Deferred Submittal Requirements and Application

Minimum Submittal Requirements (check all boxes and sign below):

Full list of deferred submittal guidelines

- ☒ A copy of this application
- ☒ Plans stamped and signed by a Design Engineer or Architect registered in Oregon. One PDF copy of plans for electronic submittals or three copies for paper submittals.
- ☒ Calculations and product information. One PDF copy for electronic submittals or two copies for paper submittals.
- ☒ Prior to submitting the deferred submittal, the Engineer of Record and/or Architect of Record responsible for the building shall review the deferred submittal plans and supporting materials and add a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance with the design of the building. The notation shall be made on the deferred submittal drawings. Review stamps on letters of transmission are not acceptable.
  Exception: the notation is not required on deferred submittals for fire spinklers or roof trusses in residential construction when an Engineer or Architect of Record is not involved with the design of the building.
- ☒ Plan views and elevations identifying the location(s) as approved by the Engineer and/or Architect of Record must be submitted as appropriate but are required when the deferred submittal items include exterior elements.

I certify this deferred submittal application meets the minimum submittal requirements as outlined above.

Applicant Signature: Casey Kusz Service Team of Professionals **Date:** 01/05/2023

Applicant Submittal Information:

Applicant name: Service Team of Professionals

Address: 18256 SW 100th Ct.

City: Tualatin State: OR Zip Code: 97062

Phone: 503-408-1212 Email: Restore@stoporegon.com

Value of deferred submittal: $37,410 Issued main building permit #2022-147233-000-00-CO

Job Site Address: 2520 SW Beaverton-Hillsdale Hwy Portland OR, 97239

Description/Scope of work: Truss / Roof replacement. South exterior wall framing/sheathing.

Contractor Name: Service Team of Professionals CCB: 187557

Engineer/Architect of Record for the building information (Not required for roof trusses in residential construction when an Engineer or Architect of Record is not involved with the design of the building)

Name: Edward Crabaugh Phone: 503-706-7380

Design Engineer for the deferred items

Name: Oregon Truss Phone: 503-581-8787

Fees

An invoice with permit fees will be sent to the applicant once minimum submittal requirements have been verified. Deferred submittal (DFS) fees are collected in addition to the standard building review fee paid on the main building permit. DFS fees cover the cost of the additional processing and review time associated with the design build element. The DFS fee for processing and reviewing deferred plan submittals is 10 percent of the building permit fee calculated using the value of the deferred portion of the project with a minimum fee of $475 for 1 & 2 family dwelling projects or $760 for commercial and all other projects.

For deferred submittals on Commercial Permits (CO folders) and Major Projects (MG folders) that are for exterior building work, a fee of $380.00 is added for review and approval by the Land Use Services (LUS) division. LUS reviews deferred submittals to ensure that the design of the work is consistent with the design approved in the approved original building permit. Please refer to the current year's **LUS fee schedule**.

Other applicable fees may apply depending on scope of work and reviewer time spent to approve.

Helpful Information

Bureau of Development Services
1900 SW 4th Avenue, Portland, OR 97201

For Hours Call 503-823-7310 | Select option 1 or visit www.portland.gov/bds

Important Telephone Numbers

BDS main number	503-823-7300
DSC automated information line	503-823-7310
Building code information	503-823-1456
BDS 24 hour inspection request line	503-823-7000
Residential information for one and two family dwellings	503-823-7388
City of Portland TTY	503-823-6868

Information is subject to change.

OREGON TRUSS
...We're Just Better

Letter of Transmittal

P.O. Box 5787
Salem, OR 97306
17900 SE Wallace Rd
Dayton, OR 97114
Tel: (503) 581-8787
Fax: (503) 399-8787

To: Stop Restoration Service of OR

Copy: Architect of Record
Engineer of Record

Project: Beaverton Hillsdale Highway Fire Restoration
Project #: 2301480COM

Subject: Roof Truss Design Submittal

We Are Sending You

☑ Attached ☑ Shop Drawings ☑ Submittal ☐ Plans ☐ Quote

☐ Change Order ☐ RFI ☐ Copy of Letter ☐ Prints

Document Type	# Pages	Date	Copies	Description
PDF	1	3/28/23	1	Roof Truss Layout
PDF	9	3/28/23	1	Roof Truss Sealed Component Drawings

These are transmitted as checked below

☑ For Approval ☑ For Review & Comment ☐ For Bids Due: _____

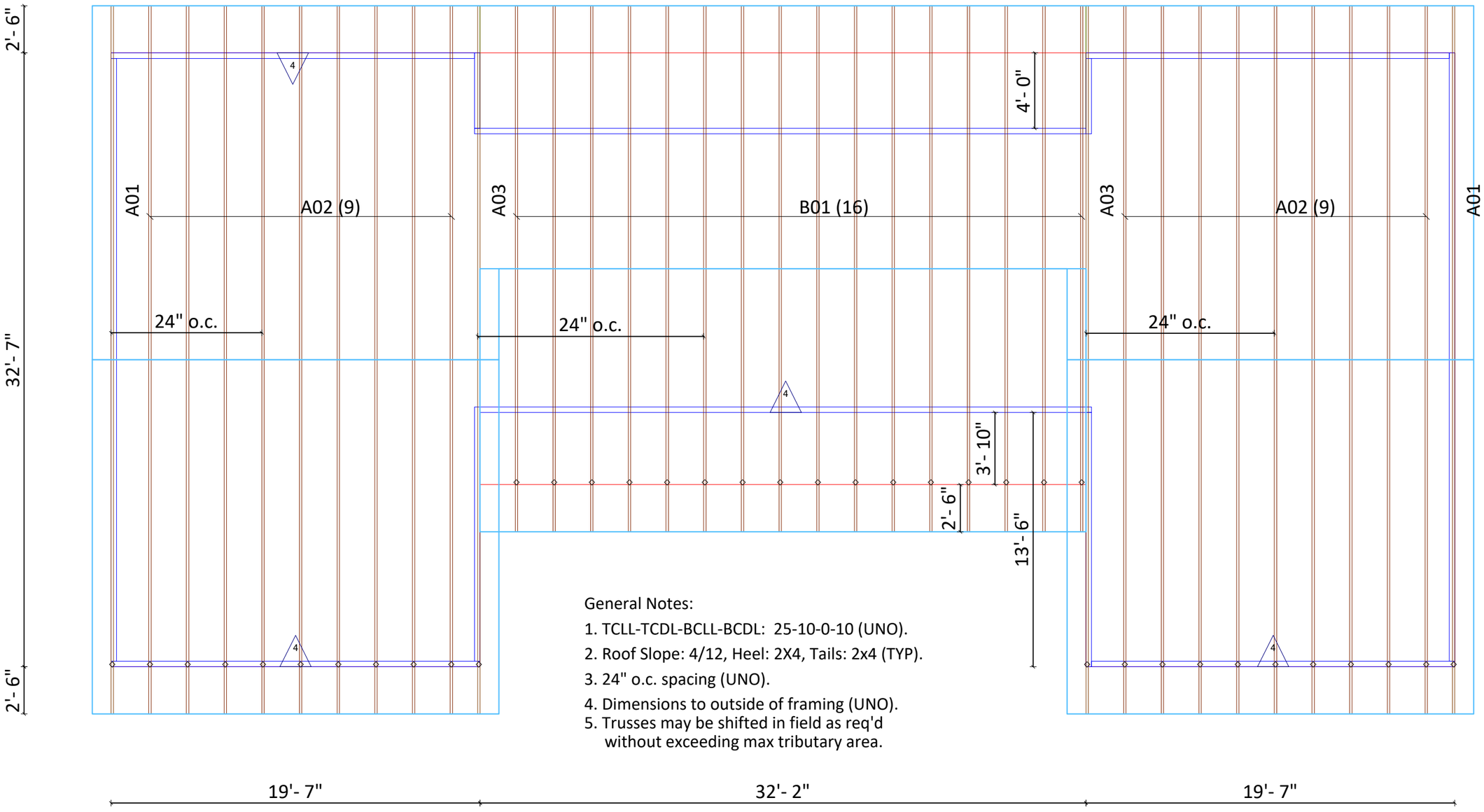
☐ For Your Use ☐ Prints Returned After Loan to Us ☐ As Requested

☐ Other: _____

Remarks: For review/comment/approval. Written approval required before fabrication.

From: Eric Reynolds
Design Services Director
Greg Elliott
Sales

Signature: Eric B. Reynolds



General Notes:

1. TCLL-TCDL-BCLL-BCDL: 25-10-0-10 (UNO).
2. Roof Slope: 4/12, Heel: 2X4, Tails: 2x4 (TYP).
3. 24" o.c. spacing (UNO).
4. Dimensions to outside of framing (UNO).
5. Trusses may be shifted in field as req'd without exceeding max tributary area.

OREGON TRUSS
...We're Just Better

Box 5787
17 SE Wallace Rd
n, OR 97114
03) 581-8787
03) 399-8787

Beaverton Hillsdale Highway Fire Restoration

2520 SW Beaverton Hillsdale Hwy

Portland

Project Number:
2301480COM

Customer:
OT Commercial Jobs

Designer:
Michael Jackson

Salesperson ID:
Greg Elliott

Revision 1:

Date:
03 / 24 / 23

COMPONENT DESIGN DRAWINGS & DETAILS

Simpson Strong-Tie Company, Inc.

5956 W. Las Positas Blvd.
Pleasanton, CA 94588
(800) 999-5099
www.strongtie.com

Prepared for:	Oregon Truss
Job:	2301480COM - Beaverton Hillsdale Highway Fire Restoration
Date:	3/24/2023 5:22 AM
Ref. Number:	183995

Notes:

1. The component design drawings referenced below have been prepared based on design criteria and requirements set forth in the Construction Documents, as communicated by the Component Manufacturer.
2. The engineer's signature on these drawings indicates professional engineering responsibility solely for the individual components to be able to resist the design loads indicated, utilizing all the design parameter and materials indicated or referenced on each individual design.
3. It is the Building Designer's responsibility to review the component design drawings to insure compatibility with the Building design, Refer to all notes on the individual component design drawings.

4 Component Design Drawing(s):

1-A01: SID 2070419

2-A02: SID 2070420

3-A03: SID 2070421

4-B01: SID 2070422

Component Solutions™ Important Information & General Notes

General Notes

1. Each Truss Design Drawing (TDD) provided with this sheet has been prepared in conformance with ANSI/TPI 1. Refer to ANSI/TPI 1 Chapter 2 for the responsibilities of all parties involved, which include but are not limited to the responsibilities listed on this sheet, and for the definitions of all capitalized terms referenced in this document.
2. TDDs should not be assumed to be to scale.
3. The Contractor and Building Designer shall review and approve the Truss Submittal Package.
4. The suitability and use of the component depicted on the TDD for any particular building design is the responsibility of the Building Designer.
5. The Building Designer is responsible for the anchorage of the truss at all bearing locations as required to resist uplift, gravity and lateral loads, and for all Truss-to-Structural Element connections except Truss-to-Truss connections.
6. The Building Designer shall ensure that the supporting structure can accommodate the vertical and/or horizontal truss deflections.
7. Unless specifically stated otherwise, each Design assumes trusses will be adequately protected from the environment and will not be used in corrosive environments unless protected using an approved method. This includes not being used in locations where the sustained temperature is greater than 150°F.
8. Trusses are designed to carry loads within their plane. Any out-of-plane loads must be resisted by the Permanent Building Stability Bracing.
9. Design dead loads must account for all materials, including self-weight. The TDD notes will indicate the min. pitch above which the dead loads are automatically increased for pitch effects.
10. Trusses installed with roof slopes less than 0.25/12 may experience (but are not designed for) ponding. The Building Designer must ensure that adequate drainage is provided to prevent ponding.
11. Camber is a non-structural consideration and is the responsibility of truss fabricator.

Handling, Installing, Restraint & Bracing

1. The Contractor is responsible for the proper handling, erection, restraint and bracing of the Trusses. In lieu of job-specific details, refer to BCSI.
2. ANSI/TPI 1 stipulates that for trusses spanning 60' or greater, the Owner shall contract with any Registered Design Professional for the design and inspection of the temporary and permanent truss restraint and bracing. Simpson Strong-Tie is not responsible for providing these services.
3. Trusses require permanent lateral restraint to be applied to chords and certain web members (when indicated) at the locations or intervals indicated on the TDD. Web restraints are to be located at mid points, or third points of the member and chord purlins are not to exceed the spacing specified by the TDD. Chords shown without bracing indicated are assumed to be continuously braced by sheathing or drywall. Permanent lateral restraint shall be accomplished in accordance with: standard industry lateral restraint/bracing details in BCSI-B3 or BCSI-B7, supplemental bracing details referenced on the TDD, or as specified in a project-specific truss permanent bracing plan provided by the Building Designer.
4. Additional building stability permanent bracing shall be installed as specified in the Construction Documents.
5. Special end wall bracing design considerations may be required if a flat gable end frame is used with adjacent trusses that have sloped bottom chords (see BCSI-B3).
6. Do not cut, drill, trim, or otherwise alter truss members or plates without prior written approval of an engineer, unless specifically noted on the TDD.
7. Piggyback assemblies shall be braced as per BCSI-B3 unless otherwise specified in the Construction Documents.
8. For floor trusses, when specified, Strongbacking shall be installed per BCSI-B7 unless otherwise specified in the Construction Documents.
9. For IBC 2021 and newer, truss chords without a diaphragm require a project specific bracing design prepared by a registered design professional.

Symbols and Nomenclature

5x7 Plate size; the first digit is the plate width (perp. to the slots) and the second digit is the plate length (parallel to the slots).

5x7-18 -18, -18S5, or -18S6 following the plate size indicates different 18 gauge plate types.

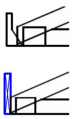

These symbols following the plate size indicate the direction of the plate length (and tooth slots) for square and nearly square plates.

10-3-14 Dimensions are shown in feet-inches-sixteenths (for this example, the dimension is 10'-3 14/16").

Joints are numbered left to right, first along the top chord and then along the bottom chord. Mid-panel splice joint numbers are not shown on the drawing. Members are identified using their end joint numbers (e.g., TC 2-3).


When this symbol is shown, permanent lateral restraint is required. Lateral restraint may be applied to either edge of the member. See Note 3 under Handling, Installing, Restraint & Bracing for more information.


Bearing supports (wall, beam, etc.), locations at which the truss is required to have full bearing. Minimum required bearing width for the given reactions are reported on the TDD. Required bearing widths are based on the truss material and indicated PSI of the support material. The Building Designer is responsible for verifying that the capacity of the support material exceeds the indicated PSI, and for all other bearing design considerations.


Truss-to-Truss or Truss-to-Structural Element connection, which require a hanger or other structural connection (e.g., toe-nail) that has adequate capacity to resist the maximum reactions specified in the Reaction Summary. Structural connection type is not limited by type shown on TDD. Toe-nails may be used where hanger type shown where allowed by detail or other connection design information. Design of the Structural Element and the connection of the Truss to a Structural Element is by others.

Note: These symbols are for graphical interpretation only; they are not intended to give any indication of the geometry requirements of the actual item that is represented.

Materials and Fabrication

1. Design assumes truss is manufactured in accordance with the TDD and the quality criteria in ANSI/TPI 1 Chapter 3, unless more restrictive criteria are part of the contract specifications.
2. Unless specifically stated, lumber shall not exceed 19% moisture content at time of fabrication or in service.
3. Design is not applicable for use with fire retardant, preservative treated or green lumber unless specifically stated on the TDD.
4. Plate type, size, orientation and location indicated are based on the specified design parameters. Larger plate sizes may be substituted in accordance with ANSI/TPI, Section 3.6.3. Plates shall be embedded within ANSI/TPI 1 tolerances on both faces of the truss at each joint, unless noted otherwise.
5. Truss plates shall be centered on the joint unless otherwise specified.

Referenced Standards

ANSI/TPI 1: National Design Standard for Metal Plate Connected Wood Truss Construction, a Truss Plate Institute publication (www.tpinst.org).

BCSI: Guide to Good Practice for Handling, Installing, Restraining & Bracing Metal Plate Connected Wood Trusses, a joint publication of the Truss Plate Institute (www.tpinst.org) and the Structural Building Components Association (www.sbcindustry.com).

DSB-89 Recommended Design Specification for Temporary Bracing of Metal Plate Connected Wood Trusses, a Truss Plate Institute publication (www.tpinst.org).

NDS: National Design Specification for Wood Construction published by American Forest & Paper Association and American Wood Council.

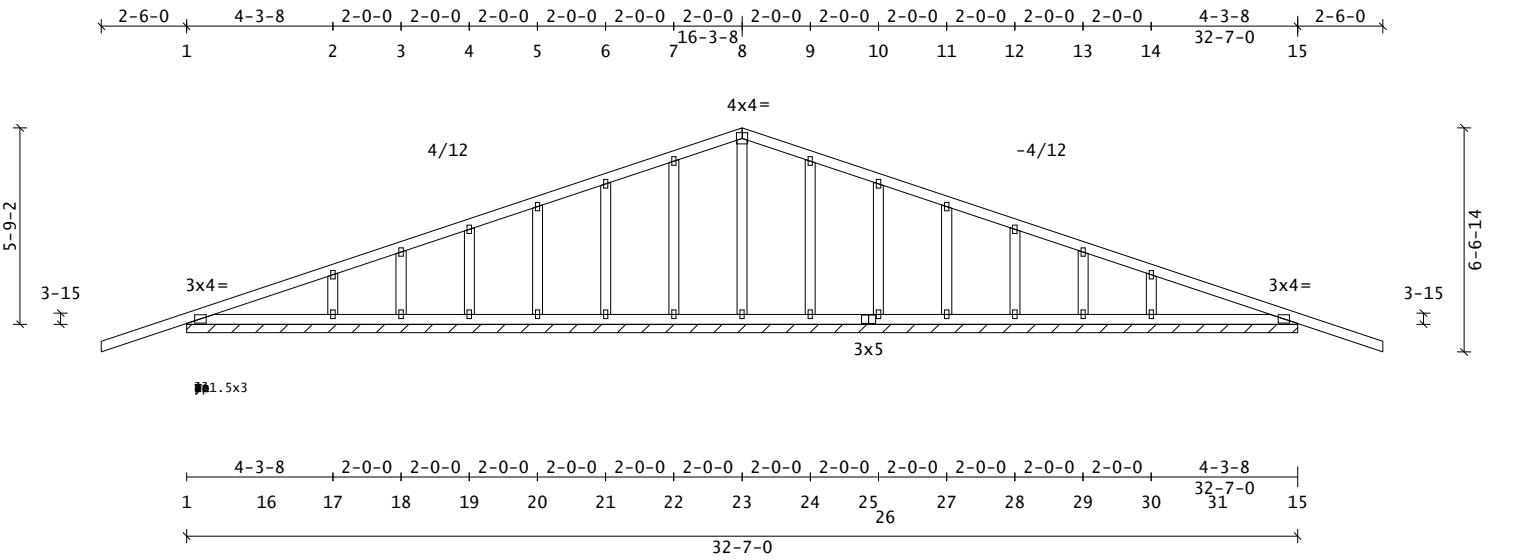
ESR-2762 Simpson Strong-Tie® AS Truss Plates are covered under ESR-2762 published by the International Code Council Evaluation Service (www.icc-es.org).

2301480COM - Beaverton Hillsdale Highway Fire Restoration | **Qty: 2** | **Truss: A01**

Customer: OT Commercial Jobs

SID: 0002070419
TID: 183995
Date: 03 / 24 / 23
Page: 1 of 1

Truss Mfr. Contact: Michael Jackson



Truss Weight = 151.4 lb

```
Code/Design: IBC-2018/TPI-2014
PSF  Live  Dead        Dur Factors
TC   25.0  10.0      Live  Wind  Snow
BC    0.0  10.0  Lum 1.15  1.60  1.15
Total      45.0  Plt 1.15  1.60  1.15
Spacing:  2-00-00 o.c.    Plies: 1
Repetitive Member Increase: Yes
Green Lumber:  No  Wet Service:  No
Fab Tolerance:  20% Creep (Kcr) = 2.0
OH Soffit Load:  2.0 psf
```

```
----------Snow Load Specs----------
ASCE7-16 Roof Snow (Pf) = 25.0 psf
Risk Cat: II  Terrain Cat: B
Roof Exposure: Sheltered
Thermal Condition: All Others(1.0)
Unobstructed Slippery Roof: No
Low-Slope Minimums(Pfmin):  No
Unbalanced Snow Loads:      Yes
Rain Surcharge: No Ice Dam Chk: No
Lu(max) = 20-00-00
```

```
----------Wind Load Specs----------
ASCE7-16  Wind Speed(V) = 125 mph
Risk Cat: II  Exposure Cat: B
Bldg Dims: L =  73.3 ft  B =  37.6 ft
M.R.H(h) =  15.0 ft  Kzt = 1.0
Bldg Enclosure: Enclosed
Wind DL(psf): TC =  6.0 BC =  6.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 3-09-02
```

```
-------Additional Design Checks------
10 psf Non-Concurrent BCLL:       Yes
20 psf BC Limited Storage:        Yes
200 lb BC Accessible Ceiling:     Yes
300 lb TC Maintenance Load:       Yes
2000 lb TC Safe Load:             No
Unbalanced TCLL:                  Yes
```

Material Summary

```
TC      2x4   DFL  1800/1.8
BC      2x4   DFL  1800/1.8
Webs    2x4   DFL  Standard
```

Member Forces Summary

```
Max CSI in TC PANEL    1 -  1   0.64
Max CSI in BC PANEL    1 - 16   0.41
Max CSI in Web        23 -  8   0.10

...Mem...    Ten     Comp     .CSI.
TC   1- 8     99        0     0.64
     8-15     99        0     0.62
BC   1-25     99       72     0.41
    15-25     99       72     0.41
Web  2-17     75      258     0.03
     3-18     48      223     0.03
     4-19     52      223     0.03
     5-20     50      221     0.05
     6-21     70      220     0.06
     7-22    106      226     0.09
     8-23      0      202     0.10
     9-24    106      226     0.09
    10-26     70      220     0.06
    11-27     50      221     0.05
    12-28     52      223     0.03
    13-29     48      223     0.03
    14-30     75      258     0.03
```

Reaction Summary

```
--------------Reaction Summary(Lbs)----------------
Jnt  --X-Loc- React -Up- --Width- -Reqd   -Mat  PSI
  1     04-14   593   31 32-07-00
 16   2-04-03    64  187 32-07-00
 31  30-02-13    64  187 32-07-00
 15  32-02-02   593   31 32-07-00
Reactions not shown: down < 400 and up < 150
---- Reaction Summary (plf) -----
Jnt-Jnt       React -Up- --Width-
  1- 15           60    0 32-07-00  (reduced)
Max Horiz =    -58 /    +58 at Joint  23
```

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [16-03-08] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.

Notes

Gable webs are attached with min. 1x3 20 ga.plates. The max.rake overhang = 1/2 the truss spacing. If this truss is exposed to wind loads perpendicular to the plane of the truss, it must be braced according to a standard detail matching the wind criteria shown, or according to the Construction Documents and/or BCSI - B3.
Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees
Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
This truss is not symmetric - proper orientation is critical.

Deflection Summary

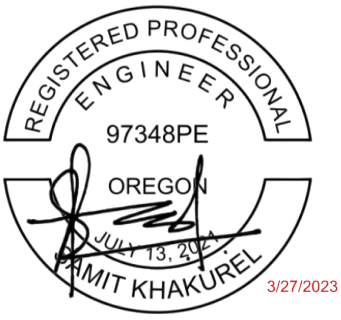
```
TrussSpan Limit  Actual(in)   Location
Vert LL   L/240   L/999( 0.00)  1-16
Vert DL   L/120   L/999( 0.00) 31-15
Vert CR   L/180   L/999( 0.01) 31-15
Horz LL   0.75in       ( 0.01) @Jt15
Horz CR   1.25in       ( 0.01) @Jt15
Ohng CR  2L/180  2L/525(-0.11)  1- 1
Ohng CR  2L/180  2L/525(-0.11) 15-15
```

Bracing Data Summary

```
------------Bracing Data------------
Chords; Sheathing required or bracing
indicated:
-------------Purlins------------
     ---oc---  --From--  ---To--- #Bays
TC    5-07-00  -2-06-00  35-01-00   8
BC    8-01-00         0  32-07-00   5
Web Bracing -- None
```

Plate offsets (X, Y):

(None unless indicated below)



EXPIRES: Exp 06/30/2023

SIMPSON StrongTie

Component Solutions
Truss Studio V
2022.3.1.2

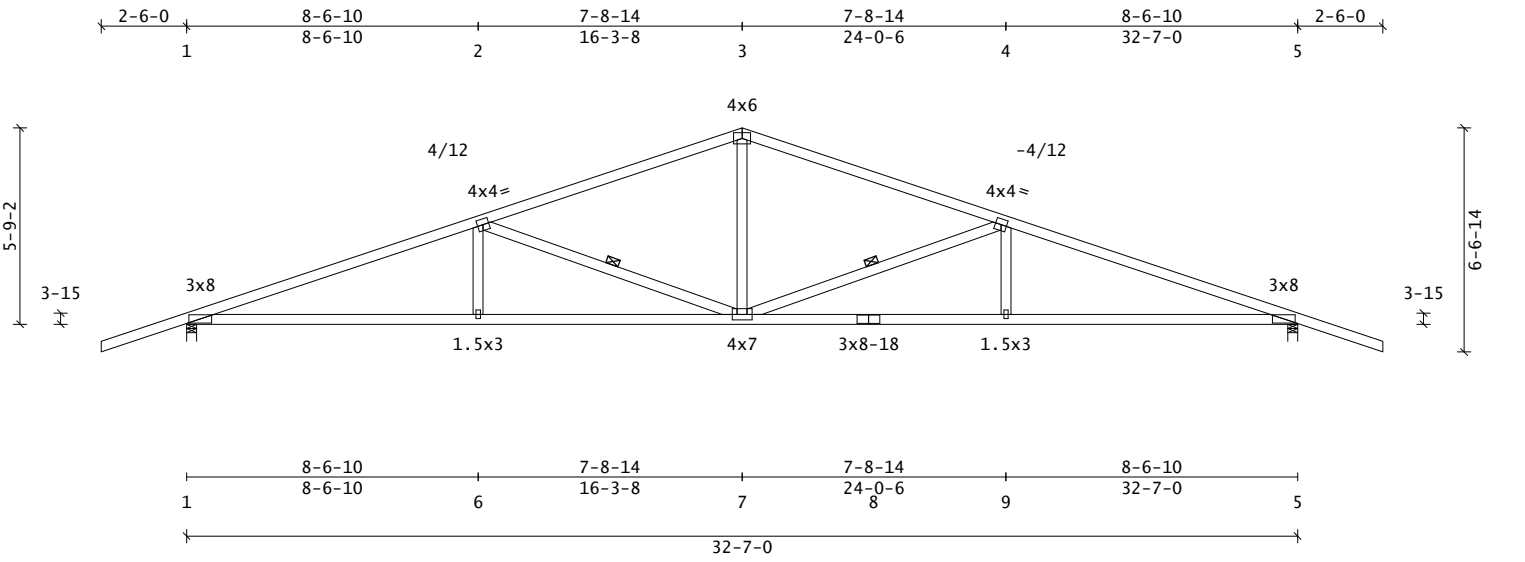
EngDrwg: 2021r5RGT_Eng

2301480COM - Beaverton Hillsdale Highway Fire Restoration | **Qty: 18** | **Truss: A02**

Customer: OT Commercial Jobs

SID: 0002070420
TID: 183995
Date: 03 / 24 / 23
Page: 1 of 1

Truss Mfr. Contact: Michael Jackson



Truss Weight = 135.2 lb

```
Code/Design: IBC-2018/TPI-2014
PSF  Live  Dead        Dur Factors
TC   25.0  10.0      Live  Wind  Snow
BC    0.0  10.0  Lum 1.15  1.60  1.15
Total      45.0  Plt 1.15  1.60  1.15
Spacing:  2-00-00 o.c.    Plies: 1
Repetitive Member Increase: Yes
Green Lumber:  No  Wet Service:  No
Fab Tolerance:  20% Creep (Kcr) = 2.0
OH Soffit Load:  2.0 psf
```

```
----------Snow Load Specs----------
ASCE7-16 Roof Snow (Pf) = 25.0 psf
Risk Cat: II  Terrain Cat: B
Roof Exposure: Sheltered
Thermal Condition: All Others(1.0)
Unobstructed Slippery Roof: No
Low-Slope Minimums(Pfmin):  No
Unbalanced Snow Loads:      Yes
Rain Surcharge: No Ice Dam Chk: No
Lu(max) = 20-00-00
```

```
----------Wind Load Specs----------
ASCE7-16  Wind Speed(V) = 125 mph
Risk Cat: II  Exposure Cat: B
Bldg Dims: L =  73.3 ft  B =  37.6 ft
M.R.H(h) =  15.0 ft  Kzt = 1.0
Bldg Enclosure: Enclosed
Wind DL(psf): TC =  6.0 BC =  6.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 3-09-02
```

```
-------Additional Design Checks------
10 psf Non-Concurrent BCLL:       Yes
20 psf BC Limited Storage:        Yes
200 lb BC Accessible Ceiling:     Yes
300 lb TC Maintenance Load:       Yes
2000 lb TC Safe Load:             No
Unbalanced TCLL:                  Yes
```

Material Summary

```
TC      2x4   DFL  1800/1.8
BC      2x4   DFL  1800/1.8
Webs    2x4   DFL  Standard
        2x4   DFL  #2  2-7  7-4
```

Member Forces Summary

```
Max CSI in TC PANEL   1 -  2   1.00
Max CSI in BC PANEL   1 -  6   0.64
Max CSI in Web        7 -  3   0.42

...Mem...    Ten      Comp      .CSI.
TC  OH- 1     99         0      0.63
     1- 2    524      3533      1.00
     2- 3    438      2398      0.84
     3- 4    439      2398      0.84
     4- 5    524      3533      1.00
     5-OH     99         0      0.62
BC   1- 6   3279       424      0.64
     5- 9   3279       411      0.64
     6- 7   3279       424      0.60
     7- 8   3279       411      0.60
     8- 9   3279       411      0.60
Web  2- 6    313         0      0.14
     2- 7    211      1275      0.36
     3- 7    968        39      0.42
     4- 7    211      1275      0.36
     4- 9    313         0      0.14
```

Reaction Summary

```
--------------Reaction Summary(Lbs)----------------
Jnt  --X-Loc- React -Up- --Width- -Reqd   -Mat  PSI
  1     01-12  1651    0    03-08 01-12    DFL  625
  5  32-05-04  1651    0    03-08 01-12    DFL  625
Max Horiz =    -58 /    +58 at Joint   1
```

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [16-03-08] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.

Notes

Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees
Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRACE. Alternatively, see D-WEBREINFORCE.
This truss is not symmetric - proper orientation is critical.

Deflection Summary

```
TrussSpan Limit  Actual(in)   Location
Vert LL   L/240   L/999(-0.23)  7- 9
Vert DL   L/120   L/999(-0.22)  6- 7
Vert CR   L/180   L/873(-0.44)  6- 7
Horz LL   0.75in       ( 0.08) @Jt 5
Horz CR   1.25in       ( 0.14) @Jt 5
Ohng CR  2L/180  2L/525(-0.11)  1- 1
Ohng CR  2L/180  2L/525(-0.11)  5- 5
```

Bracing Data Summary

```
------------Bracing Data------------
Chords; Sheathing required or bracing
indicated:
-------------Purlins------------
     ---oc---  --From--  ---To--- #Bays
TC    3-01-00  -2-06-00  35-01-00  13
BC    8-01-00         0  32-07-00   5
------- Web Bracing -- CLR -----------
Single:    2- 7  7- 4
Continuous Restraint Bracing Req'd
See BCSI-B3 3.0
```

Plate offsets (X, Y):

(None unless indicated below)

REGISTERED PROFESSIONAL ENGINEER
97348PE
OREGON
JULY 13, 2021
AMIT KHAKUREL
3/27/2023

EXPIRES: Exp 06/30/2023

SIMPSON Strong-Tie

Component Solutions
Truss Studio V
2022.3.1.2

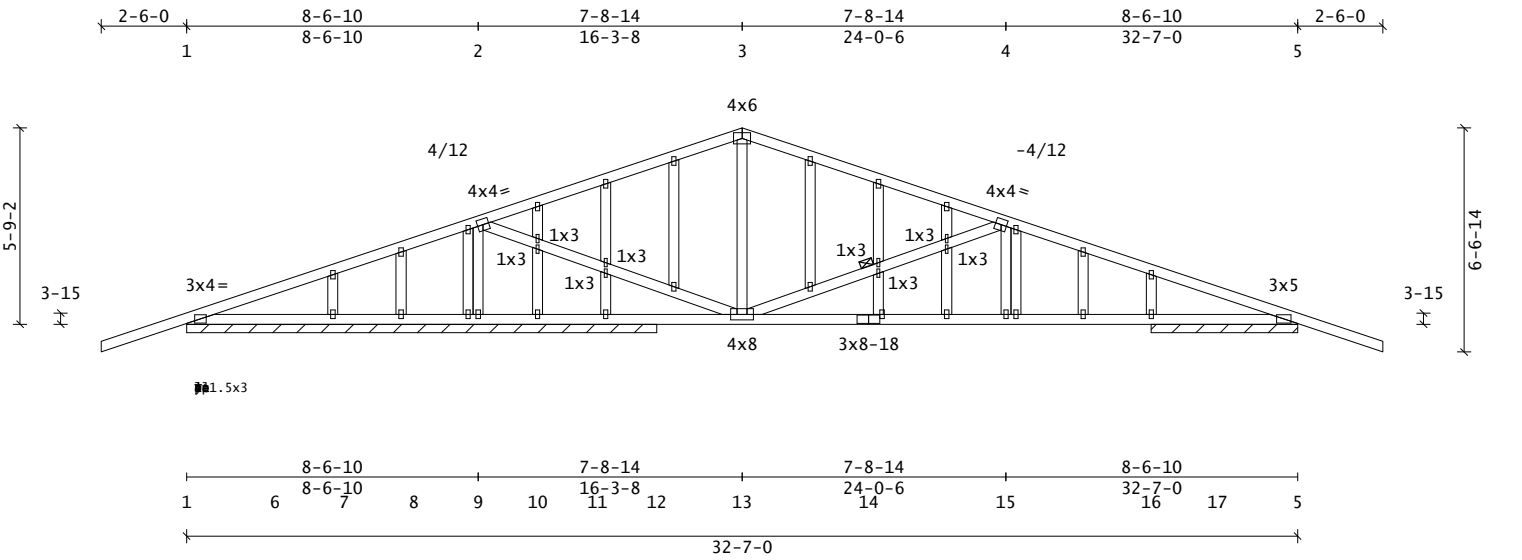
EngDrwg: 2021r5RGT_PS

2301480COM - Beaverton Hillsdale Highway Fire Restoration | **Qty: 2** | **Truss: A03**

Customer: OT Commercial Jobs

SID: 0002070421
TID: 183995
Date: 03 / 24 / 23
Page: 1 of 1

Truss Mfr. Contact: Michael Jackson



Truss Weight = 183.2 lb

```
Code/Design: IBC-2018/TPI-2014
PSF  Live  Dead        Dur Factors
TC   25.0  10.0       Live  Wind  Snow
BC    0.0  10.0  Lum 1.15  1.60  1.15
Total      45.0  Plt 1.15  1.60  1.15
Spacing:  2-00-00 o.c.    Plies: 1
Repetitive Member Increase: Yes
Green Lumber:  No  Wet Service:  No
Fab Tolerance:  20% Creep (Kcr) = 2.0
OH Soffit Load:  2.0 psf
```

```
----------Snow Load Specs----------
ASCE7-16 Roof Snow (Pf) = 25.0 psf
Risk Cat: II  Terrain Cat: B
Roof Exposure: Sheltered
Thermal Condition: All Others(1.0)
Unobstructed Slippery Roof: No
Low-Slope Minimums(Pfmin):  No
Unbalanced Snow Loads:      Yes
Rain Surcharge: No Ice Dam Chk: No
Lu(max) = 20-00-00
```

```
----------Wind Load Specs----------
ASCE7-16  Wind Speed(V) = 125 mph
Risk Cat: II  Exposure Cat: B
Bldg Dims: L =  73.3 ft  B =  37.6 ft
M.R.H(h) =  15.0 ft  Kzt = 1.0
Bldg Enclosure: Enclosed
Wind DL(psf): TC =  6.0 BC =  6.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 3-09-02
```

```
-------Additional Design Checks------
10 psf Non-Concurrent BCLL:       Yes
20 psf BC Limited Storage:        Yes
200 lb BC Accessible Ceiling:     Yes
300 lb TC Maintenance Load:       Yes
2000 lb TC Safe Load:             No
Unbalanced TCLL:                  Yes
```

Material Summary

```
TC      2x4   DFL  1800/1.8
BC      2x4   DFL  1800/1.8
Webs    2x4   DFL  Standard
        2x4   DFL  #2  2-13 13-4
```

Member Forces Summary

```
Max CSI in TC PANEL    4 -  5   0.99
Max CSI in BC PANEL   17 -  5   0.58
Max CSI in Web        13 -  4   0.33

...Mem...    Ten      Comp      .CSI.
TC  OH- 1     99         0      0.64
     1- 2    536        37      0.71
     2- 3    253       908      0.75
     3- 4    244       914      0.75
     4- 5    358      2019      0.99
     5-OH     99         0      0.62
BC   1- 6    119       464      0.37
     5-17   1839       254      0.58
     6- 7    119       464      0.23
     7- 8    119       464      0.21
     8- 9    119       464      0.21
     9-10    119       464      0.21
    10-11    119       464      0.24
    11-12    119       464      0.36
    12-13    119       464      0.39
    13-14   1839       254      0.52
    14-15   1839       254      0.53
    15-16   1839       254      0.41
    16-17   1839       254      0.41
Web  2- 9     333      1391      0.24
     2-13    1296       166      0.25
     3-13     167        54      0.07
     4-13     231      1161      0.33
     4-15     264         0      0.11
```

Reaction Summary

```
--------------Reaction Summary(Lbs)----------------
Jnt  --X-Loc-  React -Up- --Width- -Reqd   -Mat  PSI
  1      04-14   477   48 13-09-08
  6    2-05-05   215  154 13-09-08
  9    8-06-10  1426   40 13-09-08
 17   30-02-13   101  284  4-03-08
  5   32-02-02  1268   36  4-03-08
Reactions not shown: down < 400 and up < 150
---- Reaction Summary (plf) -----
Jnt-Jnt       React -Up- --Width-
  1- 12          10    0 13-09-08  (reduced)
 16-  5          10    0  4-03-08  (reduced)
Max Horiz =    -58 /    +58 at Joint   1
```

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [16-03-08] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.

Notes

Gable webs are attached with min. 1x3 20 ga.plates. The max.rake overhang = 1/2 the truss spacing. If this truss is exposed to wind loads perpendicular to the plane of the truss, it must be braced according to a standard detail matching the wind criteria shown, or according to the Construction Documents and/or BCSI - B3.
Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees
Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
Continuous Lateral Restraint (CLR) rows require diagonal bracing per D-WEBCLRBRACE. Alternatively, see D-WEBREINFORCE.
This truss is not symmetric - proper orientation is critical.

Deflection Summary

```
TrussSpan Limit  Actual(in)   Location
Vert LL   L/240   L/999(-0.13) 13-15
Vert DL   L/120   L/999(-0.14) 13-15
Vert CR   L/180   L/648(-0.27) 13-15
Horz LL   0.75in       ( 0.02) @Jt 5
Horz CR   1.25in       ( 0.04) @Jt 5
Ohng CR  2L/180  2L/525(-0.11)  1- 1
Ohng CR  2L/180  2L/525(-0.11)  5- 5
```

Bracing Data Summary

```
------------Bracing Data------------
Chords; Sheathing required or bracing
indicated:
-------------Purlins------------
     ---oc---  --From--  ---To--- #Bays
TC    4-08-00  -2-06-00  35-01-00   9
BC    8-01-00         0  32-07-00   5
------- Web Bracing -- CLR -----------
Single:   13- 4
Continuous Restraint Bracing Req'd
See BCSI-B3 3.0
```

Plate offsets (X, Y):

(None unless indicated below)

REGISTERED PROFESSIONAL ENGINEER
97348PE
OREGON
JULY 13, 2021
AMIT KHAKUREL
3/27/2023

EXPIRES: Exp 06/30/2023

SIMPSON StrongTie

Component Solutions
Truss Studio V
2022.3.1.2

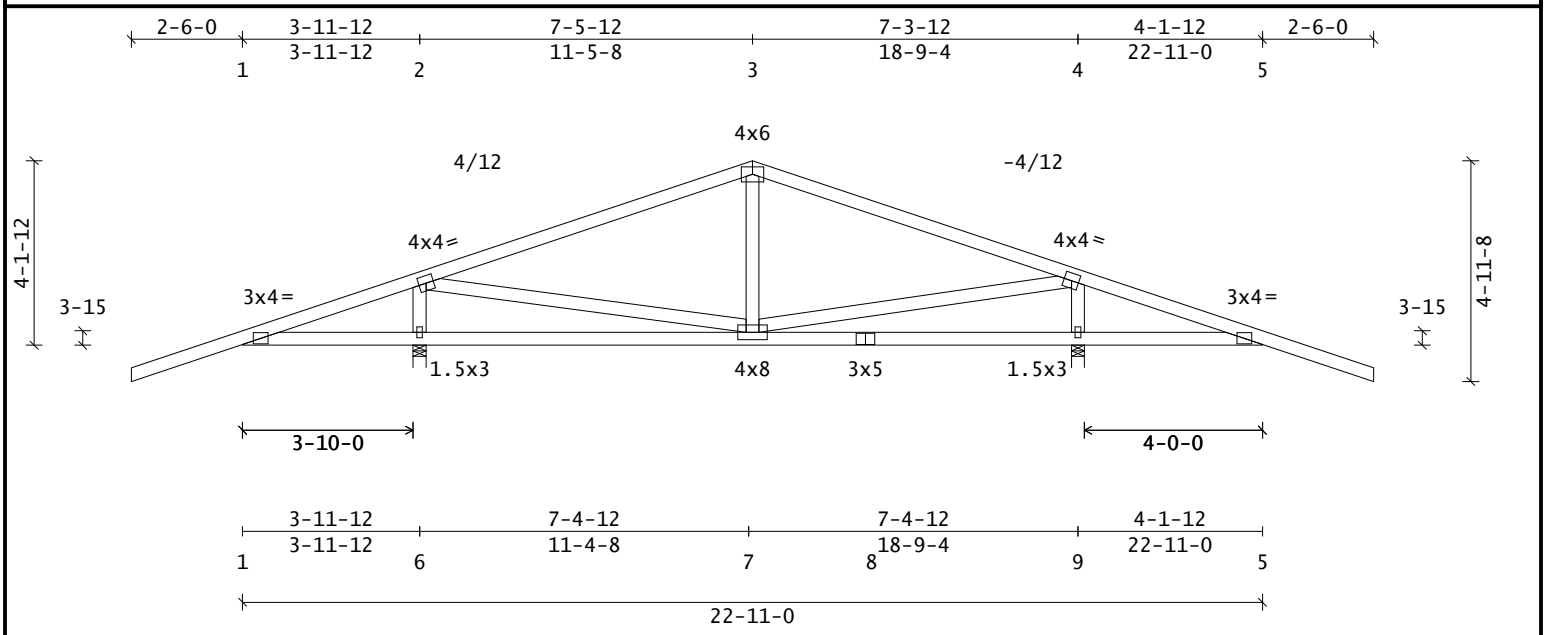
EngDrwg: 2021r5RGT_PS

2301480COM - Beaverton Hillsdale Highway Fire Restoration | **Qty: 16** | **Truss: B01**

Customer: OT Commercial Jobs

SID: 0002070422
TID: 183995
Date: 03 / 24 / 23
Page: 1 of 1

Truss Mfr. Contact: Michael Jackson



Truss Weight = 100.2 lb

```
Code/Design: IBC-2018/TPI-2014
PSF  Live  Dead        Dur Factors
TC   25.0  10.0      Live  Wind  Snow
BC    0.0  10.0  Lum 1.15  1.60  1.15
Total      45.0  Plt 1.15  1.60  1.15
Spacing:  2-00-00 o.c.    Plies: 1
Repetitive Member Increase: Yes
Green Lumber:  No  Wet Service:  No
Fab Tolerance:  20% Creep (Kcr) = 2.0
OH Soffit Load:  2.0 psf
```

```
----------Snow Load Specs----------
ASCE7-16 Roof Snow (Pf) = 25.0 psf
Risk Cat: II  Terrain Cat: B
Roof Exposure: Sheltered
Thermal Condition: All Others(1.0)
Unobstructed Slippery Roof: No
Low-Slope Minimums(Pfmin):  No
Unbalanced Snow Loads:      Yes
Rain Surcharge: No Ice Dam Chk: No
Lu(max) = 20-00-00
```

```
----------Wind Load Specs----------
ASCE7-16  Wind Speed(V) = 125 mph
Risk Cat: II  Exposure Cat: B
Bldg Dims: L =  73.3 ft  B =  37.6 ft
M.R.H(h) =  15.0 ft  Kzt = 1.0
Bldg Enclosure: Enclosed
Wind DL(psf): TC =  6.0 BC =  6.0
End Vertical Exposed: L = Yes R = Yes
Wind Uplift Reporting: ASCE7 MWFRS
C&C End Zone: 3-09-02
```

```
-------Additional Design Checks------
10 psf Non-Concurrent BCLL:       Yes
20 psf BC Limited Storage:        Yes
200 lb BC Accessible Ceiling:     Yes
300 lb TC Maintenance Load:       Yes
2000 lb TC Safe Load:             No
Unbalanced TCLL:                  Yes
```

Material Summary

```
TC      2x4   DFL  1800/1.8
BC      2x4   DFL  1800/1.8
Webs    2x4   DFL  Standard
        2x4   DFL  #2  2-7  7-4
```

Member Forces Summary

```
Max CSI in TC PANEL   1 -  2   0.69
Max CSI in BC PANEL   1 -  6   0.99
Max CSI in Web        2 -  7   0.24

...Mem...    Ten      Comp      .CSI.
TC  OH- 1     99         0      0.64
     1- 2   1332       408      0.69
     2- 3     93       660      0.68
     3- 4     90       657      0.65
     4- 5   1347       412      0.66
     5-OH     99         0      0.62
BC   1- 6    430      1257      0.99
     5- 9    435      1270      0.99
     6- 7    444      1257      0.90
     7- 8    435      1270      0.91
     8- 9    435      1270      0.89
Web  2- 6    344      1234      0.15
     2- 7   1267       351      0.24
     3- 7    176       309      0.08
     4- 7   1275       358      0.24
     4- 9    347      1255      0.15
```

Reaction Summary

```
--------------Reaction Summary(Lbs)----------------
Jnt  --X-Loc- React -Up- --Width- -Reqd   -Mat  PSI
  6   3-11-12  1331    0    03-08 01-08    DFL  691
  9  18-09-04  1355    0    03-08 01-08    DFL  691
Max Horiz =    -39 /    +39 at Joint   6
```

Loads Summary

This truss has been designed for the effects of an unbalanced top chord live load occurring at [11-05-08] using a 1.00 Full and 0.00 Reduced load factor.

See Loadcase Report for loading combinations and additional details.

Notes

Plates designed for Cq at 0.80 and Rotational Tolerance of 10.0 degrees
Plates located at TC pitch breaks meet the prescriptive minimum size requirement to transfer unblocked diaphragm loads across those joints.
This truss is not symmetric - proper orientation is critical.

Deflection Summary

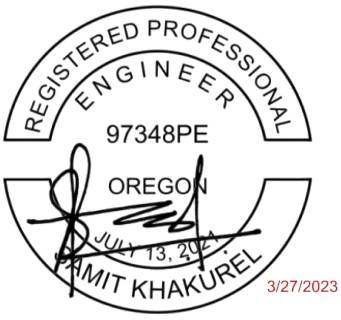
```
TrussSpan Limit  Actual(in)   Location
Vert LL   L/240   L/999(-0.05)  6- 7
Vert DL   L/120   L/999(-0.05)  6- 7
Vert CR   L/180   L/999(-0.09)  6- 7
Horz LL   0.75in       ( 0.01) @Jt 9
Horz CR   1.25in       ( 0.02) @Jt 9
Ohng CR  2L/180  2L/525(-0.11)  1- 1
Ohng CR  2L/180  2L/525(-0.11)  5- 5
Cant CR  2L/180  2L/999(-0.05)  1- 6
Cant CR  2L/180  2L/999(-0.05)  9- 5
```

Bracing Data Summary

```
------------Bracing Data------------
Chords; Sheathing required or bracing
indicated:
-------------Purlins------------
     ---oc---  --From--  ---To--- #Bays
TC    5-10-00  -2-06-00  25-05-00   6
BC    6-10-00         0  22-11-00   4
Web Bracing -- None
```

Plate offsets (X, Y):

(None unless indicated below)



EXPIRES: Exp 06/30/2023

SIMPSON Strong-Tie

Component Solutions
Truss Studio V
2022.3.1.2

EngDrwg: 2021r5RGT_PS

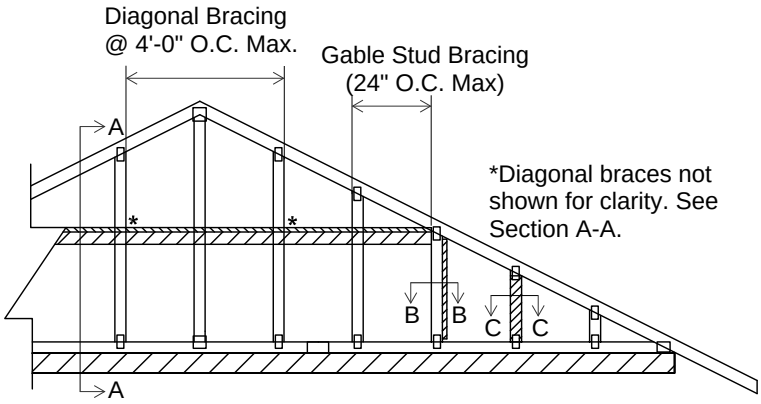
GABLE STUD BRACING DETAIL - 100 MPH (NOMINAL), 125 MPH (ULTIMATE)

TD-GBL-0003B

Date: 06/11/2014 | Rev: B | Pg. 1 of 1

NOTES:

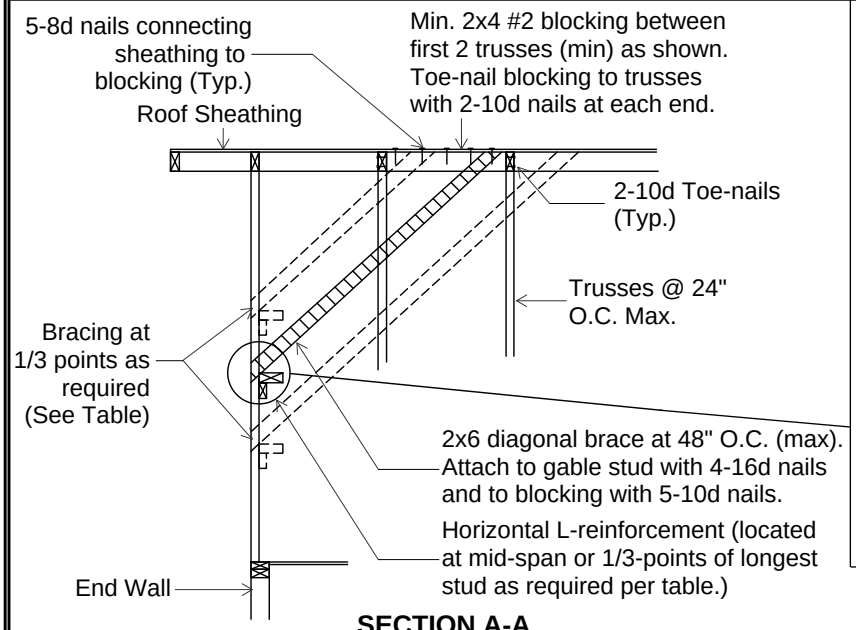
1. This detail provides bracing/reinforcement options for the gable studs to resist the out-of-plane wind loading. Refer to the individual truss design drawing for bracing/reinforcement requirements for resisting the vertical (in-plane) loads assumed in the design of the gable end frame. Additional bracing/reinforcement at the end of the building and/or at the gable end wall may be required. Refer to the Building Designer/Construction Documents for all gable end frame and roof system bracing requirements. For additional information, see BCSI-B3.
2. This detail does not apply to structural gables.
3. Connection requirements between the gable end frame and the wall to be specified by the Building Designer.
4. The gable end frame must match the profile of the adjacent trusses. Do not use a gable end frame with a flat bottom chord next to trusses with sloped bottom chords, such as scissor or vaulted trusses.



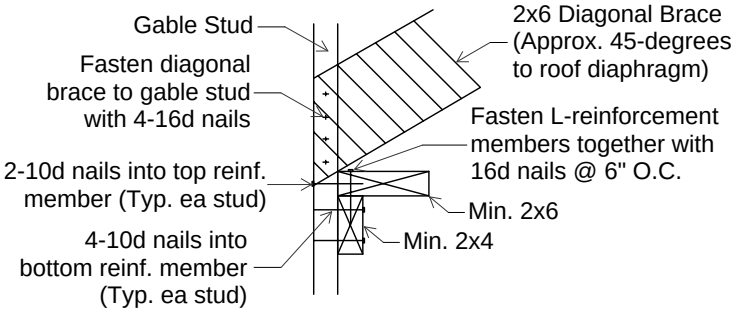
GABLE END WITH STUD BRACING/REINFORCEMENT

MINIMUM GABLE STUD SIZE, SPECIES & GRADE	MAX. GABLE STUD SPACING	WITHOUT BRACE	L-REINFORCEMENT [1]	SCAB REINFORCEMENT [1]	DIAGONAL BRACING @ MID-SPAN [2]	DIAGONAL BRACING @ 1/3 POINTS [2]
		MAXIMUM STUD LENGTH [3]				
2X4 SPF STUD or STANDARD	12" O.C.	4-9-12	8-5-8	9-7-4	9-7-4	14-5-4
	16" O.C.	4-4-8	7-8-4	8-8-12	8-8-12	13-1-8
	24" O.C.	3-9-8	6-3-12	7-7-4	7-7-4	11-5-0

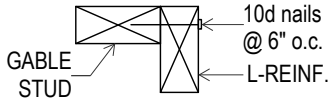
1. L- and Scab Reinforcements shall be minimum 2x4 stud grade and must be a minimum of 90% of the gable stud length. Fasten the reinforcement member to the gable stud with 10d nails @ 6" o.c.
2. Attach horizontal reinforcing member at mid-span (or 1/3 points as required) of the longest stud and install diagonal bracing @ 4' o.c. (max) as shown in Section A-A.
3. Tabulated maximum stud lengths are based on components and cladding wind pressures using the wind design parameters listed in the detail limitations. Gable stud deflection criteria is L/240.



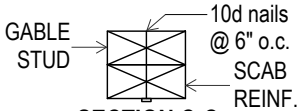
SECTION A-A



NOTE: Diagonal braces over 6'-3" require a 2x4 T-brace attached to one narrow edge. Diagonal braces over 12'-6" require 2x4s attached on both narrow edges. The braces must cover 90% of the diagonal brace and shall be fastened to the narrow edge with 10d nails at 6" o.c. (min. 3" end distance). When attached on both narrow edges, stagger the nails on each side by 3".



SECTION B-B



SECTION C-C

DETAIL LIMITATIONS:
Max. Mean Roof Height: 30'
Category: II
Exposure: B or C
Load Duration Factor: 1.6
Wind Speed: 100 mph Nominal

Wind Speed Equivalent

Nominal	(Ultimate)
100 mph	(125 mph)

Nail Dimension
16d = 3.5" x 0.162"
10d = 3" x 0.148"
8d = 2.5" x 0.131"

REGISTERED PROFESSIONAL ENGINEER
97348PE
OREGON
JULY 13, 2021
AMIT KHAKUREL
3/27/2023

EXPIRES: Exp 06/30/2023

Simpson Strong-Tie Company

SIMPSON Strong-Tie ®

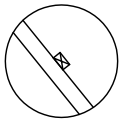
INDIVIDUAL WEB REINFORCEMENT DETAIL

D-WEBREINFORCE

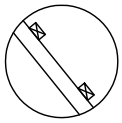
Date: 06/11/2014 | Rev: A | Pg. 1 of 1

NOTES:

1. This detail provides web reinforcement options that may be used as an alternative to continuous lateral restraint (CLR) when installing CLRs in combination with diagonal bracing is not practical or desired.
2. Refer to the truss design drawing for web lateral restraint requirements. A ⊠ on the truss design drawing indicates that continuous lateral restraint is required at the locations shown (either at the midpoint or 1/3-points of the web member). Refer to the tables below for acceptable web reinforcement options that may be used in place of one or two rows of CLR.
3. This detail may not be used to substitute CLRs for T-, L-, I- or scab reinforcements that are specified on the truss design drawing.
4. T-, L-, I- and scab web reinforcements must be the same or better species and grade of the web member as indicated on the truss design drawing.
5. All reinforcements must extend to within 6" of each end of the web member.
6. This detail does not apply to single-ply webs that exceed 14' in length.



1 Row of CLR @ Web Mid-point



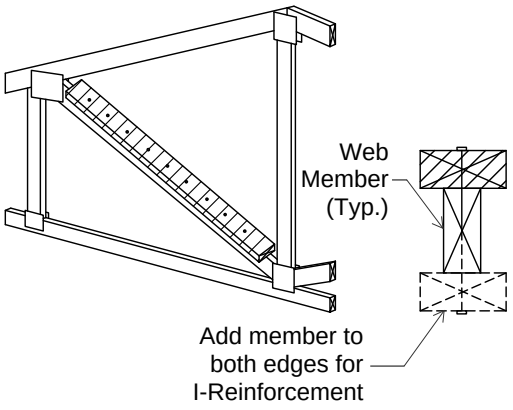
2 Rows of CLRs @ Web 1/3 points

WEB REINFORCEMENT OPTIONS FOR SINGLE-PLY TRUSSES [1]						
Specified Web Member Lateral Restraint (CLRs)	Web Member Size	Acceptable Web Reinforcement Substitutions - Type & Size				Reinforcement-to-Web Connection Requirements
		T-	L-	Scab	I-	
1 Row @ Mid-point	2x4	2x4	2x4	2x4	---	16d gun nails @ 6" on-center
	2x6	2x6	2x6	2x6	---	
	2x8	2x8	2x8	2x8	---	
2 Row @ 1/3-points	2x4	No substitutions allowed			2-2x4	
	2x6				2-2x6	
	2x8				2-2x8	

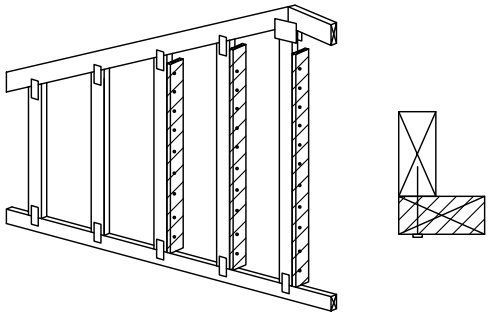
WEB REINFORCEMENT OPTIONS FOR 2-PLY TRUSSES [2]						
Specified Web Member Lateral Restraint (CLRs)	Web Member Size	Acceptable Web Reinforcement Substitutions - Type & Size				Reinforcement-to-Web Connection Requirements
		T-	L-	Scab	I-	
1 Row @ Mid-point	2x4	2x4	2x4	---	---	16d gun nails @ 6" on-center
	2x6	2x6	2x6	---	---	
	2x8	2x8	2x8	---	---	
2 Row @ 1/3-points	2x4	No substitutions allowed			2-2x4	
	2x6				2-2x6	
	2x8				2-2x8	

1. The maximum allowable web length for single-ply trusses is 14'.
2. For 2-ply trusses, the reinforcement must be nailed to both plies of the web with the nailing pattern specified in the table.
3. For the scab reinforcement, 2 rows of 10d gun nails @ 6" o.c may be used in place of 16d gun nails for attaching the reinforcement to the web.
4. For I-reinforcement, attach each 2x_member to opposite edges of the web using the nailing pattern specified in the table.

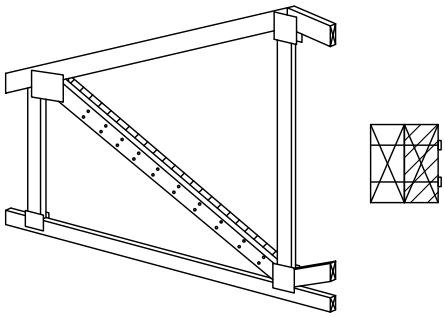
Nail Dimension
16d = 3.5" x 0.131"
10d = 3" x 0.120"



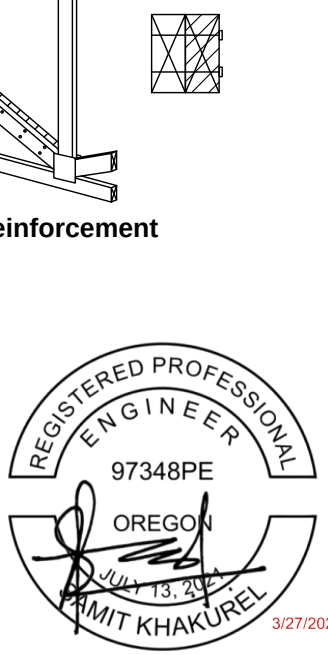
T- Reinforcement
(I-Reinforcement similar)



L- Reinforcement



Scab Reinforcement



EXPIRES: Exp 06/30/2023

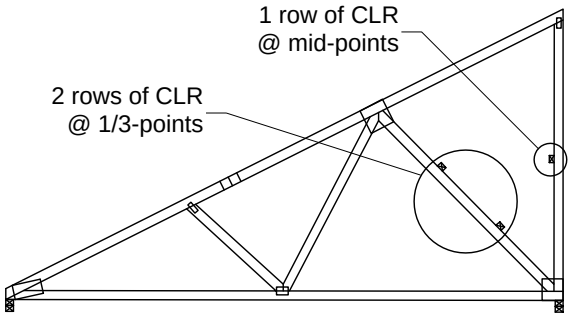
Simpson Strong-Tie Company

LATERAL RESTRAINT & DIAGONAL BRACING DETAILS FOR WEB MEMBERS

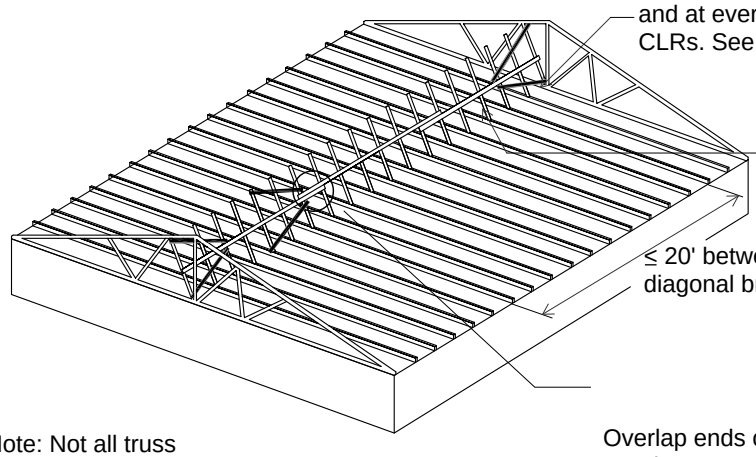
D-WEBCLRBRACE

Date: 05/24/2021 | Rev: A | Pg. 1 of 1

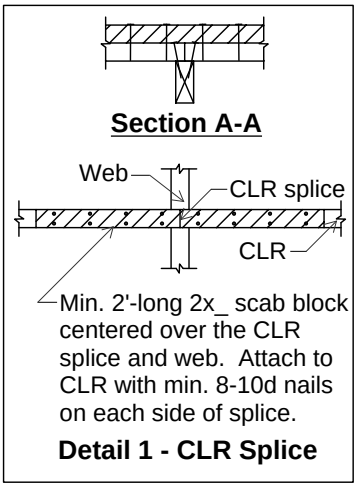
This detail provides information for laterally restraining and bracing web members to prevent lateral buckling using continuous lateral restraints (CLRs) in combination with diagonal bracing. In addition to the CLRs indicated on the truss design drawing, diagonal bracing must be installed as indicated in this detail and BSCI-B3. See WEBREINFORCE for web reinforcement options that may be used as an alternative to this detail when installing CLRs and diagonal bracing is not practical or desired. Properly attached full-length sheathing satisfies (may replace) any bracing requirements specified for end vertical webs. Refer to the Construction Documents for additional bracing requirements. For trusses with spacing greater than 2' o.c., refer to BCSI-B10.



WEB MEMBERS WITH LATERAL RESTRAINT

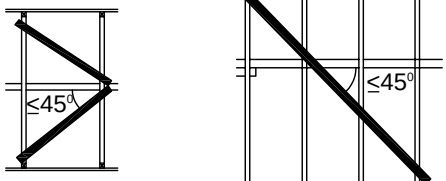


Note: Not all truss members shown for clarity.



Detail 1 - CLR Splice

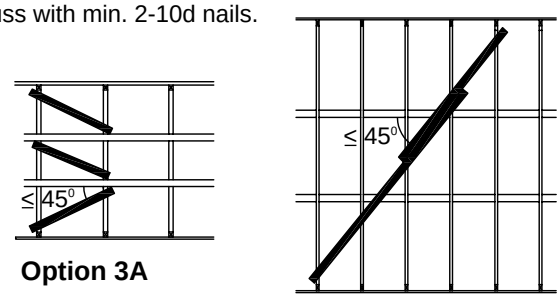
For webs with one row of CLRs, diagonal bracing shall be installed using Option 2A or 2B. Attach diagonal braces to each truss with min. 2-10d nails.



Option 2A **Option 2B**

Detail 2 - Diagonal Bracing for 1 Row of CLRs

For webs with 2 rows of CLRs, diagonal bracing shall be installed using Option 3A or 3B. Attach diagonal braces to each truss with min. 2-10d nails.



Option 3A **Option 3B**

Detail 3 - Diagonal Bracing for 2 Rows of CLRs

Nail Dimensions:
10d = 3" x 0.128"

DETAIL LIMITATIONS:

1. Restraint and Bracing Material min. 2x4 stress graded lumber.
2. This detail does not address permanent building stability bracing to resist lateral forces acting on the building.
3. This detail shall not supersede any project-specific truss member permanent bracing design for the roof framing structural system.
4. This detail is not applicable for trusses with spacing greater than 2' o.c.

EXPIRES: Exp 06/30/2023

Simpson Strong-Tie Company