | SEA<br>0235<br>ONY R.   | L<br>94<br>EER.                           |   |

April 1,2024

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TRENGINEERING BY A MITCH A HITIBIA

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

e (www.tpinst.org) 818 Soundside Road Edenton, NC 27932

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | A6    | Нір        | 1   | 1   | Job Reference (optional)   | 164576276 |

Run; 9.03 S 8.73 Mar 21 2024 Print; 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:37 ID:aIU11ihHbkeL8g\_Z2VekD8zMCBp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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#### Scale = 1:78.9

| Plate Offsets (  | (X, Y): [1:Edge,   | 0-3-8],   | [3:0-3-0,0-2-0], [8:0-  | 3-0,0-2-0]  | , [10:0-1-4,0-0-   | ·5]   |   |   |  |                               |   |                          |                                  |                                    |
|--|--|---|---|---|--|---|---|---|--|-------------------------------|---|--------------------------|----------------------------------|------------------------------------|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  | ()<br>2<br>1<br>1  | psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018           | 3/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.92<br>0.45<br>0.91  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>-0.06<br>-0.14<br>0.02   | (loc)<br>11-20<br>11-20<br>10 | l/defl<br>>999<br>>999<br>n/a                 | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 279 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>REACTIONS | 2x4 SP No.2 *<br>2x6 SP No.2<br>2x4 SP No.3<br>Structural wor<br>4-9-8 oc purli<br>2-0-0 oc purli<br>Rigid ceiling of<br>bracing.<br>1 Row at midq<br>(size) 10-<br>18=<br>Max Horiz 18-<br>Max Uplift 10-<br>18=<br>Max Grav 10-<br>18= | *Except<br>od shea<br>ns, exc<br>ns (2-2-<br>directly)<br>= Mecha<br>=-78 (LC<br>=-135 (L<br>=-135 (L<br>=-135 (L<br>=-135 (L<br>=-135 (L | * 6-8:2x4 SP No.1<br>thing directly applie<br>ept end verticals, ar<br>0 max.): 3-8.<br>applied or 6-0-0 oc<br>7-14<br>anical, 14=0-5-8,<br>C 15)<br>C 15), 14=-258 (LC<br>C 14),<br>C 44), 14=2464 (LC<br>C 42)  | 2)<br>d or<br>d<br>3)<br>10), 4)<br>39), 5)<br>6) | Wind: ASCE<br>Vasd=103mp<br>II; Exp B; En<br>and C-C Extu<br>to 14-10-8, Ir<br>30-0-13 to 4'<br>cantilever lef<br>right exposed<br>for reactions<br>DOL=1.60<br>TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15; I<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>Provide aded<br>This truss ha<br>chord live loa | 7-16; Vult=130mp<br>bh; TCDL=6.0psf; E<br>closed; MWFRS (e<br>rior(2E) 0-1-12 to<br>therior (1) 14-10-8<br>i-3-14, Exterior(2E<br>t and right exposed<br>j;C-C for members<br>shown; Lumber D0<br>7-16; Pr=20.0 psf<br>(15); Pf=20.0 psf(15); Pf=20.0 psf<br>(15); Pf=20.0 psf<br>(15); Pf=20.0 psf(15); P | h (3-sec<br>3CDL=6<br>envelope<br>4-9-4, E<br>to 30-0-<br>) 41-3-1<br>d; end v<br>s; and fou<br>OL=1.6(<br>(roof LL<br>Lum DC<br>B; Fully<br>ween cor<br>prevent v<br>or a 10.0<br>vith any | ond gust)<br>.0psf; h=25ft<br>exterior(2R) 4<br>13, Exterior(2R) 4<br>13, Exterior(2R) 4<br>14 to 46-2-4 z<br>vertical left ar<br>ces & MWFF<br>0 plate grip<br>.: Lum DOL=<br>UL=1.15 Plate<br>Exp.; Ce=0.1<br>asidered for t<br>water pondin.<br>0 psf bottom | ; Cat.<br>ne<br>I-9-4<br>2R)<br>cone;<br>nd<br>RS<br>1.15<br>9;<br>his<br>g.<br>g. |                               |   |                          |                                  |                                    |
| TOP CHORD  | (Ib) - Maximur<br>Tension<br>1-2=-341/57, 2<br>4-5=-702/171,<br>8-9=-780/186.  | m Comµ<br>2-3=-11<br>, 5-7=-7<br>, 9-10≕  | Compression/Maximum       7)       * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle         3=-1102/214, 3-4=-977/219, -7=-72/1036, 7-8=-62/153, -7=-72/1026, 7-8=-72/1026, 7-7 |   |  |   |   |   |  |                               |   | WEH CA                   | BO                               |                                    |
| BOT CHORD  | 17-18=-221/1<br>14-15=-357/1<br>11-12=-22/57   | 118, 15<br>33, 12-<br>9, 10-1   | -17=-130/903,<br>14=-242/132,<br>1=-171/1095  | 9)  | Provide mec<br>bearing plate   | hanical connection<br>capable of withsta  | (by oth<br>anding 1   | ers) of truss<br>17 lb uplift a   | to<br>t joint  |                               |   | Z                        | OFFERS                           | Stall.                             |
| WEBS<br>NOTES<br>1) Unbalance<br>this design   | 2-17=-298/12<br>4-15=-696/19<br>5-14=-1431/2<br>7-12=-3/564, i<br>9-11=-568/17<br>ed roof live loads<br>n.   | 4, 3-17:<br>7, 5-15:<br>58, 7-14<br>8-12=-7<br>0, 2-18:<br>s have l   | =0/248, 4-17=-16/34<br>=-125/1269,<br>4=-1410/237,<br>'35/85, 8-11=0/479,<br>=-1065/197<br>peen considered for  | <sup>18,</sup> 10<br>11<br>12                     | One H2.5A S<br>recommende<br>UPLIFT at jt(<br>only and doe<br>) This truss is<br>International<br>R802.10.2 ar<br>) Graphical pu<br>or the orienta   | Simpson Strong-Tie<br>ed to connect truss<br>s) 14 and 18. This<br>s not consider late<br>designed in accorc<br>Residential Code s<br>and referenced stan<br>rlin representation<br>ation of the purlin a   | e connec<br>to bear<br>connec<br>ral force<br>lance w<br>sections<br>dard AN<br>does no<br>long the   | ctors<br>ng walls due<br>tion is for upl<br>s.<br>th the 2018<br>R502.11.1 a<br>ISI/TPI 1.<br>ot depict the s<br>top and/or   | ift<br>and<br>size   |                               | CHILINA AND AND AND AND AND AND AND AND AND A |                          | SEA<br>02359                     | 64<br>ER. R.                       |
|  |  |   |   | LC  | bottom chord<br>DAD CASE(S)  | l.<br>Standard  | 5   | -   |  |                               |   |                          | R. N                             | MILTIN                             |

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April 1,2024

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | A5    | Нір        | 1   | 1   | Job Reference (optional)   | 164576277 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:37 ID:E9GQhRE8mtRqfkVPk9TW5qzMCB5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Scale = 1:79

| Plate Offsets (  | X, Y): [3:0-4  | -0,0-2-8],  | [5:0-4-0,0-3-4], [6:0   | -4-0,0-2-8]  | , [8:0-1-4,0-0-3  | 3], [17:Edge,0-6-8]   |  |  |   |                              |                               |                          |                                  |                                    |   |
|--|--|---|---|--|---|---|--|--|---|------------------------------|-------------------------------|--------------------------|----------------------------------|------------------------------------|---|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018                  | 3/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.82<br>0.52<br>0.96   | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)   | in<br>-0.06<br>-0.11<br>0.02  | (loc)<br>13-15<br>13-15<br>8 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 292 lb | <b>GRIP</b><br>244/190<br>FT = 20% |   |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>REACTIONS | 2x4 SP No.<br>2x6 SP No.<br>2x4 SP No.<br>Structural V<br>4-0-15 oc p<br>2-0-0 oc pr<br>Rigid ceilin<br>bracing, E<br>6-0-0 oc br<br>1 Row at m<br>(size) 8<br>Max Horiz 7 | .2 *Excep<br>.2<br>.3<br>wood shea<br>purlins, ea<br>urlins (4-1<br>g directly<br>Except:<br>racing: 10-<br>nidpt<br>8= Mecha<br>17=-100 (I | t* 3-5,5-6:2x4 SP No<br>athing directly applie<br>ccept end verticals, i<br>1-7 max.): 3-6.<br>applied or 10-0-0 oc<br>-12.<br>3-13, 4-12<br>nical, 12=0-5-8, 17=<br>LC 15)<br>C 15) 12=-188 (LC<br>C 15) 12=-188 (LC | 2)<br>2)<br>2)<br>2)<br>2)<br>2)<br>2)<br>2)<br>2)<br>2) | Wind: ASCE<br>Vasd=103m<br>II; Exp B; En<br>and C-C Ext<br>to 17-6-8, Inf<br>27-4-13 to 40<br>Exterior(2E)<br>right expose<br>for members<br>Lumber DOL<br>TCL: ASCE<br>Plate DOL=1<br>DOL=1.15);<br>Cs=1.00; Ct=<br>Unbalanced | 7-16; Vult=130mp<br>bh; TCDL=6.0psf; I<br>closed; MWFRS (e<br>erior(2E) 0-1-12 to<br>terior (1) 17-6-8 to<br>0-5-13, Interior (1)<br>41-6-12 to 46-2-4.<br>d; end vertical left<br>and forces & MW<br>=1.60 plate grip D<br>7-16; Pr=20.0 psf<br>(15); Pf=20.0 psf<br>(15); Pf=20.0 psf (15)<br>(10); Rough Cat<br>=1.10<br>snow loads have b | h (3-sec<br>BCDL=6<br>envelope<br>4-9-4, E<br>27-4-13<br>40-5-13<br>zone; cc<br>and rigi<br>FRS for<br>OL=1.6(<br>(roof LI<br>Lum DC<br>B; Fully<br>been con | cond gust)<br>.0psf; h=25ft<br>e) exterior zon<br>ixterior(2R) 4<br>, Exterior(2R) 4<br>to 41-6-12,<br>reactions sho<br>)<br>: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.9 | ; Cat.<br>ne<br>-9-4<br>)<br>and<br>-C<br>own;<br>1.15<br>9<br>;<br>his |                              |                               |                          |                                  |                                    |   |
| FORCES   | Max Grav 8<br>(Ib) - Maxin<br>Tension  | 17=-134 (l<br>8=821 (LC<br>17=1076 (<br>num Com   | LC 14)<br>2 44), 12=2591 (LC 4<br>LC 36)<br>pression/Maximum  | 45), 5)<br>6)<br>7)                                      | design.<br>Provide adeo<br>This truss ha<br>chord live loa<br>* This truss h  | quate drainage to p<br>as been designed f<br>ad nonconcurrent v<br>nas been designed  | orevent<br>or a 10.0<br>with any<br>for a live   | water ponding<br>) psf bottom<br>other live loa<br>e load of 20.0  | g.<br>Ids.<br>Opsf  |                              |                               |                          |                                  |                                    |   |
| TOP CHORD<br>BOT CHORD   | 1-2=-1541/<br>3-4=-576/1<br>7-8=-1377/<br>16-17=-119<br>13-15=-99/   | (217, 2-3=<br>71, 4-6=-3<br>(218, 1-17<br>9/310, 15-<br>(934, 12-1  | -1144/217,<br>391/834, 6-7=-575/1<br>=-981/161<br>16=-207/1304,<br>3=-77/577,   | 65,<br>8)<br>9)  | 3-06-00 tall to<br>chord and ar<br>Refer to gird<br>Provide mec<br>bearing plate  | by 2-00-00 wide wi<br>ny other members,<br>er(s) for truss to tru<br>hanical connection<br>capable of withsta   | Il fit betw<br>with BC<br>uss conr<br>(by oth<br>anding 1  | veen the both<br>DL = 10.0ps<br>nections.<br>ers) of truss to<br>14 lb uplift at   | om<br>f.<br>to<br>t joint   |                              |                               | A LEAST                  | NUTH CA                          | ROJI                               | 11.<br>2. 1.  |
| WEBS   | 10-12=-74,<br>8-9=-120/1<br>2-16=-51/1<br>3-13=-739/<br>5-12=-1353<br>6-10=-275/<br>1-16=-88/1   | 7/178, 9-1<br>154<br>13, 2-15=<br>77, 4-13=<br>3/271, 5-1<br>101, 7-10<br>014   | u=-120/1154,<br>-553/129, 3-15=0/5{<br>0/731, 4-12=-1794/2<br>0=-127/1352,<br>=-876/184, 7-9=0/26   | 10<br>224,<br>35, 11                                     | <ol> <li>One H2.5A S<br/>recommende<br/>UPLIFT at jt(<br/>only and doe</li> <li>This truss is<br/>International<br/>P802 10 2 or</li> </ol>   | Simpson Strong-Tid<br>ed to connect truss<br>(s) 17 and 12. This<br>is not consider late<br>designed in accord<br>Residential Code<br>of referenced stan  | e conne<br>to bear<br>connec<br>eral force<br>dance w<br>sections  | ctors<br>ing walls due<br>tion is for upl<br>es.<br>ith the 2018<br>i R502.11.1 a  | to<br>ift<br>and  |                              | CONTRACTOR OF                 |                          | SEA<br>0235                      | L<br>94                            | Manunun I.  |
| <ol> <li>Unbalance<br/>this design</li> </ol>  | ed roof live lo<br>n.  | ads have  | been considered for   | - 12<br>LC   | ) Graphical pu<br>or the orienta<br>bottom chore<br>DAD CASE(S)   | Irlin representation<br>ation of the purlin a<br>d.<br>Standard   | does no  | ot depict the s<br>top and/or  | size  |                              |                               | in the                   |                                  | SEL FR                             | in the second |

April 1,2024

818 Soundside Road Edenton, NC 27932

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| Job      | Truss | Truss Type                | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|---------------------------|-----|-----|----------------------------|-----------|
| 24050019 | JGE   | Jack-Open Supported Gable | 1   | 1   | Job Reference (optional)   | 164576278 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43 ID:h1JzkGRc6CdZENXOp8NkJJzMCJt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



4-0-0

Scale = 1:36.6

exposed ; end vertical left and right exposed;C-C for

members and forces & MWFRS for reactions shown;

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.

Lumber DOL=1.60 plate grip DOL=1.60

2)

| Loading     |             | (psf)                  | Spacing                               | 2-0-0 |  | CSI                |               | DEFL                                  | in     | (loc) | l/defl | L/d | PLATES        | GRIP   |
|-------------|-------------|------------------------|---------------------------------------|-------|--|--------------------|---------------|---------------------------------------|--------|-------|--------|-----|---------------|--|
| TCLL (roof) |             | 20.0                   | Plate Grip DOL                        | 1.15  |  | TC                 | 0.23          | Vert(LL)                              | 0.00   | 6-7   | >999   | 240 | MT20          | 244/190  |
| Snow (Pf)   |             | 20.0                   | Lumber DOL                            | 1.15  |  | BC                 | 0.03          | Vert(CT)                              | 0.00   | 6-7   | >999   | 180 |               |  |
| TCDL        |             | 10.0                   | Rep Stress Incr                       | YES   |  | WB                 | 0.08          | Horz(CT)                              | 0.00   | 4     | n/a    | n/a |               |  |
| BCLL        |             | 0.0*                   | Code                                  | IRC2  | 018/TPI2014  | Matrix-MP          |               |                                       |        |       |        |     |               |  |
| BCDL        |             | 10.0                   |                                       |       |  | -                  |               |                                       |        |       |        |     | Weight: 27 lb | FT = 20%   |
| LUMBER      |             |                        |                                       |       | 3) TCLL: ASCE  | 7-16; Pr=20.0 g    | osf (roof Ll  | .: Lum DOL=                           | 1.15   |       |        |     |               |  |
| TOP CHORD   | 2x4 SP N    | No.2                   |                                       |       | Plate DOL=1  | .15); Pf=20.0 ps   | sf (Lum DC    | DL=1.15 Plat                          | е      |       |        |     |               |  |
| BOT CHORD   | 2x4 SP N    | No.2                   |                                       |       | DOL=1.15);   | ls=1.0; Rough C    | at B; Fully   | Exp.; Ce=0.                           | 9;     |       |        |     |               |  |
| WEBS        | 2x4 SP N    | Vo.3                   |                                       |       | Cs=1.00; Ct:   | =1.10              |               |                                       |        |       |        |     |               |  |
| OTHERS      | 2x4 SP N    | Vo.3                   |                                       |       | <ol><li>Unbalanced</li></ol>                           | snow loads have    | e been coi    | nsidered for t                        | this   |       |        |     |               |  |
| BRACING     |             |                        |                                       |       | design.  |                    |               |                                       |        |       |        |     |               |  |
| TOP CHORD   | Structura   | al wood she            | athing directly applie                | d or  | <ol><li>This truss has</li></ol>                       | is been designe    | d for great   | er of min roo                         | flive  |       |        |     |               |  |
|             | 4-0-0 oc    | purlins, ex            | cept end verticals.                   |       | load of 12.0   | psf or 1.00 times  | s flat roof l | oad of 20.0 p                         | osf on |       |        |     |               |  |
| BOT CHORD   | Rigid cei   | iling directly         | applied or 10-0-0 oc                  | ;     | overnangs n  | on-concurrent w    | hth other li  | ve loads.                             |        |       |        |     |               |  |
|             | bracing.    |                        |                                       |       | <li>b) I russ to be to<br/>broad again</li>            | ully sheathed fro  | om one rac    | ce or secure                          | y      |       |        |     |               |  |
| REACTIONS   | (size)      | 4= Mecha               | anical, 5=3-6-8, 6=3-6                | 6-8,  | 7) Coblo ctude   | concord at 2.0.0   |               | liagonal web                          | ).     |       |        |     |               |  |
|             |             | 7=0-3-0                |                                       |       | <ol> <li>Gable studs</li> <li>This trues be</li> </ol> | spaceu al 2-0-0    | d for a 10    | 0 pef bottom                          |        |       |        |     |               |  |
|             | Max Horiz   | : 7=131 (L             | C 13)                                 |       | chord live lo  | ad nonconcurrer    | nt with any   | other live lo:                        | she    |       |        |     |               |  |
|             | Max Uplift  | : 4=-31 (LC            | C 11), 6=-90 (LC 14),                 |       | <ol> <li>9) * This truss I</li> </ol>                  | has been design    | ed for a liv  | e load of 20                          | 0psf   |       |        |     |               |  |
|             |             | 7=-25 (LC              | C 10)                                 |       | on the bottor  | n chord in all are | eas where     | a rectangle                           | -1     |       |        |     |               |  |
|             | Max Grav    | 4=78 (LC<br>(LC 21), 7 | 21), 5=28 (LC 7), 6=<br>7=222 (LC 21) | 234   | 3-06-00 tall I   | by 2-00-00 wide    | will fit bety | veen the bot                          | tom    |       |        |     |               |  |
| FORCES      | (lb) - Ma   | ximum Con              | pression/Maximum                      |       | 10) Refer to gird                                      | er(s) for truss to | truss con     | actions                               |        |       |        |     |               |  |
|             | Tension     |                        |                                       |       | 11) Provide med  | hanical connecti   | ion (by oth   | ers) of truss                         | to     |       |        |     |               |  |
| TOP CHORD   | 2-7=-208    | 3/248, 1-2=0           | 0/57, 2-3=-59/147,                    |       | bearing plate  | capable of with    | istanding 3   | B1 lb uplift at                       | ioint  |       |        |     |               |  |
|             | 3-4=-74/    | 97, 4-5=0/0            |                                       |       | 4.   |                    |               | · · · · · · · · · · · · · · · · · · · | ,      |       |        |     |               |  |
| BOT CHORD   | 6-7=-44/    | 79, 5-6=-44            | /79                                   |       | 12) One H2.5A \$                                       | Simpson Strong-    | Tie conne     | ctors                                 |        |       |        |     |               |  |
| WEBS        | 3-6=-236    | 6/277, 3-7=-           | 275/213                               |       | recommende   | ed to connect tru  | iss to bear   | ing walls due                         | e to   |       |        |     |               | in the second se |
| NOTES       |             |                        |                                       |       | UPLIFT at jo   | int 7. This conne  | ection is fo  | r uplift only                         |        |       |        |     | WH CA         | Rollin   |
| 1) Wind: AS | CE 7-16; V  | ult=130mph             | (3-second gust)                       |       | and does no  | t consider latera  | l forces.     |                                       |        |       |        |     | R             | 6 hill   |
| Vasd=103    | Smph; TCD   | L=6.0psf; B            | CDL=6.0psf; h=25ft;                   | Cat.  | 13) This truss is                                      | designed in acc    | ordance w     | ith the 2018                          |        |       | /      | Ys  | UNFER         | 10 AVA   |
| II; Exp B;  | Enclosed; I | MWFRS (er              | nvelope) exterior zon                 | е     | International  | Residential Coo    | de sections   | s R502.11.1                           | and    |       | /      | Sag | in the        | MAN  |
| and C-C (   | Corner(3E)  | zone; canti            | ever left and right                   |       | R802.10.2 a  | nd referenced st   | tandard Al    | ISI/TPI 1.                            |        |       |        | -   | 2             | κ.   |

- R802.10.2 and referenced standard ANSI/TPI 1. 14) Gap between inside of top chord bearing and first
  - diagonal or vertical web shall not exceed 0.500in. LOAD CASE(S) Standard



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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | J     | Jack-Open  | 22  | 1   | Job Reference (optional)   | 164576279 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:42 ID:PyvlqhZumGu8RvIJPEZ4jQzMCJj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



4-0-0

Scale = 1:28.3

| Loading   |   | (psf)  | Spacing  | 2-0-0                                     |  | CSI   |   | DEFL   | in                                | (loc) | l/defl | L/d | PLATES        | GRIP         |   |
|---|---|--|--|---|--|---|---|--|-----------------------------------|-------|--------|-----|---------------|--------------|---|
| TCLL (roof)   |   | 20.0   | Plate Grip DOL   | 1.15                                      |  | TC  | 0.35  | Vert(LL)   | 0.02                              | 4-5   | >999   | 240 | MT20          | 244/190      |   |
| Snow (Pf)   |   | 20.0   | Lumber DOL   | 1.15                                      |  | BC  | 0.22  | Vert(CT)   | -0.02                             | 4-5   | >999   | 180 |               |              |   |
| TCDL  |   | 10.0   | Rep Stress Incr  | YES                                       |  | WB  | 0.00  | Horz(CT)   | -0.03                             | 3     | n/a    | n/a |               |              |   |
| BCLL  |   | 0.0*   | Code   | IRC201                                    | 8/TPI2014  | Matrix-MR   |   |  |                                   |       |        |     |               |              |   |
| BCDL  |   | 10.0   |  |   |  |   |   |  |                                   |       |        |     | Weight: 16 lb | FI = 20%     |   |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS  | 2x4 SP No<br>2x4 SP No<br>2x4 SP No<br>Structural<br>4-0-0 oc p<br>Rigid ceili<br>bracing.<br>(size)  | 0.2<br>0.3<br>wood shea<br>urlins, exi<br>ng directly<br>3= Mecha<br>5-0-5-8   | athing directly applie<br>sept end verticals.<br>applied or 10-0-0 oc<br>nical, 4= Mechanica   | 6)<br>7)<br>d or 8)<br>9)<br>:<br>1, 10   | <ul> <li>* This truss h<br/>on the bottor<br/>3-06-00 tall b<br/>chord and ar<br/>Bearings are<br/>Refer to gird<br/>Provide mec<br/>bearing plate<br/>3.</li> <li>)) This truss is<br/>International</li> </ul> | as been designed<br>in chord in all areas<br>by 2-00-00 wide wi<br>y other members.<br>assumed to be: ,<br>er(s) for truss to tr<br>hanical connection<br>capable of withst<br>designed in accorr<br>Residential Code | d for a liv<br>s where<br>ill fit betw<br>Joint 5 L<br>russ con<br>h (by oth<br>anding 7<br>dance w<br>sections | e load of 20.<br>a rectangle<br>veen the bott<br>Jser Defined<br>nections.<br>ers) of truss<br>8 lb uplift at<br>ith the 2018<br>R502.11.1 a | Opsf<br>com<br>to<br>joint<br>and |       |        |     |               |              |   |
|   | Max Horiz<br>Max Uplift<br>Max Grav   | 5=0-5-8<br>5=102 (LC<br>3=-78 (LC<br>3=166 (LC<br>(LC 21)  | C 14)<br>14)<br>C 21), 4=72 (LC 7), 5  | L0<br>=345                                | R802.10.2 ar<br>DAD CASE(S)  | nd referenced star<br>Standard  | ndard AN  | ISI/TPI 1.   |                                   |       |        |     |               |              |   |
| FORCES  | (lb) - Maxi   | mum Com  | pression/Maximum   |   |  |   |   |  |                                   |       |        |     |               |              |   |
| TOP CHORD<br>BOT CHORD  | 2-5=-317/<br>4-5=0/0  | 95, 1-2=0/   | 57, 2-3=-119/71  |   |  |   |   |  |                                   |       |        |     |               |              |   |
| NOTES   |   |  |  |   |  |   |   |  |                                   |       |        |     |               |              |   |
| <ol> <li>Wind: ASI<br/>Vasd=102<br/>II; Exp B;<br/>and C-C E<br/>exposed;<br/>members<br/>Lumber D</li> <li>TCLL: AS<br/>Plate DOI<br/>DOL=1.15<br/>Cs=1.00;</li> <li>Unbalanc<br/>design.</li> <li>This truss<br/>load of 12<br/>overhang;</li> <li>This truss<br/>chord live</li> </ol> | CE 7-16; Vul<br>3mph; TCDL=<br>Enclosed; M<br>Exterior(2E) ;<br>end vertical<br>and forces &<br>VOL=1.60 pla<br>CE 7-16; Pr=<br>25); Is=1.0; Rc<br>Ct=1.10<br>ed snow load<br>has been de<br>.0 psf or 1.00<br>s non-concum<br>has been de<br>load noncor | t=130mph<br>66.0psf; B(<br>WFRS (encone; cantil<br>left and rig<br>. MWFRS<br>te grip DO<br>20.0 psf (Li<br>20.0 psf (Li<br>20.0 psf (and the second<br>and the second<br>the second te second te second<br>the second te se | (3-second gust)<br>CDL=6.0psf; h=25ft;<br>velope) exterior zon<br>lever left and right<br>ght exposed;C-C for<br>for reactions shown;<br>L=1.60<br>roof LL: Lum DOL=1<br>um DOL=1.15 Plate<br>; Fully Exp.; Ce=0.9<br>en considered for th<br>roof load of 20.0 ps<br>ther live loads.<br>a 10.0 psf bottom<br>th any other live loads | Cat.<br>e<br>.15<br>;<br>is<br>fon<br>ds. |  |   |   |  |                                   |       |        |     | SEA<br>0235   | ROLINE<br>BA | ANNO DE |

April 1,2024

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TRENCO A MiTek Affiliate 818 Soundside Road Edenton, NC 27932

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V11   | Valley     | 1   | 1   | Job Reference (optional)   | 164576280 |

Run; 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:44 ID:\_I7EHwldzD88zBqL8B4OKKzMDB?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



10-2-8

Scale = 1:36.7

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018      | 3/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.29<br>0.10<br>0.09   | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00  | (loc)<br>-<br>-<br>5 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 45 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
|--|--|--|--|--|---|--|--|---|----------------------|-----------------------------|--------------------------|---------------------------------|------------------------------------|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>2x4 SP No.3<br>Structural wood she<br>6-0-0 oc purlins, ex<br>Rigid ceiling directly<br>bracing.<br>(size) 1=10-2-8<br>7=10-2-8<br>Max Horiz 1=138 (L<br>Max Uplift 1=-19 (L0<br>7=-118 (I<br>Max Grav 1=120 (L<br>6=296 (L | eathing directly applie<br>ccept end verticals.<br>/ applied or 10-0-0 oc<br>, 5=10-2-8, 6=10-2-8<br>C 11)<br>C 10), 5=-39 (LC 15),<br>C 14)<br>C 30), 5=182 (LC 21)<br>C 30), 5=182 (LC 21)<br>C 20), 7=401 (LC 20) | 3)<br>4)<br>5 d or<br>5 5)<br>7)<br>8)<br>9) | Truss desig<br>only. For stu<br>see Standard<br>or consult qu<br>TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15);<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>Gable requir<br>Gable studs<br>This truss ha<br>chord live loa<br>* This truss h<br>on the bottor<br>3-06-00 tall b | ned for wind loac<br>dis exposed to w<br>d Industry Gable<br>alified building d<br>57-16; Pr=20.0 ps<br>Is=1.0; Rough Ci<br>=1.10<br>snow loads have<br>es continuous bo<br>spaced at 4-0-0<br>as been designed<br>ad nonconcurren<br>as been designed<br>n chord in all are<br>by 2-00-00 wide | Is in the p<br>ind (norm<br>End Deta<br>esigner as<br>sf (roof LL<br>f (Lum DC<br>t Lum DC<br>t been cor<br>toon chor<br>oc.<br>1 for a 10.0<br>t with any<br>ad for a liv<br>as where | lane of the tri<br>al to the face<br>ils as applica<br>s per ANSI/T<br>:: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.1<br>asidered for t<br>d bearing.<br>D psf bottom<br>other live loa<br>e load of 20.<br>a rectangle<br>veen the bott | uss<br>),<br>ble,<br>PI 1.<br>1.15<br>9;<br>his<br>dds.<br>Opsf<br>om |                      |                             |                          |                                 |                                    |
| FORCES   | (lb) - Maximum Con<br>Tension  | npression/Maximum  | 10   | ) Provide mec  | hanical connection  | s.<br>on (by oth   | ers) of truss  | i0  |                      |                             |                          |                                 |                                    |
| TOP CHORD<br>BOT CHORD<br>WEBS<br>NOTES<br>1) Unbalance  | 1-2=-170/119, 2-3=<br>4-5=-158/100<br>1-7=-32/139, 6-7=-3<br>3-6=-235/47, 2-7=-3   | -133/109, 3-4=-101/1<br>30/43, 5-6=-30/43<br>322/191<br>a been considered for  | 17,<br>11<br>                                | 5, 19 lb uplifi<br>) This truss is<br>International<br>R802.10.2 a   | t at joint 1 and 11<br>designed in acco<br>Residential Cod<br>nd referenced sta<br>Standard   | 8 lb uplift<br>ordance w<br>e sections<br>andard AN  | at joint 7.<br>ith the 2018<br>R502.11.1 a   | and   |                      |                             |                          | WITH CA                         | ROU                                |

this design.

Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-1-10, Interior (1) 3-1-10 to 4-1-10, Exterior(2R) 4-1-10 to 7-1-10, Exterior(2E) 7-1-10 to 10-1-2 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

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Thuman . April 1,2024



SEAL

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V12   | Valley     | 1   | 1   | Job Reference (optional)   | 164576281 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:44 ID:Hf3tlJq0JN09JGsh29i26pzMDAu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



8-8-8

| Scal | le = | 1:30 2 | > |
|------|------|--------|---|

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018                    | 8/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MP   | 0.58<br>0.61<br>0.07   | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.01                               | (loc)<br>-<br>-<br>4 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 34 lb | <b>GRIP</b><br>244/190<br>FT = 20 <sup>c</sup> |
|--|---|---|--|---|--|--|--|--|----------------------|-----------------------------|--------------------------|---------------------------------|--|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>BOT CHORD<br>BOT CHORD<br>BOT CHORD<br>BOT CHORD<br>BOT CHORD<br>BOT CHORD | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>2x4 SP No.3<br>Structural wood shee<br>6-0-0 oc purlins, exc<br>Rigid ceiling directly<br>bracing.<br>(size) 1=8-8-8,4<br>Max Horiz 1=102 (LC<br>Max Uplift 1=-26 (LC<br>5=-22 (LC<br>Max Uplift 1=-26 (LC<br>5=-22 (LC<br>Max Grav 1=236 (LC<br>5=-449 (LC<br>(b) - Maximum Com<br>Tension<br>1-2=-332/108, 2-3=-(<br>1-5=-105/310, 4-5=-)<br>2-5=-262/29 | athing directly applie<br>cept end verticals.<br>applied or 10-0-0 oc<br>l=8-8-8, 5=8-8-8<br>(11)<br>14), 4=-40 (LC 15),<br>14)<br>2 20), 4=151 (LC 21)<br>2 20)<br>pression/Maximum<br>66/96, 3-4=-149/99<br>19/27 | 4)<br>5)<br>(d or 6)<br>7)<br>5 8)<br>9)<br>9)<br>10<br>11 | TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15);<br>Cs=1.00; Ct:<br>Unbalanced<br>design.<br>Gable requir<br>Gable studs<br>This truss ha<br>chord live loa<br>* This truss h<br>on the bottor<br>3-06-00 tall th<br>chord and ar<br>) Provide mec<br>bearing plate<br>4, 26 lb upliff<br>) This truss is<br>International<br>R802.10.2 a<br>DAD CASE(S) | 7-16; Pr=20.0 p<br>15); Pf=20.0 psi<br>ls=1.0; Rough Ca<br>1.10; Rough Ca<br>1.10<br>snow loads have<br>es continuous bo<br>spaced at 4-0-0<br>is been designed<br>n chord in all are<br>by 2-00-00 wide v<br>by other members<br>hanical connection<br>e capable of withs<br>at joint 1 and 222<br>designed in acco<br>Residential Coden<br>nd referenced sta<br>Standard | sf (roof LL<br>f (Lum DC<br>at B; Fully<br>been cor<br>bttom chor<br>oc.<br>I for a 10.1<br>t with any<br>d for a liv<br>as where<br>will fit betv<br>s.<br>on (by oth<br>standing 4<br>! bupift a<br>ordance w<br>e sections<br>andard AN | : Lum DOL=<br>L=1.15 Plate<br>Exp.; Ce=0.9<br>asidered for the<br>d bearing.<br>D psf bottom<br>other live load<br>e load of 20.0<br>a rectangle<br>veen the botthe<br>ers) of truss to<br>10 lb uplift at ji<br>t i joint 5.<br>ith the 2018<br>s R502.11.1 a<br>JSI/TPI 1. | 1.15<br>9;<br>his<br>dds.<br>0psf<br>om<br>to<br>joint |                      |                             |                          |                                 |  |
| NOTES<br>1) Unbalance  | ed roof live loads have   | been considered for   |  |   |  |  |  |  |                      |                             |                          | WH CA                           | Pall   |

this design.
Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 5-7-10, Exterior(2E) 5-7-10 to 8-7-2 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

 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.

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V13   | Valley     | 1   | 1   | Job Reference (optional)   | 164576282 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:44 ID:a?\_XDivPgWv9fLu1y7KhuHzMDAn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



3x5 🍫

7-2-8

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*   | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC201                        | 8/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MP   | 0.29<br>0.36<br>0.04  | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00             | (loc)<br>-<br>-<br>4 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20 | <b>GRIP</b><br>244/190 |
|--|---|---|---|---|--|---|--|--------------------------------------|----------------------|-----------------------------|--------------------------|----------------|------------------------|
| BCDL   | 10.0  |   |   |   |  |   |  |                                      |                      |                             |                          | Weight: 27 lb  | FT = 20%               |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>2x4 SP No.3<br>Structural wood shee<br>7-2-8 oc purlins, exc<br>Rigid ceiling directly<br>bracing.<br>(size) 1=7-2-8,4<br>Max Horiz 1=66 (LC<br>Max Uplift 1=-24 (LC<br>(LC 14)<br>Max Grav 1=195 (LC<br>5=351 (LC | athing directly applie<br>cept end verticals.<br>applied or 10-0-0 or<br>1=7-2-8, 5=7-2-8<br>11)<br>14), 4=-43 (LC 15),<br>2 20), 4=158 (LC 21<br>2 20) | 4)<br>5)<br>ed or 6)<br>7)<br>c 8)<br>9)<br>, 5=-8<br>9, 5=-8 | TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15);<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>Gable requir<br>Gable studs<br>This truss ha<br>chord live loa<br>* This truss h<br>on the bottor<br>3-06-00 tall h<br>chord and ar<br>chord and ar<br>D) Provide mec<br>bearing plate<br>4, 24 lb uplift | 7-16; Pr=20.0 psf<br>(15); Pf=20.0 psf<br>(ls=1.0; Rough Cat<br>=1.10<br>snow loads have to<br>es continuous bott<br>spaced at 4-0-0 or<br>is been designed<br>fad nonconcurrent<br>has been designed<br>n chord in all area<br>by 2-00-00 wide wi<br>y other members.<br>hanical connectior<br>e capable of withst<br>at joint 1 and 8 lb | (roof LL<br>Lum DC<br>B; Fully<br>been cor<br>om chor<br>c.<br>or a 10.0<br>with any<br>l for a liv<br>s where<br>Il fit betv<br>h (by oth<br>anding 4<br>uplift at | L: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.9<br>nsidered for the<br>d bearing.<br>0 psf bottom<br>other live loa<br>e load of 20.0<br>a rectangle<br>veen the botto<br>ers) of truss t<br>H3 Ib uplift at ji<br>joint 5. | 1.15<br>);<br>ds.<br>)psf<br>om<br>o |                      |                             |                          |                |                        |
| TOP CHORD<br>BOT CHORD   | Tension<br>1-2=-272/112, 2-3=-0<br>1-5=-98/224, 4-5=-6/   | 64/79, 3-4=-144/97<br>/9  | 1   | I) This truss is<br>International<br>R802.10.2 a  | designed in accord<br>Residential Code<br>nd referenced star   | dance w<br>sections<br>idard AN   | nth the 2018<br>s R502.11.1 a<br>NSI/TPI 1.  | nd                                   |                      |                             |                          |                |                        |
| WEBS   | 2-5=-200/38   |   | L.  |   | Glanuaru   |   |  |                                      |                      |                             |                          |                |                        |
| NOTES  |   |   |   |   |  |   |  |                                      |                      |                             |                          |                | 11.                    |
| 1) Unbalance<br>this design  | ed roof live loads have   | been considered for   | r   |   |  |   |  |                                      |                      |                             | 3                        | TH CA          | RO                     |

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 4-1-10, Exterior(2E) 4-1-10 to 7-1-2 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

Truss designed for wind loads in the plane of the truss 3) 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.

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V14   | Valley     | 1   | 1   | Job Reference (optional)   | 164576283 |

1-5-6

1-9-1

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:44 ID:tLvAh6?o0gnA?QxNt5yKgmzMDAg-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





5-2-8

2x4 🍫

2x4 💊

c. .... 4.04

| Loading<br>TCLL (rod)       (rsd)       Spacing<br>Plate Sing POL<br>Lumber DOL<br>Lumber DOL<br>Code       2-0-0<br>TC       CSI<br>TC       0.10<br>C       VEFL<br>Ver(TL)       in (loc)       Ideal<br>Lumber DOL<br>Lumber DOL<br>Lumber DOL<br>Code       PLATES<br>PLATES       GRIP<br>MTZ0         TCDL<br>BCLL       0.00       Code       11.5       BC       0.12       Ver(TL)       nia       - mia ges<br>MTZ0       244/130         BCLL       0.01       Code       RECOTB/TPI2014       Matrix-MP       Matrix-MP       Weight: 17.1b       FT = 20%.         UMBER<br>TOP CHORD       2x4 SP No.2       Code       FT = 20%.       Veright Annual       Weight: 17.1b       FT = 20%.         0T CHORD       Structural wood sheathing directly applied or<br>502 CHORD       Structural wood sheathing directly appli  | Scale = 1:24   |  |   |   |  |   |  |                                  |                      |                             |                          |                                 |  |  |
|---|--|--|---|---|--|---|--|----------------------------------|----------------------|-----------------------------|--------------------------|---------------------------------|--|--|
| LUMBER<br>TOP CHORD<br>2X4 SP No.2<br>OTHERS       2x4 SP No.2<br>2x4 SP No.3       5)       Unblanced anow loads have been considered for this<br>design.<br>CHORD         BRACINO<br>OTHERS       2x4 SP No.3       6)       Shale requires continuous bottom chord bearing.<br>Cable studies special 44-00.00       6)         BTO CHORD       Structural wood sheathing directly applied or<br>Structural wood sheathing directly applied or<br>BTO CHORD       152-28.05-28.45-52- | Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018/TPI20   | CSI<br>TC<br>BC<br>WB<br>Matrix-MP   | 0.10<br>0.12<br>0.04  | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00         | (loc)<br>-<br>-<br>4 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 17 lb | <b>GRIP</b><br>244/190<br>FT = 20%   |  |
| April 1,2024  | LUMBER<br>TOP CHORD<br>BOT CHORD<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>REACTIONS<br>FORCES<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>BOT CHORD<br>WEBS<br>NOTES<br>1) Unbalance<br>this design<br>2) Wind: ASC<br>Vasd=1037<br>II; Exp B; E<br>and C-C E:<br>exposed ; d<br>members a<br>Lumber DC<br>3) Truss desi<br>only. For s<br>see Standa<br>or consult d<br>4) TCLL: ASC<br>Plate DOL:<br>DOL=1.15]<br>Cs=1.00; C | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>Structural wood shea<br>5-2-8 oc purlins.<br>Rigid ceiling directly<br>bracing.<br>(size) 1=5-2-8, 3<br>Max Horiz 1=-37 (LC<br>Max Uplift 1=-5 (LC -<br>(LC 14)<br>Max Grav 1=90 (LC<br>(LC 20)<br>(Ib) - Maximum Com<br>Tension<br>1-2=-88/121, 2-3=-8i<br>1-4=-105/84, 3-4=-10<br>2-4=-230/101<br>ed roof live loads have<br>CE 7-16; Vult=130mph<br>mph; TCDL=6.0psf; BK<br>Enclosed; MWFRS (en<br>cond forces & MWFRS<br>DL=1.60 plate grip DO<br>igned for wind loads in<br>studs exposed to wind<br>ard Industry Gable Enq<br>qualified building desig<br>(CE 7-16; Pr=20.0 psf (L<br>=1.15); Pf=20.0 psf (L<br>); Is=1.0; Rough Cat B<br>Ct=1.10 | athing directly applie<br>applied or 6-0-0 oc<br>3=5-2-8, 4=5-2-8<br>: 10)<br>14), 3=-11 (LC 15), 4<br>20), 3=90 (LC 21), 4<br>20), 3=90 (LC 21), 4<br>apression/Maximum<br>8/121<br>05/84<br>been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft;<br>ivelope) exterior zon<br>ilever left and right<br>ght exposed;C-C for<br>for reactions shown;<br>u=1.60<br>the plane of the trus<br>(normal to the face)<br>d Details as applicab<br>gner as per ANSI/TP<br>roof LL: Lum DOL=1<br>applied to the start<br>s; Fully Exp.; Ce=0.9; | 5) Unbal<br>desig<br>6) Gable<br>7) Gable<br>8) This t<br>chord<br>9) * This<br>on the<br>3-06-(<br>chord<br>10) Provid<br>bearir<br>11 lb<br>H=317<br>11) This t<br>Interm<br>R802.<br>LOAD CA | anced snow loads hat<br>requires continuous I<br>studs spaced at 4-0-<br>fruss has been design<br>the load nonconcurre<br>truss has been design<br>bottom chord in all a<br>00 tall by 2-00-00 widd<br>and any other membra<br>le mechanical connec<br>g plate capable of wit<br>uplift at joint 3 and 28<br>russ is designed in ac<br>10.2 and referenced s<br>SE(S) Standard | ve been cor<br>bottom chor<br>0 oc.<br>ed for a 10.4<br>ent with any<br>ned for a liv<br>reas where<br>e will fit betv<br>ers.<br>ttion (by oth<br>thstanding 5<br>lb uplift at je<br>cordance w<br>vde sections<br>standard AN | bidered for th<br>d bearing.<br>D psf bottom<br>other live load<br>e load of 20.0<br>a rectangle<br>veen the botto<br>ers) of truss tu<br>i buplift at joi<br>pint 4.<br>ith the 2018<br>s F502.11.1 a<br>ISI/TPI 1. | ds.<br>Dpsf<br>om<br>nt 1,<br>nd |                      |                             |                          | SEA<br>0235<br>OWY R.           | RO<br>4<br>94<br>FER. FR. FR. Multimum<br>Millimum<br>Millimum<br>Millimum |  |



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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V1    | Valley     | 1   | 1   | Job Reference (optional)   | 164576284 |

6-0-11

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43

17

7

2x4 II

2x4 🛛

8

2x4 II

Page: 1





14-2-10

16

9

3x5 🛷

2x4 II

| Scale = 1:45.2   |  |  |   |                                       |  |   |   |  |  |                      |                             | '                        |                                 |                                    |
|--|--|--|---|---------------------------------------|--|---|---|--|--|----------------------|-----------------------------|--------------------------|---------------------------------|------------------------------------|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC20 | 018/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.38<br>0.25<br>0.16  | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00                             | (loc)<br>-<br>-<br>9 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 66 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD  | 2x4 SP N<br>2x4 SP N<br>2x4 SP N<br>2x4 SP N<br>Structura<br>6-0-0 oc  <br>Rigid ceil<br>bracing.  | 0.2<br>0.2<br>0.3<br>0.3<br>I wood she<br>purlins, exi<br>ing directly   | athing directly applie<br>cept end verticals.<br>applied or 6-0-0 oc  | d or                                  | <ol> <li>Truss desig<br/>only. For st<br/>see Standar<br/>or consult qr</li> <li>TCLL: ASCI<br/>Plate DOL=<br/>DOL=1.15);<br/>Cs=1.00; Ct</li> <li>Unbalanced<br/>design.</li> <li>Gable requir</li> </ol> | ned for wind load<br>uds exposed to wi<br>rd Industry Gable I<br>ualified building de<br>E 7-16; Pr=20.0 ps<br>1.15); Pf=20.0 ps<br>Is=1.0; Rough Ca<br>=1.10<br>I snow loads have<br>res continuous bo | s in the p<br>ind (norm<br>End Deta<br>esigner a:<br>sf (roof Ll<br>f (Lum DC<br>at B; Fully<br>been cor<br>ttom chor | lane of the tru<br>al to the face<br>ils as applical<br>s per ANSI/TF<br>.: Lum DOL=:<br>DL=1.15 Plate<br>Exp.; Ce=0.9<br>nsidered for the<br>d bearing. | uss<br>),<br>ble,<br>⊃I 1.<br>1.15<br>9<br>);<br>nis |                      |                             |                          |                                 |                                    |
| REACTIONS  | (size)<br>Max Horiz<br>Max Uplift<br>Max Grav  | 1=14-3-0,<br>8=14-3-0,<br>1=167 (LC<br>7=-11 (LC<br>7=-131 (L<br>1=196 (LC<br>7=501 (LC<br>9=564 (LC   | 6=14-3-0, 7=14-3-0,<br>9=14-3-0<br>211)<br>10), 6=-135 (LC 6),<br>C 15), 9=-157 (LC 1-<br>25), 6=46 (LC 15),<br>C 21), 8=412 (LC 24)<br>C 5)  | 4)<br>,                               | <ul> <li>7) Gable studs</li> <li>8) This truss has chord live lo</li> <li>9) * This truss on the botto 3-06-00 tall chord and a</li> </ul>   | spaced at 4-0-0 d<br>as been designed<br>ad nonconcurrent<br>has been designe<br>m chord in all area<br>by 2-00-00 wide w<br>ny other members   | for a 10.<br>for a 10.<br>with any<br>d for a liv<br>as where<br>vill fit betw<br>s, with BC                          | D psf bottom<br>other live loa<br>e load of 20.0<br>a rectangle<br>veen the botto<br>DL = 10.0psf  | ds.<br>Dpsf<br>om                                    |                      |                             |                          |                                 |                                    |
| FORCES   | (lb) - Max<br>Tension<br>1-2=-299/   | timum Com  | npression/Maximum<br>129/148, 3-4=-118/14   | 47,                                   | bearing plat<br>6, 11 lb uplif<br>uplift at joint  | chanical connections<br>e capable of withs<br>ft at joint 1, 157 lb<br>t 7.   | on (by oth<br>standing 1<br>uplift at j   | ers) of truss t<br>35 lb uplift at<br>pint 9 and 13  | o<br>: joint<br>1 lb                                 |                      |                             |                          |                                 |                                    |
| BOT CHORD  | 4-5=-44/1<br>1-9=-49/2<br>6-7=-38/5<br>3-8=-246/   | 15, 5-6=-5<br>262, 8-9=-3<br>50<br>/34, 2-9=-4   | 2/111<br>8/50, 7-8=-38/50,<br>29/192, 4-7=-419/17:  | 2                                     | <ol> <li>Beveled plar<br/>surface with</li> <li>This truss is<br/>Internationa</li> </ol>  | te or shim required<br>truss chord at join<br>designed in acco<br>I Residential Code  | d to provi<br>nt(s) 1.<br>ordance w<br>e sections   | de full bearing<br>ith the 2018<br>R502.11.1 a   | g<br>Ind   |                      |                             |                          | WITH CA                         | ROUT                               |
| <ol> <li>Unbalanci<br/>this desig</li> <li>Wind: ASI<br/>Vasd=103</li> <li>II; Exp B;<br/>and C-C E</li> <li>6-1-0, Ext<br/>to 14-1-4</li> <li>vertical Iei<br/>forces &amp; M<br/>DOL=1.60</li> </ol> | ed roof live l<br>n.<br>CE 7-16; Vu<br>Bmph; TCDL<br>Enclosed; M<br>Exterior(2E)<br>erior(2R) 6-<br>zone; cantile<br>ft and right e<br>MWFRS for<br>D plate grip [ | loads have<br>It=130mph<br>=6.0psf; B(<br>IWFRS (er<br>0-0-0 to 3-(<br>1-0 to 11-1)<br>ever left an<br>exposed;C-<br>reactions s<br>DOL=1.60 | been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft;<br>ivelope) exterior zono<br>-0, Interior (1) 3-0-0<br>-4, Exterior(2E) 11-1<br>d right exposed; enc<br>C for members and<br>hown; Lumber | Cat.<br>e<br>to<br>-4                 | LOAD CASE(S)   | Standard  |   | ω <i>ν</i> ιτι.  |  |                      | V. HILLINS                  |                          | SEA<br>0235                     | L<br>94<br>EEER. ER. HALLING       |

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818 Soundside Road Edenton, NC 27932

Annun Millin April 1,2024

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V2    | Valley     | 1   | 1   | Job Reference (optional)   | 164576285 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43 ID:EaEUJdGbqRZ2eocc9jMUZPzMDAK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Page: 1

12-8-10

| TCLL (roof)         20.0           Snow (Pf)         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0  | Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018/TPI2014   | TC<br>BC<br>WB<br>Matrix-MSH  | 0.32<br>0.11<br>0.11  | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00  | (loc)<br>-<br>-<br>9 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 55 lb | GRIP<br>244/190<br>FT = 20% |
|---|--|---|---|---|--|---|----------------------|-----------------------------|--------------------------|---------------------------------|-----------------------------|
| LUMBER<br>TOP CHORD 2x4 SP No.2<br>BOT CHORD 2x4 SP No.2<br>WEBS 2x4 SP No.3<br>DTHERS 2x4 SP No.3<br>DTHERS 2x4 SP No.3<br>BRACING<br>TOP CHORD Structural wood sl<br>6-0-0 oc purlins, of<br>BOT CHORD Rigid ceiling direc<br>bracing.<br>REACTIONS (size) 1=12-9<br>Max Horiz 1=131 (<br>Max Uplift 1=-17 (<br>7=-139<br>Max Grav 1=127 (<br>7=-488 (<br>9=479 (<br>FORCES (lb) - Maximum Co<br>Tension<br>TOP CHORD 1-2=-183/139, 2-3<br>4-5=-46/113, 5-6=<br>BOT CHORD 1-2=-183/139, 2-3<br>4-5=-46/113, 5-6=<br>BOT CHORD 1-9=-31/142, 8-9=<br>6-7=-31/36<br>WEBS 3-8=-252/20, 2-9=<br>NOTES<br>1) Unbalanced roof live loads hat<br>this design.<br>2) Wind: ASCE 7-16; Vult=130m,<br>Vasd=103mph; TCDL=6.0psf;<br>II; Exp B; Enclosed; MWFRS (<br>and C-C Exterior(2E) 0-0-0 to<br>4-7-0, Exterior(2E) 4-7-0 to 9-<br>12-7-4 zone; cantilever left anv<br>vertical left and right exposed;<br>forces & MWFRS for reactions<br>DOL=1.60 plate grip DOL=1.6 | teathing directly applied<br>except end verticals.<br>ly applied or 6-0-0 oc<br>0, 6=12-9-0, 7=12-9-0,<br>0, 9=12-9-0<br>LC 11)<br>(LC 15), 9=-127 (LC 21),<br>(LC 15), 9=-127 (LC 14)<br>LC 25), 6=53 (LC 15),<br>LC 21), 8=332 (LC 21),<br>LC 20)<br>mpression/Maximum<br>=-124/125, 3-4=-118/12<br>-55/110<br>-31/36, 7-8=-31/36,<br>-390/167, 4-7=-418/175<br>re been considered for<br>bh (3-second gust)<br>BCDL=6.0psf; h=25ft; C<br>envelope) exterior zone<br>3-0-0, Interior (1) 3-0-0<br>'-4, Exterior(2E) 9-7-4 t<br>right exposed ; end<br>C-C for members and<br>shown; Lumber | <ul> <li>3) Truss desig<br/>only. For stu<br/>see Standar<br/>or consult qu</li> <li>4) TCLL: ASCE<br/>Plate DOL=1.15);<br/>Cs=1.00; Ct-<br/>5) Unbalanced<br/>design.</li> <li>6) Gable requir<br/>7) Gable studs</li> <li>8) This truss ha<br/>chord live los</li> <li>9) * This truss ha<br/>chord live los</li> <li>9) * This truss ha<br/>chord live los</li> <li>9) * This truss ha<br/>chord and ar</li> <li>10) Provide mec<br/>bearing plate</li> <li>6, 17 lb uplift<br/>uplift at joint</li> <li>11) Beveled plat<br/>surface with</li> <li>12) This truss is<br/>International<br/>R802.10.2 a</li> <li>LOAD CASE(S)</li> </ul> | ned for wind load:<br>dis exposed to wi<br>d Industry Gable I<br>lalified building de<br>7-16; Pf=20.0 ps<br>.15); Pf=20.0 ps<br>.15); Pf=20.0 ps<br>lss=1.0; Rough Ca<br>=1.10<br>snow loads have<br>es continuous bot<br>spaced at 4-0-0 c<br>is been designed<br>ad nonconcurrent<br>hanical connectio<br>e capable of withs<br>at joint 1, 127 lb<br>7.<br>e or shim require<br>truss chord at join<br>designed in accoo<br>Residential Code<br>nd referenced sta<br>Standard | s in the pl<br>nd (norm:<br>End Detai<br>signer as<br>f (roof LL<br>(Lum DO<br>t B; Fully<br>been com<br>tom chorric.<br>for a 10.0<br>with any<br>d for a 10.0<br>s where<br>ill fit betw<br>n (by oth<br>tanding 1<br>uplift at jc<br>to provid<br>tt(s) 1.<br>rdance wit<br>s esctions<br>ndard AN | ane of the tri<br>al to the face<br>ils as applica<br>s per ANSI/TI<br>: Lum DOL=<br>0L=1.15 Plate<br>Exp.; Ce=0.9<br>isidered for th<br>d bearing.<br>0 psf bottom<br>other live loa<br>e load of 20.1<br>a rectangle<br>veen the both<br>ers) of truss the<br>21 lb uplift al<br>oint 9 and 13<br>de full bearin<br>th the 2018<br>R502.11.1 a<br>ISI/TPI 1. | uss<br>),<br>bble,<br>PI 1.<br>1.15<br>e;<br>;;<br>nis<br>ds.<br>Dpsf<br>com<br>co<br>;;<br>joint<br>9 lb<br>g<br>und |                      |                             |                          | SEA<br>0235                     | EEP. HAMMAN                 |

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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V3    | Valley     | 1   | 1   | Job Reference (optional)   | 164576286 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43 ID:eQR2VTV87a4C1t8SKwjANdzMDA0-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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Page: 1



11-2-10

| Scale = 1:36.1  | 1  | . I   |   |  |  |   |                      |                             |                          |                                 |                                    |
|---|--|---|---|--|--|---|----------------------|-----------------------------|--------------------------|---------------------------------|------------------------------------|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL   | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | Spacing     2       Plate Grip DOL     2       Lumber DOL     2       Rep Stress Incr     2       Code     1  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018/TPI2014   | CSI<br>TC 0.32<br>BC 0.06<br>WB 0.09<br>Matrix-MSH   | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00                | (loc)<br>-<br>-<br>5 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 52 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS  | <ul> <li>2x4 SP No.2</li> <li>2x6 SP No.2</li> <li>2x4 SP No.3</li> <li>Structural wood shee</li> <li>6-0-0 oc purlins.</li> <li>Rigid ceiling directly bracing.</li> <li>(size) 1=11-3-0, 7=11-3-0, 7=11-3-0, Max Horiz 1=90 (LC Max Uplift 1=-14 (LC 6=-131 (L 9=-50 (LC 4)) (LC 21), 7 20), 9=64</li> </ul> | athing directly applied of<br>applied or 10-0-0 oc<br>5=11-3-0, 6=11-3-0,<br>8=11-3-0, 9=11-3-0<br>11)<br>2 10), 5=-50 (LC 13),<br>C 15), 8=-107 (LC 14),<br>2 3), 5=-64 (LC 15), 6=4<br>7=284 (LC 21), 8=452 (I<br>(LC 15) | <ol> <li>Truss design<br/>only. For stu<br/>see Standarc<br/>or consult qu</li> <li>TCLL: ASCE<br/>Plate DOL=1</li> <li>DOL=1.15); I<br/>CS=1.00; Ct=</li> <li>Unbalanced:<br/>design.</li> <li>Gable require</li> <li>Gable studs:</li> <li>This truss ha<br/>chord live loa</li> <li>* This truss ha</li> <li>on the bottom</li> <li>3-06-00 tall b<br/>chord and an</li> <li>Provide medi</li> </ol> | ned for wind loads in the pl<br>ids exposed to wind (norm<br>d Industry Gable End Detai<br>ialified building designer as<br>7-16; Pr=20.0 psf (roof LL<br>.15); Pf=20.0 psf (Lum DC<br>Is=1.0; Rough Cat B; Fully<br>=1.10<br>snow loads have been cor<br>es continuous bottom chor<br>spaced at 4-0-0 oc.<br>Is been designed for a 10.0<br>ad nonconcurrent with any<br>has been designed for a liv.<br>n chord in all areas where<br>by 2-00-00 wide will fit betw<br>by other members.<br>hanical connection (by oth | ane of the trus<br>al to the face),<br>ils as applicables<br>per ANSI/TPI<br>.: Lum DOL=1.<br>VL=1.15 Plate<br>Exp.; Ce=0.9;<br>asidered for thi<br>d bearing.<br>0 psf bottom<br>other live load<br>e load of 20.0p<br>a rectangle<br>veen the bottor | ss<br>le,<br>l 1.<br>.15<br>s<br>s.<br> |                      |                             |                          |                                 |                                    |
| TOP CHORD   | (ID) - Maximum Com<br>Tension<br>1 -2=-96/81, 2-3=-18<br>4 5= 90/88  | 0/75, 3-4=-171/75,  | bearing plate<br>5, 14 lb uplift<br>at joint 6 and  | e capable of withstanding 5<br>at joint 1, 107 lb uplift at jo<br>l 50 lb uplift at joint 5.   | 0 lb uplift at jo<br>bint 8, 131 lb u  | int<br>plift                            |                      |                             |                          |                                 |                                    |
| BOT CHORD<br>WEBS<br>NOTES  | 4-3=-30/86<br>1-8=-37/69, 7-8=-23,<br>5-6=-24/58<br>3-7=-196/39, 2-8=-4  | /58, 6-7=-23/58,<br>57/201, 4-6=-466/205  | 11) Beveled plate<br>surface with<br>12) This truss is o<br>International<br>R802.10.2 ar   | e or shim required to provie<br>truss chord at joint(s) 1.<br>designed in accordance wi<br>Residential Code sections<br>nd referenced standard AN  | de full bearing<br>ith the 2018<br>R502.11.1 an<br>ISI/TPI 1.  | ıd                                      |                      |                             | and a                    | NITH CA                         | ROLIN                              |
| <ol> <li>Unbalance<br/>this design<br/>2) Wind: AS<br/>Vasd=10<br/>II; Exp B;<br/>and C-C<br/>to 8-3-0,<br/>and right<br/>MWFRS<br/>grip DOL</li> </ol> | ced roof live loads have<br>gn.<br>SCE 7-16; Vult=130mph<br>3mph; TCDL=6.0psf; Bd<br>Enclosed; MWFRS (er<br>Exterior(2E) 0-0-0 to 3-<br>Exterior(2E) 8-3-0 to 11<br>exposed ; C-C for memil<br>for reactions shown; Lu<br>=1.60  | been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft; Ca<br>ivelope) exterior zone<br>0-0, Exterior(2R) 3-0-0<br>-3-0 zone; cantilever le<br>bers and forces &<br>imber DOL=1.60 plate                              | LOAD CASE(S)  | Standard   |  |   |                      | THURSDAY.                   |                          | SEA<br>0235                     | L<br>94                            |



818 Soundside Road Edenton, NC 27932

11111111111 April 1,2024

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V4    | Valley     | 1   | 1   | Job Reference (optional)   | 164576287 |

3-0-11

Scale = 1:29.2

 Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43
 Page: 1

 ID:t9USOYco?LCwcFKBMJNHEWzMD9t-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f
 File



9-1-4

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL                                  | (p<br>20<br>20<br>10<br>0<br>10  | osf)<br>0.0<br>0.0<br>0.0<br>0.0<br>*<br>0.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2 | 018/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH   | 0.37<br>0.36<br>0.13   | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00                | (loc)<br>-<br>-<br>4 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 32 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
|--|--|---|--|--------------------------------------|--|---|--|--|---|----------------------|-----------------------------|--------------------------|---------------------------------|------------------------------------|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3<br>Structural wood<br>9-1-4 oc purlins<br>Rigid ceiling dir<br>bracing.<br>(size) 1=9-<br>Max Horiz 1=-6<br>Max Uplift 1=-6<br>Max Grav 1=11<br>4=-7 | d shea<br>s.<br>rectly<br>-2-0, 3<br>58 (LC<br>38 (LC<br>72 (LC<br>17 (LC<br>08 (LC | athing directly applied<br>applied or 6-0-0 oc<br>=9-2-0, 4=9-2-0<br>10)<br>21), 3=-38 (LC 20),<br>14)<br>: 20), 3=117 (LC 21),<br>: 20) | d or                                 | <ol> <li>TCLL: ASCE<br/>Plate DOL=1<br/>DOL=1.15);<br/>Cs=1.00; Ct=</li> <li>Unbalanced<br/>design.</li> <li>Gable requir</li> <li>Gable studs</li> <li>This truss ha<br/>chord live loa</li> <li>* This truss h<br/>on the bottor<br/>3-06-00 tall b<br/>chord and ar</li> <li>Provide mec<br/>bearing plate</li> </ol> | 7-16; Pr=20.0 psf<br>(15); Pf=20.0 psf<br>(s=1.0; Rough Cat<br>(1.10)<br>snow loads have b<br>es continuous bott<br>spaced at 4-0-0 oc<br>s been designed fud<br>nonconcurrent v<br>as been designed<br>n chord in all areas<br>y 2-00-00 wide will<br>y other members.<br>nanical connection<br>capable of withst? | f (roof LL<br>(Lum DC<br>B; Fully<br>been cor<br>om chor<br>c.<br>or a 10.<br>with any<br>I for a liv<br>s where<br>II fit betw<br>n (by oth<br>anding 3 | .: Lum DOL=1<br>DL=1.15 Plate<br>Exp.; Ce=0.9<br>nsidered for th<br>d bearing.<br>D psf bottom<br>other live load<br>of 20.0<br>a rectangle<br>veen the botto<br>ers) of truss to<br>18 b uplift at it | .15<br>;<br>is<br>ds.<br>psf<br>om<br>o |                      |                             |                          |                                 |                                    |
| FORCES<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>NOTES<br>1) Unbalance<br>this design             | (lb) - Maximum<br>Tension<br>1-2=-106/357, 2<br>1-4=-258/141, 2<br>2-4=-580/211<br>ed roof live loads  | 2-3=-1<br>3-4=-2<br>have  | pression/Maximum<br>106/357<br>258/141<br>been considered for  |                                      | 1, 38 lb uplift<br>11) Beveled platt<br>surface with<br>12) This truss is<br>International<br>R802.10.2 ar<br>LOAD CASE(S)   | at joint 3 and 72 II<br>e or shim required<br>truss chord at joint<br>designed in accorr<br>Residential Code<br>nd referenced stan<br>Standard  | to provi<br>to provi<br>t(s) 1, 3.<br>dance w<br>sections  | it joint 4.<br>de full bearing<br>ith the 2018<br>\$ R502.11.1 a<br>ISI/TPI 1.   | )<br>nd                                 |                      |                             |                          |                                 | 11107.                             |

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 6-2-0, Exterior(2E) 6-2-0 to 9-2-0 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

 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.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V5    | Valley     | 1   | 1   | Job Reference (optional)   | 164576288 |

2-0-11

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43 ID:AVP5sxiBMV5xyKNXGH?w1?zMD9m-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



6-1-4

Scale = 1:25.2

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL  |   | (psf)<br>20.0<br>20.0<br>10.0  | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr   | 2-0-0<br>1.15<br>1.15<br>YES                                 |  | CSI<br>TC<br>BC<br>WB   | 0.15<br>0.17<br>0.06   | <b>DEFL</b><br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)   | in<br>n/a<br>n/a<br>0.00             | (loc)<br>-<br>-<br>4 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20 | <b>GRIP</b><br>244/190 |
|--|---|--|---|--|--|---|--|--|--------------------------------------|----------------------|-----------------------------|--------------------------|----------------|------------------------|
| BCLL   |   | 0.0*   | Code  | IRC2018/   | TPI2014  | Matrix-MP   |  |  |                                      |                      |                             |                          |                |                        |
| BCDL   |   | 10.0   |   | -  |  |   |  |  |                                      |                      |                             |                          | Weight: 21 lb  | FT = 20%               |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS   | 2x4 SP Nc<br>2x4 SP Nc<br>2x4 SP Nc<br>Structural<br>6-1-4 oc p<br>Rigid ceilir<br>bracing.<br>(size)<br>Max Horiz<br>Max Uplift  | 0.2<br>0.3<br>wood shea<br>urlins.<br>ng directly<br>1=6-2-0, 3<br>1=-44 (LC<br>1=-3 (LC<br>1=-3 (LC   | athing directly applied<br>applied or 6-0-0 oc<br>a=6-2-0, 4=6-2-0<br>10)<br>14), 3=-10 (LC 15), 4  | 5)<br>6)<br>7)<br>8)<br>dor<br>9)<br>10)<br>=-39             | Unbalanced s<br>design.<br>Gable require<br>Gable studs s<br>This truss ha<br>this truss ha<br>on the bottom<br>3-06-00 tall b<br>chord and an<br>Provide mech<br>bearing plate<br>10 lb uplift at | snow loads have b<br>es continuous botto<br>spaced at 4-0-0 oc<br>s been designed fo<br>d nonconcurrent w<br>as been designed<br>n chord in all areas<br>y 2-00-00 wide will<br>y other members.<br>nanical connection<br>capable of withsta<br>joint 3 and 39 lb u | een cor<br>om chor<br>or a 10.0<br>vith any<br>for a liv<br>where<br>l fit betv<br>(by oth<br>nding 3<br>plift at jo | asidered for the<br>d bearing.<br>D psf bottom<br>other live load<br>e load of 20.0<br>a rectangle<br>veen the botto<br>ers) of truss the<br>buplift at joint 4. | nis<br>ds.<br>Dpsf<br>om<br>o int 1, |                      |                             |                          |                |                        |
|  | Max Grav  | (LC 14)<br>1=97 (LC  | 20), 3=97 (LC 21), 4  | =406 11)   | Beveled plate<br>surface with t  | or shim required truss chord at joint   | to provi<br>(s) 1, 3.  | de full bearing  | g                                    |                      |                             |                          |                |                        |
| FORCES   | (lb) - Maxii<br>Tension   | (LC 20)<br>mum Com   | pression/Maximum  | 12)  | This truss is a<br>International<br>R802 10 2 ar   | designed in accord<br>Residential Code s  | ance w<br>sections   | ith the 2018<br>R502.11.1 a  | nd                                   |                      |                             |                          |                |                        |
| TOP CHORD<br>BOT CHORD<br>WEBS   | 1-2=-96/17<br>1-4=-149/1<br>2-4=-312/1  | 73, 2-3=-9<br>109, 3-4=-<br>137  | 6/173<br>149/109  | LOA  | AD CASE(S)   | Standard  |  |  |                                      |                      |                             |                          |                |                        |
| NOTES  |   |  |   |  |  |   |  |  |                                      |                      |                             |                          |                |                        |
| <ol> <li>Unbalance<br/>this design</li> <li>Wind: ASG<br/>Vasd=103<br/>II; Exp B;<br/>and C-C E<br/>exposed;<br/>members<br/>Lumber D</li> <li>Truss des<br/>only. For<br/>see Stand<br/>or consult</li> <li>TCLL: AS<br/>Plate DOL<br/>DOL=1.15<br/>Cs=1.00;</li> </ol> | ed roof live lc<br>n.<br>CE 7-16; Vull<br>Simph; TCDL=<br>Enclosed; M<br>Exterior(2E) z<br>end vertical<br>and forces &<br>OL=1.60 plai<br>signed for wir<br>studs expose<br>lard Industry<br>qualified bui<br>CE 7-16; Pr=<br>==1.15); Pf=2<br>5); Is=1.0; Ro<br>Ct=1.10 | ads have<br>=130mph<br>66.0psf; B0<br>WFRS (en<br>tone; canti<br>left and rig<br>MWFRS<br>te grip DO<br>te grip DO<br>te grip DO<br>d loads ir<br>ed to wind<br>Gable Enc<br>Iding desig<br>20.0 psf (L<br>0.0 psf (L<br>ugh Cat B | been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft; velope) exterior zone<br>lever left and right<br>th exposed;C-C for<br>for reactions shown;<br>L=1.60<br>the plane of the trus<br>(normal to the face),<br>J Details as applicable<br>gner as per ANSI/TPI<br>coof LL: Lum DOL=1.<br>Im DOL=1.15 Plate<br>; Fully Exp.; Ce=0.9; | Cat.<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>9<br>1<br>15 |  |   |  |  |                                      |                      | N. Contraction              |                          | SEA<br>0235    |                        |

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

GINEERING

April 1,2024

| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | V6    | Valley     | 1   | 1   | Job Reference (optional)   | 164576289 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43 ID:?fmN7\_mxxLr4gFqgdY6KGGzMD9g-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2-8-1

1-1-7

Page: 1





3-1-4

1-6-10

1-6-10

2x4 🍫

2x4 👟

#### Scale = 1:24.1

## Plate Offsets (X, Y): [2:0-2-8,Edge]

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC201   | 8/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MP  | 0.08<br>0.08<br>0.00  | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00             | (loc)<br>-<br>-<br>3 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 9 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
|--|--|---|--|--|--|---|---|--|--------------------------------------|----------------------|-----------------------------|--------------------------|--------------------------------|------------------------------------|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>REACTIONS<br>FORCES<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>NOTES<br>1) Unbalance<br>this design<br>2) Wind: ASC<br>Vasd=103<br>II; Exp B; I<br>and C-C E<br>exposed ;<br>members<br>Lumber DD<br>3) Truss des<br>only. For<br>see Stand<br>or consult<br>4) TCLL: ASC<br>Plate DOL<br>DOL=1.15<br>Cs=1.00; (<br>5) Unbalance<br>design.<br>6) Gable req | 2x4 SP No.:<br>2x4 SP No.:<br>2x4 SP No.:<br>Structural w<br>3-1-4 oc pu<br>Rigid ceiling<br>bracing.<br>(size) 1<br>Max Horiz 1<br>Max Horiz 1<br>Max Uplift 1<br>Max Grav 1<br>(lb) - Maxim<br>Tension<br>1-2=-213/77<br>1-3=-52/17C<br>ed roof live loa<br>n.<br>CE 7-16; Vult=<br>imph; TCDL=6<br>Enclosed; MW<br>Exterior(2E) zo<br>end vertical le<br>OL=1.60 plate<br>signed for wind<br>studs exposed<br>lard Industry G<br>qualified build<br>CE 7-16; Pr=22<br>=1.15); Pf=20<br>Ct=1.10<br>ed snow loads<br>uires continuo | rood sheat<br>rlins.<br>g directly<br>=3-2-0, 3<br>=-21 (LC<br>=-12 (LC<br>=-12 (LC<br>=-143 (LC<br>um Com<br>7, 2-3=-2 <sup>-1</sup> )<br>ds have<br>(FRS (en<br>me; canti<br>ff and rig<br>WWFRS ff<br>grip DO<br>d loads in<br>d to wind<br>Sable Enc<br>ling desig<br>0.0 psf (Lt<br>gh Cat B<br>have be<br>us bottor | athing directly applied<br>applied or 10-0-0 oc<br>12)<br>14), 3=-12 (LC 15)<br>20), 3=143 (LC 21)<br>pression/Maximum<br>13/77<br>been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft; (<br>velope) exterior zonc<br>lever left and right<br>the typosed; C-C for<br>for reactions shown;<br>L=1.60<br>the plane of the trus<br>(normal to the face),<br>d Details as applicabl<br>ner as per ANSI/TP)<br>roof LL: Lum DOL=1.<br>Jm DOL=1.15 Plate<br>; Fully Exp.; Ce=0.9;<br>en considered for thi<br>n chord bearing. | 7)<br>8)<br>9)<br>d or<br>11<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12 | <ul> <li>Gable studs :<br/>This truss ha<br/>chord live loa</li> <li>This truss h<br/>on the botton<br/>3-06-00 tall b<br/>chord and ar</li> <li>Provide mecl<br/>bearing plate<br/>1 and 12 lb u</li> <li>Beveled platt<br/>surface with</li> <li>This truss is<br/>International<br/>R802.10.2 ar</li> </ul> | spaced at 4-0-0 oc<br>s been designed fu<br>di nonconcurrent v<br>as been designed<br>n chord in all areas<br>y 2-00-00 wide wil<br>y other members.<br>nanical connection<br>capable of withsta<br>plift at joint 3.<br>e or shim required<br>truss chord at joint<br>designed in accorc<br>Residential Code s<br>nd referenced stan<br>Standard | c.<br>or a 10.0<br>vith any<br>for a liv<br>s where<br>I fit betw<br>(by oth-<br>anding 1<br>to provid<br>(s) 1, 3.<br>Jance w<br>sections<br>dard AN | D psf bottom<br>other live loa<br>e load of 20.0<br>a rectangle<br>veen the botto<br>ers) of truss t<br>2 lb uplift at j<br>de full bearing<br>ith the 2018<br>R502.11.1 a<br>ISI/TPI 1. | ds.<br>)psf<br>om<br>oint<br>g<br>nd |                      |                             |                          | SEA<br>0235                    | ROLL<br>94                         |
|  |  |   |  |  |  |   |   |  |                                      |                      |                             |                          | Ар                             | 111 1,2024                         |



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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | PB1   | Piggyback  | 9   | 1   | Job Reference (optional)   | 164576290 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43 ID:ksn03tXTw0Suqz7L58mmLnzMDIQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:25.3

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

|   | (X, 1). [0.0   | z 0,Eugej  |  |  |   |  |  |  |  |                      |                             |                          |                                 |                                    |
|---|--|--|--|--|---|--|--|--|--|----------------------|-----------------------------|--------------------------|---------------------------------|------------------------------------|
| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL   |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC201   | 8/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MP   | 0.06<br>0.04<br>0.00   | DEFL<br>Vert(LL)<br>Vert(TL)<br>Horiz(TL)  | in<br>n/a<br>n/a<br>0.00                       | (loc)<br>-<br>-<br>9 | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 13 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS  | 2x4 SP N<br>2x4 SP N<br>Structura<br>4-11-5 oc<br>Rigid ceil<br>bracing.<br>(size)<br>Max Horiz<br>Max Uplift<br>Max Grav  | o.2<br>o.2<br>I wood shea<br>purlins.<br>ing directly<br>1=4-11-5,<br>5=4-11-5,<br>1=-17 (LC<br>1=-21 (LC<br>(LC 15), 5<br>14), 9=-17<br>1=5 (LC 1<br>(LC 22), 5<br>21), 9=21              | athing directly applie<br>applied or 10-0-0 or<br>2=4-11-5, 4=4-11-5<br>6=4-11-5, 9=4-11-5<br>7), 2=-18 (LC 14), 4<br>i=-19 (LC 7), 6=-18 (<br>7 (LC 15)<br>4), 2=228 (LC 21), 4<br>i=-1 (LC 14), 6=228<br>6 (LC 22)   | 4)<br>ed or 5)<br>c 6)<br>7)<br>5, 8)<br>4=-17<br>(LC 1(<br>4=216 1(<br>(LC 1) | TCLL: ASCI<br>Plate DOL=<br>DOL=1.15);<br>Cs=1.00; Ct<br>Unbalanced<br>design.<br>Gable requi<br>Gable studs<br>This truss h<br>chord live lo<br>* This truss<br>on the botto<br>3-06-00 tall<br>chord and a<br>D) Provide mee<br>bearing plat<br>1 and 19 lb | E 7-16; Pr=20.0 p<br>1.15); Pf=20.0 ps<br>Is=1.0; Rough Ci<br>=1.10<br>snow loads have<br>res continuous bo<br>spaced at 4-0-0<br>as been designed<br>and nonconcurren<br>has been designed<br>m chord in all are<br>by 2-00-00 wide in<br>ny other member<br>chanical connectitie<br>e capable of with:<br>uplift at joint 5. | esf (roof LL<br>f (Lum DC<br>at B; Fully<br>be been cor<br>bottom chor<br>oc.<br>d for a 10.<br>t with any<br>ed for a liv<br>ass where<br>will fit betv<br>s.<br>on (by oth<br>standing 2 | :: Lum DOL=<br>IL=1.15 Plate<br>Exp.; Ce=0.9<br>asidered for the<br>d bearing.<br>D psf bottom<br>other live load<br>e load of 20.1<br>a rectangle<br>veen the botth<br>ers) of truss to<br>11 b uplift at j | 1.15<br>9;<br>his<br>obsf<br>om<br>to<br>joint |                      |                             |                          |                                 |                                    |
| TOP CHORD<br>BOT CHORD<br>NOTES<br>1) Unbalance<br>this design<br>2) Wind: AS(<br>Vasd=103<br>II; Exp B;<br>and C-C E<br>exposed ;<br>members<br>Lumber D<br>3) Truss des<br>only. For<br>see Stand<br>or consult | (II) - Wida<br>Tension<br>1-2=-17/3<br>4-5=0/34<br>2-4=-1/76<br>ed roof live I<br>n.<br>CE 7-16; Vu<br>3mph; TCDL<br>Enclosed; M<br>Enclosed; M<br>Enclosed; M<br>Exterior(2E)<br>end vertica<br>and forces a<br>ioDL=1.60 plå<br>signed for w<br>studs expos<br>bard Industry<br>qualified bu | loads have<br>loads have<br>lt=130mph<br>=6.0psf; Bt<br>dWFRS (en<br>zone; canti<br>I left and rig<br>& MWFRS<br>ate grip DO<br>ind loads ir<br>sed to wind<br>y Gable End<br>ilding desig | 2/60, 3-4=-102/60,<br>been considered for<br>(3-second gust)<br>CDL=6.0psf; h=-25ft;<br>ivelope) exterior zon<br>lever left and right<br>ght exposed;C-C for<br>for reactions shown<br>iL=1.60<br>n the plane of the tru<br>(normal to the face)<br>d Details as applicat<br>gner as per ANSI/TF | 12<br>r 1;<br>Cat. Lu<br>ne<br>;<br>;<br>ss<br>,<br>,<br>ole,<br>21.           | <ul> <li>2) This truss is<br/>Internationa<br/>R802.10.2 a</li> <li>3) See Standa<br/>Detail for Cc<br/>consult qual</li> <li>DAD CASE(S)</li> </ul>  | designed in acco<br>I Residential Cod<br>Ind referenced st<br>rd Industry Piggy<br>Innection to base<br>ified building des<br>Standard   | ordance w<br>e sections<br>andard Al<br>back Trus<br>truss as a<br>igner.  | ith the 2018<br>R502.11.1 a<br>ISI/TPI 1.<br>s Connection<br>applicable, or  | and  |                      |                             |                          | SEA<br>0235                     | L<br>94<br>MILLEUM                 |

## April 1,2024

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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

**RENCO** 

| Job      | Truss | Truss Type             | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------------------|-----|-----|----------------------------|-----------|
| 24050019 | FGE   | Common Supported Gable | 1   | 1   | Job Reference (optional)   | 164576291 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:42 ID:qVUv8gQtzqhqC01RU7\_rhkzMD2N-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:30.4

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL                                  |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC20 <sup>7</sup>                     | 18/TPI2014   | CSI<br>TC<br>BC<br>WB<br>Matrix-MSH  | 0.12<br>0.04<br>0.04   | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>n/a<br>n/a<br>0.00  | (loc)<br>-<br>-<br>19  | l/defl<br>n/a<br>n/a<br>n/a | L/d<br>999<br>999<br>n/a | PLATES<br>MT20<br>Weight: 51 lb | <b>GRIP</b><br>244/190<br>FT = 20%                       |
|--|--|---|--|--|--|--|--|---|---|--|-----------------------------|--------------------------|---------------------------------|--|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>OTHERS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>REACTIONS | 2x4 SP N<br>2x4 SP N<br>2x4 SP N<br>Structura<br>6-0-0 oc ;<br>Rigid ceil<br>bracing.<br>(size)<br>Max Horiz<br>Max Uplift<br>Max Grav | o.2<br>o.2<br>o.3<br>I wood sheepurlins.<br>ing directly<br>2=13-2-12<br>11=13-2-1<br>13=13-2-1<br>15=13-2-1<br>2=-31 (LC<br>2=-67 (LC<br>10=-32 (L<br>13=-36 (L<br>15=-67 (L<br>12=-67 (LC<br>10=247 (L<br>12=247 (L<br>14=247 (L<br>19=241 (L | athing directly applied<br>applied or 10-0-0 oc<br>2, 8=13-2-12, 10=13-<br>12, 12=13-2-12,<br>12, 14=13-2-12,<br>12, 19=13-2-12<br>19), 15=-31 (LC 19)<br>10), 8=-71 (LC 11),<br>C 10), 14=-33 (LC 12<br>C 10), 19=-71 (LC 11)<br>C 21), 8=241 (LC 22)<br>C 22), 11=211 (LC 21)<br>C 21), 13=211 (LC 21)<br>C 21), 15=241 (LC 22)<br>C 22) | 2<br>d or<br>2-12, 3<br>(1), 4<br>(1), 5<br>(2), 6<br>(2), 6<br>(2), 7 | <ul> <li>Wind: ASCE<br/>Vasd=103mj<br/>II; Exp B; En<br/>and C-C Cor<br/>to 3-11-10, C</li> <li>9-11-10 to 1'<br/>cantilever lef<br/>right exposed<br/>for reactions<br/>DOL=1.60</li> <li>Truss design<br/>only. For stu<br/>see Standard<br/>or consult with<br/>the DOL=1</li> <li>TCLL: ASCE<br/>Plate DOL=1</li> <li>DOL=1.15);<br/>Cs=1.00; Ct=</li> <li>Unbalanced<br/>design.</li> <li>This truss ha<br/>load of 12.0<br/>overhangs n</li> </ul> | 7-16; Vult=130m,<br>b; TCDL=6.0psf;<br>closed; MWFRS (<br>ner(3E) -0-10-8 tc<br>corner(3R) 3-11-1<br>1-9-12, Corner(3E<br>t and right expose<br>d;C-C for member<br>shown; Lumber E<br>hed for wind loads<br>ids exposed to wii<br>d Industry Gable E<br>ialified building de<br>i7-16; Pr=20.0 psf<br>is=1.0; Rough Ca<br>=1.10<br>snow loads have<br>is been designed<br>psf or 1.00 times i<br>on-concurrent with | ph (3-sec<br>BCDL=6<br>(envelope)<br>2-1-8, E<br>0 to 9-11<br>() 11-9-12<br>d; end V<br>rs and for<br>ODL=1.6(<br>s in the p<br>nd (norm<br>End Deta<br>signer a:<br>(f (roof LL<br>(Lum DC<br>t B; Fully)<br>been cor<br>for great<br>flat roof k<br>h other lin<br>s otherwi | cond gust)<br>.0psf; h=25ft;<br>e) exterior zor<br>:xterior(2N) 2<br>-10, Exterior(<br>2 to 14-9-12 z<br>rertical left an<br>rces & MWFF<br>) plate grip<br>lane of the tr.<br>al to the face<br>ils as applical<br>is per ANSI/TF<br>ul=1.15 Plate<br>Exp.; Ce=0.5<br>asidered for th<br>er of min roof<br>bad of 20.0 ps<br>ze loads.<br>se indicated | ; Cat.<br>ne<br>-1-8<br>2N)<br>cone;<br>dd<br>RS<br>Jss<br>),<br>ble,<br>PI 1.<br>1.15<br>2);<br>his<br>live<br>sf on | International Residential Code sections R502.<br>R802.10.2 and referenced standard ANSI/TPI<br>LOAD CASE(S) Standard |                             |                          |                                 | ce with the 2018<br>tions R502.11.1 and<br>d ANSI/TPI 1. |
| FORCES   | (lb) - Max<br>Tension<br>1-2=0/24<br>4-5=-40/8<br>7-8=-59/2  | (imum Com<br>, 2-3=-59/4<br>33, 5-6=-40,<br>19 8-9=0/2  | pression/Maximum<br>9, 3-4=-35/45,<br>/83, 6-7=-35/45,<br>4  | 8<br>9<br>1  | <ul> <li>Gable require</li> <li>Gable studs</li> <li>This truss hat chord live lost</li> </ul>   | es continuous bot<br>spaced at 2-0-0 o<br>is been designed<br>ad nonconcurrent   | tom chor<br>c.<br>for a 10.0<br>with any   | d bearing.<br>) psf bottom<br>other live loa  | ds.   |  | 1                           | i a                      | OPTH CA                         | RO   |
| BOT CHORD  | 2-14=-48<br>11-12=0/3  | /70, 13-14=<br>38. 10-11=(  | :<br>0/38, 12-13=0/38,<br>0/38, 8-10=-48/70  | 1  | on the bottor  | n chord in all area  | a lor a liv<br>as where  | e load of 20.0<br>a rectangle   | JUDST   |  |                             |                          | SFA                             |  |
| WEBS   | 5-12=-10<br>3-14=-18<br>7-10=-18   | 4/68, 4-13=<br>6/105, 6-11<br>6/105   | 178/132,<br>=-178/132,   | 1  | chord and ar<br>2) N/A   | by ∠-00-00 wide w<br>ny other members  |  | veen the dotto  | חוט   |  | 11110                       |                          | 0235                            | 94   |
| NOTES  |  |   |  |  |  |  |  |   |   |  |                             | 1                        |                                 | a! 3   |

1) Unbalanced roof live loads have been considered for this design.

 Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 19. April 1,2024



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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | F     | Common     | 2   | 1   | Job Reference (optional)   | 164576292 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:42 Page: 1 ID:jpnH6guj0VTRIsxki5gIEIzMD1n-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



3x5 =



Scale = 1:31.1

2-0-15

-4-0

2-3-2

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL<br>BCDL  |  | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*<br>10.0   | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018                        | 8/TPI2014   | <b>CSI</b><br>TC<br>BC<br>WB<br>Matrix-MSH  | 0.82<br>0.74<br>0.11  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>-0.11<br>-0.17<br>0.02                     | (loc)<br>5-8<br>5-8<br>4 | l/defl<br>>999<br>>954<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 45 lb | <b>GRIP</b><br>244/190<br>FT = 20% |
|--|--|---|---|--|---|---|---|---|--|--------------------------|-------------------------------|--------------------------|---------------------------------|------------------------------------|
| LUMBER<br>TOP CHORD<br>BOT CHORD<br>WEBS<br>BRACING<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>REACTIONS<br>FORCES<br>TOP CHORD<br>BOT CHORD<br>BOT CHORD<br>WEBS<br>NOTES<br>1) Unbalance<br>this design<br>2) Wind: ASC<br>Vasd=103<br>II; Exp B; II<br>and C-C E<br>to 3-11-10<br>9-11-10 to<br>cantilever | 2x4 SP No.2<br>2x4 SP No.3<br>2x4 SP No.3<br>Structural w<br>2-6-7 oc pur<br>Rigid ceiling<br>bracing.<br>(size) 2-<br>Max Horiz 2-<br>Max Uplift 2-<br>Max Grav 2-<br>(lb) - Maxim<br>Tension<br>1-2=0/16, 2-<br>2-5=-760/11<br>3-5=-130/28<br>ed roof live Ioa-<br>n.<br>CE 7-16; Vult=<br>imph; TCDL=6<br>Enclosed; MW<br>ixterior(2E) -0-<br>, Exterior(2E) -0-<br>0, Exterior(2R) | a construction of the second shear lines.<br>directly =0-3-8, 4<br>=36 (LC<br>=-221 (L1<br>=716 (LC<br>um Com<br>3=-1182<br>05, 4-5=<br>5<br>ds have<br>130mph<br>.0psf; BC<br>FRS (en<br>10-8 to 2<br>3-11-10<br>lor(2E) 1<br>xpost el | athing directly applied<br>applied or 6-5-2 oc<br>14)<br>C 10), 4=-176 (LC 11<br>2 1), 4=605 (LC 22)<br>pression/Maximum<br>/848, 3-4=-1188/846<br>-760/1105<br>been considered for<br>(3-second gust)<br>CDL=6.0psf; h=25ft; (<br>velope) exterior zone<br>2-1-8, Interior (1) 2-1-<br>to 9-11-10, Interior (1)<br>0-7-0 to 13-7-0 zone;<br>end vertical left and<br>t exposed C-C for | 5)<br>6)<br>d or 7)<br>8)<br>9)<br>9)<br>LC<br>Cat.<br>8<br>)) | This truss ha<br>load of 12.0 p<br>overhangs no<br>This truss ha<br>chord live loa<br>* This truss h<br>on the bottom<br>3-06-00 tall b<br>chord and an<br>One H2.5A S<br>recommende<br>UPLIFT at jt(<br>and does not<br>This truss is of<br>International<br>R802.10.2 ar<br>DAD CASE(S) | s been designed fo<br>osf or 1.00 times fla<br>on-concurrent with is<br>s been designed fo<br>d nonconcurrent w<br>as been designed in<br>n chord in all areas<br>y 2-00-00 wide will<br>y other members.<br>impson Strong-Tie<br>d to connect truss i<br>s) 4 and 2. This cor<br>consider lateral fo<br>designed in accord.<br>Residential Code s<br>and referenced stance<br>Standard | or great<br>ta roof lo<br>other liv<br>or a 10.4<br>vith any<br>for a liv<br>where<br>l fit betw<br>connectio<br>rces.<br>ance w<br>sections<br>dard AN | Ler of min roof<br>oad of 20.0 ps<br>ve loads.<br>0 psf bottom<br>other live loa<br>e load of 20.0<br>a rectangle<br>veen the botto<br>ctors<br>ing walls due<br>n is for uplift o<br>ith the 2018<br>s R502.11.1 a<br>JSI/TPI 1. | live<br>sf on<br>ds.<br>Dpsf<br>om<br>to<br>only |                          | 11                            |                          | Weight. 45 ib                   |                                    |
| <ul> <li>a) TCLL: AS(<br/>Plate DOL<br/>DOL=1.15<br/>Cs=1.00; (</li> <li>4) Unbalance</li> </ul>   | and forces & N<br>OL=1.60 plate<br>CE 7-16; Pr=20<br>.=1.15); Pf=20<br>;); Is=1.0; Roug<br>Ct=1.10<br>ed snow loads  | /WFRS<br>grip DO<br>0.0 psf (I<br>.0 psf (Lu<br>gh Cat B<br>have be   | for reactions shown;<br>L=1.60<br>roof LL: Lum DOL=1.<br>um DOL=1.15 Plate<br>; Fully Exp.; Ce=0.9;<br>en considered for this   | 15   |   |   |   |   |  |                          | 1111WAY                       |                          |                                 | EER.ER                             |

- З Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.



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.-2-

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| Job      | Truss | Truss Type                 | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|----------------------------|-----|-----|----------------------------|-----------|
| 24050019 | ISE   | Monopitch Structural Gable | 1   | 1   | Job Reference (optional)   | 164576293 |

1-11-5

Run; 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:42 Page: 1 ID:INPZ5e0g9muGd0LDY9HBQAzMCx9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



3x5 =



Scale = 1:28.9

| Loading                      | (psf)                     | Spacing                                      | 2-0-0     |  | CSI                   |             | DEFL            | in     | (loc) | l/defl | L/d | PLATES        | GRIP     |
|------------------------------|---------------------------|--|-----------|--|-----------------------|-------------|-----------------|--------|-------|--------|-----|---------------|----------|
| TCLL (roof)                  | 20.0                      | Plate Grip DOL                               | 1.15      |  | TC                    | 0.38        | Vert(LL)        | 0.08   | 6-11  | >859   | 240 | MT20          | 244/190  |
| Snow (Pf)                    | 20.0                      | Lumber DOL                                   | 1.15      |  | BC                    | 0.44        | Vert(CT)        | -0.10  | 6-11  | >653   | 180 |               |          |
| TCDL                         | 10.0                      | Rep Stress Incr                              | YES       |  | WB                    | 0.02        | Horz(CT)        | 0.00   | 2     | n/a    | n/a |               |          |
| BCLL                         | 0.0*                      | Code   | IRC20     | 18/TPI2014                               | Matrix-MP             |             |                 |        |       |        |     |               |          |
| BCDL                         | 10.0                      |  |           |  |                       |             |                 |        |       |        |     | Weight: 21 lb | FT = 20% |
| LUMBER                       |                           |  |           | 4) Unbalanced                            | snow loads have b     | een cor     | nsidered for t  | this   |       |        |     |               |          |
| TOP CHORD                    | 2x4 SP No.2               |  |           | design.                                  |                       |             |                 |        |       |        |     |               |          |
| BOT CHORD                    | 2x4 SP No.2               |  |           | 5) This truss ha                         | as been designed fo   | or great    | er of min roo   | f live |       |        |     |               |          |
| WEBS                         | 2x4 SP No.3               |  |           | load of 12.0                             | psf or 1.00 times fla | at roof le  | oad of 20.0 p   | osf on |       |        |     |               |          |
| OTHERS                       | 2x4 SP No.3               |  |           | overhangs n                              | on-concurrent with    | other liv   | ve loads.       |        |       |        |     |               |          |
| BRACING                      |                           |  |           | 6) Gable studs                           | spaced at 2-0-0 oc    |             |                 |        |       |        |     |               |          |
| TOP CHORD                    | Structural wood sh        | eathing directly applie                      | ed or     | <ol><li>This truss has</li></ol>         | as been designed for  | or a 10.0   | 0 psf bottom    |        |       |        |     |               |          |
|                              | 5-8-4 oc purlins          | excent end verticals                         |           | chord live loa                           | ad nonconcurrent v    | vith any    | other live loa  | ads.   |       |        |     |               |          |
| BOT CHORD                    | Rigid ceiling direct      | ly applied or 10-0-0 or                      | с         | <li>8) * This truss I on the bottom</li> | has been designed     | for a liv   | e load of 20.   | .0psf  |       |        |     |               |          |
|                              | bracing.                  |  |           | 3-06-00 tall                             | 2 - 0 - 00 wide will  | ll fit hoty | a rectangle     | tom    |       |        |     |               |          |
| REACTIONS                    | (size) 2=0-3-0            | , 5=0-1-8                                    |           | chord and a                              | y other members       |             | veen me bou     |        |       |        |     |               |          |
|                              | Max Horiz 2=58 (L         | C 13)  |           | 9) Bearings are                          | assumed to be Jo      | oint 5 SI   | P No 3          |        |       |        |     |               |          |
|                              | Max Uplift 2=-123         | (LC 10), 5=-76 (LC 10                        | ))        | 10) Bearing at ic                        | int(s) 5 considers r  | harallel t  | o grain value   | 2      |       |        |     |               |          |
|                              | Max Grav 2=397 (          | LC 21), 5=260 (LC 21                         | )         | using ANSI/                              | [PI 1 angle to grain  | formula     | a Building      | 0      |       |        |     |               |          |
| FORCES                       | (lb) - Maximum Co         | mpression/Maximum                            |           | designer sho                             | ould verify capacity  | of bear     | ing surface.    |        |       |        |     |               |          |
|                              | Tension                   |  |           | 11) Provide med                          | hanical connection    | (by oth     | ers) of truss   | to     |       |        |     |               |          |
| TOP CHORD                    | 1-2=0/18, 2-3=-10         | 1/118, 3-4=-25/40,                           |           | bearing plate                            | e at joint(s) 5.      |             | ,               |        |       |        |     |               |          |
|                              | 4-5=-149/121              | 10/07  |           | 12) One H2.5A \$                         | Simpson Strong-Tie    | e conne     | ctors           |        |       |        |     |               |          |
| BOT CHORD                    | 2-6=-118/127, 5-6         | =-18/27                                      |           | recommende                               | ed to connect truss   | to bear     | ing walls due   | e to   |       |        |     |               |          |
| WEBS                         | 3-6=-84/70                |  |           | UPLIFT at jt                             | s) 5 and 2. This co   | onnectio    | n is for uplift | only   |       |        |     |               |          |
| NOTES                        |                           |  |           | and does no                              | t consider lateral fo | orces.      |                 |        |       |        |     |               |          |
| 1) Wind: AS                  | CE 7-16; Vult=130m        | h (3-second gust)                            |           | 13) This truss is                        | designed in accord    | dance w     | ith the 2018    |        |       |        |     |               | 1111.    |
| Vasd=10                      | 3mph; TCDL=6.0psf;        | BCDL=6.0psf; h=25ft;                         | Cat.      | International                            | Residential Code      | sections    | 8 R502.11.1 a   | and    |       |        |     | AN CA         | Dille    |
| II; Exp B;                   | Enclosed; MWFRS (         | envelope) exterior zor                       | ne        | R802.10.2 a                              | nd referenced stan    | dard An     | NSI/TPI 1.      |        |       |        |     | in TH UT      | TO US    |
| and C-C                      | Exterior(2E) -0-10-8 t    | o 2-1-8, Interior (1) 2-                     | 1-8       | LOAD CASE(S)                             | Standard              |             |                 |        |       |        | 5   | an is co      | in Ally  |
| to 2-6-8,                    | Exterior(2E) 2-6-8 to     | 5-6-8 zone; cantilever                       | left      |  |                       |             |                 |        |       |        |     | 015           |          |
| and right                    | exposed ; end vertica     | I left and right expose                      | ed;       |  |                       |             |                 |        |       |        | X Ø | 1. 2.         | miller   |
| porch left                   | and right exposed;C       | C for members and                            |           |  |                       |             |                 |        |       |        |     |               |          |
| forces & I                   | MWFRS for reactions       | shown; Lumber                                |           |  |                       |             |                 |        |       |        |     | SEA           | 1 3 5    |
| DOL=1.6                      | U plate grip DOL=1.6      |  |           |  |                       |             |                 |        |       | = =    |     | 0005          |          |
| <ol> <li>Iruss de</li> </ol> | signed for wind loads     | In the plane of the tru                      | ISS       |  |                       |             |                 |        |       |        |     | 0235          | 94 : Ξ   |
| Unity. For                   | situus exposed to Wil     | in (normal to the face)                      | ),<br>blo |  |                       |             |                 |        |       |        |     | :             | 1 5      |
| See Sland                    | t qualified building do   | UIC,<br>DI 1                                 |           |  |                       |             |                 |        |       | 1      | N   | A 1 8         |          |
|                              | C = 7.16 $Pr=20.0$ pc     |  | 1 15      |  |                       |             |                 |        |       |        | 2   | X: SNOW       | CENCAN   |
|                              | I = 1.15). $Pf = 20.0 ps$ | $1 \text{ µm } D\Omega = 1.15 \text{ Plate}$ | 1.15      |  |                       |             |                 |        |       |        | 1   | OA            | 50.00    |
| DOL=1 1                      | 5): Is=1.0: Rough Cat     | B: Fully Exp.: Ce=0.9                        | ):        |  |                       |             |                 |        |       |        | 1   | INY P         | MILLIN   |

3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10



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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | I     | Monopitch  | 5   | 1   | Job Reference (optional)   | 164576294 |

#### Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:42 ID:nEFoOQTSTYeU8OA94u2Fj5zMD10-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



5-8-4



3x5 =

-0-10-8



Scale = 1:28.9

| Loading         (psf)           TCLL (roof)         20.0           Snow (Pf)         20.0           TCDL         10.0           BCLL         0.0*           BCDL         10.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code   | 2-0-0<br>1.15<br>1.15<br>YES<br>IRC2018/TPI2014  | CSI<br>TC<br>BC<br>WB<br>Matrix-MP  | 0.51<br>0.37<br>0.00  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>0.07<br>-0.09<br>0.00       | (loc)<br>4-9<br>4-9<br>2 | l/defl<br>>967<br>>762<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 20 lb | <b>GRIP</b><br>244/190<br>FT = 20% |  |
|--|--|--|---|---|---|-----------------------------------|--------------------------|-------------------------------|--------------------------|---------------------------------|------------------------------------|--|
| LUMBER<br>TOP CHORD 2x4 SP No.2<br>BOT CHORD 2x4 SP No.2<br>BOT CHORD 2x4 SP No.3<br>BRACING<br>TOP CHORD Structural wood sh<br>5-8-4 oc purlins, e<br>BOT CHORD Rigid ceiling directl<br>bracing.<br>REACTIONS (size) 2=0-3-0,<br>Max Horiz 2=58 (LC<br>Max Uplift 2=-123 (<br>Max Grav 2=397 (L<br>FORCES (lb) - Maximum Con<br>Tension<br>TOP CHORD 1-2=0/18, 2-3=-101<br>BOT CHORD 2-4=-118/127<br>NOTES<br>1) Wind: ASCE 7-16; Vult=130mp<br>Vasd=103mph; TCDL=6.0psf; B<br>I; Exp B; Enclosed; MWFRS (c<br>and C-C Exterior(2E) 2-6-8 to 5<br>and right exposed; end vertica<br>porch left and right exposed; C-<br>forces & MWFRS for reactions<br>DOL=1.60 plate grip DOL=1.60<br>2) TCLL: ASCE 7-16; Pr=20.0 psf<br>Plate DOL=1.15); Pf=20.0 psf (<br>DOL=1.15); Is=1.0; Rough Cat<br>Cs=1.00; Ct=.1.10<br>3) Unbalanced snow loads have b<br>design.<br>4) This truss has been designed fr<br>load of 12.0 psf or 1.00 times ff<br>load of 12.0 psf or 1.00 times ff | eathing directly applied<br>coept end verticals.<br>y applied or 10-0-0 oc<br>4=0-1-8<br>3 (1)<br>C 21), 4=-76 (LC 10)<br>C 21), 4=260 (LC 21)<br>mpression/Maximum<br>/118, 3-4=-185/151<br>h (3-second gust)<br>3CDL=6.0psf; h=25ft; C<br>nvelope) exterior zone<br>2-1-8, Interior (1) 2-1-<br>6-8 zone; cantilever le<br>left and right exposed<br>C for members and<br>shown; Lumber<br>(roof LL: Lum DOL=1.<br>Lum DOL=1.15 Plate<br>B; Fully Exp.; Ce=0.9;<br>een considered for this<br>or greater of min roof li<br>at roof load of 20.0 psf<br>other live loads.<br>or a 10.0 psf bottom<br><i>i</i> th any other live loads | <ul> <li>6) * This truss I on the bottor 3-06-00 tall I chord and ar</li> <li>7) Bearings are 30 using ANSI/designer sho</li> <li>9) Provide mec bearing plate</li> <li>10) One H2.5A \$ recommende UPLIFT at jtl and does no</li> <li>11) This truss is International R802.10.2 a LOAD CASE(S)</li> </ul> | has been designed for<br>n chord in all areas of<br>by 2-00-00 wide will for<br>y other members.<br>assumed to be: Joir<br>int(s) 4 considers par-<br>I angle to grain for<br>uld verify capacity of<br>hanical connection (for<br>at joint(s) 4.<br>Simpson Strong-Tie of<br>de to connect truss to<br>s) 4 and 2. This cont<br>t consider lateral for<br>designed in accorda<br>Residential Code send<br>n referenced standar<br>Standard | or a liviv<br>where<br>fit betw<br>that 4 SF<br>rrallel t<br>formula<br>f beari<br>by other<br>connector<br>bearin<br>ections<br>and AN | e load of 20.0<br>a rectangle<br>een the botto<br>P No.3 .<br>o grain value<br>a. Building<br>ng surface.<br>ers) of truss to<br>ctors<br>ng walls due t<br>n is for uplift o<br>th the 2018<br>R502.11.1 ar<br>SI/TPI 1. | psf<br>m<br>b<br>to<br>nnly<br>nd |                          |                               |                          | SEA<br>0235                     | BOL<br>94<br>FIL 1,2024            |  |

- overhangs non-concurrent with other live loads. This truss has been designed for a 10.0 psf bottom 5)
- chord live load nonconcurrent with any other live loads.



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| Job      | Truss | Truss Type | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|------------|-----|-----|----------------------------|-----------|
| 24050019 | С     | Monopitch  | 1   | 1   | Job Reference (optional)   | 164576295 |

Run; 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:40 ID:BtC6klK9j1Q8nN87NoP6J5z2Qj3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



| Cool |      | 1.70 |  |
|------|------|------|--|
| Sud  | ie = | 1.70 |  |

| Loading<br>TCLL (roof)<br>Snow (Pf)<br>TCDL<br>BCLL   | (psf)<br>20.0<br>20.0<br>10.0<br>0.0*  | <b>Spacing</b><br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 1-11-4<br>1.15<br>1.15<br>YES<br>IRC2018     | 3/TPI2014   | <b>CSI</b><br>TC<br>BC<br>WB<br>Matrix-MSH  | 0.80<br>0.80<br>0.43   | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)   | in<br>-0.14<br>-0.27<br>0.03                             | (loc)<br>14-17<br>14-17<br>11 | l/defl<br>>999<br>>914<br>n/a | L/d<br>240<br>180<br>n/a              | PLATES<br>MT20 | <b>GRIP</b><br>244/190 |            |
|---|--|--|--|---|---|--|--|--|-------------------------------|-------------------------------|---------------------------------------|----------------|------------------------|------------|
| 3CDL  | 10.0   |  |  |   |   |  |  |  |                               |                               |                                       | Weight: 163 lb | FT = 20%               |            |
| LUMBER<br>TOP CHORD<br>30T CHORD<br>WEBS<br>3RACING<br>TOP CHORD<br>30T CHORD<br>WEBS   | 2x4 SP No.2<br>2x4 SP No.2<br>2x4 SP No.3 *Excep<br>No.2<br>Structural wood shea<br>4-0-10 oc purlins, ex<br>Rigid ceiling directly<br>bracing, Except:<br>6-0-0 oc bracing: 10<br>1 Row at midpt          | t* 7-10,6-11,6-10:2x4<br>athing directly applie<br>xcept end verticals.<br>applied or 10-0-0 oc<br>-11.<br>7-10, 3-13, 5-11, 6-1   | 2)<br>4 SP 3)<br>d or 4)<br>5)<br>6)<br>1 7) | TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15); I<br>Cs=1.00; Ct=<br>Unbalanced<br>design.<br>This truss ha<br>load of 12.0 J<br>overhangs n<br>All plates are<br>This truss ha<br>chord live loa<br>* This truss h | 7-16; Pr=20.0 psf<br>.15); Pf=20.0 psf (I<br>s=1.0; Rough Cat<br>.1.10<br>snow loads have b<br>s been designed for<br>portion for the standard standard standard<br>s been designed for<br>a nonconcurrent with<br>a s been designed for<br>a nonconcurrent with<br>a seen designed for<br>a nonconcurrent with<br>a second standard standard standard<br>the standard standard standard standard<br>the standard | (roof LL<br>Lum DC<br>B; Fully<br>een cor<br>or great<br>at roof k<br>other liv<br>otherwi<br>or a 10.0<br>vith any<br>for a liv | :: Lum DOL=<br>IL=1.15 Plate<br>Exp.; Ce=0.9<br>asidered for the<br>or of min roof<br>bad of 20.0 p<br>re loads.<br>se indicated.<br>0 psf bottom<br>other live load<br>e load of 20.0 | 1.15<br>e<br>9;<br>his<br>f live<br>sf on<br>ds.<br>0psf |                               |                               |                                       |                |                        |            |
| REACTIONS   | (size) 2=0-5-8, 1<br>Max Horiz 2=422 (LC<br>Max Uplift 2=-80 (LC<br>11=-258 (<br>Max Grav 2=892 (LC<br>11=1346 (   | 10= Mechanical, 11=<br>C 13)<br>C 14), 10=-257 (LC 3'<br>LC 14)<br>C 5), 10=50 (LC 10),<br>(LC 5)  | 0-5-8 <sup>(*)</sup><br>1),<br>8)<br>9)      | on the bottor<br>3-06-00 tall to<br>chord and ar<br>Refer to gird<br>Provide med<br>bearing plate   | n chord in all areas<br>by 2-00-00 wide wil<br>by other members,<br>er(s) for truss to tru<br>hanical connection<br>capable of withsta  | where<br>I fit betw<br>with BC<br>ss conr<br>(by oth<br>unding 2   | a rectangle<br>veen the both<br>DL = 10.0ps<br>nections.<br>ers) of truss to<br>57 lb uplift at  | om<br>f.<br>to<br>t ioint                                |                               |                               |                                       |                |                        |            |
| FORCES  | (lb) - Maximum Com   | pression/Maximum   |  | 10.   |   |  |  | , joint  |                               |                               |                                       |                |                        |            |
| TOP CHORD   | Tension<br>1-2=0/23, 2-3=-1349<br>5-6=-188/219, 6-7=-<br>7-10=-29/41   | )/147, 3-5=-684/129,<br>132/149, 7-8=-12/0,  | 10   | ) One H2.5A S<br>recommende<br>UPLIFT at jt(<br>and does not  | Simpson Strong-Tie<br>ed to connect truss<br>s) 2 and 11. This c<br>consider lateral fo   | conne<br>to bear<br>onnecti<br>rces.   | ctors<br>ing walls due<br>on is for uplif  | to<br>t only   |                               |                               |                                       | mmm            | 900.                   |            |
| BOT CHORD   | 2-14=-200/1420, 13-<br>11-13=-119/625, 10-<br>3-14=0/329, 3-13=-9  | -14=-200/1420,<br>-11=-165/194, 9-10=(<br>004/203_5-13=-9/669  | )/O  | ) This truss is<br>International  | designed in accord<br>Residential Code s  | lance w  | th the 2018<br>R502.11.1 a   | and  |                               |                               | -                                     | TH CA          | RO                     | //         |
|   | 5-11=-959/208, 6-11  | =-486/58, 6-10=-26/2   | ,<br><sup>203</sup> 10                       |   | Standard  | uard Ar  | 151/TPLT.  |  |                               |                               | 40                                    |                | Nill                   | 2          |
| NOTES   |  |  | 20   |   | Glandaru  |  |  |  |                               |                               |                                       | :0             | K                      | -          |
| <ol> <li>Wind: ASC<br/>Vasd=103</li> <li>II; Exp B; I<br/>and C-C E<br/>to 19-11-8<br/>cantilever<br/>right expo-<br/>for reactio<br/>DOL=1.60</li> </ol> | CE 7-16; Vult=130mph<br>mph; TCDL=6.0psf; BC<br>Enclosed; MWFRS (en<br>Exterior(2E) -0-10-8 to 2<br>B, Exterior(2E) 19-11-8<br>left and right exposed<br>sed;C-C for members a<br>ns shown; Lumber DO<br>) | (3-second gust)<br>CDL=6.0psf; h=25ft;<br>welope) exterior zond<br>2-1-8, Interior (1) 2-1<br>to 22-11-8 zone;<br>; end vertical left anc<br>and forces & MWFRS<br>L=1.60 plate grip | Cat.<br>e<br>-8<br>I<br>S                    |   |   |  |  |  |                               | THINK                         | A A A A A A A A A A A A A A A A A A A | SEA<br>0235    | ER.ER.                 | NULLIUN DE |

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818 Soundside Road Edenton, NC 27932

Million Million

April 1,2024

| Job      | Truss | Truss Type      | Qty | Ply | 23 Serenity - B329 B LH CP |           |
|----------|-------|-----------------|-----|-----|----------------------------|-----------|
| 24050019 | KGR   | Half Hip Girder | 1   | 2   | Job Reference (optional)   | 164576296 |

Run: 9.03 S 8.73 Mar 21 2024 Print: 8.730 S Mar 21 2024 MiTek Industries, Inc. Fri Mar 29 10:41:43 ID:T3jI1iiM2Fv9ehg9GdEVZ1z17hh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



LUS26



LUS26

#### Scale = 1:38.6

| Loading         (psf)           ICLL (roof)         20.0           Snow (Pf)         20.0           ICDL         10.0           3CLL         0.0*           3CDL         10.0  | Spacing<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code  | 2-0-0<br>1.15<br>1.15<br>NO<br>IRC2018  | 3/TPI2014  | <b>CSI</b><br>TC<br>BC<br>WB<br>Matrix-MR   | 0.30<br>0.30<br>0.03  | DEFL<br>Vert(LL)<br>Vert(CT)<br>Horz(CT)  | in<br>-0.01<br>-0.02<br>0.00   | (loc)<br>5-6<br>5-6<br>4 | l/defl<br>>999<br>>999<br>n/a   | L/d<br>240<br>180<br>n/a                                   | PLATES<br>MT20<br>Weight: 49 lb  | <b>GRIP</b><br>244/190<br>FT = 20% |          |
|--|---|---|--|---|---|---|--|--------------------------|---|--|--|------------------------------------|----------|
| JUMBER<br>IOP CHORD 2x4 SP No.2<br>30T CHORD 2x6 SP No.2<br>WEBS 2x4 SP No.3<br><b>3RACING</b><br>IOP CHORD Structural wood she<br>6-0-0 oc purlins, ex-<br>2-0-0 oc purlins (6-<br>30T CHORD Rigid ceiling directly<br>bracing.<br><b>REACTIONS</b> (size) 4= Mech-<br>Max Horiz 6=99 (LC<br>Max Uplift 4=-141 (I<br>Max Grav 4=1076 (<br><b>FORCES</b> (Ib) - Maximum Con<br>Tension<br>IOP CHORD 1-2=-154/32, 2-3=-8<br>1-6=-187/36<br>30T CHORD 5-6=-47/81, 4-5=-45<br>WEBS 2-5=-21/144<br><b>NOTES</b><br>1) 2-ply truss to be connected toge<br>(0.131"x3") nails as follows:<br>Top chords connected as follows:<br>Top chords connected as follows:<br>2-ply truss to be connected as follows:<br>Top chords connected as follows:<br>2-ply truss to be connected as follows:<br>Top chords connected as follows:<br>2-ply truss to be connected as follows:<br>Top chords connected as follows: 2x4<br>41 loads are considered equally<br>except if noted as front (F) or ba<br>CASE(S) section. Ply to ply con<br>provided to distribute only loads<br>unless otherwise indicated. | eathing directly applied<br>cicept end verticals, an<br>-0  max.: 2-3.<br>(2  applied or 10-0-0 oc)<br>anical, 6=0-5-8<br>(-9)<br>(-2  g), 6=-94 (LC 12)<br>LC 32), 6=901 (LC 33)<br>apression/Maximum<br>34/31, 3-4=-177/36,<br>(-67)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>(-47)<br>( | 3)<br>d or 4)<br>5)<br>6)<br>7)<br>8)<br>9)<br>10)<br>11)<br>12)<br>12)<br>12)<br>12)<br>12)<br>14)<br>14)<br>15]<br>LO | Wind: ASCE<br>Vasd=103mp<br>II; Exp B; End<br>cantilever left<br>right exposed<br>TCLL: ASCE<br>Plate DOL=1<br>DOL=1.15); I<br>Cs=1.00; Ct=<br>Unbalanced :<br>design.<br>Provide adeo<br>This truss ha<br>on the bottom<br>3-06-00 tall b<br>chord and an<br>Refer to girdd<br>Provide mech<br>bearing plate<br>4.<br>One H2.5A S<br>recommende<br>UPLIFT at jt(<br>does not con<br>This truss is of<br>International<br>R802.10.2 ar<br>0 Graphical pu<br>or the orienta<br>bottom chord<br>Use Simpsor<br>Truss, Single<br>oc max. start<br>connect truss | 7-16; Vult=130mpl<br>b; TCDL=6.0psf; E<br>closed; MWFRS (e<br>t and right exposed<br>c; Lumber DOL=1.6<br>7-16; Pr=20.0 psf<br>(15); Pf=20.0 psf (I<br>s=1.0; Rough Cat I<br>1.10<br>snow loads have b<br>uate drainage to p<br>s been designed for<br>d nonconcurrent w<br>as been designed for<br>a chord in all areas<br>y 2-00-00 wide will<br>y other members.<br>er(s) for truss to tru<br>nanical connection<br>capable of withsta<br>Gimpson Strong-Tie<br>d to connect truss<br>(s) 6. This connect it<br>sider lateral forces<br>designed in accord<br>Residential Code s<br>and referenced stand<br>fin representation<br>tion of the purlin al<br>b Strong-Tie LUS26<br>(e) to back face of<br>les where hanger i<br>Standard | h (3-sec<br>3CDL=6<br>nveloped<br>1; end v<br>50 plate<br>(roof LL<br>Lum DC<br>B; Fully<br>een cor<br>revent v<br>or a 10.0<br>vith any<br>for a live<br>to here<br>I fit betw<br>iss conre-<br>(by oth<br>unding 1<br>e connee<br>to bear<br>on is for<br>lance w<br>sections<br>dard AN<br>does no<br>long the<br>5 (4-10c<br>iveleft e<br>of bottor<br>s in cor | ond gust)<br>.0psf; h=25ft;<br>b) exterior zor<br>retrical left an<br>grip DOL=1.<br>.: Lum DOL=<br>DL=1.15 Plate<br>Exp.; Ce=0.5<br>isidered for the<br>water ponding<br>0 psf bottom<br>other live load<br>e load of 20.0<br>a rectangle<br>veen the bottot<br>rections.<br>ers) of truss t<br>41 lb uplift at<br>ctors<br>ng walls due<br>uplift only ar<br>ith the 2018<br>R502.11.1 a<br>ISI/TPI 1.<br>t depict the se<br>top and/or<br>I Girder, 3-10<br>spaced at 2-0<br>nd to 5-5-0 to<br>n chord.<br>tact with lum | c Cat.<br>ne;<br>d<br>60<br>1.15<br>;;<br>ds.<br>jpsf<br>om<br>o<br>joint<br>to<br>ds.<br>joint<br>to<br>d<br>size<br>d<br>j-0<br>ber. | 1) De<br>Inn<br>Ur<br>Co | ead + Sn<br>crease=<br>hiform Lc<br>Vert: 1-2<br>nocentra<br>Vert: 8= | ow (ba<br>1.15<br>pads (II<br>2=-60,<br>led Lo.<br>-824 (I | alanced): Lumber<br>b/ft)<br>2-3=-60, 4-6=-20<br>ads (lb)<br>B), 9=-828 (B)<br>CA<br>SEA<br>0235<br>OV GIN | Increase=1.15                      | i, Plate |

April 1,2024

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