



**STRONGER
THAN STEEL.™**

DRYWALL FRAMING SYSTEM

TRAKLOC® Steel Framing is a revolutionary development in cold-formed steel framing systems. Unlike traditional steel studs, which are cut to length for varying jobsite conditions, TRAKLOC allows you to order one length member and "adjust" the length accordingly for variances in the slab. The stud consists of a traditional-style framing member combined with an interlocking adjustable component. The adjustable portion allows for telescopic length adjustments and can accommodate variances in the slab, and minor wall height differences.

TRAKLOC's [ICC-ES Report # ESR-1464](#) is in compliance with:

- 2015 and 2012 International Building Code® (IBC)
- 2016 California Building Code (CBC)
- 2017 Florida Building Code (FBC)

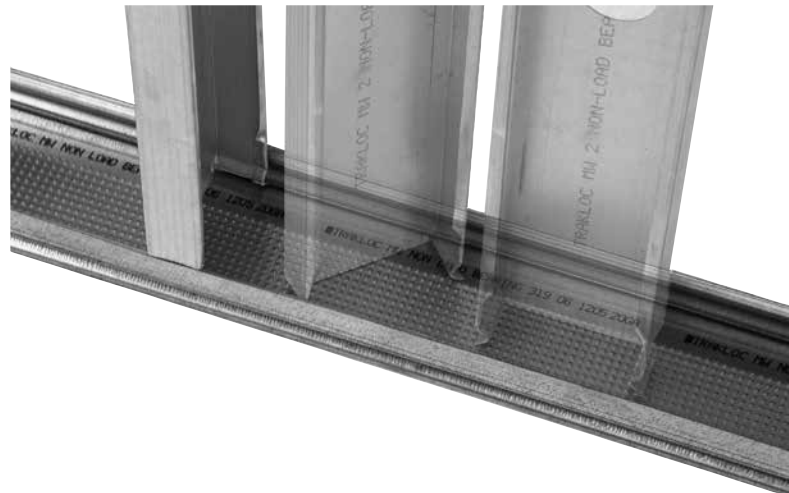
TRAKLOC non-load bearing interior wall system is Intertek Warnock Hersey Design Listed and approved for use in both one and two-hour fire-rated head-of-wall assemblies requiring deflection in accordance with ASTM E119 and ASTM E1966. Intertek Design Listings Nos. on inside back cover.

The TRAKLOC product line provided by ClarkDietrich Building Systems is licensed under the following U.S. and Foreign Patents:

U.S. Patent No. 7,223,043
U.S. Patent No. 7,594,311
U.S. Patent No. 8,061,099
U.S. Patent No. 8,074,416
Japan Patent No. 4934868
Japan Patent No. 5156889
Australia Patent No. 2006201344
Australia Patent No. 2005332657

FEATURES AND BENEFITS

- Available in 18mil (25ga) 33ksi, 24mil (20EQ) 57ksi, 30mil (20ga DW) 33ksi and 33mil (20ga) 33ksi.
- Available in 2-1/2", 3-5/8", 4" and 6".
- For use in non-load-bearing interior walls.
- Twists and locks into place. Studs can be installed from the ground, greatly reducing time spent climbing ladders and scaffolding.
- Installation of TRAKLOC is ICC-ES approved *without* the use of fasteners to attach the studs to the top or bottom track. ICC-ES Report # ESR-1464.
- Significant productivity gains are possible versus conventional stud and track framing. This results in substantial installed cost savings!
- Safer Framing System™ reduces jobsite hazards. Less time spent climbing scaffolds, ladders, lifts and bending over to install screws results in fewer job related injuries and reduced workers' compensation costs. Less cutting of studs with noisy chop saws.
- Allows for seismic and live-load vertical inter-floor deflection in the stud, not the track. This feature eliminates the need for deflection tracks in fire-rated head-of-wall assemblies.



TRAKLOC® STUDS

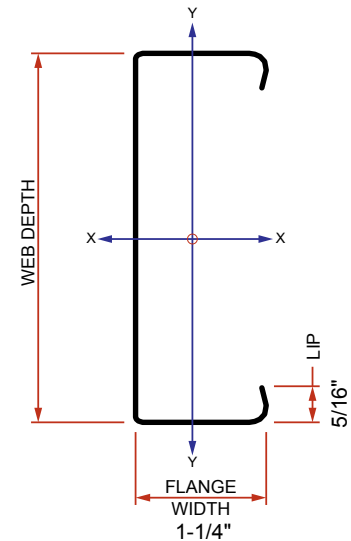
TRAKLOC studs are available in four configurations:

- TRAKLOC Fixed Length Stud (TLF)
- TRAKLOC Adjustable Stud (TLA)
- TRAKLOC Deflection Stud (TLD)
- TRAKLOC Elevator Stud (TLE)

The fixed length studs (TLF) are ordered to length, are single piece components, and are swaged at each end to interlock with the TRAKLOC Track. This product is used in applications where the partition height is consistent and speed of installation is of critical importance. The unique swage at the end of each stud allows for quick, tight installation eliminating the need for framing screws or a lift/ladder to install the framing screws.

The variable length studs, Adjustable (TLA), Deflection (TLD) and Elevator (TLE) are two-piece components which allow for the telescoping feature unique to TRAKLOC. The two-piece components arrive pre-assembled to help speed assembly. The installer simply inserts the top end of the stud in the top track and then extends the stud (telescoping) to the proper length to engage the bottom end of the stud in the bottom track.

Storage Requirements: TRAKLOC is a dynamic system consisting of two moving parts. To maintain the telescoping feature of this system, it is important to store TRAKLOC studs indoors, free of excessive dust and airborne particulates.

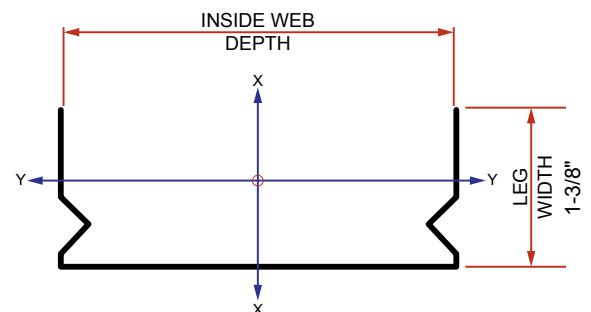


TRAKLOC Drywall Stud

TRAKLOC® TRACK

TRAKLOC track has two unique features. The most obvious feature of the TRAKLOC track is the V-groove rolled into the flanges of the track to match the swaged ends of the TRAKLOC stud. Next, are the dimples pressed into the center of the web. Together, the V-groove and the dimples provide a positive connection between stud and track without the need for mechanical fasteners.

TRAKLOC track standard length is 10'-0". Shorter lengths are available for non-standard conditions.



TRAKLOC Drywall Track

TRAKLOC® STUD PRODUCTS

TRAKLOC® FIXED LENGTH STUD (TLF)

TRAKLOC stud without telescopic extension. Studs are fixed length and not adjustable and have a TRAKLOC swaged end on both ends of the stud allowing the stud to be connected to the top and bottom track without fasteners.

- Connected without the use of fasteners
- Ideal for partition walls that do not go from deck to deck and non-composite "above-grid" wall assemblies that have suspended ceilings, as well as TI (tenant improvement) and remodel applications
- Less time on lifts/ladders



Fixed Length Stud with swages on each end

TRAKLOC® ADJUSTABLE STUD (TLA)

The TRAKLOC adjustable stud can be used in composite, non-composite, rated or non-rated wall assemblies that extend from deck to deck and do not require allowance for live-load and or seismic-induced inter-floor vertical deflection. Extension inserts are 12" long.

- Accommodates variation in floor to ceiling heights
- Eliminates need to measure and cut studs on jobsite
- Project schedule time savings and installed cost saving

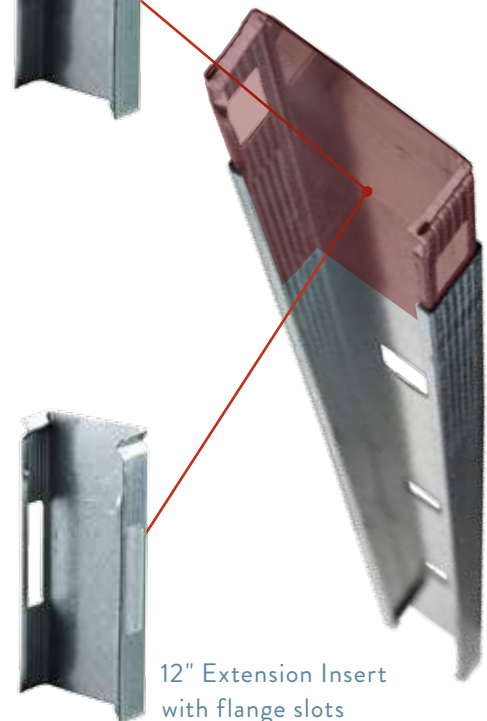


12" Extension Insert w/o flange slots

TRAKLOC® DEFLECTION STUD (TLD)

The TRAKLOC deflection stud is similar to our TRAKLOC adjustable stud, except the 12" long extension insert has slots cut out of the flanges. This allows the drywall screw to pass through the drywall and the outer portion of the stud while passing through the slot. The slot allows the drywall to be attached while still allowing for seismic and/or live-load induced inter-floor deflection at the head-of-wall joint.

- Allows for seismic and live-load vertical inter-floor deflection
- Tested in accordance with ASTM E-119 and ASTM E-1966
- Approved for use in one-hour and two-hour fire-rated head-of-wall deflection assemblies
- Intertek Warnock Hersey Design Listed
- TRAKLOC® Deflection Stud (TLD) has a total allowable vertical (deflection) movement of 3" (1-1/2"±)
- Allows up to 2" of stud height adjustability



12" Extension Insert with flange slots

TRAKLOC® STUD PRODUCTS

TRAKLOC® ELEVATOR STUD™ (TLE)

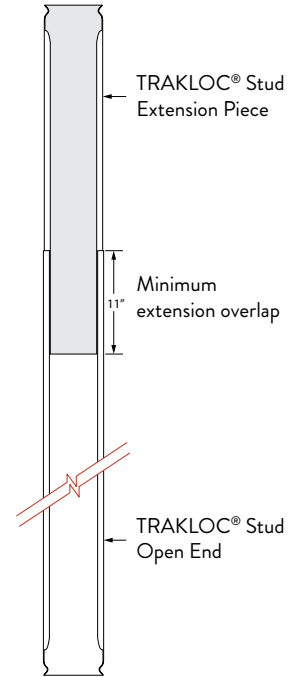
The two-piece elevator studs arrive in a compressed position to accommodate stocking in a building elevator and then can be extended (telescoped) to the required length at point of installation. This reduces the cost of stocking long studs on floors accessible only by elevators and stairways.

Other benefits include:

- Significant productivity gains. Adjustable length studs accommodate variances in the deck height without the need to measure or cut studs on the jobsite.
- Increased safety. Less measuring and cutting results in less trips up and down ladders or scaffolds and reduced use of chop saws.
- Noise reduction and cleaner jobsite. Eliminating chop saw use allows work to continue during the day in occupied buildings and may reduce requirement for after-hours fire watch. Less cutting results in less scrap and cleaner safer jobsite.

How to order TRAKLOC® Elevator Stud™:

- Let the ClarkDietrich Sales Team know the required deck height and they will handle the rest.
- The elevator stud should be ordered to the maximum required deck height.
- The compressed length will be approximately one-half of the ordered length, plus twelve inches.



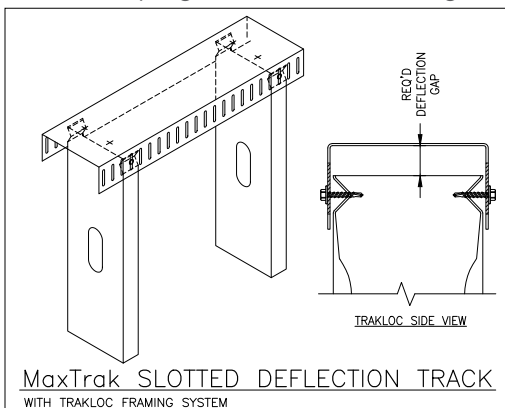
Stock Lengths for TRAKLOC Elevator Stud™

Extended Length	Collapsed Length
12'-2"	7'-1"
13'-2"	7'-7"
14'-2"	8'-1"
16'-2"	9'-1"
18'-3"	10'-1-1/2"

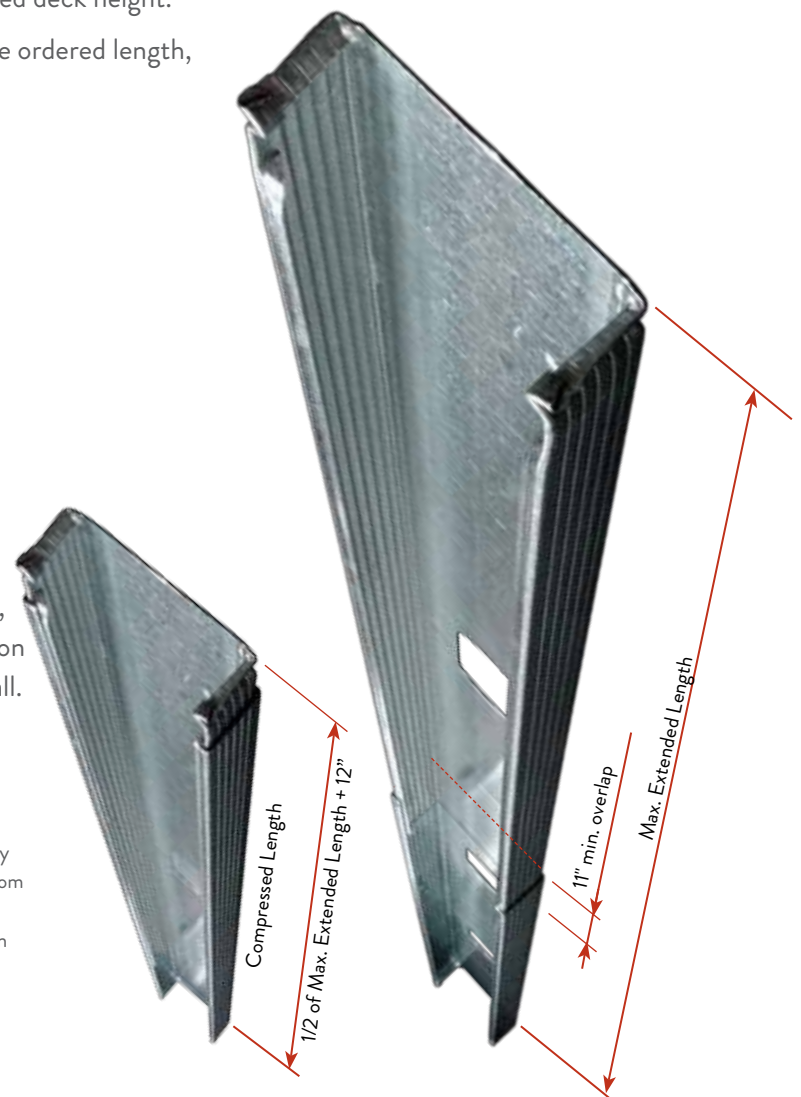
Made to order lengths available to fit nearly any requirement.
*Stock lengths vary by location.

Head-of-wall deflection required?

Elevator Studs are not for deflection by themselves. However, deflection can be achieved by using MaxTrak® slotted deflection track or deep leg track w/ lateral bracing at the head of the wall.



Visit our CAD Library at cad.clarkdietrich.com to view or download construction details in .dwg, .dxf, and .pdf formats.



ELEVATOR STUD SECTION PROPERTIES

TRAKLOC Elevator Studs (TLE)

Stud Member (TLE)	Design thickness (in)	Yield strength (ksi)	Area (in ²)	Weight (lb/ft)	Gross Section Properties					Effective Section Properties at F _y						
					I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	A _e (in ²)	I _x (in ⁴)	S _x (in ³)	M _{sl} (in-lbs)	M _{ad} (in-lbs)	V _{a_g} (lbs)	V _{a_{net}} (lbs)
250TLE125-18	0.0188	33	0.099	0.34	0.098	0.080	0.997	0.019	0.444	0.056	0.082	0.059	1165	1123	256	197
250TLE125-24	0.0250	57	0.130	0.44	0.128	0.104	0.990	0.025	0.441	0.066	0.115	0.071	2423	2297	609	346
250TLE125-30	0.0312	33	0.161	0.55	0.156	0.128	0.982	0.031	0.438	0.113	0.163	0.125	2475	2515	832	372
250TLE125-33	0.0346	33	0.178	0.61	0.170	0.140	0.978	0.034	0.436	0.116	0.171	0.143	2824	3047	961	384
362TLE125-18	0.0188	33	0.120	0.41	0.234	0.131	1.398	0.022	0.428	0.056	0.204	0.084	1661	1687	172	164
362TLE125-24	0.0250	57	0.158	0.54	0.306	0.171	1.390	0.029	0.425	0.066	0.281	0.104	3562	3520	408	288
362TLE125-30	0.0312	33	0.196	0.67	0.375	0.211	1.382	0.035	0.422	0.114	0.372	0.179	3531	3822	799	446
362TLE125-33	0.0346	33	0.217	0.74	0.412	0.232	1.378	0.038	0.420	0.117	0.394	0.208	4116	4404	1024	512
400TLE125-18 ¹	0.0188	33	0.127	0.43	0.296	0.149	1.526	0.023	0.422	0.056	0.242	0.093	1843	1825	155	—
400TLE125-24	0.0250	57	0.168	0.57	0.387	0.196	1.518	0.029	0.419	0.067	0.356	0.120	4094	3957	368	311
400TLE125-30	0.0312	33	0.208	0.71	0.475	0.241	1.511	0.036	0.416	0.115	0.471	0.199	3930	4261	719	482
400TLE125-33	0.0346	33	0.230	0.78	0.522	0.265	1.506	0.039	0.414	0.118	0.481	0.232	4587	5195	985	591
600TLE125-18 ²	0.0188	33	0.165	0.56	0.787	0.264	2.187	0.025	0.391	0.056	0.609	0.148	2915	2744	102	—
600TLE125-24 ¹	0.0250	57	0.218	0.74	1.034	0.347	2.178	0.033	0.388	0.067	0.911	0.188	6427	5847	241	—
600TLE125-30	0.0312	33	0.270	0.92	1.274	0.429	2.170	0.040	0.384	0.117	1.195	0.352	6960	6491	470	470
600TLE125-33	0.0346	33	0.299	1.02	1.403	0.473	2.166	0.044	0.383	0.120	1.244	0.413	8164	7987	642	642

Stud Member (TLE)	Stud/Track End Reaction (R _x)	Torsional Properties						L _u (in)
	TLE (lbs)	Jx1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β (Beta)	
250TLE125-18	39	0.0116	0.026	-0.946	0.568	1.445	0.571	30.1
250TLE125-24	108	0.0271	0.034	-0.940	0.564	1.435	0.570	22.8
250TLE125-30	137	0.0523	0.041	-0.934	0.561	1.425	0.570	30.0
250TLE125-33	149	0.0710	0.044	-0.931	0.559	1.419	0.570	28.5
362TLE125-18	47	0.0141	0.058	-0.823	0.511	1.677	0.759	29.6
362TLE125-24	107	0.0330	0.076	-0.817	0.508	1.667	0.760	22.4
362TLE125-30	138	0.0637	0.092	-0.811	0.504	1.657	0.760	29.4
362TLE125-33	133	0.0866	0.100	-0.808	0.503	1.651	0.761	27.9
400TLE125-18 ¹	38	0.0150	0.073	-0.789	0.495	1.769	0.801	29.4
400TLE125-24	119	0.0350	0.094	-0.783	0.492	1.759	0.802	22.3
400TLE125-30	152	0.0675	0.114	-0.778	0.488	1.749	0.802	29.2
400TLE125-33	153	0.0917	0.125	-0.774	0.487	1.744	0.803	27.7
600TLE125-18 ²	31	0.0194	0.181	-0.652	0.425	2.315	0.921	28.5
600TLE125-24 ¹	85	0.0454	0.235	-0.646	0.422	2.305	0.921	21.6
600TLE125-30	110	0.0878	0.287	-0.641	0.419	2.295	0.922	28.2
600TLE125-33	113	0.1194	0.314	-0.638	0.417	2.290	0.922	26.7

For SI Units: 1 inch = 25.4 mm, 1 lb = 4.45 N, 1 ksi = 6.89 N/m².

NOTES

- Calculated properties are based on AISI S100-07 w/ S2-10 Supplement and AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members.
- Gross and torsional properties are based on full-unreduced cross section of the studs, away from punch-outs.
- The distortional buckling moment (M_{sd}) does not consider the beneficial effect of sheathing to rotational stiffness, K_φ = 0.
- For deflection calculations, use the effective moment of inertia.
- Stud/Track End Reaction (R_x) is the maximum end reaction (web crippling) capacity based on a minimum bearing length of 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be minimum 11 inches and for the non-composite wall configuration must be connected with a minimum of (4) #8 x 9/16" long wafer head screws complying with ASTM C1513.
- ¹ Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
- ² Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.

TRAKLOC® COMPOSITE LIMITING HEIGHTS
 with 5/8" Type X Gypsum Board

TRAKLOC Elevator Studs (TLE)

Width (in)	Stud Member (TLE)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLE125-18	0.0188	33	12	17'-0"	15'-1"	12'-11"	14'-11"	13'-2"	11'-4"	13'-6"	12'-0"	10'-3"
				16	15'-6"	13'-9"	11'-9"	13'-6"	12'-0"	10'-3"	12'-0" f	10'-11"	9'-0"
				24	13'-6"	12'-0"	10'-3"	11'-4" f	10'-6"	8'-6"	9'-10" f	9'-5"	—
	TRAKLOC 20EQ (24mil) 250TLE125-24	0.0250	57	12	18'-9"	15'-9"	13'-8"	16'-5"	13'-9"	12'-0"	14'-11"	12'-6"	10'-11"
				16	17'-1"	14'-4"	12'-5"	14'-11"	12'-6"	10'-11"	13'-6"	11'-4"	9'-11"
				24	14'-11"	12'-6"	10'-11"	13'-0"	10'-11"	9'-4"	11'-10"	9'-11"	7'-10"
	TRAKLOC 30mil 250TLE125-30	0.0312	33	12	20'-0"	16'-9"	14'-7"	17'-6"	14'-7"	12'-8"	15'-11"	13'-3"	11'-7"
				16	18'-2"	15'-2"	13'-3"	15'-11"	13'-3"	11'-7"	14'-5"	12'-1"	10'-6"
				24	15'-11"	13'-3"	11'-7"	13'-11"	11'-7"	10'-1"	12'-7"	10'-6"	8'-9"
	TRAKLOC 33mil 250TLE125-33	0.0346	33	12	20'-0"	16'-9"	14'-7"	17'-6"	14'-7"	12'-8"	15'-11"	13'-3"	11'-7"
				16	18'-2"	15'-2"	13'-3"	15'-11"	13'-3"	11'-7"	14'-5"	12'-1"	10'-6"
				24	15'-11"	13'-3"	11'-7"	13'-11"	11'-7"	10'-1"	12'-7"	10'-6"	8'-9"
3-5/8	TRAKLOC 25 (18mil) 362TLE125-18	0.0188	33	12	20'-7"	17'-2"	14'-6"	18'-0"	15'-0"	12'-8"	16'-1" f	13'-7"	11'-5"
				16	18'-9"	15'-7"	13'-2"	16'-1" f	13'-7"	11'-5"	13'-11" f	12'-4"	10'-2"
				24	16'-1" f	13'-7"	11'-5"	13'-2" f	11'-11"	9'-8"	11'-5" f	10'-8"	8'-7"
	TRAKLOC 20EQ (24mil) 362TLE125-24	0.0250	57	12	22'-6"	17'-10"	15'-7"	19'-8"	15'-7"	13'-7"	17'-10"	14'-2"	12'-5"
				16	20'-5"	16'-3"	14'-2"	17'-10"	14'-2"	12'-5"	16'-3"	12'-10"	11'-1"
				24	17'-10"	14'-2"	12'-5"	15'-7"	12'-5"	10'-7"	14'-2"	11'-1"	9'-5"
	TRAKLOC 30mil 362TLE125-30	0.0312	33	12	24'-5"	19'-5"	16'-11"	21'-4"	16'-11"	14'-10"	19'-5"	15'-5"	13'-5"
				16	22'-3"	17'-8"	15'-5"	19'-5"	15'-5"	13'-5"	17'-8"	14'-0"	12'-1"
				24	19'-5"	15'-5"	13'-5"	16'-11"	13'-5"	11'-7"	15'-5"	12'-1"	10'-4"
	TRAKLOC 33mil 362TLE125-33	0.0346	33	12	25'-4"	20'-1"	17'-7"	22'-2"	17'-7"	15'-4"	20'-1"	15'-11"	13'-11"
				16	23'-0"	18'-3"	15'-11"	20'-1"	15'-11"	13'-11"	18'-3"	14'-6"	12'-8"
				24	20'-1"	15'-11"	13'-11"	17'-7"	13'-11"	12'-1"	15'-11"	12'-8"	10'-11"
4	TRAKLOC 25 (18mil) 400TLE125-18	0.0188	33	12	21'-1"	18'-3"	15'-4"	18'-5"	15'-11"	13'-5"	16'-8"	14'-6"	12'-2"
				16	19'-1"	16'-7"	13'-11"	16'-8"	14'-6"	12'-2"	14'-8" f	13'-2"	10'-10"
				24	16'-8"	14'-6"	12'-2"	13'-10" f	12'-8"	10'-3"	12'-0" f	11'-5"	9'-1"
	TRAKLOC 20EQ (24mil) 400TLE125-24	0.0250	57	12	24'-9"	19'-8"	17'-2"	21'-8"	17'-2"	15'-0"	19'-8"	15'-7"	13'-8"
				16	22'-6"	17'-10"	15'-7"	19'-8"	15'-7"	13'-8"	17'-8" f	14'-2"	12'-5"
				24	19'-8"	15'-7"	13'-8"	16'-8" f	13'-8"	11'-11"	14'-5" f	12'-5"	10'-6"
	TRAKLOC 30mil 400TLE125-30	0.0312	33	12	27'-3"	21'-7"	18'-10"	23'-9"	18'-10"	16'-6"	21'-7"	17'-2"	15'-0"
				16	24'-9"	19'-8"	17'-2"	21'-7"	17'-2"	15'-0"	19'-8"	15'-7"	13'-7"
				24	21'-7"	17'-2"	15'-0"	18'-10"	15'-0"	13'-1"	17'-2"	13'-7"	11'-9"
	TRAKLOC 33mil 400TLE125-33	0.0346	33	12	27'-1"	21'-6"	18'-10"	23'-8"	18'-10"	16'-5"	21'-6"	17'-1"	14'-11"
				16	24'-8"	19'-7"	17'-1"	21'-6"	17'-1"	14'-11"	19'-7"	15'-6"	13'-7"
				24	21'-6"	17'-1"	14'-11"	18'-10"	14'-11"	13'-0"	17'-1"	13'-7"	11'-9"
6	TRAKLOC 25 (18mil) 600TLE125-18	0.0188	33	12	—	22'-7"	20'-7"	—	19'-8" f	17'-11"	—	17'-1" f	16'-4"
				16	—	20'-8"	18'-8"	—	17'-1" f	16'-4"	—	14'-9" f	14'-9" f
				24	—	17'-1" f	16'-3"	—	13'-11" f	13'-11" f	—	12'-1" f	12'-1" f
	TRAKLOC 20EQ (24mil) 600TLE125-24	0.0250	57	12	28'-9" f	25'-11"	21'-8"	23'-6" f	22'-8"	19'-11"	20'-4" f	20'-4" f	17'-5"
				16	24'-11" f	23'-6"	19'-10"	20'-4" f	20'-4" f	17'-5"	17'-7" f	17'-7" f	15'-11"
				24	20'-4" f	20'-4" f	17'-5"	16'-7" f	16'-7" f	15'-4"	14'-4" f	14'-4" f	13'-11"
	TRAKLOC 30mil 600TLE125-30	0.0312	33	12	33'-3"	27'-0"	23'-11"	27'-6" f	23'-11"	21'-1"	23'-10" f	21'-10"	19'-3"
				16	29'-2" f	24'-9"	21'-10"	23'-10" f	21'-10"	19'-3"	20'-8" f	20'-0"	17'-7"
				24	23'-10" f	21'-10"	19'-3"	19'-6" f	19'-3"	16'-11"	16'-10" f	16'-10" f	—
	TRAKLOC 33mil 600TLE125-33	0.0346	33	12	33'-3"	27'-0"	23'-11"	27'-6" f	23'-11"	21'-1"	23'-10" f	21'-10"	19'-3"
				16	29'-2" f	24'-9"	21'-10"	23'-10" f	21'-10"	19'-3"	20'-8" f	20'-0"	17'-7"
				24	23'-10" f	21'-10"	19'-3"	19'-6" f	19'-3"	16'-11"	16'-10" f	16'-10" f	—

NOTES

- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2012.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- In accordance with current building codes and AISI design standards, the 1/3 Stress Increase for strength was not used.
- The composite limiting heights provided in the tables are based on a single layer of 5/8" Type X Gypsum Board complying with ASTM C1396 and from the following manufacturers: American Gypsum, CertainTeed, Georgia Pacific, Continental, National Gypsum or USG.
- The gypsum board must be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754 using minimum No. 6 Type S fine thread Drywall bugle head screws spaced as listed below:
 - Screws spaced a maximum of 12 inch on-center studs.
 - Screws spaced 16 inch on-center to the top and bottom track.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 11 inches.
- f Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- s Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

TRAKLOC® NON-COMPOSITE LIMITING HEIGHTS
FULLY BRACED
TRAKLOC Elevator Studs (TLE)

Width (in)	Stud Member (TLE)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLE125-18	0.0188	33	12	12'-3"	10'-3"	9'-0"	10'-0"	10'-0"	8'-10"	8'-8" e	8'-8" e	8'-0" e
				16	10'-7"	9'-4"	8'-2"	8'-8" e	8'-8" e	8'-0" e	7'-6" e	7'-6" e	7'-3" e
				24	8'-8" e	8'-2" e	7'-1"	7'-1" e	7'-1" e	7'-0" e	6'-1" e	6'-1" e	6'-1" e
	TRAKLOC 20EQ (24mil) 250TLE125-24	0.0250	57	12	14'-5"	11'-6"	10'-0"	14'-2"	11'-3"	9'-10"	12'-4"	10'-3"	8'-11"
				16	13'-1"	10'-5"	9'-1"	12'-4"	10'-3"	8'-11"	10'-9"	9'-4"	8'-2"
				24	11'-6"	9'-1"	7'-11"	10'-1"	8'-11"	7'-10"	8'-9"	8'-2"	7'-1"
	TRAKLOC 30mil 250TLE125-30	0.0312	33	12	16'-3"	12'-10"	11'-3"	14'-10"	12'-8"	11'-1"	12'-10"	11'-6"	10'-1"
				16	14'-9"	11'-8"	10'-3"	12'-10"	11'-6"	10'-1"	11'-1"	10'-5"	9'-2"
				24	12'-10"	10'-3"	8'-11"	10'-6"	10'-1"	8'-9"	9'-1"	9'-1"	8'-0"
	TRAKLOC 33mil 250TLE125-33	0.0346	33	12	16'-6"	13'-1"	11'-5"	15'-10"	12'-10"	11'-3"	13'-9"	11'-8"	10'-3"
				16	15'-0"	11'-11"	10'-5"	13'-9"	11'-8"	10'-3"	11'-11"	10'-7"	9'-3"
				24	13'-1"	10'-5"	9'-1"	11'-2"	10'-3"	8'-11"	9'-8"	9'-3"	8'-1"
3-5/8	TRAKLOC 25 (18mil) 362TLE125-18	0.0188	33	12	14'-11"	13'-10"	12'-1"	12'-2" e	12'-2" e	11'-1" e	10'-6" e	10'-6" e	10'-6" e
				16	12'-11" e	12'-7" e	11'-0"	10'-6" e	10'-6" e	10'-6" e	9'-1" e	9'-1" e	9'-1" e
				24	10'-6" e	10'-6" e	9'-7" e	8'-7" e	8'-7" e	8'-7" e	7'-5" e	7'-5" e	7'-5" e
	TRAKLOC 20EQ (24mil) 362TLE125-24	0.0250	57	12	19'-5"	15'-5"	13'-6"	17'-8"	15'-2"	13'-3"	15'-4"	13'-10"	12'-1"
				16	17'-8"	14'-0"	12'-3"	15'-4"	13'-10"	12'-1"	13'-3"	12'-6"	10'-11"
				24	15'-4"	12'-3"	10'-8"	12'-6"	12'-1"	10'-6"	10'-10" e	10'-10" e	9'-7"
	TRAKLOC 30mil 362TLE125-30	0.0312	33	12	21'-4"	17'-0"	14'-10"	17'-9"	16'-8"	14'-7"	15'-4"	15'-2"	13'-3"
				16	18'-10"	15'-5"	13'-6"	15'-4"	15'-2"	13'-3"	13'-3"	13'-3"	12'-0"
				24	15'-4"	13'-6"	11'-9"	12'-6"	12'-6"	11'-7"	10'-10"	10'-10"	10'-6"
	TRAKLOC 33mil 362TLE125-33	0.0346	33	12	21'-9"	17'-3"	15'-1"	19'-2"	17'-0"	14'-10"	16'-7"	15'-5"	13'-6"
				16	19'-9"	15'-8"	13'-9"	16'-7"	15'-5"	13'-6"	14'-4"	14'-0"	12'-3"
				24	16'-7"	13'-9"	12'-0"	13'-6"	13'-6"	11'-9"	11'-9"	11'-9"	10'-9"
4	TRAKLOC 25 (18mil) 400TLE125-18	0.0188	33	12	15'-7" e	14'-8"	12'-10"	12'-9" e	12'-9" e	12'-8" e	11'-0" e	11'-0" e	11'-0" e
				16	13'-6" e	13'-4" e	11'-8" e	11'-0" e	11'-0" e	11'-0" e	9'-7" e	9' 7" e	9'-7" e
				24	11'-0" e	11'-0" e	10'-2" e	9'-0" e	9'-0" e	9'-0" e	7'-10" e	7'-10" e	7'-10" e
	TRAKLOC 20EQ (24mil) 400TLE125-24	0.0250	57	12	21'-1"	16'-9"	14'-7"	18'-9"	16'-5"	14'-4"	16'-3"	14'-11"	13'-1"
				16	19'-2"	15'-2"	13'-3"	16'-3"	14'-11"	13'-1"	14'-1"	13'-7"	11'-10"
				24	16'-3"	13'-3"	11'-7"	13'-3"	13'-1"	11'-5"	11'-6"	11'-6"	10'-4"
	TRAKLOC 30mil 400TLE125-30	0.0312	33	12	22'-11"	18'-4"	16'-0"	18'-8"	18'-1"	15'-9"	16'-2"	16'-2"	14'-4"
				16	19'-10"	16'-8"	14'-7"	16'-2"	16'-2"	14'-4"	14'-0"	14'-0"	13'-0"
				24	16'-2"	14'-7"	12'-9"	13'-3"	13'-3"	12'-6"	11'-5"	11'-5"	11'-4"
	TRAKLOC 33mil 400TLE125-33	0.0346	33	12	23'-3"	18'-6"	16'-2"	20'-2"	18'-2"	15'-11"	17'-6"	16'-6"	14'-5"
				16	21'-2"	16'-9"	14'-8"	17'-6"	16'-6"	14'-5"	15'-2"	15'-0"	13'-1"
				24	17'-6"	14'-8"	12'-10"	14'-3"	14'-3"	12'-7"	12'-4"	12'-4"	11'-5"
6	TRAKLOC 25 (18mil) 600TLE125-18	0.0188	33	12	19'-2" e	19'-2" e	17'-6" e	15'-8" e	15'-8" e	15' 8" e	13'-7" e	13'-7" e	13'-7" e
				16	16'-7" e	16'-7" e	15'-10" e	13'-7" e	13'-7" e	13'-7" e	11'-9" e	11'-9" e	11'-9" e
				24	13'-7" e	13'-7" e	13'-7" e	11'-1" e	11'-1" e	11'-1" e	9'-7" e	9'-7" e	9'-7" e
	TRAKLOC 20EQ (24mil) 600TLE125-24	0.0250	57	12	27'-11"	22'-10"	20'-0"	22'-10" e	22'-6"	19'-8"	19'-9" e	19'-9" e	17'-10" e
				16	24'-2"	20'-9"	18'-2"	19'-9" e	19'-9" e	17'-10" e	17'-1" e	17'-1" e	16'-3" e
				24	19'-9" e	18'-2" e	15'-10"	16'-1" e	16'-1" e	15'-7" e	14'-0" e	14'-0" e	14'-0" e
	TRAKLOC 30mil 600TLE125-30	0.0312	33	12	29'-5"	25'-0"	21'-10"	24'-0"	24'-0"	21'-6"	20'-10"	20'-10"	19'-7"
				16	25'-6"	22'-9"	19'-10"	20'-10"	20'-10"	19'-7"	18'-0" e	18'-0" e	17'-9" e
				24	20'-10"	19'-10"	17'-4"	17'-0" e	17'-0" e	17'-0" e	14'-9" e	14'-9" e	14'-9" e
	TRAKLOC 33mil 600TLE125-33	0.0346	33	12	31'-11"	25'-4"	22'-2"	26'-8"	24'-11"	21'-10"	23'-1" e	22'-8"	19'-10"
				16	28'-3"	23'-1"	20'-2"	23'-1" e	22'-8"	19'-10"	20'-0" e	20'-0" e	18'-0" e
				24	23'-1" e	20'-2"	17'-7"	18'-10" e	18'-10" e	17'-4" e	16'-4" e	16'-4" e	15'-9" e

NOTES
For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

- Heights are based on AISI S100-07 w/S2-10 Supplement, and AISI S100-12 Specification using steel properties alone.

- Compression flange must be continuously braced.

- End bearing must be 1 inch.

- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 11 inches and must be connected with a minimum of (4) #8 x 9/16" long wafer head screws complying with ASTM C1513.

1 Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.

2 Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.

e Web stiffeners are required at the stud/track connection.

TRAKLOC® NON-COMPOSITE LIMITING HEIGHTS
 48" O.C. BRACING

TRAKLOC Elevator Studs (TLE)

Width (in)	Stud Member (TLE)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLE125-18	0.0188	33	12	12'-3"	10'-3"	9'-0"	10'-0"	10'-0"	8'-10"	8'-8" e	8'-8" e	8'-0" e
				16	10'-7"	9'-4"	8'-2"	8'-8" e	8'-8" e	8'-0" e	7'-6" e	7'-6" e	7'-3" e
				24	8'-8" e	8'-2" e	7'-1"	7'-1" e	7'-1" e	7'-0" e	6'-1" e	6'-1" e	6'-1" e
	TRAKLOC 20EQ (24mil) 250TLE125-24	0.0250	57	12	14'-5"	11'-6"	10'-0"	13'-2"	11'-3"	9'-10"	11'-5"	10'-3"	8'-11"
				16	13'-1"	10'-5"	9'-1"	11'-5"	10'-3"	8'-11"	9'-11"	9'-4"	8'-2"
				24	11'-5"	9'-1"	7'-11"	9'-4"	8'-11"	7'-10"	8'-1"	8'-1"	7'-1"
	TRAKLOC 30mil 250TLE125-30	0.0312	33	12	16'-3"	12'-10"	11'-3"	13'-9"	12'-8"	11'-1"	11'-11"	11'-6"	10'-1"
				16	14'-7"	11'-8"	10'-3"	11'-11"	11'-6"	10'-1"	10'-4"	10'-4"	9'-2"
				24	11'-11"	10'-3"	8'-11"	9'-9"	9'-9"	8'-9"	8'-5"	8'-5"	8'-0"
	TRAKLOC 33mil 250TLE125-33	0.0346	33	12	16'-6"	13'-1"	11'-5"	14'-8"	12'-10"	11'-3"	12'-9"	11'-8"	10'-3"
				16	15'-0"	11'-11"	10'-5"	12'-9"	11'-8"	10'-3"	11'-0"	10'-7"	9'-3"
				24	12'-9"	10'-5"	9'-1"	10'-5"	10'-3"	8'-11"	9'-0"	9'-0"	8'-1"
3-5/8	TRAKLOC 25 (18mil) 362TLE125-18	0.0188	33	12	14'-3"	13'-10"	12'-1"	11'-7" e	11'-7" e	11'-7" e	10'-1" e	10'-1" e	10'-1" e
				16	12'-4" e	12'-4" e	11'-0"	10'-1" e	10'-1" e	10'-1" e	8'-9" e	8'-9" e	8'-9" e
				24	10'-1" e	10'-1" e	9'-7" e	8'-3" e	8'-3" e	8'-3" e	7'-1" e	7'-1" e	7'-1" e
	TRAKLOC 20EQ (24mil) 362TLE125-24	0.0250	57	12	17'-11"	15'-5"	13'-6"	14'-8"	14'-8"	13'-3"	12'-8"	12'-8"	12'-1"
				16	15'-7"	14'-0"	12'-3"	12'-8"	12'-8"	12'-1"	11'-0"	11'-0"	10'-11"
				24	12'-8"	12'-3"	10'-8"	10'-4"	10'-4"	10'-4"	9'-0"	9'-0"	9'-0"
	TRAKLOC 30mil 362TLE125-30	0.0312	33	12	19'-11"	17'-0"	14'-10"	16'-3"	16'-3"	14'-7"	14'-1"	14'-1"	13'-3"
				16	17'-3"	15'-5"	13'-6"	14'-1"	14'-1"	13'-3"	12'-3"	12'-3"	12'-0"
				24	14'-1"	13'-6"	11'-9"	11'-6"	11'-6"	11'-6"	10'-0"	10'-0"	10'-0"
	TRAKLOC 33mil 362TLE125-33	0.0346	33	12	21'-6"	17'-3"	15'-1"	17'-7"	17'-0"	14'-10"	15'-3"	15'-3"	13'-6"
				16	18'-8"	15'-8"	13'-9"	15'-3"	15'-3"	13'-6"	13'-2"	13'-2"	12'-3"
				24	15'-3"	13'-9"	12'-0"	12'-5"	12'-5"	11'-9"	10'-9"	10'-9"	10'-9"
4	TRAKLOC 25 (18mil) 400TLE125-18	0.0188	33	12	15'-0"	14'-8"	12'-10"	12'-3" e	12'-3" e	12'-3" e	10'-7" e	10'-7" e	10'-7" e
				16	12'-11" e	12'-11" e	11'-8" e	10'-7" e	10'-7" e	10'-7" e	9'-2" e	9'-2" e	9'-2" e
				24	10'-7" e	10'-7" e	10'-2" e	8'-8" e	8'-8" e	8'-8" e	7'-6" e	7'-6" e	7'-6" e
	TRAKLOC 20EQ (24mil) 400TLE125-24	0.0250	57	12	18'-10"	16'-9"	14'-7"	15'-4"	15'-4"	14'-4"	13'-4"	13'-4"	13'-1"
				16	16'-4"	15'-2"	13'-3"	13'-4"	13'-4"	13'-1"	11'-6"	11'-6"	11'-6"
				24	13'-4"	13'-3"	11'-7"	10'-10"	10'-10"	10'-10"	9'-5"	9'-5"	9'-5"
	TRAKLOC 30mil 400TLE125-30	0.0312	33	12	21'-0"	18'-4"	16'-0"	17'-2"	17'-2"	15'-9"	14'-10"	14'-10"	14'-4"
				16	18'-2"	16'-8"	14'-7"	14'-10"	14'-10"	14'-4"	12'-10"	12'-10"	12'-10"
				24	14'-10"	14'-7"	12'-9"	12'-1"	12'-1"	12'-1"	10'-6"	10'-6"	10'-6"
	TRAKLOC 33mil 400TLE125-33	0.0346	33	12	22'-8"	18'-6"	16'-2"	18'-6"	18'-2"	15'-11"	16'-0"	16'-0"	14'-5"
				16	19'-8"	16'-9"	14'-8"	16'-0"	16'-0"	14'-5"	13'-11"	13'-11"	13'-1"
				24	16'-0"	14'-8"	12'-10"	13'-1"	13'-1"	12'-7"	11'-4"	11'-4"	11'-4"
6	TRAKLOC 25 (18mil) 600TLE125-18	0.0250	57	12	19'-2" e	19'-2" e	17'-6" e	15'-8" e	15'-8" e	15'-8" e	13'-7" e	13'-7" e	13'-7" e
				16	16'-7" e	16'-7" e	15'-10" e	13'-7" e	13'-7" e	13'-7" e	11'-9" e	11'-9" e	11'-9" e
				24	13'-7" e	13'-7" e	13'-7" e	11'-1" e	11'-1" e	11'-1" e	9'-7" e	9'-7" e	9'-7" e
	TRAKLOC 20EQ (24mil) 600TLE125-24	0.0312	33	12	24'-2"	22'-10"	20'-0"	19'-9"	19'-9"	19'-8"	17'-1" e	17'-1" e	17'-1" e
				16	20'-11"	20'-9"	18'-2"	17'-1" e	17'-1" e	17'-1" e	14'-10" e	14'-10" e	14'-10" e
				24	17'-1" e	17'-1" e	15'-10"	13'-11" e	13'-11" e	13'-11" e	12'-1" e	12'-1" e	12'-1" e
	TRAKLOC 30mil 600TLE125-30	0.0346	33	12	27'-7"	25'-0"	21'-10"	22'-7"	22'-7"	21'-6"	19'-6"	19'-6"	19'-6"
				16	23'-11"	22'-9"	19'-10"	19'-6"	19'-6"	19'-6"	16'-11" e	16'-11" e	16'-11" e
				24	19'-6"	19'-6"	17'-4"	15'-11" e	15'-11" e	15'-11" e	13'-10" e	13'-10" e	13'-10" e
	TRAKLOC 33mil 600TLE125-33	0.0346	33	12	29'-11"	25'-4"	22'-2"	24'-5"	24'-5"	21'-10"	21'-2"	21'-2"	19'-10"
				16	25'-11"	23'-1"	20'-2"	21'-2"	21'-2"	19'-10"	18'-4" e	18'-4" e	18'-0" e
				24	21'-2"	20'-2"	17'-7"	17'-3" e	17'-3" e	17'-3" e	14'-11" e	14'-11" e	14'-11" e

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

NOTES

- Heights are based on AISI S100-07 w/S2-10 Supplement, and AISI S100-12 Specification using steel properties alone.
- Above listed Non-Composite Limiting Heights are applicable when the unbraced length is less than or equal to (Lu) as listed in section properties.
- End bearing must be 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 11 inches and must be connected with a minimum of (4) #8 x 9/16" long wafer head screws complying with ASTM C1513.
- 1 Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
- 2 Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
- e Web stiffeners are required at the stud/track connection.

TRAKLOC® SECTION PROPERTIES

Stud Member (TLF) (TLA) (TLD)	Design thickness (in)	Yield strength (ksi)	Area (in ²)	Weight (lb/ft)	Gross Section Properties					Effective Section Properties at Fy						
					I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	A _e (in ²)	I _x (in ⁴)	S _x (in ³)	M _{al} (in-lbs)	M _{ad} (in-lbs)	V _{ag} (lbs)	V _{a_{net}} (lbs)
250TLF/TLA/TLD125-18	0.0188	33	0.102	0.35	0.106	0.084	1.017	0.022	0.467	0.056	0.102	0.070	1387	1289	252	198
250TLF/TLA/TLD125-24	0.0250	57	0.135	0.46	0.139	0.111	1.014	0.029	0.464	0.067	0.128	0.086	2921	2680	596	349
250TLF/TLA/TLD125-30	0.0312	33	0.167	0.57	0.171	0.137	1.011	0.035	0.461	0.113	0.170	0.125	2475	2515	832	388
250TLF/TLA/TLD125-33	0.0346	33	0.185	0.63	0.188	0.151	1.010	0.039	0.459	0.116	0.187	0.143	2824	3072	990	414
362TLF/TLA/TLD125-18	0.0188	33	0.123	0.42	0.248	0.137	1.419	0.025	0.451	0.056	0.243	0.091	1797	1914	170	165
362TLF/TLA/TLD125-24	0.0250	57	0.163	0.55	0.327	0.180	1.416	0.033	0.448	0.067	0.306	0.109	3710	3986	402	292
362TLF/TLA/TLD125-30	0.0312	33	0.202	0.69	0.404	0.223	1.413	0.040	0.445	0.114	0.401	0.179	3531	3822	785	453
362TLF/TLA/TLD125-33	0.0346	33	0.224	0.76	0.445	0.246	1.411	0.044	0.443	0.118	0.442	0.208	4116	4682	1024	531
400TLF/TLA/TLD125-18 ¹	0.0188	33	0.130	0.44	0.312	0.156	1.549	0.026	0.445	0.056	0.268	0.101	1881	1794	154	—
400TLF/TLA/TLD125-24	0.0250	57	0.172	0.59	0.411	0.206	1.545	0.034	0.442	0.067	0.388	0.121	4114	4416	363	313
400TLF/TLA/TLD125-30	0.0312	33	0.214	0.73	0.509	0.254	1.542	0.041	0.439	0.114	0.505	0.199	3930	4261	708	487
400TLF/TLA/TLD125-33	0.0346	33	0.237	0.81	0.561	0.281	1.540	0.045	0.437	0.118	0.557	0.232	4587	5225	967	598
600TLF/TLA/TLD125-18 ²	0.0188	33	0.168	0.57	0.821	0.274	2.212	0.029	0.414	0.057	0.692	0.156	2915	2744	101	—
600TLF/TLA/TLD125-24 ¹	0.0250	57	0.222	0.76	1.084	0.361	2.208	0.037	0.410	0.068	0.927	0.208	7114	6523	238	—
600TLF/TLA/TLD125-30	0.0312	33	0.276	0.94	1.343	0.448	2.204	0.046	0.407	0.116	1.291	0.352	6960	6491	464	464
600TLF/TLA/TLD125-33	0.0346	33	0.306	1.04	1.483	0.494	2.202	0.050	0.405	0.120	1.438	0.413	8164	7997	634	634

Stud Member (TLA) (TLD) (TLF)	Stud/Track End Reaction (R _x)			Torsional Properties						L _u (in)
	TLF (lbs)	TLA (lbs)	TLD (lbs)	J _x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β (Beta)	
250TLF/TLA/TLD125-18	38	40	42	0.0120	0.031	-1.000	0.598	1.501	0.556	31.5
250TLF/TLA/TLD125-24	111	96	99	0.0281	0.040	-0.992	0.594	1.493	0.558	24.3
250TLF/TLA/TLD125-30	147	106	108	0.0543	0.049	-0.984	0.590	1.485	0.560	31.4
250TLF/TLA/TLD125-33	166	103	112	0.0738	0.053	-0.980	0.587	1.480	0.561	29.9
362TLF/TLA/TLD125-18	38	53	53	0.0145	0.068	-0.873	0.540	1.726	0.744	31.0
362TLF/TLA/TLD125-24	102	115	107	0.0339	0.088	-0.866	0.536	1.719	0.746	23.9
362TLF/TLA/TLD125-30	158	137	134	0.0657	0.108	-0.859	0.532	1.712	0.748	30.8
362TLF/TLA/TLD125-33	149	134	125	0.0893	0.118	-0.855	0.530	1.708	0.749	29.3
400TLF/TLA/TLD125-18 ¹	39	58	44	0.0153	0.084	-0.839	0.524	1.817	0.787	30.8
400TLF/TLA/TLD125-24	125	131	126	0.0359	0.110	-0.832	0.520	1.810	0.789	23.8
400TLF/TLA/TLD125-30	161	162	135	0.0695	0.134	-0.825	0.516	1.802	0.791	30.6
400TLF/TLA/TLD125-33	154	151	145	0.0945	0.147	-0.821	0.514	1.799	0.792	29.1
600TLF/TLA/TLD125-18 ²	31	75	74	0.0198	0.208	-0.696	0.452	2.356	0.913	30.0
600TLF/TLA/TLD125-24 ¹	87	116	118	0.0463	0.272	-0.690	0.448	2.350	0.914	23.1
600TLF/TLA/TLD125-30	114	121	114	0.0897	0.333	-0.683	0.445	2.343	0.915	29.7
600TLF/TLA/TLD125-33	124	108	106	0.1221	0.366	-0.680	0.443	2.340	0.916	28.2

NOTES

 For SI Units: 1 inch = 25.4 mm, 1 lb = 4.45 N, 1 ksi = 6.89 N/m².

- Calculated properties are based on AISI S100-07 w/ S2-10 Supplement and AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members.
 - Gross and torsional properties are based on full-unreduced cross section of the studs, away from punch-outs.
 - The allowable moment based on local buckling (M_{al}) is based on the compression flange continuously braced.
 - The distortional buckling moment (M_{ad}) does not consider the beneficial effect of sheathing to rotational stiffness, K_φ = 0.
 - For deflection calculations, use the effective moment of inertia.
 - Stud/Track End Reaction (R_x) is the maximum end reaction (web crippling) capacity based on a minimum bearing length of 1 inch.
 - For TLA and TLD members, the minimum overlap of TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- ¹ Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
² Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.

TRAKLOC® TRACK SECTION PROPERTIES

Stud Member (TLF) (TLA) (TLD)	Design thickness (in)	Yield strength (ksi)	Area (in ²)	Weight (lb/ft)	Gross Section Properties					Effective Section Properties at F _y				
					I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	A _e (in ²)	I _x (in ⁴)	S _x (in ³)	M _a (in-lbs)	V _a (lb)
250TTS137-18 ²	0.0188	33	0.099	0.34	0.110	0.085	1.057	0.019	0.444	—	—	—	—	—
250TTS137-24	0.0250	57	0.131	0.45	0.147	0.113	1.059	0.026	0.443	0.047	0.106	0.057	1946	570
250TTS137-30	0.0312	33	0.164	0.56	0.184	0.140	1.061	0.032	0.442	0.086	0.149	0.090	1775	832
250TTS137-33	0.0346	33	0.181	0.62	0.204	0.156	1.062	0.035	0.441	0.104	0.170	0.103	2043	1024
362TTS137-18 ²	0.0188	33	0.120	0.41	0.252	0.135	1.449	0.022	0.425	—	—	—	—	—
362TTS137-24	0.0250	57	0.159	0.54	0.335	0.180	1.451	0.029	0.424	0.048	0.258	0.082	2813	390
362TTS137-30	0.0312	33	0.199	0.68	0.419	0.224	1.452	0.036	0.423	0.089	0.347	0.153	3031	758
362TTS137-33	0.0346	33	0.220	0.75	0.465	0.248	1.453	0.039	0.422	0.108	0.395	0.175	3465	1024
400TTS137-18 ²	0.0188	33	0.127	0.43	0.315	0.154	1.576	0.022	0.418	—	—	—	—	—
400TTS137-24	0.0250	57	0.169	0.57	0.420	0.204	1.577	0.029	0.417	0.048	0.328	0.091	3103	353
400TTS137-30	0.0312	33	0.210	0.72	0.524	0.254	1.579	0.036	0.416	0.090	0.437	0.178	3510	686
400TTS137-33	0.0346	33	0.233	0.79	0.582	0.282	1.579	0.040	0.415	0.109	0.497	0.203	4006	935
600TTS137-18 ²	0.0188	33	0.165	0.56	0.816	0.268	2.227	0.024	0.385	—	—	—	—	—
600TTS137-24 ¹	0.0250	57	0.219	0.74	1.086	0.355	2.228	0.032	0.384	0.048	0.718	0.134	4587	234
600TTS137-30	0.0312	33	0.273	0.93	1.356	0.443	2.229	0.040	0.383	0.092	1.117	0.247	4874	455
600TTS137-33	0.0346	33	0.303	1.03	1.504	0.491	2.230	0.044	0.383	0.111	1.287	0.296	5840	621

Stud Member (TLA) (TLD) (TLF)	Torsional Properties					
	J _x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)	β (Beta)
250TTS137-18 ²	0.0116	0.023	-0.875	0.519	1.442	0.632
250TTS137-24	0.0273	0.030	-0.872	0.518	1.441	0.634
250TTS137-30	0.0531	0.038	-0.868	0.516	1.440	0.636
250TTS137-33	0.0724	0.042	-0.867	0.515	1.440	0.638
362TTS137-18 ²	0.0141	0.053	-0.763	0.470	1.692	0.797
362TTS137-24	0.0332	0.070	-0.760	0.469	1.692	0.798
362TTS137-30	0.0645	0.087	-0.757	0.467	1.691	0.800
362TTS137-33	0.0879	0.097	-0.756	0.466	1.691	0.800
400TTS137-18 ²	0.0150	0.066	-0.732	0.456	1.787	0.832
400TTS137-24	0.0351	0.088	-0.730	0.454	1.787	0.833
400TTS137-30	0.0683	0.109	-0.727	0.453	1.787	0.835
400TTS137-33	0.0931	0.121	-0.725	0.452	1.787	0.835
600TTS137-18 ²	0.0194	0.168	-0.605	0.392	2.340	0.933
600TTS137-24 ¹	0.0456	0.222	-0.603	0.391	2.340	0.934
600TTS137-30	0.0885	0.276	-0.601	0.389	2.340	0.934
600TTS137-33	0.1207	0.306	-0.599	0.388	2.340	0.934

NOTES For SI Units: 1 inch = 25.4 mm, 1 lb = 4.45 N, 1 ksi = 6.89 N/m².

- Calculated properties are based on AISI S100-07 w/ S2-10 Supplement and AISI S100-12, North American Specification for Design of Cold-Formed Steel Structural Members.

- Tabulated gross properties including torsional properties are based on full-unreduced cross section of the studs, away from punch-outs.

- For deflection calculations use the effective moment of inertia.

¹ Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.

² Web height-to-thickness ratio exceeds 260. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2. Flange width-to-thickness ratio exceeds 60. See AISI S100 Section B1.1.

TRAKLOC® COMPOSITE LIMITING HEIGHTS
 with 5/8" Type X Gypsum Board

 TRAKLOC Adjustable Studs (TLA)
 TRAKLOC Fixed Length Studs (TLF)

Width (in)	Stud Member (TLA) (TLF)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLA/TLF125-18	0.0188	33	12	17'-2"	14'-5"	12'-7"	14'-6" f	12'-8"	11'-0"	12'-7" f	11'-6"	10'-0"
				16	15'-10" f	13'-7"	11'-10"	13'-0"	11'-10"	10'-4"	11'-3" f	10'-9" f	9'-3"
				24	13'-4" f	12'-3"	10'-8"	10'-11" f	10'-8"	9'-1"	9'-5" f	9'-5" f	7'-11"
	TRAKLOC 20EQ (24mil) 250TLA/TLF125-24	0.0250	57	12	16'-10"	14'-10"	13'-1"	15'-0"	13'-0"	11'-5"	13'-9"	11'-10"	10'-4"
				16	16'-8"	13'-9"	12'-1"	14'-7"	12'-0"	10'-7"	13'-3"	10'-11"	9'-7"
				24	14'-10"	12'-3"	10'-9"	13'-0"	10'-8"	9'-3"	11'-9"	9'-8"	8'-2"
	TRAKLOC 30mil 250TLA/TLF125-30	0.0312	33	12	18'-5"	16'-0"	14'-0"	16'-2"	14'-0"	12'-3"	14'-9"	12'-8"	11'-2"
				16	17'-6"	15'-0"	13'-2"	15'-4"	13'-1"	11'-6"	13'-11"	11'-11"	10'-6"
				24	15'-9"	13'-5"	11'-10"	13'-9"	11'-9"	10'-4"	12'-6"	10'-8"	9'-3"
	TRAKLOC 33mil 250TLA/TLF125-33	0.0346	33	12	20'-11"	16'-7"	14'-6"	18'-3"	14'-6"	12'-8"	16'-7"	13'-2"	11'-6"
				16	19'-0"	15'-1"	13'-2"	16'-7"	13'-2"	11'-6"	15'-1"	12'-0"	10'-6"
				24	16'-7"	13'-2"	11'-6"	14'-6"	11'-6"	10'-1"	13'-2"	10'-6"	9'-0"
3-5/8	TRAKLOC 25 (18mil) 362TLA/TLF125-18	0.0188	33	12	21'-7"	17'-11"	15'-8"	18'-10" f	15'-8"	13'-8"	16'-4" f	14'-3"	12'-5"
				16	20'-0" f	16'-8"	14'-7"	16'-4" f	14'-7"	12'-8"	14'-1" f	13'-3"	11'-6"
				24	16'-4" f	14'-10"	13'-0"	13'-4" f	13'-0"	11'-2"	11'-6" f	11'-6" f	9'-10"
	TRAKLOC 20EQ (24mil) 362TLA/TLF125-24	0.0250	57	12	24'-1"	19'-1"	16'-8"	21'-0"	16'-8"	14'-7"	19'-1"	15'-2"	13'-3"
				16	21'-10"	17'-4"	15'-2"	19'-1"	15'-2"	13'-3"	17'-4"	13'-9"	12'-0"
				24	19'-1"	15'-2"	13'-3"	16'-8"	13'-3"	11'-6"	15'-0" f	12'-0"	10'-4"
	TRAKLOC 30mil 362TLA/TLF125-30	0.0312	33	12	24'-7"	20'-2"	17'-10"	21'-6"	17'-8"	15'-7"	19'-6"	16'-0"	14'-2"
				16	22'-8"	18'-8"	16'-6"	19'-10"	16'-4"	14'-5"	18'-0"	14'-10"	13'-1"
				24	20'-1"	16'-7"	14'-7"	17'-7"	14'-6"	12'-9"	16'-0"	13'-2"	11'-7"
	TRAKLOC 33mil 362TLA/TLF125-33	0.0346	33	12	25'-5"	20'-2"	17'-7"	22'-2"	17'-7"	15'-4"	20'-2"	16'-0"	14'-0"
				16	23'-9"	18'-10"	16'-6"	20'-9"	16'-6"	14'-5"	18'-10"	15'-0"	13'-1"
				24	21'-4"	16'-11"	14'-10"	18'-8"	14'-10"	12'-11"	16'-11"	13'-5"	11'-8"
4	TRAKLOC 25 (18mil) 400TLA/TLF125-18	0.0188	33	12	23'-4"	18'-6"	16'-4"	19'-5" f	16'-2"	14'-3"	16'-10" f	14'-8"	12'-11"
				16	20'-7" f	17'-5"	15'-4"	16'-10" f	15'-3"	13'-5"	14'-7" f	13'-10"	12'-2"
				24	16'-10" f	15'-9"	13'-10"	13'-9" f	13'-9"	12'-1"	11'-11" f	11'-11" f	10'-9"
	TRAKLOC 20EQ (24mil) 400TLA/TLF125-24	0.0250	57	12	24'-4"	19'-4"	16'-11"	21'-3"	16'-11"	14'-9"	19'-4"	15'-4"	13'-5"
				16	23'-1"	18'-4"	16'-0"	20'-2"	16'-0"	14'-0"	18'-4"	14'-7"	12'-9"
				24	21'-0"	16'-8"	14'-7"	18'-4"	14'-7"	12'-9"	16'-0" f	13'-3"	11'-6"
	TRAKLOC 30mil 400TLA/TLF125-30	0.0312	33	12	26'-3"	20'-11"	18'-4"	23'-0"	18'-5"	16'-3"	20'-10"	16'-10"	14'-11"
				16	24'-3"	19'-11"	17'-5"	21'-2"	17'-5"	15'-3"	19'-3"	15'-10"	13'-11"
				24	21'-6"	17'-8"	15'-7"	18'-9"	15'-5"	13'-7"	17'-1"	14'-0"	12'-4"
	TRAKLOC 33mil 400TLA/TLF125-33	0.0346	33	12	27'-7"	22'-9"	19'-11"	24'-1"	19'-10"	17'-6"	21'-10"	18'-1"	15'-11"
				16	25'-0"	20'-8"	18'-2"	21'-10"	18'-1"	15'-11"	19'-10"	16'-5"	14'-5"
				24	21'-10"	18'-1"	15'-11"	19'-1"	15'-9"	13'-11"	17'-4"	14'-4"	12'-8"
6	TRAKLOC 25 (18mil) 600TLA/TLF125-18	0.0188	33	12	30'-5" f	25'-3"	22'-5"	24'-10" f	22'-0"	19'-7"	21'-6" f	20'-0"	17'-9"
				16	26'-4" f	23'-4"	20'-9"	21'-6" f	20'-5"	18'-2"	18'-7" f	18'-7" f	16'-6"
				24	21'-6" f	20'-9"	18'-5"	17'-7" f	17'-7" f	16'-1"	15'-2" f	15'-2" f	14'-5"
	TRAKLOC 20EQ (24mil) 600TLA/TLF125-24	0.0250	57	12	33'-5"	27'-4"	24'-2"	29'-2"	23'-11"	21'-1"	26'-6"	21'-8"	19'-2"
				16	30'-4"	24'-10"	21'-11"	26'-6"	21'-8"	19'-2"	24'-1"	19'-9"	17'-5"
				24	26'-6"	21'-8"	19'-2"	23'-2"	18'-11"	16'-9"	20'-1" f	17'-3"	15'-2"
	TRAKLOC 30mil 600TLA/TLF125-30	0.0312	33	12	35'-5"	28'-1"	24'-6"	30'-11"	24'-6"	21'-5"	28'-1"	22'-4"	19'-6"
				16	33'-3"	26'-4"	23'-0"	29'-0"	23'-0"	20'-1"	26'-4"	20'-11"	18'-3"
				24	29'-11"	23'-9"	20'-9"	25'-10" f	20'-9"	18'-1"	22'-4" f	18'-10"	16'-5"
	TRAKLOC 33mil 600TLA/TLF125-33	0.0346	33	12	36'-0"	28'-7"	25'-0"	31'-5"	25'-0"	21'-10"	28'-7"	22'-8"	19'-10"
				16	33'-9"	26'-9"	23'-5"	29'-5"	23'-5"	20'-5"	26'-9" f	21'-3"	18'-7"
				24	30'-3"	24'-0"	21'-0"	25'-11" f	21'-0"	18'-4"	22'-5" f	19'-1"	16'-7"

NOTES

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2012.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- In accordance with current building codes and AISI design standards, the 1/3 Stress Increase for strength was not used.
- The composite limiting heights provided in the tables are based on a single layer of 5/8" Type X Gypsum Board complying with ASTM C1396 and from the following manufacturers: American Gypsum, CertainTeed, Georgia Pacific, Continental, National Gypsum or USG.
- The gypsum board must be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754 using minimum No. 6 Type S fine thread Drywall bugle head screws spaced as listed below:
 - Screws spaced a maximum of 16 inch on-center to framing members spaced at 12 inch on-center.
 - Screws spaced a maximum of 12 inch on-center to framing members spaced at 16 inch or 24 inch on-center.
 - Screws spaced 16 inch on-center to the top and bottom track.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- † Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- ‡ Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

TRAKLOC® COMPOSITE LIMITING HEIGHTS
with 5/8" Type X Gypsum Board

TRAKLOC Deflection Studs (TLD)

Width (in)	Stud Member (TLD)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLD125-18	0.0188	33	12	17'-2"	14'-5"	12'-7"	14'-6" f	12'-8"	11'-0"	12'-7" f	11'-6"	10'-0"
				16	15'-10" f	13'-7"	11'-10"	13'-0"	11'-10"	10'-4"	11'-2" s	10'-9"	9'-3"
				24	13'-4" f	12'-3"	10'-8"	9'-11" s	9'-11" s	9'-1"	—	—	—
	TRAKLOC 20EQ (24mil) 250TLD125-24	0.0250	57	12	16'-10"	14'-10"	13'-1"	15'-0"	13'-0"	11'-5"	13'-9"	11'-10"	10'-4"
				16	16'-8"	13'-9"	12'-1"	14'-7"	12'-0"	10'-7"	13'-3"	10'-11"	9'-7"
				24	14'-10"	12'-3"	10'-9"	13'-0"	10'-8"	9'-3"	11'-9"	9'-8"	8'-2"
	TRAKLOC 30mil 250TLD125-30	0.0312	33	12	18'-5"	16'-0"	14'-0"	16'-2"	14'-0"	12'-3"	14'-9"	12'-8"	11'-2"
				16	17'-6"	15'-0"	13'-2"	15'-4"	13'-1"	11'-6"	13'-11"	11'-11"	10'-6"
				24	15'-9"	13'-5"	11'-10"	13'-9"	11'-9"	10'-4"	12'-6"	10'-8"	9'-3"
	TRAKLOC 33mil 250TLD125-33	0.0346	33	12	20'-11"	16'-7"	14'-6"	18'-3"	14'-6"	12'-8"	16'-7"	13'-2"	11'-6"
				16	19'-0"	15'-1"	13'-2"	16'-7"	13'-2"	11'-6"	15'-1"	12'-0"	10'-6"
				24	16'-7"	13'-2"	11'-6"	14'-6"	11'-6"	10'-1"	13'-2"	10'-6"	9'-0"
3-5/8	TRAKLOC 25 (18mil) 362TLD125-18	0.0188	33	12	21'-7"	17'-11"	15'-8"	15'-10" s	15'-8" s	13'-8"	11'-10" s	11'-10" s	11'-10" s
				16	17'-9" s	16'-8"	14'-7"	11'-10" s	11'-10" s	11'-10" s	8'-11" s	8'-11" s	8'-11" s
				24	11'-10" s	11'-10" s	11'-10" s	7'-11" s	7'-11" s	7'-11" s	—	—	—
	TRAKLOC 20EQ (24mil) 362TLD125-24	0.0250	57	12	24'-1"	19'-1"	16'-8"	21'-0"	16'-8"	14'-7"	19'-1"	15'-2"	13'-3"
				16	21'-10"	17'-4"	15'-2"	19'-1"	15'-2"	13'-3"	17'-4"	13'-9"	12'-0"
				24	19'-1"	15'-2"	13'-3"	16'-8"	13'-3"	11'-6"	14'-11" f	12'-0"	10'-4"
	TRAKLOC 30mil 362TLD125-30	0.0312	33	12	24'-7"	20'-2"	17'-10"	21'-6"	17'-8"	15'-7"	19'-6"	16'-0"	14'-2"
				16	22'-8"	18'-8"	16'-6"	19'-10"	16'-4"	14'-5"	18'-0"	14'-10"	13'-1"
				24	20'-1"	16'-7"	14'-7"	17'-7"	14'-6"	12'-9"	16'-0"	13'-2"	11'-7"
	TRAKLOC 33mil 362TLD125-33	0.0346	33	12	25'-5"	20'-2"	17'-7"	22'-2"	17'-7"	15'-4"	20'-2"	16'-0"	14'-0"
				16	23'-9"	18'-10"	16'-6"	20'-9"	16'-6"	14'-5"	18'-10"	15'-0"	13'-1"
				24	21'-4"	16'-11"	14'-10"	18'-8"	14'-10"	12'-11"	16'-11"	13'-5"	11'-8"
4	TRAKLOC 25 (18mil) 400TLD125-18	0.0188	33	12	23'-4" f	18'-6"	16'-4"	19'-5" f	16'-2"	14'-3"	16'-10" f	14'-8"	12'-11"
				16	20'-7" f	17'-5"	15'-4"	16'-10" f	15'-3"	13'-5"	12'-9" s	12'-9" s	12'-2"
				24	16'-10" f	15'-9"	13'-10"	11'-4" s	11'-4" s	11'-4" s	8'-6" s	8'-6" s	8'-6" s
	TRAKLOC 20EQ (24mil) 400TLD125-24	0.0250	57	12	24'-4"	19'-4"	16'-11"	21'-3"	16'-11"	14'-9"	19'-4"	15'-4"	13'-5"
				16	23'-1"	18'-4"	16'-0"	20'-2"	16'-0"	14'-0"	18'-4"	14'-7"	12'-9"
				24	21'-0"	16'-8"	14'-7"	18'-4"	14'-7"	12'-9"	16'-0" f	13'-3"	11'-6"
	TRAKLOC 30mil 400TLD125-30	0.0312	33	12	26'-3"	20'-11"	18'-4"	23'-0"	18'-5"	16'-3"	20'-10"	16'-10"	14'-11"
				16	24'-3"	19'-11"	17'-5"	21'-2"	17'-5"	15'-3"	19'-3"	15'-10"	13'-11"
				24	21'-6"	17'-8"	15'-7"	18'-9"	15'-5"	13'-7"	17'-1"	14'-0"	12'-4"
	TRAKLOC 33mil 400TLD125-33	0.0346	33	12	27'-7"	22'-9"	19'-11"	24'-1"	19'-10"	17'-6"	21'-10"	18'-1"	15'-11"
				16	25'-0"	20'-8"	18'-2"	21'-10"	18'-1"	15'-11"	19'-10"	16'-5"	14'-5"
				24	21'-10"	18'-1"	15'-11"	19'-1"	15'-9"	13'-11"	17'-4"	14'-4"	12'-8"
6	TRAKLOC 25 (18mil) 600TLD125-18	0.0188	33	12	20'-8" s	20'-8" s	20'-8" s	13'-10" s	13'-10" s	13'-10" s	—	—	—
				16	15'-6" s	15'-6" s	15'-6" s	—	—	—	—	—	—
				24	—	—	—	—	—	—	—	—	—
	TRAKLOC 20EQ (24mil) 600TLD125-24	0.0250	57	12	33'-5"	27'-4"	24'-2"	29'-2"	23'-11"	21'-1"	24'-2" s	21'-8"	19'-2"
				16	30'-4"	24'-10"	21'-11"	24'-2" s	21'-8"	19'-2"	18'-1" s	18'-1" s	17'-5" s
				24	24'-2" s	21'-8"	19'-2"	16'-1" s	16'-1" s	16'-1" s	12'-1" s	12'-1" s	12'-1" s
	TRAKLOC 30mil 600TLD125-30	0.0312	33	12	35'-5"	28'-1"	24'-6"	30'-11"	24'-6"	21'-5"	28'-1"	22'-4"	19'-6"
				16	33'-3"	26'-4"	23'-0"	29'-0"	23'-0"	20'-1"	26'-4"	20'-11"	18'-3"
				24	29'-11"	23'-9"	20'-9"	23'-7" s	20'-9"	18'-1"	17'-8" s	17'-8" s	16'-5"
	TRAKLOC 33mil 600TLD125-33	0.0346	33	12	36'-0"	28'-7"	25'-0"	31'-5"	25'-0"	21'-10"	28'-7"	22'-8"	19'-10"
				16	33'-9"	26'-9"	23'-5"	29'-5"	23'-5"	20'-5"	26'-9"	21'-3"	18'-7"
				24	30'-3"	24'-0"	21'-0"	24'-8" s	21'-0"	18'-4"	18'-6" s	18'-6" s	16'-7"

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

NOTES

- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2012.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- In accordance with current building codes and AISI design standards, the 1/3 Stress Increase for strength was not used.
- The composite limiting heights provided in the tables are based on a single layer of 5/8" Type X Gypsum Board complying with ASTM C1396 and from the following manufacturers: American Gypsum, CertainTeed, Georgia Pacific, Continental, National Gypsum or USG.
- The gypsum board must be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754 using minimum No. 6 Type S fine thread Drywall bugle head screws spaced as listed below:
 - Screws spaced a maximum of 16 inch on-center to framing members spaced at 12 inch on-center.
 - Screws spaced a maximum of 12 inch on-center to framing members spaced at 16 inch or 24 inch on-center.
 - Screws spaced 16 inch on-center to the bottom track only.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- f Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- s Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

TRAKLOC® NON-COMPOSITE LIMITING HEIGHTS
FULLY BRACED
TRAKLOC Fixed Length Studs (TLF)

Width (in)	Stud Member (TLF)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLF125-18	0.0188	33	12	13'-1"	11'-0"	9'-8"	10'-8" e	10'-8" e	9'-6"	9'-3" e	9'-3" e	8'-7" e
				16	11'-4" e	10'-0"	8'-9"	9'-3" e	9'-3" e	8'-7" e	8'-0" e	8'-0" e	7'-10" e
				24	9'-3" e	8'-9" e	7'-8" e	7'-7" e	7'-7" e	7'-6" e	6'-7" e	6'-7" e	6'-7" e
	TRAKLOC 20EQ (24mil) 250TLF125-24	0.0250	57	12	15'-0"	11'-11"	10'-5"	14'-9"	11'-8"	10'-3"	13'-4"	10'-8"	9'-3"
				16	13'-7"	10'-10"	9'-5"	13'-4"	10'-8"	9'-3"	11'-7"	9'-8"	8'-5"
				24	11'-11"	9'-5"	8'-3"	10'-11"	9'-3"	8'-1"	9'-5"	8'-5"	7'-4"
	TRAKLOC 30mil 250TLF125-30	0.0312	33	12	16'-5"	13'-1"	11'-5"	14'-10"	12'-10"	11'-3"	12'-10"	11'-8"	10'-2"
				16	14'-11"	11'-10"	10'-4"	12'-10"	11'-8"	10'-2"	11'-1"	10'-7"	9'-3"
				24	12'-10"	10'-4"	9'-1"	10'-6"	10'-2"	8'-11"	9'-1"	9'-1"	8'-1"
	TRAKLOC 33mil 250TLF125-33	0.0346	33	12	17'-0"	13'-6"	11'-9"	15'-10"	13'-3"	11'-7"	13'-9"	12'-1"	10'-6"
				16	15'-5"	12'-3"	10'-8"	13'-9"	12'-1"	10'-6"	11'-11"	10'-11"	9'-7"
				24	13'-6"	10'-8"	9'-4"	11'-2"	10'-6"	9'-2"	9'-8"	9'-7"	8'-4"
3-5/8	TRAKLOC 25 (18mil) 362TLF125-18	0.0188	33	12	15'-6" e	14'-9"	12'-10"	12'-8" e	12'-8" e	12'-8" e	10'-11" e	10'-11" e	10'-11" e
				16	13'-5" e	13'-4" e	11'-8" e	10'-11" e	10'-11" e	10'-11" e	9'-6" e	9'-6" e	9'-6" e
				24	10'-11" e	10'-11" e	10'-2" e	8'-11" e	8'-11" e	8'-11" e	7'-9" e	7'-9" e	7'-9" e
	TRAKLOC 20EQ (24mil) 362TLF125-24	0.0250	57	12	20'-0"	15'-11"	13'-11"	18'-2"	15'-8"	13'-8"	15'-9"	14'-3"	12'-5"
				16	18'-2"	14'-5"	12'-7"	15'-9"	14'-3"	12'-5"	13'-7"	12'-11"	11'-3"
				24	15'-9"	12'-7"	11'-0"	12'-10"	12'-5"	10'-10"	11'-1" e	11'-1" e	9'-10"
	TRAKLOC 30mil 362TLF125-30	0.0312	33	12	21'-8"	17'-5"	15'-2"	17'-9"	17'-1"	14'-11"	15'-4"	15'-4"	13'-7"
				16	18'-10"	15'-10"	13'-10"	15'-4"	15'-4"	13'-7"	13'-3"	13'-3"	12'-4"
				24	15'-4"	13'-10"	12'-1"	12'-6"	12'-6"	11'-10"	10'-10"	10'-10"	10'-9"
	TRAKLOC 33mil 362TLF125-33	0.0346	33	12	22'-8"	18'-0"	15'-8"	19'-2"	17'-8"	15'-5"	16'-7"	16'-1"	14'-0"
				16	20'-3"	16'-4"	14'-3"	16'-7"	16'-1"	14'-0"	14'-4"	14'-4"	12'-9"
				24	16'-7"	14'-3"	12'-5"	13'-6"	13'-6"	12'-3"	11'-9"	11'-9"	11'-2"
4	TRAKLOC 25 (18mil) 400TLF125-18	0.0188	33	12	15'-6" e	15'-2"	13'-3"	12'-8" e	12'-8" e	12'-8" e	10'-11" e	10'-11" e	10'-11" e
				16	13'-5" e	13'-5" e	12'-1" e	10'-11" e	10'-11" e	10'-11" e	9'-6" e	9'-6" e	9'-6" e
				24	10'-11" e	10'-11" e	10'-6" e	8'-11" e	8'-11" e	8'-11" e	7'-9" e	7'-9" e	7'-9" e
	TRAKLOC 20EQ (24mil) 400TLF125-24	0.0250	57	12	21'-8"	17'-2"	15'-0"	19'-1"	16'-11"	14'-9"	16'-7"	15'-5"	13'-5"
				16	19'-8"	15'-8"	13'-8"	16'-7"	15'-5"	13'-5"	14'-4"	14'-0"	12'-2"
				24	16'-7"	13'-8"	11'-11"	13'-6"	13'-5"	11'-9"	11'-9"	11'-9"	10'-8"
	TRAKLOC 30mil 400TLF125-30	0.0312	33	12	22'-11"	18'-9"	16'-5"	18'-8"	18'-6"	16'-2"	16'-2"	16'-2"	14'-8"
				16	19'-10"	17'-1"	14'-11"	16'-2"	16'-2"	14'-8"	14'-0"	14'-0"	13'-4"
				24	16'-2"	14'-11"	13'-0"	13'-3"	13'-3"	12'-10"	11'-5"	11'-5"	11'-5"
	TRAKLOC 33mil 400TLF125-33	0.0346	33	12	24'-5"	19'-5"	16'-11"	20'-2"	19'-1"	16'-8"	17'-6"	17'-4"	15'-2"
				16	21'-5"	17'-8"	15'-5"	17'-6"	17'-4"	15'-2"	15'-2"	15'-2"	13'-9"
				24	17'-6"	15'-5"	13'-5"	14'-3"	14'-3"	13'-3"	12'-4"	12'-4"	12'-0"
6	TRAKLOC 25 (18mil) 600TLF125-18	0.0188	33	12	19'-2" e	19'-2" e	18'-3" e	15'-7" e	15'-7" e	15'-7" e	13'-6" e	13'-6" e	13'-6" e
				16	16'-7" e	16'-7" e	16'-7" e	13'-6" e	13'-6" e	13'-6" e	11'-9" e	11'-9" e	11'-9" e
				24	13'-6" e	13'-6" e	13'-6" e	11'-1" e	11'-1" e	11'-1" e	9'-7" e	9'-7" e	9'-7" e
	TRAKLOC 20EQ (24mil) 600TLF125-24	0.0250	57	12	27'-9"	23'-0"	20'-1"	22'-8"	22'-7"	19'-9"	19'-8" e	19'-8" e	17'-11" e
				16	24'-1"	20'-11"	18'-3"	19'-8" e	19'-8" e	17'-11" e	17'-0" e	17'-0" e	16'-4" e
				24	19'-8" e	18'-3" e	15'-11"	16'-1" e	16'-1" e	15'-8" e	13'-11" e	13'-11" e	13'-11" e
	TRAKLOC 30mil 600TLF125-30	0.0312	33	12	29'-5"	25'-8"	22'-5"	24'-0"	24'-0"	22'-1"	20'-10"	20'-10"	20'-1"
				16	25'-6"	23'-4"	20'-5"	20'-10"	20'-10"	20'-1"	18'-0" e	18'-0" e	18'-0" e
				24	20'-10"	20'-5"	17'-10"	17'-0" e	17'-0" e	17'-0" e	14'-9" e	14'-9" e	14'-9" e
	TRAKLOC 33mil 600TLF125-33	0.0346	33	12	32'-8"	26'-7"	23'-3"	26'-8"	26'-2"	22'-11"	23'-1"	23'-1"	20'-9"
				16	28'-3"	24'-2"	21'-2"	23'-1"	23'-1"	20'-9"	20'-0" e	20'-0" e	18'-11" e
				24	23'-1"	21'-2"	18'-5"	18'-10" e	18'-10" e	18'-2" e	16'-4" e	16'-4" e	16'-4" e

NOTES

- Heights are based on AISI S100-07 w/S2-10 Supplement, and AISI S100-12 Specification using steel properties alone.

- Compression flange must be continuously braced.

- End bearing must be 1 inch.

1 Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.

2 Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.

e Web stiffeners are required at the stud/track connection.

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

TRAKLOC® NON-COMPOSITE LIMITING HEIGHTS
48" O.C. BRACING

TRAKLOC Fixed Length Studs (TLF)

Width (in)	Stud Member (TLF)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF			
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360	
2-1/2	TRAKLOC 25 (18mil) 250TLF125-18	0.0188	33	12	12'-7"	11'-0"	9'-8"	10'-3" e	10'-3" e	9'-6"	8'-11" e	8'-11" e	8'-7" e	
				16	10'-11"	10'-0"	8'-9"	8'-11" e	8'-11" e	8'-7" e	7'-8" e	7'-8" e	7'-8" e	
				24	8'-11" e	8'-9" e	7'-8" e	7'-3" e	7'-3" e	7'-3" e	6'-3" e	6'-3" e	6'-3" e	
	TRAKLOC 20EQ (24mil) 250TLF125-24	0.0250	57	12	15'-0"	11'-11"	10'-5"	13'-2"	11'-8"	10'-3"	11'-5"	10'-8"	9'-3"	
				16	13'-7"	10'-10"	9'-5"	11'-5"	10'-8"	9'-3"	9'-11"	9'-8"	8'-5"	
				24	11'-5"	9'-5"	8'-3"	9'-4"	9'-3"	8'-1"	8'-1"	8'-1"	7'-4"	
	TRAKLOC 30mil 250TLF125-30	0.0312	33	12	16'-5"	13'-1"	11'-5"	13'-9"	12'-10"	11'-3"	11'-11"	11'-8"	10'-2"	
				16	14'-7"	11'-10"	10'-4"	11'-11"	11'-8"	10'-2"	10'-4"	10'-4"	9'-3"	
				24	11'-11"	10'-4"	9'-1"	9'-9"	9'-9"	8'-11"	8'-5"	8'-5"	8'-1"	
	TRAKLOC 33mil 250TLF125-33	0.0346	33	12	17'-0"	13'-6"	11'-9"	14'-8"	13'-3"	11'-7"	12'-9"	12'-9"	12'-1"	10'-6"
				16	15'-5"	12'-3"	10'-8"	12'-9"	12'-1"	10'-6"	11'-0"	10'-11"	9'-7"	
				24	12'-9"	10'-8"	9'-4"	10'-5"	10'-5"	9'-2"	9'-0"	9'-0"	8'-4"	
3-5/8	TRAKLOC 25 (18mil) 362TLF125-18	0.0188	33	12	14'-3"	14'-3"	12'-10"	11'-7" e	11'-7" e	11'-7" e	10'-1" e	10'-1" e	10'-1" e	
				16	12'-4" e	12'-4" e	11'-8" e	10'-1" e	10'-1" e	10'-1" e	8'-9" e	8'-9" e	8'-9" e	
				24	10'-1" e	10'-1" e	10'-1" e	8'-3" e	8'-3" e	8'-3" e	7'-1" e	7'-1" e	7'-1" e	
	TRAKLOC 20EQ (24mil) 362TLF125-24	0.0250	57	12	17'-11"	15'-11"	13'-11"	14'-8"	14'-8"	13'-8"	12'-8"	12'-8"	12'-5"	
				16	15'-7"	14'-5"	12'-7"	12'-8"	12'-8"	12'-5"	11'-0"	11'-0"	11'-0"	
				24	12'-8"	12'-7"	11'-0"	10'-4"	10'-4"	10'-4"	9'-0"	9'-0"	9'-0"	
	TRAKLOC 30mil 362TLF125-30	0.0312	33	12	19'-11"	17'-5"	15'-2"	16'-3"	16'-3"	14'-11"	14'-1"	14'-1"	13'-7"	
				16	17'-3"	15'-10"	13'-10"	14'-1"	14'-1"	13'-7"	12'-3"	12'-3"	12'-3"	
				24	14'-1"	13'-10"	12'-1"	11'-6"	11'-6"	11'-6"	10'-0"	10'-0"	10'-0"	
	TRAKLOC 33mil 362TLF125-33	0.0346	33	12	21'-6"	18'-0"	15'-8"	17'-7"	17'-7"	15'-5"	15'-3"	15'-3"	14'-0"	
				16	18'-8"	16'-4"	14'-3"	15'-3"	15'-3"	14'-0"	13'-2"	13'-2"	12'-9"	
				24	15' 3"	14' 3"	12' 5"	12' 5"	12' 5"	12' 3"	10' 9"	10' 9"	10' 9"	
4	TRAKLOC 25 (18mil) 400TLF125-18	0.0188	33	12	15'-0"	15'-0"	13'-3"	12'-3" e	12'-3" e	12'-3" e	10'-7" e	10'-7" e	10'-7" e	
				16	12'-11" e	12'-11" e	12'-1" e	10'-7" e	10'-7" e	10'-7" e	9'-2" e	9'-2" e	9'-2" e	
				24	10'-7" e	10'-7" e	10'-6" e	8'-8" e	8'-8" e	8'-8" e	7'-6" e	7'-6" e	7'-6" e	
	TRAKLOC 20EQ (24mil) 400TLF125-24	0.0250	57	12	18'-10"	17'-2"	15'-0"	15'-4"	15'-4"	14'-9"	13'-4"	13'-4"	13'-4"	
				16	16'-4"	15'-8"	13'-8"	13'-4"	13'-4"	13'-4"	11'-6"	11'-6"	11'-6"	
				24	13'-4"	13'-4"	11'-11"	10'-10"	10'-10"	10'-10"	9'-5"	9'-5"	9'-5"	
	TRAKLOC 30mil 400TLF125-30	0.0312	33	12	21'-0"	18'-9"	16'-5"	17'-2"	17'-2"	16'-2"	14'-10"	14'-10"	14'-8"	
				16	18'-2"	17'-1"	14'-11"	14'-10"	14'-10"	14'-8"	12'-10"	12'-10"	12'-10"	
				24	14'-10"	14'-10"	13'-0"	12'-1"	12'-1"	12'-1"	10'-6"	10'-6"	10'-6"	
	TRAKLOC 33mil 400TLF125-33	0.0346	33	12	22'-8"	19'-5"	16'-11"	18'-6"	18'-6"	16'-8"	16'-0"	16'-0"	15'-2"	
				16	19'-8"	17'-8"	15'-5"	16'-0"	16'-0"	15'-2"	13'-11"	13'-11"	13'-9"	
				24	16'-0"	15'-5"	13'-5"	13'-1"	13'-1"	13'-1"	11'-4"	11'-4"	11'-4"	
6	TRAKLOC 25 (18mil) 600TLF125-18 ²	0.0188	33	12	19'-2" e	19'-2" e	18'-3" e	15'-7" e	15'-7" e	15'-7" e	13'-6" e	13'-6" e	13'-6" e	
				16	16'-7" e	16'-7" e	16'-7" e	13'-6" e	13'-6" e	13'-6" e	11'-9" e	11'-9" e	11'-9" e	
				24	13'-6" e	13'-6" e	13'-6" e	11'-1" e	11'-1" e	11'-1" e	9'-7" e	9'-7" e	9'-7" e	
	TRAKLOC 20EQ (24mil) 600TLF125-24 ¹	0.0250	57	12	24'-2"	23'-0"	20'-1"	19'-9"	19'-9"	19'-9"	17'-1"	17'-1"	17'-1"	
				16	20'-11"	20'-11"	18'-3"	17'-1"	17'-1"	17'-1"	14'-10"	14'-10"	14'-10"	
				24	17'-1"	17'-1"	15'-11"	13'-11"	13'-11"	13'-11"	12'-1"	12'-1"	12'-1"	
	TRAKLOC 30mil 600TLF125-30	0.0312	33	12	27'-7"	25'-8"	22'-5"	22'-7"	22'-7"	22'-1"	19'-6"	19'-6"	19'-6"	
				16	23'-11"	23'-4"	20'-5"	19'-6"	19'-6"	19'-6"	16'-11"	16'-11"	16'-11"	
				24	19'-6"	19'-6"	17'-10"	15'-11" e	15'-11" e	15'-11" e	13'-10" e	13'-10" e	13'-10" e	
	TRAKLOC 33mil 600TLF125-33	0.0346	33	12	29'-11"	26'-7"	23'-3"	24'-5"	24'-5"	22'-11"	21'-2"	21'-2"	20'-9"	
				16	25'-11"	24'-2"	21'-2"	21'-2"	21'-2"	20'-9"	18'-4"	18'-4"	18'-4"	
				24	21'-2"	21'-2"	18'-5"	17'-3" e	17'-3" e	17'-3" e	14'-11" e	14'-11" e	14'-11" e	

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

NOTES

- Heights are based on AISI S100-07 w/S2-10 Supplement, and AISI S100-12 Specification using steel properties alone.
- Above listed Non-Composite Limiting Heights are applicable when the unbraced length is less than or equal to (Lu) as listed in section properties.
- End bearing must be 1 inch.
- ¹ Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
- ² Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
- ^e Web stiffeners are required at the stud/track connection.

TRAKLOC® NON-COMPOSITE LIMITING HEIGHTS
FULLY BRACED

Width (in)	Stud Member (TLA/TLD)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLA/TLD125-18	0.0188	33	12	13'-1"	11'-0"	9'-8"	10'-8" e	10'-8" e	9'-6"	9'-3" e	9'-3" e	8'-7" e
				16	11'-4" e	10'-0"	8'-9"	9'-3" e	9'-3" e	8'-7" e	8'-0" e	8'-0" e	7'-10" e
				24	9'-3" e	8'-9" e	7'-8" e	7'-7" e	7'-7" e	7'-6" e	6'-7" e	6'-7" e	6'-7" e
	TRAKLOC 20EQ (24mil) 250TLA/TLD125-24	0.0250	57	12	15'-0"	11'-11"	10'-5"	14'-9"	11'-8"	10'-3"	13'-4"	10'-8"	9'-3"
				16	13'-7"	10'-10"	9'-5"	13'-4"	10'-8"	9'-3"	11'-7"	9'-8"	8'-5"
				24	11'-11"	9'-5"	8'-3"	10'-11"	9'-3"	8'-1"	9'-5"	8'-5"	7'-4"
	TRAKLOC 30mil 250TLA/TLD125-30	0.0312	33	12	16'-5"	13'-1"	11'-5"	14'-10"	12'-10"	11'-3"	12'-10"	11'-8"	10'-2"
				16	14'-11"	11'-10"	10'-4"	12'-10"	11'-8"	10'-2"	11'-1"	10'-7"	9'-3"
				24	12'-10"	10'-4"	9'-1"	10'-6"	10'-2"	8'-11"	9'-1"	9'-1"	8'-1"
	TRAKLOC 33mil 250TLA/TLD125-33	0.0346	33	12	17'-0"	13'-6"	11'-9"	15'-10"	13'-3"	11'-7"	13'-9"	12'-1"	10'-6"
				16	15'-5"	12'-3"	10'-8"	13'-9"	12'-1"	10'-6"	11'-11"	10'-11"	9'-7"
				24	13'-6"	10'-8"	9'-4"	11'-2"	10'-6"	9'-2"	9'-8"	9'-7"	8'-4"
3-5/8	TRAKLOC 25 (18mil) 362TLA/TLD125-18	0.0188	33	12	15'-6" e	14'-9"	12'-10"	12'-8" e	12'-8" e	12'-8" e	10'-11" e	10'-11" e	10'-11" e
				16	13' 5" e	13' 4" e	11'-8" e	10'-11" e	10'-11" e	10'-11" e	9'-6" e	9'-6" e	9'-6" e
				24	10' 11" e	10' 11" e	10'-2" e	8'-11" e	8'-11" e	8'-11" e	7'-9" e	7'-9" e	7'-9" e
	TRAKLOC 20EQ (24mil) 362TLA/TLD125-24	0.0250	57	12	20' 0"	15' 11"	13'-11"	18'-2"	15'-8"	13'-8"	15'-9"	14'-3"	12'-5"
				16	18' 2"	14' 5"	12'-7"	15'-9"	14'-3"	12'-5"	13'-7"	12'-11"	11'-3"
				24	15' 9"	12' 7"	11'-0"	12'-10"	12'-5"	10'-10"	11'-1" e	11'-1" e	9'-10"
	TRAKLOC 30mil 362TLA/TLD125-30	0.0312	33	12	21' 8"	17' 5"	15'-2"	17'-9"	17'-1"	14'-11"	15'-4"	15'-4"	13'-7"
				16	18' 10"	15' 10"	13'-10"	15'-4"	15'-4"	13'-7"	13'-3"	13'-3"	12'-4"
				24	15' 4"	13' 10"	12'-1"	12'-6"	12'-6"	11'-10"	10'-10"	10'-10"	10'-9"
	TRAKLOC 33mil 362TLA/TLD125-33	0.0346	33	12	22' 8"	18' 0"	15'-8"	19'-2"	17'-8"	15'-5"	16'-7"	16'-1"	14'-0"
				16	20' 3"	16' 4"	14'-3"	16'-7"	16'-1"	14'-0"	14'-4"	14'-4"	12'-9"
				24	16' 7"	14' 3"	12'-5"	13'-6"	13'-6"	12'-3"	11'-9"	11'-9"	11'-2"
4	TRAKLOC 25 (18mil) 400TLA/TLD125-18	0.0188	33	12	15' 6"	15' 2"	13'-3"	12'-8" e	12'-8" e	12'-8" e	10'-11" e	10'-11" e	10'-11" e
				16	13' 5" e	13' 5" e	12'-1" e	10'-11" e	10'-11" e	10'-11" e	9'-6" e	9'-6" e	9'-6" e
				24	10' 11" e	10' 11" e	10'-6" e	8'-11" e	8'-11" e	8'-11" e	7'-9" e	7'-9" e	7'-9" e
	TRAKLOC 20EQ (24mil) 400TLA/TLD125-24	0.0250	57	12	21' 8"	17' 2"	15'-0"	19'-1"	16'-11"	14'-9"	16'-7"	15'-5"	13'-5"
				16	19' 8"	15' 8"	13'-8"	16'-7"	15'-5"	13'-5"	14'-4"	14'-0"	12'-2"
				24	16' 7"	13' 8"	11'-11"	13'-6"	13'-5"	11'-9"	11'-9"	11'-9"	10'-8"
	TRAKLOC 30mil 400TLA/TLD125-30	0.0312	33	12	22' 11"	18' 9"	16'-5"	18'-8"	18'-6"	16'-2"	16'-2"	16'-2"	14'-8"
				16	19' 10"	17' 1"	14'-11"	16'-2"	16'-2"	14'-8"	14'-0"	14'-0"	13'-4"
				24	16' 2"	14' 11"	13'-0"	13'-3"	13'-3"	12'-10"	11'-5"	11'-5"	11'-5"
	TRAKLOC 33mil 400TLA/TLD125-33	0.0346	33	12	24' 5"	19' 5"	16'-11"	20'-2"	19'-1"	16'-8"	17'-6"	17'-4"	15'-2"
				16	21' 5"	17' 8"	15'-5"	17'-6"	17'-4"	15'-2"	15'-2"	15'-2"	13'-9"
				24	17' 6"	15' 5"	13'-5"	14'-3"	14'-3"	13'-3"	12'-4"	12'-4"	12'-0"
6	TRAKLOC 25 (18mil) 600TLA/TLD125-18 ²	0.0188	33	12	19' 2" e	19' 2" e	18'-3" e	15'-7" e	15'-7" e	15'-7" e	13'-6" e	13'-6" e	13'-6" e
				16	16' 7" e	16' 7" e	16'-7" e	13'-6" e	13'-6" e	13'-6" e	11'-9" e	11'-9" e	11'-9" e
				24	13' 6" e	13' 6" e	13'-6" e	11'-1" e	11'-1" e	11'-1" e	9'-7" e	9'-7" e	9'-7" e
	TRAKLOC 20EQ (24mil) 600TLA/TLD125-24 ¹	0.0250	57	12	27' 9"	23' 0"	20'-11"	22'-8"	22'-7"	19'-9"	19'-8" e	19'-8" e	17'-11" e
				16	24' 1"	20' 11"	18'-3"	19'-8" e	19'-8" e	17'-11" e	17'-0" e	17'-0" e	16'-4" e
				24	19' 8" e	18' 3" e	15'-11"	16'-1" e	16'-1" e	15'-8" e	13'-11" e	13'-11" e	13'-11" e
	TRAKLOC 30mil 600TLA/TLD125-30	0.0312	33	12	29' 5"	25' 8"	22'-5"	24'-0"	24'-0"	22'-1"	20'-10"	20'-10"	20'-1"
				16	25' 6"	23' 4"	20'-5"	20'-10"	20'-10"	20'-1"	18'-0" e	18'-0" e	18'-0" e
				24	20' 10"	20' 5"	17'-10"	17'-0" e	17'-0" e	17'-0" e	14'-9" e	14' 9" e	14'-9" e
	TRAKLOC 33mil 600TLA/TLD125-33	0.0346	33	12	32' 8"	26' 7"	23'-3"	26'-8"	26'-2"	22'-11"	23'-1" e	23'-1" e	20'-9"
				16	28' 3"	24' 2"	21'-2"	23'-1" e	23'-1" e	20'-9"	20'-0" e	20'-0" e	18'-11" e
				24	23' 1" e	21' 2"	18'-5"	18'-10" e	18'-10" e	18'-2" e	16'-4" e	16'-4" e	16'-4" e

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

NOTES

- Heights are based on AISI S100-07 w/S2-10 Supplement, and AISI S100-12 Specification using steel properties alone.
- Compression flange must be continuously braced.
- End bearing must be 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- ¹ Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
- ² Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
- Web stiffeners are required at the stud/track connection.

TRAKLOC® NON-COMPOSITE LIMITING HEIGHTS
48" O.C. BRACING

TRAKLOC Adjustable Studs (TLA)
TRAKLOC Deflection Studs (TLD)

Width (in)	Stud Member (TLA/TLD)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF			
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360	
2-1/2	TRAKLOC 25 (18mil) 250TLA/TLD125-18	0.0188	33	12	12'-7"	11'-0"	9'-8"	10'-3" e	10'-3" e	9'-6"	8'-11" e	8'-11" e	8'-7" e	
				16	10'-11"	10'-0"	8'-9"	8'-11" e	8'-11" e	8'-7" e	7'-8" e	7'-8" e	7'-8" e	
				24	8'-11" e	8'-9" e	7'-8" e	7'-3" e	7'-3" e	7'-3" e	6'-3" e	6'-3" e	6'-3" e	
	TRAKLOC 20EQ (24mil) 250TLA/TLD125-24	0.0250	57	12	15'-0"	11'-11"	10'-5"	13'-2"	11'-8"	10'-3"	11'-5"	10'-8"	9'-3"	
				16	13'-7"	10'-10"	9'-5"	11'-5"	10'-8"	9'-3"	9'-11"	9'-8"	8'-5"	
				24	11'-5"	9'-5"	8'-3"	9'-4"	9'-3"	8'-1"	8'-1"	8'-1"	7'-4"	
	TRAKLOC 30mil 250TLA/TLD125-30	0.0312	33	12	16'-5"	13'-1"	11'-5"	13'-9"	12'-10"	11'-3"	11'-11"	11'-8"	10'-2"	
				16	14'-7"	11'-10"	10'-4"	11'-11"	11'-8"	10'-2"	10'-4"	10'-4"	9'-3"	
				24	11'-11"	10'-4"	9'-1"	9'-9"	9'-9"	8'-11"	8'-5"	8'-5"	8'-1"	
	TRAKLOC 33mil 250TLA/TLD125-33	0.0346	33	12	17'-0"	13'-6"	11'-9"	14'-8"	13'-3"	11'-7"	12'-9"	12'-9"	12'-1"	10'-6"
				16	15'-5"	12'-3"	10'-8"	12'-9"	12'-1"	10'-6"	11'-0"	10'-11"	9'-7"	
				24	12'-9"	10'-8"	9'-4"	10'-5"	10'-5"	9'-2"	9'-0"	9'-0"	8'-4"	
3-5/8	TRAKLOC 25 (18mil) 362TLA/TLD125-18	0.0188	33	12	14'-3"	14'-3"	12'-10"	11'-7" e	11'-7" e	11'-7" e	10'-1" e	10'-1" e	10'-1" e	
				16	12'-4" e	12'-4" e	11'-8" e	10'-1" e	10'-1" e	10'-1" e	8'-9" e	8'-9" e	8'-9" e	
				24	10'-1" e	10'-1" e	10'-1" e	8'-3" e	8'-3" e	8'-3" e	7'-1" e	7'-1" e	7'-1" e	
	TRAKLOC 20EQ (24mil) 362TLA/TLD125-24	0.0250	57	12	17'-11"	15'-11"	13'-11"	14'-8"	14'-8"	13'-8"	12'-8"	12'-8"	12'-5"	
				16	15'-7"	14'-5"	12'-7"	12'-8"	12'-8"	12'-5"	11'-0"	11'-0"	11'-0"	
				24	12'-8"	12'-7"	11'-0"	10'-4"	10'-4"	10'-4"	9'-0"	9'-0"	9'-0"	
	TRAKLOC 30mil 362TLA/TLD125-30	0.0312	33	12	19'-11"	17'-5"	15'-2"	16'-3"	16'-3"	14'-11"	14'-1"	14'-1"	13'-7"	
				16	17'-3"	15'-10"	13'-10"	14'-1"	14'-1"	13'-7"	12'-3"	12'-3"	12'-3"	
				24	14'-1"	13'-10"	12'-1"	11'-6"	11'-6"	11'-6"	10'-0"	10'-0"	10'-0"	
	TRAKLOC 33mil 362TLA/TLD125-33	0.0346	33	12	21'-6"	18'-0"	15'-8"	17'-7"	17'-7"	15'-5"	15'-3"	15'-3"	14'-0"	
				16	18'-8"	16'-4"	14'-3"	15'-3"	15'-3"	14'-0"	13'-2"	13'-2"	12'-9"	
				24	15'-3"	14'-3"	12'-5"	12'-5"	12'-5"	12'-3"	10'-9"	10'-9"	10'-9"	
4	TRAKLOC 25 (18mil) 400TLA/TLD125-18	0.0188	33	12	15'-0"	15'-0"	13'-3"	12'-3" e	12'-3" e	12'-3" e	10'-7" e	10'-7" e	10'-7" e	
				16	12'-11" e	12'-11" e	12'-1" e	10'-7" e	10'-7" e	10'-7" e	9'-2" e	9'-2" e	9'-2" e	
				24	10'-7" e	10'-7" e	10'-6" e	8'-8" e	8'-8" e	8'-8" e	7'-6" e	7'-6" e	7'-6" e	
	TRAKLOC 20EQ (24mil) 400TLA/TLD125-24	0.0250	57	12	18'-10"	17'-2"	15'-0"	15'-4"	15'-4"	14'-9"	13'-4"	13'-4"	13'-4"	
				16	16'-4"	15'-8"	13'-8"	13'-4"	13'-4"	13'-4"	11'-6"	11'-6"	11'-6"	
				24	13'-4"	13'-4"	11'-11"	10'-10"	10'-10"	10'-10"	9'-5"	9'-5"	9'-5"	
	TRAKLOC 30mil 400TLA/TLD125-30	0.0312	33	12	21'-0"	18'-9"	16'-5"	17'-2"	17'-2"	16'-2"	14'-10"	14'-10"	14'-8"	
				16	18'-2"	17'-1"	14'-11"	14'-10"	14'-10"	14'-8"	12'-10"	12'-10"	12'-10"	
				24	14'-10"	14'-10"	13'-0"	12'-1"	12'-1"	12'-1"	10'-6"	10'-6"	10'-6"	
	TRAKLOC 33mil 400TLA/TLD125-33	0.0346	33	12	22'-8"	19'-5"	16'-11"	18'-6"	18'-6"	16'-8"	16'-0"	16'-0"	15'-2"	
				16	19'-8"	17'-8"	15'-5"	16'-0"	16'-0"	15'-2"	13'-11"	13'-11"	13'-9"	
				24	16'-0"	15'-5"	13'-5"	13'-1"	13'-1"	13'-1"	11'-4"	11'-4"	11'-4"	
6	TRAKLOC 25 (18mil) 600TLA/TLD125-18 ²	0.0188	33	12	19'-2" e	19'-2" e	18'-3" e	15'-7" e	15'-7" e	15'-7" e	13'-6" e	13'-6" e	13'-6" e	
				16	16'-7" e	16'-7" e	16'-7" e	13'-6" e	13'-6" e	13'-6" e	11'-9" e	11'-9" e	11'-9" e	
				24	13'-6" e	13'-6" e	13'-6" e	11'-1" e	11'-1" e	11'-1" e	9'-7" e	9'-7" e	9'-7" e	
	TRAKLOC 20EQ (24mil) 600TLA/TLD125-24 ¹	0.0250	57	12	24'-2"	23'-0"	20'-11"	19'-9"	19'-9"	19'-9"	17'-1"	17'-1"	17'-1"	
				16	20'-11"	20'-11"	18'-3"	17'-1"	17'-1"	17'-1"	14'-10" e	14'-10" e	14'-10" e	
				24	17'-1"	17'-1"	15'-11"	13'-11" e	13'-11" e	13'-11" e	12'-1" e	12'-1" e	12'-1" e	
	TRAKLOC 30mil 600TLA/TLD125-30	0.0312	33	12	27'-7"	25'-8"	22'-5"	22'-7"	22'-7"	22'-1"	19'-6"	19'-6"	19'-6"	
				16	23'-11"	23'-4"	20'-5"	19'-6"	19'-6"	19'-6"	16'-11"	16'-11"	16'-11"	
				24	19'-6"	19'-6"	17'-10"	15'-11" e	15'-11" e	15'-11" e	13'-10" e	13'-10" e	13'-10" e	
	TRAKLOC 33mil 600TLA/TLD125-33	0.0346	33	12	29'-11"	26'-7"	23'-3"	24'-5"	24'-5"	22'-11"	21'-2"	21'-2"	20'-9"	
				16	25'-11"	24'-2"	21'-2"	21'-2"	21'-2"	20'-9"	18'-4" e	18'-4" e	18'-4" e	
				24	21'-2"	21'-2"	18'-5"	17'-3" e	17'-3" e	17'-3" e	14'-11" e	14'-11" e	14'-11" e	

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa.

NOTES

- Heights are based on AISI S100-07 w/S2-10 Supplement, and AISI S100-12 Specification using steel properties alone.
- Above listed Non-Composite Limiting Heights are applicable when the unbraced length is less than or equal to (Lu) as listed in section properties.
- End bearing must be 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- ¹ Web height-to-thickness ratio exceeds 200. Webs must have bearing stiffeners. See AISI S100 Section B1.2.
- ² Web height-to-thickness ratio exceeds 260 but less than 300. Webs must have bearing and intermediate stiffeners. See AISI S100 Section B1.2.
- ^e Web stiffeners are required at the stud/track connection.

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ClarkDietrich products meet or exceed these applicable performance standards.

Code Approvals

- 2015 and 2012 International Building Code (IBC)
- 2016 California Building Code (CBC)
- 2017 Florida Building Code (FBC)

ICC-ES Evaluation Report

ICC ESR-1464

AISI “North American Specification for the Design of Cold-Formed Steel Structural Members, AISI S-100-2007 with 2010 supplement”

ASTM American Society for Testing and Materials

Product specifications

- ASTM C645 Non-structural steel framing members
- ASTM E119 Std. Test Method Fire Tests Building Construction & Materials
- ASTM E1966 Std. Test Method Fire-Resistive Joint Systems

Material specifications

- ASTM A1003 (NS33, NS57)
- ASTM A653 Zinc-coated hot-dip process

Protective coating standards

- ASTM C645 Non-structural steel framing members
- ASTM A653 Zinc-coated hot-dip process

Intertek Warnock Hersey Design Listings - Fire-Rated Head-of-Wall

- CD/NSMF 60-01 CD/NSMF 60-04 CD/NSMF 120-03
- CD/NSMF 60-02 CD/NSMF 120-01 CD/NSMF 120-04
- CD/NSMF 60-03 CD/NSMF 120-02

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