



INSTALLATION GUIDE

Trex Elevations®
STEEL DECK FRAMING

Trex Elevations®

STEEL DECK FRAMING

- » Triple-coated steel offers consistency, durability and reliability that other materials can't
- » Rot- and termite-proof steel lasts much longer than wood
- » Precision engineering ensures surfaces remain flat over time
- » Contains a minimum of 25% recycled steel and is a 100% renewable resource
- » Backed by the Trex® 25-Year Limited Residential Warranty



*framing: Trex Elevations®
decking: Transcend® in Spiced Rum & Vintage Lantern
railing: Transcend in Classic White & Vintage Lantern
with round aluminum balusters
also featuring: Trex® OutdoorLighting™*

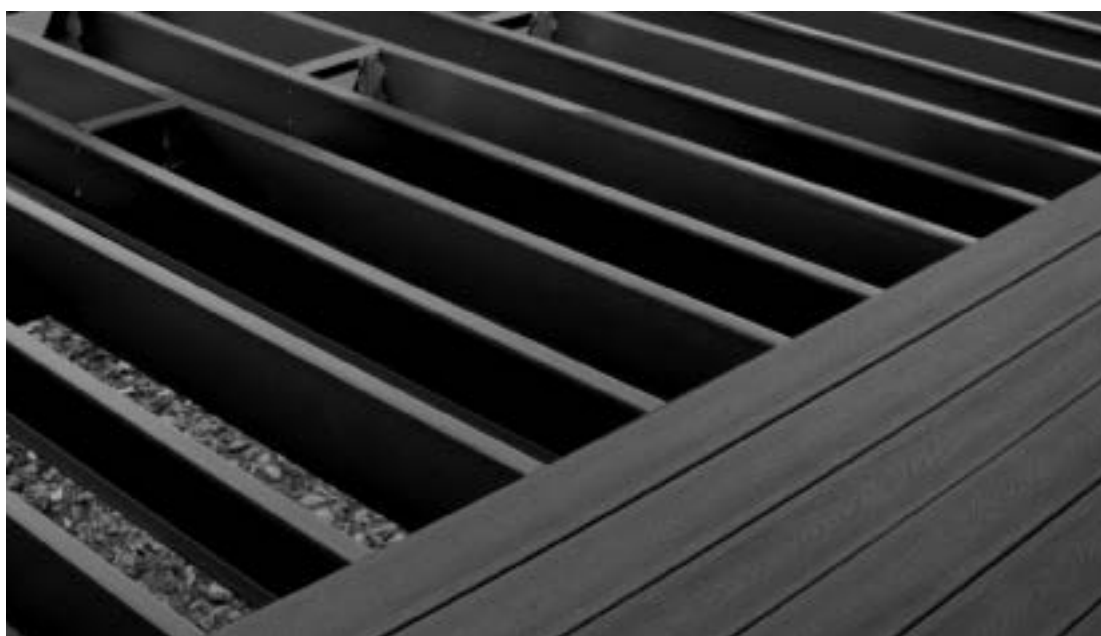
Trex Elevations®

STEEL DECK FRAMING

Installation Guide

In your hands, you're holding everything you need to begin building with Trex Elevations® steel deck framing system. This step-by-step guide will show you how to create a beautiful outdoor living space that fits perfectly into your or your client's lifestyle.

Trex® has been proven in the field. After almost twenty years of unparalleled performance, it offers warm, natural beauty and inviting comfort that no other product can match. Maybe that's why Trex is asked for by more customers than any other brand in the business.



From time to time, Trex revises its installation instructions. To ensure you have the most up-to-date installation instructions, please visit trex.com.

TREX ELEVATIONS® INSTALLATION GUIDE

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NOTE: Construction methods are always improving. Please ensure you have the most up-to-date installation instructions by visiting: trex.com



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GENERAL QUESTIONS AND ANSWERS

Why Trex Elevations®?

- » **Strong** – Elevations provides for a larger deck space with fewer posts and beams for less obstructed views.
- » **Stable** – Elevations won't twist, warp or sag over time.
- » **Long-lasting** – Elevations lasts longer than pressure-treated lumber, saving you the cost of fixing or replacing your deck.
- » **Non-combustible** – Elevations is ideal for areas of high-density housing and frequent wildfires.
- » **Eco-friendly** – Elevations contains a minimum of 25% recycled steel and is 100% recyclable.

How easy is Trex Elevations to build with?

Trex Elevations lays out quickly and easily. There are only three components: **(1)** Trex Elevations Track (Ledger), **(2)** Trex Elevations Joist, and **(3)** Trex Elevations Beam

- » Each piece can be cut to fit and assembled just like wood.
- » Features premium 12' (3.66 m), 16' (4.88 m), and 20' (6.1 m) lengths for track and ledger. Lengths for joists range from 8' (2.44 m) to 20' (6.1 m) in 1' (0.305 m) increments.
- » Trex Elevations is assembled using hex head self-drilling screws and common angle brackets.
- » Trex Elevations requires fewer tools (a circular saw, drill, and ferrous metal blades) compared to typical wood framing.

What tools are required?

Go to page 6 for a complete description of the tools, hardware, and connectors required for installing a Trex Elevations steel deck frame.

Are there color choices in Trex Elevations?

Trex Elevations steel deck framing is available in **ONE** unique color that is designed to provide a pleasing and subtle shadow effect under the deck, drawing visual attention to the detail elements of your deck.

What type of maintenance is required with Trex Elevations?

Trex Elevations is low maintenance when installed properly. The dual-coated finish protects the steel, insulating it from outdoor elements.

When the steel in Trex Elevations is exposed, in the case of an end cut or scratch, does it need to be painted?

Yes. Each steel component is galvanized and coated with a specially formulated exterior finish that is primed, painted, and baked on—exclusively engineered for the durability of Trex Elevations.

- » If scratched and not painted, the galvanization process will restrict rust. Rust will be electro-magnetically restricted to only the area exposed.

As a preventative, as well as an aesthetic measure, always paint exposed steel with Precision Color by Quest Industrial/Raabe® Brown Textured touch-up paint. (800-966-7580) ext. 5615

Helpful Hint: Do this after you have cut a large number of components in order to speed up the process.

Can scrap Trex Elevations cut-offs be recycled?

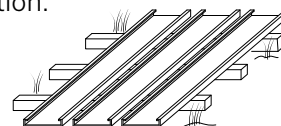
Trex Elevations components contain a minimum of 25% recycled steel and cut-offs are 100% recyclable.

Can Trex Elevations be used in high fire danger areas?

Trex Elevations components are non-combustible and qualify for extreme wild fire building codes under the Wild Land Urban Interface (WUI) building material requirements.

What is the proper method to store Elevations?

Elevations should be supported at a sufficient height to avoid full ground contact if at all possible. Heat and cold transfer to any steel product can sometimes damage lawn and vegetation.



Can Elevations components come into contact with soil or concrete when installed?

Trex Elevations is approved for contact with both soil and concrete.

What fasteners can I use to attach Trex Decking to Elevations framing?

Only use Trex Elevations approved fasteners when installing any decking product. Use of non-recommended decking fasteners could void warranty. Refer to *Trex Elevations Required Fasteners on page 6 for details.*

! WARNING

Due to increased risk of corrosion, Trex Elevations® may not be installed **(1)** within 3000 ft. (914.4 m) of any body of salt water or **(2)** under the surface or within the splash zone of any body of fresh water. **Any such installations shall void the Trex Limited Warranty.**

NOTE: Grounding Trex Elevations

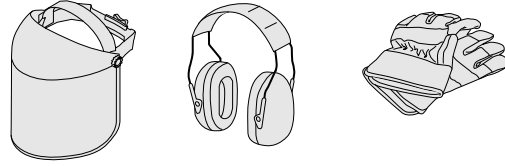
When required by local code officials, properly ground Trex Elevations. Refer to page 69 for more details.

Quest Industrial/Raabe® is a registered trademark of Quest Industrial/Raabe Corporation.

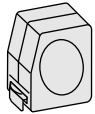
SAFETY

WARNING

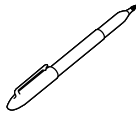
When working on any construction project, you should wear protective clothing and safety equipment. Wear face shield, hearing protection, gloves, and long sleeves, particularly when cutting in confined spaces.



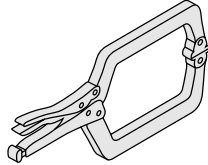
TOOLS



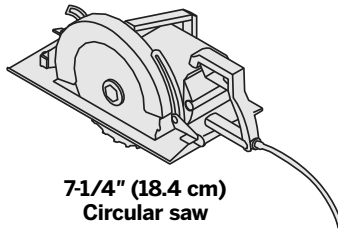
Tape measure



Permanent felt marker



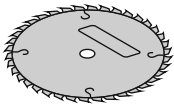
C-channel vice grips



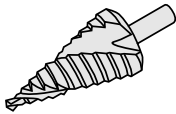
7-1/4" (18.4 cm) Circular saw



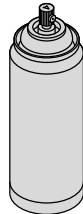
Drill with adjustable clutch and torque with speed range of 0-2,500 max.



7-1/4" (18.4 cm) Ferrous metal cutting blade



Step drill bit



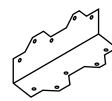
Precision Color by Quest Industrial/Raabe® Brown Textured touch-up paint

FASTENERS AND BRACKETS

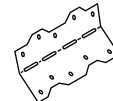
» Dual Hardness Self-Drilling Steel Framing Screw – refer to *Trex Elevations® Required Fasteners, column A (shown below)*.



» Galvanized 16 Ga. "L" bracket (Simpson Strong-Tie® L70Z, LS70Z or IBC approved equivalent).

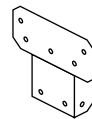


L70Z

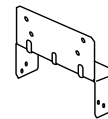


LS70Z

» Galvanized 16 Ga. post bracket (Simpson Strong-Tie AC4Z, LCP4Z, AC6Z, LPC6Z, or IBC approved equivalent).



AC4Z or AC6Z



LPC4Z or LPC6Z

NOTE: For post to pier connections, refer to local building code official for proper installation methods.

Simpson Strong-Tie® is a registered trademark of Simpson Strong-Tie Company, Inc. Refer to www.strongtie.com for important installation and corrosion information.

TREX ELEVATIONS® REQUIRED FASTENERS

Column A	Column B	Column C
Metal-to-Metal	Decking to Metal – Face Attachment	Decking to Metal – Hidden Fasteners
Simpson Strong-Tie® XEQ34B1016	FastenMaster® Cortex Driller™*	Trex Elevations® Universal Hidden Fasteners
ITW Buildex Tek Select™ P/N 1076000 (10-16 x 3/4" [1.9 cm] HWH Tek 3)	Starborn® DeckFast® Metal 410 SS w/ Epoxy Coating	
	Simpson Strong-Tie® Quik Drive DCSD238 (xxxx) *xxxx denotes color code of product	

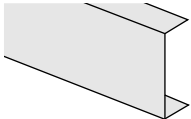
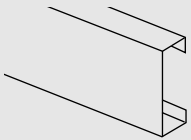
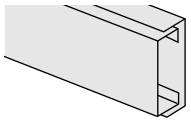
* After installing FastenMaster® Cortex Driller™ screws, gently tap Cortex plugs into place to cover screws.

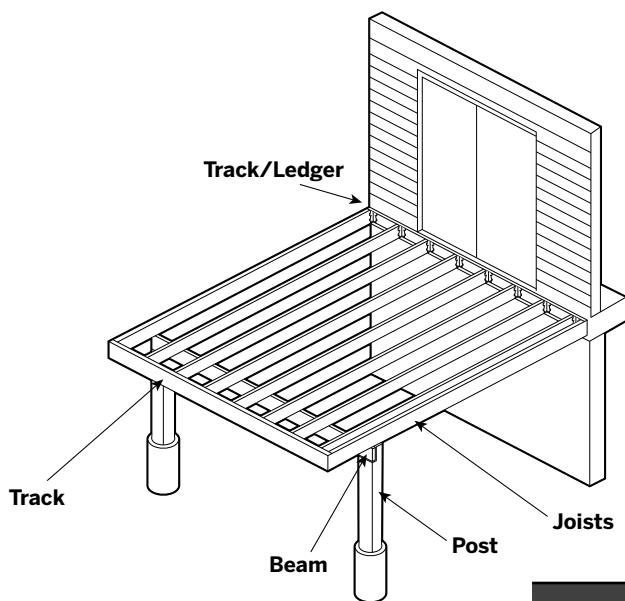
FastenMaster® Cortex Driller™ is a registered trademark of OMG, Inc.

DeckFast® is a registered trademark of Starborn Industries, Inc.

Tek Select™ are trademarks of ITW Buildex and Illinois Tool Works, Inc.

PARTS

COMPONENT	DESCRIPTION	ITEM NUMBER
1.25" x 8.15" (nominal) (3.175 cm x 20.7 cm) Trex Elevations® Track/Ledger 	12' (3.66 m)	CG0Q0812ET01
	16' (4.88 m)	CG0Q0816ET01
	20' (6.1 m)	CG0Q0820ET01
1.615" x 8" (nominal) (4.1 cm x 20.3 cm) Trex Elevations Joist 	8' (2.44 m)	CG020808EJ01
	9' (2.74 m)	CG020809EJ01
	10' (3.05 m)	CG020810EJ01
	11' (3.35 m)	CG020811EJ01
	12' (3.66 m)	CG020812EJ01
	13' (3.96 m)	CG020813EJ01
	14' (4.27 m)	CG020814EJ01
	15' (4.57 m)	CG020815EJ01
	16' (4.88 m)	CG020816EJ01
	17' (5.18 m)	CG020817EJ01
	18' (5.49 m)	CG020818EJ01
19' (5.79 m)	CG020819EJ01	
20' (6.1 m)	CG020820EJ01	
2" x 8.15" (nominal) (5.08 cm x 20.7 cm) Trex Elevations Beam 	12' (3.66 m)	CG020812EB01
	16' (4.88 m)	CG020816EB01
	20' (6.1 m)	CG020820EB01



Deck Support Post for Trex Elevations



As part of the Trex Elevations steel deck framing system, steel support posts prevent buckling and maintain an even perfection from the day they're installed. These galvanized steel posts can either be painted or wrapped to complement the deck, rail, and home.

Refer to www.trexdeckpost.com for full details on installation of this product.

ELEVATIONS PRODUCT WEIGHTS				
Profile	lb/ft	lbs/piece		
		12'	16'	20'
Joist	1.81	21.6	28.8	36.0
Track	2.43	28.8	38.4	48.0
Beam	5.80	69.6	92.8	116.0

PREPARATION AND PLANNING

PLANNING

WARNING

Trex Elevations® does not provide direction on making all types of connections. Specific details for critical connections not shown should be designed by a professional engineer and/or building code official.

WARNING

Build according to local building codes. *Refer to section R505 of the 2006 or 2009 IRC for more information.*

WARNING

Reference all decking, railing, and deck accessory manufacturers for required attachment and installation procedures regarding their products.

WARNING

The consumer or contractor should take all necessary steps to ensure the safety of everyone involved in the project, including, but not limited to: wearing the appropriate safety equipment (i.e. eye, ear, and body protection).

WARNING

Due to increased risk of corrosion, Trex Elevations® may not be installed **(1)** within 3000 ft. (914.4 m) of any body of salt water or **(2)** under the surface or within the splash zone of any body of fresh water. **Any such installations shall void the Trex Limited Warranty.**

In order to build a deck with Trex Elevations® components, it is necessary to determine the adequate joist span and beam span of your deck from the illustrations shown on page 11. It is also necessary to determine if a cantilever (i.e. overhang) is desired (or required) to attain the desired deck depth. Determine whether a drop beam or flush beam scenario will be used and determine the required information for local building plan approval.

Choose the Trex Elevations span chart (*refer to pages 12-19*) that fits within the building code requirements by locating the live, dead, and total load in the Uniform Deck Loads chart. If you do not know the local code requirements, contact your local building code department for assistance.

NOTE: *Not all span charts are shown. For a full listing of span charts for Elevations refer to www.trex.com, which include spans for 125 PSF total load and 150 PSF total load.*

TREX ELEVATIONS CODE COMPLIANCE



WWW.TREX.COM

WWW.ATI-ES.COM



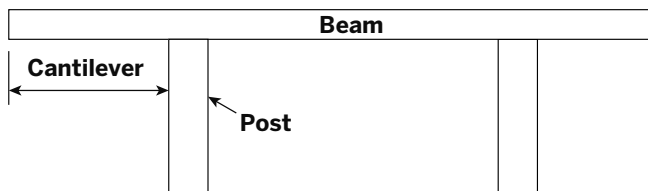
PLANNING/CONTINUED

Parts of a Deck

Please refer to illustrations on page 11.

- A. **Joist Spacing:** Refer to the decking manufacturers instructions to determine allowable joist spacing (i.e. 12" [30.5 cm] or 16" [40.6 cm] O.C.). Even if 16" (40.6 cm) spacing is acceptable, 12" (30.5 cm) spacing could be chosen to achieve a greater joist span.
 - B. **Maximum Joist Span:** The maximum distance the joist can span from track to support beam or support beam to support beam when joists are spaced on either 12" (30.5 cm) or 16" (40.6 cm).
 - C. **Overall Length:** The overall desired depth (feet) of the deck cannot exceed the distance determined in step (B) without a support beam & cantilever (D).
 - D. **Cantilever:** The overhanging of joists beyond the support beam and/or beams overhanging beyond the support post. If the desired depth of the deck is greater than the maximum joist span (B) a cantilever (D) is needed to obtain the overall size of the deck. The cantilever can be changed according to customer preference as long as it is less than the maximum cantilever noted on the Trex Elevations® span charts.
- Deck depth_____ – maximum joist span (B)_____ = cantilever (D)_____.**
- E. **Beam Span (distance between support posts):** The distance between support posts. Based on the joist span (B) and the cantilever (D), determine the maximum beam span (E) between support posts (F).
 - F. **Support Posts:** Based on the maximum beam span (E) determine the number of support posts (F) by dividing the desired width of the deck by the beam span (E), round this number up and add 1.

Desired deck width_____ / beam span (E)_____ = support posts (rounded up) + 1 = total # of posts.



Example: Desired deck is 16' D (4.88 m)x 20' W (6.1 m)

1. Local building code requires a minimum dead load of 10 psf, live load of 40 psf, and total load of 50 psf. Refer to Table E-50 on page 12.
2. The decking manufacturer requires a maximum 16" (40.6 cm) O.C. spacing for joists.
3. Joist span cannot exceed 13' (3.96 m).
4. Desired deck size is 16' D (4.88 m) x 20' W (6.1 m).
5. A minimum cantilever of 3' (.91 m) is required because the overall depth (16' [4.88 m]) is greater than 13' (3.96 m).
 - Based on the above information, the cantilever can be between 3' (.91 m) and 4' (1.22 m) depending on customer preference. For this example, a 3' (.91 m) cantilever will be used.
 - **16' (4.88 m) depth of deck – 3' (.91 m) cantilever = 13' (3.96 m) joist span**
6. Locate the 13' (3.96 m) joist span and 3' (.91 m) cantilever and trace over to 11' 5" (3.48 m) beam span.

20' (6.1 m) deck width/11' 5" (346.8 cm) max. beam span = 1.73 support posts

- 1.73 rounds up to 2
- 2 + 1 = 3 support posts (spaced equally or as desired so as not to exceed 11' 5" [3.48 m])

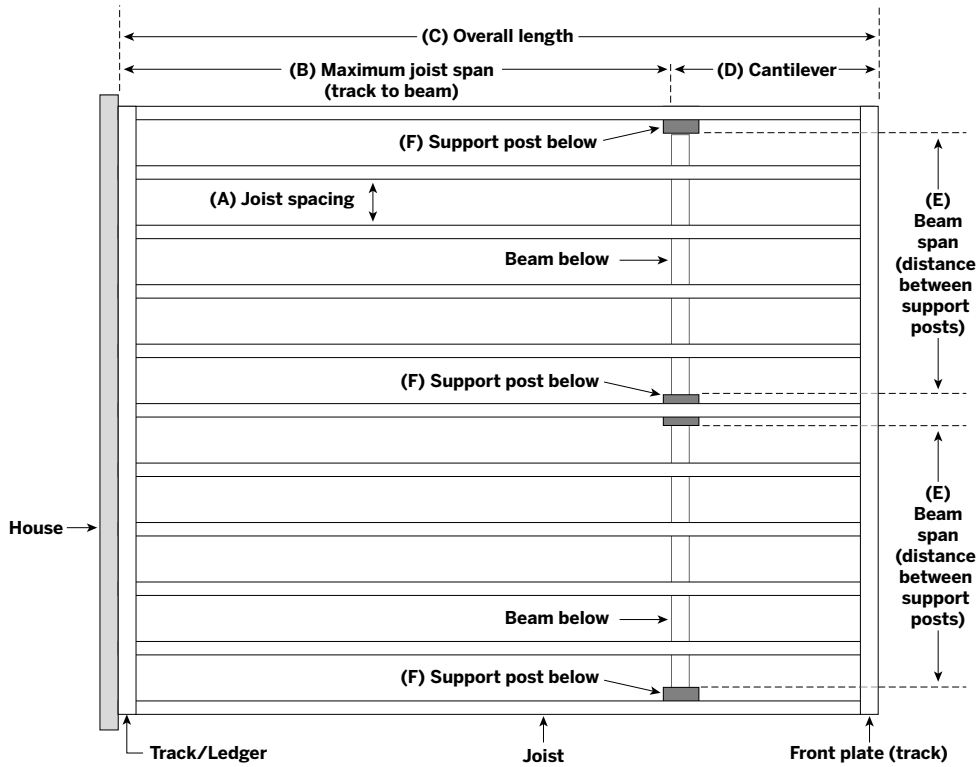
MAXIMUM ALLOWABLE BOX BEAM CANTILEVER				
	SBB	Stiffeners	DBB	Stiffeners
E-50	2' - 8" (81.3 cm)	1	3' - 11" (119.4 cm)	0
E-75	2' - 7" (78.7 cm)	1	3' - 9" (114.3 cm)	0
E-100	2' - 6" (76.2 cm)	1	3' - 7" (109.2 cm)	0
E-125	2' - 5" (73.7 cm)	1	3' - 7" (109.2 cm)	0
E-150	2' - 5" (73.7 cm)	1	3' - 7" (109.2 cm)	0
E-200	2' - 5" (73.7 cm)	1	3' - 6" (106.7 cm)	0
MAX.	2' - 5" (73.7 cm)	1	3' - 6" (106.7 cm)	0

SBB = Single Box Beam DBB = Double Box Beam

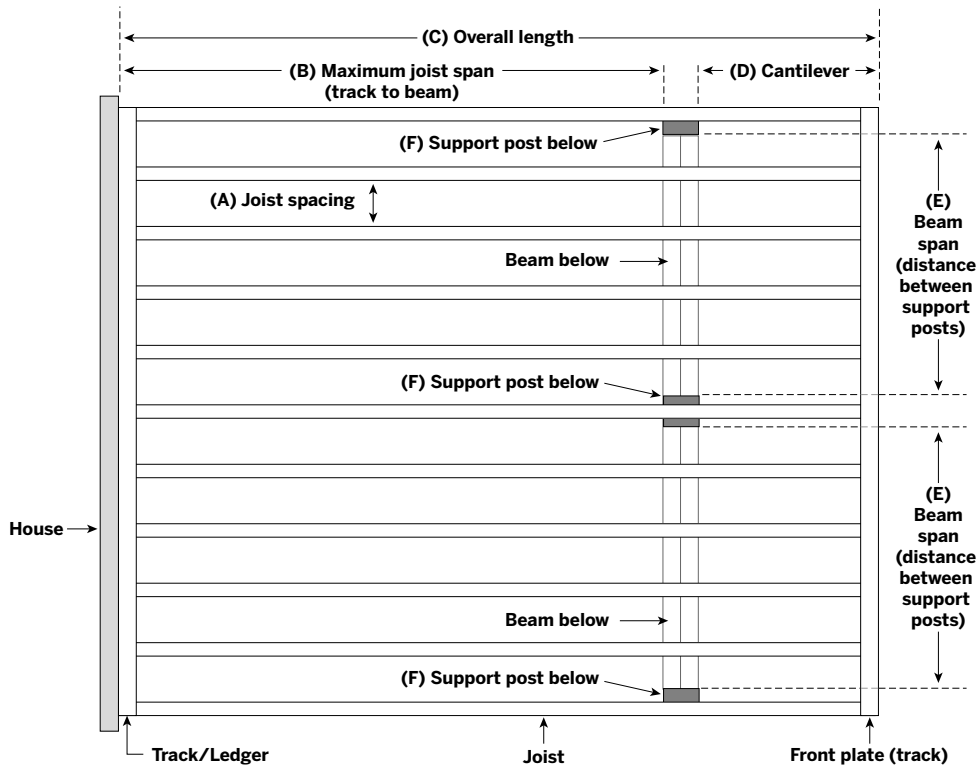
Stiffeners = Full depth web stiffeners, at least 0.067" (0.2 cm) thick, must be through-fastened to the box beam web at each post to develop the full web crippling capacity.



Single Beam



Double Beam



MAXIMUM BOX BEAM SPAN (DOUBLE BOX BEAM BETWEEN POSTS)

JOIST SPAN – LEDGER TO BOX BEAM (FEET/CENTIMETERS)																
Cantilever Length (feet/centimeters)	0' - 0"	1' - 0"	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	15' - 0"
0' - 0" 0.0	N/A	37' - 6" 1144.1	29' - 9" 908.0	26' - 0" 793.2	23' - 8" 720.7	21' - 11" 669.1	20' - 8" 629.6	19' - 7" 598.1	18' - 9" 572.0	18' - 1" 550.0	17' - 5" 531.0	16' - 11" 499.7	16' - 5" 499.7	16' - 0" 486.6	15' - 7" 474.7	15' - 3" 463.9
0' - 6" 15.2	N/A	29' - 9" 908.0	26' - 0" 793.2	23' - 8" 720.7	21' - 11" 669.1	20' - 8" 629.6	19' - 7" 598.1	18' - 9" 572.0	18' - 1" 550.0	17' - 5" 531.0	16' - 11" 499.7	16' - 5" 499.7	16' - 0" 486.6	15' - 7" 474.7	15' - 3" 463.9	14' - 11" 454.0
1' - 0" 30.5	N/A	N/A	23' - 8" 720.7	21' - 11" 669.1	20' - 8" 629.6	19' - 7" 598.1	18' - 9" 572.0	18' - 1" 550.0	17' - 5" 531.0	16' - 11" 499.7	16' - 5" 499.7	16' - 0" 486.6	15' - 7" 474.7	15' - 3" 463.9	14' - 11" 454.0	14' - 7" 444.9
1' - 6" 45.7	N/A	N/A	N/A	20' - 8" 629.6	19' - 7" 598.1	18' - 9" 572.0	18' - 1" 550.0	17' - 5" 531.0	16' - 11" 499.7	16' - 5" 499.7	16' - 0" 486.6	15' - 7" 474.7	15' - 3" 463.9	14' - 11" 454.0	14' - 7" 444.9	14' - 4" 436.5
2' - 0" 61.0	N/A	N/A	N/A	N/A	18' - 9" 572.0	18' - 1" 550.0	17' - 5" 531.0	16' - 11" 499.7	16' - 5" 499.7	16' - 0" 486.6	15' - 7" 474.7	15' - 3" 463.9	14' - 11" 454.0	14' - 7" 444.9	14' - 4" 436.5	14' - 1" 428.7
2' - 6" 76.2	N/A	N/A	N/A	N/A	N/A	17' - 5" 531.0	16' - 11" 499.7	16' - 5" 499.7	16' - 0" 486.6	15' - 7" 474.7	15' - 3" 463.9	14' - 11" 454.0	14' - 7" 444.9	14' - 4" 436.5	14' - 1" 428.7	13' - 10" 421.5
3' - 0" 91.4	N/A	N/A	N/A	N/A	N/A	N/A	16' - 5" 499.7	16' - 0" 486.6	15' - 7" 474.7	15' - 3" 463.9	14' - 11" 454.0	14' - 7" 444.9	14' - 4" 436.5	14' - 1" 428.7	13' - 10" 421.5	13' - 7" 414.7
3' - 6" 106.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15' - 7" 474.7	15' - 3" 463.9	14' - 11" 454.0	14' - 7" 444.9	14' - 4" 436.5	13' - 10" 428.7	13' - 7" 421.5	13' - 5" 408.3	13' - 2" 402.3
4' - 0" 121.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14' - 11" 454.0	14' - 7" 444.9	14' - 4" 436.5	13' - 10" 428.7	13' - 7" 421.5	13' - 5" 408.3	13' - 2" 402.3	

NOTES:

- All loads and load combinations are determined using ASCE 7-05. DL=Dead Load, LL=Live Load, SL=Snow Load. When $LL < SL$, the total load (TL) is $1.2DL + 1.6SL + 0.5LL$, otherwise $TL = 1.2DL + 1.6LL + 0.5SL$.
- Loads used to produce the tables above are as follows: DL=10psf, LL=40psf, SL=0psf.
- Deflection limits for joists are determined using IBC-2009 Section R505, Steel Floor Framing. Joists - Live load deflection is limited to $L/480$, total deflection is limited to $L/240$, where L is the span length. Box Beams - Live load deflection is limited to $L/360$, total deflection is limited to $L/240$, where L is the span length.
- Grey areas in tables indicate instances where the joists do not backspan twice the cantilever distance or where the maximum joist span is exceeded.
- Grey areas are established based on 12 in. O.C. joist capacity.
- A partial list of section properties for each member is provided in the Trex Elevations Deck Framing/Inspection Details Table.
- Joist and box beam capacity are determined with AISI-S100-07 (LRFD).
- Joist yield stress is assumed as 33ksi.
- Box beam yield stress is assumed as 50ksi.
- If a box beam is supported by more than two posts, then its span selected above should be multiplied by 0.85 for a single box beam and 0.90 for a double box beam.
- If a box beam is provided as an intermediate joist support, then its span selected above or modified by Note 10 should be multiplied by 0.60 for a "dropped" box beam and 0.70 for a "flush" box beam.
- This span chart should not be used for decks located in a hurricane zone (minimum load of 125 psf should be considered in hurricane zones).

TREX ELEVATIONS® SPAN CHART

TABLE E-75 RESIDENTIAL

75 PSF TOTAL LOAD

Table Instructions: Enter the table with a joist span and cantilever length, then read the maximum allowable box beam span.

12" JOIST SPACING O.C.		16" JOIST SPACING O.C.			
JOIST SPAN LIMITS (FEET/CENTIMETERS)					
Maximum Joist Span (Ledger to Box Beam)	14' - 0"	426.7 cm	Maximum Joist Span (Ledger to Box Beam)	12' - 0"	365.8 cm
Maximum Cantilever Length	4' - 0"	121.9 cm	Maximum Cantilever Length	4' - 0"	121.9 cm

(Single Trex 1-5/8" [4.1 cm] Joist)

MAXIMUM BOX BEAM SPAN (SINGLE BOX BEAM BETWEEN POSTS)

Cantilever Length (feet/centimeters)	JOIST SPAN - LEDGER TO BOX BEAM (FEET/CENTIMETERS)																
	0' - 0"	1' - 0"	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	15' - 0"	
0' - 0"	N/A	27' - 8"	21' - 11"	19' - 2"	17' - 5"	16' - 2"	15' - 3"	14' - 5"	13' - 10"	13' - 4"	13' - 10"	12' - 5"	12' - 10"	13' - 4"	13' - 10"	12' - 5"	12' - 10"
0' - 6"	N/A	843.0	669.1	584.5	531.0	493.0	463.9	440.7	421.5	405.2	405.2	391.3	379.0	379.0	405.2	405.2	405.2
1' - 0"	N/A	N/A	N/A	17' - 5"	16' - 2"	15' - 3"	14' - 5"	13' - 10"	13' - 4"	13' - 10"	12' - 5"	12' - 10"	13' - 4"	13' - 10"	12' - 5"	12' - 10"	13' - 4"
1' - 6"	N/A	N/A	N/A	493.0	463.9	440.7	421.5	405.2	391.3	379.0	379.0	368.2	368.2	379.0	379.0	368.2	368.2
2' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	405.2	391.3	379.0	368.2	358.5	349.8	341.8	341.8	341.8	341.8	341.8
2' - 6"	N/A	N/A	N/A	N/A	N/A	N/A	391.3	379.0	368.2	358.5	349.8	341.8	334.5	334.5	334.5	334.5	334.5
3' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	379.0	368.2	358.5	349.8	341.8	334.5	327.8	327.8	327.8	327.8	327.8
3' - 6"	N/A	N/A	N/A	N/A	N/A	N/A	368.2	358.5	349.8	341.8	334.5	327.8	319.3	319.3	319.3	319.3	319.3
4' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	349.8	341.8	334.5	327.8	319.3	310.8	310.8	310.8	310.8	310.8

(Single Trex 1-5/8" [4.1 cm] Joist)

MAXIMUM BOX BEAM SPAN (DOUBLE BOX BEAM BETWEEN POSTS)

JOIST SPAN – LEDGER TO BOX BEAM (FEET/CENTIMETERS)																	
Cantilever Length (feet/centimeters)	0' - 0"	1' - 0"	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	15' - 0"	
	0.0	30.5	61.0	91.4	121.9	152.4	182.9	213.4	243.8	274.3	304.8	335.3	365.8	396.2	426.7	457.2	
0' - 0" 0.0	N/A	34' - 10" 1062.1	27' - 8" 843.0	24' - 2" 736.4	21' - 11" 669.1	20' - 5" 621.1	19' - 2" 584.5	18' - 3" 555.2	17' - 5" 531.0	16' - 9" 510.6	16' - 2" 493.0	15' - 8" 477.5	15' - 3" 463.9	14' - 10" 451.7	14' - 5" 440.7	14' - 2" 430.6	N/A
0' - 6" 15.2	N/A	27' - 8" 843.0	24' - 2" 736.4	21' - 11" 669.1	20' - 5" 621.1	19' - 2" 584.5	18' - 3" 555.2	17' - 5" 531.0	16' - 9" 510.6	16' - 2" 493.0	15' - 8" 477.5	15' - 3" 463.9	14' - 10" 451.7	14' - 5" 440.7	14' - 2" 430.6	13' - 10" 421.5	N/A
1' - 0" 30.5	N/A	N/A	21' - 11" 669.1	20' - 5" 621.1	19' - 2" 584.5	18' - 3" 555.2	17' - 5" 531.0	16' - 9" 510.6	16' - 2" 493.0	15' - 8" 477.5	15' - 3" 463.9	14' - 10" 451.7	14' - 5" 440.7	14' - 2" 430.6	13' - 10" 421.5	13' - 7" 413.0	N/A
1' - 6" 45.7	N/A	N/A	N/A	19' - 2" 584.5	18' - 3" 555.2	17' - 5" 531.0	16' - 9" 510.6	16' - 2" 493.0	15' - 8" 477.5	15' - 3" 463.9	14' - 10" 451.7	14' - 5" 440.7	14' - 2" 430.6	13' - 10" 421.5	13' - 7" 413.0	13' - 4" 405.2	N/A
2' - 0" 61.0	N/A	N/A	N/A	N/A	17' - 5" 531.0	16' - 9" 510.6	16' - 2" 493.0	15' - 8" 477.5	15' - 3" 463.9	14' - 10" 451.7	14' - 5" 440.7	14' - 2" 430.6	13' - 10" 421.5	13' - 7" 413.0	13' - 4" 405.2	13' - 1" 398.0	N/A
2' - 6" 76.2	N/A	N/A	N/A	N/A	N/A	16' - 2" 493.0	15' - 8" 477.5	15' - 3" 463.9	14' - 10" 451.7	14' - 5" 440.7	14' - 2" 430.6	13' - 10" 421.5	13' - 7" 413.0	13' - 4" 405.2	13' - 1" 398.0	12' - 10" 391.3	N/A
3' - 0" 91.4	N/A	N/A	N/A	N/A	N/A	N/A	15' - 3" 463.9	14' - 10" 451.7	14' - 5" 440.7	14' - 2" 430.6	13' - 10" 421.5	13' - 7" 413.0	13' - 4" 405.2	13' - 1" 398.0	12' - 10" 391.3	12' - 8" 385.0	N/A
3' - 6" 106.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14' - 5" 440.7	14' - 2" 430.6	13' - 10" 421.5	13' - 7" 413.0	13' - 4" 405.2	13' - 1" 398.0	12' - 10" 391.3	12' - 8" 385.0	12' - 5" 379.0	N/A
4' - 0" 121.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13' - 10" 421.5	13' - 7" 413.0	13' - 4" 405.2	13' - 1" 398.0	12' - 10" 391.3	12' - 8" 385.0	12' - 5" 379.0	N/A	N/A

NOTES:

1. All loads and load combinations are determined using ASCE 7-05. DL=Dead Load, LL=Live Load, SL=Snow Load. When $LL < SL$, the total load (TL) is $1.2DL + 1.6SL + 0.5LL$, otherwise $TL = 1.2DL + 1.6LL + 0.5SL$.
2. Loads used to produce the tables above are as follows: DL=10psf, LL=40psf, SL=25psf.
3. Deflection limits for joists are determined using IBC-2009 Section R505, Steel Floor Framing. Joists - Live load deflection is limited to L/480, total deflection is limited to L/240, where L is the span length. Box Beams - Live load deflection is limited to L/360, total deflection is limited to L/240, where L is the span length.
4. Grey areas in tables indicate instances where the joists do not backspan twice the cantilever distance or where the maximum joist span is exceeded.
5. Grey areas are established based on 12 in. O.C. joist capacity.
6. A partial list of section properties for each member is provided in the Trex Elevations Deck Framing/Inspection Details Table.
7. Joist and box beam capacity are determined with AISI-S100-07 (LRFD).
8. Joist yield stress is assumed as 33ksi.
9. Box beam yield stress is assumed as 50ksi.
10. If a box beam is supported by more than two posts, then its span selected above should be multiplied by 0.85 for a single box beam and 0.90 for a double box beam.
11. If a box beam is provided as an intermediate joist support, then its span selected above or modified by Note 10 should be multiplied by 0.60 for a "dropped" box beam and 0.70 for a "flush" box beam.
12. This span chart should not be used for decks located in a hurricane zone (minimum load of 125 psf should be considered in hurricane zones).

TREX ELEVATIONS® SPAN CHART

100 PSF TOTAL LOAD

TABLE E-100 RESIDENTIAL

Table Instructions: Enter the table with a joist span and cantilever length, then read the maximum allowable box beam span.

JOIST SPAN LIMITS (FEET/CENTIMETERS)			
12" JOIST SPACING O.C.		16" JOIST SPACING O.C.	
Maximum Joist Span (Ledger to Box Beam)	12' - 0"	Maximum Joist Span (Ledger to Box Beam)	11' - 0"
	365.8 cm		335.3 cm
Maximum Cantilever Length	4' - 0"	Maximum Cantilever Length	3' - 0"
	121.9 cm		91.4 cm

(Single Trex 1-5/8" [4.1 cm] Joist)

MAXIMUM BOX BEAM SPAN (SINGLE BOX BEAM BETWEEN POSTS)

Cantilever Length (feet/centimeters)	JOIST SPAN – LEDGER TO BOX BEAM (FEET/CENTIMETERS)																		
	0' - 0"	1' - 0"	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	15' - 0"			
0' - 0"	N/A	25' - 2"	19' - 11"	17' - 5"	15' - 10"	14' - 8"	13' - 10"	13' - 2"	12' - 7"	12' - 1"	11' - 8"	11' - 4"	11' - 0"	10' - 8"	10' - 5"	10' - 2"	N/A		
		765.9	607.9	531.0	482.5	447.9	421.5	400.4	382.9	368.2	355.5	344.4	335.3	335.3	335.3	335.3	335.3	N/A	
0' - 6"	N/A	19' - 11"	17' - 5"	15' - 10"	14' - 8"	13' - 10"	13' - 2"	12' - 7"	12' - 1"	11' - 8"	11' - 4"	11' - 0"	10' - 8"	10' - 5"	10' - 2"	N/A	N/A	N/A	
		607.9	531.0	482.5	447.9	421.5	400.4	382.9	368.2	355.5	344.4	335.3	335.3	335.3	335.3	335.3	335.3	335.3	N/A
1' - 0"	N/A	N/A	15' - 10"	14' - 8"	13' - 10"	13' - 2"	12' - 7"	12' - 1"	11' - 8"	11' - 4"	11' - 0"	10' - 8"	10' - 5"	10' - 2"	N/A	N/A	N/A	N/A	
			482.5	447.9	421.5	400.4	382.9	368.2	355.5	344.4	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	N/A
1' - 6"	N/A	N/A	N/A	13' - 10"	13' - 2"	12' - 7"	12' - 1"	11' - 8"	11' - 4"	11' - 0"	10' - 8"	10' - 5"	10' - 2"	N/A	N/A	N/A	N/A	N/A	
				421.5	400.43	382.9	368.2	355.5	344.4	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	N/A
2' - 0"	N/A	N/A	N/A	N/A	12' - 7"	12' - 1"	11' - 8"	11' - 4"	11' - 0"	10' - 8"	10' - 5"	10' - 2"	9' - 11"	9' - 11"	9' - 11"	9' - 11"	9' - 11"	9' - 11"	N/A
					382.9	368.2	355.5	344.4	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3
2' - 6"	N/A	N/A	N/A	N/A	N/A	11' - 8"	11' - 4"	11' - 0"	10' - 8"	10' - 5"	10' - 2"	9' - 11"	9' - 7"	9' - 7"	9' - 7"	9' - 7"	9' - 7"	9' - 7"	N/A
						344.4	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3	335.3
3' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	11' - 0"	10' - 8"	10' - 5"	10' - 2"	9' - 11"	9' - 7"	9' - 4"	9' - 4"	9' - 4"	9' - 4"	9' - 4"	9' - 4"	N/A
							334.5	334.5	334.5	334.5	334.5	334.5	334.5	334.5	334.5	334.5	334.5	334.5	334.5
3' - 6"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10' - 5"	10' - 2"	9' - 11"	9' - 7"	9' - 4"	9' - 1"	9' - 1"	9' - 1"	9' - 1"	9' - 1"	9' - 1"	N/A
								317.8	317.8	317.8	317.8	317.8	317.8	317.8	317.8	317.8	317.8	317.8	317.8
4' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9' - 11"	9' - 7"	9' - 4"	8' - 10"	8' - 10"	8' - 10"	8' - 10"	8' - 10"	8' - 10"	8' - 10"	N/A
									301.1	301.1	301.1	301.1	301.1	301.1	301.1	301.1	301.1	301.1	301.1

MAXIMUM BOX BEAM SPAN (DOUBLE BOX BEAM BETWEEN POSTS)

JOIST SPAN – LEDGER TO BOX BEAM (FEET/CENTIMETERS)																
Cantilever Length (feet/centimeters)	0'-0"	1'-0"	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"
	0.0	30.5	61.0	91.4	121.9	152.4	182.9	213.4	243.8	274.3	304.8	335.3	365.8	396.2	426.7	457.2
0'-0" 0.0	N/A	31'-8" 964.9	25'-2" 765.9	21'-11" 669.1	19'-11" 607.9	18'-6" 564.3	17'-5" 531.0	16'-7" 504.4	15'-10" 482.5	15'-3" 463.9	14'-8" 447.9	14'-3" 433.9	13'-10" 421.5	13'-6" 410.4	N/A	N/A
0'-6" 15.2	N/A	25'-2" 765.9	21'-11" 669.1	19'-11" 607.9	18'-6" 564.3	17'-5" 531.0	16'-7" 504.4	15'-10" 482.5	15'-3" 463.9	14'-8" 447.9	14'-3" 433.9	13'-10" 421.5	13'-6" 410.4	N/A	N/A	N/A
1'-0" 30.5	N/A	N/A	19'-11" 607.9	18'-6" 564.3	17'-5" 531.0	16'-7" 504.4	15'-10" 482.5	15'-3" 463.9	14'-8" 447.9	14'-3" 433.9	13'-10" 421.5	13'-6" 410.4	13'-2" 400.4	N/A	N/A	N/A
1'-6" 45.7	N/A	N/A	N/A	17'-5" 531.0	16'-7" 504.4	15'-10" 482.5	15'-3" 463.9	14'-8" 447.9	14'-3" 433.9	13'-10" 421.5	13'-6" 410.4	13'-2" 400.4	12'-10" 391.3	N/A	N/A	N/A
2'-0" 61.0	N/A	N/A	N/A	N/A	15'-10" 482.5	14'-8" 463.9	14'-3" 447.9	13'-10" 433.9	13'-6" 421.5	13'-2" 410.4	12'-10" 400.4	12'-7" 391.3	12'-7" 382.9	N/A	N/A	N/A
2'-6" 76.2	N/A	N/A	N/A	N/A	N/A	14'-8" 447.9	14'-3" 433.9	13'-10" 421.5	13'-6" 410.4	13'-2" 400.4	12'-10" 391.3	12'-7" 382.9	12'-4" 375.3	N/A	N/A	N/A
3'-0" 91.4	N/A	N/A	N/A	N/A	N/A	N/A	13'-10" 421.5	13'-6" 410.4	13'-2" 400.4	12'-10" 391.3	12'-7" 382.9	12'-4" 375.3	12'-1" 368.2	N/A	N/A	N/A
3'-6" 106.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13'-2" 400.4	12'-10" 391.3	12'-7" 382.9	12'-4" 375.3	12'-1" 368.2	11'-10" 361.6	N/A	N/A	N/A
4'-0" 121.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12'-7" 382.9	12'-4" 375.3	12'-1" 368.2	11'-10" 361.6	11'-8" 355.5	N/A	N/A	N/A

NOTES:

- All loads and load combinations are determined using ASCE 7-05. DL=Dead Load, LL=Live Load, SL=Snow Load. When $LL < SL$, the total load (TL) is $1.2DL + 1.6SL + 0.5LL$, otherwise $TL = 1.2DL + 1.6LL + 0.5SL$.
- Loads used to produce the tables above are as follows: DL=10psf, LL=40psf, SL=50psf.
- Deflection limits for joists are determined using IBC-2009 Section R505, Steel Floor Framing. Joists - Live load deflection is limited to $L/480$, total deflection is limited to $L/240$, where L is the span length. Box Beams - Live load deflection is limited to $L/360$, total deflection is limited to $L/240$, where L is the span length.
- Grey areas in tables indicate instances where the joists do not backspan twice the cantilever distance or where the maximum joist span is exceeded.
- Grey areas are established based on 12 in. O.C. joist capacity.
- A partial list of section properties for each member is provided in the Trex Elevations Deck Framing/Inspection Details Table.
- Joist and box beam capacity are determined with AISI-S100-07 (LRFD).
- Joist yield stress is assumed as 33ksi.
- Box beam yield stress is assumed as 50ksi.
- If a box beam is supported by more than two posts, then its span selected above should be multiplied by 0.85 for a single box beam and 0.90 for a double box beam.
- If a box beam is provided as an intermediate joist support, then its span selected above or modified by Note 10 should be multiplied by 0.60 for a "dropped" box beam and 0.70 for a "flush" box beam.
- This span chart should not be used for decks located in a hurricane zone (minimum load of 125 psf should be considered in hurricane zones).

TREX ELEVATIONS[®] SPAN CHART

200 PSF TOTAL LOAD

TABLE E-200 RESIDENTIAL

Table Instructions: Enter the table with a joist span and cantilever length, then read the maximum allowable box beam span.

JOIST SPAN LIMITS (FEET/CENTIMETERS)			
12" JOIST SPACING O.C.		16" JOIST SPACING O.C.	
Maximum Joist Span (Ledger to Box Beam)	8' - 0"	243.8 cm	213.4 cm
Maximum Cantilever Length	1' - 0"	30.5 cm	15.2 cm

(Single Trex 1-5/8" [4.1 cm] Joist)

MAXIMUM BOX BEAM SPAN (SINGLE BOX BEAM BETWEEN POSTS)

Cantilever (feet/centimeters)	JOIST SPAN – LEDGER TO BOX BEAM (FEET/CENTIMETERS)															
	0' - 0"	1' - 0"	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	15' - 0"
0' - 0"	0.0	30.5	61.0	91.4	121.9	152.4	182.9	213.4	243.8	274.3	304.8	335.3	365.8	396.2	426.7	457.2
0' - 6"	N/A	19' - 11" 607.9	15' - 10" 482.5	13' - 10" 421.5	12' - 7" 382.9	11' - 4" 345.6	10' - 4" 315.5	9' - 7" 292.1	9' - 0" 273.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1' - 0"	N/A	15' - 10" 482.5	13' - 10" 421.5	12' - 7" 382.9	11' - 4" 345.6	10' - 4" 315.5	9' - 7" 292.1	9' - 0" 273.2	8' - 5" 257.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1' - 6"	N/A	N/A	12' - 7" 382.9	11' - 4" 345.6	10' - 4" 315.5	9' - 7" 292.1	9' - 0" 273.2	8' - 5" 257.6	8' - 0" 244.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2' - 6"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3' - 6"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4' - 0"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

MAXIMUM BOX BEAM SPAN (DOUBLE BOX BEAM BETWEEN POSTS)

JOIST SPAN – LEDGER TO BOX BEAM (FEET/CENTIMETERS)																
Cantilever (feet/centimeters)	0' - 0"	1' - 0"	2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"	9' - 0"	10' - 0"	11' - 0"	12' - 0"	13' - 0"	14' - 0"	15' - 0"
	0.0	30.5	61.0	91.4	121.9	152.4	182.9	213.4	243.8	274.3	304.8	335.3	365.8	396.2	426.7	457.2
0' - 0" 0.0	N/A	25' - 2" 765.9	19' - 11" 607.9	17' - 5" 531.0	15' - 10" 482.5	14' - 8" 447.9	13' - 10" 421.5	13' - 2" 400.4	12' - 7" 382.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
0' - 6" 15.2	N/A	19' - 11" 607.9	17' - 5" 531.0	15' - 10" 482.5	14' - 8" 447.9	13' - 10" 421.5	13' - 2" 400.4	12' - 7" 382.9	11' - 11" 362.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1' - 0" 30.5	N/A	N/A	15' - 10" 482.5	14' - 8" 447.9	13' - 10" 421.5	13' - 2" 400.4	12' - 7" 382.9	11' - 11" 362.2	11' - 3" 343.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1' - 6" 45.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2' - 0" 61.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2' - 6" 76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3' - 0" 91.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3' - 6" 106.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4' - 0" 121.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES:

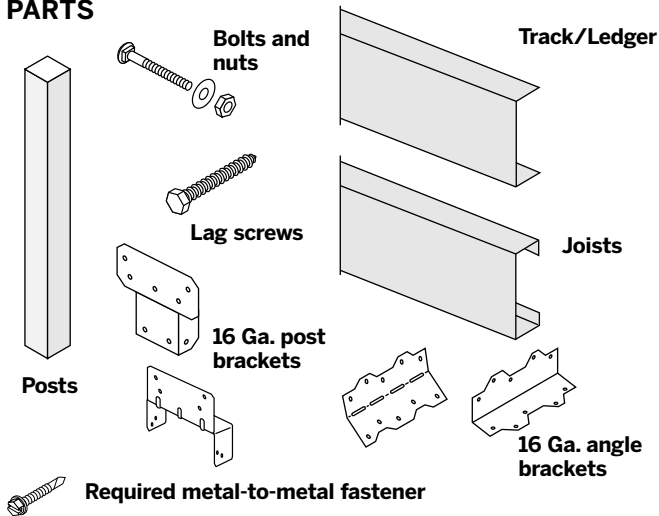
1. All loads and load combinations are determined using ASCE 7-05. DL=Dead Load, LL=Live Load, SL=Snow Load. When $LL < SL$, the total load (TL) is $1.2DL + 1.6SL + 0.5LL$, otherwise $TL = 1.2DL + 1.6LL + 0.5SL$.
2. Loads used to produce the tables above are as follows: $DL = 10\text{psf}$, $LL = 40\text{psf}$, $SL = 150\text{psf}$.
3. Deflection limits for joists are determined using IBC-2009 Section R505, Steel Floor Framing. Joists - Live load deflection is limited to $L/480$, total deflection is limited to $L/240$, where L is the span length. Box Beams - Live load deflection is limited to $L/360$, total deflection is limited to $L/240$, where L is the span length.
4. Grey areas in tables indicate instances where the joists do not backspan twice the cantilever distance or where the maximum joist span is exceeded.
5. Grey areas are established based on 12 in. O.C. joist capacity.
6. A partial list of section properties for each member is provided in the Trex Elevations Deck Framing / Inspection Details Table.
7. Joist and box beam capacity are determined with AISI-S100-07 (LRFD).
8. Joist yield stress is assumed as 33ksi.
9. Box beam yield stress is assumed as 50ksi.
10. If a box beam is supported by more than two posts, then its span selected above should be multiplied by 0.85 for a single box beam and 0.90 for a double box beam.
11. If a box beam is provided as an intermediate joist support, then its span selected above or modified by Note 10 should be multiplied by 0.60 for a "dropped" box beam and 0.70 for a "flush" box beam.

INSTALLATION



INSTALLING PIERS, POSTS, TRACK/LEDGER, AND BEAMS

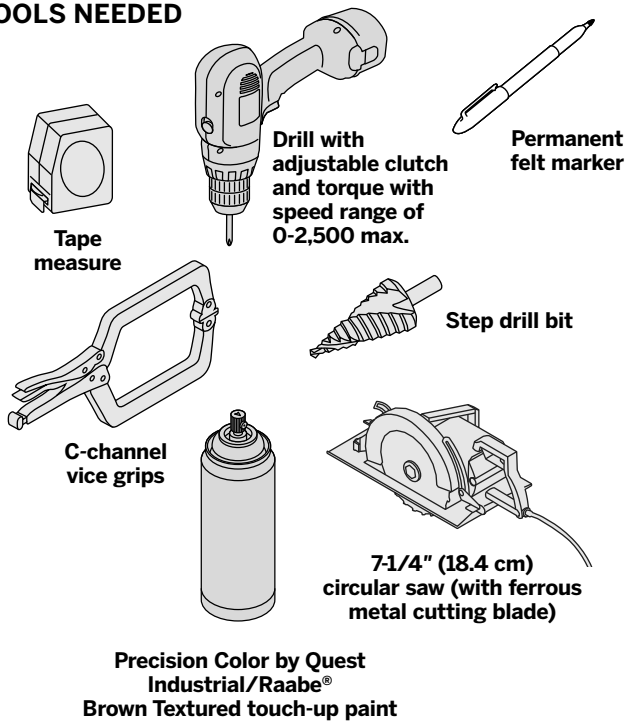
PARTS



NOTES:

- » See page 6 for detailed description of required fasteners and brackets.
- » For bracket to wood post attachments use approved 16d nails for AC4 and AC6 brackets and 10d nails for LPC4 and LPC6 brackets, per ASTM F1667 standards.

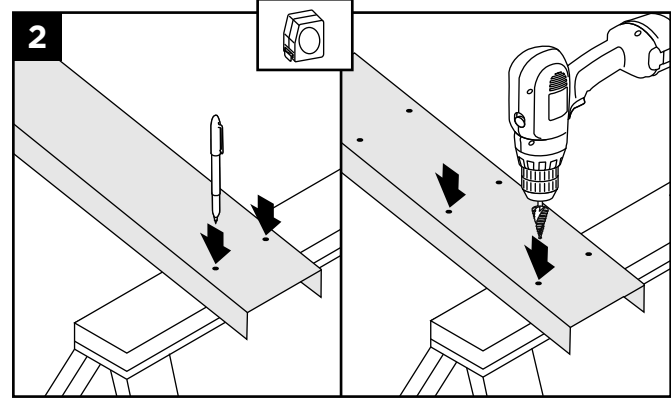
TOOLS NEEDED



Installing Piers and Posts

1. Install the post as required by local code. Check with your local building code inspector for requirements.

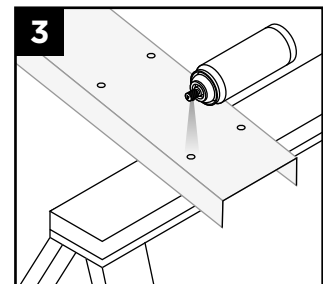
Installing Track/Ledger



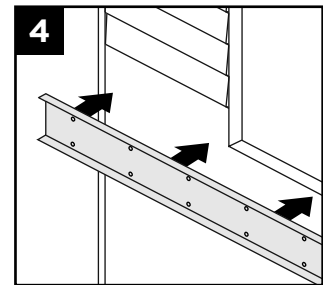
2. Before installing the track, mark the track where each joist will be positioned. Joist spacing requirements are determined by local building codes and decking manufacturer and are not to exceed 16" (40.6 cm) on center. Pre-drill the holes for lag bolts using a step bit repetitively while the track is on sawhorses.

NOTE: See pages 41-42 for fastener type and placement details.

3. Spray each drilled hole and ends of track with Precision Color by Quest Industrial/Raabe® Brown Textured touch-up paint.



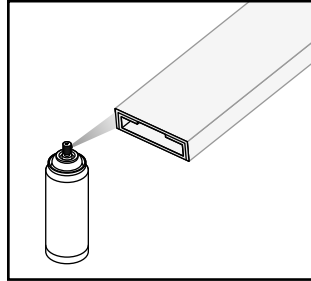
4. Secure track to the structure using approved methods of attachment. Consult a structural engineer or local building code official for proper water management details.



INSTALLING PIERS, POSTS, TRACK/LEDGER, AND BEAMS/CONTINUED

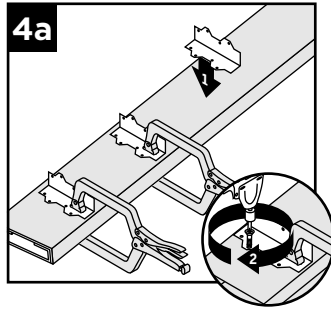
Installing Beams

NOTE: Paint all ends of beams and track/ledger plates with Precision Color by Quest Industrial/Raabe® Brown Textured touch-up paint.



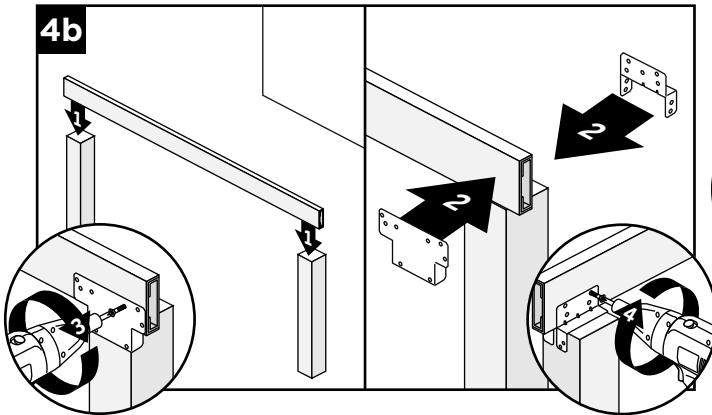
Option 1: Flush Beam Scenario – 4x4 or 6x6

4a. Attach 16 Ga. angle brackets (L70Z or LS70Z) using required fasteners to beam where joists will be joined. Use C-channel vice grips to clamp brackets in place.



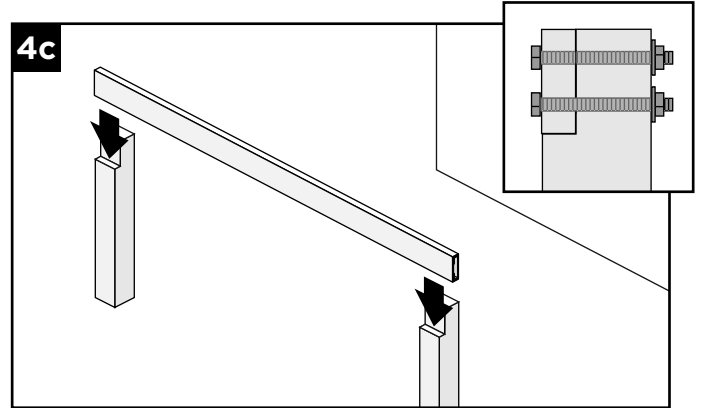
See Required Fasteners chart on page 6, column A, for approved metal-to-metal fasteners for attaching brackets to beam.

NOTE: Flush beam applications may be used in the design from 50 total PSF up to a total of 95 PSF. Greater review loads will require beam to be dropped.



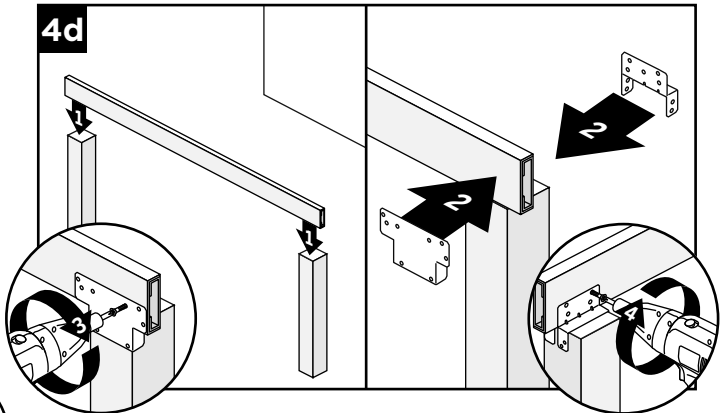
4b. Attach beam to post using recommended 16 Ga. post bracket (AC4CZ or AC6CZ) with required fasteners. See Required Fasteners chart on page 6, column A, for approved metal-to-metal fasteners for attaching brackets to beam.

Option 2: Single Beam Notched Post Scenario – 6x6 post



4c. Attach beam to each notched 6x6 post using two 1/2" (1.3 cm) bolts, washers, and nuts. See detail on page 45. Using a drop beam requires a track to be used as a front plate to secure joist ends.

Option 3: Single Flush Post Beam Scenario – 4x4 or 6x6 post

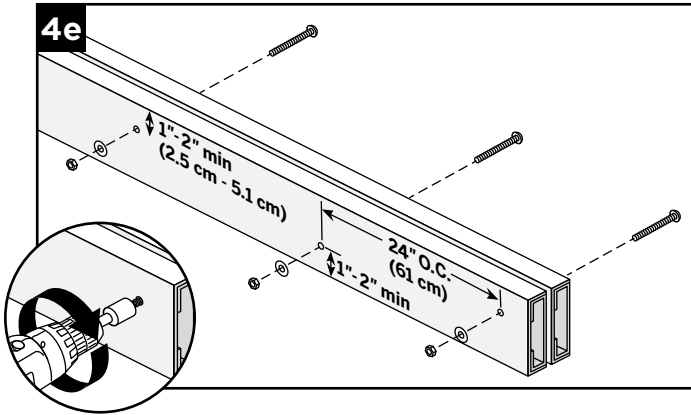


4d. Attach beam to post using recommended 16 Ga. post brackets (AC4CZ and LPC4Z) shown, and required fasteners. See Required Fasteners chart on page 6, column A, for approved metal-to-metal fasteners for attaching brackets to beam.

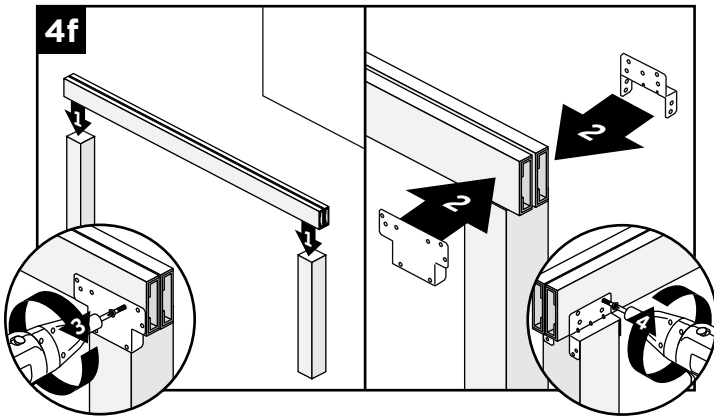


INSTALLING PIERS, POSTS, TRACK/LEDGER, AND BEAMS/CONTINUED

Option 4: Double Drop Beam Scenario – 6x6 Post



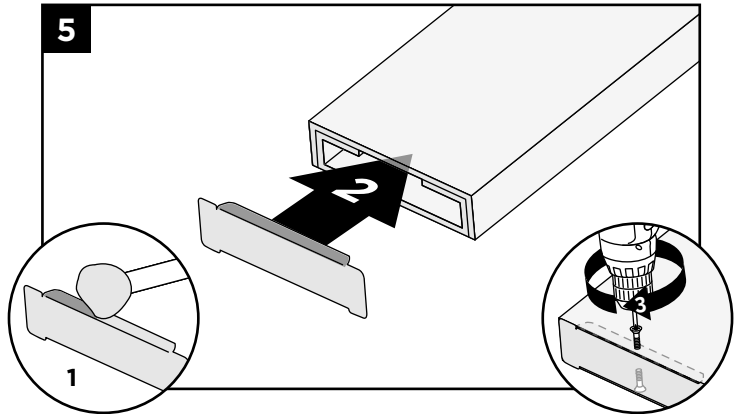
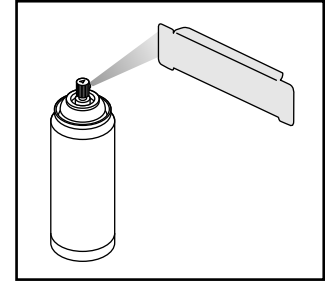
4e. Couple two beams using 1/2" (1.3 cm) carriage bolt, staggered at 24" (61 cm) O.C. (leaving room for bracket attachment). Bolts need to be installed 1" - 2" (2.5 cm - 5.1 cm) from top and 1" - 2" (2.5 cm - 5.1 cm) from bottom of beam.



4f. Attach double beam to each post using recommended 16 Ga. post brackets (AC6CZ and LPC6Z), and required fasteners. See *Required Fasteners* chart on page 6, column A, for approved metal-to-metal fasteners for attaching brackets to beam.

(Optional) End Cap Attachment

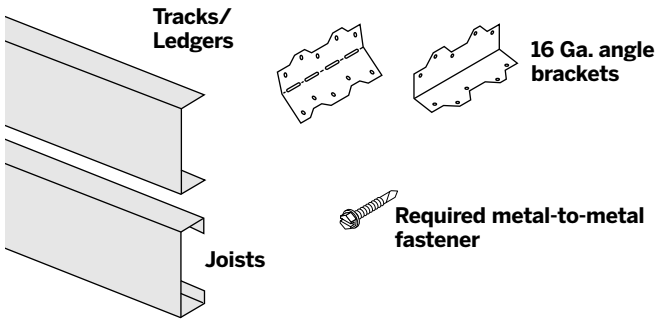
NOTE: Paint end cap with Precision Color by Quest Industrial/Raabe® Brown Textured touch-up paint.



5. Secure cap with exterior grade metal adhesive and/or #10 x 3/4" (1.9 cm) self-tapping screws.

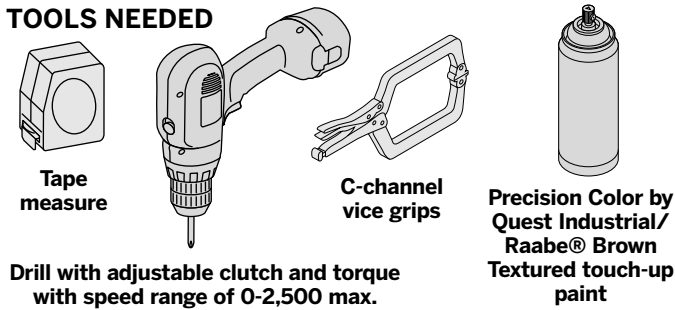
INSTALLING RIM JOISTS, JOISTS, RIM PLATES, AND JOIST BLOCKING

PARTS

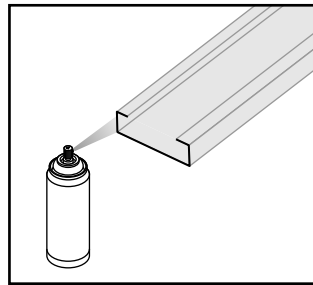


NOTE: See page 6 for detailed description of required fasteners and brackets.

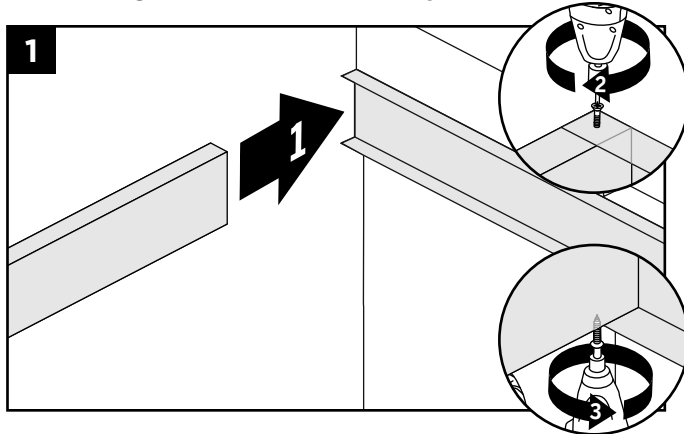
TOOLS NEEDED



NOTE: Paint all ends of rim joists, joists, front plates, and blocking with Precision Color by Quest Industrial/Raabe® Brown Textured touch-up paint.

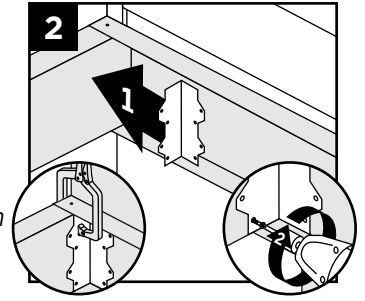


Installing Rim Joists Assembly

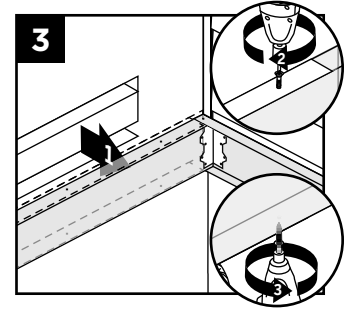


1. Slide the joist within the flanges of the track and rest the outer end on the support post or beam. Fasten joist to track using required fasteners. See *Required Fasteners chart on page 6, column A*. Fasten through the track flange into the joist on top and bottom.

2. Fasten joist to track with recommended 16 Ga. angle bracket (L70Z or LS70Z) using required fasteners. See *Required Fasteners chart on page 6, column A*. Use C-channel vice grips to help secure the angled bracket.



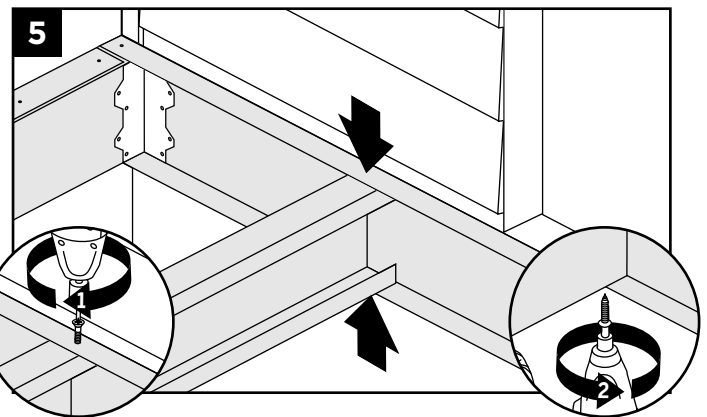
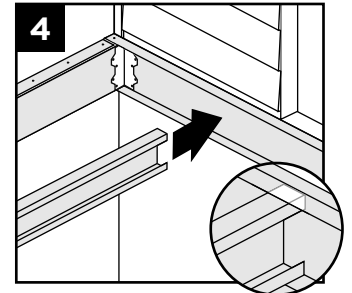
3. Notch outer rim track to allow for fit over end of ledger. Attach outer rim track with metal-to-metal screws (see *Required Fasteners chart on page 6, column A*) every 12" (30.5 cm) top and bottom.



NOTE: In a dropped beam application when installing joists, it is recommended to alternate the "C" pattern of the joist profile. This will place the webs of the joists together for ease of installing blocking. See page 25.

Installing Inner Joists

4. Position joist within track flange, spaced according to approved joist spacing.

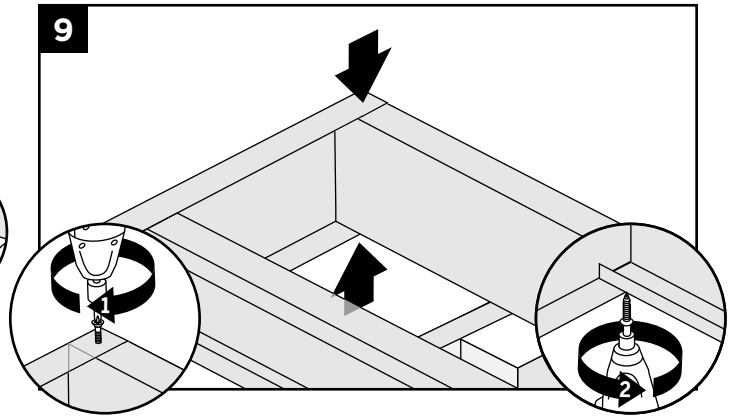
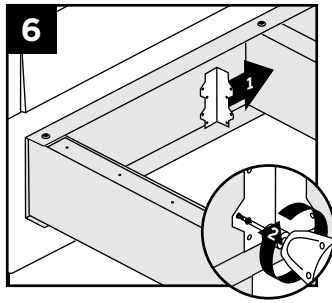


5. Fasten top and bottom of joist and track. Screw joist to track from above and below with required fasteners. See *Required Fasteners chart on page 6, column A*.



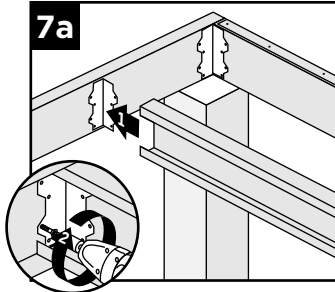
INSTALLING RIM JOISTS, JOISTS, RIM PLATES, AND JOIST BLOCKING/ CONTINUED

6. Attach joist to track with recommended 16 Ga. angle bracket (L70Z or LS70Z) using required fasteners. See *Required Fasteners* chart on page 6, column A. Repeat Steps 3-5 for remaining joists.



Option 1: Flush Beam Scenario

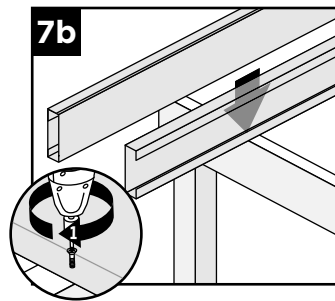
7a. Fasten joist to beam using recommended 16 Ga. angle brackets already attached.



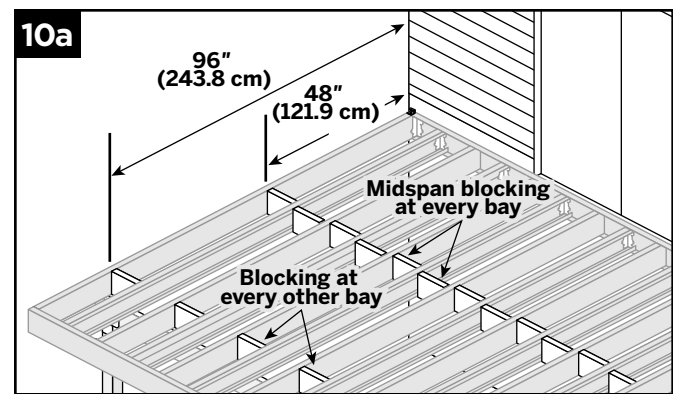
9. Attach track to joists by screwing track to joists in the corners on the top and bottom using required fasteners. See *Required Fasteners* chart on page 6, column A.

Option 2: Drop Beam Scenario

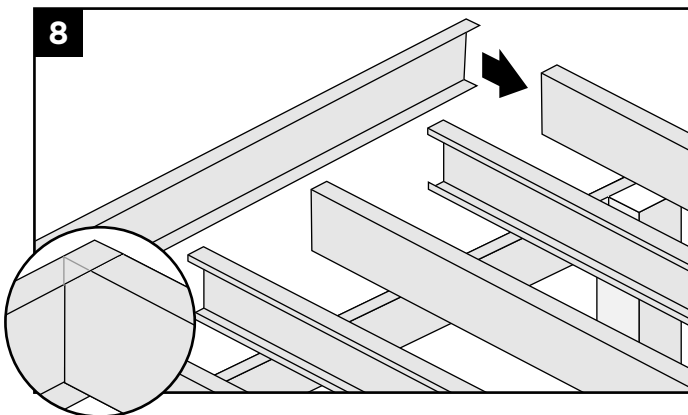
7b. Rest joist on dropped beam. Attach using required fasteners through bottom of joist and into top of beam. See *Required Fasteners* chart on page 6, column A.



Installing Blocking

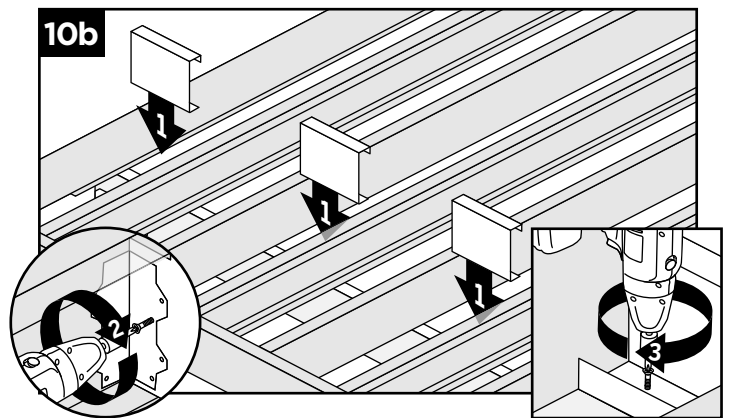


Installing Rim Plate and Joist Blocking (Drop Beam Scenario Only)



8. Position track as a rim plate. Fit existing joists within the flanges of the track.

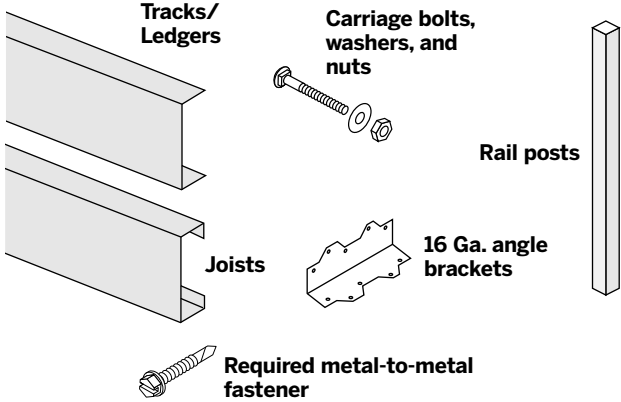
10a. For joist spans greater than 8' (2.49 m), blocking is required midspan in every bay.



10b. Cut joist blocking pieces to fit within the bays of the two outer most joists and between bays above dropped beams design. Attach recommended 16 Ga. angle brackets (L70Z or LS70Z), using required fasteners. See *Required Fasteners* chart on page 6, column A. Attach blocking to drop beam with #10 x 3/4" (1.9 cm) self-tapping screws.

INSTALLING RAIL POSTS

PARTS



Installing Posts:

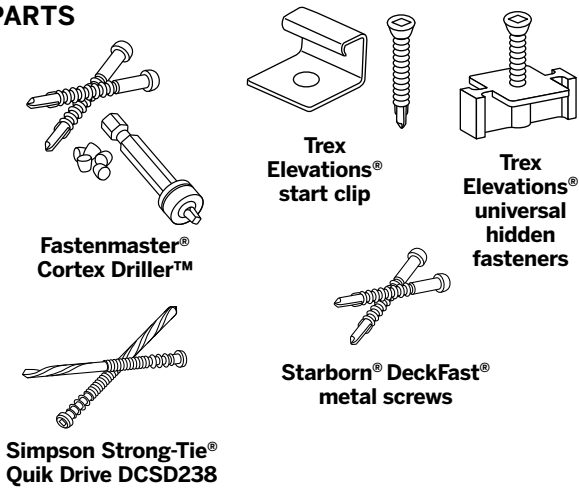
THERE ARE THREE CODE APPROVED METHODS FOR ATTACHMENT OF RAIL POSTS. YOU MUST REFER TO THE CRITICAL CONNECTIONS SECTION, RAIL POST INSTALLATION SCENARIOS FOR DETAILS ON HOW THIS IS DONE. See pages 50-52.

NOTE: See page 6 for detailed description of required fasteners and brackets.

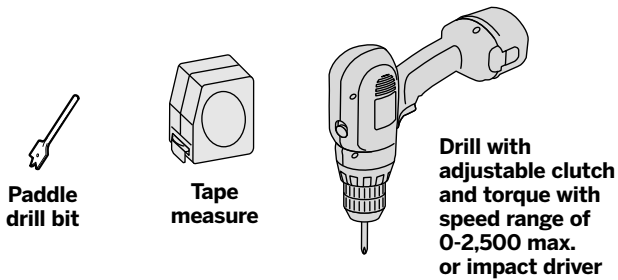
TREX RAILING SPAN CHART	
Maximum Railing Span for all Applications (on center of posts)	
Transcend Railing	96" (244 cm)
Designer Railing/ Traditional Railing	72" (183 cm)
NOTE: Railing heights can only be at 36" (91.4 cm)	

HOW TO INSTALL DECK BOARDS

PARTS



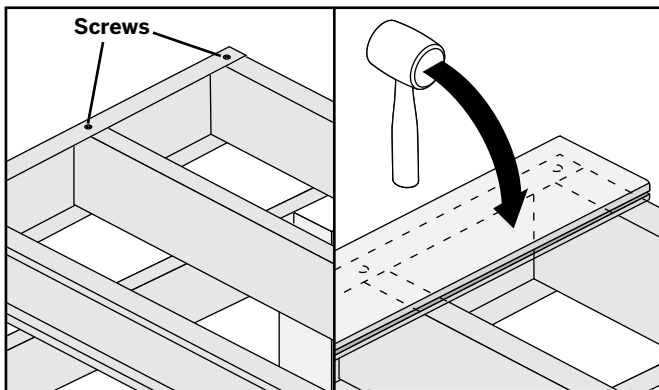
TOOLS NEEDED



WARNING

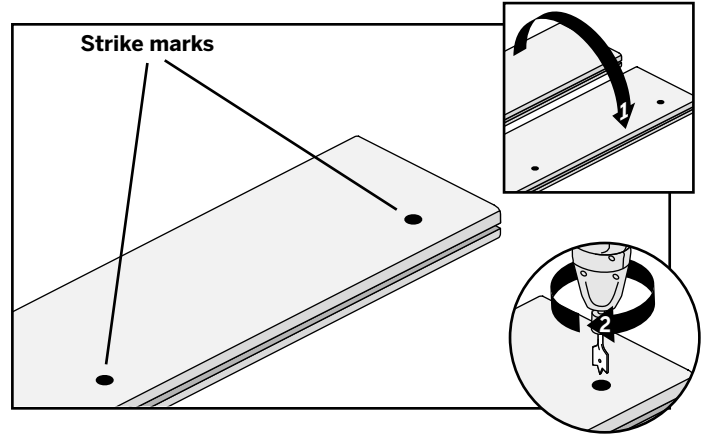
DO NOT walk or stand on top of Trex Elevations® joists prior to installing deck boards.

Tips on Installing Deck Board over Screws on Ledger/Front Plate



Tip 1:

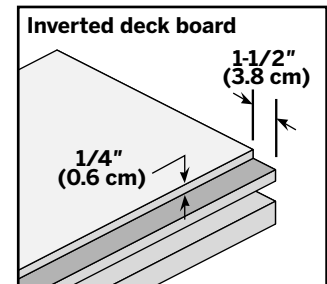
1. Place deck boards in proper location over end joist fasteners. Use a rubber mallet on top of deck board in order to mark underside of decking where screws may have caused the deck board to stick up.



2. Flip board over so that bottom of board faces up and shows strike marks from the screws. Using a paddle drill bit, carefully drill holes to the depth of the fastener heads in the joist. Flip board over so that drilled holes fit over joist fasteners, and fasten board per instructions.

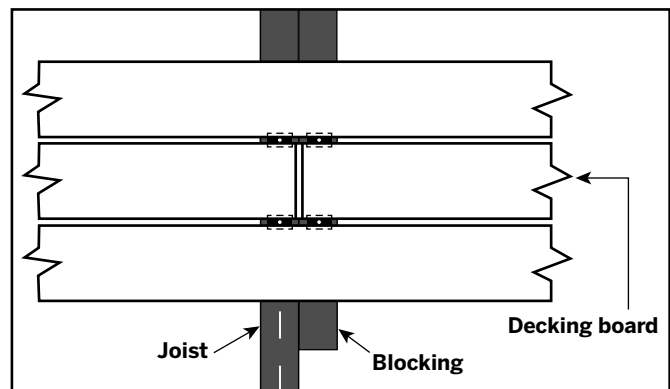
Tip 2:

Cut out groove (1-1/2" [3.8 cm] wide x 1/4" [0.6 cm] height) on underside of decking to allow for clearance of screws.



NOTE: Reference decking manufacturer installation instructions for more details in regards to proper gapping, etc.

Installing Butt Seams

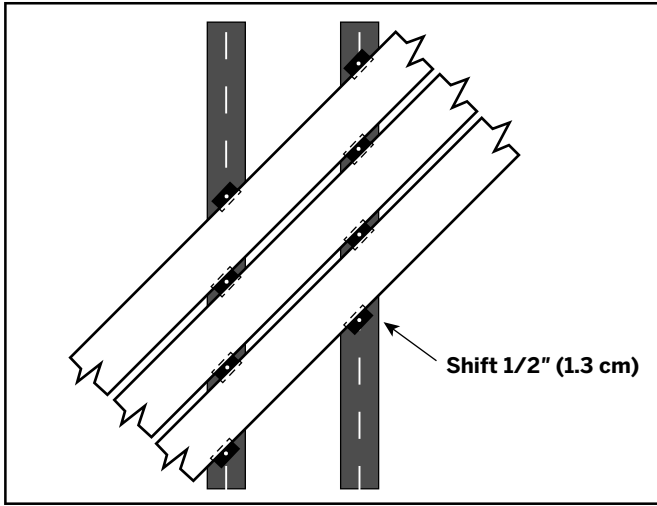


- » Install sister blocking along joists where end seams of boards will butt.
- » Place additional hidden fastener on the adjacent board over the joist and blocking where the seams meet.
- » Place the first board of the seam in place and secure with hidden fastener.
- » Butt end of second board with proper gapping to first and secure with hidden fastener.

HOW TO INSTALL DECK BOARDS/CONTINUED

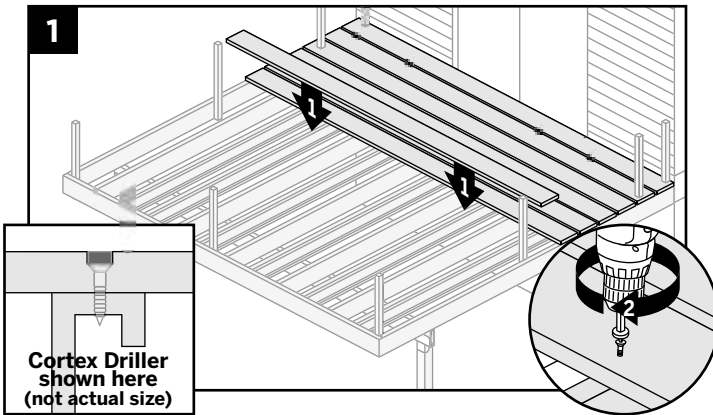
Installing Angled Deck Boards in Corners

Install Trex Hideaway® fasteners 1/2" (1.3 cm) off center to keep fastener screws in middle of joists.



Option 1: Traditional Face Screwing

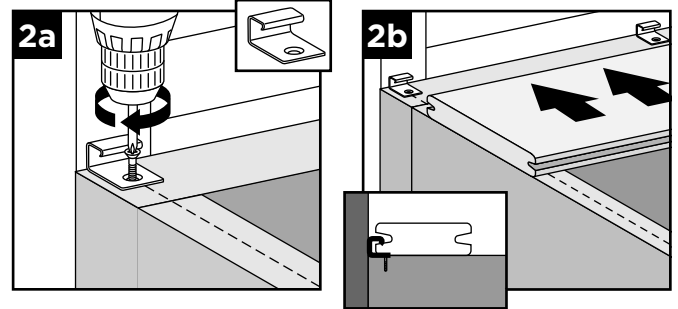
NOTE: When using the Fastenmaster® Cortex Driller™* or DeckFast® Metal** fasteners, pre-drilling may be required.



1. Fasten deck boards by screwing recommended decking to metal fasteners through the decking into Trex Elevations® joists. See *Required Fasteners chart on page 6, column B.*

Option 2: Trex Elevations® Universal Hidden Fasteners

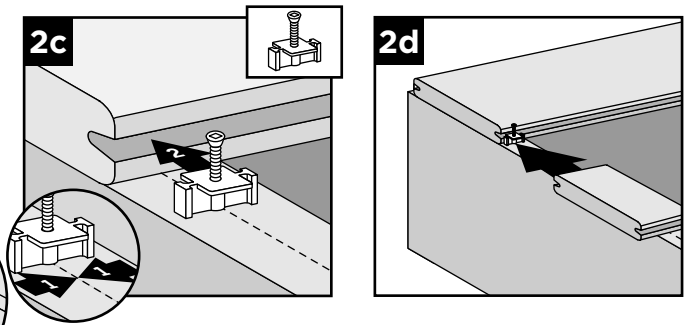
Installing Start Clips and First Board



NOTE: Maximum spacing of deck boards using Trex Hideaway® system is 16" (40.6 cm) on center. Fasteners provide 1/4" (0.6 cm) gap when installed correctly.

- 2a. Install start clips on edge of track board, centered on each joist. Secure clips with screws.
- 2b. Push grooved edge of deck board into start clips.
Important: First board **MUST** be straight and well secured in order to establish a finished appearance for the remainder of the deck.

Installing Universal Fasteners



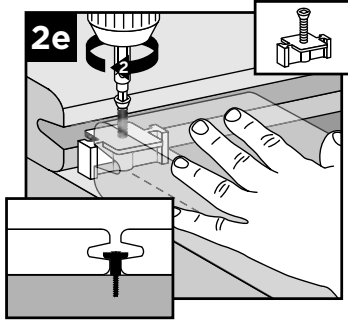
- 2c. Insert fastener into grooved edge of deck board. Align screw hole in fastener with center of joist.
- 2d. It is suggested that in order to keep the fastener straight and secure cut a piece of scrap groove board and use this as an aid to help hold the hidden fastener down before screwing this in. This will help make sure the fastener stays fully straight for remaining boards to be attached.

*Fastenmaster® Cortex Driller™ is a trademark of OMG, Inc.
**DeckFast® is registered trademark of Starborn Industries, Inc.



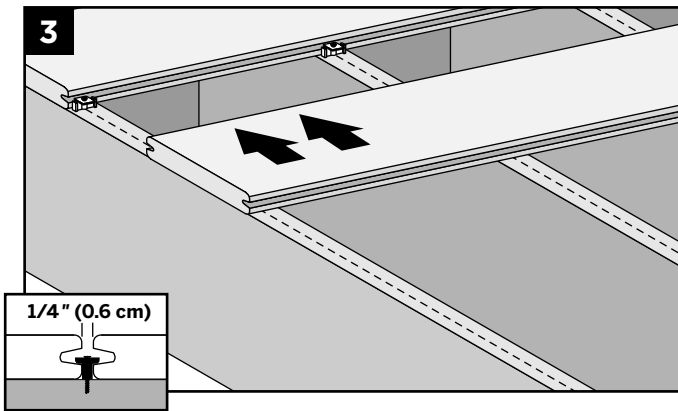
HOW TO INSTALL DECK BOARDS/CONTINUED

- 2e. Hold the scrap board in place and align screw hole in fastener with center of joist. Secure fastener and continue along the length of the board at every joist with fasteners.



NOTE : For special patterns such as picture framing for decking, refer to Detail Drawings Section, Framing Scenarios. See pages 63-65.

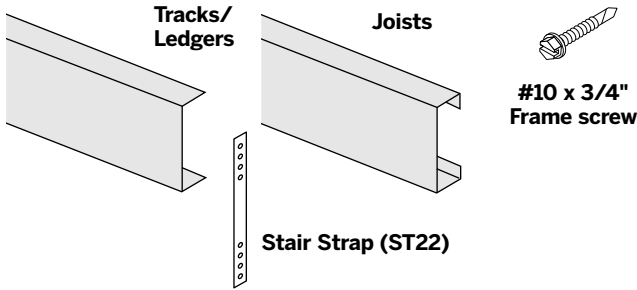
Installing Second Board



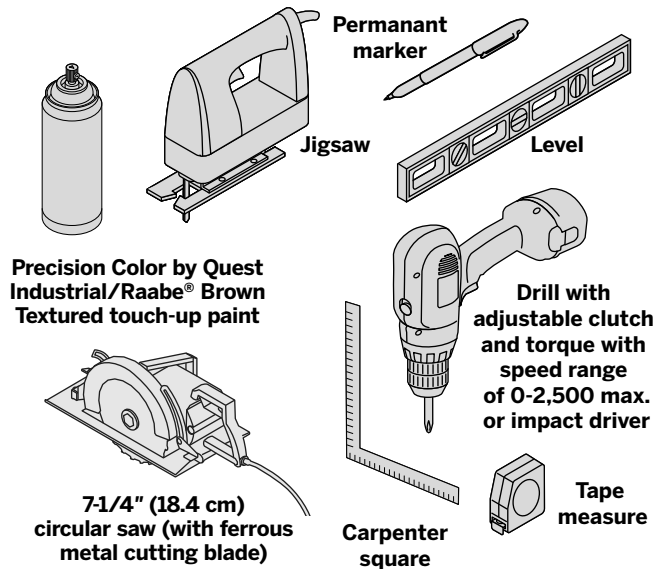
3. Slide second board into place, making sure fasteners fit into groove. Install the next universal fastener on the other side of the second board in the same manner as Steps 2c through 2e.

HOW TO INSTALL TREX ELEVATIONS® STAIRS

PARTS

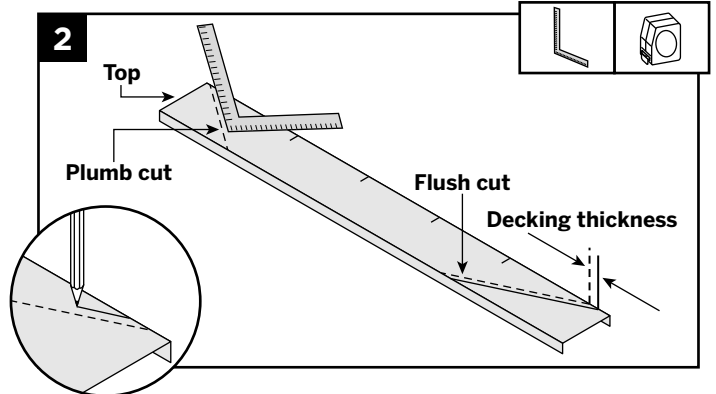


TOOLS NEEDED



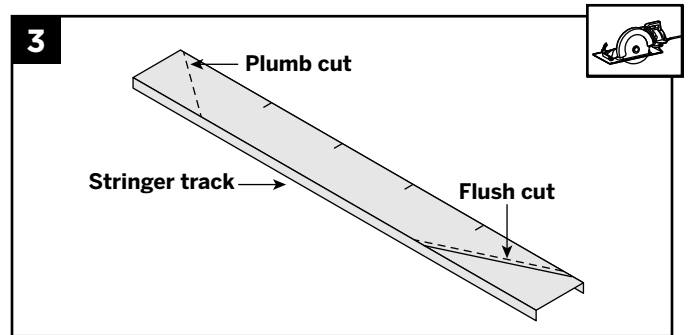
Installing Trex Elevations® Stairs

1. Determine rise and run of desired stairway.

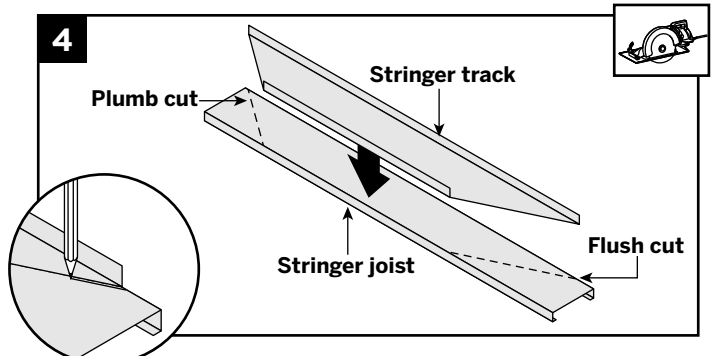


2. Using Elevations track, layout stairs on flat side of track. Starting at top, mark plumb cut and work downward with small marks at end of each run. When final step has been reached, mark bottom with two marks across track. Measure up from these two marks the thickness of decking on step.

Example: Trex Transcend 1", measure up 1" (2.5 cm) and draw line completely through track. This is flush cut.



3. Cut plumb and flush marks. This will be the stringer track of outside stringer. Repeat process for opposite side. Make sure stringers are positioned opposite each other and that they fit left and right.



4. Use stringer track as template to mark a piece of the Elevations joist. Cut plumb and flush marks. This will be stringer joist of stringer and complete box stringer. Repeat for opposite side.

STAIR SUPPORT POSTS

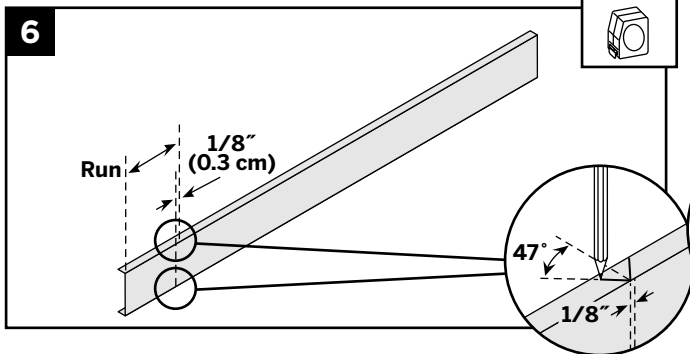
Width	3 - 6 ft 91 - 182 cm	6 - 8 ft 182 - 243 cm	8 - 18 ft 243 - 549 cm
Max height	9 ft 274 cm (16 rises)*	7 ft 213 cm (12 rises)*	5 ft 152 cm (9 rises)*
Mid-stringer required	No	No	Yes
Stairs connected to rim joist assembly at the side	One post needed at the mid-span of the stairs load. (See Figure 1 on page 54.)		
Stairs connected to the flush box beam	One post needed at the middle of each span taking the stairs load. (See Figure 2 on page 54.)		
Stairs connected to the cantilever track of the deck	One post needed under the end of each stringer including mid stringer if used. (See Figure 3 on page 54.)		

* Fastener spacing along the width of the stairs is 12 in. (30.5 cm). If the stairs are 7 ft. (213 cm) (12 rises) or taller, 8 in. (20.3 cm) fastener spacing is required.

* Applies to wood stair system as well.

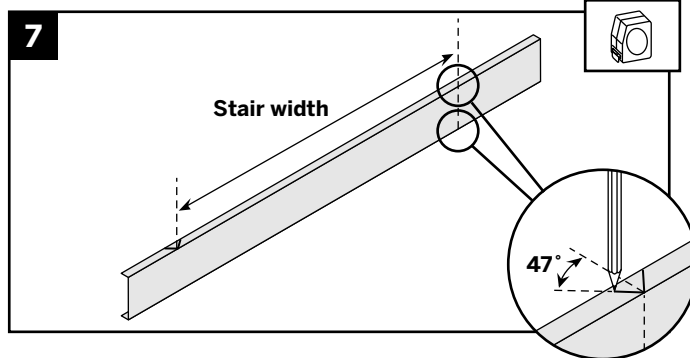
HOW TO INSTALL TREX ELEVATIONS® STAIRS/CONTINUED

5. Determine width of stairway. Stringers will sit on outside of box, add 3-1/2" (8.9 cm) to the overall width (take this into account).

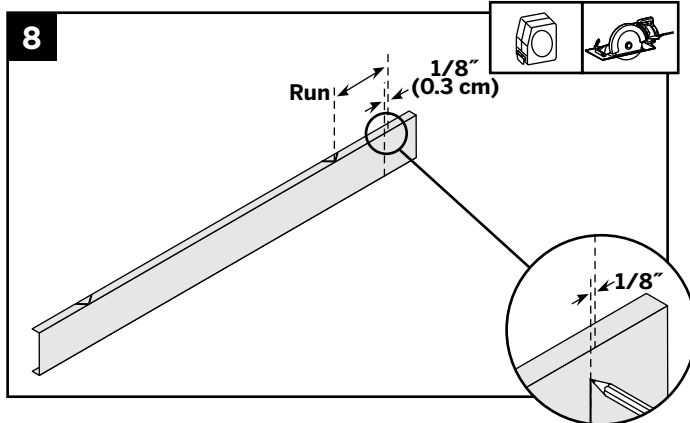


6. Using Elevations track, measure from one end length of run of stairs minus 1/8" (0.3 cm). At the point of this measurement, mark a bird's beak at a 47° angle on top and bottom flange of track. This is stair box perimeter track.

Example: If run is 10-1/2" (26.7 cm), measure 10-3/8" (26.4 cm) and mark top and bottom of track.

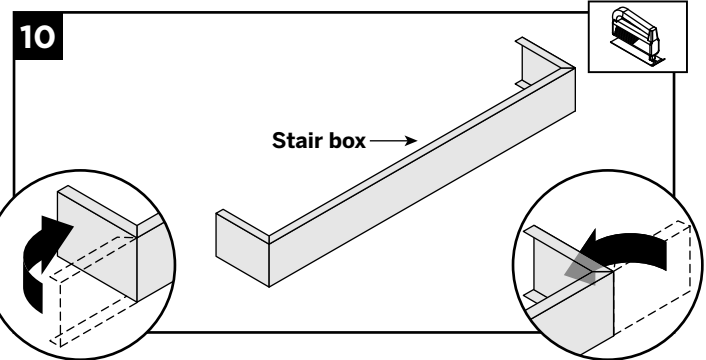


7. From center point of birds beak, measure width of stairway. Mark another bird's beak on top and bottom of stair box perimeter track.



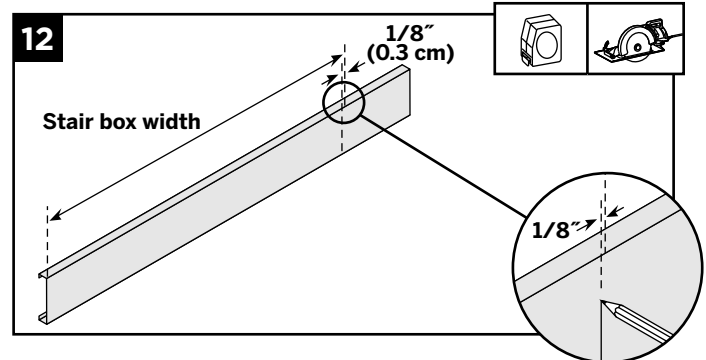
8. From center point of second bird's beak, measure length of run of stairs minus 1/8" (0.3 cm). This measurement will be the end of stair box. Cut track at that mark.

9. With a jigsaw, cut out four bird's beaks marked on top and bottom flanges of stair box perimeter track.

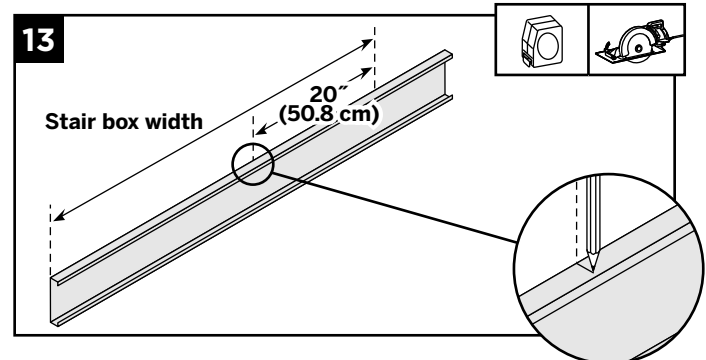


10. Hold piece of track vertical and place a foot on inside of track. Apply pressure downward to bend track at a 90° angle at bird's beak cut out location. Flip track over and repeat.

11. Determine how many stair boxes are needed. Repeat Steps 6 – 10 to construct total number of boxes.



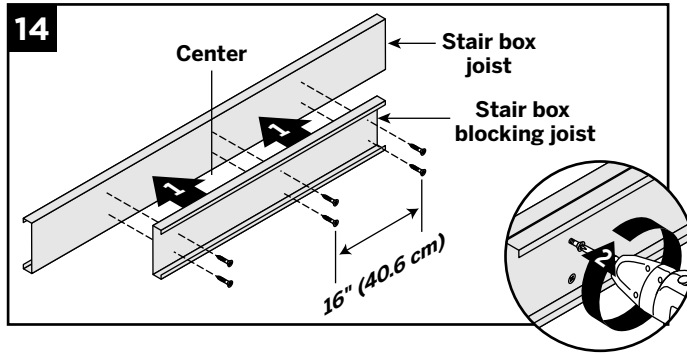
12. Using joist material, cut joist the width of stair box minus 1/8" (0.3 cm). Two of these joists will be needed for every stair box.



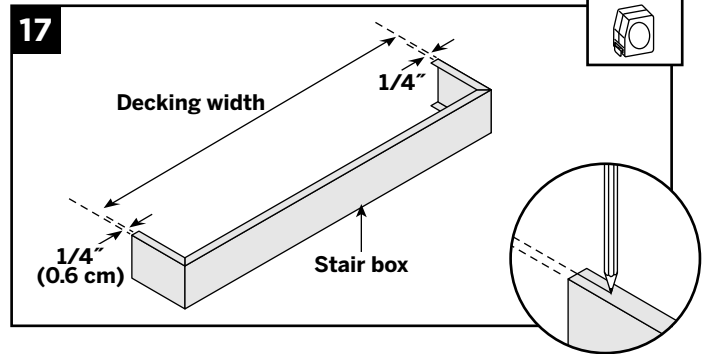
13. Using joist material, cut a joist the width of stair box minus 20" (50.8 cm). One of these joists will be needed for every stair box.



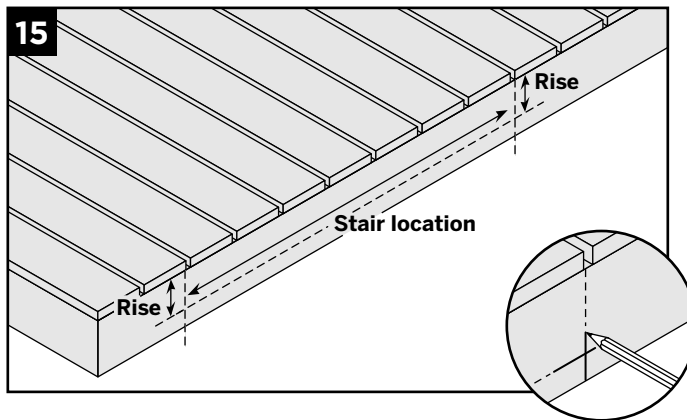
HOW TO INSTALL TREX ELEVATIONS® STAIRS/CONTINUED



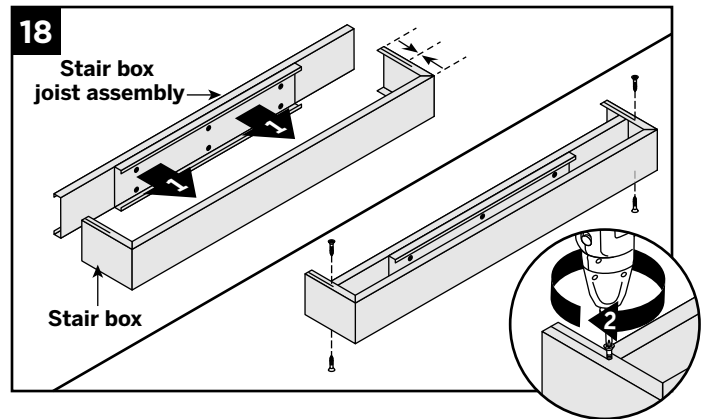
14. Put one full length center stair box joist and one short stair box blocking joist together (back to back). Put joists equal at center point of each joist and flush with top. One assembly will be needed per stair box. Use a #10 x 3/4" (1.9 cm) frame screw every 16" (40.6 cm) O.C. to attach stair box blocking joist to stair box joist. A minimum of four screws must be used.



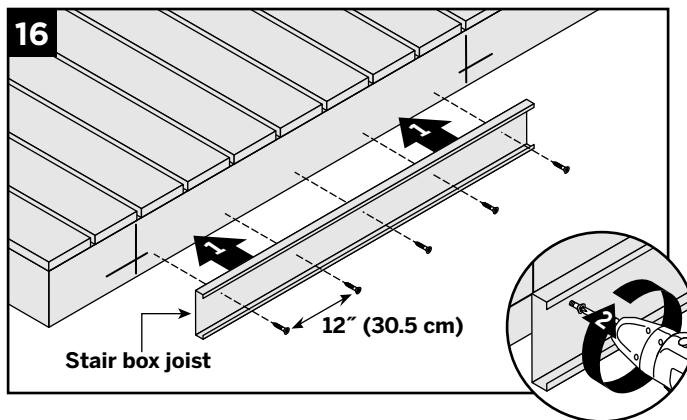
17. Measure width of decking minus 1/4" (0.6 cm) from the end of stair box (do this on both sides of box).



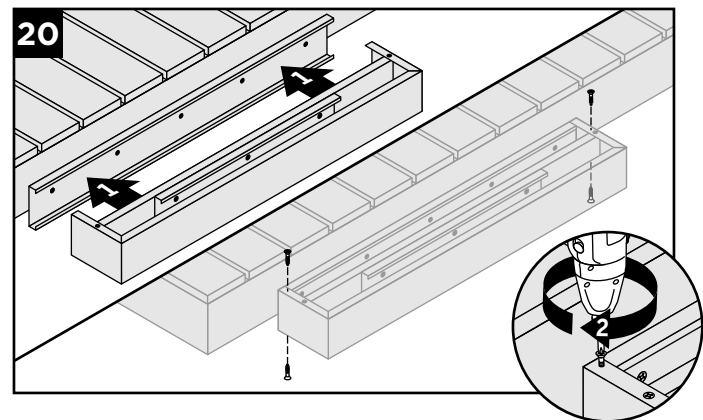
15. Determine attachment of stairs to deck frame. Mark sides of stair location. Mark down from frame the amount of rise determined for stairway.



18. Using doubled up stair box joist assembly, install assembly into stair box. Install joist with center of doubled stair box joist assembly at mark on each side of stair box. Drill a #10 x 3/4" (1.9 cm) frame screw through top flange of stair box into stair box joist. Repeat on both sides, top and bottom.



16. Install longer rear stair box joist, with top of joist flush to line drawn for rise, against frame. Use a #10 x 3/4" (1.9 cm) frame screw through joist and into frame every 12" (30.5 cm) along stair box joist.

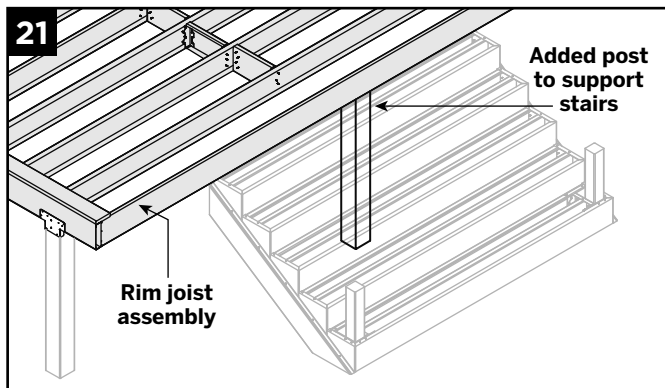


20. Install top stair box to frame of deck. Push stair box assembly over rear stair box joist attached to deck frame. When stair box is tight against frame drill a #10 x 3/4" (1.9 cm) frame screw through top of stair box flange into joist. Repeat screws on sides, top, and bottom.



HOW TO INSTALL TREX ELEVATIONS® STAIRS/CONTINUED

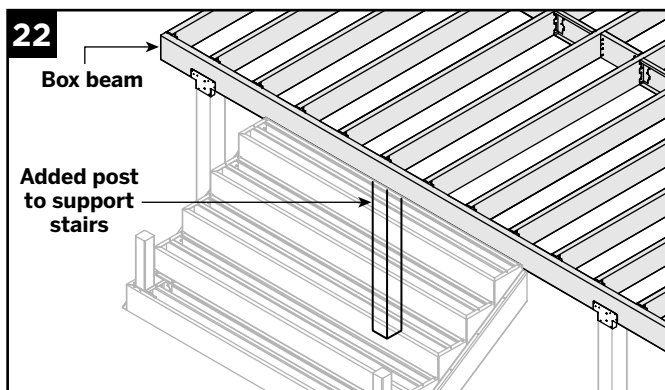
Stairs Connecting to the Rim Joist Assembly from the Side



21. Secure one post midspan of stair section at back side of rim joist assembly using one AC4 or AC6. Fill all bracket holes.

NOTE: Deck boards are not shown for clarity.

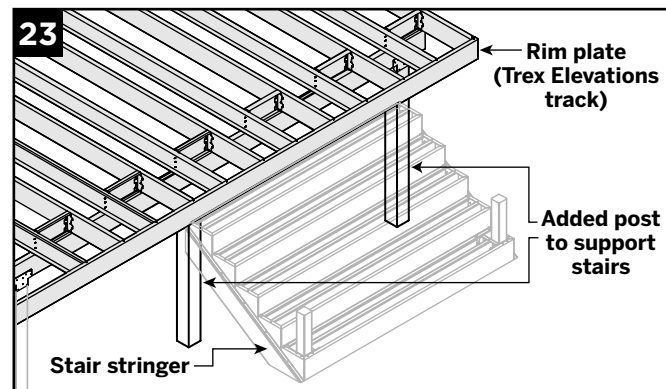
Stairs Connecting to the Flush Beam



22. Secure one post midspan of stair section at back side of flush beam using one AC4 or AC6. Fill all bracket holes.

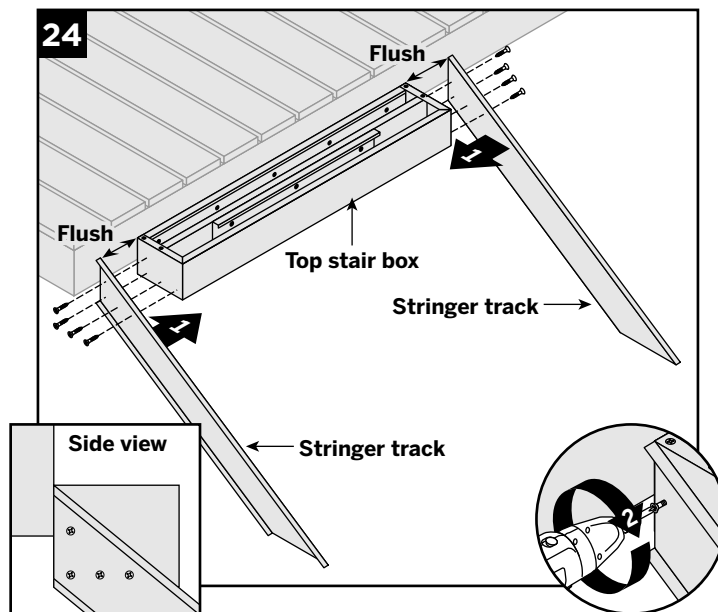
NOTE: Deck boards are not shown for clarity.

Stairs Connecting to the Cantilever Rim Plate



23. Within 6" left or right of stair stringers, fill bay cavity section at rim plate where each post will be placed using joist as blocking and fasten with 2 - #10 x 3/4" self-tapping screws both top and bottom of rim plate flange. Using one AC4 or AC6 secure both posts at bay blocking. Fill all bracket holes.

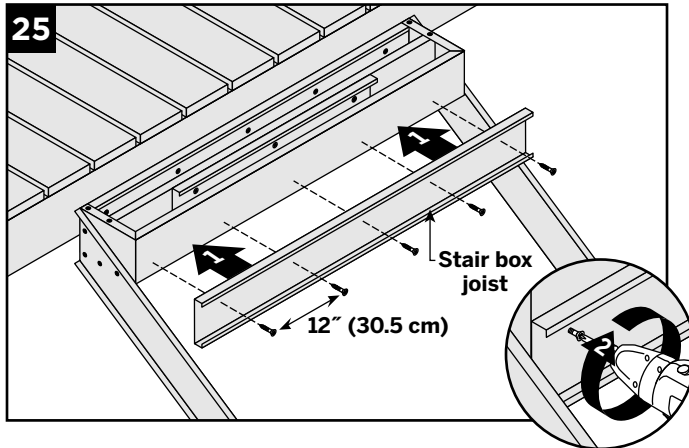
NOTE: Deck boards are not shown for clarity.



24. Install stringer track (cut in Step 3) to top stair box. Starting with one side of stairway, put track portion of stringer up against side of stair box. Install the point of stringer track flush with top of stair box. Using a level, make sure stair box is level front to back. Drill a #10 x 3/4" (1.9 cm) frame screw through the outside of stringer into stair box. Drill a total of four screws in an "L" pattern through stringer.

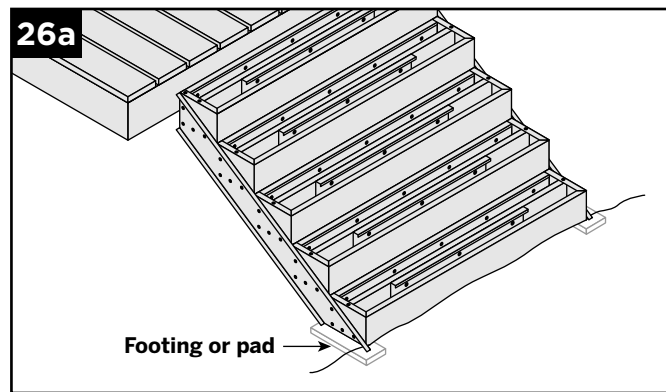


HOW TO INSTALL TREX ELEVATIONS® STAIRS/CONTINUED



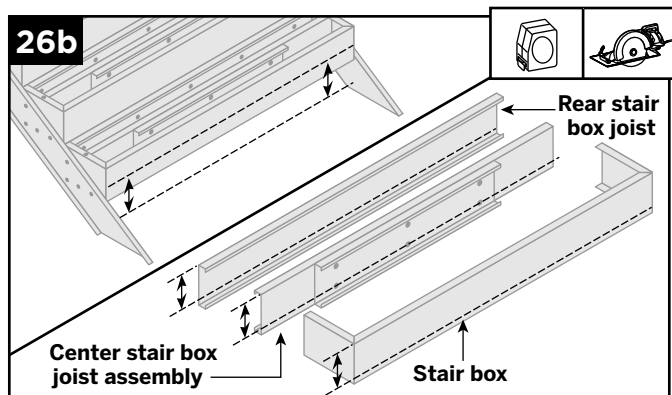
25. Install a stair box joist to first stair box as done in Step 16. Repeat this step and Steps 20 and 24 to bottom of stairway.

Option 26a: No Landing Set (stairway goes to ground)

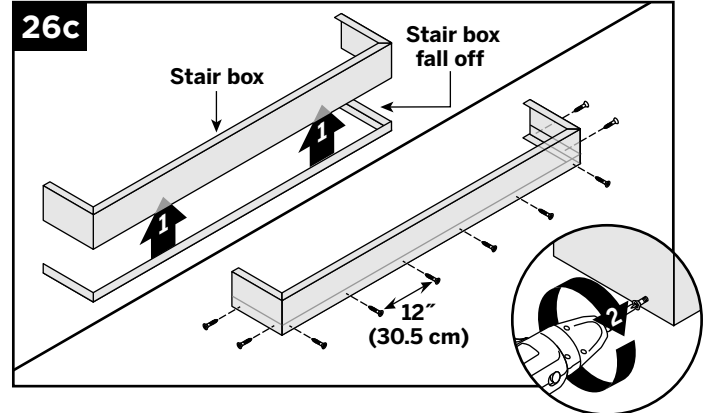


26a. Install bottom stair box as shown in Step 20 and dig ground out around box. Stringers need to set on footing or pad.

Option 26b-f: Hard Surface Landing (stairway goes to hard surface)

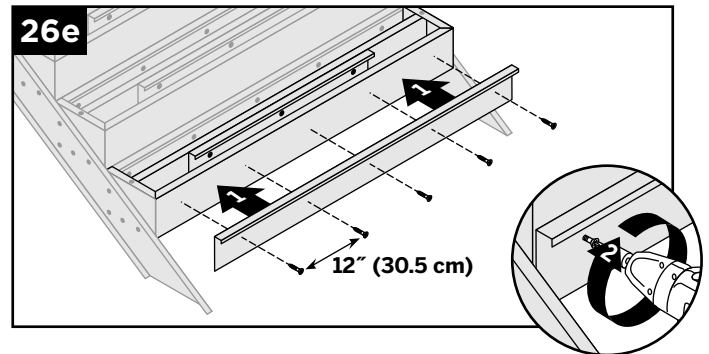


26b. Measure height of bottom rise. Rip cut stair box, center stair box joist assembly, and rear stair box joist to height of bottom rise.

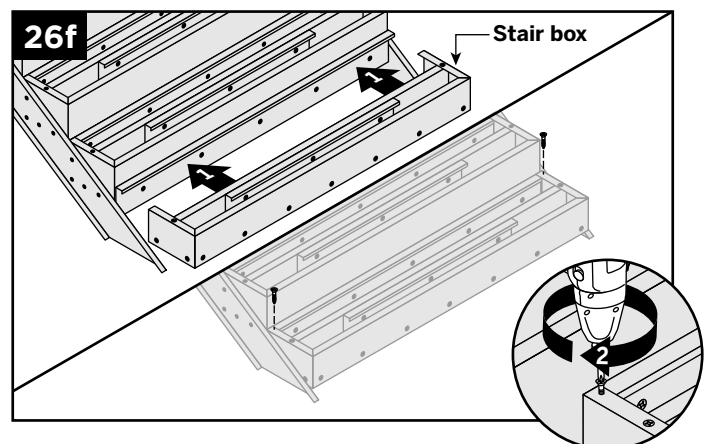


26c. Attach fall off to inside of stair box with #10 x 3/4" (1.9 cm) frame screw every 12" (30.5 cm) O.C.

23d. Install ripped center stair joist assembly into stair box (see Step 18).



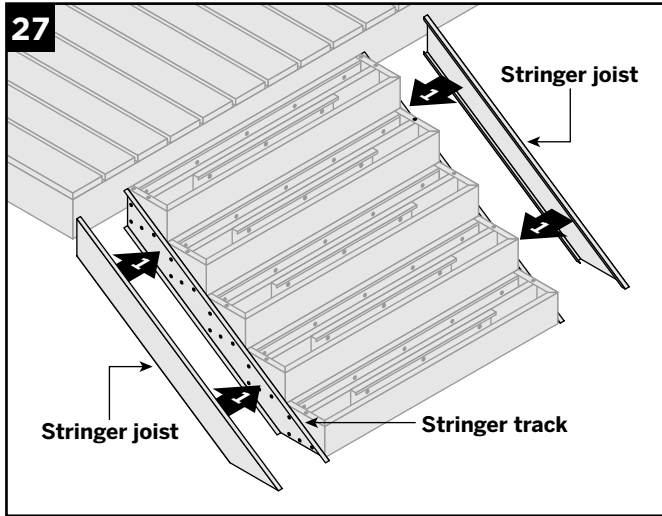
26e. Install ripped rear stair joist to last step using a #10 x 3/4" (1.9 cm) frame screw through joist every 12" (30.5 cm).



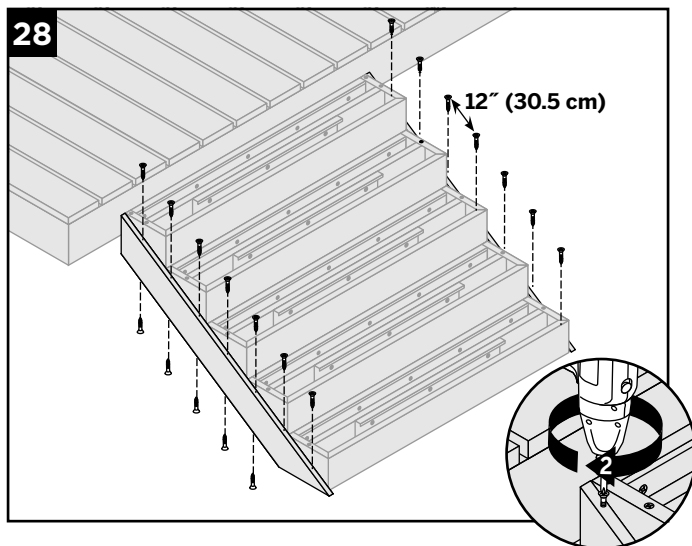
26f. Install stair box to last ripped rear stair joist. When stair box is tight against frame drill a #10 x 3/4" (1.9 cm) frame screw through top of stair box flange into joist. Repeat screw on side top.



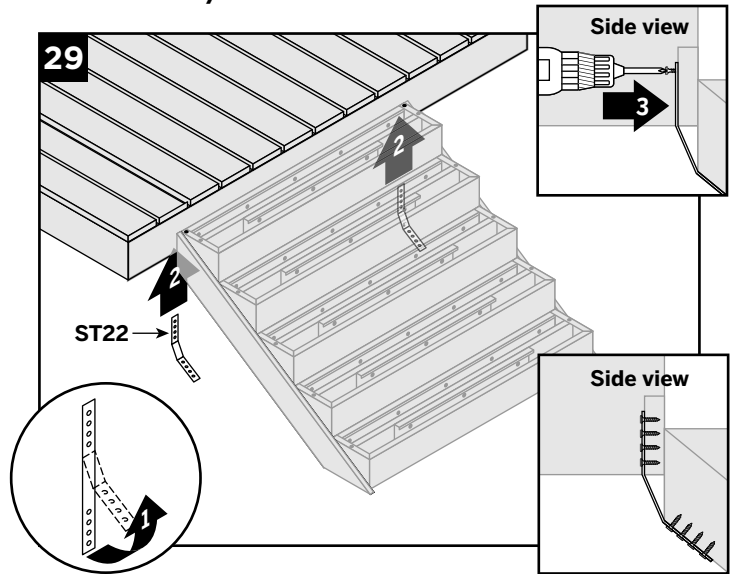
HOW TO INSTALL TREX ELEVATIONS® STAIRS/CONTINUED



27. Install stringer joist into stringer track on both sides of stairway.



28. With stringer joist tight, screw top and bottom flange every 12" (30.5 cm) O.C. with a #10 x 3/4" (1.9 cm) frame screw. Do this on both sides of stairway.



29. Attach stair strap (ST22) to back side of frame where it lines up with stair stringer. Use #10 x 3/4" (1.9 cm) frame screws, filling every hole in strap.

HOW TO INSTALL DECK BOARDS AND FASCIA ON ELEVATIONS STAIRS

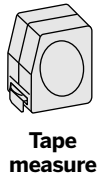
PARTS



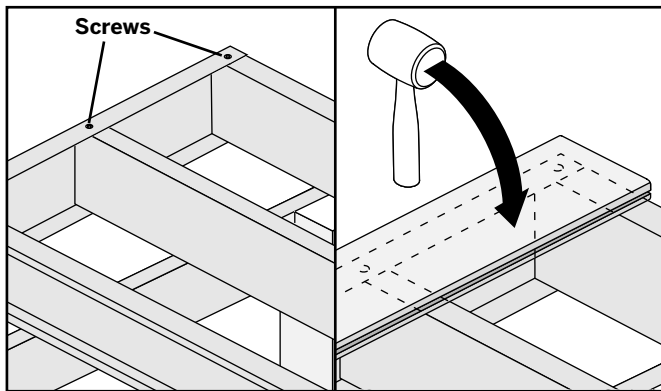
NOTES:

- » Use of hidden fasteners is not recommended for Trex Elevations® stair installations, thus use square edge boards for proper installation.
- » Stair treads built with Trex® meet requirements by major building codes. Consult your local municipality for specific requirements and what your area will allow.

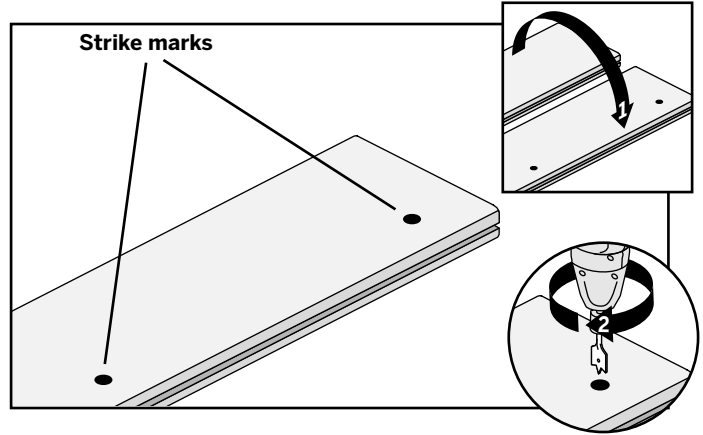
TOOLS NEEDED



Tip on Installing Deck Board over Screws on Stair Sections

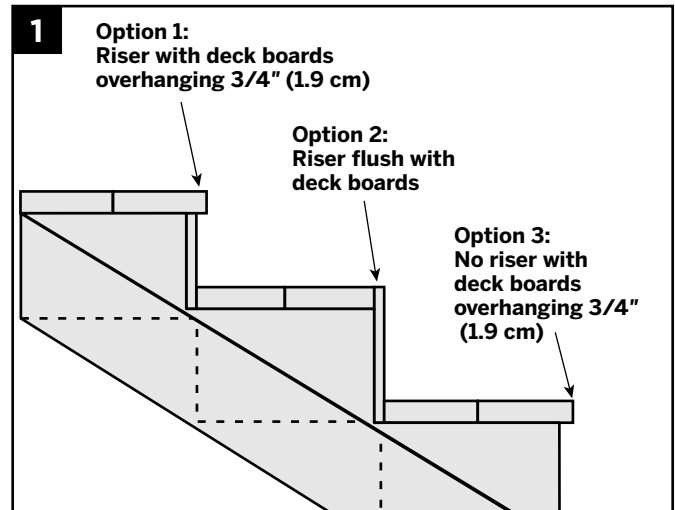


1. Place deck boards in proper location over end joist fasteners. Use a rubber mallet on top of deck board in order to mark underside of decking where screws may have caused the deck board to stick up.



2. Flip board over so that bottom of board faces up and shows strike marks from the screws. Using a paddle drill bit, carefully drill holes to the depth of the fastener heads in the joist. Flip board over so that drilled holes fit over joist fasteners, and fasten board per instructions.

Deck Board Installation Options

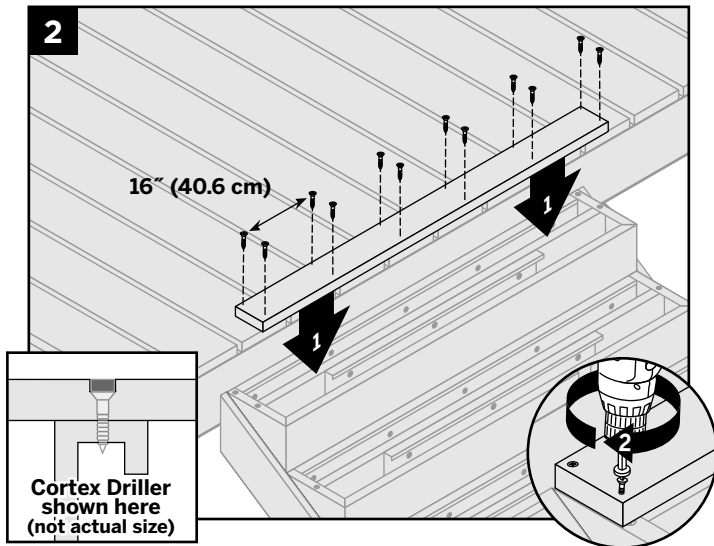


1. Install the deck boards as required by local code. Check with your local building code inspector for requirements.



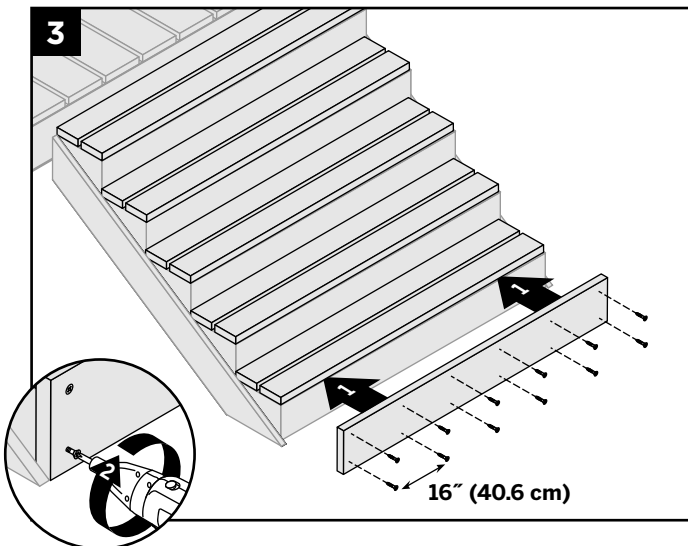
HOW TO INSTALL DECK BOARDS AND FASCIA ON ELEVATIONS STAIRS/CONTINUED

Installing Deck Boards



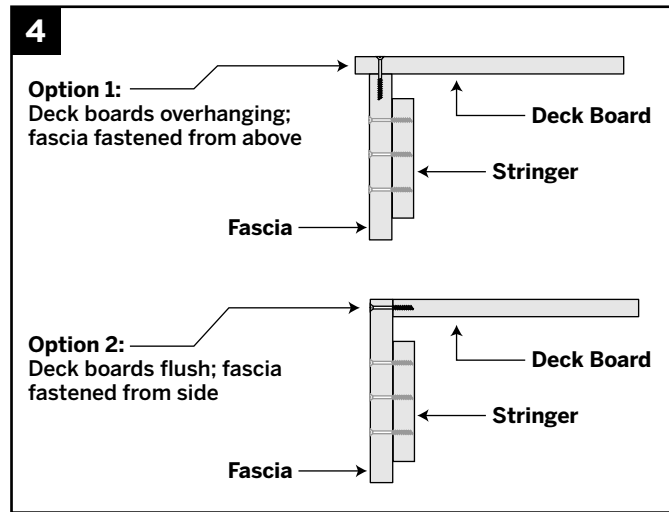
- Fasten deck boards by screwing recommended decking with metal fasteners through the decking into the stair framing. Two fasteners are required every 16" (40.6 cm). See *Required Fasteners* chart on page 6, column B.

Installing Risers



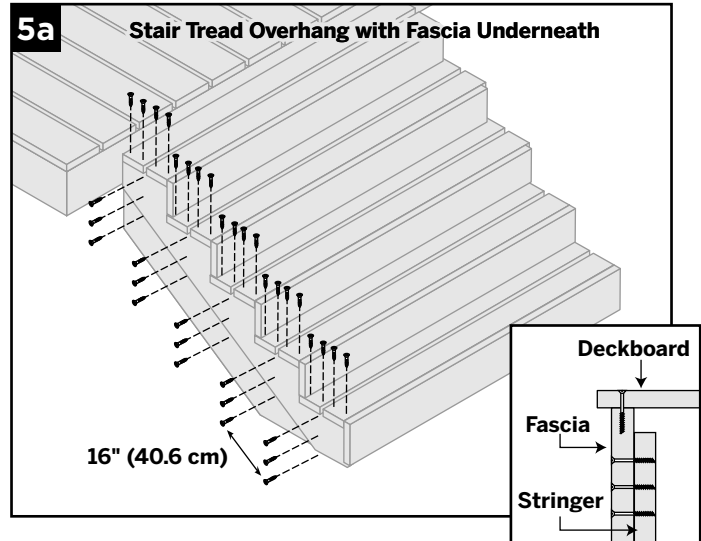
- Fasten riser boards by screwing recommended decking with metal fasteners through the decking into the stair framing. Two fasteners are required every 16" (40.6 cm). See *Required Fasteners* chart on page 6, column B.

Fascia Installation Options



- Install the fascia in one of two ways. If deck boards are overhanging, fasten fascia from above. If deck boards are flush with fascia, fasten fascia from the side.

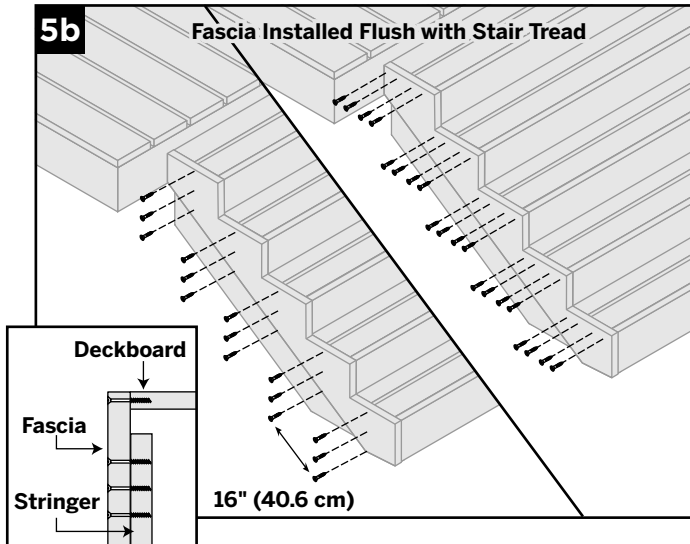
Installing Fascia



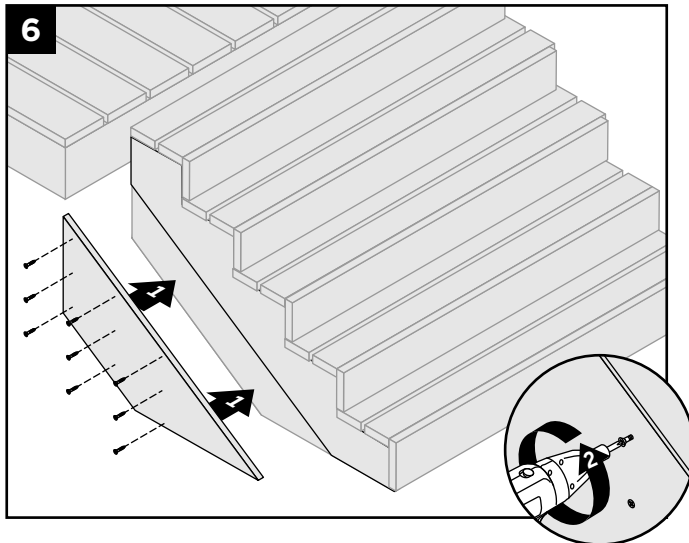
- Fasten fascia boards to deck boards from above and side as shown. Three fasteners are required every 16" (40.6 cm) for fascia into stringer and two are required per each deck board stair tread into fascia. See *Required Fasteners* chart on page 6, column B.



HOW TO INSTALL DECK BOARDS AND FASCIA ON ELEVATIONS STAIRS/CONTINUED



5b. Fasten fascia boards to deck boards from the side as shown. Three fasteners are required every 16" (40.6 cm) for fascia into stringer and two are required to attach fascia into each deck board. See *Required Fasteners* chart on page 6, column B.

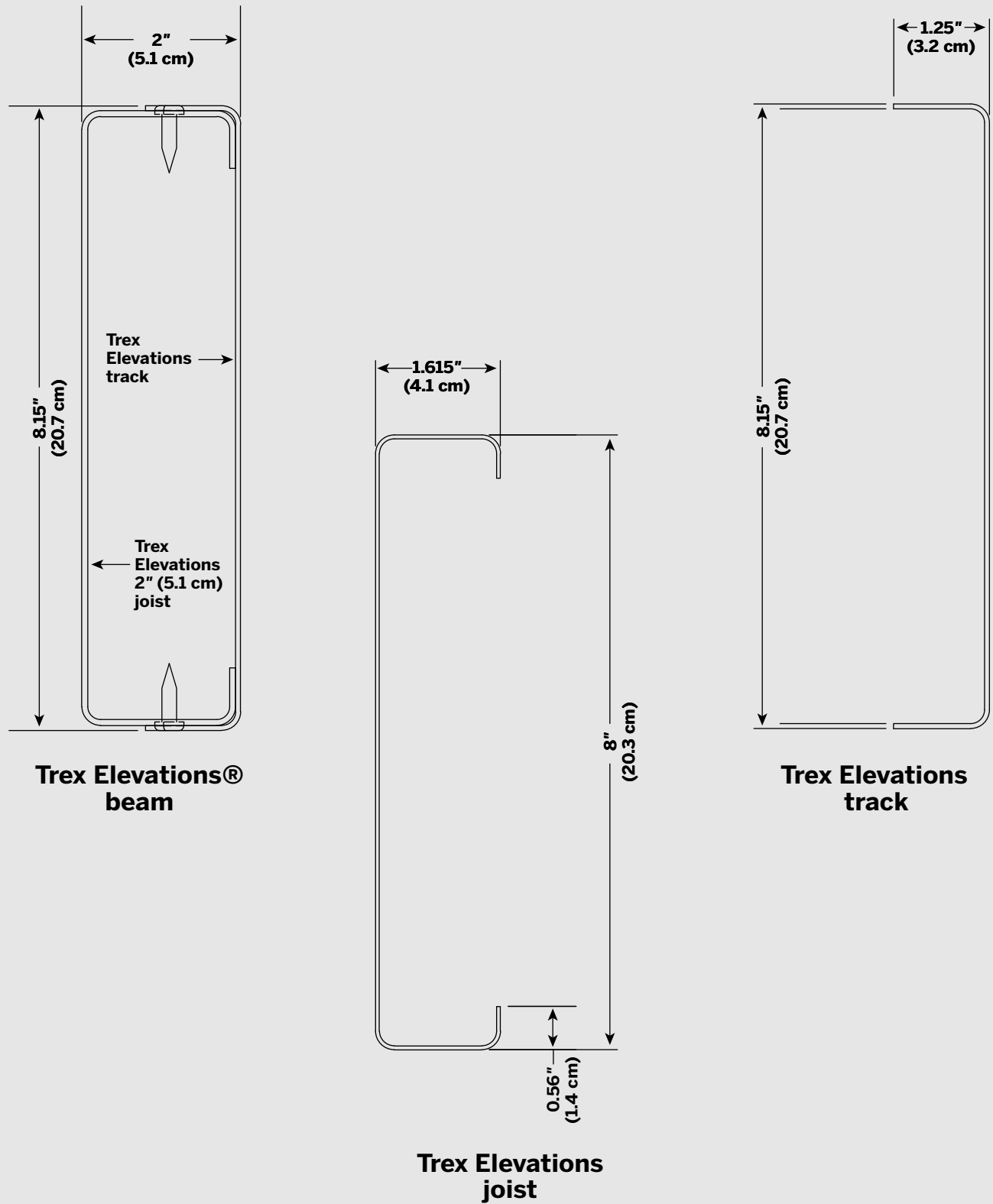


6. Fasten second fascia board (two 1x8 fascia boards are needed in most cases, as one fascia board will not cover stringers) to stair framing by screwing recommended decking with metal fasteners into the stair framing. Number of screws used would depend on width of fascia, if full 1x8 is used, three screws would be required. See *Required Fasteners* chart on page 6, column B.

DETAILED DRAWINGS



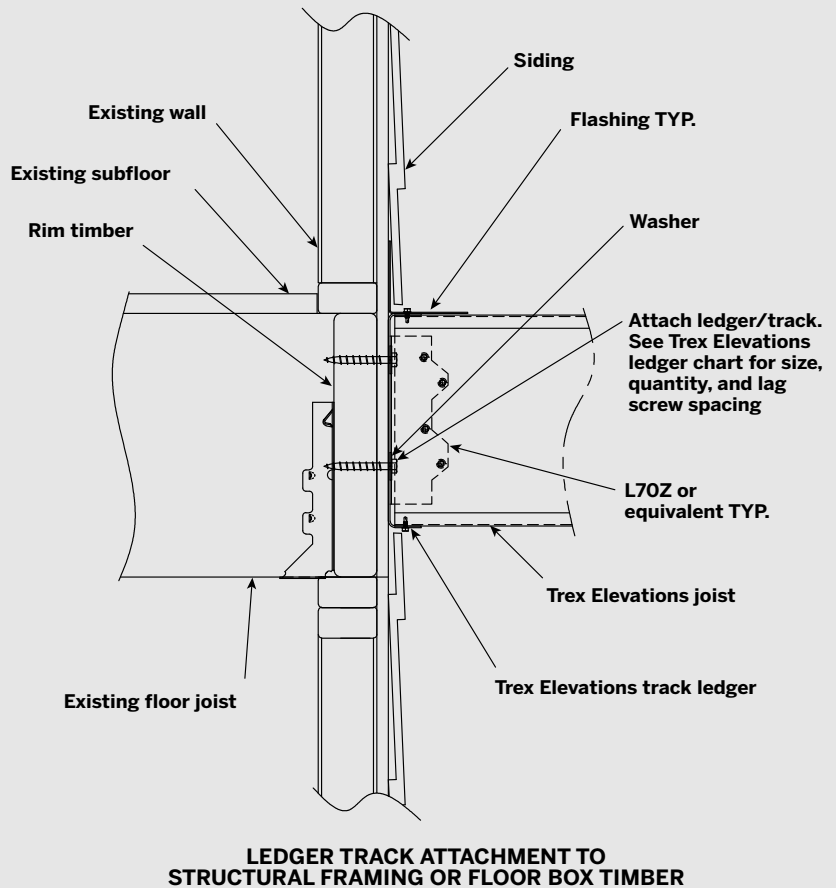
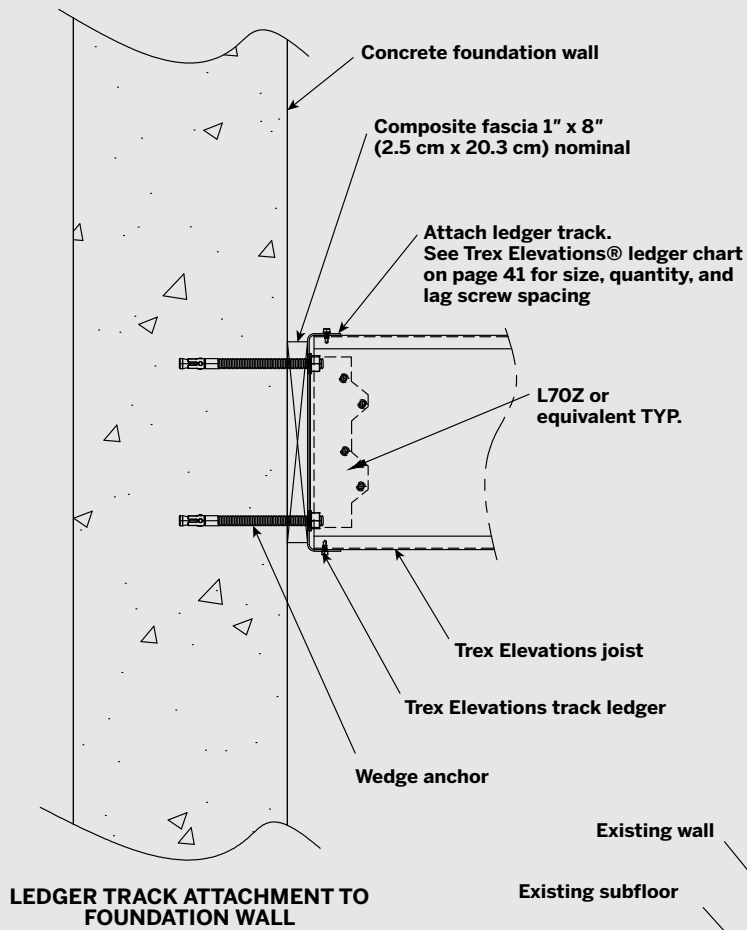
GENERAL FRAMING DETAIL – NOMINAL



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

TYP. LEDGER CONNECTIONS

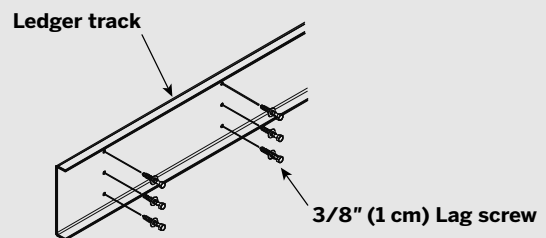
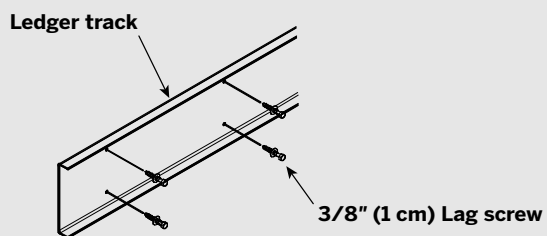


⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

TYP. LEDGER CONNECTIONS/CONTINUED

- 3/8" (1 cm) lag screws are used to connect the steel ledger to the wood rim plate of the structure.
- Screws are long enough to penetrate through the entire thickness of the wood rim plate.
- The maximum length of unthreaded shank of the lag screw is 3/4" (1.9 cm).
- The minimum length of unthreaded shank of the lag screw is 3/16" (0.5 cm).
- Wood rim plate is assumed to be 1-1/2" (3.8 cm) thick and from southern pine (specify gravity of 0.55)
- 5" (12.7 cm) end spacing is required from two ends of the wood rim plate.
- Two or three rows of fasteners are considered.
- 1-1/2" (3.8 cm) minimum edge distance from the top and bottom fasteners to the edge of the wood rim plate is required.
- When two rows of lag screws are used, minimum vertical distance of 4" (10.2 cm) between the rows of fasteners is required.
- When three rows of lag screws are used, minimum vertical distance of 2" (5.1 cm) between the rows of fasteners is required.



ON CENTER SPACING - 3/8" X 2-1/2" (1 cm x 6.4 cm) HOT DIPPED GALVANIZED LAG SCREWS

2 SCREWS	JOIST SPAN															
Combined Load	1' (30 cm)	2' (60 cm)	3' (91 cm)	4' (121 cm)	5' (152 cm)	6' (182 cm)	7' (213 cm)	8' (243 cm)	9' (274 cm)	10' (304 cm)	11' (335 cm)	12' (365 cm)	13' (396 cm)	14' (426 cm)	15' (457 cm)	
50 psf	24" (61.0 cm)						16" (40.6 cm)				12" (30.5 cm)					
75 psf	24" (61.0 cm)						16" (40.6 cm)				12" (30.5 cm)			10" (25.4 cm)		
100 psf	24" (61.0 cm)					16" (40.6 cm)		12" (30.5 cm)			9" (22.9 cm)					
Over 100 psf	CONSULT WITH YOUR ENGINEER OR LOCAL BUILDING CODE OFFICIAL															

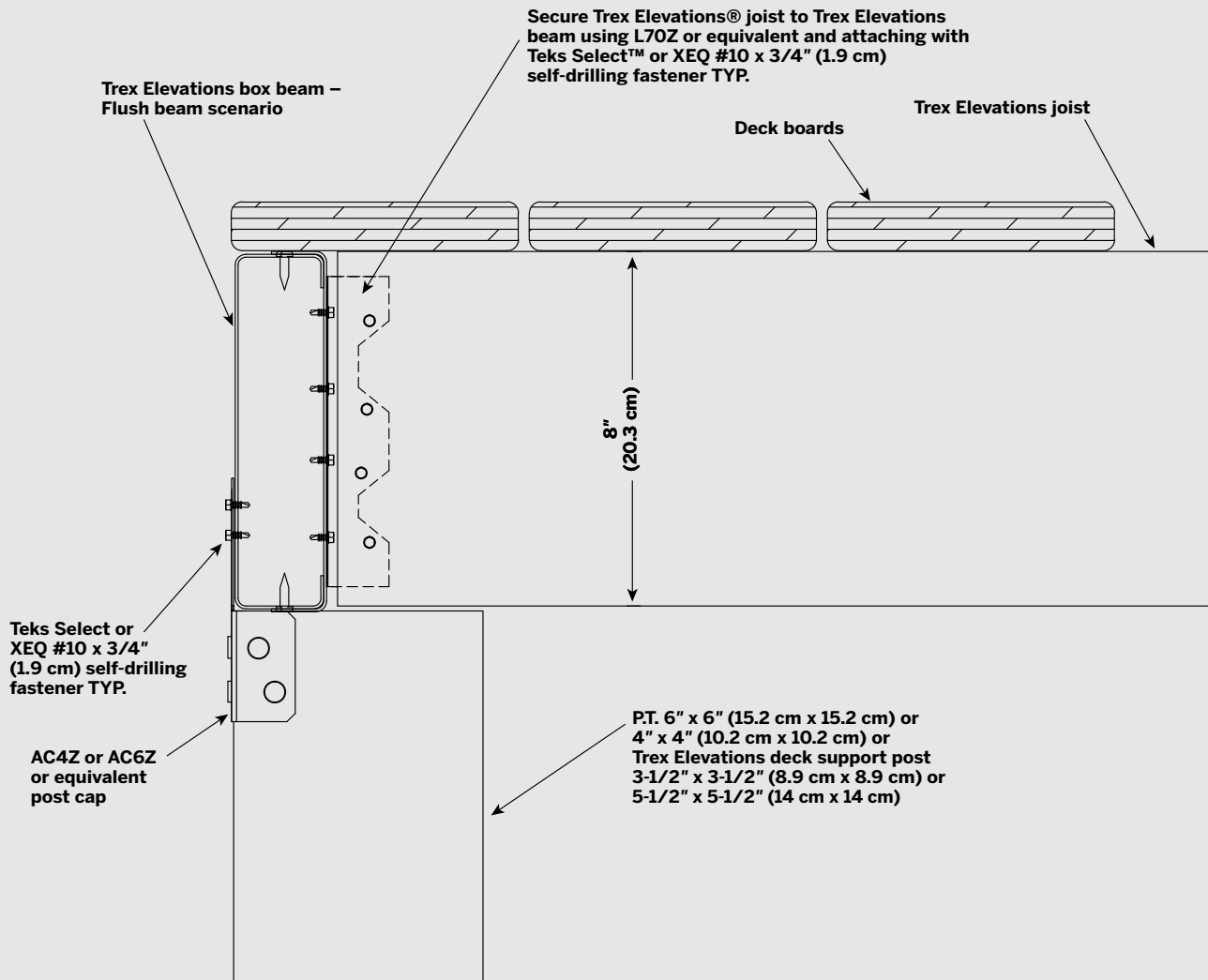
ON CENTER SPACING - 3/8" X 2-1/2" (1 cm x 6.4 cm) HOT DIPPED GALVANIZED LAG SCREWS

3 SCREWS	JOIST SPAN															
Combined Load	1' (30 cm)	2' (60 cm)	3' (91 cm)	4' (121 cm)	5' (152 cm)	6' (182 cm)	7' (213 cm)	8' (243 cm)	9' (274 cm)	10' (304 cm)	11' (335 cm)	12' (365 cm)	13' (396 cm)	14' (426 cm)	15' (457 cm)	
50 psf	24" (61.0 cm)										16" (40.6 cm)					
75 psf	24" (61.0 cm)										16" (40.6 cm)					
100 psf	24" (61.0 cm)						16" (40.6 cm)				14" (35.6 cm)					
Over 100 psf	CONSULT WITH YOUR ENGINEER OR LOCAL BUILDING CODE OFFICIAL															

⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

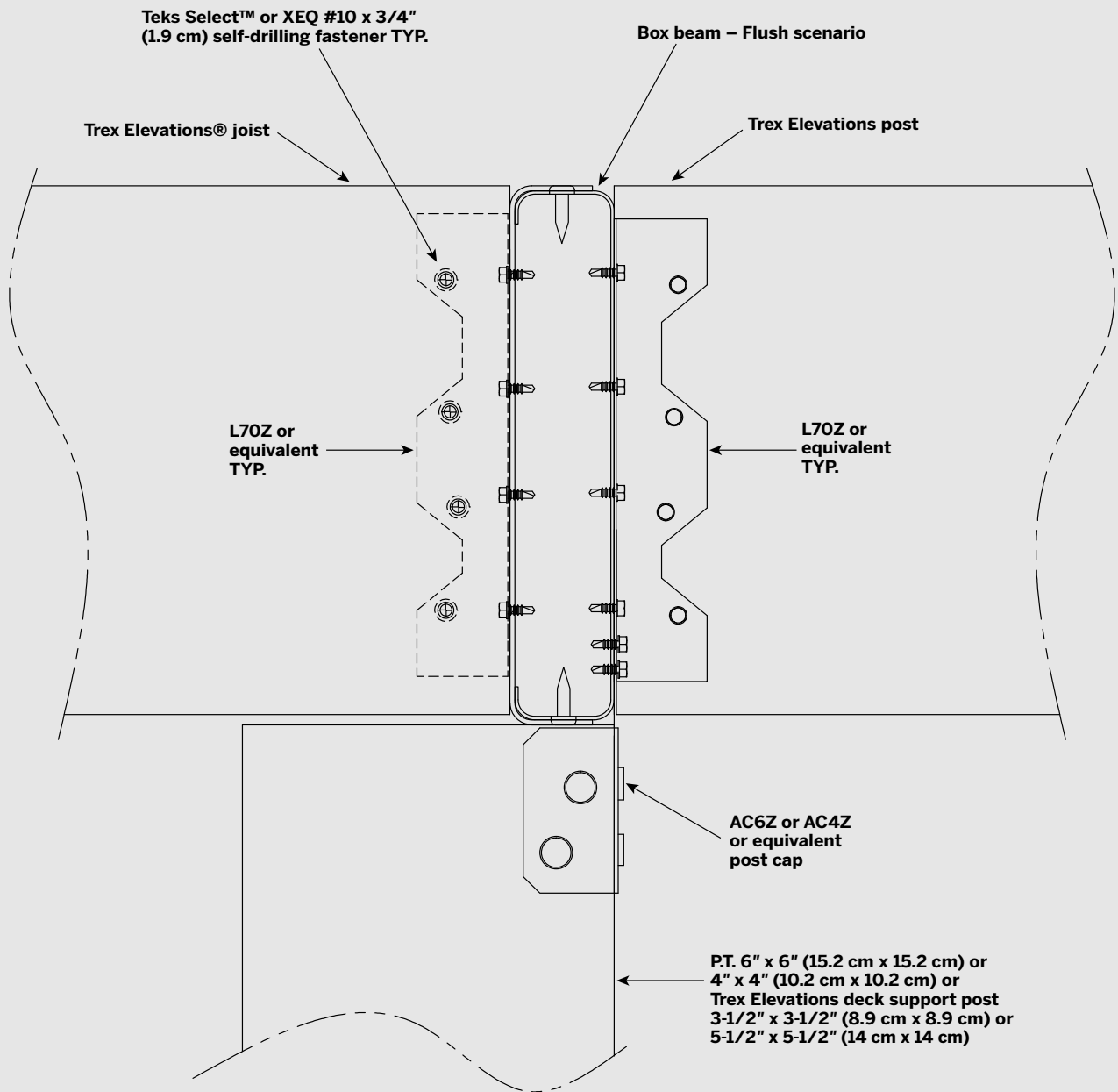
FLUSH BEAM ATTACHMENT SCENARIO



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

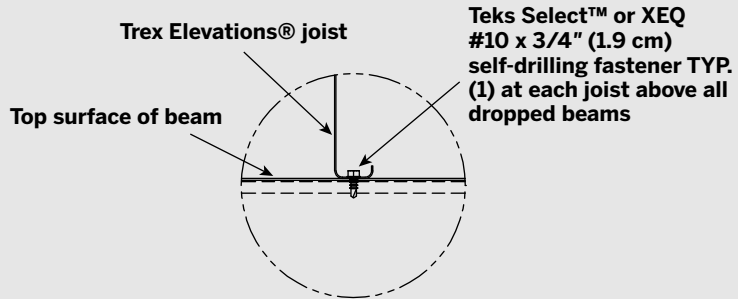
JOIST ATTACHMENT – SHARING FLUSH BEAM SCENARIO



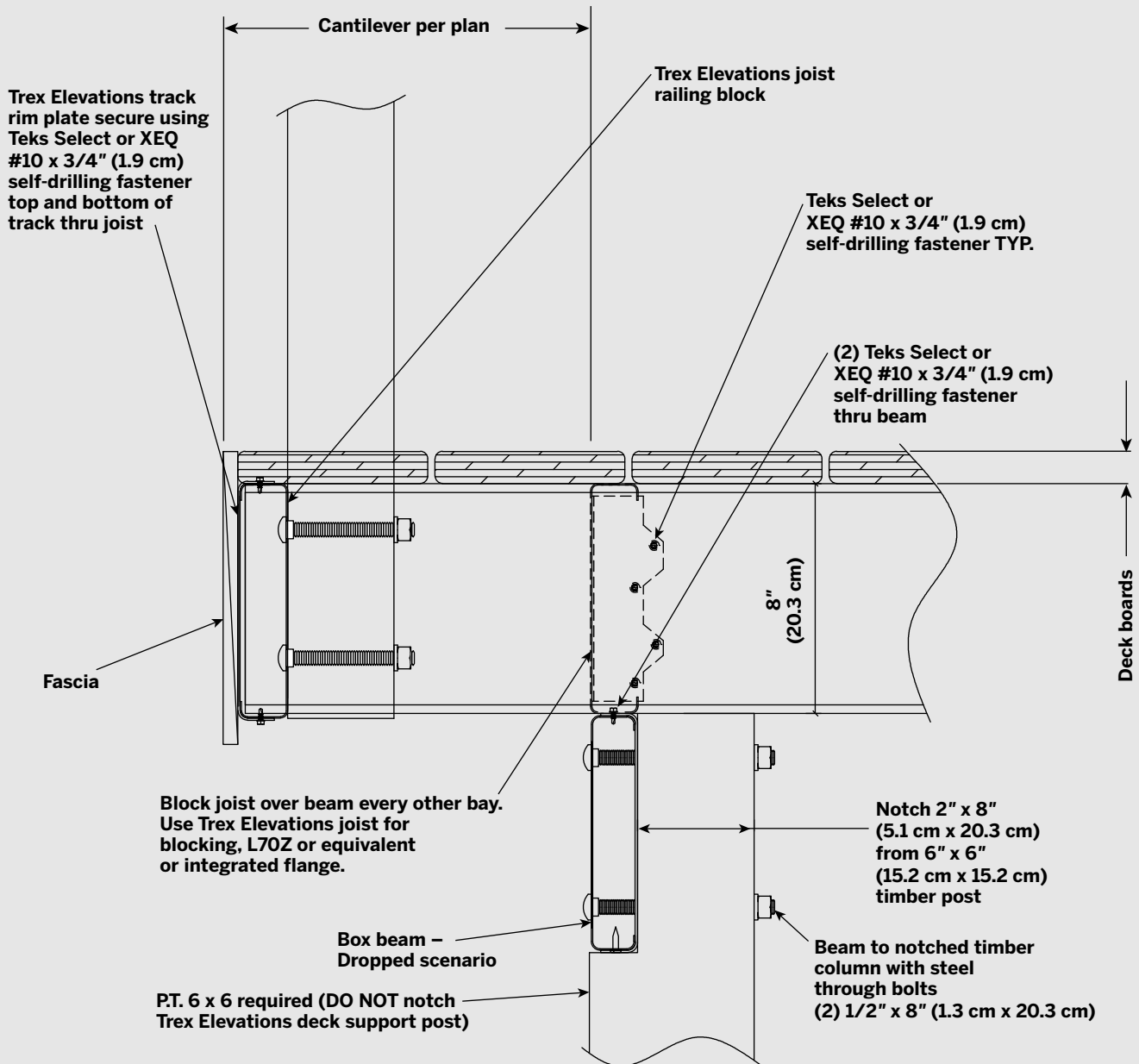
⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

DROPPED BEAM NOTCHED POST ATTACHMENT (WOOD POST ONLY)



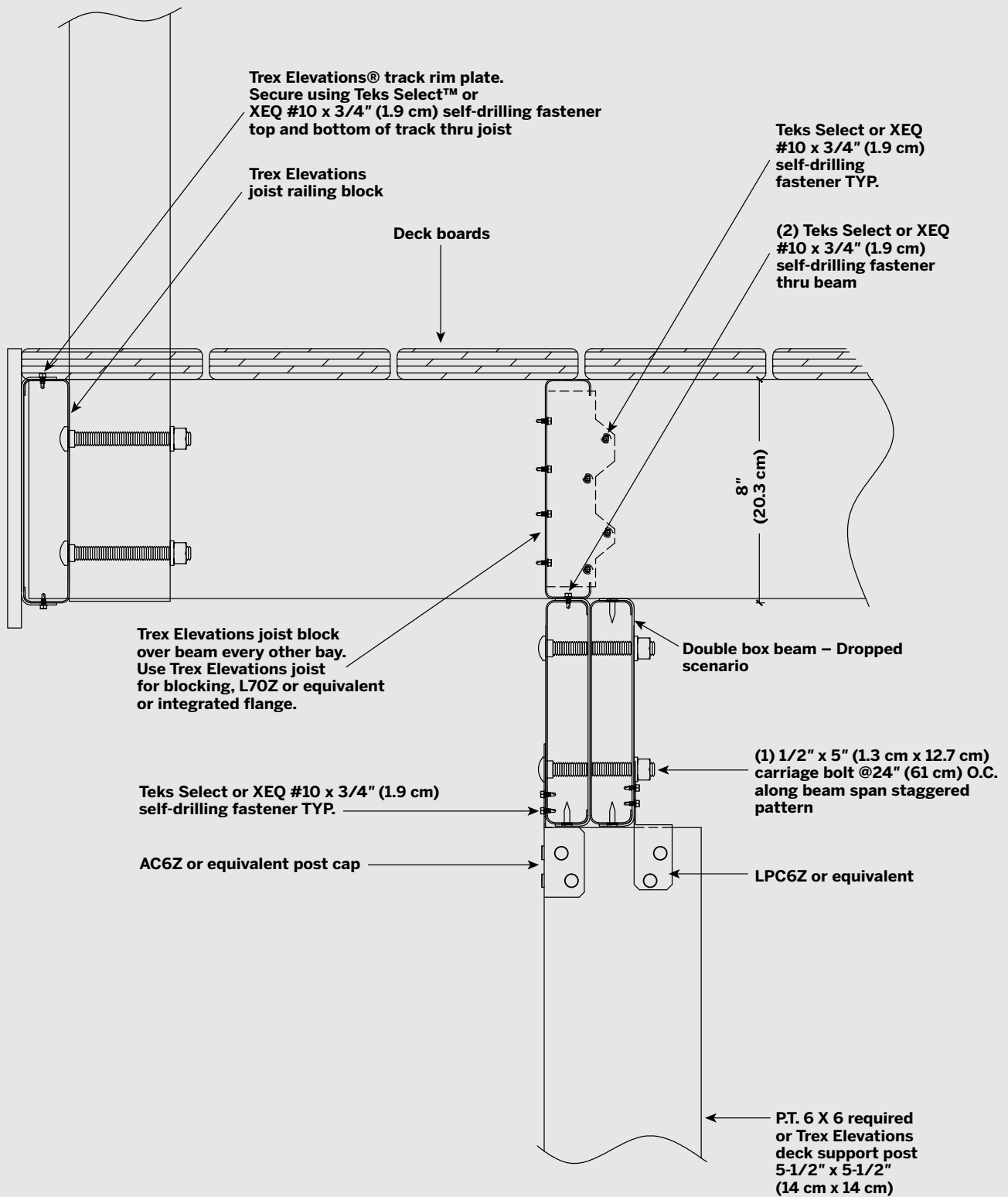
TREX ELEVATIONS JOIST ATTACHMENT TO DROPPED BEAM



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

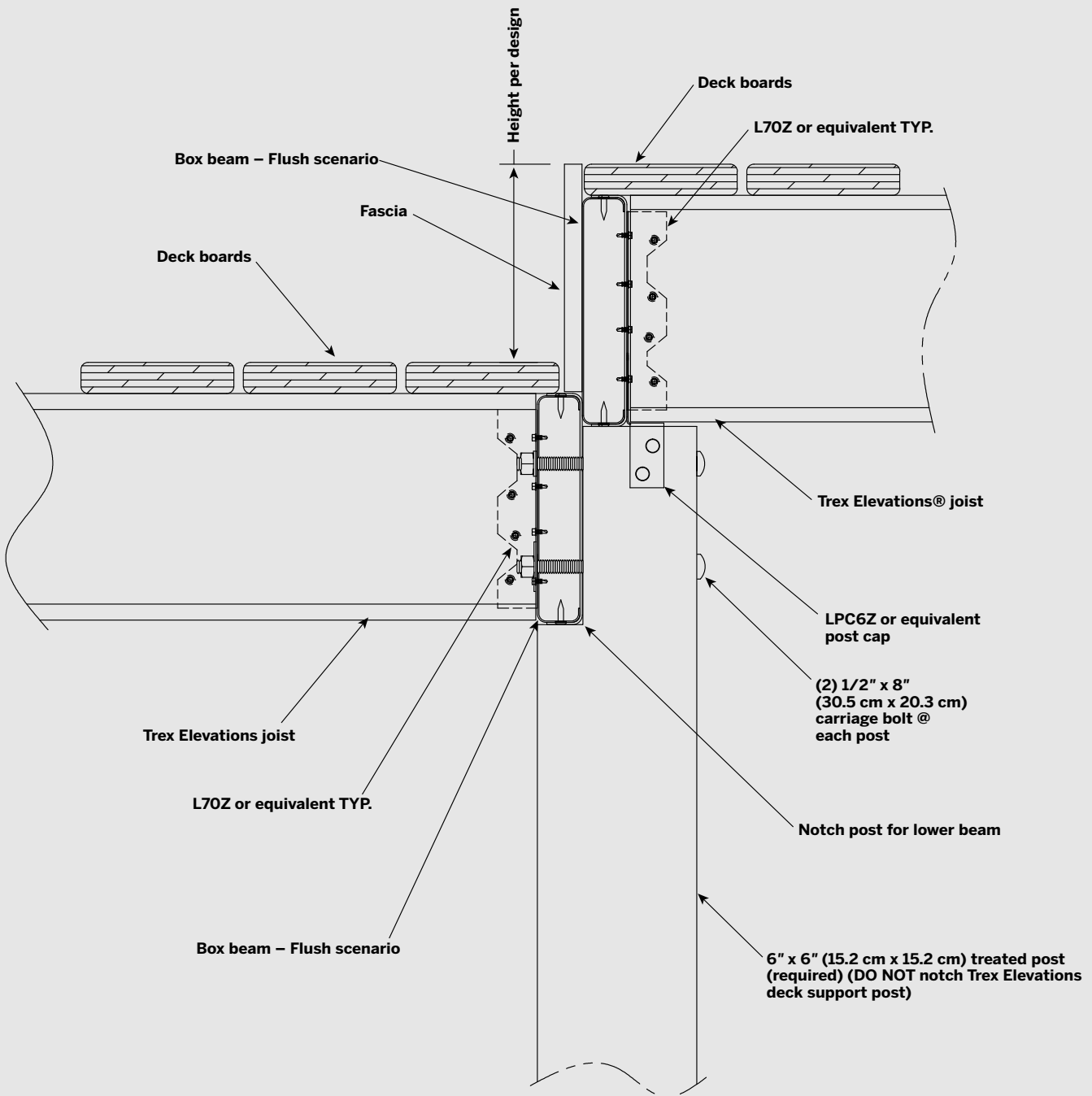
DOUBLE DROPPED BOX BEAM ATOP POST ATTACHMENT



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

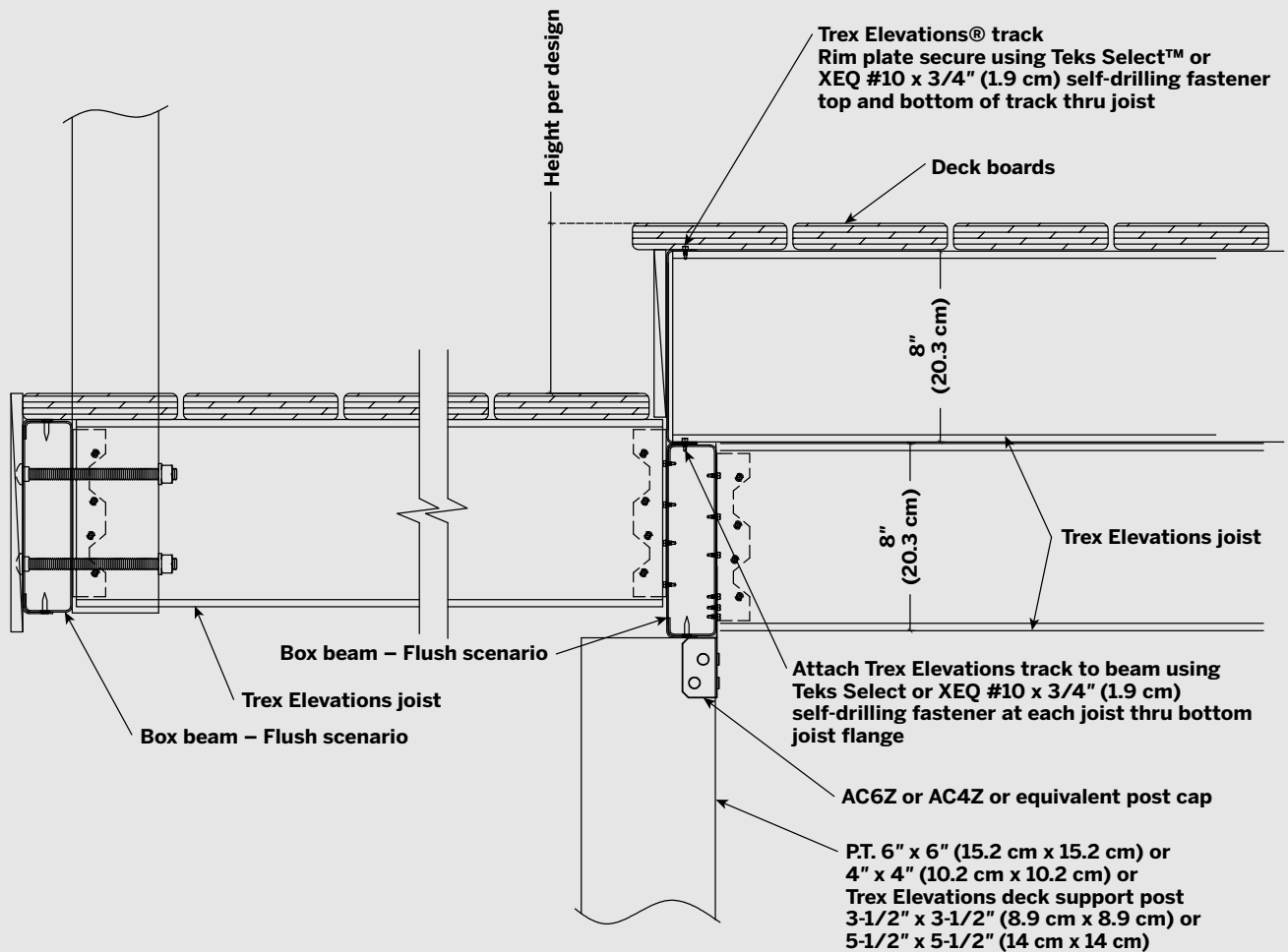
DECK LEVEL CHANGE FLUSH BEAM SCENARIO



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

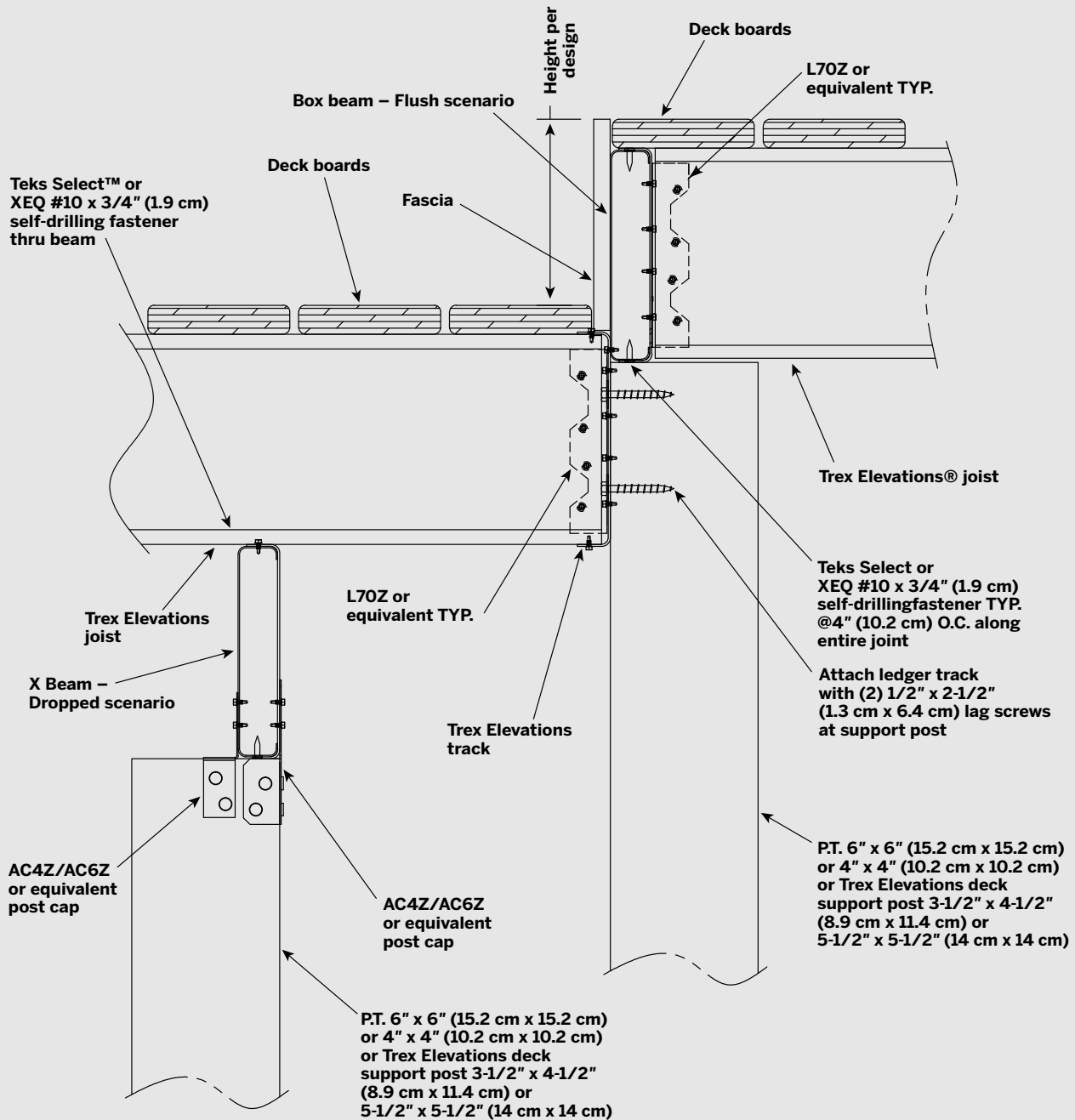
DECK LEVEL CHANGE SCENARIO



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

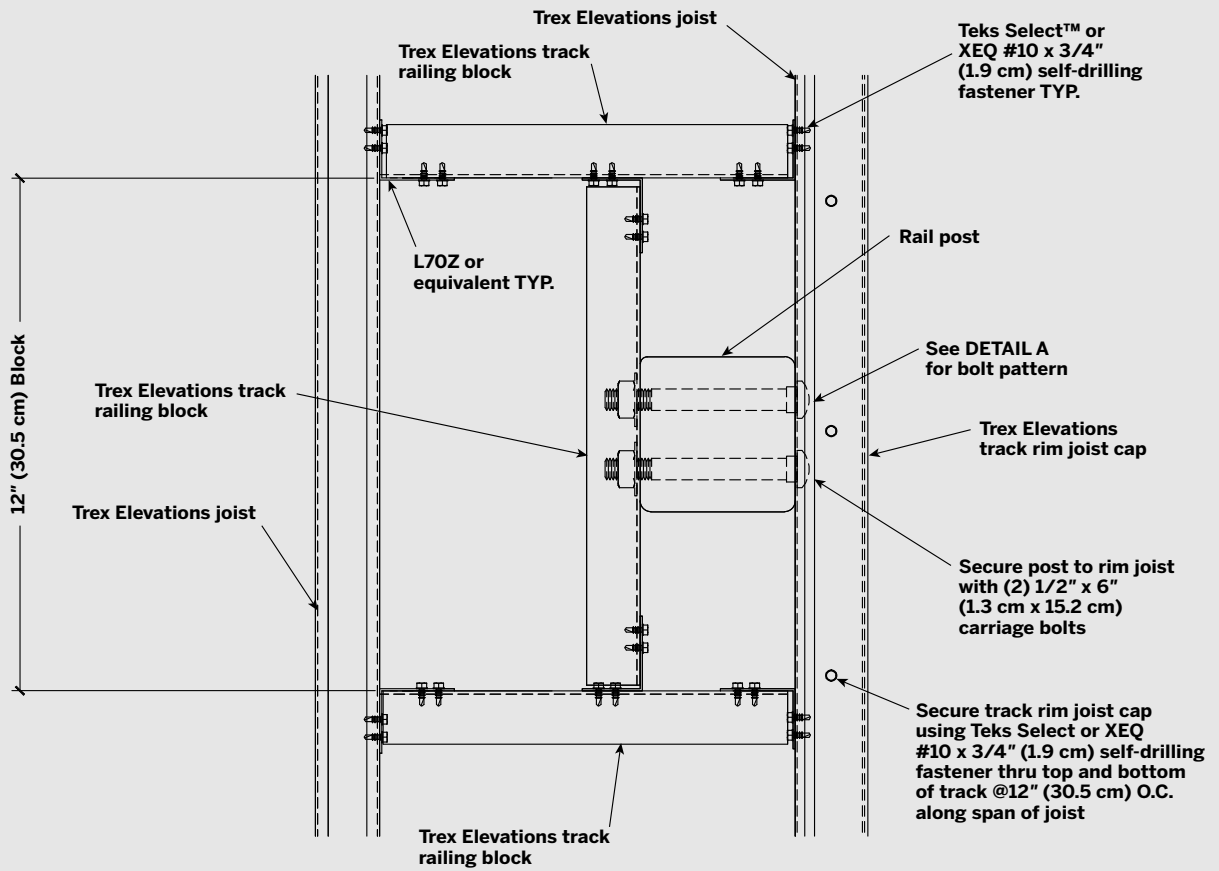
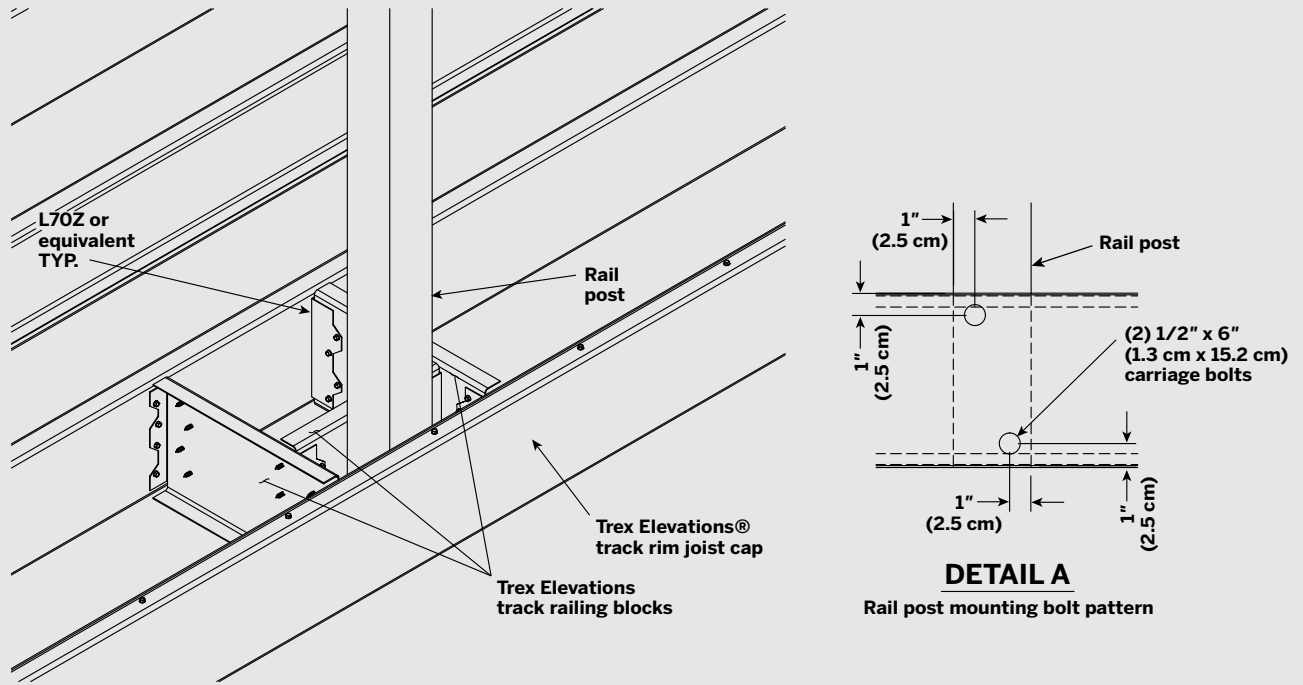
DECK LEVEL CHANGE LEDGER ATTACHMENT TO SUPPORT POST



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

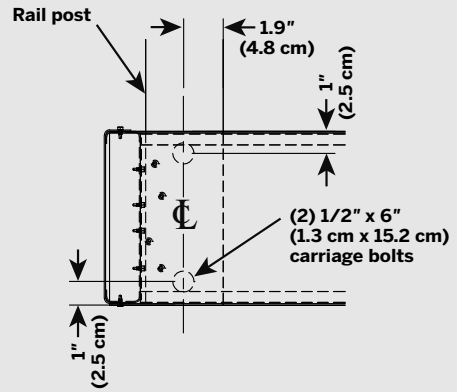
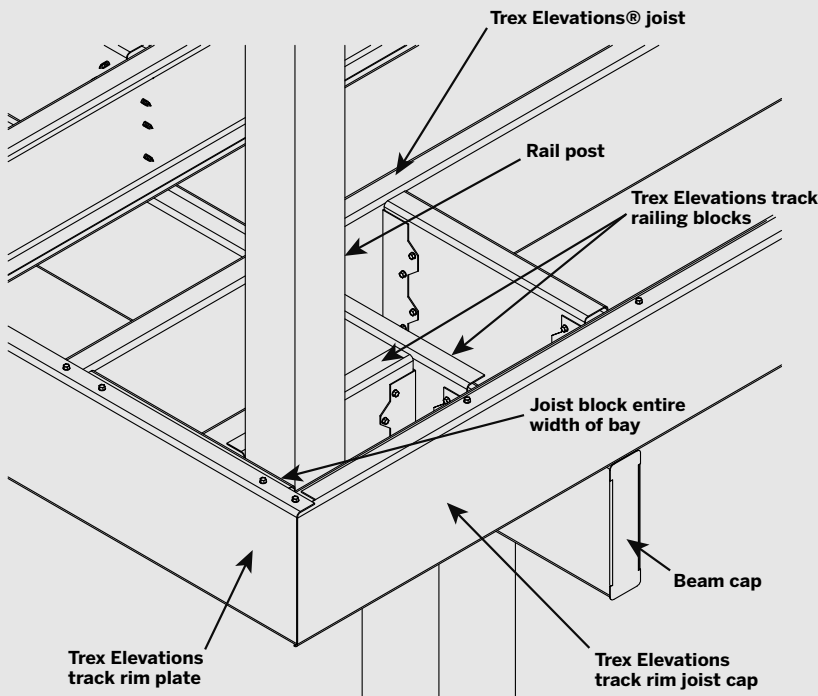
INSIDE RAIL POST ATTACHMENT AT RIM JOIST



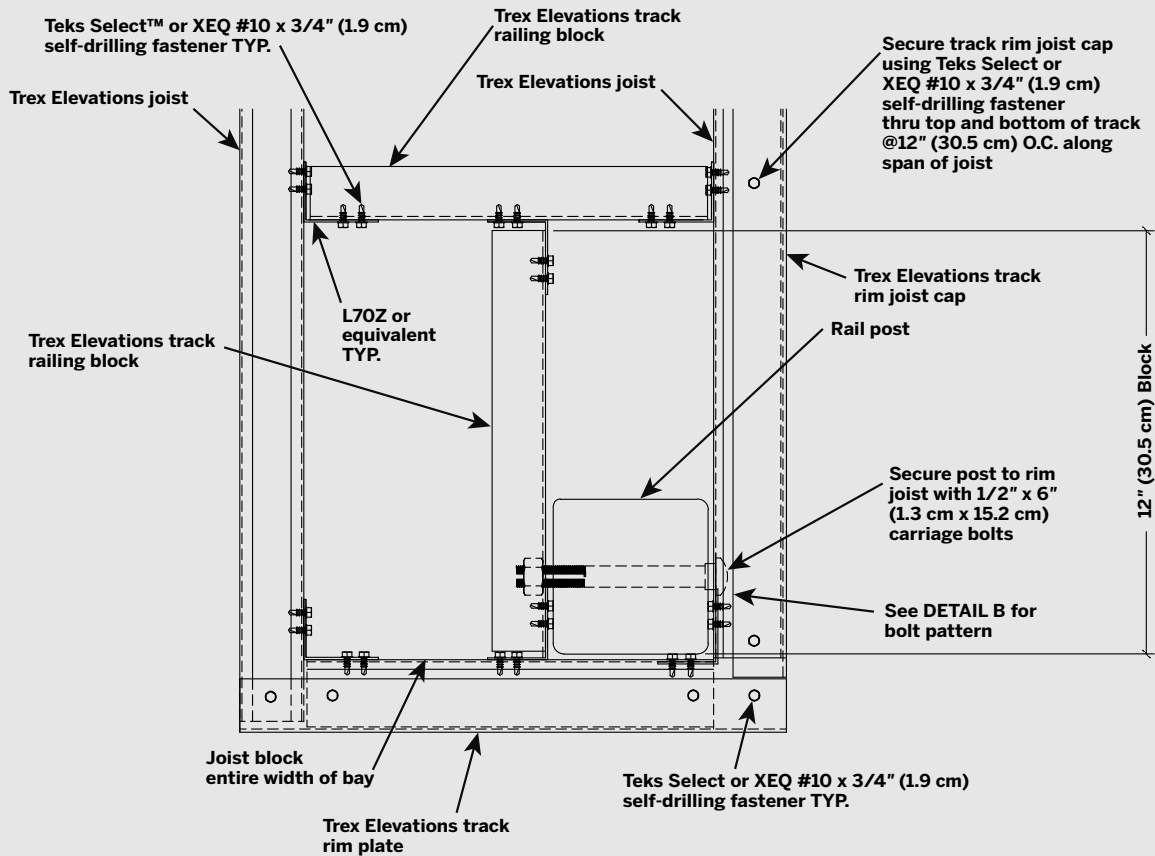
⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

INSIDE RAIL POST ATTACHMENT AT CORNER



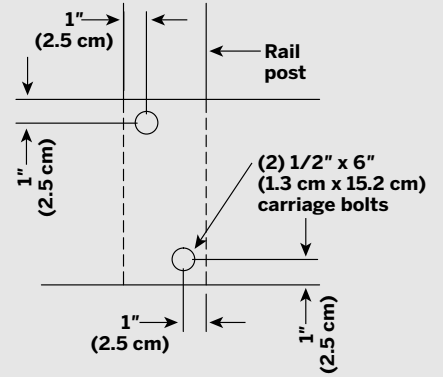
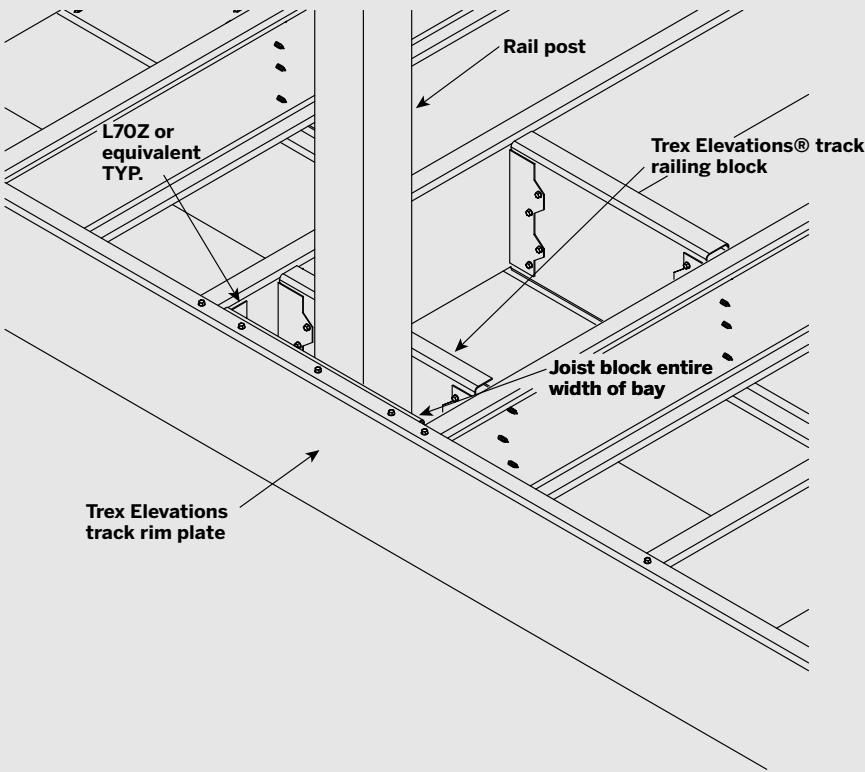
DETAIL B
Rail post mounting bolt pattern



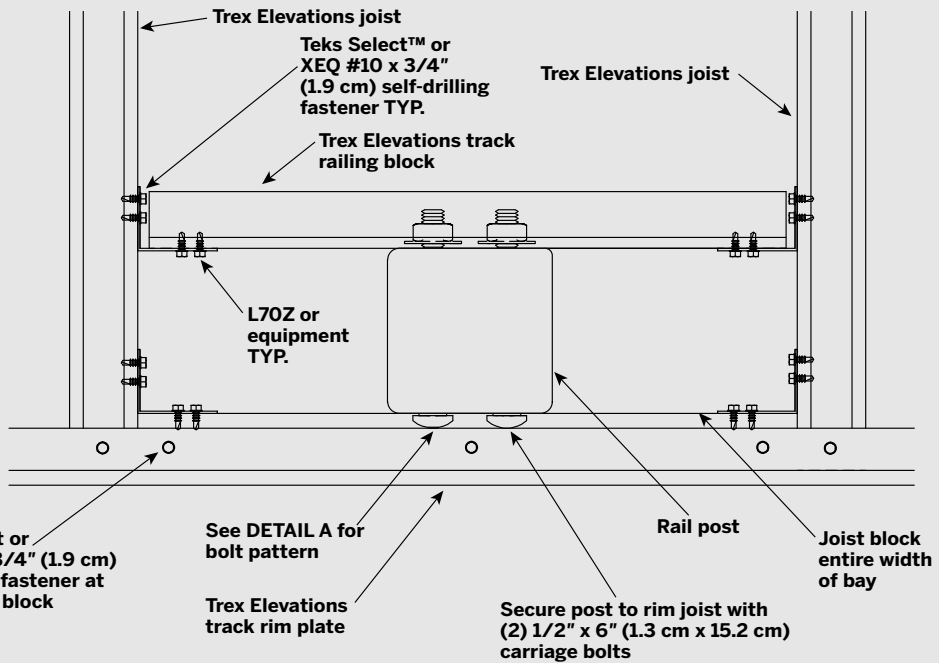
⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

INSIDE RAIL POST ATTACHMENT AT RIM PLATE



DETAIL A
Rail post mounting bolt pattern



TEKS Select or XEQ #10 x 3/4" (1.9 cm) self-drilling fastener at each end of block

See DETAIL A for bolt pattern

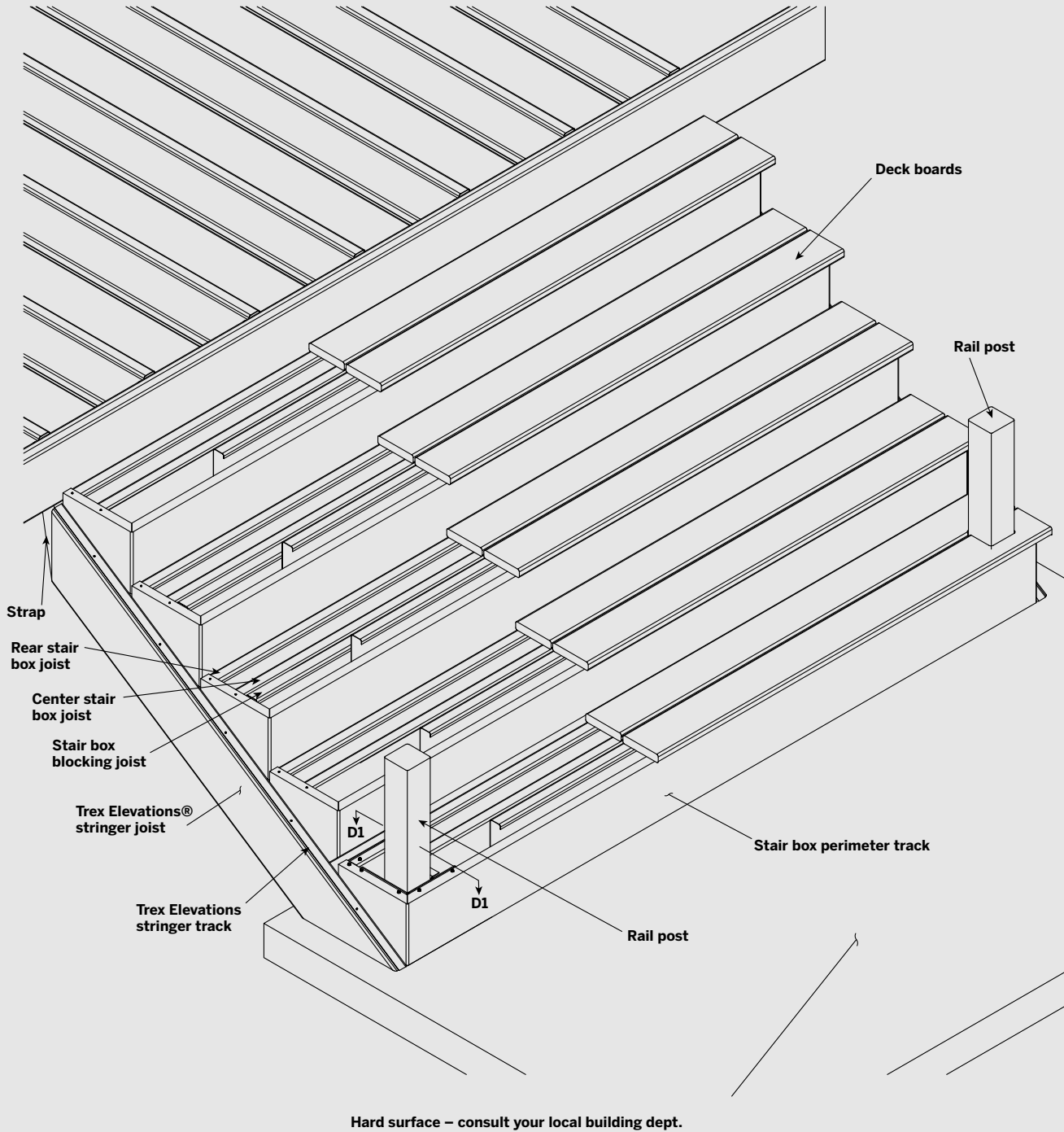
Trex Elevations track rim plate

Secure post to rim joist with (2) 1/2" x 6" (1.3 cm x 15.2 cm) carriage bolts

⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

STAIR OVERVIEW DIAGRAM



⚠ WARNING

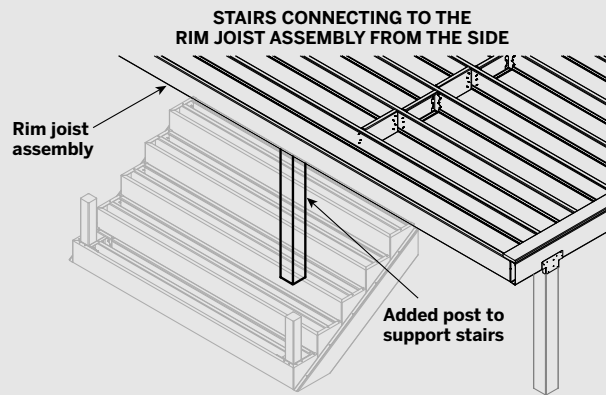
When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

STAIR SUPPORT POSTS

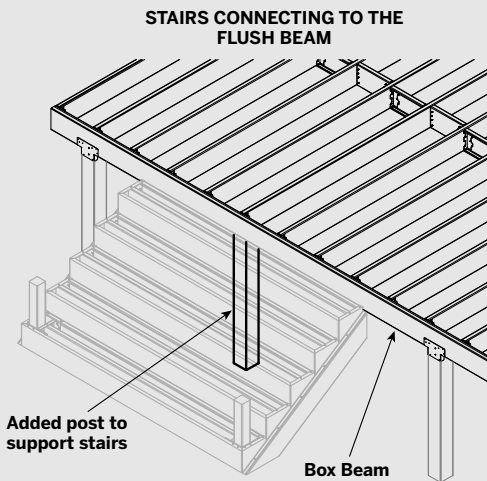
Width	3 - 6 ft (91 - 182 cm)	6 - 8 ft (182 - 243 cm)	8 - 18 ft (243 - 549 cm)
Max height	9 ft (274 cm) (16 rises)*	7 ft (213 cm) (12 rises)*	5 ft (152 cm) (9 rises)*
Mid stringer required	No	No	Yes
Stairs connected to rim joist assembly at the side	One post needed at the mid-span of the stairs load. (Figure 1)		
Stairs connected to the flush box beam	One post needed at the middle of each span taking the stairs load. (Figure 2)		
Stairs connected to the cantilever track of the deck	One post needed under the end of each stringer including mid stringer if used. (Figure 3)		

* Fastener spacing along the width of the stairs is 12 in. If the stairs are 7 ft (12 rises) or taller, 8 in. fastener spacing is required.

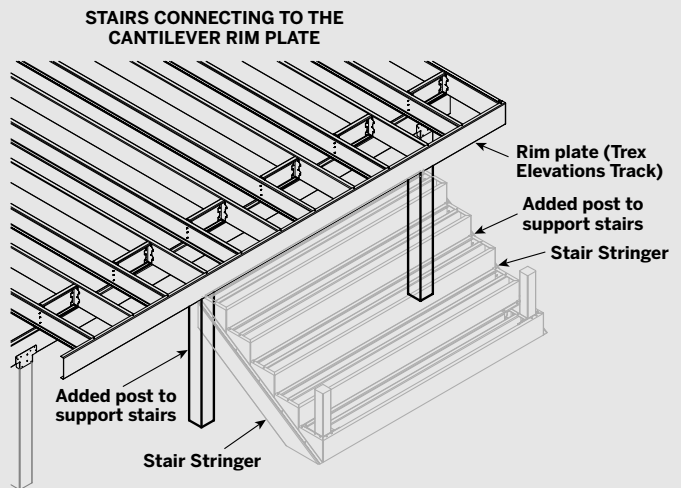
* Applies to wood stair system as well.



(FIGURE 1)



(FIGURE 2)



(FIGURE 3)

⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

STAIR BOX ASSEMBLY

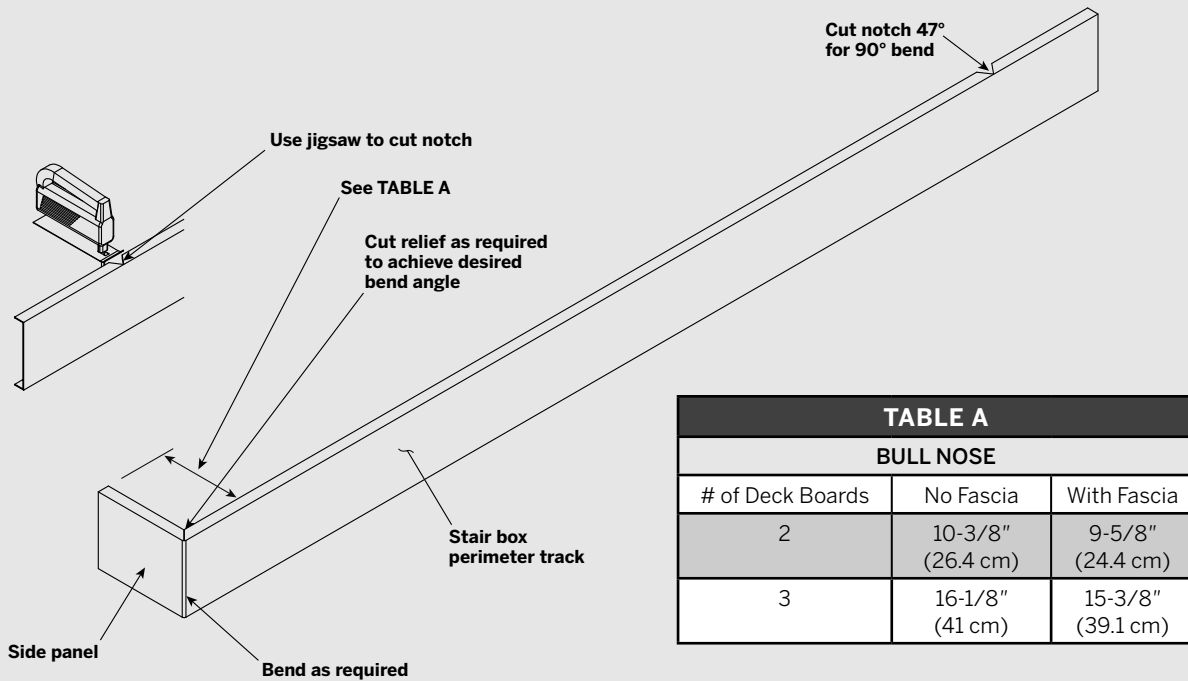
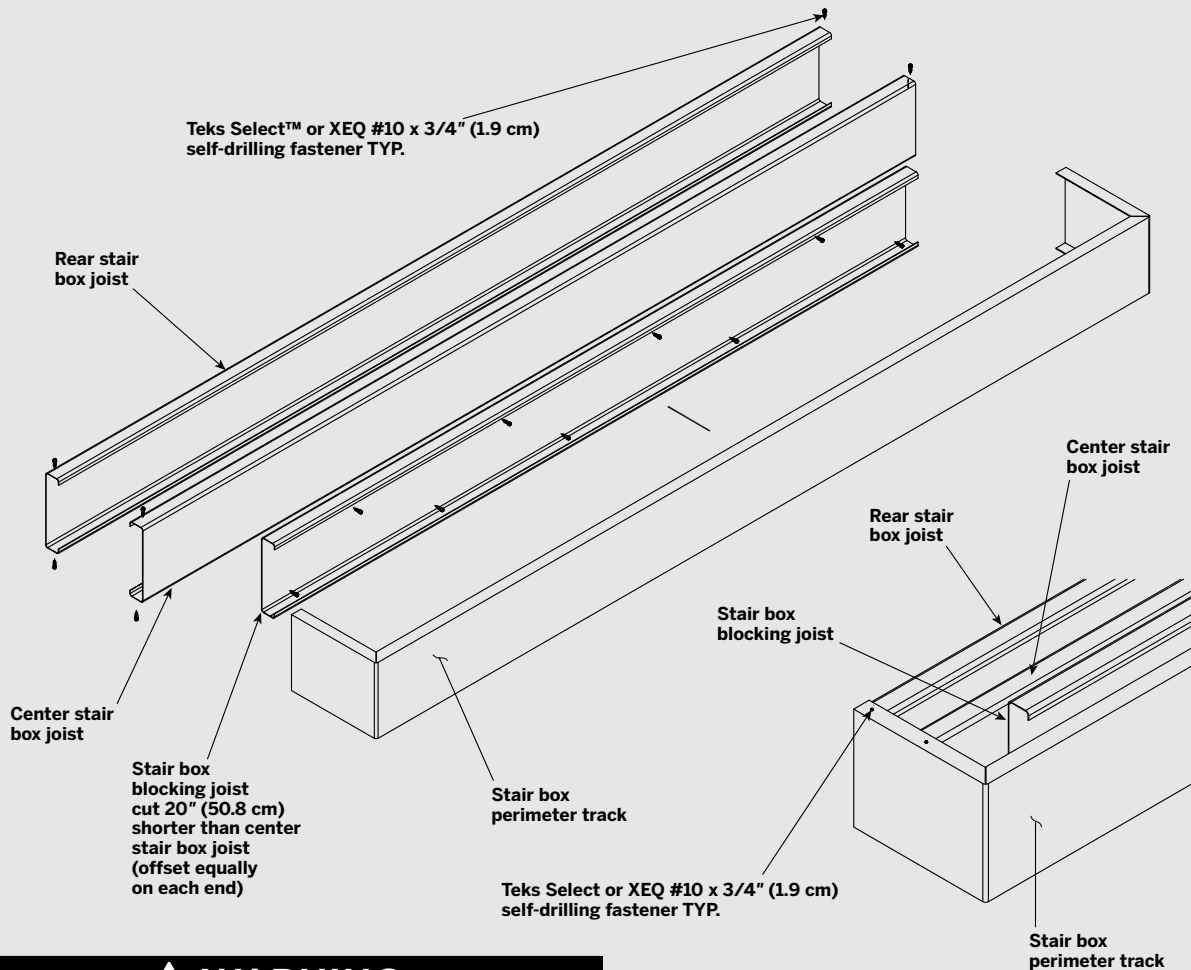


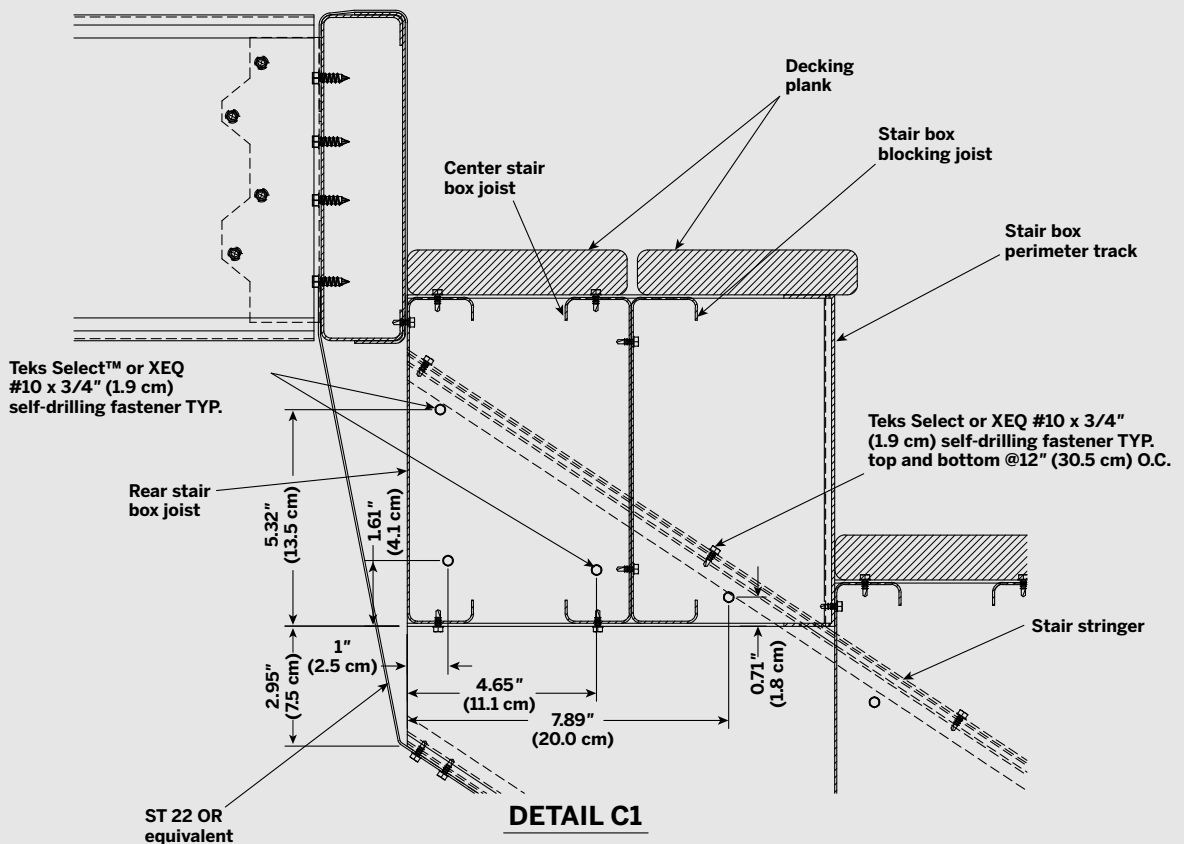
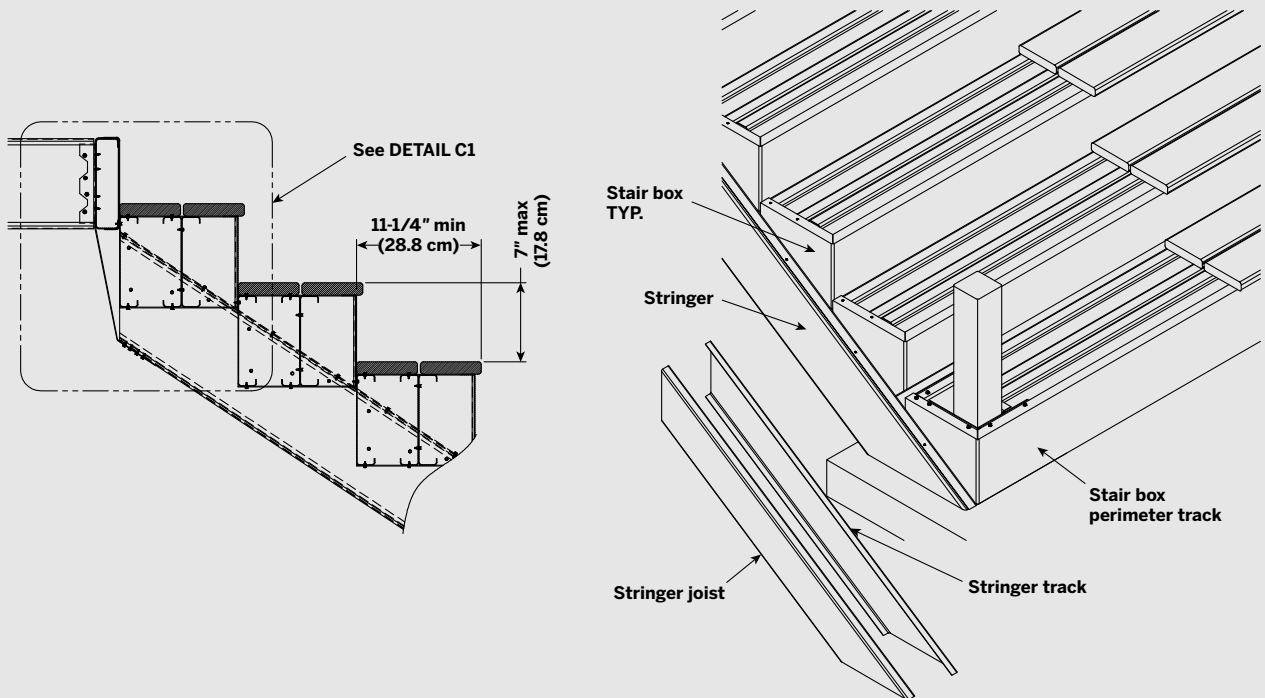
TABLE A		
BULL NOSE		
# of Deck Boards	No Fascia	With Fascia
2	10-3/8" (26.4 cm)	9-5/8" (24.4 cm)
3	16-1/8" (41 cm)	15-3/8" (39.1 cm)



⚠ WARNING

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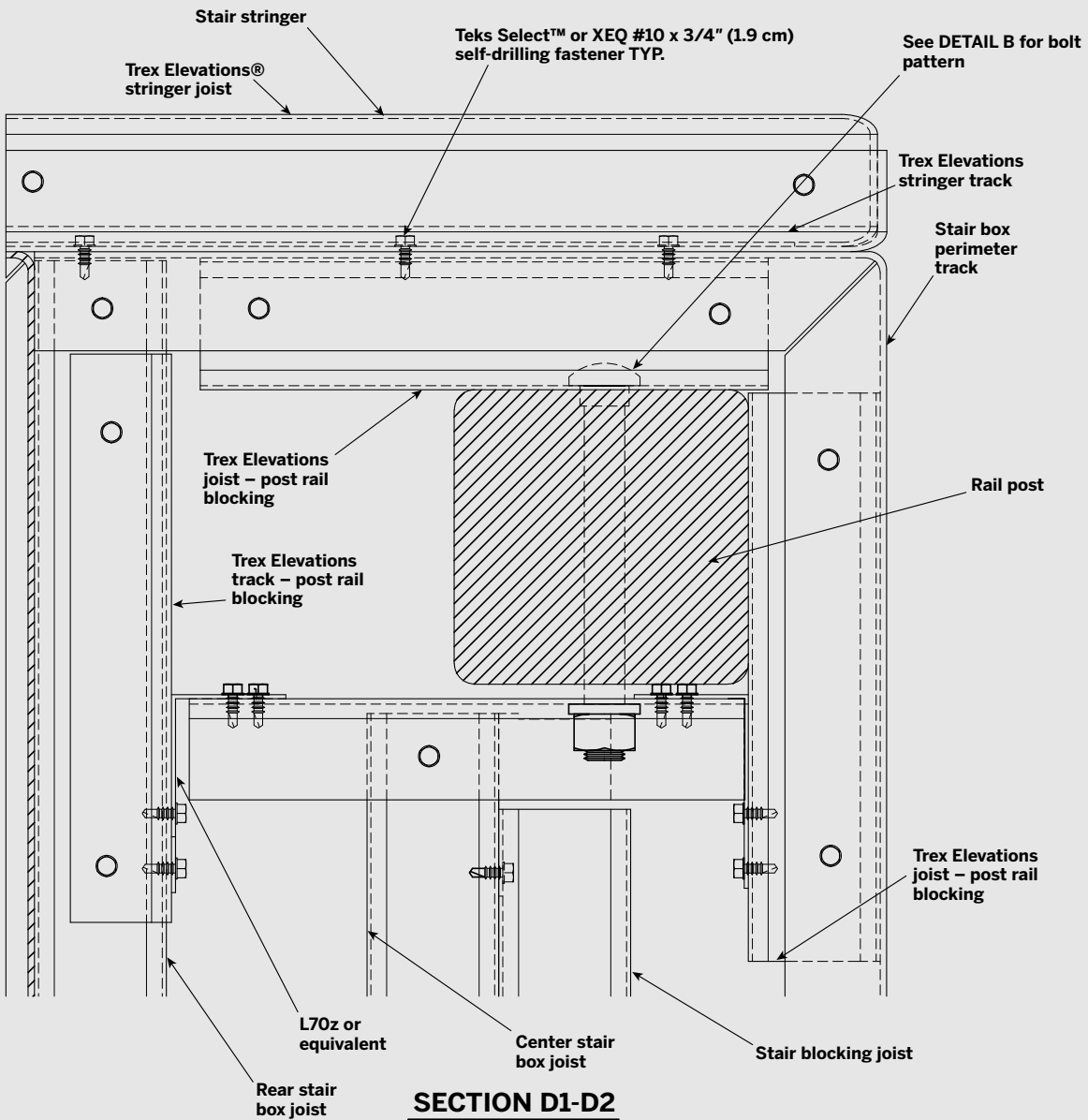
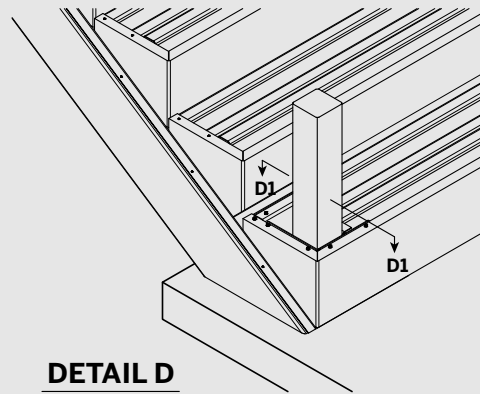
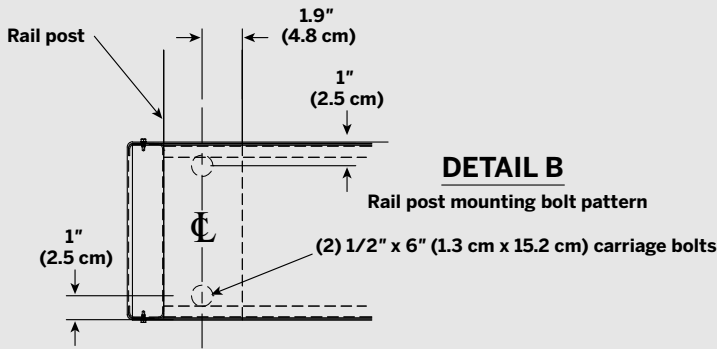
STAIR STRINGER ASSEMBLY



⚠ WARNING

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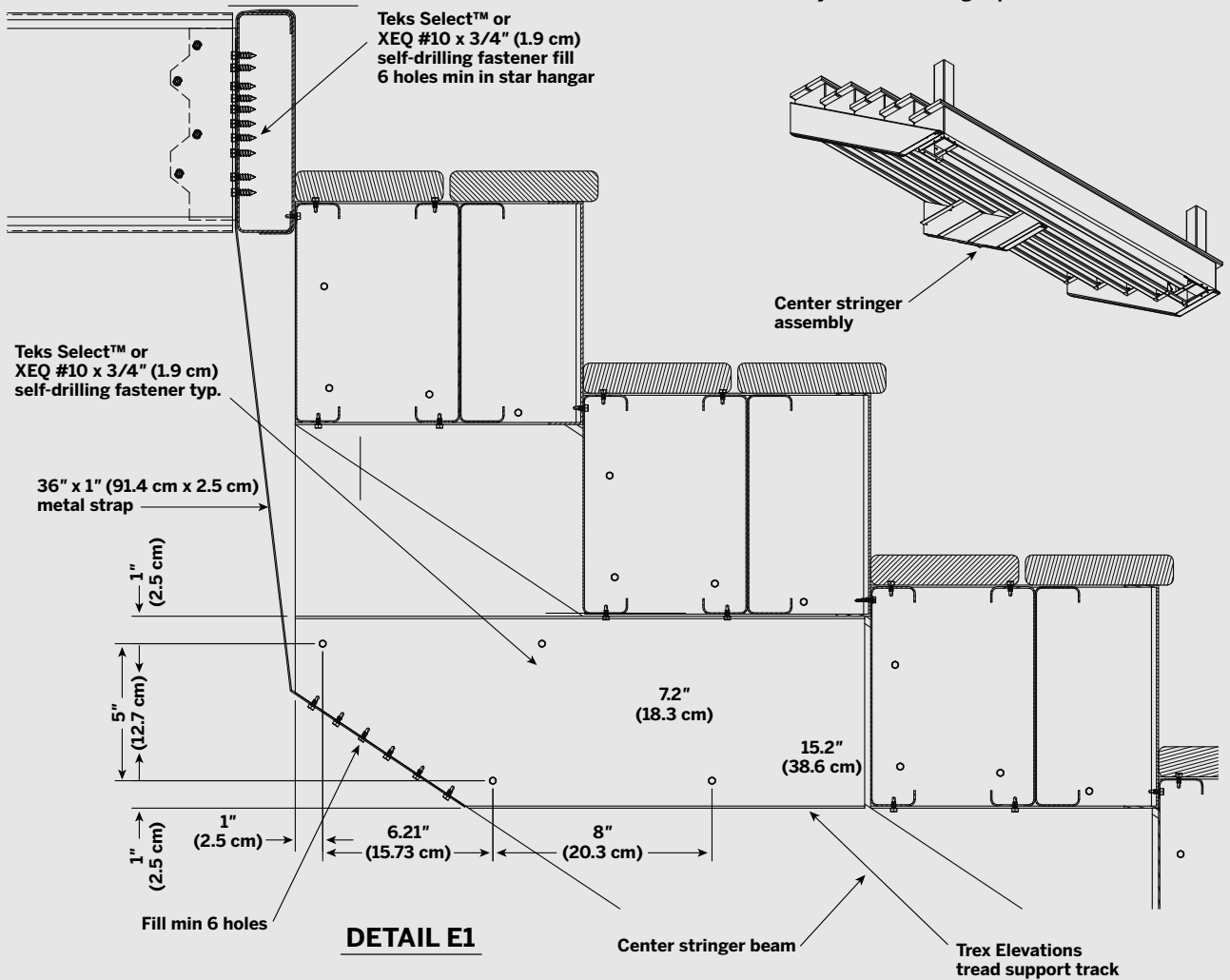
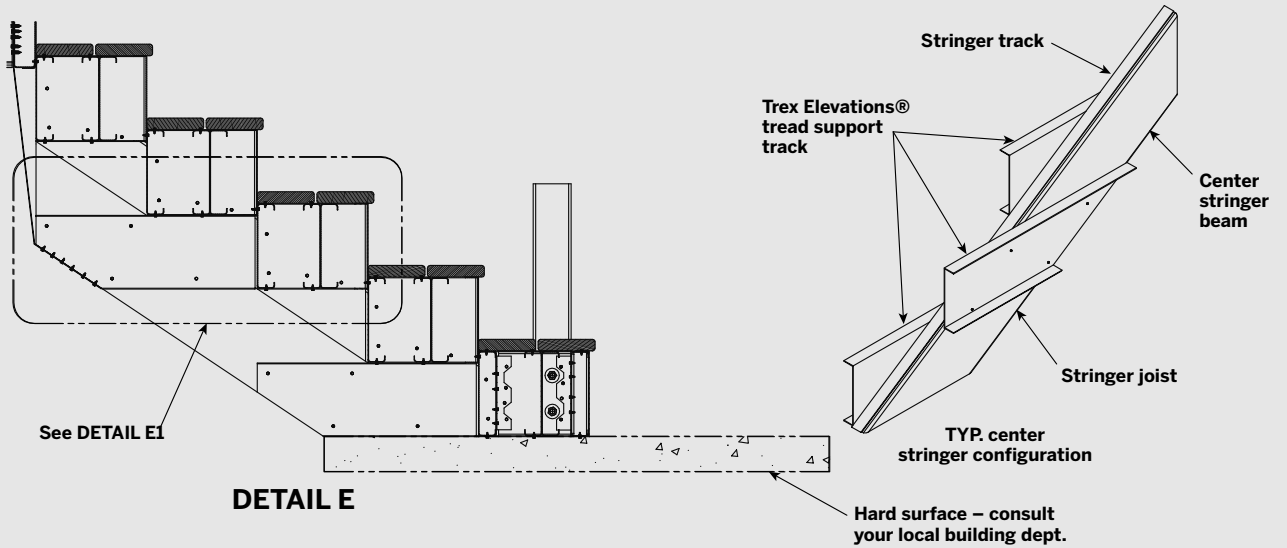
STAIR RAILING POST ATTACHMENT



⚠ WARNING

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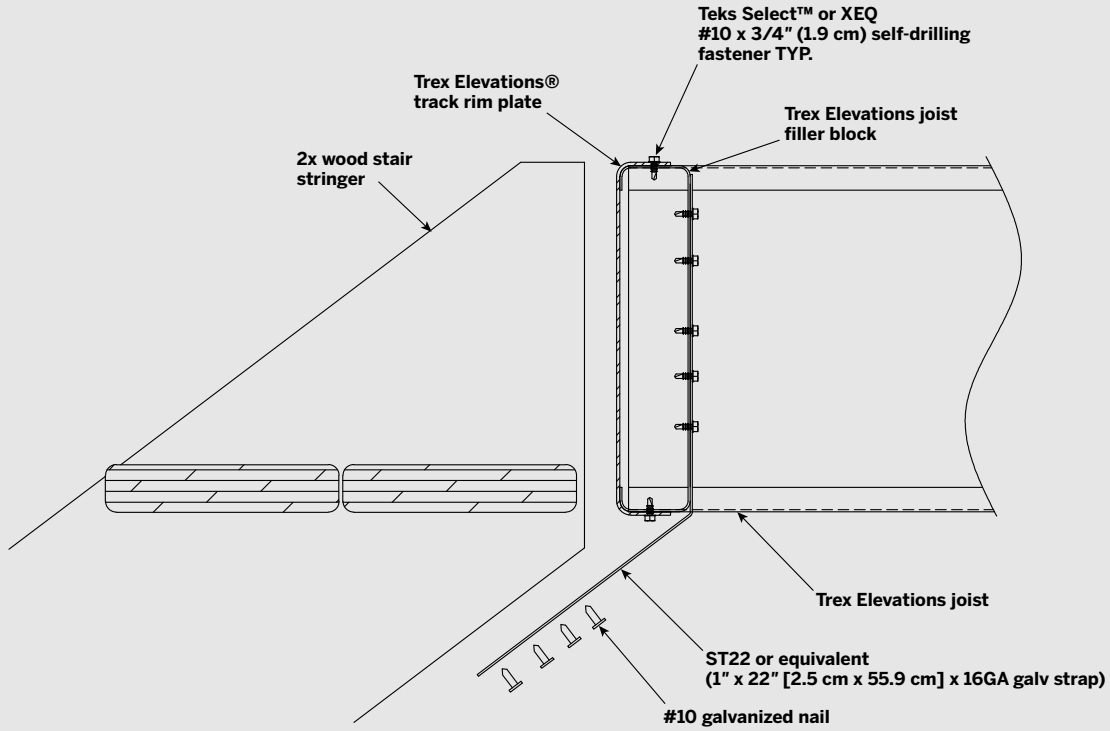
STAIR CENTER STRINGER ASSEMBLY



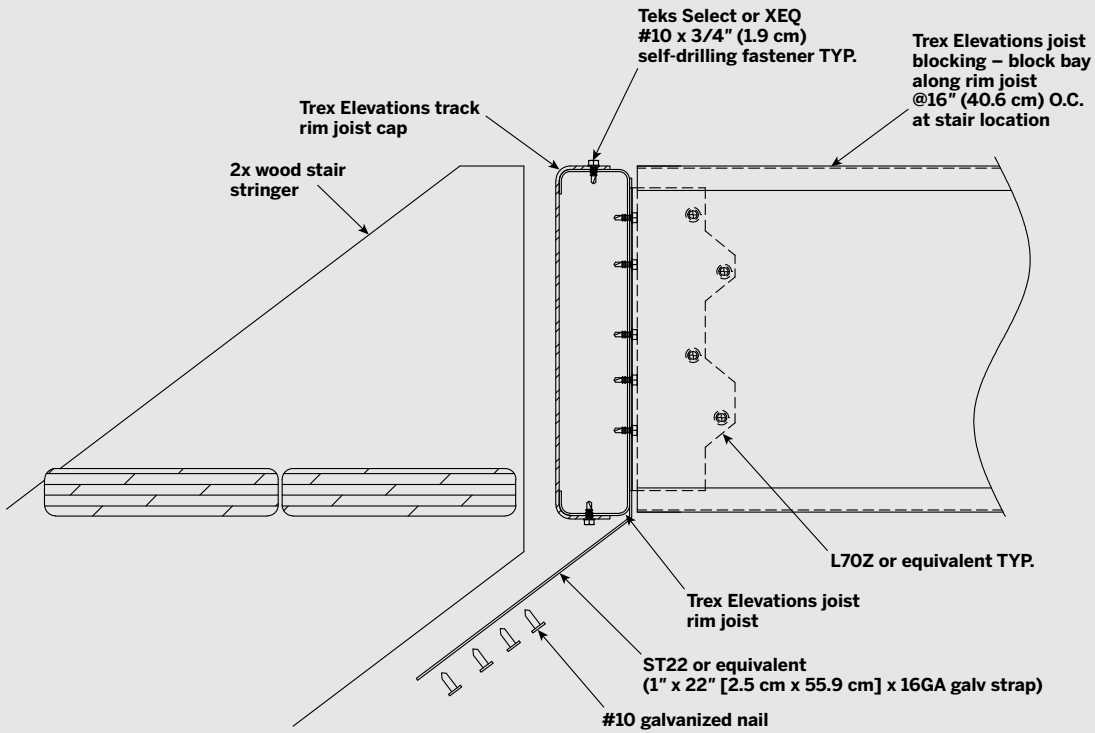
⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

WOOD STAIR ATTACHMENT TO RIM PLATE OR RIM JOIST CAP



WOOD STAIR ATTACHMENT TO RIM PLATE

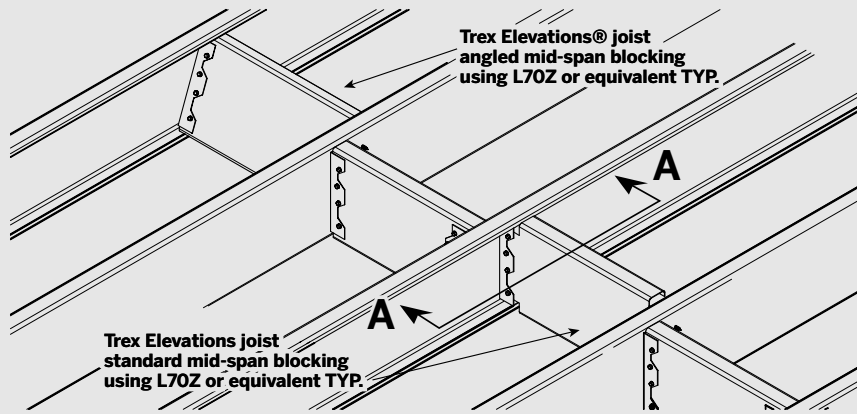


WOOD STAIR ATTACHMENT TO RIM JOIST CAP

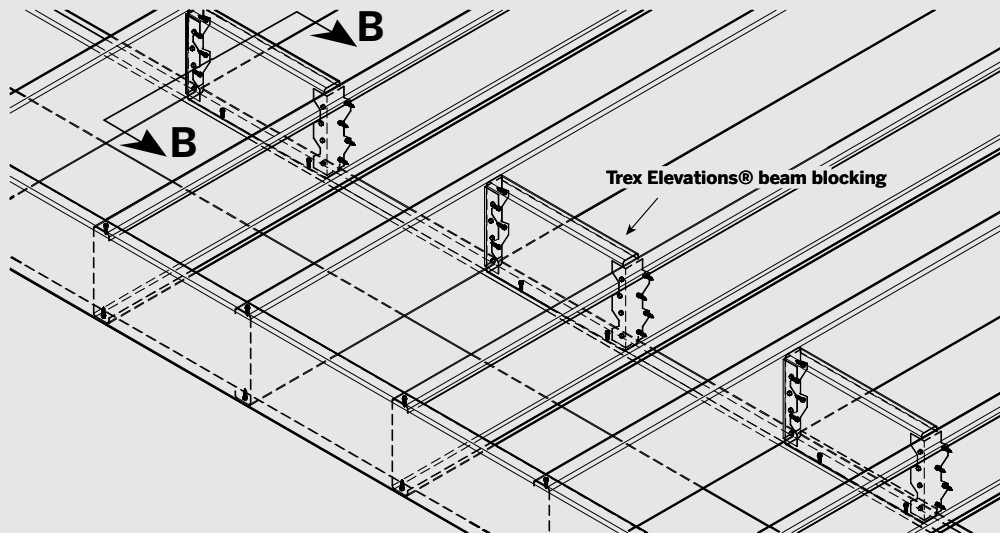
⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

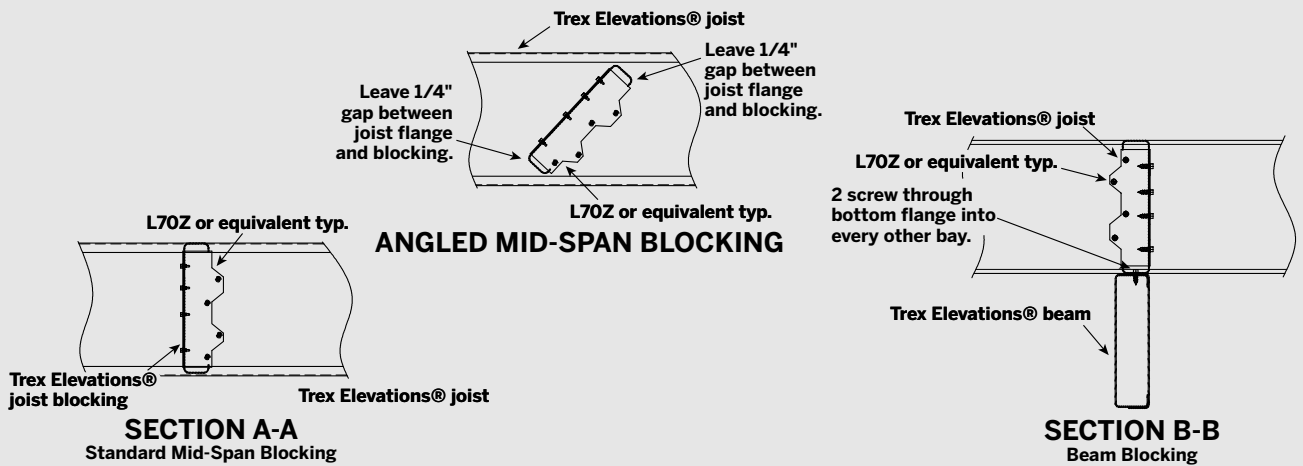
STANDARD BLOCKING



MID-SPAN BLOCKING
Mid span blocking required on joist spans greater than 8' in every bay.



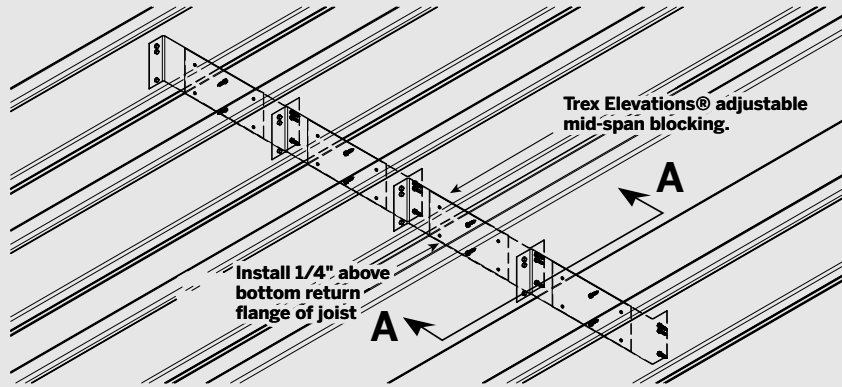
ABOVE BEAM BLOCKING



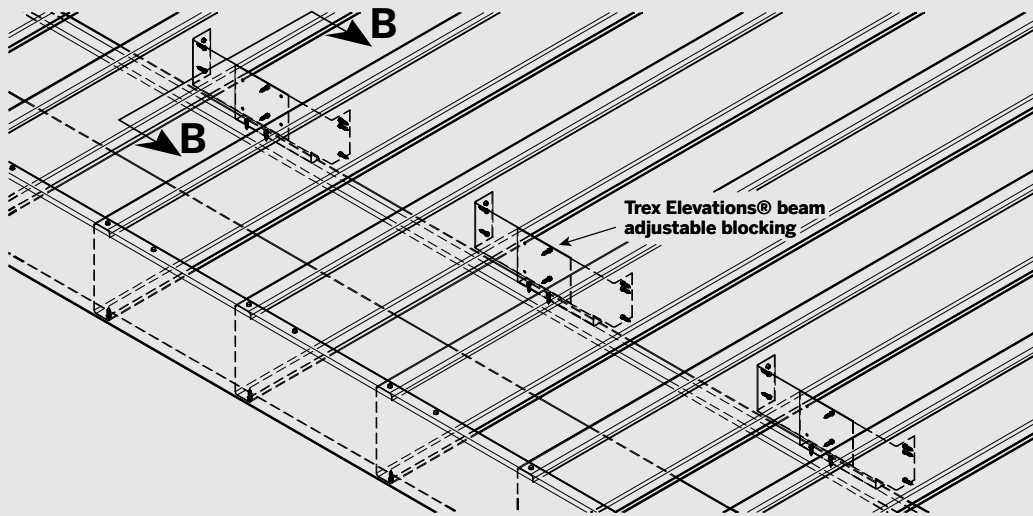
⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

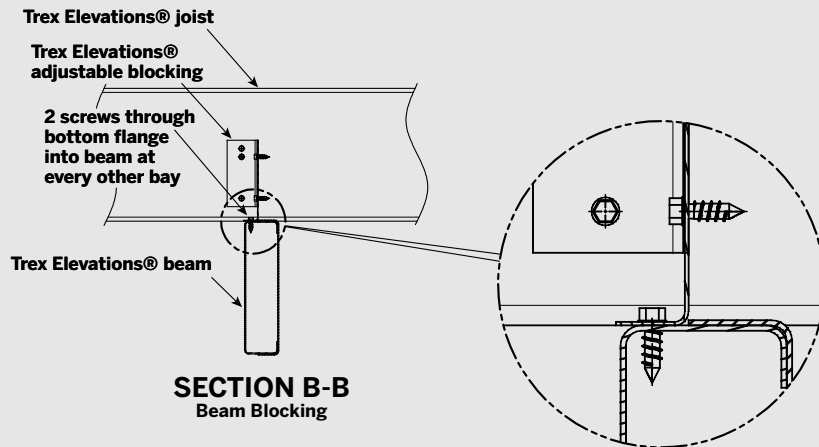
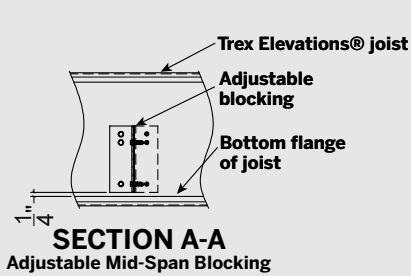
ADJUSTABLE BLOCKING OPTION



MID-SPAN BLOCKING
Mid-span blocking required on joist spans greater than 8' in every bay.



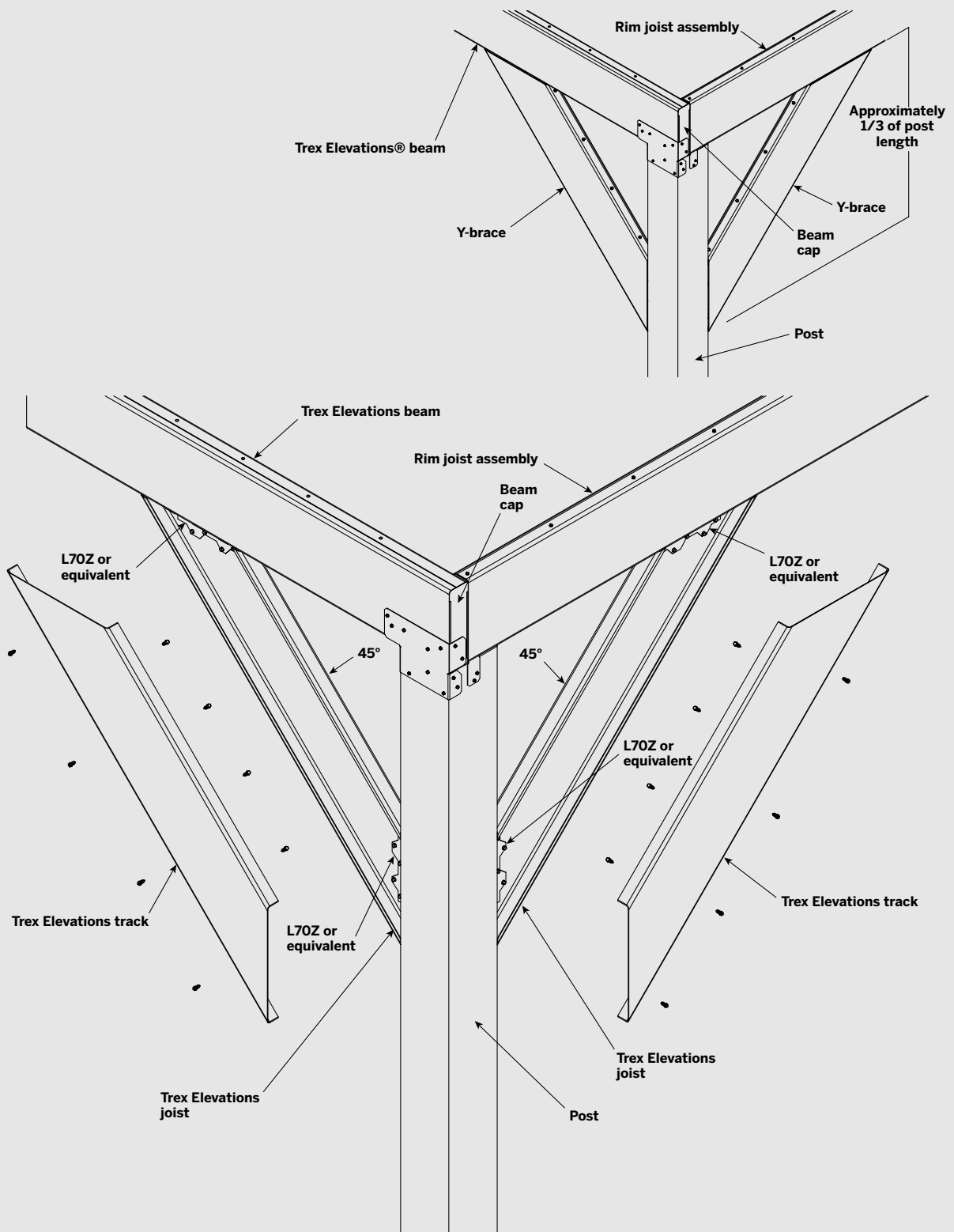
ABOVE BEAM BLOCKING



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

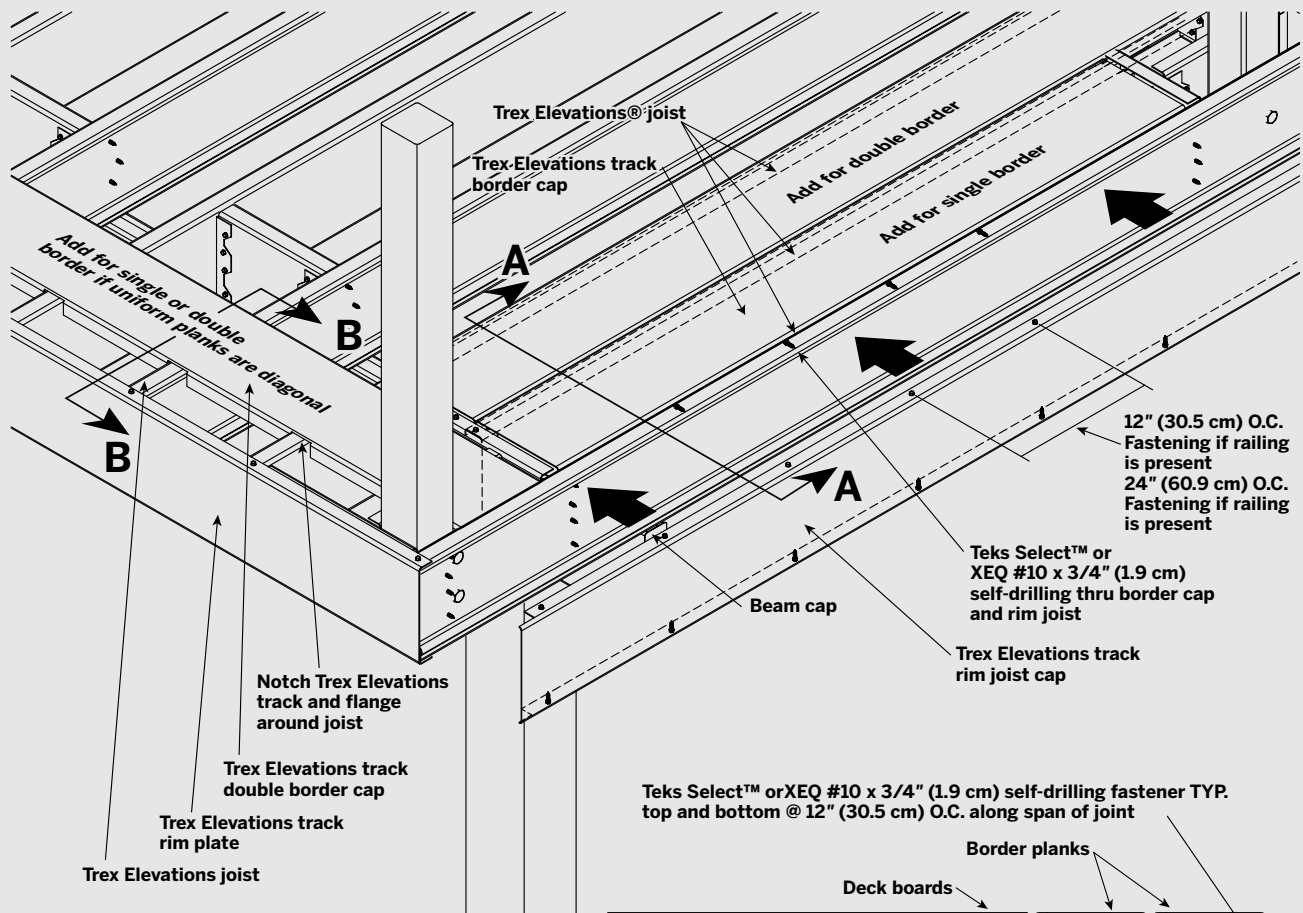
Y - BRACING POST TO BEAM



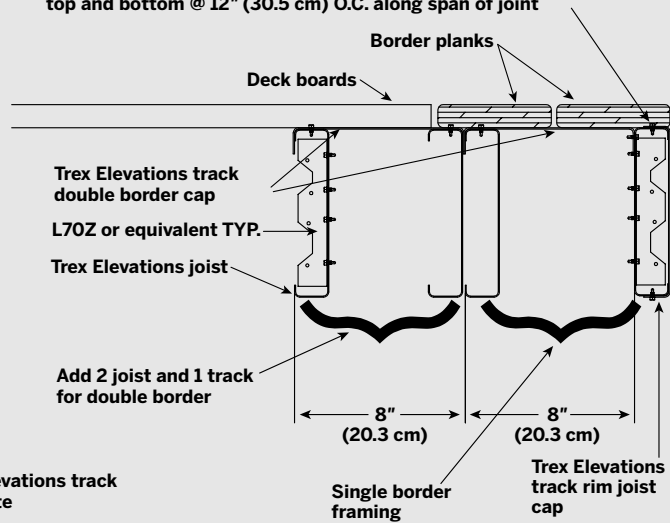
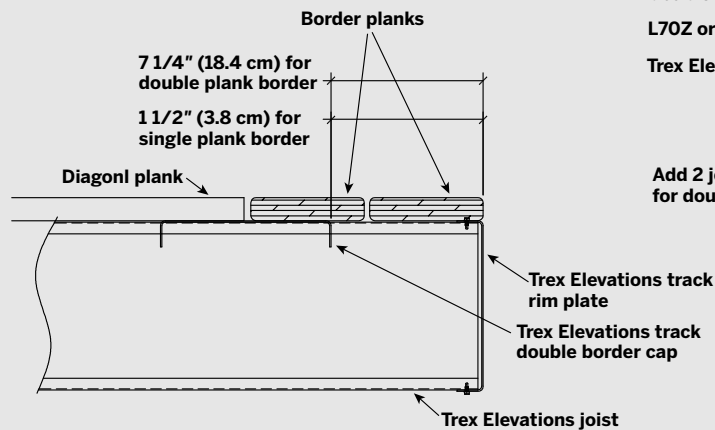
WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

BORDER PLANK FRAMING



Teks Select™ or XEQ #10 x 3/4" (1.9 cm) self-drilling fastener TYP. top and bottom @ 12" (30.5 cm) O.C. along span of joint

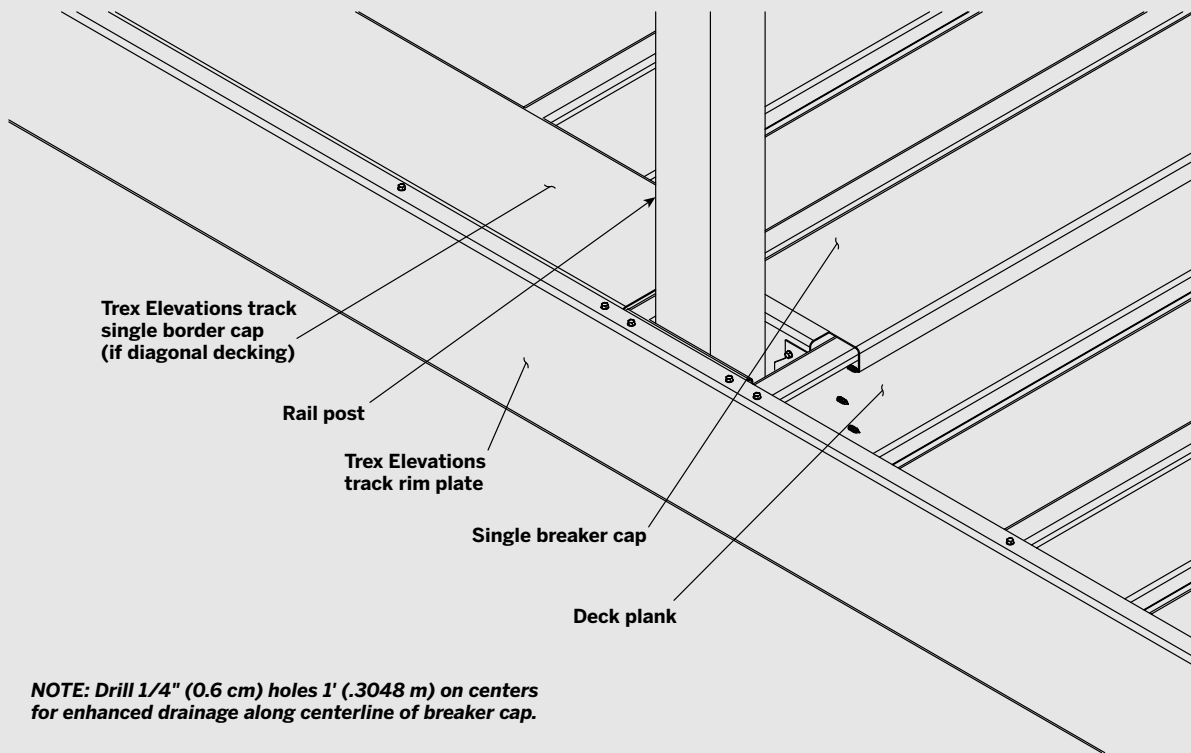
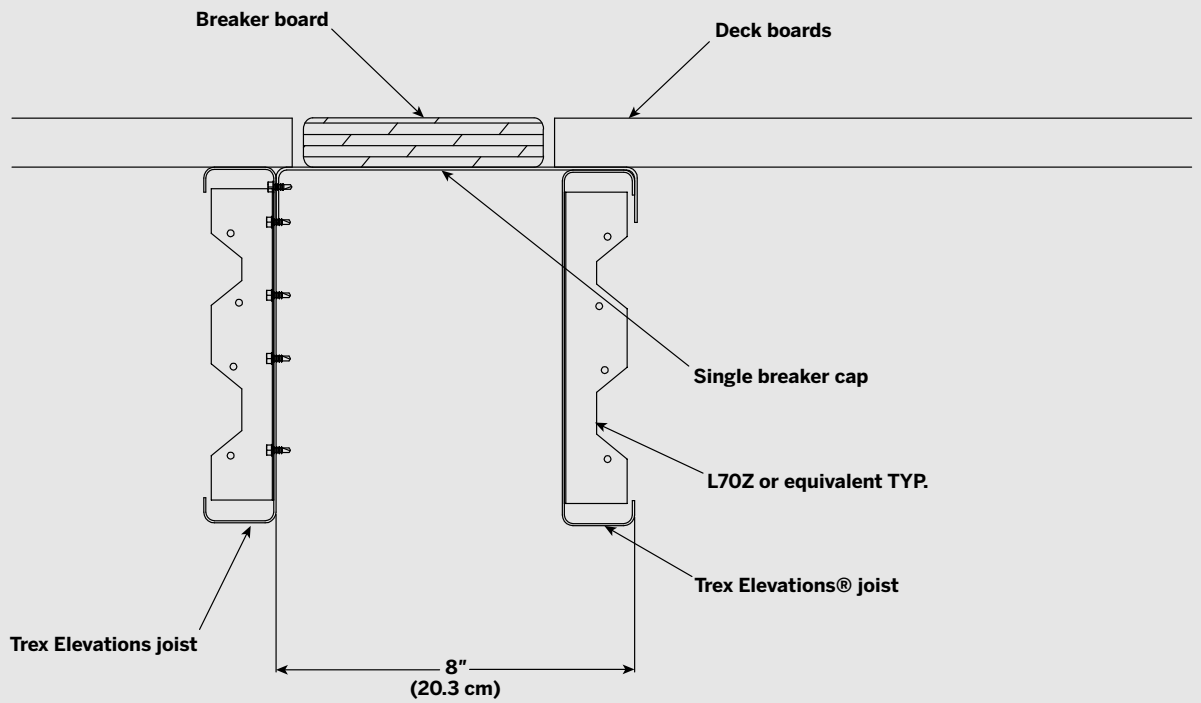


FRAME FOR SINGLE AND DOUBLE BORDERS

⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

BREAKER BOARD FRAMING TYP. SINGLE BREAK

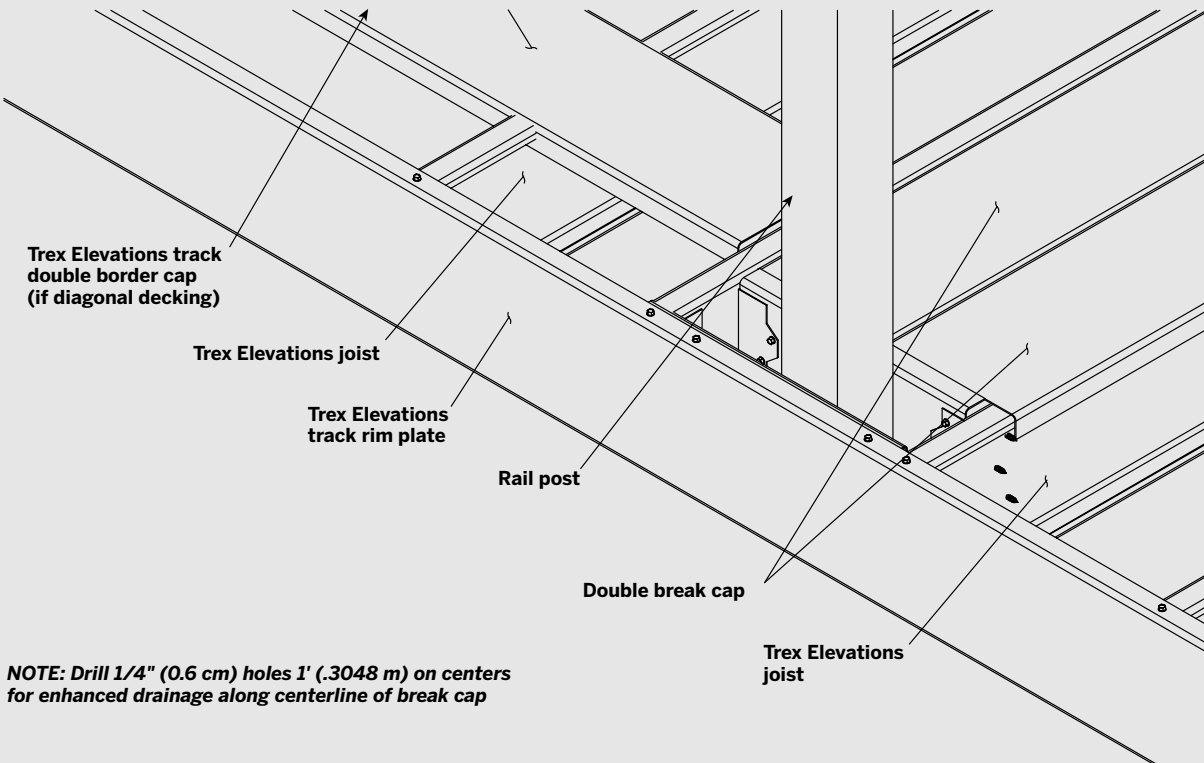
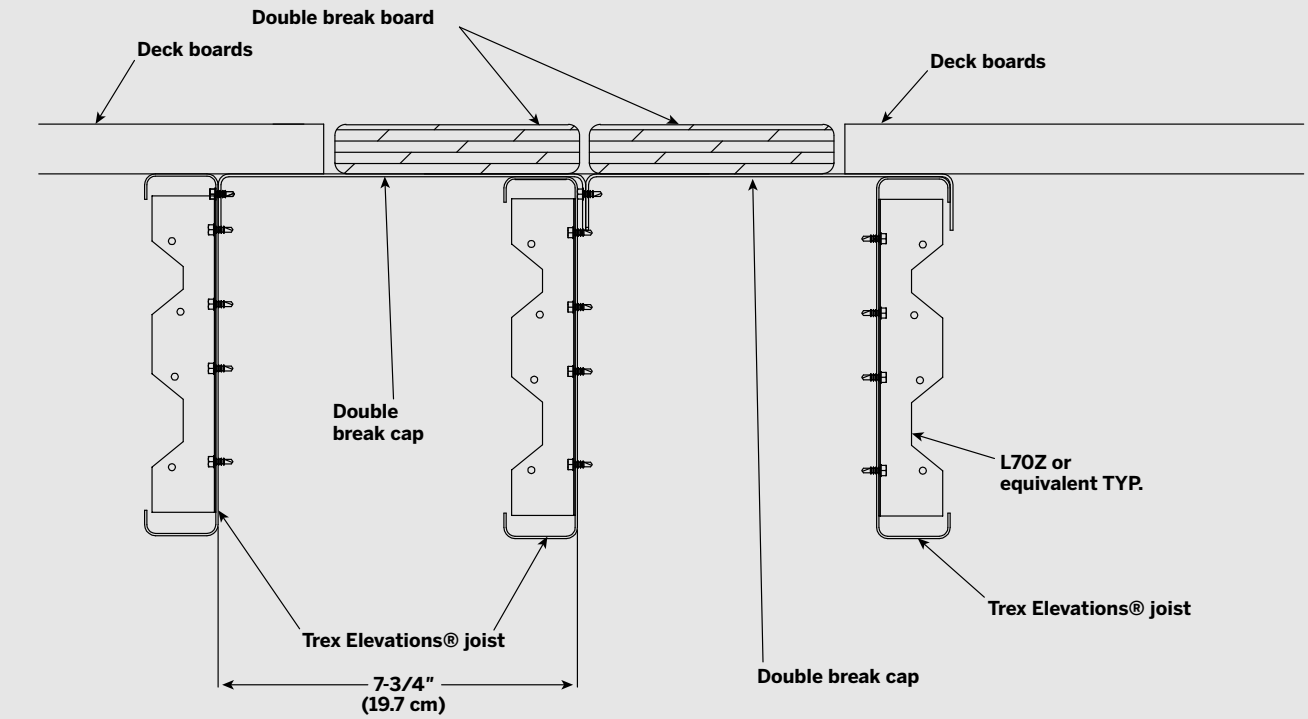


NOTE: Drill 1/4" (0.6 cm) holes 1' (.3048 m) on centers for enhanced drainage along centerline of breaker cap.

⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

BREAKER BOARD FRAMING TYP. DOUBLE BREAK

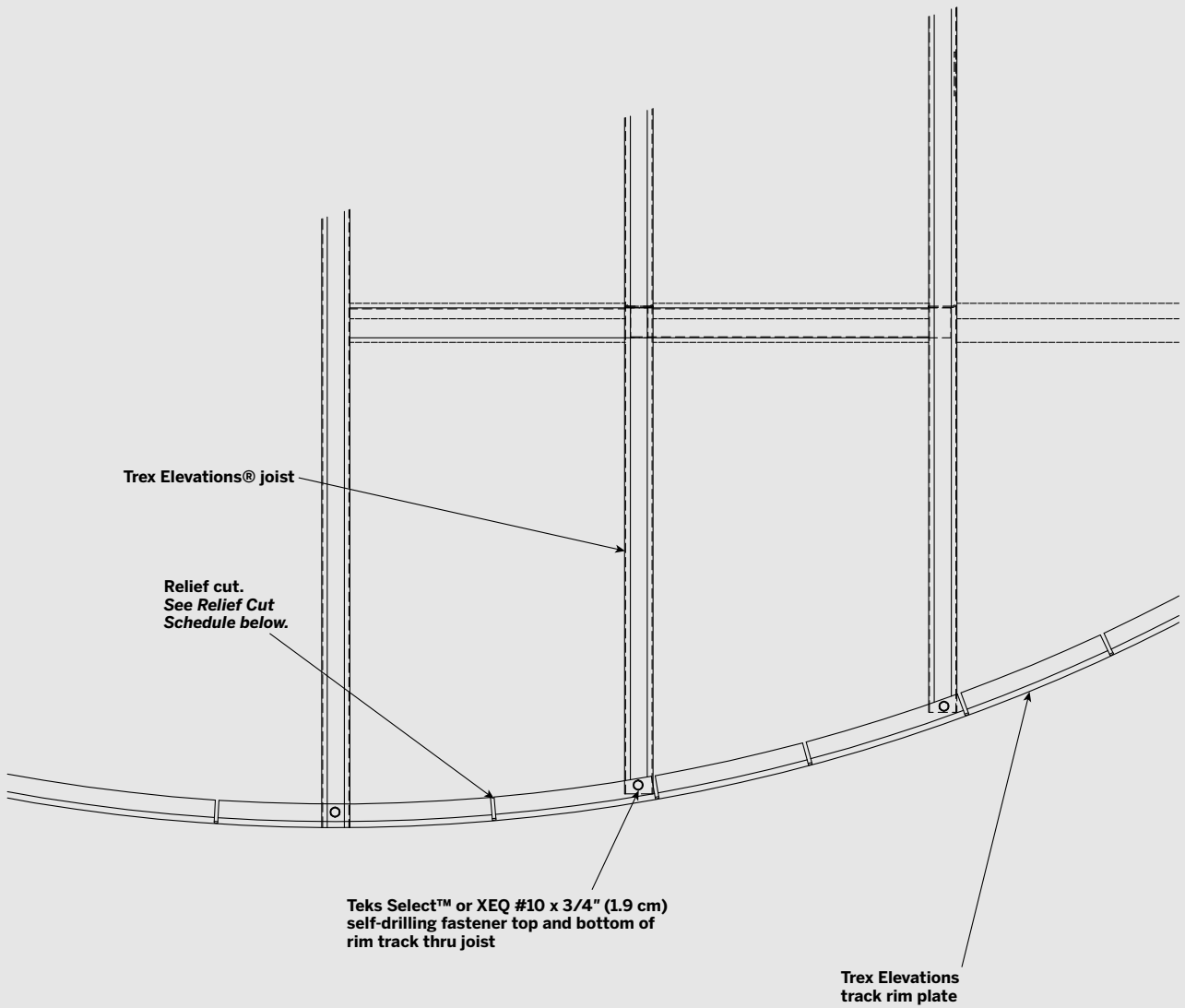


NOTE: Drill 1/4" (0.6 cm) holes 1' (.3048 m) on centers for enhanced drainage along centerline of break cap

⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

GENERAL FRAMING DETAIL – CURVED FRONT TRACK RIM PLATE

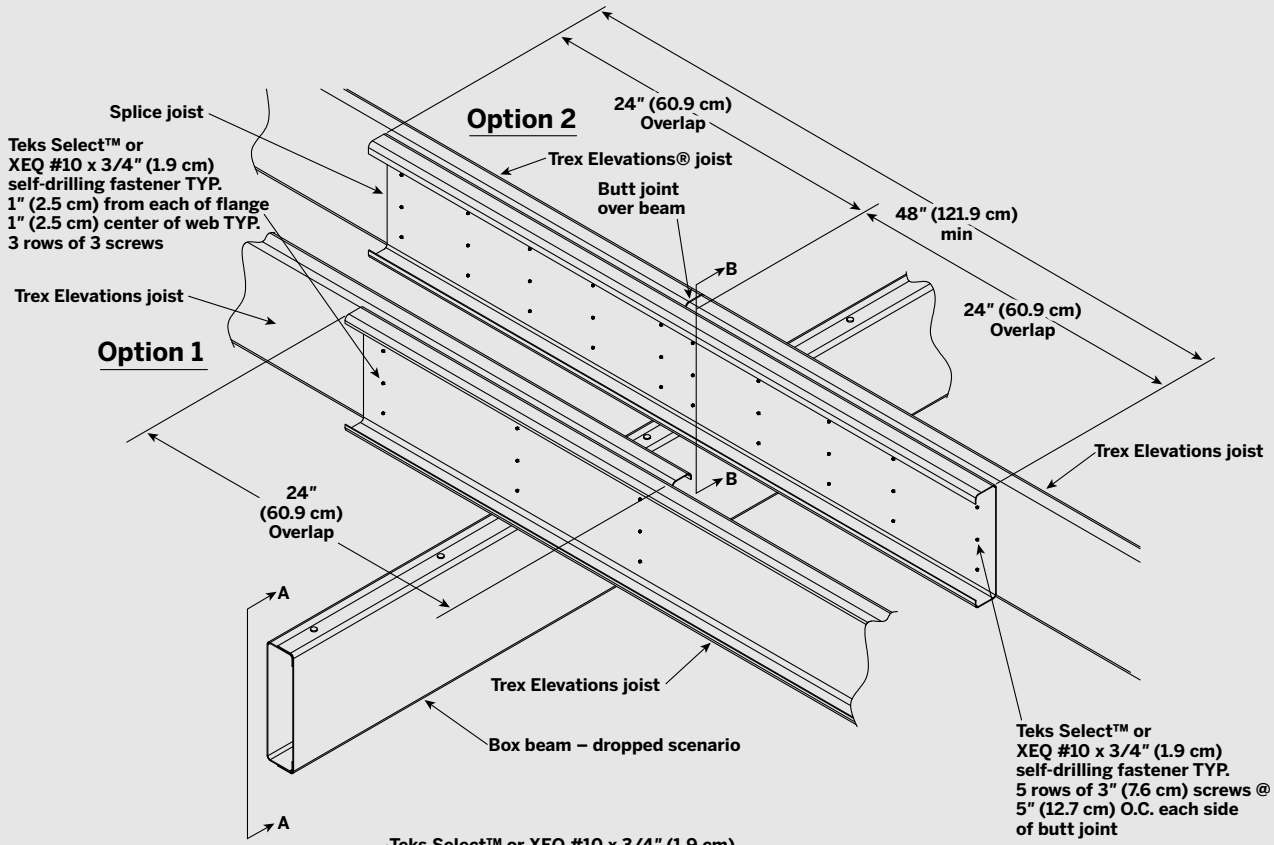


RELIEF CUT SCHEDULE	
TREX ELEVATIONS TRACK TOP AND BOTTOM FLANGE	
RADIUS	RADIUS
3' - 0" to 5' - 11" (91.4 cm to 180.3 cm)	2" (5.1 cm)
5' - 11" to 8' - 11" (180.3 cm to 271.8 cm)	4" (10.2 cm)
8' - 11" to 11' - 11" (271.8 cm to 363.2 cm)	6" (15.2 cm)
11' - 11" to 14' - 11" (363.2 cm to 454.0 cm)	8" (20.3 cm)
14' - 11" and above (454.0 cm and above)	10" (25.4 cm)

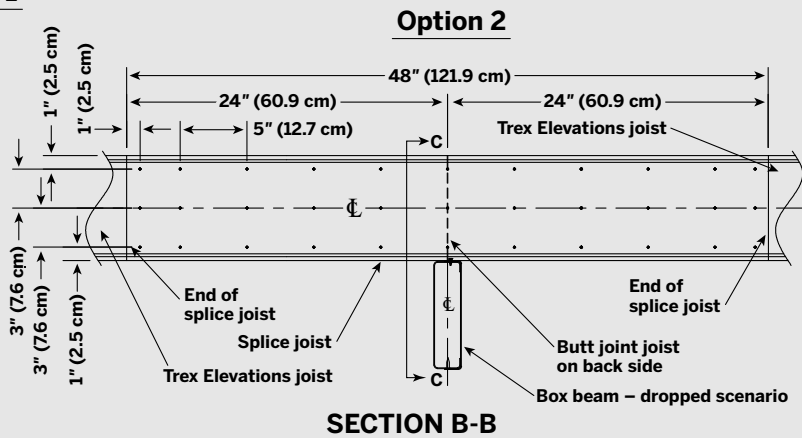
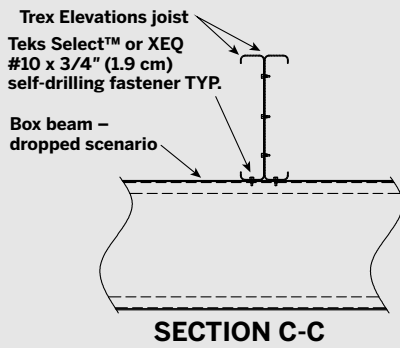
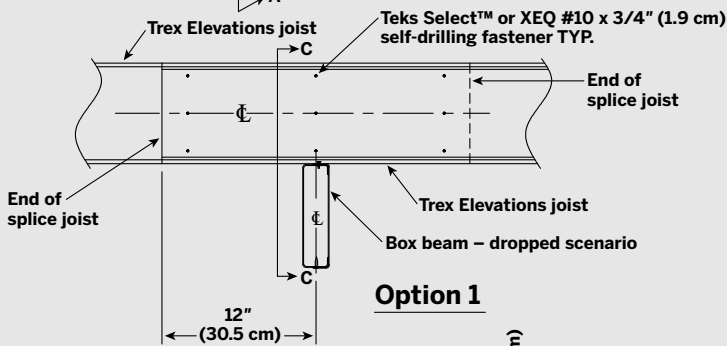
⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

JOIST SPLICE OVER DROPPED BEAM



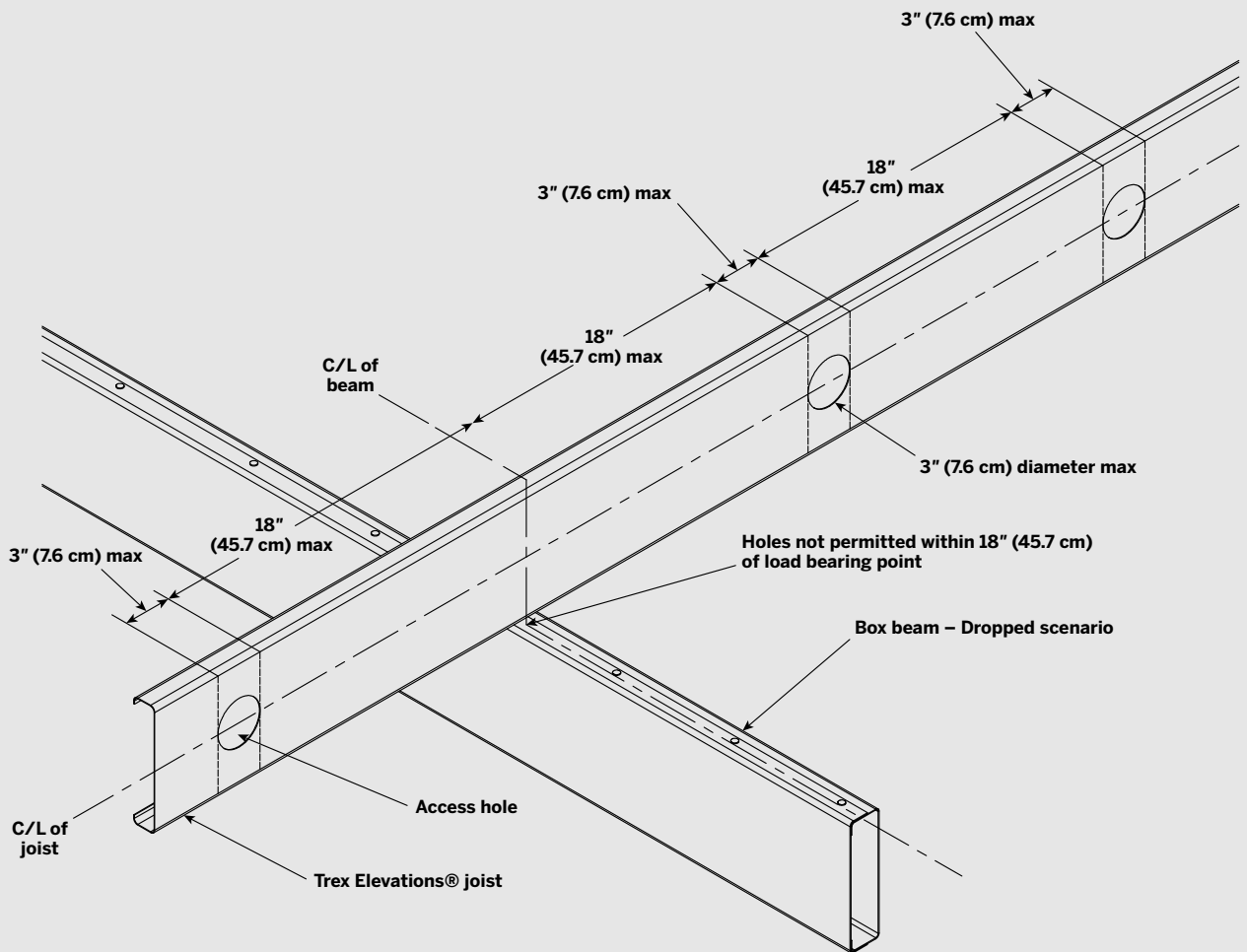
BORDER PLANKS



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

GENERAL FRAMING DETAIL – JOIST PERFORATIONS

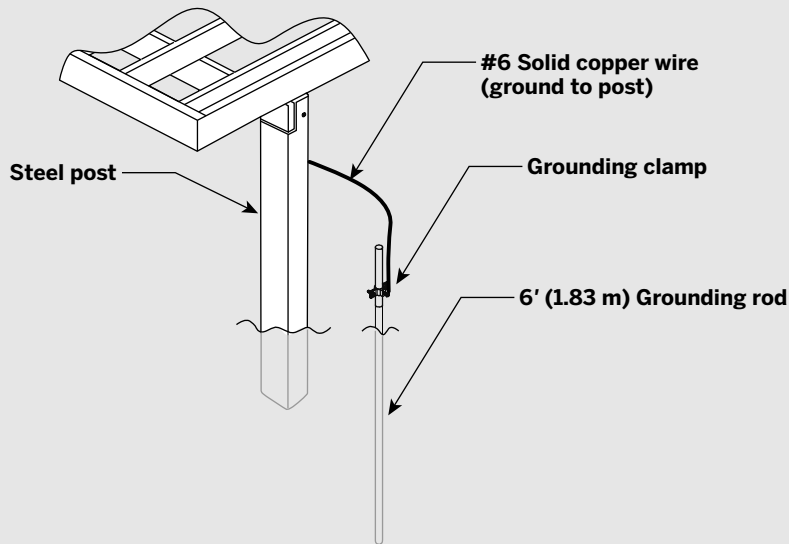


⚠ WARNING

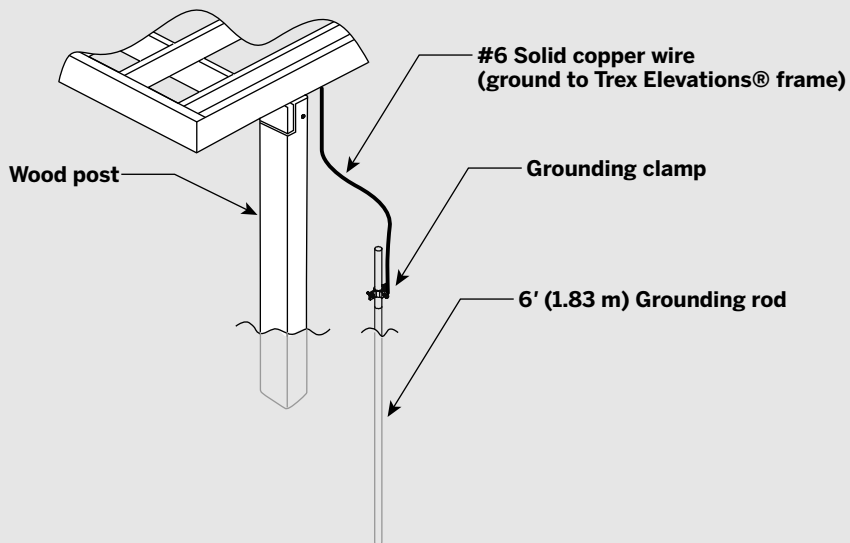
When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.

DECK FRAMING DETAIL (OPTIONAL GROUNDING)

Deck with Steel Post



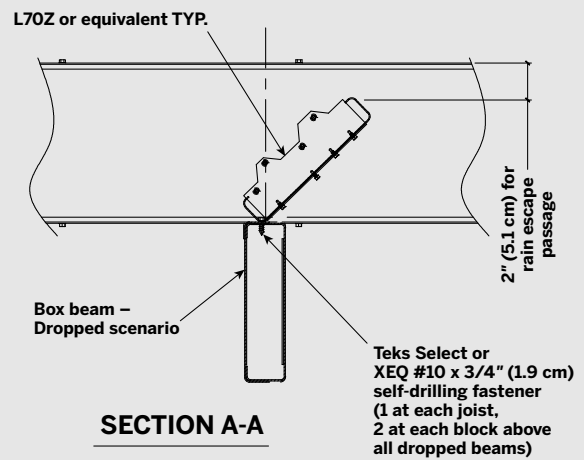
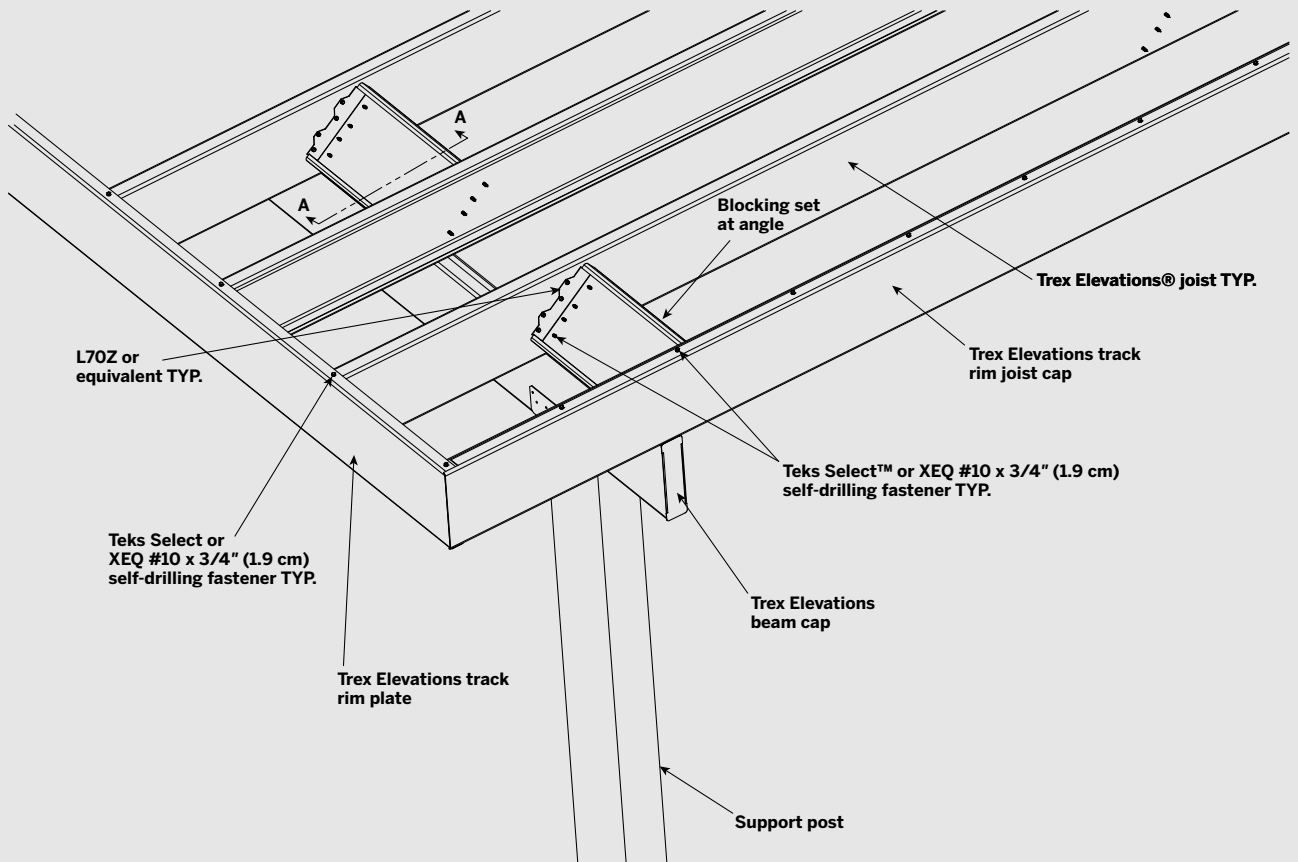
Deck with Wood Post



⚠ WARNING

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GENERAL FRAMING DETAIL – TREX RAIN ESCAPES® BLOCKING ATOP BM



⚠ WARNING

When building with Trex Elevations® always wear protective gear and refer to your local building codes for approved methods of construction.



MAINTENANCE

TREX ELEVATIONS® MAINTENANCE

Corrosion is a naturally occurring phenomenon. However, with proper corrosion management, the life of Trex Elevations components can be extended well beyond the warranty period.

Observation

During construction, inspect all components for exposed steel, and cover the exposed area with Trex-approved touch-up paint in accordance with the *Trex Product and Installation Guide*. Covering exposed area with Trex-approved touch-up paint, such as Precision Color by Quest Industrial/Raabe® Brown Textured, blends the blemishes into the same unique color of the components.

First Maintenance

First maintenance is defined as the physical inspection of components in search of corrosion. Atmospheric and environmental conditions can affect the longevity of Trex Elevations. Densities of air borne pollutants in certain atmospheres require adjustments in the maintenance and inspection schedules.

You should conduct first maintenance within 6 years (for residential) or 4 years (for commercial) after installation. If corrosion is identified, immediately begin corrosion management practices.

Inspection Schedule

After first maintenance, Trex Elevations components must be inspected for structural integrity every 2 to 5 years (residential) or 2 years (commercial). Integrity is inspected by tapping along the surface area of the components with a metal tool such as a screwdriver. If flaking of the exterior coat occurs or discrepancies of sound are heard, immediately begin corrosion management practices.

Corrosion Management

Sand any affected areas to twice the size of the corroded area with 80 grit sand paper. Reapply Trex-approved touch-up paint to the sanded area.

Cleaning Deck

Using cleaning recommendation per www.trex.com will not harm Trex Elevations. Be sure to rinse thoroughly on decking and framing.

De-icing

Use a non-saline based de-icing agent. Rinse off when first practical.

Quest Industrial/Raabe® is a registered trademark of Raabe Corporation.

WARRANTY



TREX ELEVATIONS® LIMITED WARRANTY

Trex Company, Inc. (“Trex”) warrants to the original purchaser (“Purchaser”) that, for the period of time set forth in the following sentence, under normal use and service conditions, Trex Elevations® steel deck framing components shall be free from material defects in workmanship and materials and will not become structurally unfit, which is defined as corrosion causing a perforation of the component. The term of such warranty shall be twenty-five (25) years from the date of original purchase for a residential application, and ten (10) years from the date of original purchase for a commercial application. If a defect occurs within the warranty period, Purchaser shall notify Trex in writing and, upon confirmation by an authorized Trex representative of the defect, Trex’s sole responsibility shall be, at its option, to either replace the defective item or refund the portion of the purchase price paid by Purchaser for such defective item (not including the cost of its initial installation).

For purposes of this warranty, a “residential application” shall refer to an installation of the Product on an individual residence, and a “commercial application” shall refer to any installation of the Product other than on an individual residence.

Salt Water Applications: Trex Elevations® may not be installed within 3,000 feet of any body of salt water due to increased risk of corrosion. Any such installation shall void this limited warranty.

Other Water Applications: Trex Elevations® may not be installed under the surface or within the splash zone of any body of fresh water due to increased risk of corrosion. Any such installation shall void this limited warranty.

THIS LIMITED WARRANTY SHALL NOT COVER AND TREX SHALL NOT BE RESPONSIBLE FOR COSTS AND EXPENSES INCURRED WITH RESPECT TO THE REMOVAL OF DEFECTIVE TREX PRODUCTS OR THE INSTALLATION OF REPLACEMENT MATERIALS, INCLUDING BUT NOT LIMITED TO LABOR AND FREIGHT.

With respect to a residential application, this warranty may be transferred one (1) time, within the five (5) year period beginning from the date of original purchase by the Purchaser, to a subsequent buyer of the property upon which the Trex products were originally installed. With respect to a commercial application, this warranty is freely transferable to subsequent buyers of the property upon which the Trex products were originally installed.

To make a claim under this limited warranty, Purchaser, or the transferee, shall send to Trex, within the warranty period referred to above, a description of the claimed defect and proof of purchase, to the following address:

Trex Company, Inc.
Customer Relations
160 Exeter Drive
Winchester, VA 22603-8605

Trex does not warrant against and is not responsible for any condition attributable to: (1) defects caused by improper installation or decay caused by fasteners; (2) use of Trex products beyond normal use or service conditions, or in an application not recommended by Trex’s guidelines and local building codes; (3) corrosion caused by factors other than environmental or atmospheric processes; (4) failure to strictly abide by Trex Elevations® standard maintenance practices, as described below; (5) movement, distortion, collapse or settling of the ground; (6) any act of God (such as flooding, hurricane, earthquake, lightning, etc.); (7) improper handling, storage, abuse or neglect of Trex Elevations® products by Purchaser, the transferee or third parties; or (8) ordinary wear and tear.

No person or entity is authorized by Trex to make and Trex shall not be bound by any statement or representation as to the quality or performance of Trex products other than as contained in this warranty. This warranty may not be altered or amended except in a written instrument signed by Trex and Purchaser.

UNDER NO CIRCUMSTANCES WILL TREX BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER SUCH DAMAGES ARE SOUGHT IN CONTRACT, IN TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE AND STRICT LIABILITY) OR OTHERWISE, AND TREX’S LIABILITY WITH RESPECT TO DEFECTIVE TREX ELEVATIONS® PRODUCTS SHALL IN NO EVENT EXCEED THE REPLACEMENT OF SUCH PRODUCTS OR REFUND OF THE PURCHASE PRICE, AS DESCRIBED ABOVE.

Some States or Provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from State to State or Province to Province.



Trex Elevations® Maintenance Requirements:

1. Observation: During construction, inspect all components for exposed steel, and cover the exposed area with Trex approved touch up paint in accordance with the *Trex Product and Installation Guide*. (Trex does not warrant touch up paint due to application variability.) Covering exposed areas with Trex approved touch up paint blends the blemishes into the same unique color of the components.

2. First Maintenance: Defined as the physical inspection of components in search of corrosion. Atmospheric and environmental conditions can affect the longevity of Trex Elevations®. Densities of air borne pollutants in certain atmospheres require adjustments in the maintenance and inspection schedules. You should conduct first maintenance within six (6) years after installation for a residential application and four (4) years after installation for a commercial application. If corrosion is identified, immediately begin corrosion management practices.

3. Inspection Schedule: After first maintenance, Trex Elevations® components must be inspected for structural integrity every two (2) to five (5) years for a residential application and every two (2) years for a commercial application. Integrity is inspected by tapping along the surface area of the components with a metal tool such as a screwdriver. If flaking of the exterior coat occurs or discrepancies of sound are heard, immediately begin corrosion management practices.

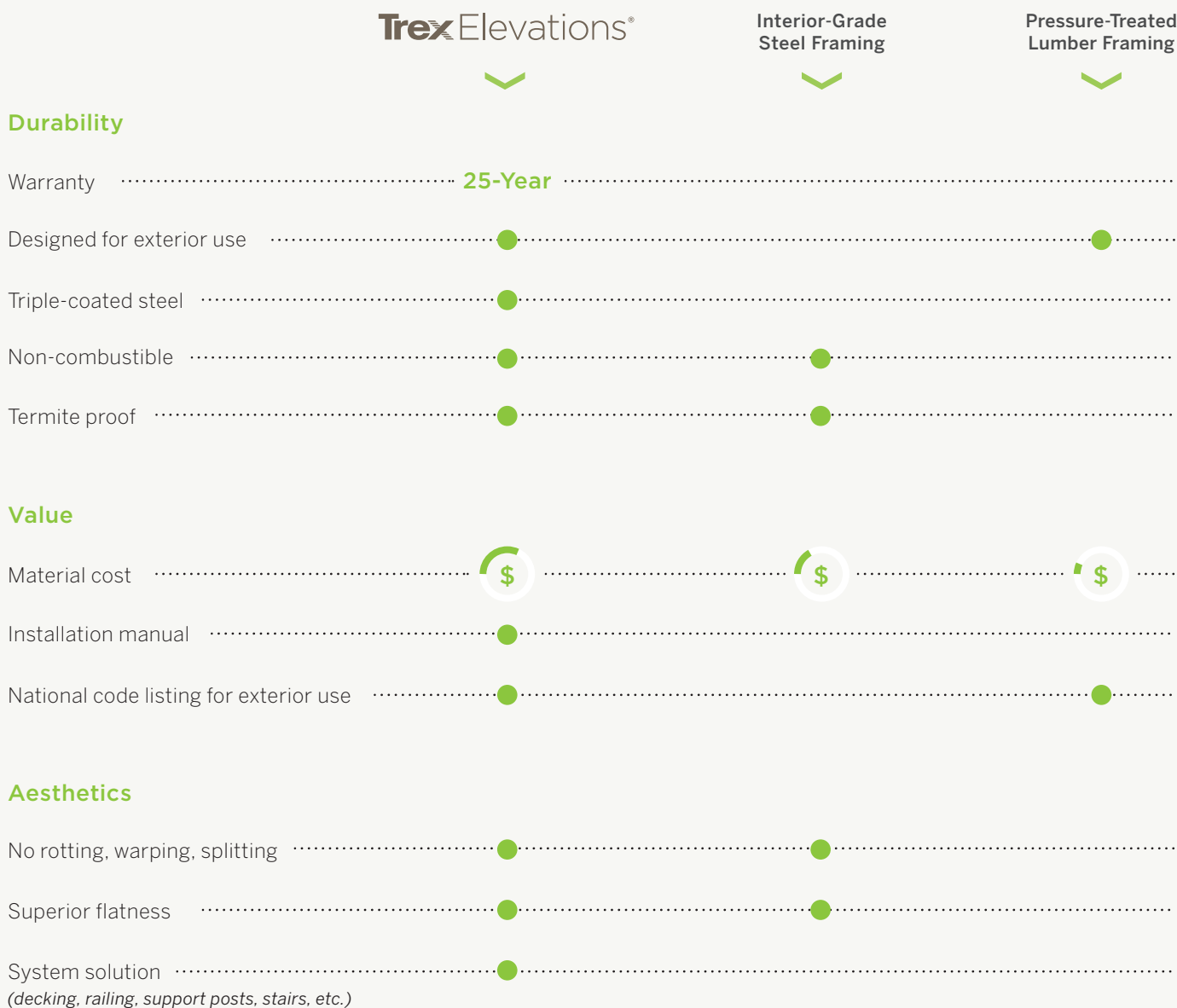
4. Corrosion Management: Sand any affected areas to twice the size of the corroded area with 80 grit sand paper. Reapply Trex approved touch up paint to the sanded area.

This warranty shall only be applicable and enforceable in the United States of America, Canada and Mexico.

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DON'T SETTLE FOR A SUBSTANDARD SUBSTRUCTURE

When planning any outdoor structure, it's important to ensure that its substructure can guarantee safety and continued beauty through decades of outdoor conditions. Where other deck framing systems may seem sturdy and supportive, only Elevations can stand the test of time without shifting, splitting, warping, rotting or rusting. Review the following comparisons and see how Elevations rises above the competition.



Due to increased risk of corrosion, Trex Elevations® may not be installed (1) within 3,000 ft. (914.4 m) of any body of salt water or (2) under the surface or within the splash zone of any body of fresh water. Any such installations shall void the Trex Limited Warranty.



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