

TREX PERGOLA INSTALLATION INSTRUCTIONS

RECOMMENDED TOOLS/SUPPLIES:

- Pencil
- 4' Level
- Measuring Tape
- Framing Square/Speed Square
- 8' High Step Ladder
(Two recommended)
- Hacksaw or Bolt Cutters
- Socket Wrench with 9/16" Socket and
3/4" Deep Socket
- Adjustable Wrench
- Impact Driver With Philips Bit
- Drill
- 5/8" x 8" Masonry Drill Bit
- 5/8" x 12" Metal Drill Bit
- Circular Saw With a Fine Tooth Blade
- Shop Vacuum
(To remove dust from column mounting
holes in concrete)
- Caulk Gun
- Sika AnchorFix Epoxy
(One 10 oz. tube per 2 columns)
- High Quality Exterior Latex Caulk
- Ledger Attachment Bolts
(For attached models only)
- 1/4" Metal Drill Bit
(For lighting option only)
- Wire Stripper
(For lighting option only)

INSTALLATION PROCEDURE:

It is recommended to read through the instructions below and review all sheets and notes completely before beginning installation.

Resizing Column/Squaring Base of Column If Uneven

To cut columns down, measure the desired length from the top of the column and mark in several locations around the column. Apply tape around the column so that the edge of the tape aligns with the marks made. Using a circular saw, cut the column along the tape line. Cut the column with the motor sided of the saw on the cutoff portion of the column to prevent damaging the finish on the good side of the cut line.

Install Columns

Reference: PL01, PL02, EV01, CD01, CD02

Install Beam(s)

Reference: PL01, PL02, EV01, CA01, CA02, CA03, CA04, CA05
For Lighting Option, Reference: LT01

Install Ledger & Rafter Wall Brackets (for attached models only)

Reference: PL02, CS01, EV01, LD01, CA06

Install Rafter Beam Brackets to Rafters

Reference: PL01, PL02, CS01, CA01, CA02, CA03, CA07, CA08

Install Rafters

Reference: PL01, PL02, CS01, EV01, CA01, CA02, CA03, CA06, CA07

Install Stringers

Reference: CS01, EV01, CA01, CA02, CA03, CA08

Install Lighting (optional)

Reference: LT01

For Technical Support:

Contact us at **877.489.8064**. Please have your sales order number available.

It is the responsibility of the installer to meet or exceed all code and safety requirements, and to obtain all required building permits. These instructions are only a guide, and may not address every circumstance. The installer should determine and implement appropriate installation techniques for each situation. Backyard America shall not be held liable for improper or unsafe installations.

SHEET INDEX:

- CV01 - COVER SHEET
- CI01 - COMPONENT INDEX
- CI02 - COMPONENT INDEX
- CI03 - COMPONENT INDEX
- PL01 - PERGOLA LAYOUT - FREESTANDING
- PL02 - PERGOLA LAYOUT - ATTACHED
- CS01 - COMPONENT SPACING & INFORMATION
- EV01 - ELEVATIONS
- CD01 - COLUMN ATTACHMENT DETAIL - CONCRETE
- CD02 - COLUMN ATTACHMENT DETAIL - DECK FRAMING
- LD01 - LEDGER DETAIL
- CA01 - COMPONENT ATTACHMENT DETAIL - WIDTH VIEW
- CA02 - COMPONENT ATTACHMENT DETAIL - PROJECTION VIEW
- CA03 - COMPONENT ATTACHMENT DETAIL
- CA04 - BEAM SPLICE ATTACHMENT DETAIL
- CA05 - ANGLED BEAM SPLICE ATTACHMENT DETAIL
- CA06 - ANGLED RAFTER TO LEDGER ATTACHMENT DETAIL
- CA07 - RAFTER SPLICE OVER BEAM ATTACHMENT DETAIL
- CA08 - STRINGER SPLICE OVER RAFTER ATTACHMENT DETAIL
- LT01 - LIGHTING INSTALLATION

Care:

Trex Pergola is enduring and virtually upkeep-free. All exterior building materials require cleaning. We recommend a basic cleaning using a combination of Simple Green All-Purpose Cleaner and hot water with a soft bristle brush. Ideal times to clean are just after installation and then on an annual basis (typically spring or fall is most conducive with the weather). For more difficult to clean marks, Mr. Clean Magic Eraser can be used. Structural attachments should be inspected annually. All ColorLast painted pergolas may require touch up over time. Keep the touch up paint sent with the pergola and in the event of scratching or cracking, touch up the painted surface as needed. It is recommended to apply the paint with a small brush to the affected area and then wipe excess paint with a rag. Leaving paint only in the void that needs to be touched up.

Simple Green® All-Purpose Cleaner is a registered trademark of Sunshine Makers Inc.

Trex Pergola™

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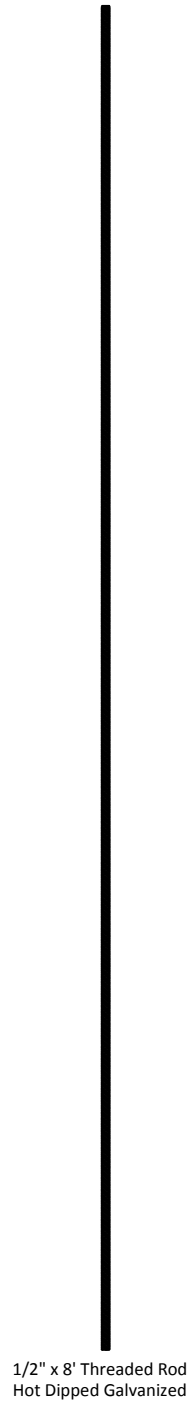
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PH. 877.489.8064 FX. 877.489.2009 www.backyardamerica.com

DRAWING TITLE:

COVER SHEET

SHEET:

CV01



1/2" x 8' Threaded Rod
Hot Dipped Galvanized



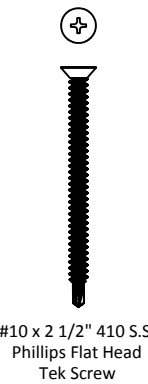
#8 x 7/8" 410 S.S.
Phillips Flat Head
Tek Screw



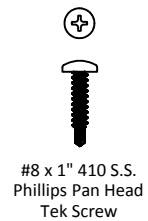
#8 x 2 1/2" Bugle
Phillips Head Deck
Screw



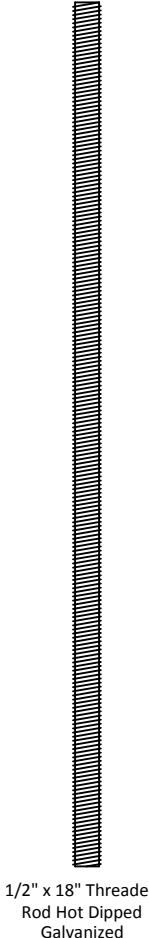
#8 x 1 1/2" 410 S.S.
Phillips Flat Head
Tek Screw



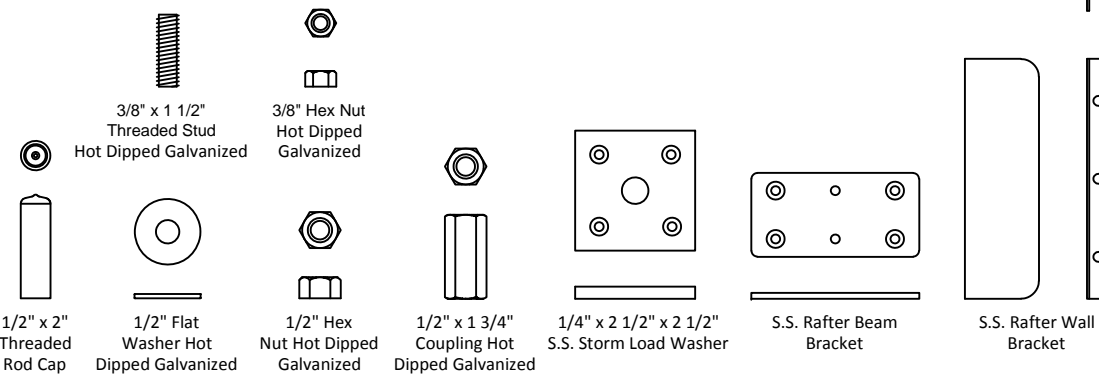
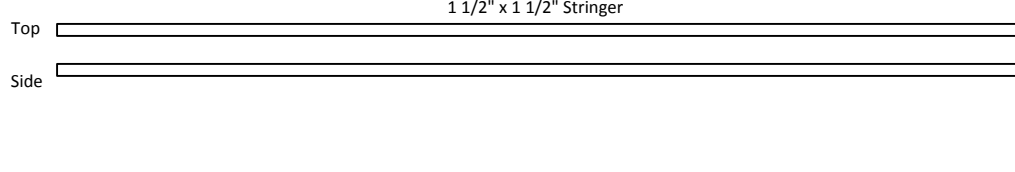
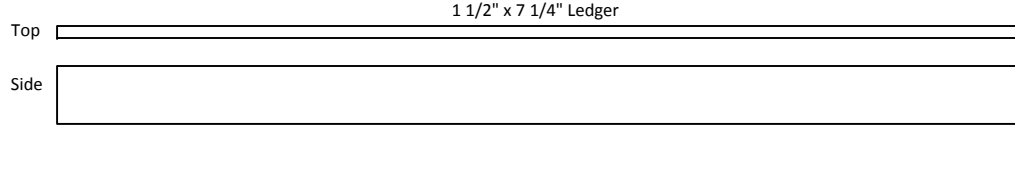
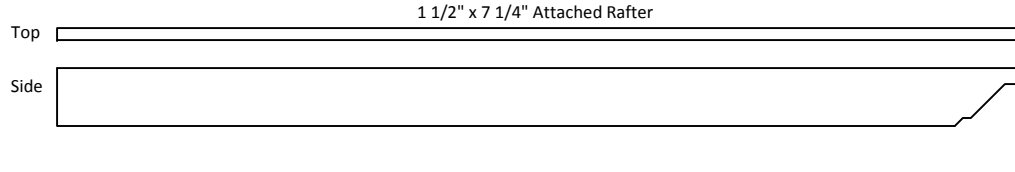
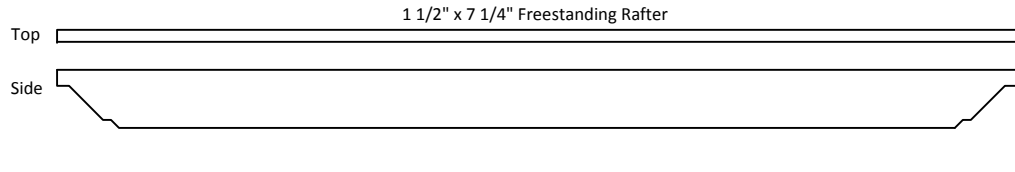
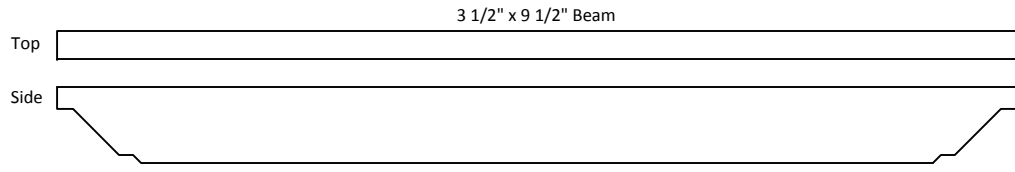
#10 x 2 1/2" 410 S.S.
Phillips Flat Head
Tek Screw



#8 x 1" 410 S.S.
Phillips Pan Head
Tek Screw



1/2" x 18" Threaded
Rod Hot Dipped
Galvanized

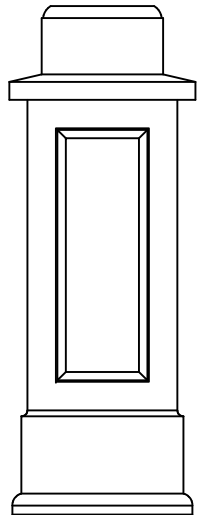
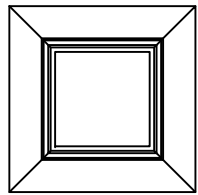


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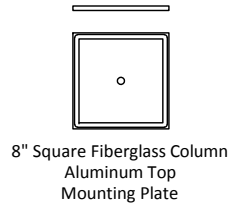
COMPONENT
INDEX

SHEET:

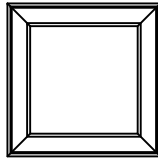
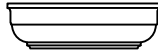
C101



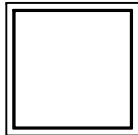
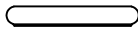
15" x 3' Square Fiberglass Column Base for 8" x 8" Square Column



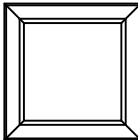
8" Square Fiberglass Column Aluminum Top Mounting Plate



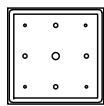
8" x 8" Square Fiberglass Column Capital



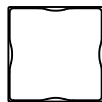
8" x 8" Fiberglass Mid-Trim



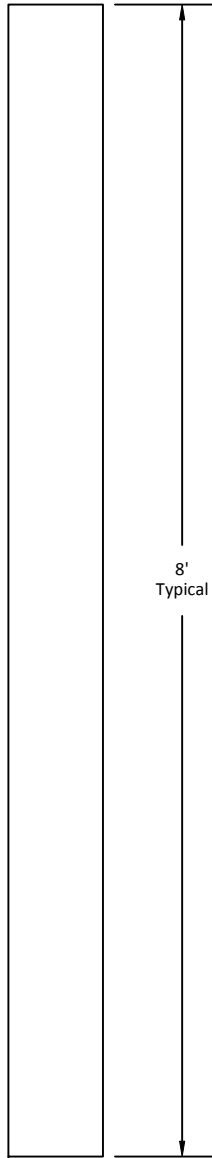
8" Square Fiberglass Column Base



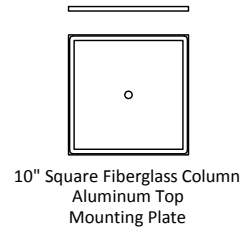
8" Square Fiberglass Column Aluminum Bottom Mounting Plate



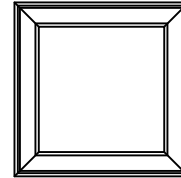
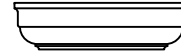
8" x 8" Square Column



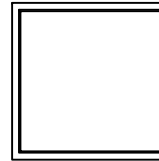
8'
Typical



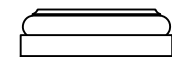
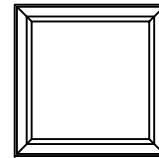
10" Square Fiberglass Column Aluminum Top Mounting Plate



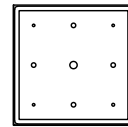
10" x 10" Square Fiberglass Column Capital



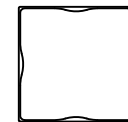
10" x 10" Fiberglass Mid-Trim



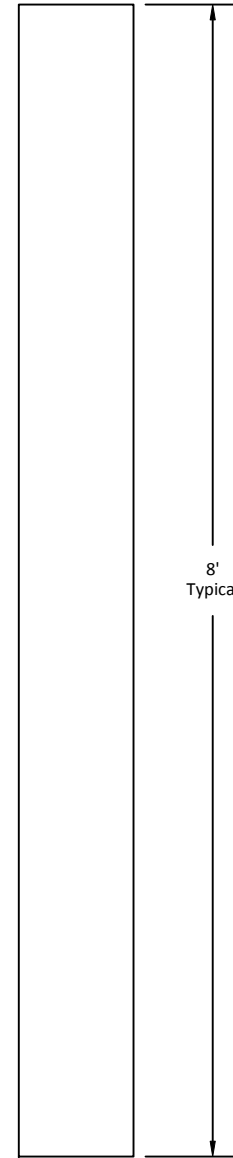
10" Square Fiberglass Column Base



10" Square Fiberglass Column Aluminum Bottom Mounting Plate



10" x 10" Square Column



8'
Typical

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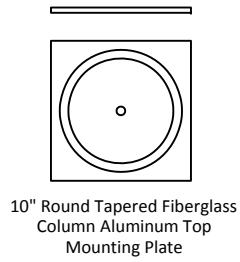
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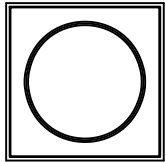
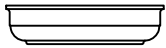
COMPONENT
INDEX

SHEET:

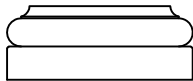
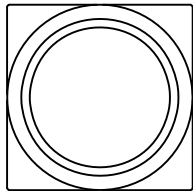
C102



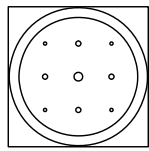
10" Round Tapered Fiberglass Column Aluminum Top Mounting Plate



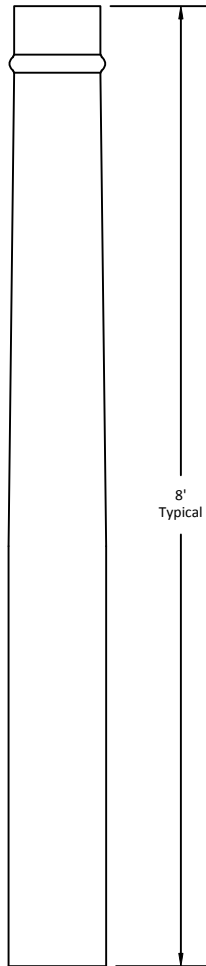
10" Round Tapered Fiberglass Column Capital



10" Round Tapered Fiberglass Column Base



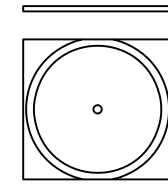
10" Round Tapered Fiberglass Column Aluminum Bottom Mounting Plate



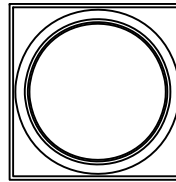
8'
Typical



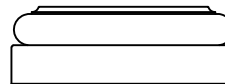
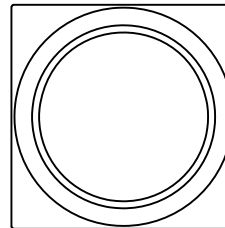
10" Round Tapered Column



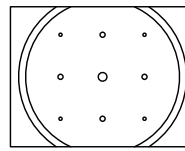
12" Round Tapered Fiberglass Column Base



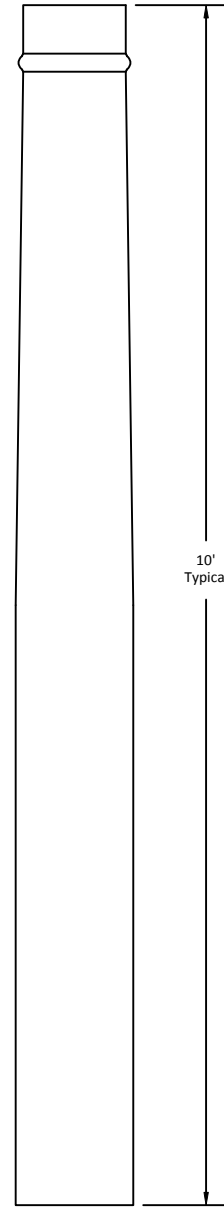
12" Round Tapered Fiberglass Column Base



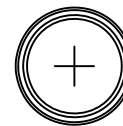
12" Round Tapered Fiberglass Column Base



12" Round Tapered Fiberglass Column Aluminum Bottom Mounting Plate



10'
Typical



12" Round Tapered Column

Trex Pergola™

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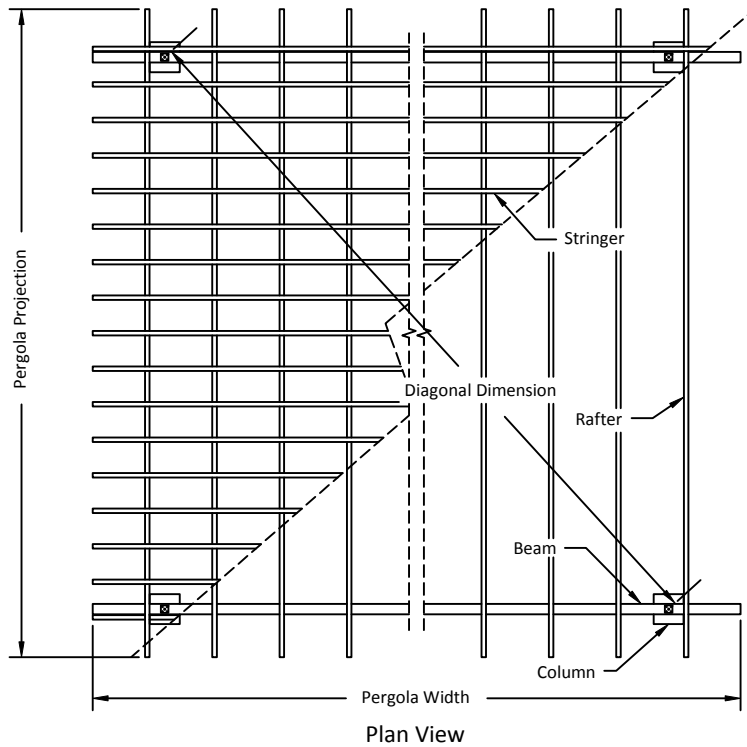
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DRAWING TITLE:

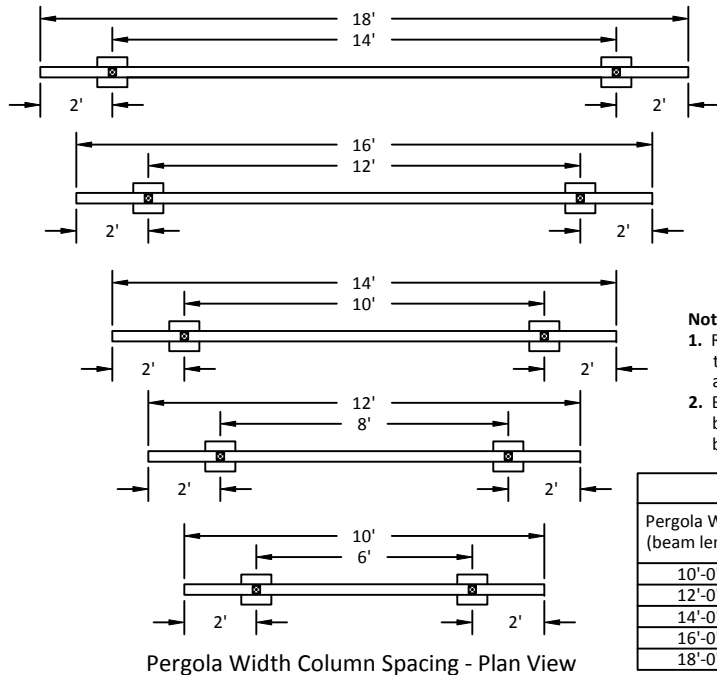
COMPONENT INDEX

SHEET:

C103



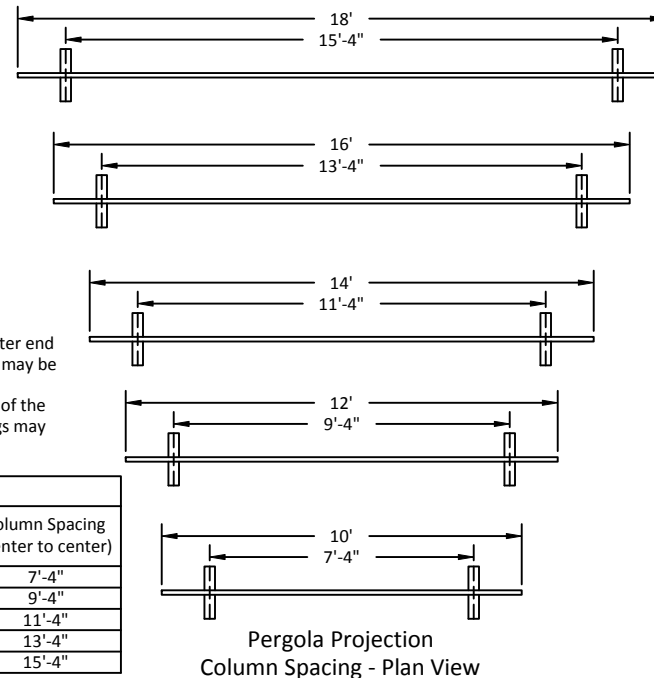
Pergola Size	Diagonal Dimension
10' Wide x 10' Projection	9'-5 11/16"
10' Wide x 12' Projection	11'-1 1/8"
10' Wide x 14' Projection	12'-9 7/8"
10' Wide x 16' Projection	14'-7 7/16"
10' Wide x 18' Projection	16'-5 9/16"
12' Wide x 10' Projection	10'-10 1/4"
12' Wide x 12' Projection	12'-3 1/2"
12' Wide x 14' Projection	13'-10 1/2"
12' Wide x 16' Projection	15'-6 9/16"
12' Wide x 18' Projection	17'-3 9/16"
14' Wide x 10' Projection	12'-4 13/16"
14' Wide x 12' Projection	13'-8 1/8"
14' Wide x 14' Projection	15'-1 3/8"
14' Wide x 16' Projection	16'-8"
14' Wide x 18' Projection	18'-3 11/16"
16' Wide x 10' Projection	14'-0 3/4"
16' Wide x 12' Projection	15'-2 7/16"
16' Wide x 14' Projection	16'-6 1/16"
16' Wide x 16' Projection	17'-11 1/4"
16' Wide x 18' Projection	19'-5 5/8"
18' Wide x 10' Projection	15'-9 5/8"
18' Wide x 12' Projection	16'-9 15/16"
18' Wide x 14' Projection	18'-0 1/8"
18' Wide x 16' Projection	19'-4"
18' Wide x 18' Projection	20'-9 3/16"



Notes:

1. Rafters have a standard overhang of 1'-4" from the rafter end to the center of the beam. Standard overhangs may be adjusted with a minimum of 1'-2" overhang.
2. Beam have a standard overhang of 2'-0" from the end of the beam to the center of the column. Standard overhangs may be adjusted, with a minimum of 1'-6" overhang.

Freestanding Pergola Column Spacing			
Pergola Width (beam length)	Column Spacing (center to center)	Pergola Projection (rafter length)	Column Spacing (center to center)
10'-0"	6'-0"	10'-0"	7'-4"
12'-0"	8'-0"	12'-0"	9'-4"
14'-0"	10'-0"	14'-0"	11'-4"
16'-0"	12'-0"	16'-0"	13'-4"
18'-0"	14'-0"	18'-0"	15'-4"

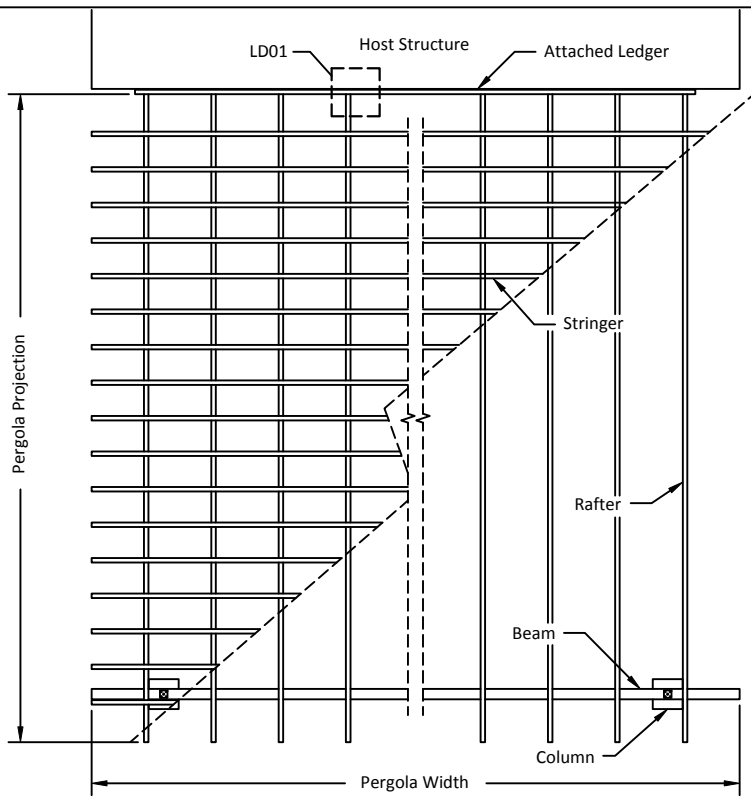


DRAWING TITLE:

PERGOLA LAYOUT FREESTANDING

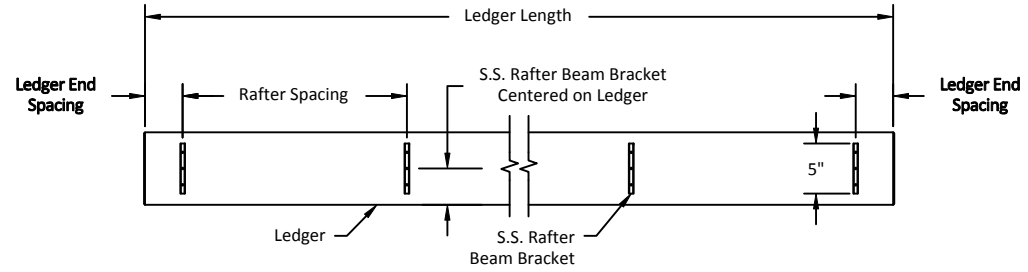
SHEET:

PL01



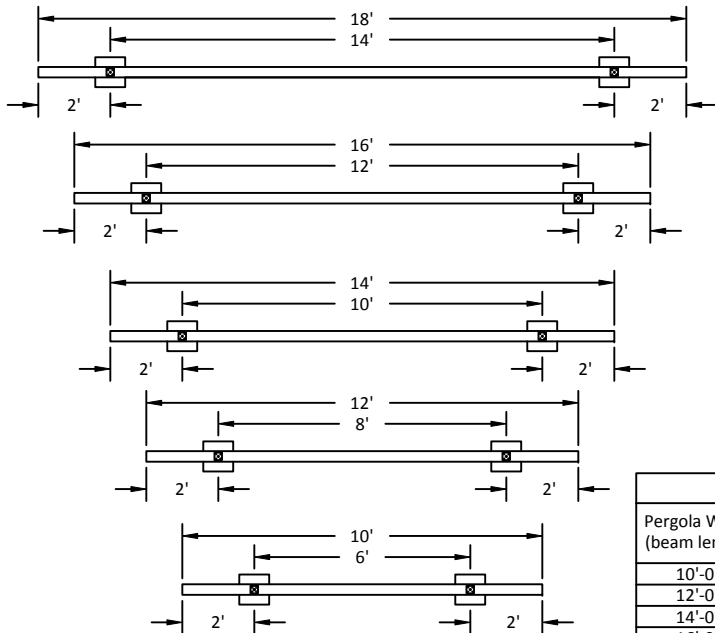
Plan View

Rafter Wall Bracket Placement on Ledger				
Pergola Width (beam length)	Ledger Length	Number of Rafters	Ledger End Spacing	Rafter Spacing (center to center)
10'-0"	8'-0"	5	6 3/8"	1'-8 7/8"
12'-0"	10'-0"	6	6 3/8"	1'-9 1/2"
14'-0"	12'-0"	7	6 3/8"	1'-9 15/16"
16'-0"	14'-0"	8	6 3/8"	1'-10 3/16"
18'-0"	16'-0"	9	6 3/8"	1'-10 7/16"



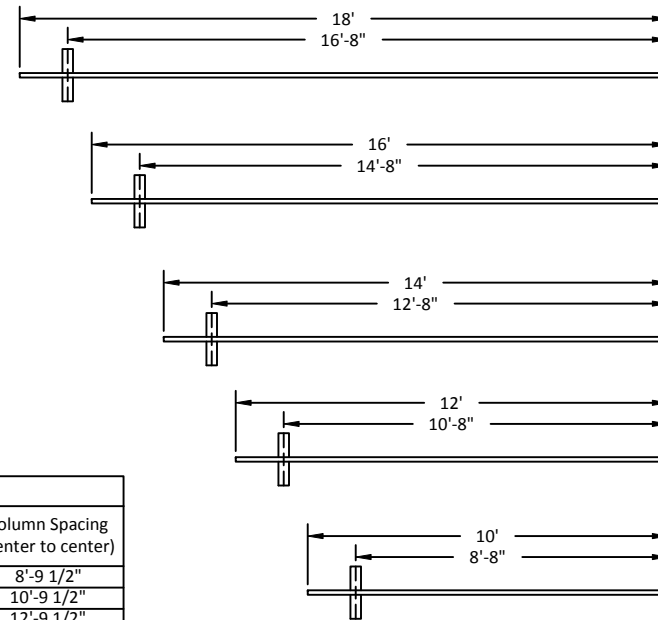
Notes:

1. Ledger is 2'-0" shorter than the overall pergola width.
2. Rafters have a standard overhang of 1'-4" from the rafter end to the center of the beam. Standard rafter overhangs may be adjusted with a minimum of a 1'-2" overhang.
3. Beams have a standard overhang of 2'-0" from the end of the beam to the center of the column. Standard overhangs may be adjusted, with a minimum of 1'-6" overhang.



Pergola Width Column Spacing - Plan View

Freestanding Pergola Column Spacing			
Pergola Width (beam length)	Column Spacing (center to center)	Pergola Projection (rafter length)	Column Spacing (center to center)
10'-0"	6'-0"	10'-0"	8'-9 1/2"
12'-0"	8'-0"	12'-0"	10'-9 1/2"
14'-0"	10'-0"	14'-0"	12'-9 1/2"
16'-0"	12'-0"	16'-0"	14'-9 1/2"
18'-0"	14'-0"	18'-0"	16'-9 1/2"



Pergola Projection Column Spacing - Plan View

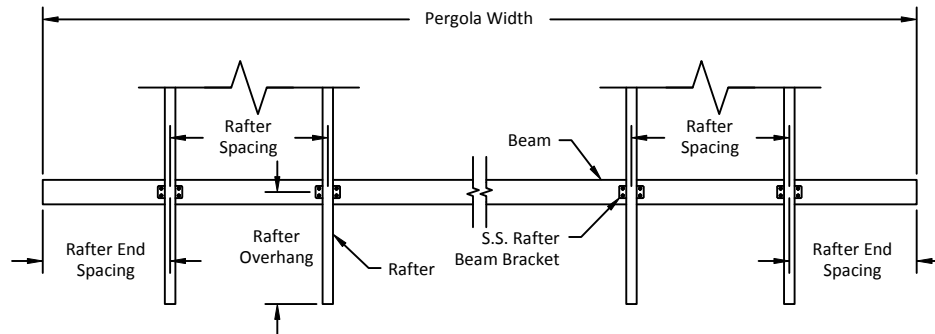
DRAWING TITLE:

PERGOLA LAYOUT ATTACHED

SHEET:

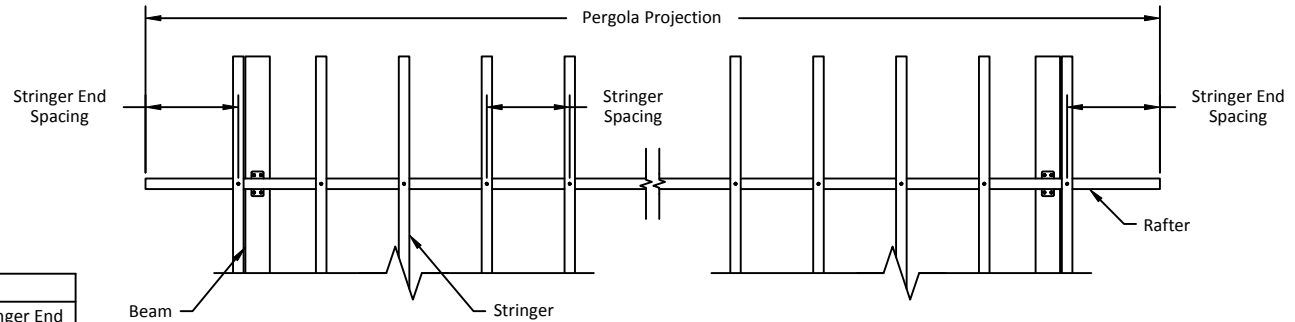
PL02

Rafter Spacing on Beam			
Pergola Width (beam length)	Number of Rafters	Rafter End Spacing	Rafter Spacing (center to center)
10'-0"	5	1'-6 1/4"	1'-8 7/8"
12'-0"	6	1'-6 1/4"	1'-9 1/2"
14'-0"	7	1'-6 1/4"	1'-9 15/16"
16'-0"	8	1'-6 1/4"	1'-10 3/16"
18'-0"	9	1'-6 1/4"	1'-10 7/16"

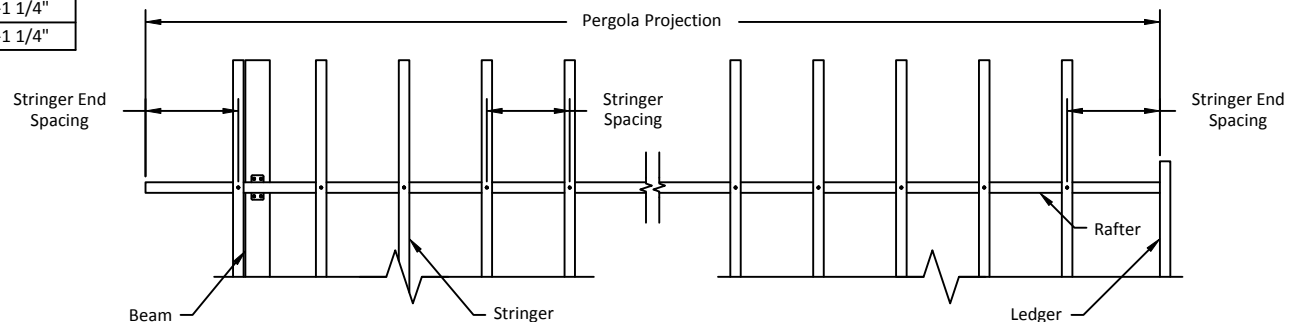


Rafter & Rafter Beam Bracket Layout

Stringer Spacing			
Pergola Projection (rafter length)	Number of Stringers	Stringer Spacing (center to center)	Stringer End Spacing
10'-0"	9	11 11/16"	1'-1 1/4"
12'-0"	11	11 3/4"	1'-1 1/4"
14'-0"	13	11 13/16"	1'-1 1/4"
16'-0"	15	11 13/16"	1'-1 1/4"
18'-0"	17	11 7/8"	1'-1 1/4"



Freestanding Pergola Stringer Layout



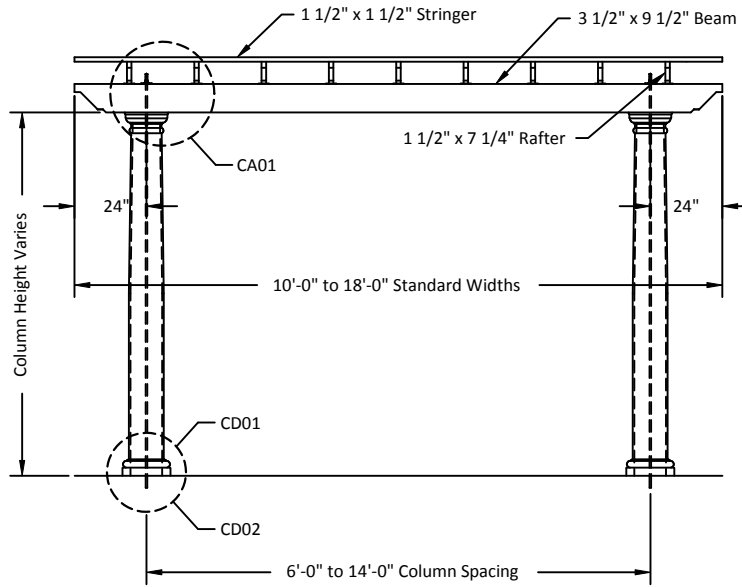
Attached Pergola Stringer Layout

DRAWING TITLE:

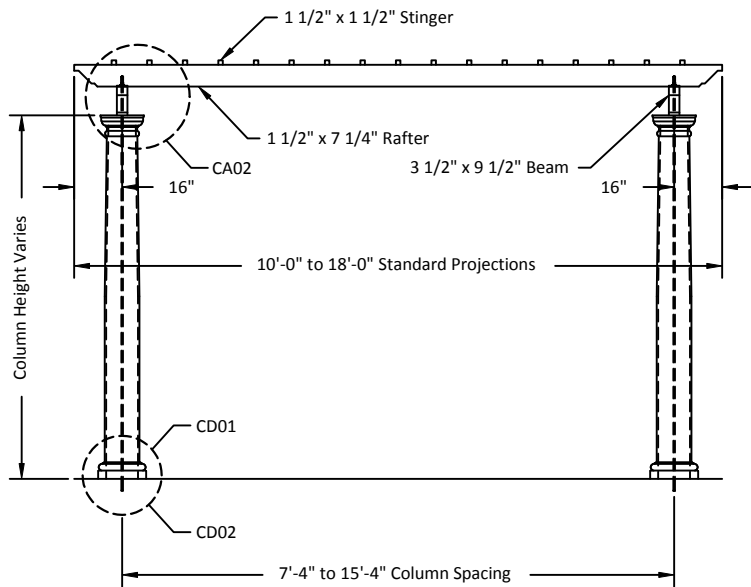
COMPONENT SPACING & INFORMATION

SHEET:

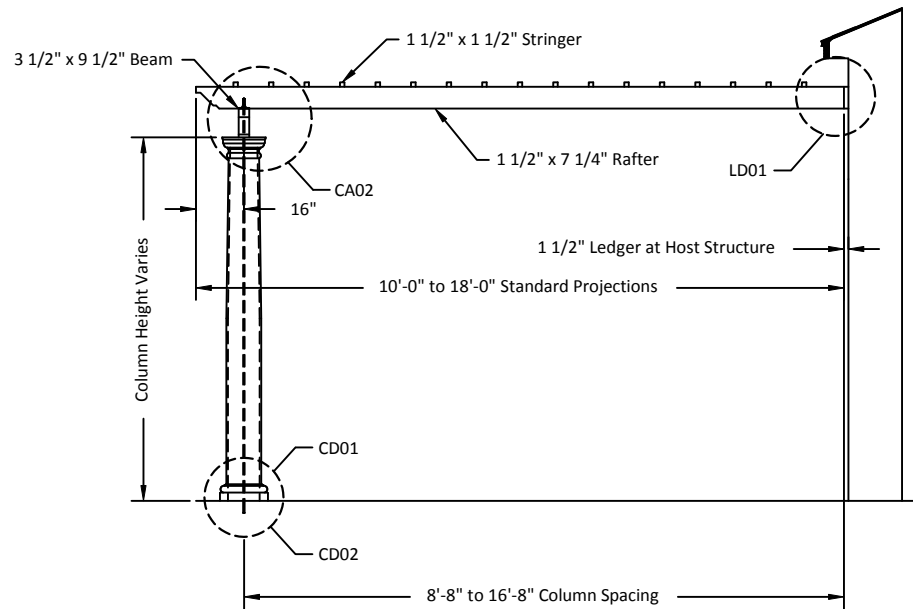
CS01



Front Elevation
Attached or Freestanding Model



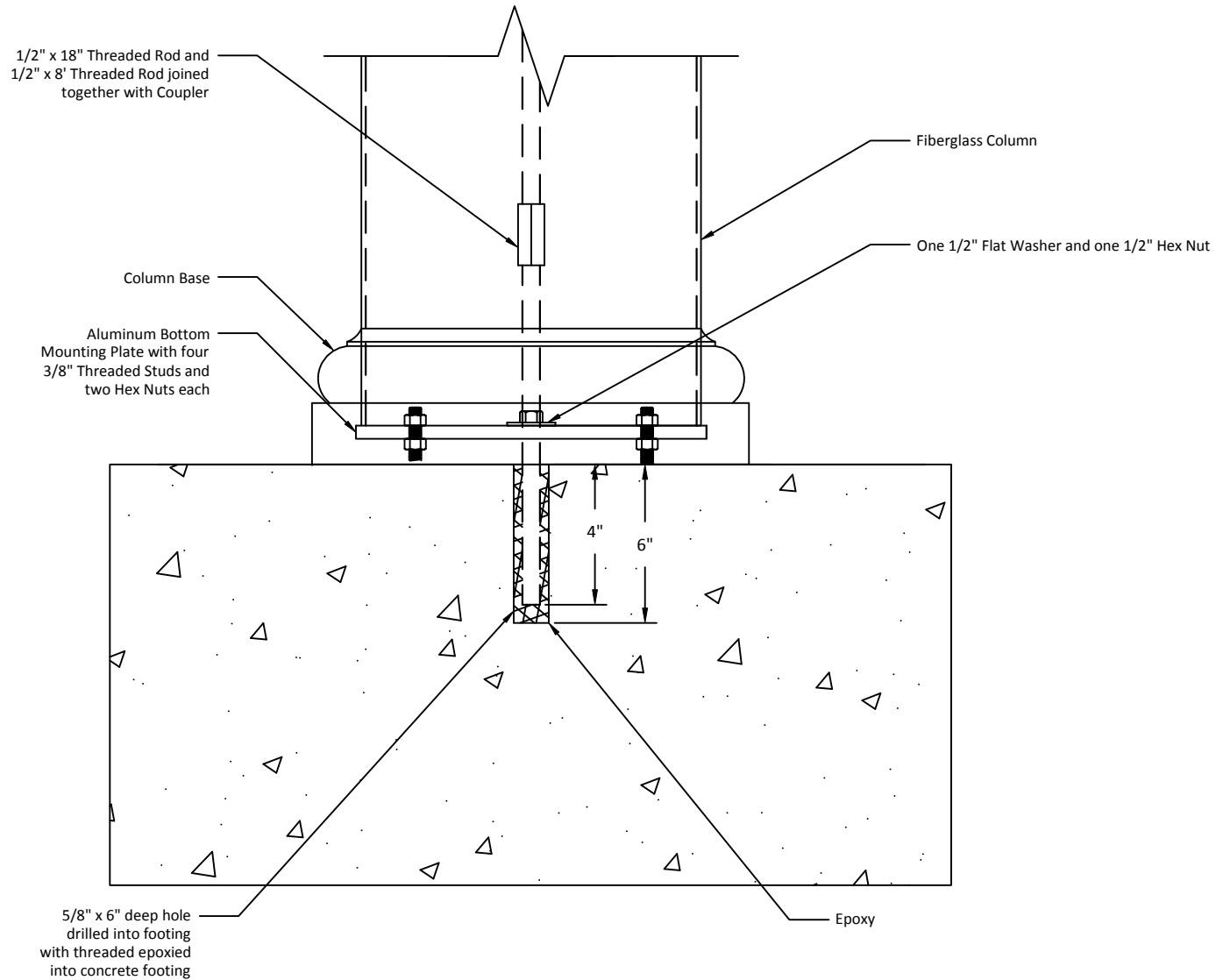
Side Elevation
Freestanding Model



Side Elevation
Attached Model

Notes:

1. The 1/2" x 18" threaded rod should be inserted into the epoxy in a twisting motion to ensure the epoxy flows into the threads of the rod.
2. Once the bottom aluminum mounting plate has been leveled and installed, screw the coupler on to the top of the 18" threaded rod, (ensure the half of the coupler depth is left to receive the 8' threaded rod). Next, place the column base trim around the mounting assembly on the ground. Then, lift the column shaft over the 18" threaded rod and set it on the bottom aluminum mounting plate and into the column base trim. The 8' threaded rod should then be installed from above using a ladder. Ensure that the 8' threaded rod properly engages the coupler and is fully tightened before proceeding with column assembly. Some column lengths may require more than two pieces of threaded rod per column. Attach any additional threaded rods to the 8' length using coupler(s) and proceed as outlined above.



Column Attachment Detail - Concrete

DRAWING TITLE:

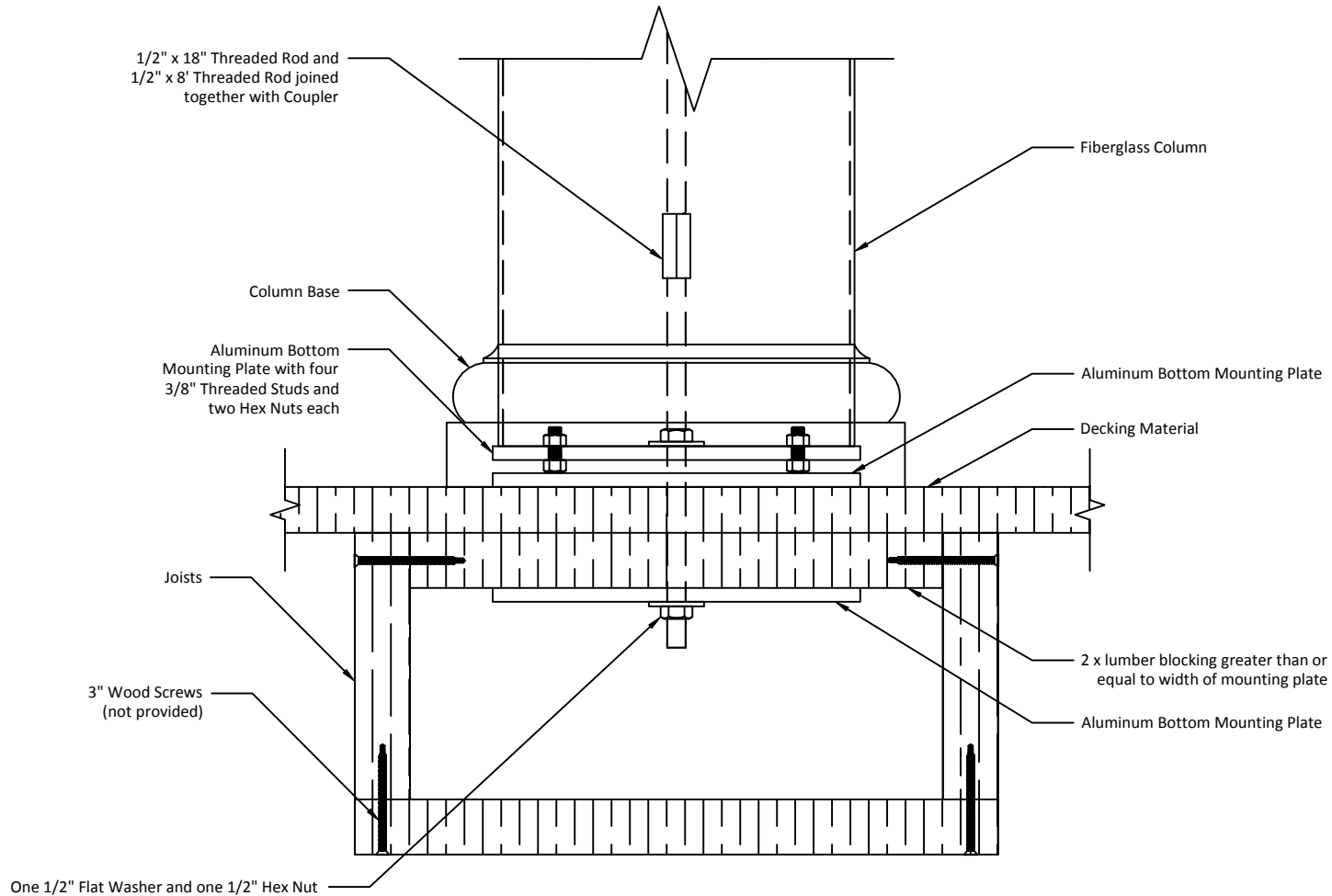
COLUMN
ATTACHMENT
DETAIL - CONCRETE

SHEET:

CD01

Notes:

Once the bottom aluminum mounting plate has been leveled and installed, screw the coupler on to the top of the 18" threaded rod, (ensure that half of the coupler depth is left to receive the 8' threaded rod). Next, place the column base trim around the mounting assembly on the ground. Then, lift the column shaft over the 18" threaded rod and set it on the bottom aluminum mounting plate and into the column base trim. The 8' threaded rod should then be installed from above using a ladder. Ensure that the 8' threaded rod properly engages the coupler and is fully tightened before proceeding with column assembly. Some column lengths may require more than two pieces of threaded rod per column. Attach any additional threaded rods to the 8' length using coupler(s) and proceed as outlined above.



Column Attachment Detail - Deck Framing

DRAWING TITLE:

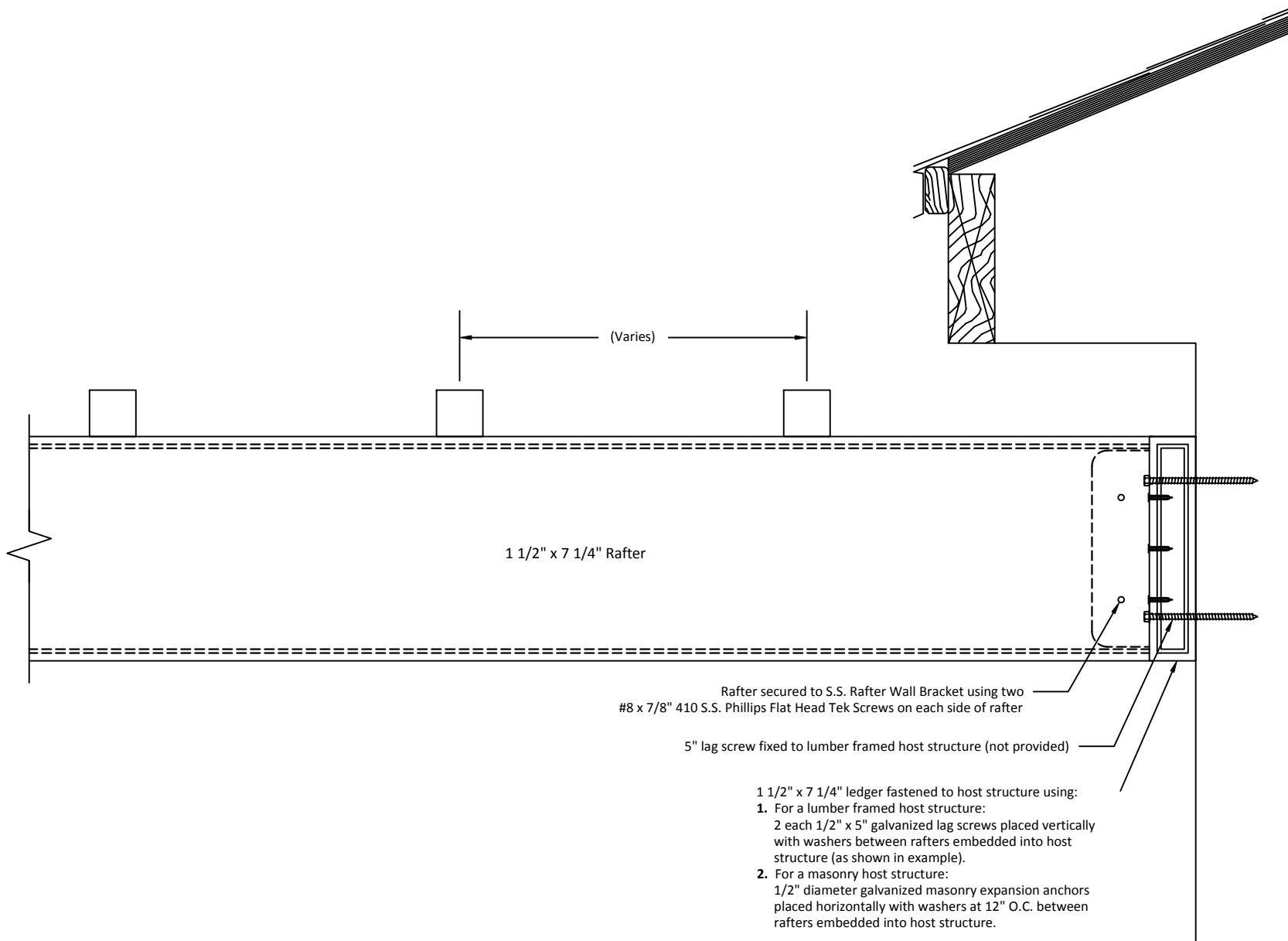
COLUMN
ATTACHMENT
DETAIL - DECK
FRAMING

SHEET:

CD02

Notes:

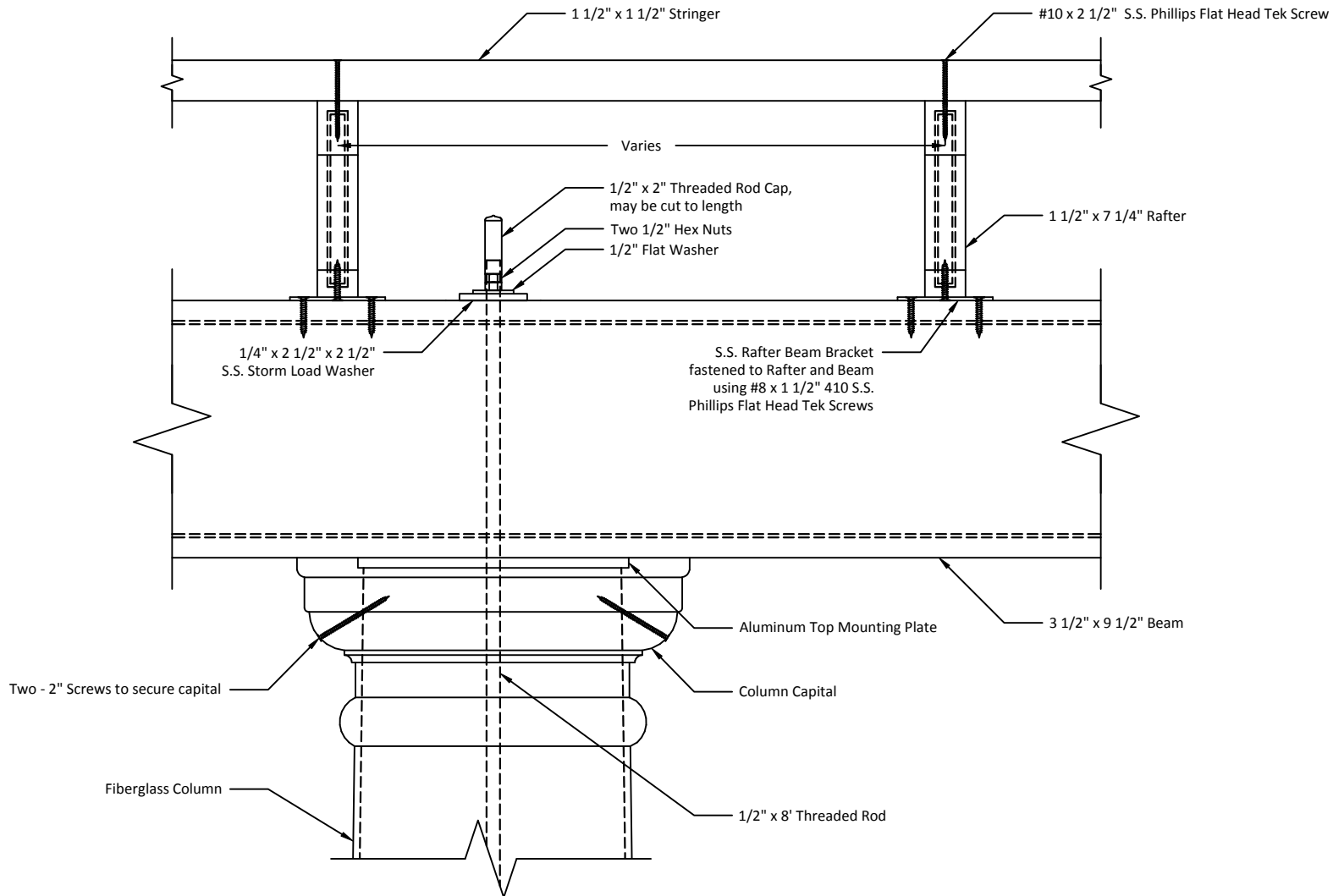
Ledger mounting height is determined by adding the actual installed height of the top of the columns, beam height, and any slope in mounting surface between the host structure wall and column location.



Ledger Detail

Notes:

1. The beam must be drilled with a 5/8" drill bit to receive the 1/2" threaded rod for attachment to the column assembly. The top of the beam should be marked 2' in from the end of the beam and 1 3/4" from the front and back sides of the beam. If the beam overhang has been adjusted, the measurement from the beam end will need to be adjusted as well. **It is critical that the hole is drilled straight and accurately to ensure the threaded rod will pass through the bottom hole and align with top hole.**
2. The column base trim should be positioned on the column shaft prior to lifting the column shaft and setting it on the bottom aluminum plate. Once the column shaft is in position, slide the mid-trim (square columns only), and capital onto the top of the column shaft. Once the pergola has been fully assembled, slide the mid-trim (square columns only) and capital into position. Secure the capital using two 2" pan head tek screws. Caulk the column base trim and mid-trim with a high quality exterior latex caulk to secure.



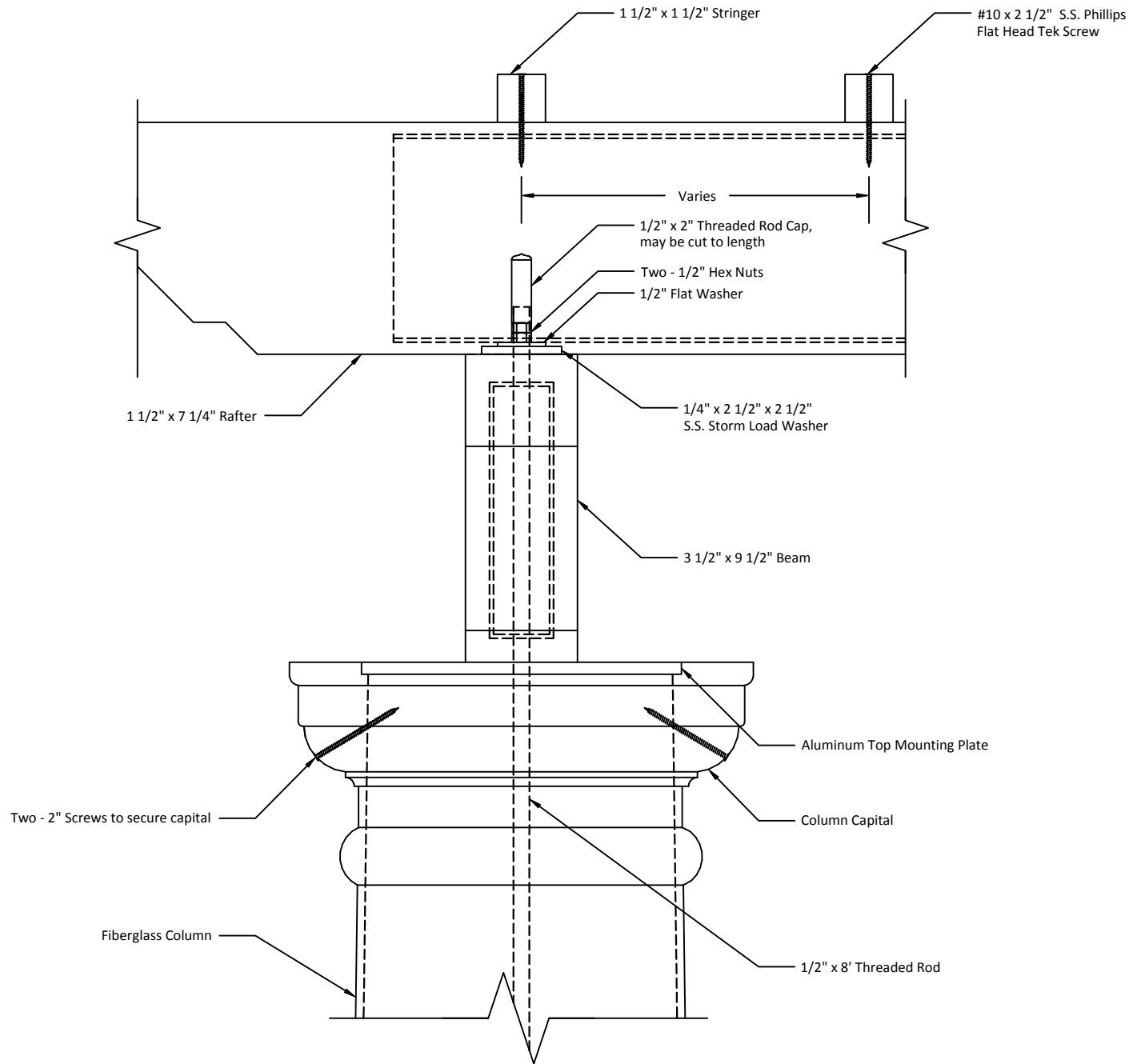
Component Attachment Detail - Width View

DRAWING TITLE:

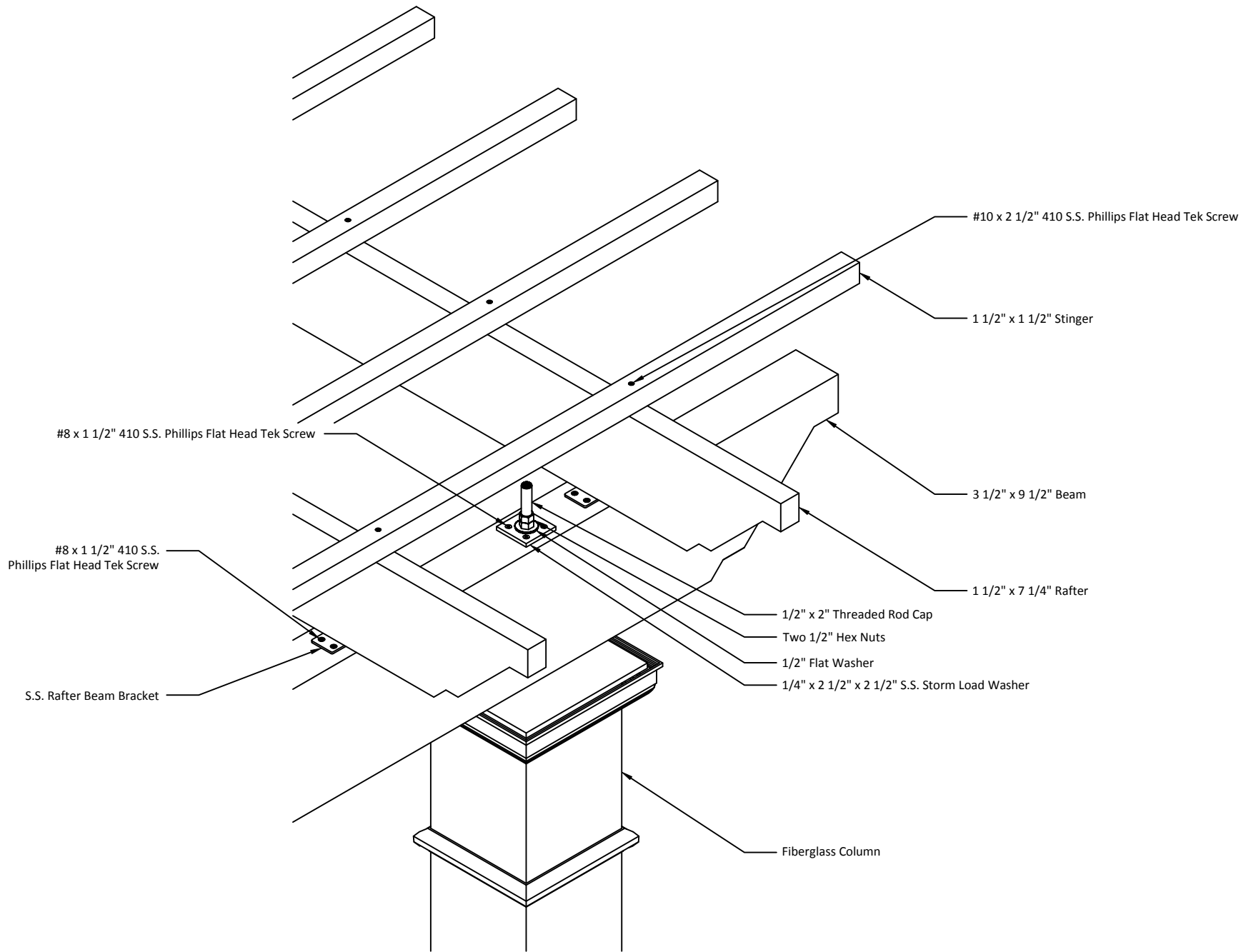
COMPONENT
ATTACHMENT
DETAIL - WIDTH
VIEW

SHEET:

CA01



Component Attachment Detail - Projection View



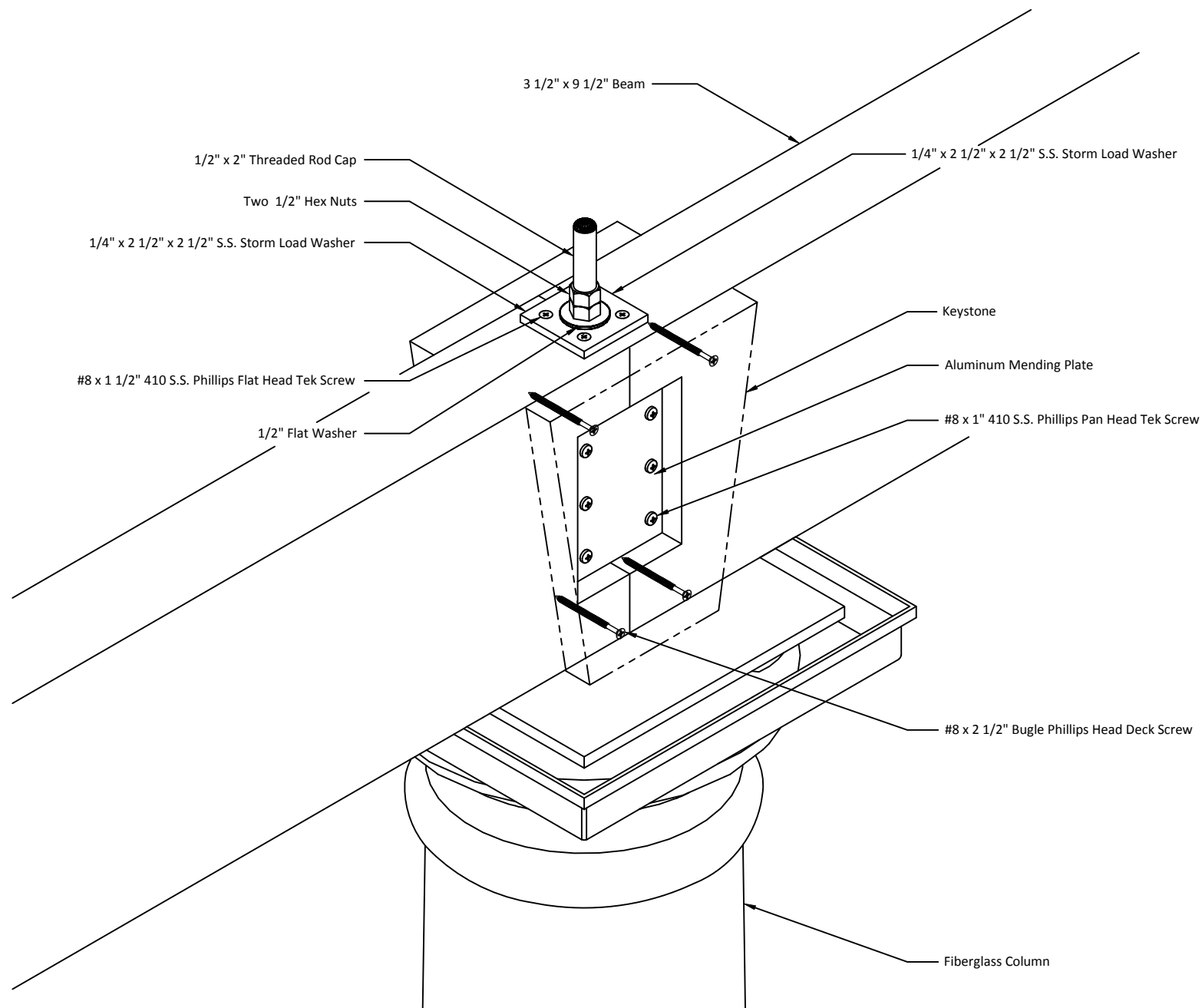
Component Attachment Detail

DRAWING TITLE:

COMPONENT
 ATTACHMENT
 DETAIL

SHEET:

CA03



Beam Splice Attachment Detail

DRAWING TITLE:

BEAM SPLICE
 ATTACHMENT
 DETAIL

SHEET:

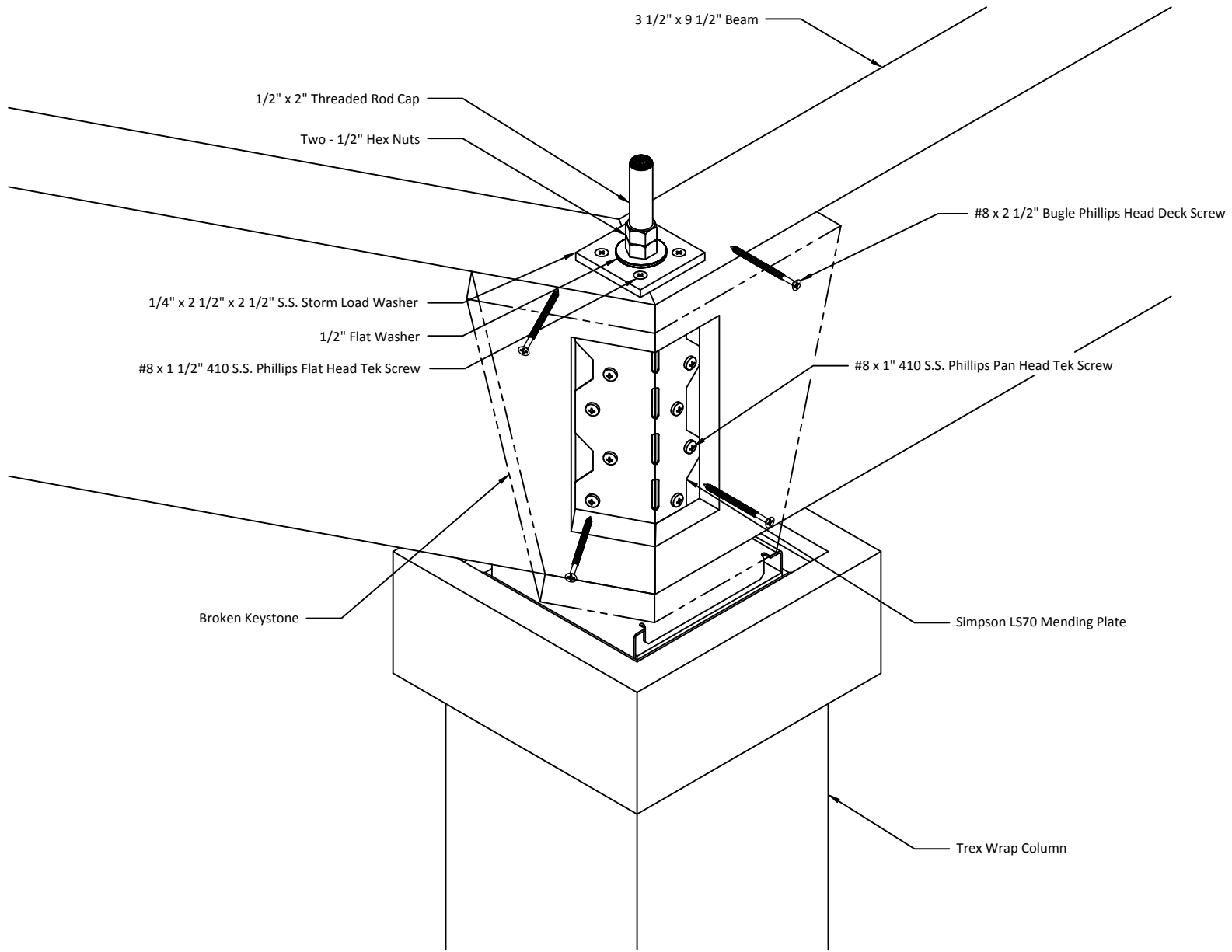
CA04

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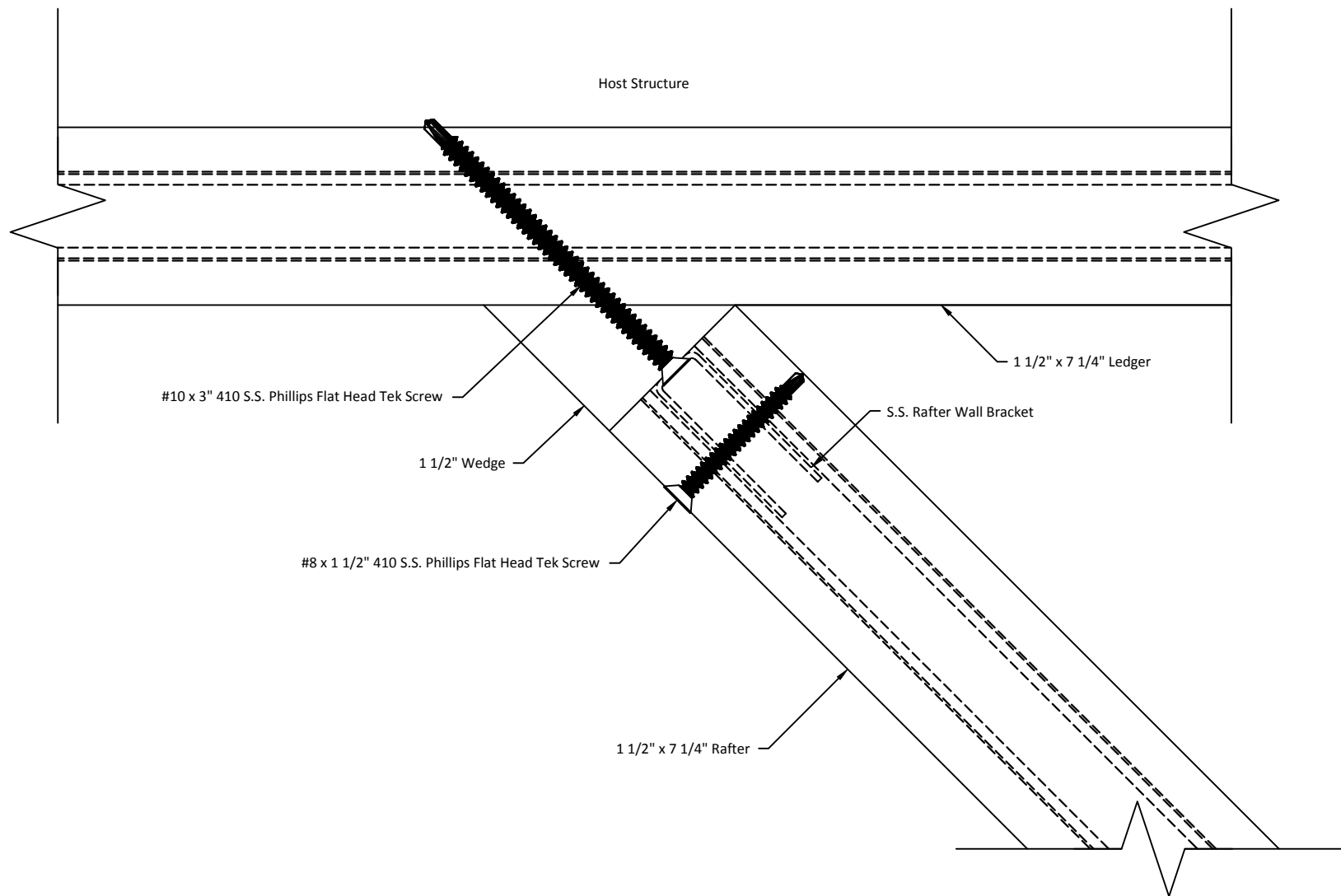
ANGLED BEAM
SPLICE
ATTACHMENT
DETAIL

SHEET:

CA05



Angled Beam Splice Attachment Detail



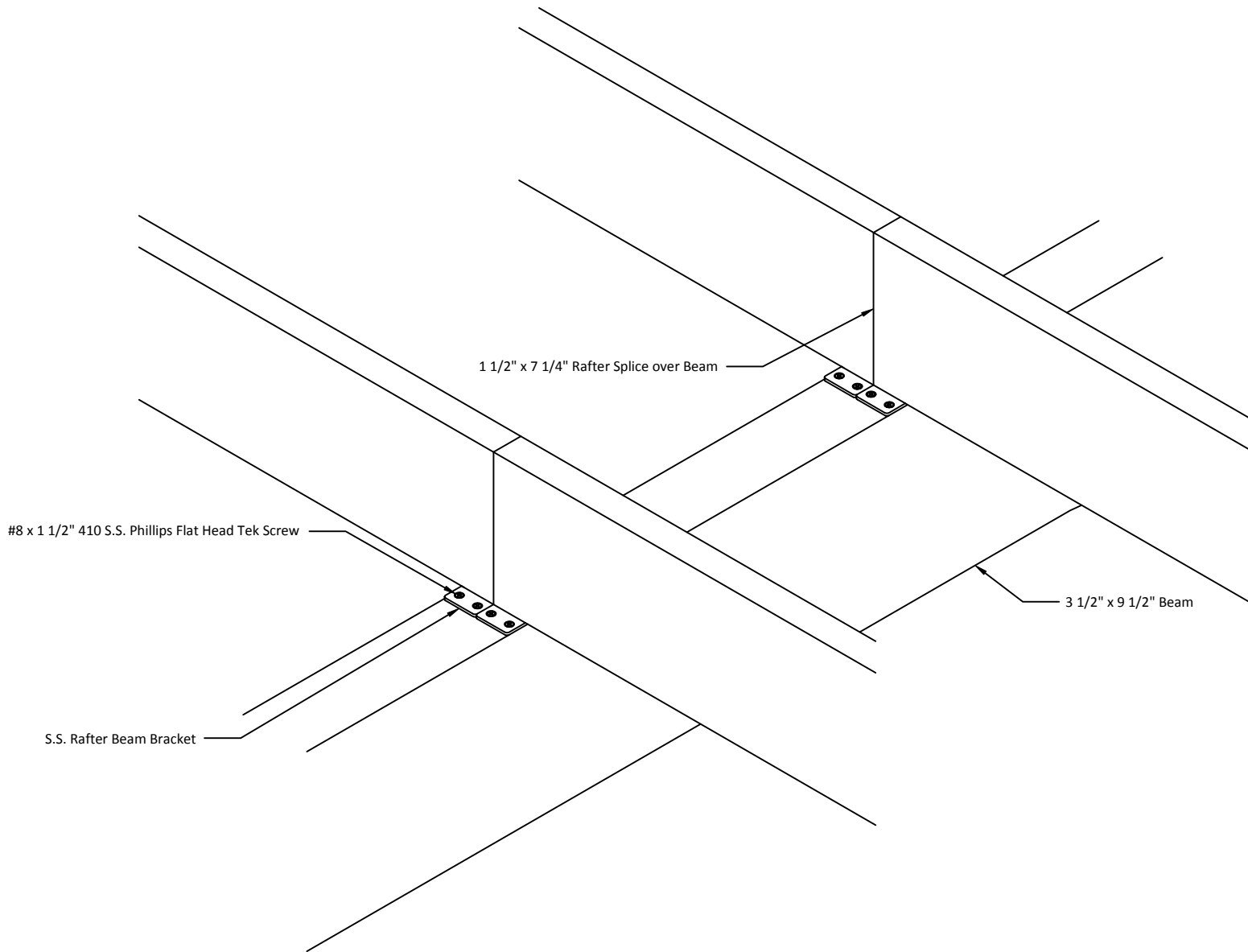
Angled Rafter to Ledger Attachment Detail

DRAWING TITLE:

ANGLED RAFTER TO LEDGER ATTACHMENT DETAIL

SHEET:

CA06



Rafter Splice over Beam Attachment Detail

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DRAWING TITLE:

RAFTER SPLICE
 OVER BEAM
 ATTACHMENT
 DETAIL

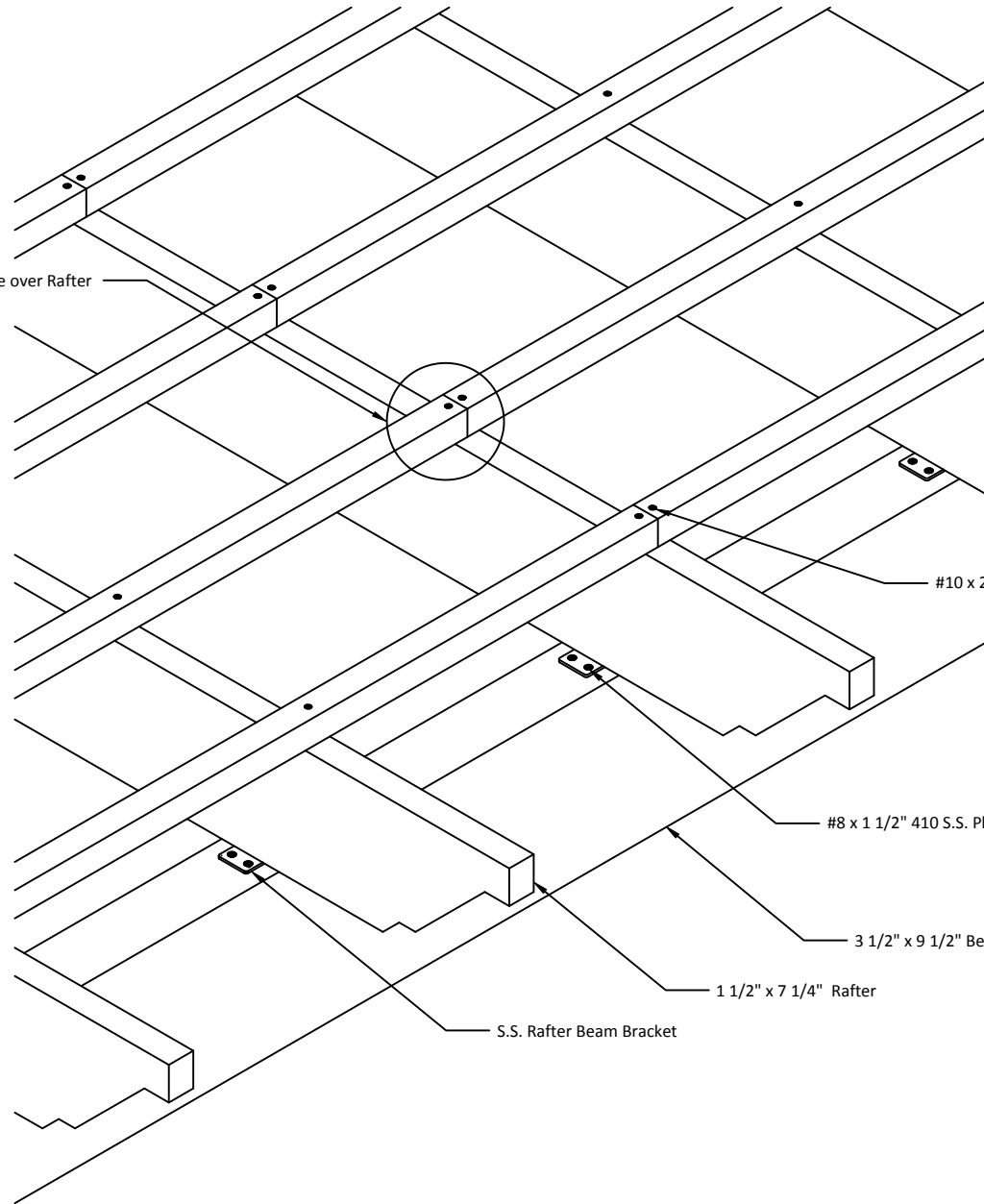
SHEET:

CA07

Trex® Pergola™

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1 1/2" x 1 1/2" Stringer Splice over Rafter



#10 x 2 1/2" 410 S.S. Phillips Flat Head Tek Screw

#8 x 1 1/2" 410 S.S. Phillips Flat Head Tek Screw

3 1/2" x 9 1/2" Beam

1 1/2" x 7 1/4" Rafter

S.S. Rafter Beam Bracket

Stringer Splice over Rafter Attachment Detail

Trex Pergola™

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DRAWING TITLE:

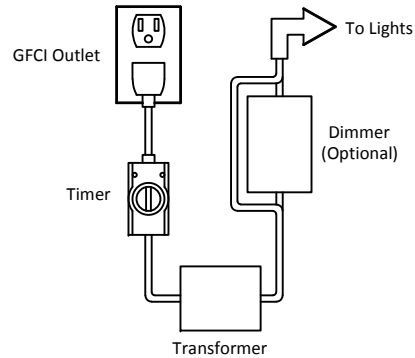
STRINGER SPLICE
OVER RAFTER
ATTACHMENT
DETAIL

SHEET:

CA08

General Information

1. Always consult local codes before beginning a project.
2. Straight runs over 100' may require 16 or 14 gauge wire.
3. Use Trex Transformer only. Use of any other transformer voids warranty.
4. Connection to a GFCI outlet is required.
5. The optional dimmer remote will work within a 30' radius of the unit.
6. The optional dimmer must be installed in a dry location. Keep dimmer remote ID # in a safe place in case replacement remote is needed.
7. The timer must be installed vertically with the receptacle facing downwards. The timer must be in view of the sun to use the dusk/dawn feature.



Select the mode of operation:

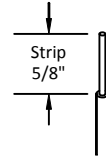
- Dusk to Dawn
- 1 - 8 hours
- Always On
- Off

When power is flowing to lights, the green light above POWER is on.

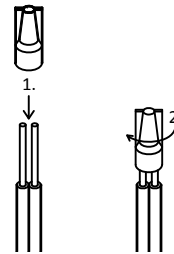
Transformer Capacity	
Type of Light	2.5A Transformer (2.5DL Transformer)
Recessed Light	60
Riser Light	120
Post Cap Light	30
Deck Rail Light	120

Making Connections

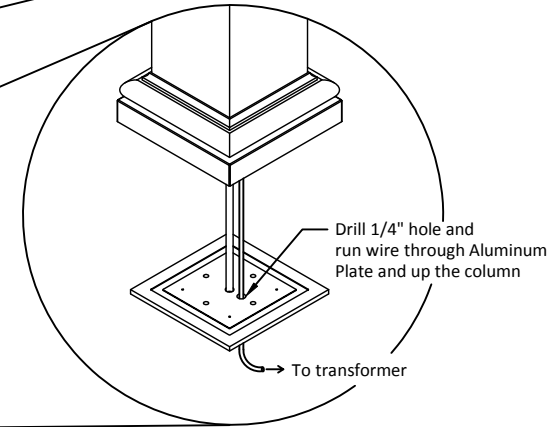
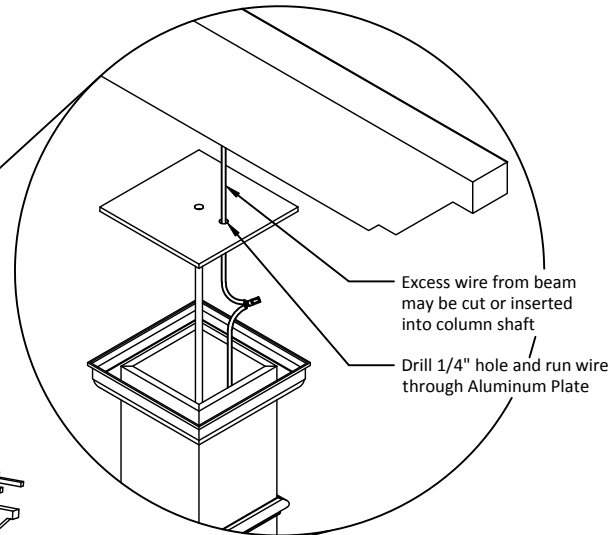
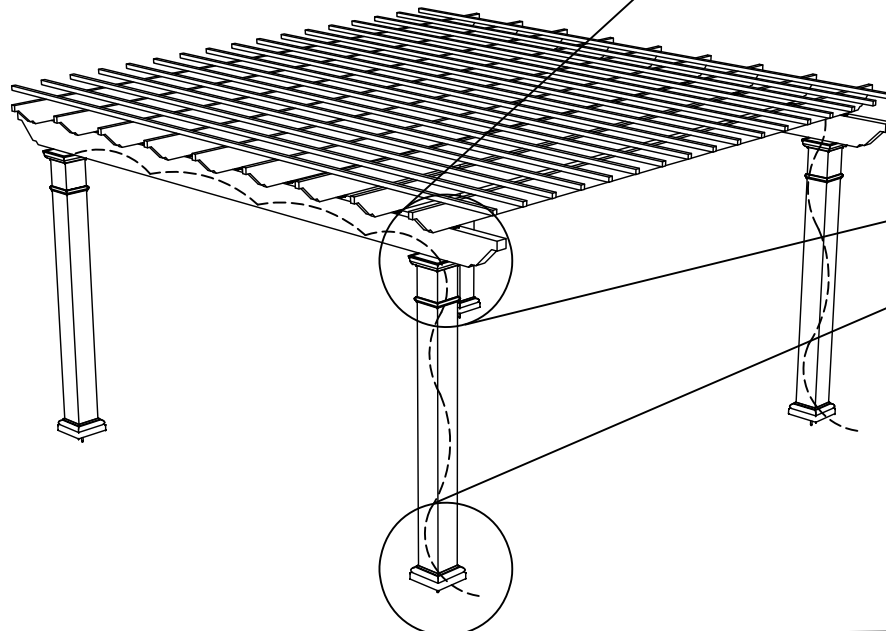
- Polarity must be maintained through wiring system. Always attach the same side of the 18 gauge wire to the red wires on the lights. The red wires are positive.
 - The wire nuts supplied are gel-filled and waterproof. These wire nuts can safely attach up to four wires.
1. Strip wires to 5/8". Align any frayed strands of the conductors. Pre-twisting is not required.



2. Place stripped wires together with insulation even. Twist connector onto wires pushing firmly until hand-tight. DO NOT over torque. Wipe sealant in and around conductors and connector opening while tightening. DO NOT reuse.



3. Be sure to temporary connect transformer to the wire at the bottom of the column(s) to ensure all lights illuminate properly before securing beam and proceeding with pergola installation.



Trex Pergola™

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DRAWING TITLE:

LIGHTING
INSTALLATION

SHEET:

LT01