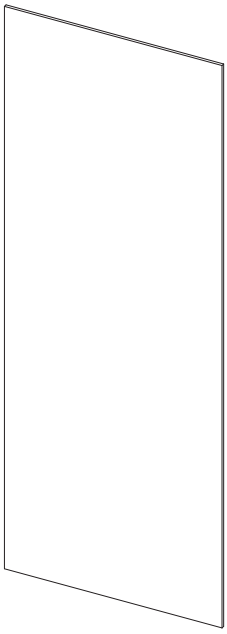


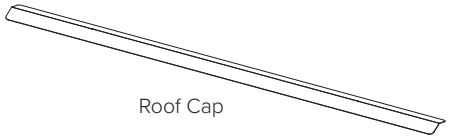
Upright



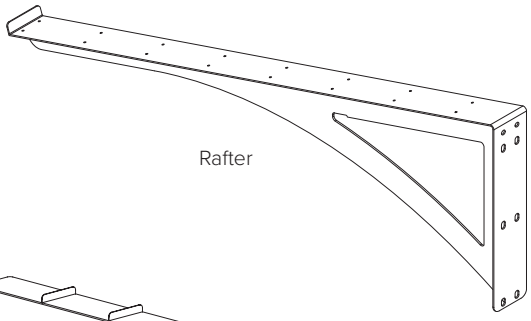
Polycarbonate



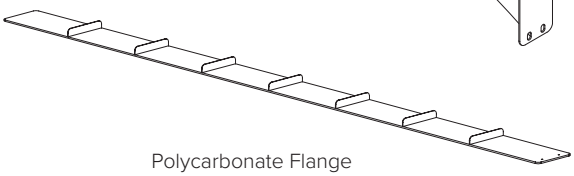
Polycarbonate Drop



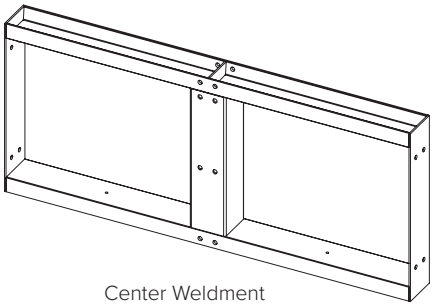
Roof Cap



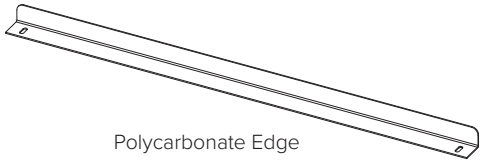
Rafter



Polycarbonate Flange



Center Weldment
(Short length shown above)



Polycarbonate Edge

Bolt
.25” x 6.5”



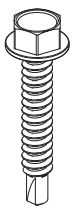
Bolt
.625” x 1.5”



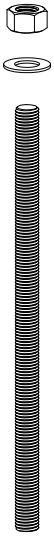
Bolt
.625” x 7.5”



Self Drilling Screw
.25” x 1.5”



Threaded Rod
.75” x 14”

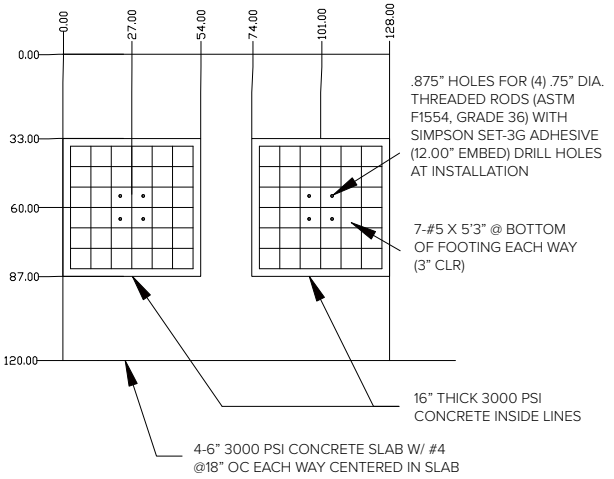


Rev E

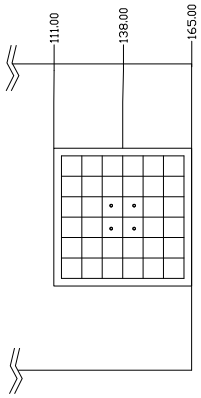
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GENERAL STRUCTURAL NOTES:
1. FOOTING CONCRETE STRENGTH = 3000 PSI
2. REBAR STRENGTH = 60 KSI (ASTM A615, GRADE 60)
3. THREADED RODS = 36 KSI (ASTM F1554, GRADE 36)
4. ADHESIVE = SIMPSON SET 3G. NOTE THAT SPECIAL INSPECTION OF BOLT INSTALLATION IS REQUIRED PER IBC 2015.
5. FOOTING SHALL BE PLACE ON WELL COMPACTED AND FREE DRAINING SOIL.
6. DESIGN PER IBC 2015, RISK CATEGORY 1
SNOW: 60 PSF GROUND SNOW
WIND: 105 MPH, EXP. B
SEISMIC: DESIGN CATEGORY A-C

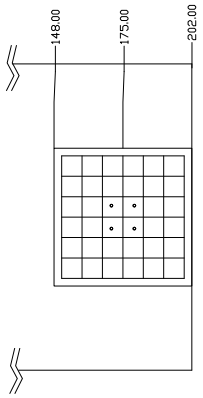
KOLO (SHORT)

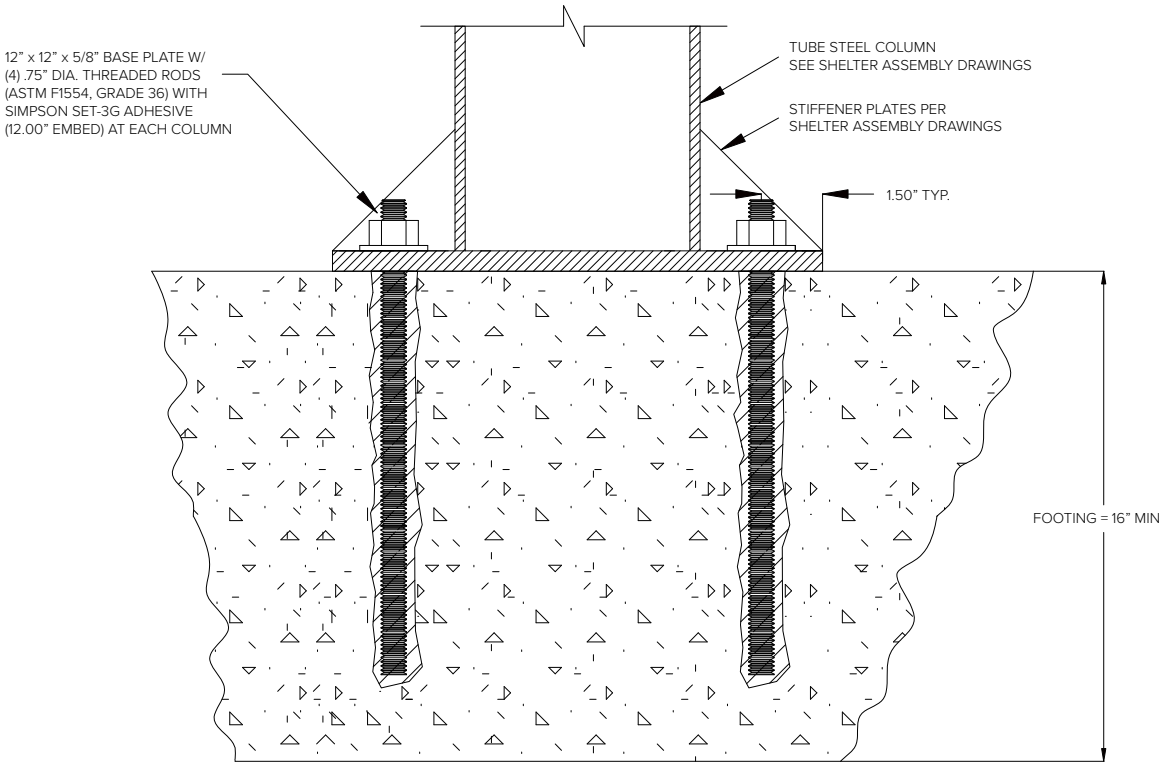


KOLO (MEDIUM)



KOLO (LONG)





Rev E

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TOOLS NEEDED

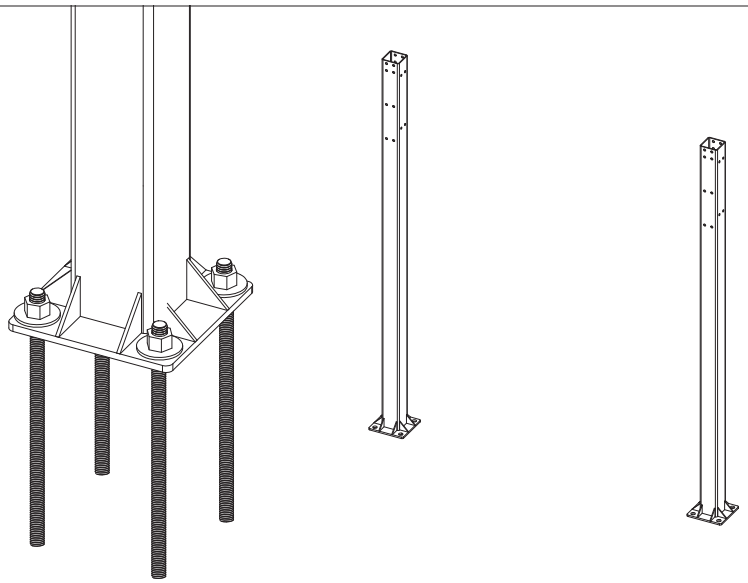
Tape Measure
Marker or chalk
Level
Sledge Hammer
Rubber Mallet
Large Hammer Drill
Standard Drill

3/8” Socket with drill attachment
7/8” Diameter Masonry Bit
3/4” Wrench/Socket
15/16” Wrench/Socket (2)
1 1/8” Wrench/Socket
1 1/4” Wrench
Spud Wrench

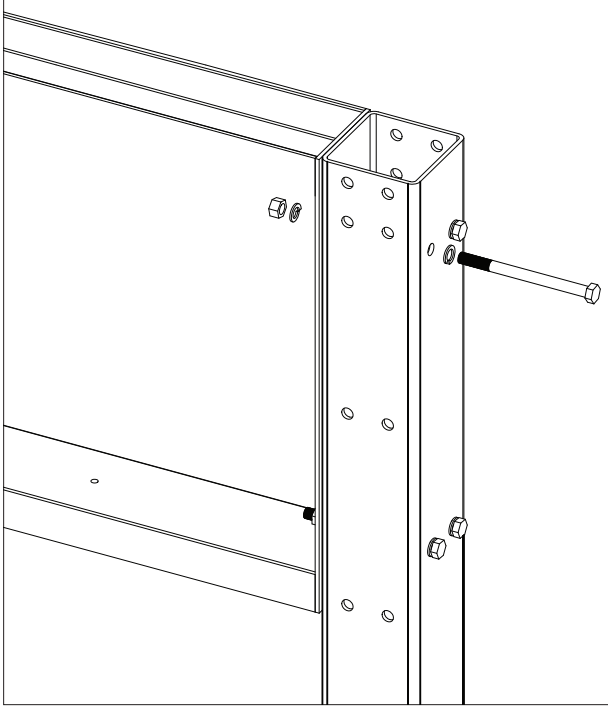
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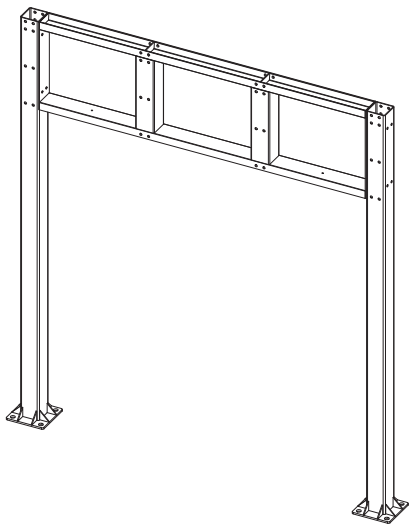
Place Uprights based on footing diagram and drill (4) 7/8” diameter holes in concrete 12” deep for each Upright. Arrange special inspection of anchor holes and anchor/ epoxy installation per IBC 2012. Consult Simpson Set 3G epoxy instructions for further detail.

After inspection a sufficient epoxy cure time, the Uprights may be placed over the threaded rod and secured with washers and nuts finger-tight.



2

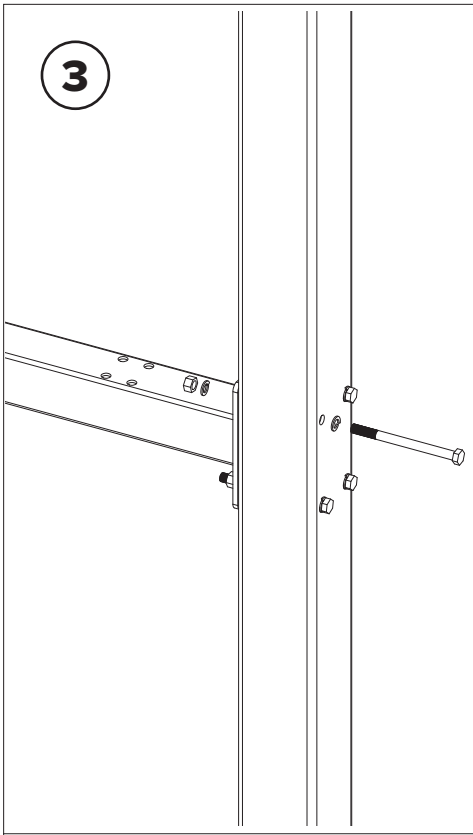


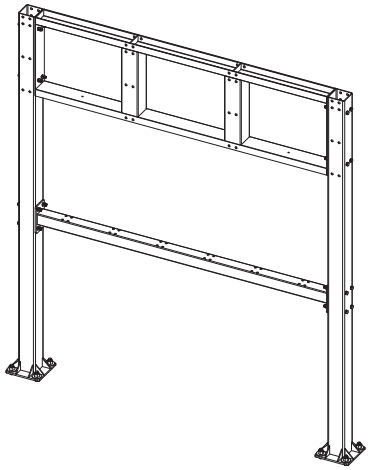


Lift the Center in place and fasten finger-tight with (8) 5/8” x 7.5” bolts, lock washers and nuts.

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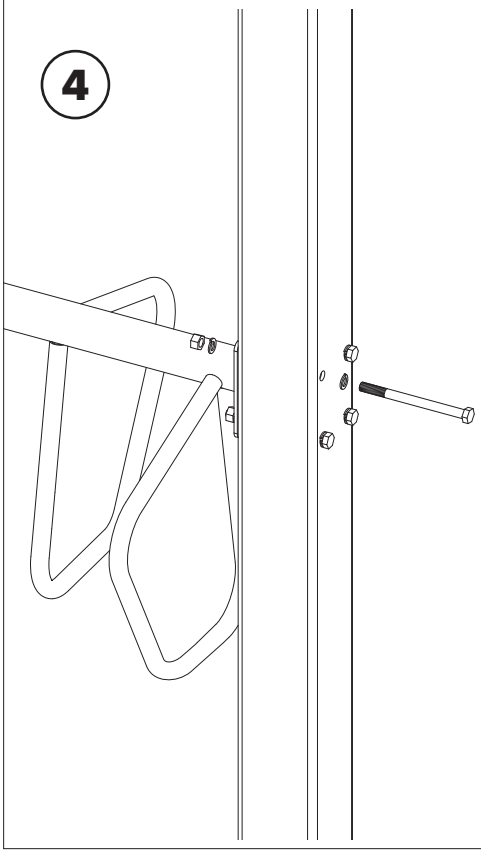
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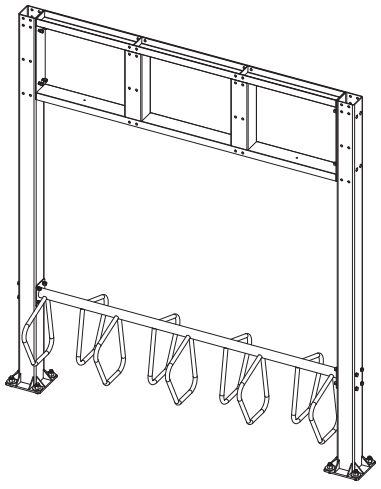




If building a Kolo shelter with Dero Decker racks, lift the Dero Decker Beam in place and fasten with (8) 5/8” x 7.5” bolts, lock washers and nuts.

4

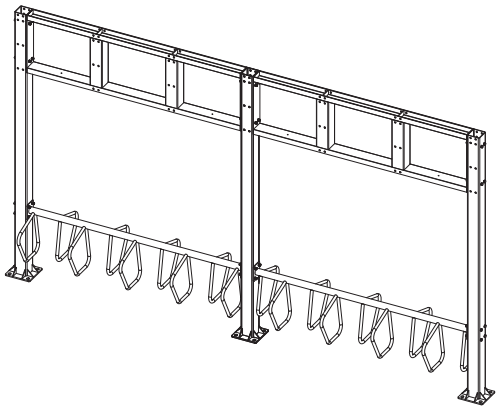




If building a Kolo shelter with Dero Decker racks, lift the Dero Decker Beam in place and fasten with (8) 5/8” x 7.5” bolts, lock washers and nuts.

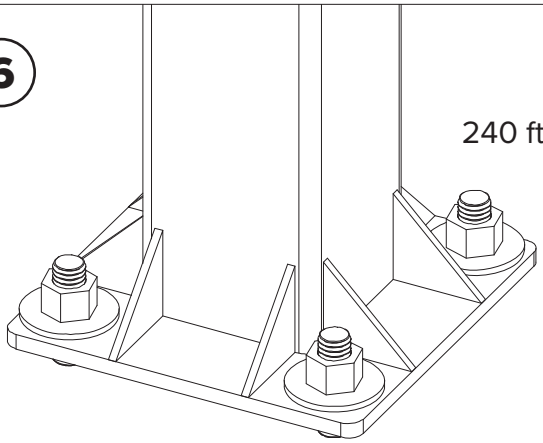
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5



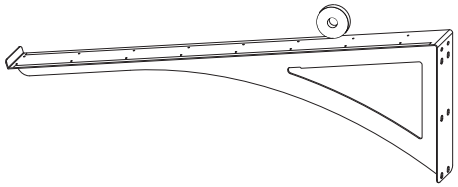
If building a modular system of Kolo shelters, continue to place and fasten Uprights, Center Weldments, and Dero Decker Beams/Campus Racks.

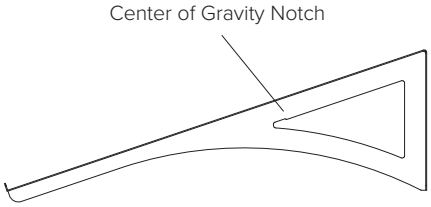
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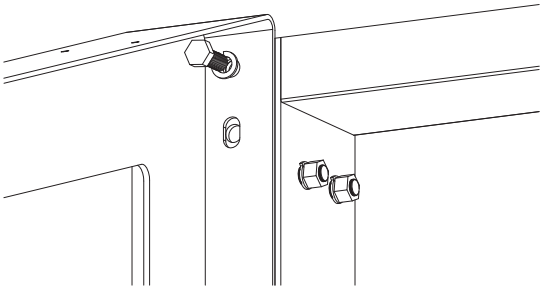


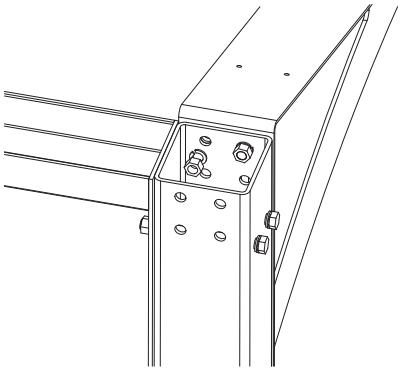
Fully tighten all bolts and nuts. Then tighten Simpson Torq-Cut anchor nuts to 240 ft-lbs.

7





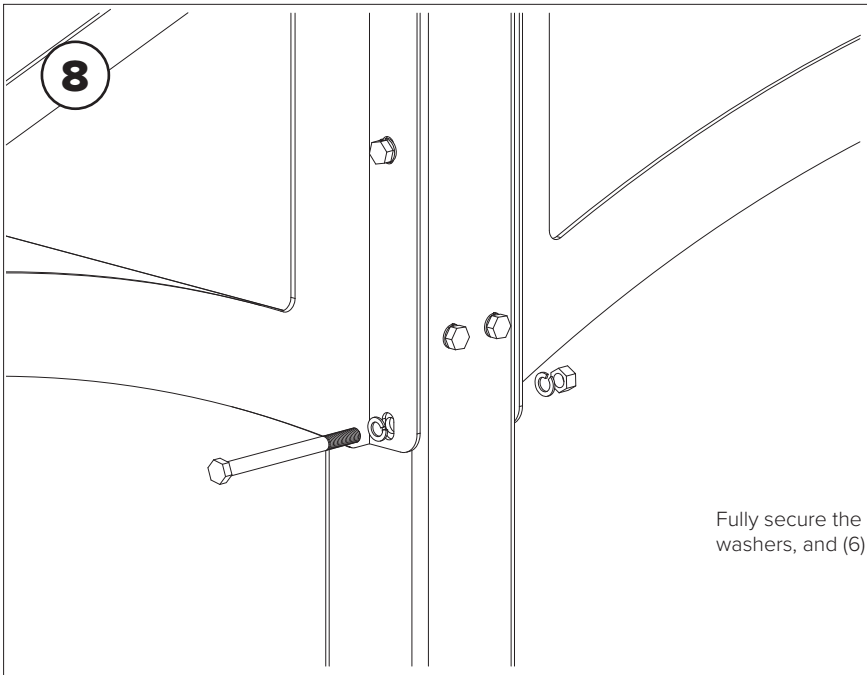


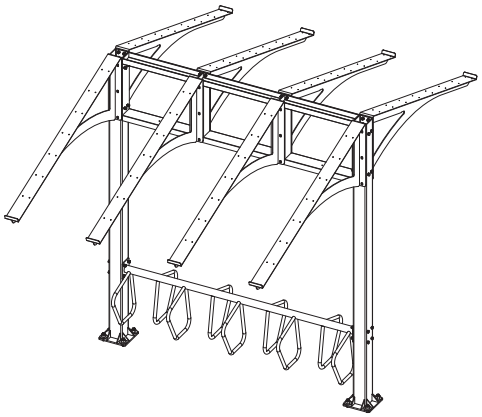


Apply foam rubber tape to the Rafter without covering .30” holes. Working from one end of the shelter to the other, lift a Rafter into place using a lifting strap. Secure the lifting strap at the rafter’s center of gravity which is indicated by a notch at the apex of the Rafter cut-out. Once the Rafter is in place, fasten the rafter to the Upright with (2) 5/8” x 1.5” bolts, (4) lock washers, and (2) nuts using the two upper-most holes. Continue to fasten all remaining Rafters with the above method.

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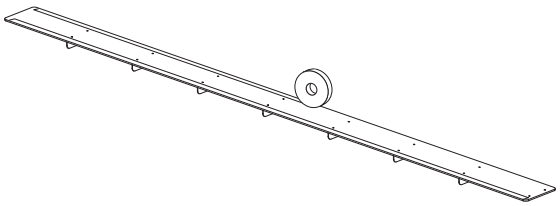
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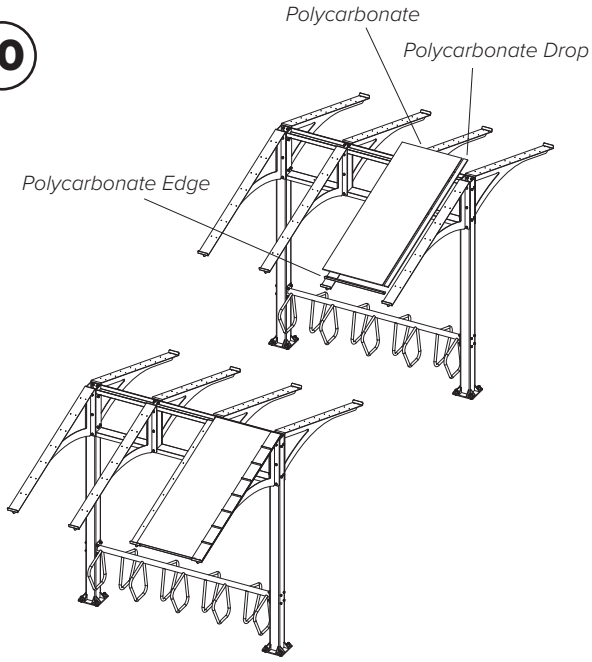
Fully secure the Rafters with (6) 5/8” x 7.5” bolts, (12) lock washers, and (6) nuts for each pair of Rafters

9



Apply foam rubber tape to the Polycarbonate Flange without covering .20” holes.

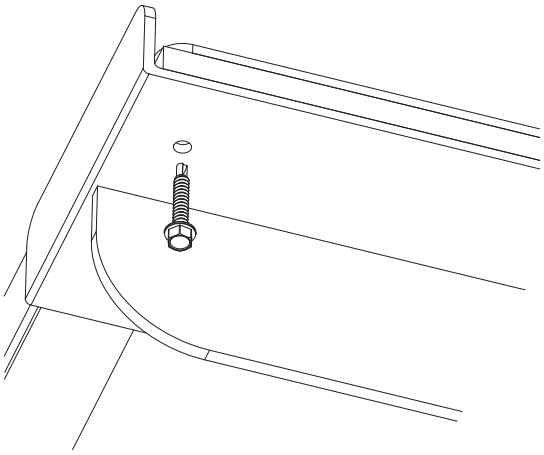
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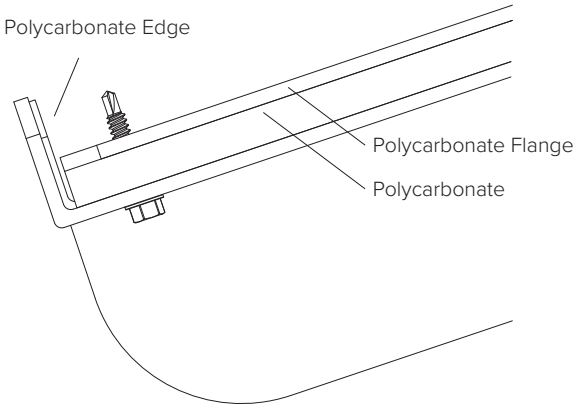


Place (1) Polycarbonate Drop, (1) Polycarbonate, (1) Polycarbonate Edge in place. Make sure the Polycarbonate Drop is flush with the outside edge of the Rafter and that the Polycarbonate is centered between both Rafters. Use care to not scratch the Polycarbonate. Using the 16 holes in the Polycarbonate Flange and 16 holes in the Rafter, align the Polycarbonate Flange over the Rafter so that the Polycarbonate and Polycarbonate Drop are sandwiched between them.

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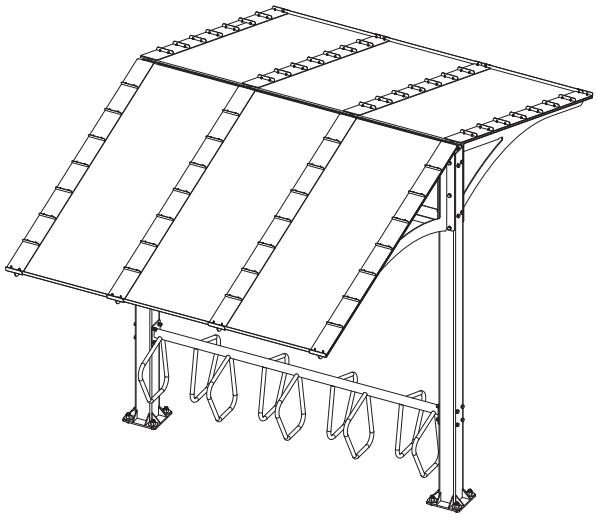
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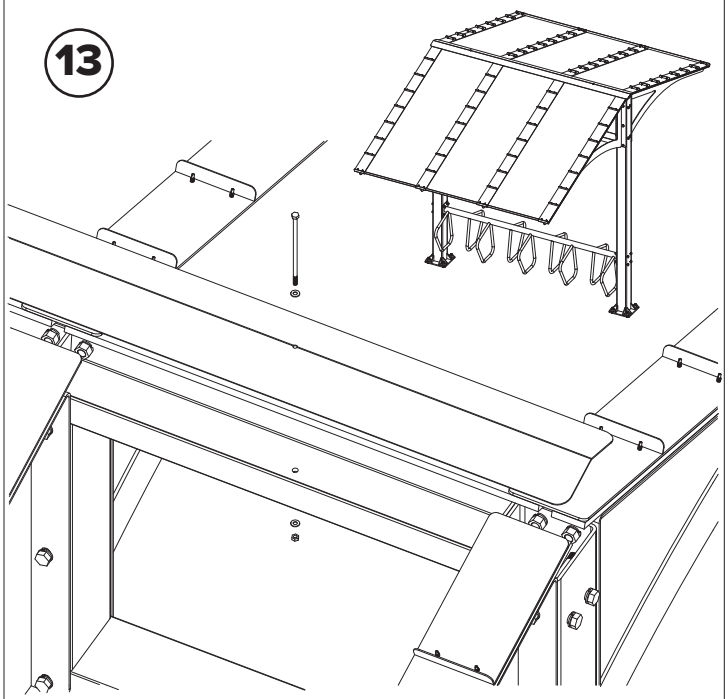
Starting at the holes furthest from the shelter center, secure the Polycarbonate Flange with (16) 1/4” x 1.5” self-drilling screws. It is recommended that the assembly be clamped together while fastening the first two screws. The self-drilling screws will pass through the Rafter, drill through the Polycarbonate, and tap through the Polycarbonate Flange.

12



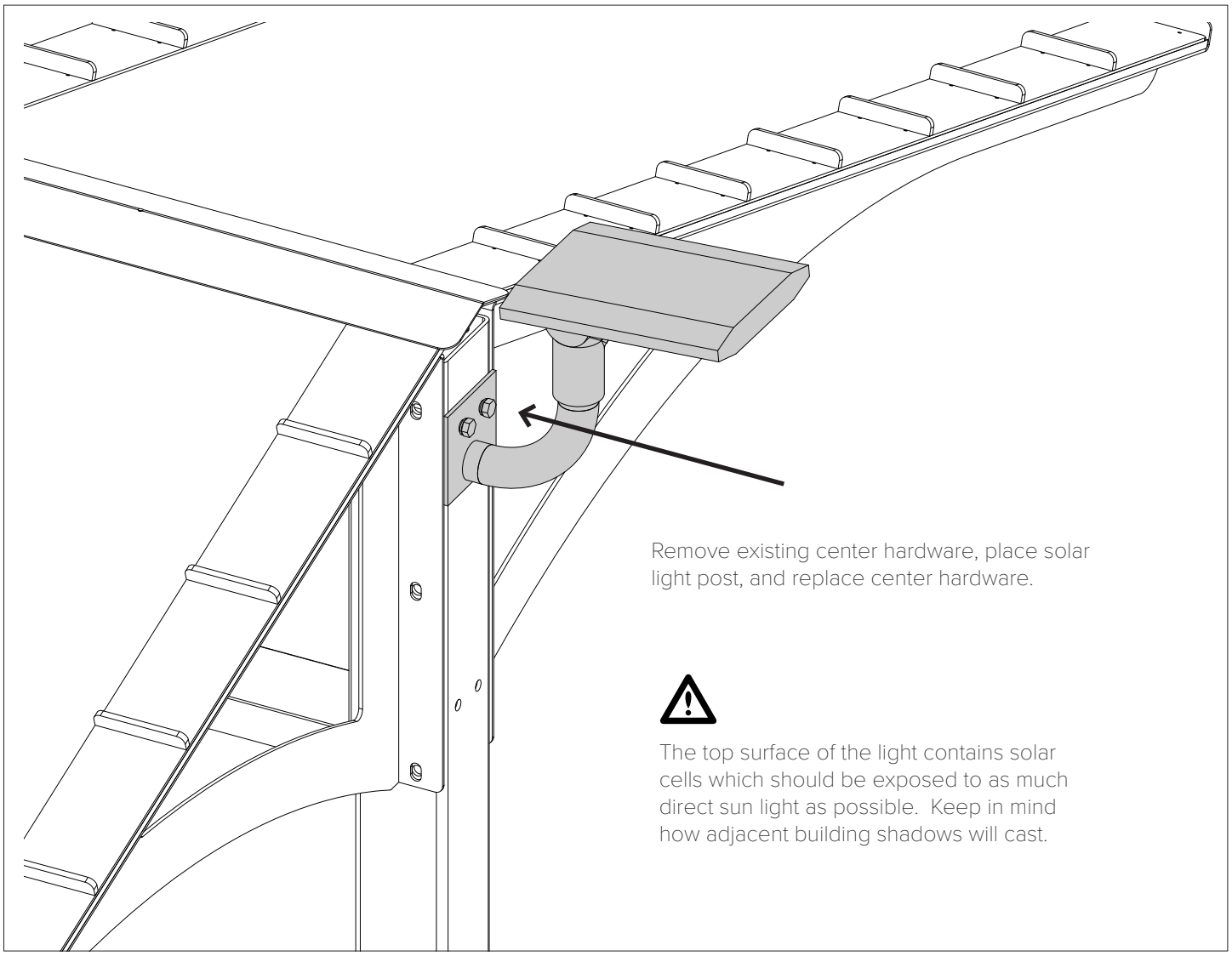
Continue installing the remaining Polycarbonates, Polycarbonate Drops, Polycarbonate Edges, and Polycarbonate Flanges.

13



Place the Roof Cap on top of the shelter and secure with (2) 1/4” x 6.5” bolts, (4) washers, and (2) lock nuts. Do not over-tighten to avoid bowing of the Roof Cap.

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Remove existing center hardware, place solar light post, and replace center hardware.

The top surface of the light contains solar cells which should be exposed to as much direct sun light as possible. Keep in mind how adjacent building shadows will cast.

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