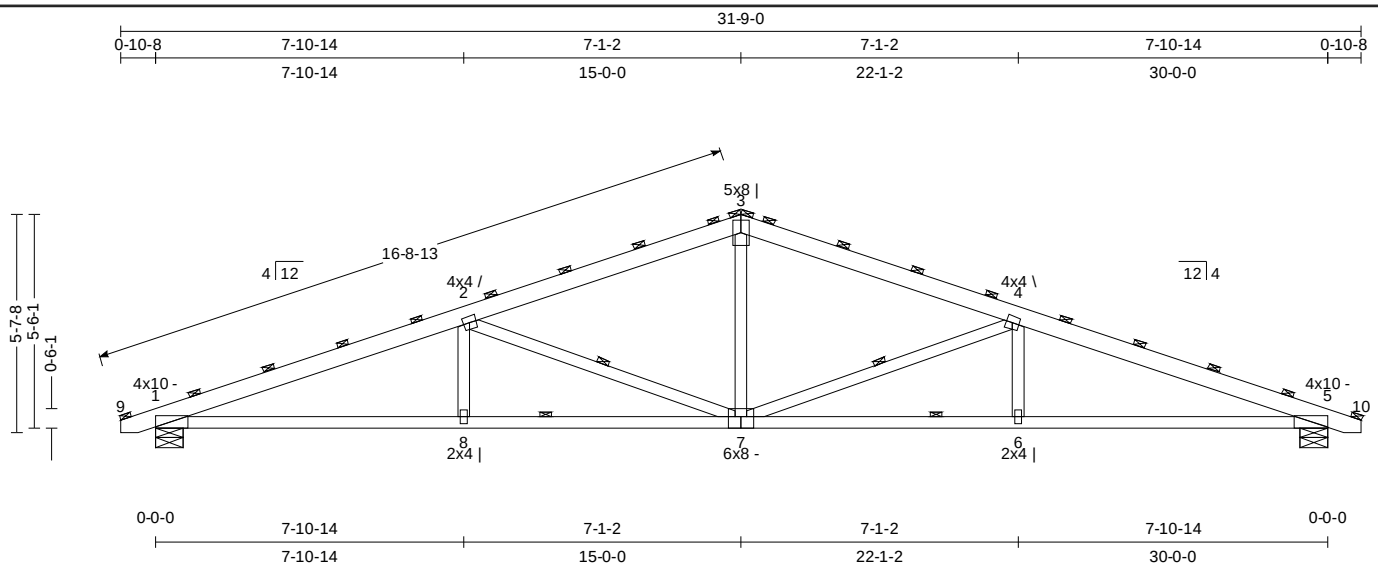
**C & M Truss**
8319 Ashridge Arnhiem
Sardinia, OH 45171
937.446.3400

Truss: 30cAg
Job: 4_12pAG
Designer: Aston Wagner
Date: 02/09/26 09:10:50
Page: 1 of 1

| SPAN | PITCH | QTY | OHL | OHR | CANT L | CANT R | PLY(S) | SPACING | WGT/PLY |
|---|---|---|---|---|---|---|---|---|---|
| 30-0-0 | 4/12 | 1 | 0-10-8 | 0-10-8 | 0-0-0 | 0-0-0 | 1 | 48 in | 151 lbs |




All plates shown to be Eagle 20 unless otherwise noted.

| Loading (psf) | General | | CSI | | Deflection | | L/ | (loc) | Allowed |
|---|---|---|---|---|---|---|---|---|---|
| TCLL : 20 | Bldg Code : | IBC 2018/ | TC : | 0.53 (1-2) | Vert TL: | 0.39 in | L / 890 | (6-7) | L / 180 |
| GSL : 25 | | TPI 1-2014 | BC : | 0.73 (8-1) | Vert LL: | 0.26 in | L / 999 | (6-7) | L / 240 |
| TCDL : 4 | Rep Mbr : | No | Web : | 0.35 (4-7) | Horz TL: | 0.15 in | | 5 | |
| BCLL : 0 | Lumber D.O.L. : | 125 % | | | | | | | |
| BCDL : 4 | | | | | | | | | |

## Reaction

| JT | Brg Combo | Brg Width | Rqd Brg Width | Max React | Max Grav Uplift | Max MWFRS Uplift | Max C&C Uplift | Max Uplift | Max Horiz |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 8.5 in | 2.08 in | 1,764 lbs | · | -108 lbs | -71 lbs | -108 lbs | -6 lbs |
| 5 | 1 | 8.5 in | 2.08 in | 1,764 lbs | · | -108 lbs | -71 lbs | -108 lbs | · |

## Material

TC: SYP #1 2 x 6
BC: SYP #1 2 x 4
Web: SYP #2 2 x 4

## Bracing

TC: Purlins at 24 " OC, Purlin design by Others.
BC: Sheathed or Purlins at 10-0-0, Purlin design by Others.
Web: One Midpoint Row: 2-7, 4-7

## Loads

1) This truss has been designed for the effects of balanced (13.2 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 25 psf GSL, Terrain B, Exposure (Ce = 1.0), Thermal (Ct = 1.10), DOL = 1.15. Ventilated. Unobstructed slippery surface. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure B, Enclosed, Gable/Hip, Risk Category I, h = 15 ft, Not End Zone Truss, Both end webs considered. DOL = 1.60
4) Minimum storage attic loading has not been applied in accordance with IBC 1607.1
5) In accordance with IBC 1607.1, minimum BCLL's do not apply.
6) This truss is designed as an agricultural truss which for the purposes of this program is defined as a structure that represents a low hazard to people and property. See BCSI-10 for installation and temporary bracing.

## Member Forces

Table indicates: Member ID, max CSI, max tension force, (max compression force). Only forces greater than 300lbs are shown in this table.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TC | 1-2 | 0.534 | | (-3,972 lbs) | 3-4 | 0.396 | (-2,799 lbs) | | | | |
| | 2-3 | 0.396 | | (-2,799 lbs) | 4-5 | 0.534 | (-3,972 lbs) | | | | |
| BC | 5-6 | 0.729 | 3,668 lbs | | 6-7 | 0.721 | 3,668 lbs | 7-8 | 0.721 | 3,668 lbs | 8-1 | 0.729 | 3,668 lbs |
| Web | 2-7 | 0.351 | | (-1,289 lbs) | 4-7 | 0.351 | (-1,289 lbs) | | | | |
| | 3-7 | 0.222 | 984 lbs | | | | | | | | |

### Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
3) Building Designer shall verify self weight of the truss and other dead load materials do not exceed TCDL 4 psf.
4) Building Designer shall verify self weight of the truss and other dead load materials do not exceed BCDL 4 psf.
5) Design assumes minimum _x2 (flat orientation, visually graded) purlins attached to the top of the TC at purlin spacing shown with at least 2-10d nails.
6) Brace bottom chord with approved sheathing or purlins per Bracing Summary.
7) Lateral bracing shown is for illustration purposes only and may be placed on either edge of truss member.
8) A creep factor of 2.00 has been applied for this truss analysis.
9) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.
10) ☒ Indicates lateral bracing required perpendicular to the plane of the truss at either the midpoint (one shown) or third points (two shown), bracing by others. See BCSI-B3 for additional information.
11) Listed wind uplift reactions based on MWFRS & C&C loading.



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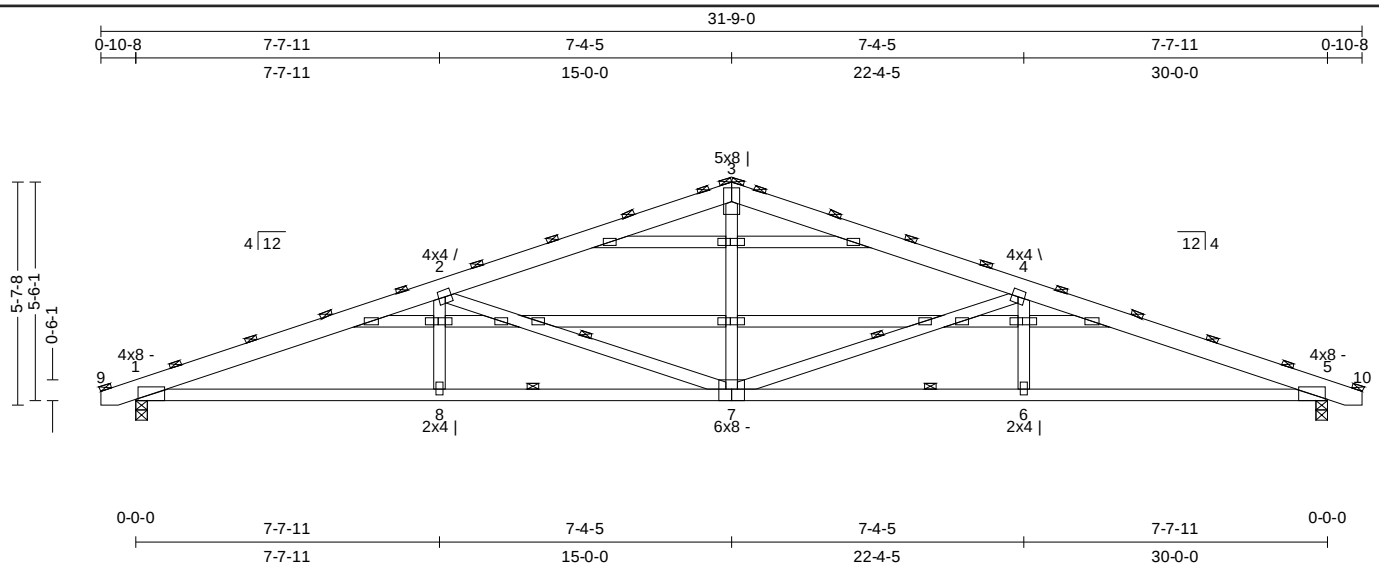
Truss: 30gAG
Job: 4_12pAG
Designer: Aston Wagner
Date: 02/09/26 09:10:56


| SPAN | PITCH | QTY | OHL | OHR | CANT L | CANT R | PLY(S) | SPACING | WGT/PLY |
|---|---|---|---|---|---|---|---|---|---|
| 30-0-0 | 4/12 | 1 | 0-10-8 | 0-10-8 | 0-0-0 | 0-0-0 | 1 | 48 in | 187 lbs |




All plates shown to be Eagle 20 unless otherwise noted.

| Loading (psf) | | General | | CSI | | Deflection | | L/ | (loc) | Allowed |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLL : | 20 | Bldg Code : | IBC 2018/ TPI 1-2014 | TC : | 0.49 (4-5) | Vert TL: | 0.4 in | L / 891 | (6-7) | L / 180 |
| GSL : | 25 | | | BC : | 0.75 (6-7) | Vert LL: | 0.26 in | L / 999 | (6-7) | L / 240 |
| TCDL : | 4 | Rep Mbr : | No | Web : | 0.37 (4-7) | Horz TL: | 0.16 in | | 5 | |
| BCLL : | 0 | Lumber D.O.L. : | 125 % | | | | | | | |
| BCDL : | 4 | | | | | | | | | |

## Reaction

| JT | Brg Combo | Brg Width | Rqd Brg Width | Max React | Max Grav Uplift | Max MWFRS Uplift | Max C&C Uplift | Max Uplift | Max Horiz |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 3.5 in | 2.08 in | 1,764 lbs | · | -108 lbs | -71 lbs | -108 lbs | -6 lbs |
| 5 | 1 | 3.5 in | 2.08 in | 1,764 lbs | · | -108 lbs | -71 lbs | -108 lbs | · |

## Material

TC: SYP #1 2 x 6
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## Bracing

TC: Purlins at 24 " OC, Purlin design by Others.
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1) This truss has been designed for the effects of balanced (13.2 psf) and unbalanced sloped roof snow loads in accordance with ASCE7 - 16 with the following user defined input: 25 psf GSL, Terrain B, Exposure (Ce = 1.0), Thermal (Ct = 1.10), DOL = 1.15. Ventilated. Unobstructed slippery surface. If the roof configuration differs from hip/gable, Building Designer shall verify snow loads.
2) This truss has been designed to account for the effects of ice dams forming at the eaves.
3) This truss has been designed for the effects of wind loads in accordance with ASCE7 - 16 with the following user defined input: 115 mph (Factored), Exposure B, Enclosed, Gable/Hip, Risk Category I, h = 15 ft, Not End Zone Truss, Both end webs considered. DOL = 1.60
4) Minimum storage attic loading has not been applied in accordance with IBC 1607.1
5) In accordance with IBC 1607.1, minimum BCLL's do not apply
6) This truss is designed as an agricultural truss which for the purposes of this program is defined as a structure that represents a low hazard to people and property. See BCSI-10 for installation and temporary bracing.

## Member Forces

Table indicates: Member ID, max CSI, max tension force, (max compression force). Only forces greater than 300lbs are shown in this table.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TC | 1-2 | 0.494 | | (-4,000 lbs) | 3-4 | 0.431 | | (-2,813 lbs) | | | |
| | 2-3 | 0.431 | | (-2,813 lbs) | 4-5 | 0.494 | | (-4,000 lbs) | | | |
| BC | 5-6 | 0.718 | 3,697 lbs | | 6-7 | 0.748 | 3,697 lbs | | 7-8 | 0.748 | 3,697 lbs | 8-1 | 0.718 | 3,697 lbs |
| Web | 2-7 | 0.374 | | (-1,306 lbs) | 4-7 | 0.374 | | (-1,306 lbs) | | | |
| | 3-7 | 0.214 | 947 lbs | | | | | | | | |

### Notes

1) Unless noted otherwise, do not cut or alter any truss member or plate without prior approval from a Professional Engineer.
2) Gable webs placed at 24 " OC, U.N.O.
3) Attach structural gable blocks with 2x4 20ga plates, U.N.O.
4) Bracing shown is for in-plane requirements. For out-of-plane requirements, refer to BCSI-B3 published by the SBCA.
5) The fabrication tolerance for this roof truss is 20 % (Cq = 0.80).
6) Building Designer shall verify self weight of the truss and other dead load materials do not exceed TCDL 4 psf.
7) Building Designer shall verify self weight of the truss and other dead load materials do not exceed BCDL 4 psf.
8) Design assumes minimum _x2 (flat orientation, visually graded) purlins attached to the top of the TC at purlin spacing shown with at least 2-10d nails.
9) Gable must be sheathed on one side or lateral bracing applied appropriately
10) Lateral bracing shown is for illustration purposes only and may be placed on either edge of truss member.
11) A creep factor of 2.00 has been applied for this truss analysis.
12) The "SYP" label shown in the "Material Summary" above indicates the new SPIB design values effective June 1, 2013 were used.



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| 30-0-0 | 4/12 | 1 | 0-10-8 | 0-10-8 | 0-0-0 | 0-0-0 | 1 | 48 in | 187 lbs |

13) ⌧ Indicates lateral bracing required perpendicular to the plane of the truss at either the midpoint (one shown) or third points (two shown), bracing by others. See BCSI-B3 for additional information.
14) Listed wind uplift reactions based on MWFRS & C&C loading.



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