Kehillat BETH ISRAEL

HOME DEPOT CANADA DIY GUIDE

Modular Kosher Sukkah Builder

Step-by-step IKEA-style build manual for reusable **8'x8'x8'** and extended **16'x8'x8'** Sukkot using standard Home Depot lumber and hardware.

TOOL-FREE RE-ASSEMBLY

Designed as a modular bolt kit with wing nuts. Pre-drill once, assemble/disassemble in 30 mins every year.

100% HALACHICALLY KOSHER

Full wall rigid support (*Lavud* rule compliance), sturdy in Canadian wind, direct wood roof support (*Ma'amid*).

Home Depot CA Price Audited (2026) • All Measurements in Imperial Units (Feet / Inches)

HALACHIC FOUNDATIONS

Kosher *Sukkah* Specifications

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Essential Halachic Standards

- **Dimensions:** Minimum size is 7"x7“ *t’fachim* (handbreadths -- ~22" x 22"). Our 8'x8' (96"x96") and 16'x8' builds far exceed the minimum. Height is 8 feet (96"), well above 10 handbreadths (32") and under 20 cubits (29.4 ft).
- **Walls (*Dufot*):** Must have at least 2.5 walls (preferably 3 or 4). Our design provides **4 full framed walls** with a designated 3-foot doorway on Wall 4.
- **Wall Integrity & *Lavud*:** Walls must not blow back and forth in normal wind more than 3 handbreadths (~9 inches). Our kit uses rigid horizontal 2x4 rails at 24" and 48" height, binding canvas tautly with bungee ball ties.
- **Roof Support (*Ma'amid*):** *S'chach* must rest directly on unattached wood or natural materials. Our 2"x2" wood roof beams support the *s'chach* without metal contact.

STRUCTURAL COMPLIANCE DIAGRAM



Open Sky Requirement: Ensure your assembly location is directly beneath the open sky—never under a tree overhang, patio roof, or balcony.

MATERIALS AUDIT

Home Depot Canada Shopping List: 8'x8'x8'

Item Description	Home Depot CA SKU / Specs	Qty	Unit Cost (CAD)	Total Cost
2" x 4" x 8' SPF Kiln-Dried Stud Lumber	SKU: 1000112108 (Standard Spruce)	22	$6.58	$144.76
2" x 2" x 8' SPF Dimensional Lumber	SKU: 1000112101 (Roof Cross Beams)	5	$6.77	$33.85
Simpson Strong-Tie Heavy Angle Brackets	A23 2" x 3" Steel Framing Angle	8	$3.50	$28.00
3/8" x 3-1/2" Zinc-Plated Carriage Bolts	Grade 2 Fasteners	32	$1.20	$38.40
3/8" Flat Washers (Pack of 50)	Zinc Plated Washers	1 pk	$8.50	$8.50
3/8"-16 Zinc Wing Nuts (Tool-Free Reassembly)	Hand-Tightening Nuts	32	$0.90	$28.80
Heavy-Duty Outdoor Tarps (8' x 10' Blue/Silver)	Reinforced Grommets every 18"	3	$19.98	$59.94
6" Bungee Ball Canopy Ties (Pack of 25)	Elastic Tarp Fasteners	2 pk	$14.98	$29.96
Color Vinyl Electrical Tape Set (5 Colors)	Red, Blue, Green, Yellow, White	1 pk	$7.99	$7.99
ESTIMATED TOTAL (BEFORE TAXES & TOOLS):	**$380.20 CAD**			

* Prices verified via Home Depot Canada. * Tools needed: Power drill, 3/8" wood drill bit, tape measure, pencil.

EXTENDED BUILD MATERIALS

Home Depot Canada Shopping List: 16'x8'x8'

Item Description	Home Depot CA SKU / Specs	Qty	Unit Cost (CAD)	Total Cost
2" x 4" x 8' SPF Kiln-Dried Stud Lumber	Main Uprights, Splices, Headers & Rails	34	$6.58	$223.72
2" x 2" x 8' SPF Dimensional Lumber	Roof S'chach Support Beams	10	$6.77	$67.70
Simpson Strong-Tie Heavy Angle Brackets	Framing Angles for Corners & Arch	12	$3.50	$42.00
3" Flat Mending Plates (Straight Joint Connectors)	Heavy Zinc Plates to splice 8' to 16' rails	8	$2.80	$22.40
3/8" x 3-1/2" Zinc-Plated Carriage Bolts	Grade 2 Fasteners	60	$1.20	$72.00
3/8" Flat Washers (Pack of 50)	Zinc Plated Washers	2 pk	$8.50	$17.00
3/8"-16 Zinc Wing Nuts	Tool-Free Wing Nuts	60	$0.90	$54.00
Heavy-Duty Outdoor Tarps (8' x 10')	Covering 16' sides & ends	6	$19.98	$119.88
6" Bungee Ball Canopy Ties (Pack of 25)	Tarp Attachment Ties	4 pk	$14.98	$59.92
Color Vinyl Electrical Tape Set (5 Colors)	Red, Blue, Green, Yellow, White	1 pk	$7.99	$7.99
ESTIMATED TOTAL (BEFORE TAXES & TOOLS):	**$686.61 CAD**			

Pro Tip: Buy 100+ studs at Home Depot CA to receive a 10% bulk contractor discount on lumber if building multiple sukkot or splitting with a neighbour!

SMART ASSEMBLY SYSTEM

Reusable Kit Labeling System

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Color Tape & Part Marking System

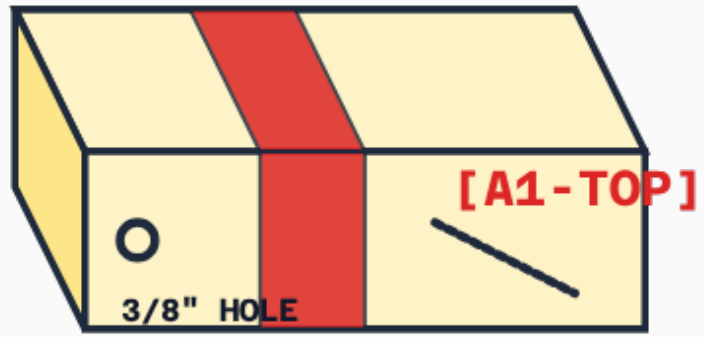
To ensure rapid, mistake-free reassembly year after year, mark every board end with colored electrical tape and a sharpie code before storing:

- **RED** Vertical Corner Posts – 8’ build [A1 - A4] / 16’ build [A1-A6]
- **BLUE** Ground Base Rails – 8’ build [B1 - B4] / 16’ build [B1-B6]
- **GREEN** Top Perimeter Headers – 8’ build [C1 - C4] / 16’ build [C1 – C6]
- **AMBER** Mid-Hight Supports – 8’ build [D1 - D8] / 16’ build [D1 - D14]
- **PURPLE** Door Frame Studs – Both 8’ & 16’ builds [E1 & E2]

Matching Joint Rule: Wrap matching colored tape on the exact corners that meet. For instance, post **A1** top gets a GREEN tape wrap to pair with header **C1** !

TAG-01

PERMANENT MARKER + TAPE



Wrap board ends with color tape and write matching alphanumeric codes next to pre-drilled bolt holes.

ONE-TIME PREPARATION

Pre-Drilling Master Template

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One-Time Drill Setup (Year 1 Only)

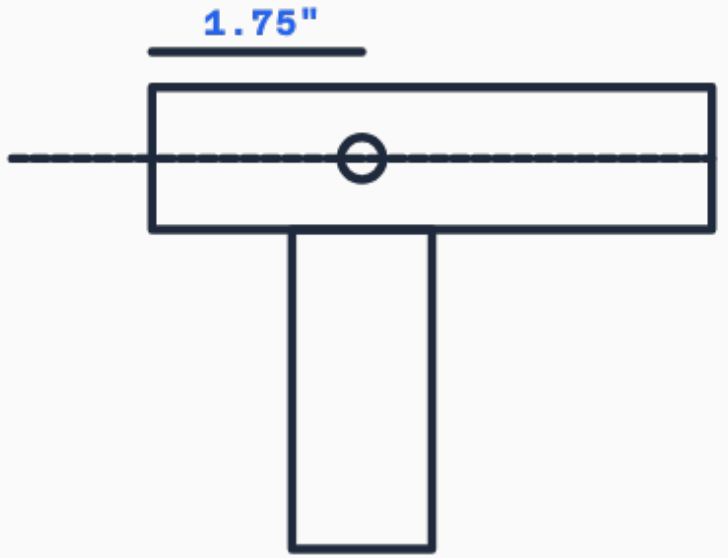
You only need a drill for the initial build! Once holes are drilled, future years use 100% tool-free wing nuts.

- **Bit Size:** Use a 3/8" wood drill bit for clean clearance for 3/8" carriage bolts.
- **Corner Post Hole Placement:** On each 8' vertical post (A1-A6), drill a 3/8" hole centered 1.75" from the bottom end and 1.75" from the top end.
- **Rail Connection Holes:** Drill matching 3/8" holes through the ends of horizontal base and top rails (B1-B6 & C1-C6).
- **Square Carriage Bolt Neck:** Tap the carriage bolt heads lightly with a hammer into the wood face to lock the square neck in place permanently!

> 💡 **Precision Tip:** Clamp one corner post and one rail together when drilling the first hole to guarantee 100% alignment!

PREP-01

DRILL 3/8" HOLE



Drill 3/8" clearance holes 1.75" from ends. Square carriage bolt seats directly into wood face.

STEP 1 OF 8

Step 1: Laying the Ground Base Frame

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Assembling Base Rails [B1 to B4]

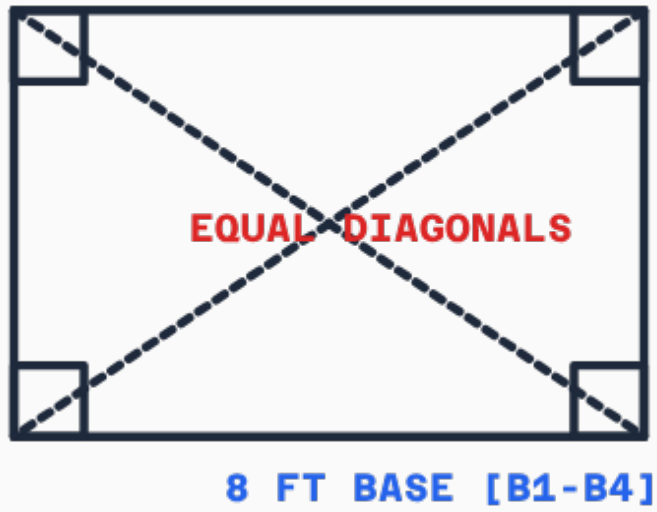
Select a flat, level outdoor surface under open sky (patio, driveway, or lawn).

- Lay out four 8-foot 2x4 base rails `B1, B2, B3, B4` in an 8' x 8' square on the ground.
- Position one Simpson Strong-Tie angle bracket inside each of the four ground corners.
- Insert 3/8" x 3-1/2" carriage bolts outward through the pre-drilled bracket and rail holes.
- Slide on flat washers and hand-tighten 3/8" **wing nuts**. Do not fully tighten yet to allow slight flex for squaring up corners.

> **Squareness Check:** Measure diagonally from corner to corner. When both diagonal measurements equal exactly 11' 3.75" (135.75 inches), your base is perfectly square!

01

WING NUT ASSEMBLY



Lay four base rails `B1-B4` in a square. Fasten corners with carriage bolts & wing nuts.

STEP 2 OF 8

Step 2: Erecting Vertical Corner Posts

Raising Posts [A1 to A4]

Stand the four 8-foot vertical corner posts vertically inside the base corners.

- Match the color tape on each post (A1-A4) with its corresponding corner tag on the ground base frame.
- Align the bottom pre-drilled hole of post A1 with the corner bracket bolt on base rail B1 .
- Push the 3/8" carriage bolt through the angle bracket, post end, and rail base.
- Thread flat washer and 3/8" wing nut. Hand-tighten securely.
- Repeat for remaining 3 vertical corner posts (A2, A3, A4). Posts will stand plumb once headers are attached.

Helper Recommendation: Having a second person hold two posts vertical while attaching top headers makes assembly effortless!

02

↑ VERTICAL ERECTION



Stand 8' vertical posts A1-A4 in corners and secure to base brackets with wing nuts.

STEP 3 OF 8

Step 3: Installing Top Header Perimeter

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Top Frame Headers [C1 to C4]

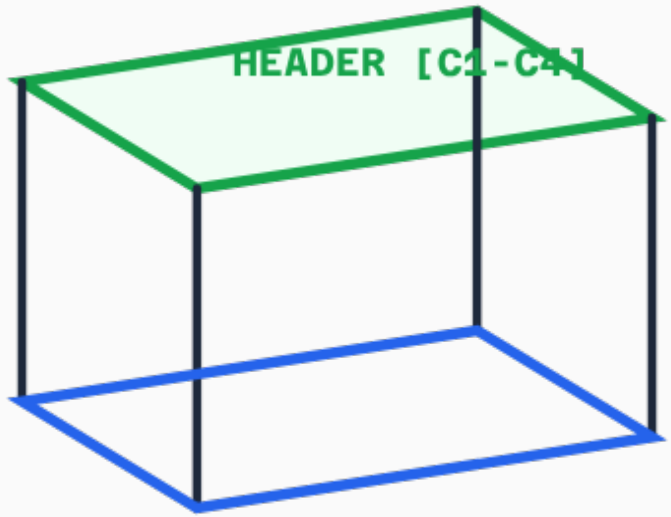
Connecting top perimeter rails locks the entire 3D cube into a self-standing rigid frame.

- Lift green-tagged top header rail C1 to the top tops of vertical posts A1 and A2.
- Align pre-drilled holes at top post ends with the angle brackets and header rail holes.
- Insert 3/8" x 3-1/2" carriage bolts through header, bracket, and post end.
- Add flat washers and hand-tighten 3/8" wing nuts.
- Repeat for top headers C2, C3, and C4 around all 4 upper sides.
- Fully tighten all corner wing nuts across top and base frames.

Stability Check: Push firmly against post A1. The wooden frame cube should remain rigid with zero wobble.

03

CUBE LOCK



Attach 4 top header rails C1-C4 to form a fully rigid 8'x8'x8' structure.

STEP 4 OF 8

Step 4: Mid-Wall Supports (Lavud Compliance)

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Horizontal Rails [D1 to D4]

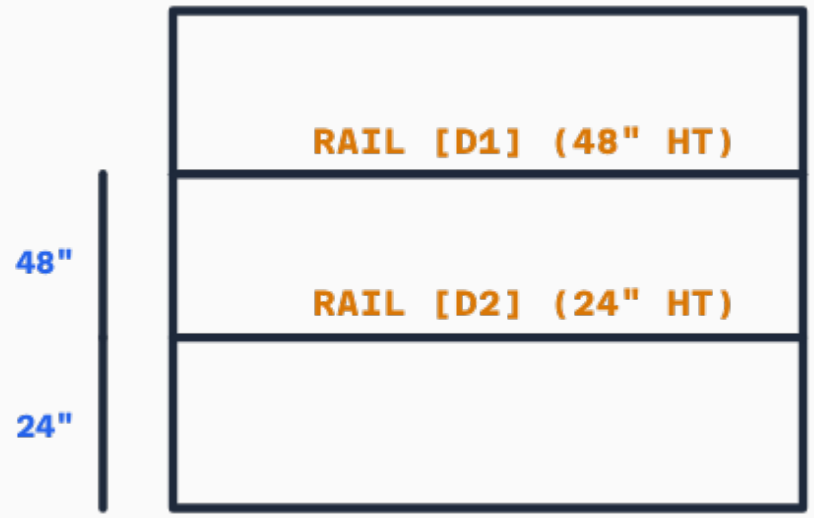
Crucial for Halachic wall integrity (*Lavud*) and wind stabilization.

- Position amber-tagged 8-foot 2x4 rails `D1, D2, D3, D4` horizontally across the mid-height of each wall.
- Mount two rails at **24 inches** above ground and two rails at **48 inches** above ground.
- Fasten rail ends to vertical posts using 3/8" carriage bolts and wing nuts through pre-drilled mid-post holes.
- These intermediate wood rails prevent canvas fabric from bowing inward or outward in Canadian autumn winds, keeping wall deflection well under 3 tefachim (9 inches).

> 🔨 **Halachic Requirement:** Without these mid-height support rails, blowing fabric walls can render a sukkah non-kosher! Do not skip this step.

04

LAVUD RIGIDITY



Install horizontal support rails `D1-D4` at 24" and 48" heights to stabilize walls.

STEP 5 OF 8

Step 5: Framing the 36" Doorway

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Doorway Studs [E1 & E2]

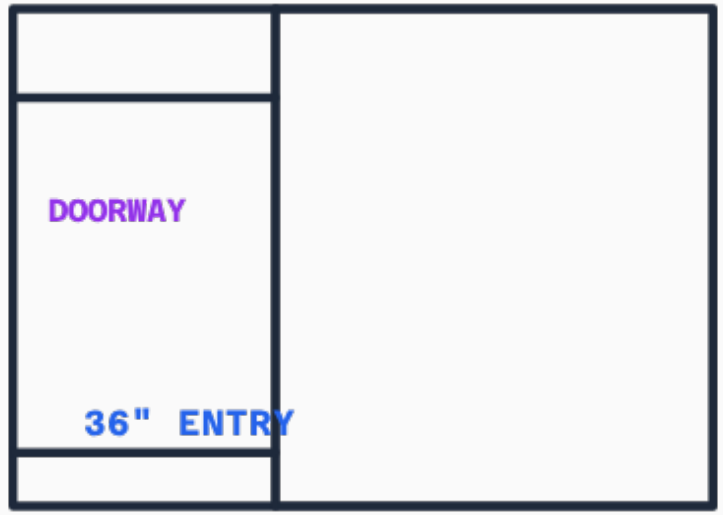
Designate Wall 4 (Front Wall) for your 36-inch wide entry door.

- Take purple-tagged 8-foot stud E1 and place it vertically 36 inches away from corner post A4 on Wall 4.
- Secure top end of E1 to top header C4 and bottom end to base rail B4 using 2" angle brackets, carriage bolts, and wing nuts.
- Attach horizontal door header board E2 at a height of 80" (6' 8") across the doorway opening.
- This frames a sturdy, clean 36" x 80" entrance (*Tzurat HaPetach*) while leaving the remaining wall area fully enclosed by canvas.

Halachic Entry: A framed doorway with two side studs and a top lintel is halachically recognized as a full doorway wall!

05

DOOR FRAME



Install door stud E1 and header E2 to create a 36" wide entrance on Wall 4.

STEP 6 OF 8

Step 6: Installing Taut Wall Canvas

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Wrapping Heavy-Duty Outdoor Tarps

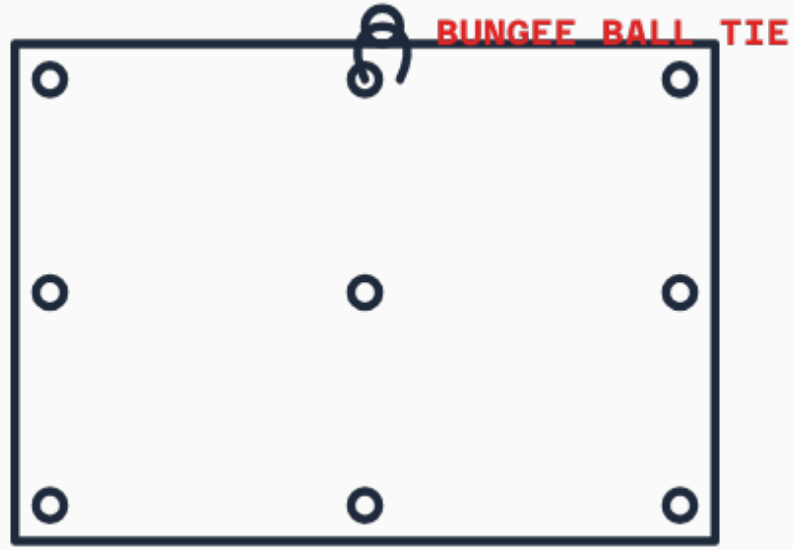
Enclosing the sukkah frame with wind-resistant canvas or heavy poly tarps.

- Unfold heavy-duty 8' x 10' outdoor tarps along Walls 1, 2, 3, and front Wall 4.
- Align upper grommets with top wood header rails (C1-C4).
- Thread 6" **bungee ball ties** through tarp grommets and loop around the wood 2x4 rails every 12 to 18 inches.
- Pull canvas tight down to mid-rails (D1-D4) and base rails (B1-B4), securing bungee ties at all levels.
- Wrap canvas corners neatly around vertical posts (A1-A4) to eliminate gaps.

> **Zero Flap Guarantee:** Bungee ball ties maintain continuous elastic tension on the tarps, preventing wind flap and keeping walls flat and silent!

06

BUNGEE FASTENING



Secure tarps tautly through grommets to top, mid, and base rails using elastic bungee ball ties.

STEP 7 OF 8

Step 7: Roof Support Beams (*Ma'amid*)

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2x2 Wood Roof Cross Beams [ROOF 1-5]

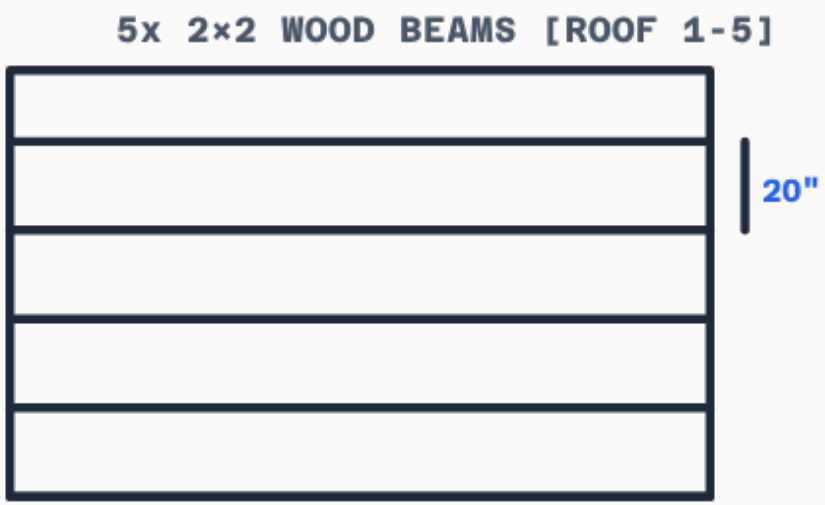
Installing kosher wooden roof joists to support your *s'chach* mats or branches.

- Take five 8-foot 2"x2" SPF dimensional lumber beams (ROOF 1 to 5).
- Lay them horizontally across top headers C1 and C3, spaced approximately 20 to 24 inches apart.
- Notch beam ends or secure them using wood notches / drop-in brackets so they cannot shift in heavy winds.
- Do **not** use nails, metal wire, or zip-ties directly on the *s'chach* mats! You may use a natural-fiber string to hold it to the beams.

> **Halachic Roof Principle (*Ma'amid*):** Whatever directly supports the *s'chach* must be made from materials that are themselves kosher to be used as *s'chach*, including any tie-down string. Because 2"x2" lumber is made of natural wood not subject to ritual impurity (*tumah*), resting *s'chach* directly on these beams is 100% kosher.

07

ROOF BEAMS



Lay five 2"x2" wood beams spaced 20" apart across top frame. *S'chach* lays directly on beams.

EXPANSION GUIDE

Step 8: Extended 16'x8'x8' Sukkah Build

Building a 16-Foot Double Sukkah

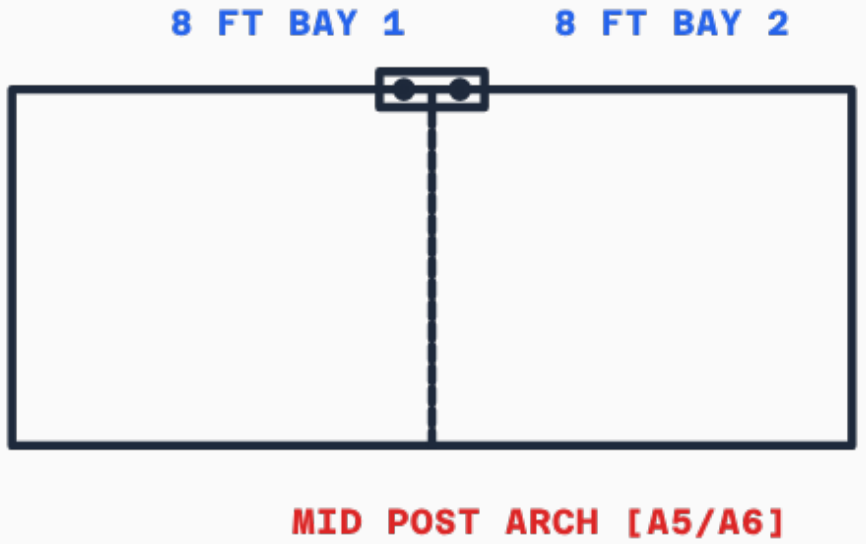
To double your sukkah length from 8'x8' to 16'x8', follow this modular extension process:

- **Center Support Arch:** Add two 8-foot vertical center posts (A5, A6) at the 8-foot midpoint along the 16-foot length.
- **Splicing Base & Top Rails:** Join two 8-foot 2"x4" rails end-to-end using heavy zinc mending plates and 3/8" carriage bolts with wing nuts to create continuous 16-foot base and header spans.
- **Roof Joists:** Increase roof cross beams from 5 to 10 pieces of 2"x2"x8" lumber spaced 18-20 inches apart.
- **Walls:** Use six 8'x10' canvas tarps linked with bungee ties to completely seal the 16' sides and 8' ends.

↔ **Mid-Span Rigidity:** Always install the center vertical arch posts (A5/A6) at the 8-foot joint line to prevent 16-foot headers from sagging!

08

16 FT DOUBLE FRAME



Splice 8' rails with mending plates and erect center vertical arch [A5/A6] for a 16'x8' frame.

ROOF COVERING

S'chach Sourcing & Farmer Advice

Recommended Canadian *S'chach* Vendors

For certified kosher, reusable woven bamboo mats shipped directly across Canada:

1. The Israeli Source Sukkah Centre (Toronto, ON)
Website: sukkah.israelisource.com — Mehadrin certified bamboo mats.

2. Judaica Depot Canada (Montreal / Nationwide)
Website: judaicadepot.com — Kosher s'chach mats & bamboo support poles.

3. The Sukkah Store / Sukkah Outlet Canada
Website: thesukkahstore.com — Star-K certified bamboo s'chach bundles.

Local Farm Corn Stalk Alternative

Asking local Canadian corn farmers for cut post-harvest stalks is a traditional, eco-friendly option!

CRITICAL "ANIMAL FRESSER" WARNING:

You MUST strip ALL corn cobs, husks, and kernels off the stalks before putting them on your *sukkah*!

Leaving sweet corn on the roof will attract raccoons, squirrels, mice, and bird "*fressers*" (scavengers) who will climb onto your roof, chew through your *s'chach*, and drop debris on your festive holiday meals!

END-OF-CHAG CARE

Disassembly & Annual Storage Plan

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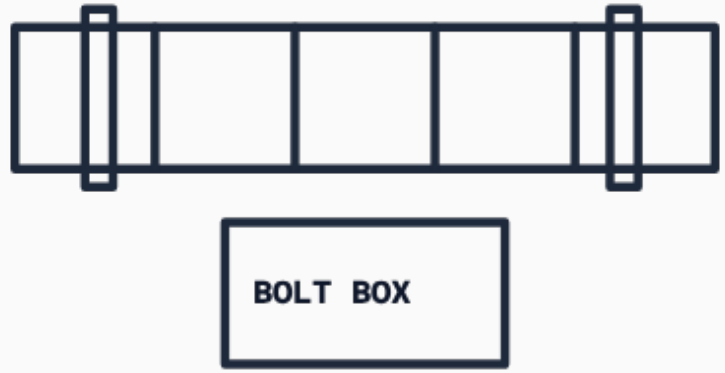
30-Minute Disassembly Workflow

- **Step 1 - *S'chach* Removal:** Roll up bamboo mats when 100% dry to prevent mold growth during winter storage. Store in original cloth storage bags.
- **Step 2 - Unclip Canvas:** Remove bungee ball ties and fold canvas tarps cleanly. Store bungee ties in a plastic Ziploc bag.
- **Step 3 - Wing Nut Removal:** Spin off all 3/8" wing nuts by hand. Store all bolts, washers, mending plates, and wing nuts in a labeled hardware box labeled *"SUKKAH HARDWARE"*.
- **Step 4 - Bundle Lumber:** Stack color-coded 2"x4" and 2"x2" studs together. Bind bundles with ratchet straps or twine and store elevated off garage or shed floors.

♻ **Next Year Ready:** Because all pre-drilled holes and carriage bolts remain intact, reassembling your *sukkah* next *Sukkot* requires **ZERO DRILLING and ZERO TOOLS!**

STORAGE

COMPACT STORAGE



Bundle color-coded studs with straps and store all hardware in a dedicated kit box.

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FINAL CHAG READINESS

Pre-Holiday Inspection Checklist

Structural & Safety Check

✓ All 3/8" wing nuts hand-tightened snugly.
✓ Frame cube sits plumb and square on flat ground.
✓ Canvas tarps secured tautly with zero billow.
✓ Door opening clear and unobstruced.

Halachic *S'chach* Check

✓ *S'chach* provides more shade than sunlight.
✓ Open sky directly above (no overhangs).
✓ *S'chach* rests unattached on 2"x2“ wood beams.
✓ Corn stalks stripped of all edible cobs/husks.

Chag Sameach - Gut Yom Tov!

Enjoy your comfortable, beautiful, and 100% kosher DIY *Sukkah* with family & friends!