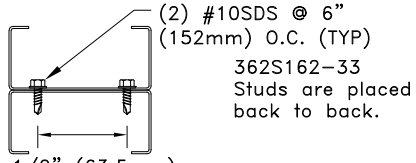
Wind Criteria:
ASCE 7-05, ASCE 7-10 or ASCE 7-16
Enclosed building
30' (9144mm) mean height
CAT III & IV, EXP C
No speed-up increase factor taken for topographic effects; K_{zt} = 1.0

Max Loading:
Top chord live load = 40 psf (1.92 kN/m^2)
Top chord dead load = 10 psf (0.48 kN/m^2)
Wind dead load = 5 psf (0.24 kN/m^2)
Soffit load on overhang off of gable face = 10 psf (0.48 kN/m^2)
Max weight on face of gable = 10 psf (0.48 kN/m^2)

362S162-33 Stud Maximum Lengths				
Windspeed:	ASCE 7-05 - 110 MPH (49 m/s) ASCE 7-10 - 140 MPH (62 m/s) ASCE 7-16 - 140 MPH (62 m/s)		ASCE 7-05 - 150 MPH (67 m/s) ASCE 7-10 - 190 MPH (85 m/s) ASCE 7-16 - 190 MPH (85 m/s)	
Gable Stud Spacing:	16" (407mm) O.C.	24" (610mm) O.C.	16" (407mm) O.C.	24" (610mm) O.C.
Unbraced Single Stud	6'6" (1981mm)	5'6" (1676mm)	4'9" (1448mm)	3'0" (914mm)
Diagonally Braced Single Stud	13'3" (4039mm)	11'6" (3505mm)	10'6" (3200mm)	8'0" (2438mm)
Unbraced Double Stud	8'6" (2591mm)	7'6" (2286mm)	7'0" (2134mm)	6'0" (1829mm)

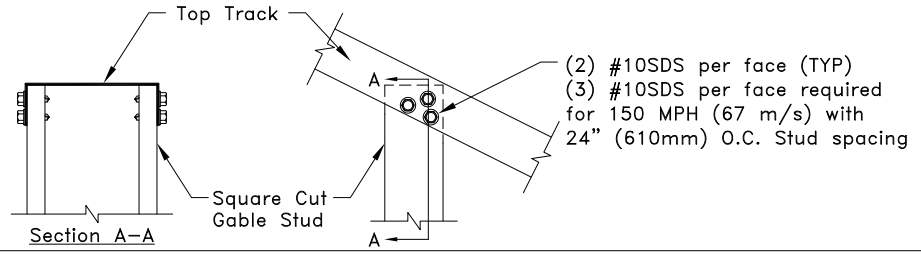
Deflection Criteria Note: Unbraced Single Stud values meet L/450 max,
Diagonally Braced Single Stud values meet L/2100 max
Unbraced Double Stud values meet L/390 max.

Double Stud Cross Section

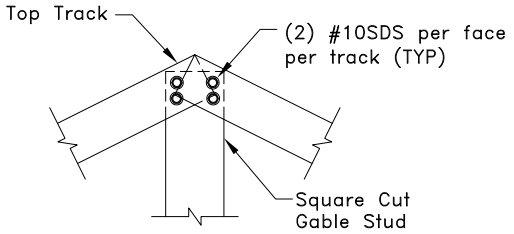


Stud to Track Connections

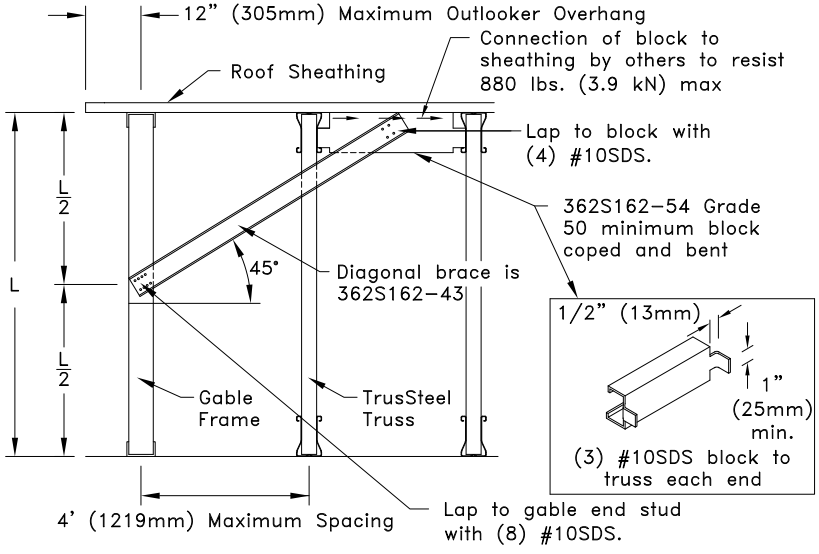
Detail A



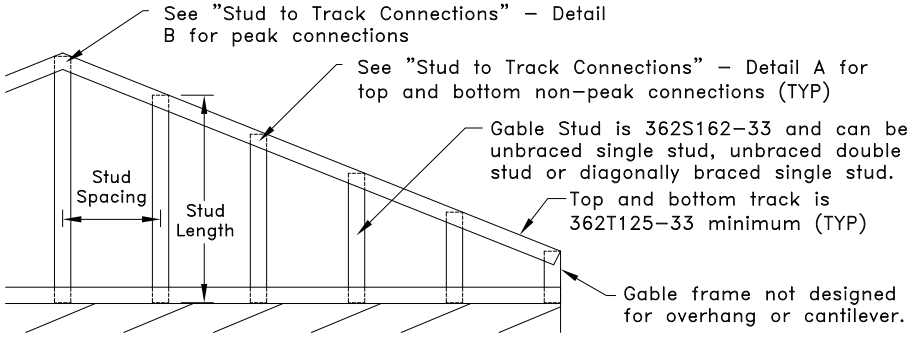
Detail B



Diagonally Braced Single Stud



C-Stud Gable Frame



General Notes:
1. SDS = Self-Drilling Tapping Screw
2. Screw spacing is 9/16" (14.3mm) minimum.
3. Screw edge distance is 1/4" (6.4mm) and end distance is 3/8" (9.5mm) minimum.
4. The gable end frame is assumed to be supported vertically, horizontally and laterally along its entire length. The building designer is responsible for the design of the support wall, the ceiling and roof diaphragm, connection of the gable frame to these supports, and transfer of in-plane shear loads.
5. Intended for use with TrusSteel roof truss systems only.
6. Gable stud web is perpendicular to the length of the track.
7. Cold-Formed Steel calculations are per the 2020 supplement to AISI 2016 "North American Specification for the Design of Cold-Formed Steel Structural Members" (S100-16/S2-20) and AISI 2020 "North American Standard for Cold-Formed Steel Structural Framing" (S240-20).

ALPINE TrusSteel™
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3-5/8" C-Stud Gable Framing

Standard Detail: TS013

Date: 06/01/22

TrusSteel Detail Category: Gable Framing