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## INSTRUMENT INFO

**Scale:** C Major Diatonic

**Notes:** (Top to Bottom) B,G,E,C,A,D,F,A,C

**Bars:** Anodized Aluminum

**Frame:** HDPE

**Post:** HDPE

**Mallets:** Standard, 80 Durometer w/ 16" Cable Length

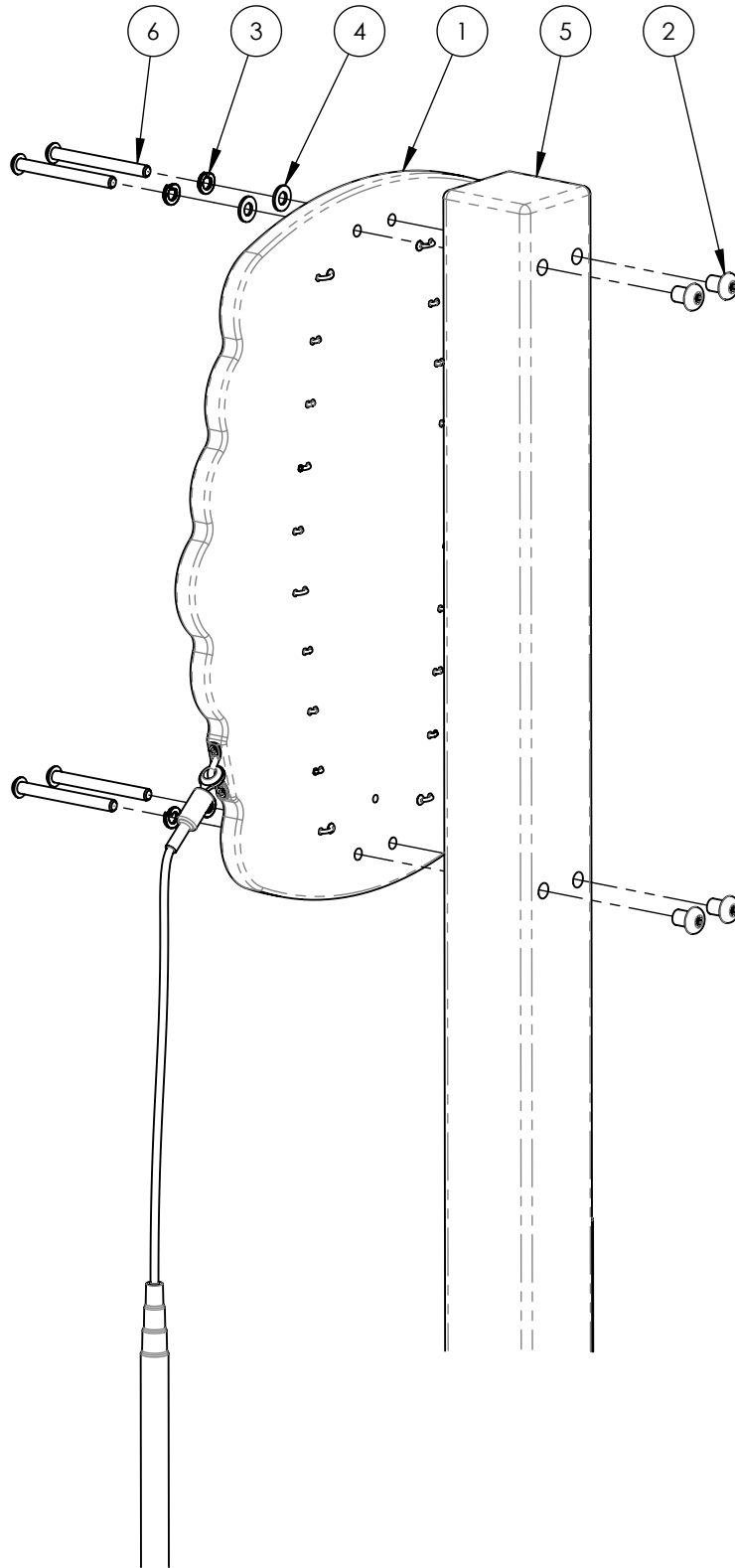


FREESTANDING				
ITEM NO.	DESCRIPTION	HIVE-IG	HIVE-SM	HIVE-PM
1	BEEHIVE-FREESTANDING INSTRUMENT	1	1	1
2	3/8" -16 BARREL NUT TORX PIN 302 STAINLESS	4	4	4
3	SS LOCK WASHER FOR 3/8" BOLTS	4	4	4
4	0.406" ID 0.812" OD 18-8 SS SAE WASHER	4	4	4
5	BEEHIVE-POST-SIGN-IN GROUND MOUNT	1	-	-
6	BOLT - 3/8"-16 X 3-3/4" SECURITY TORX WITH PATCH	4	-	-
7	3/8"-16 WEDGE EXPANSION ANCHOR, 5"LG. SS	-	4	-
8	35/64" HEX NUT CAP	-	4	-
9	BEEHIVE-POST-SIGN-SURFACE MOUNT	-	1	1
10	BOLT 3/8"-16 X 3-1/4" TORX SECURITY WITH PATCH	-	4	4
11	SURFACE MOUNT BASE HDPE, FOR RECYCLED POST (1.5" BLACK)	-	1	1
12	5/16" HEX HEAD LAG BOLT, 5"LG. SS	-	2	2
13	UNIVERSAL PORTABLE MOUNT STAND - 24" OUTER DIAMETER	-	-	1
14	3/8"-16 HEX NUT, SS	-	-	4
15	3/8"-16 SOCKET HEAD SCREW, 2.5"LG. SS	-	-	4
16	3/8" SOCKET HEAD KNOB	-	-	4

WALL MOUNT				
ITEM NO.	DESCRIPTION	CONCRETE/ BRICK	WOOD FENCE	CHAIN LINK FENCE
17	BEEHIVE-WALL MOUNT INSTRUMENT	1	1	1
18	5/8" OD 18-8 SS WASHER FOR 1/4" BOLTS	6	-	-
19	0.4879" OD 0.26" ID SS SPLIT LOCK WASHER	6	-	-
20	2-3/4" LG 1/4" SCREWS FOR CONCRETE, BRICK, AND BLOCK 410 SS	6	-	-
21	0.75" LG 0.385" ID 0.75" OD LDPE SPACER	6	6	-
22	BOLT - 3/8"-16 X 1-3/4" SECURITY TORX WITH PATCH	-	6	-
23	SS LOCK WASHER FOR 3/8" BOLTS	-	6	6
24	0.406" ID 0.812" OD 18-8 SS SAE WASHER	-	6	6
25	BEE-HDPE BACKER-3/4" YELLOW/BLACK/YELLOW HDPE	-	-	6
26	3/8" -16 BARREL NUT TORX PIN 302 STAINLESS	-	-	6
27	BOLT - 3/8"-16 X 1-1/2" SECURITY TORX WITH PATCH	-	-	6
28	ZINC ALLOY TAPPING INSERTS FOR SOFTWOOD	-	6	-

**The following applies only to freestanding versions of the instruments:**

Using an impact driver, T45 tamper resistant Torx bit, and T45 tamper resistant torx I-key, fasten the instrument to the post using 3/8" flat washers, 3/8" lock washers, and  $\varnothing 3/8"$ , 3-3/4" long tamper resistant Torx bolts. The bolts have thread locker pre-applied for a semi-permanent hold.

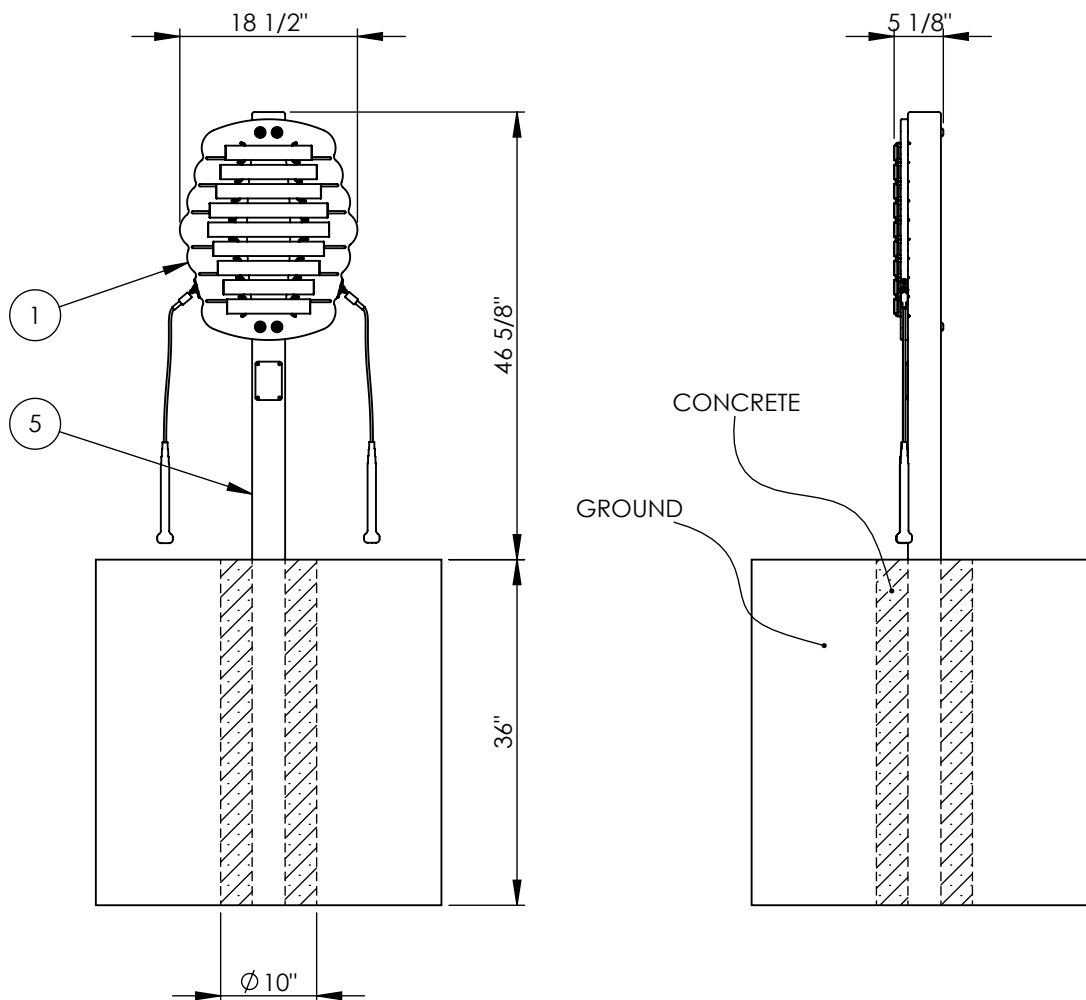


**Step 1:** Determine the installation location. A 36" perimeter around the instrument is recommended for wheelchair accessibility. Excavate one 10" diameter hole, 36" deep, at the installation location.

**Step 2:** With two people, lower instrument post into the excavated hole. Verify correct placement and levelness of the instrument.

**Step 3:** Pour concrete around the post. If necessary, brace the Instrument to hold it rigid while the concrete cures. Leave to set according to the concrete manufacturers guidelines. Approximately (3) 80lb. bags will be needed.

**For installations targeting compliance with ASTM F1487:** Note that the finished mallet attachment height must not exceed 27" above the underlying surfacing in order to maintain ASTM compliance.



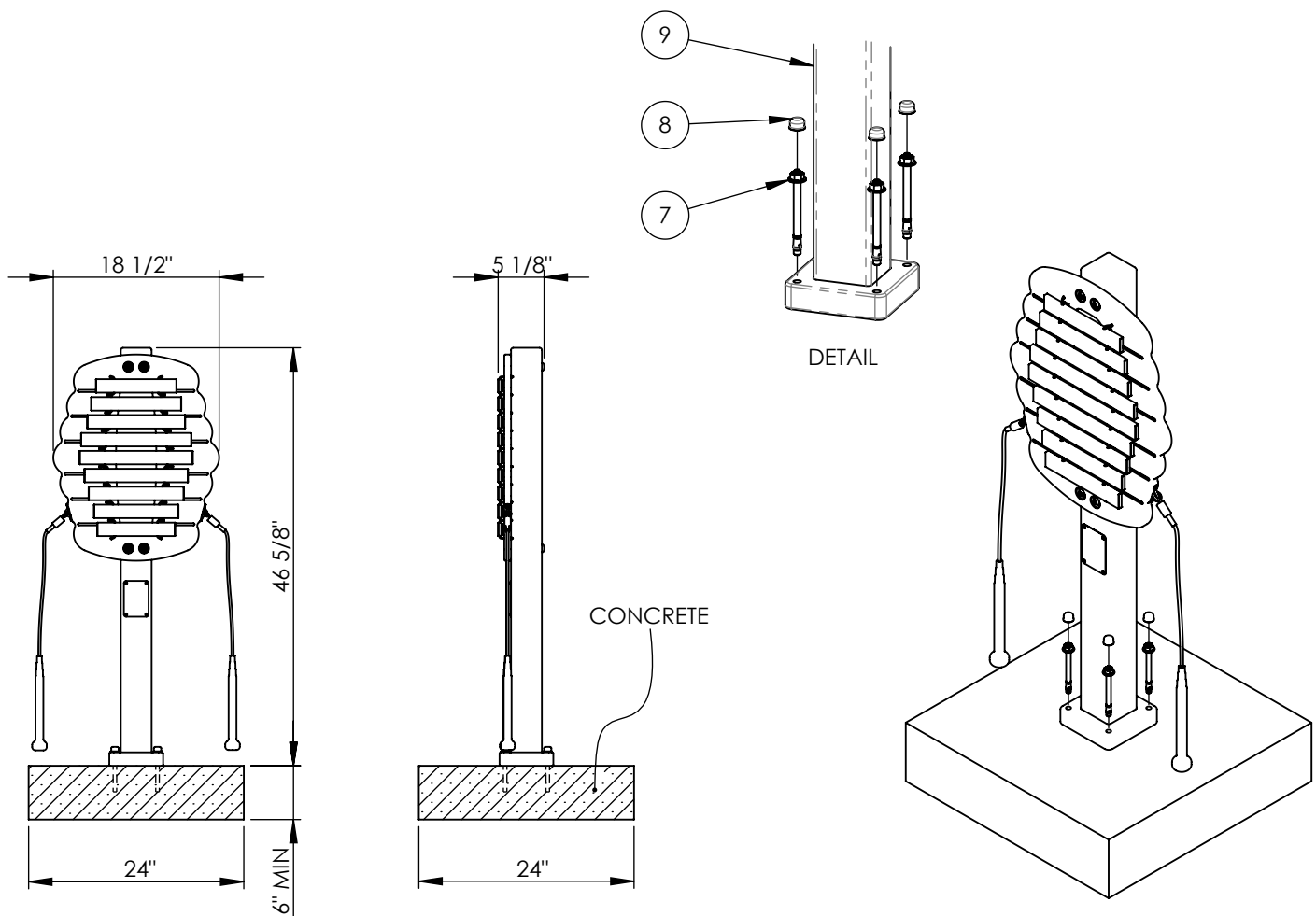
**Step 1:** Determine installation location. A 36" perimeter around the instrument is recommended for wheelchair accessibility. A concrete pad measuring a minimum of 24" long x 24" wide x 6" thick is required. If an existing concrete pad is not level, steel washers can be used to act as shims (shims not provided). If a new pad is being poured, approximately (4) 80lb. bags will be needed. Allow concrete to cure per concrete manufacturers guidelines.

**Step 2:** With two people, place the instrument onto the concrete pad and mark the center of the holes on the surface mount base. After you have made your marks, set the instrument aside. With a hammer or rotary drill, drill through concrete at marked locations. Drill to a minimum depth of 4". A 3/8" masonry drill bit will be needed.

**Step 3:** Place the Instrument back over the drilled out holes. Insert provided anchor bolts into aligned holes. Position anchor nut so that it is flush with the top of the bolt. Pound anchor bolts into the hole until the anchor washer is flush with the surface mount base. Tighten anchor bolts until they are snug. Cover remaining bolt sections with provided nut caps.

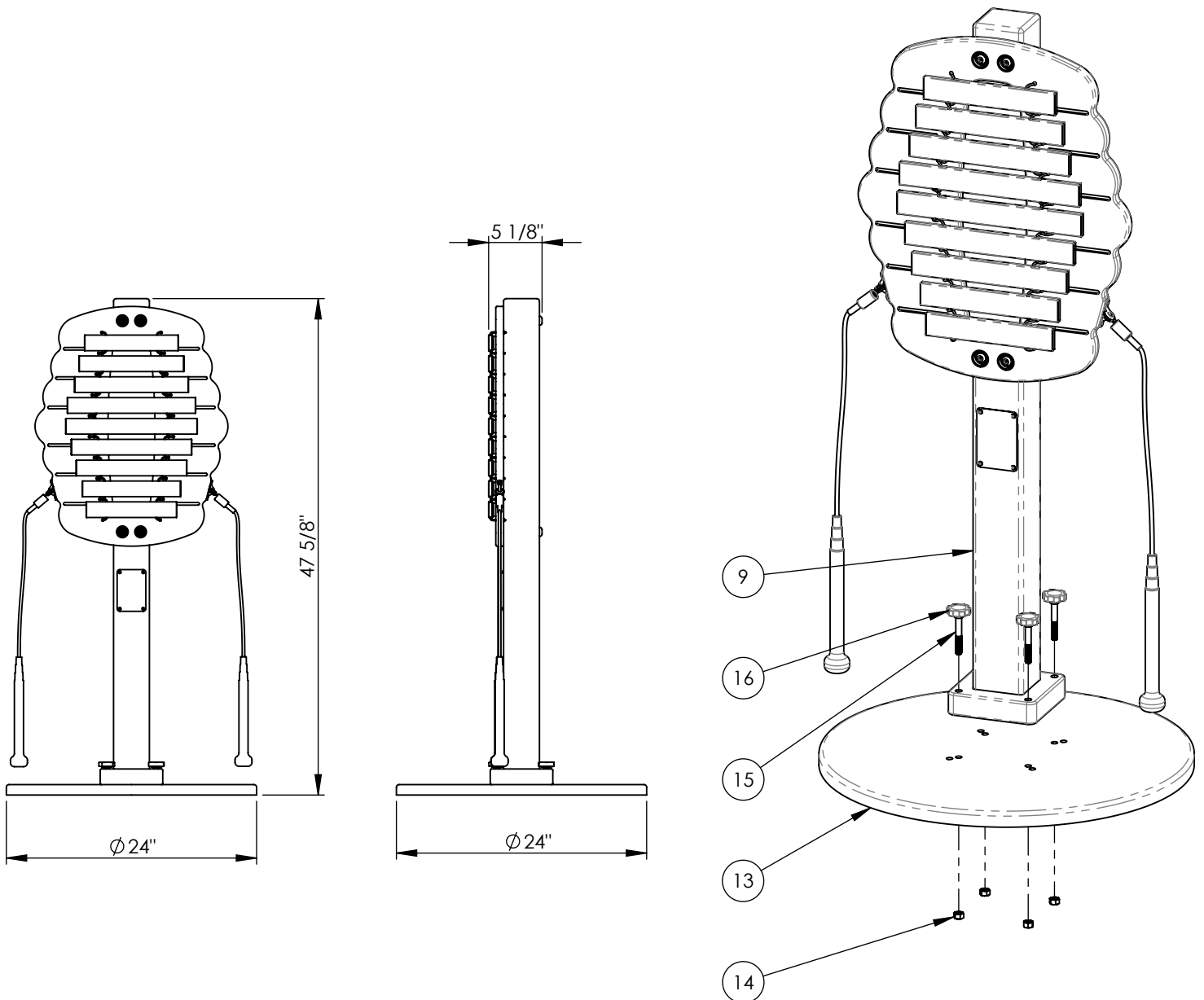
If installing onto wet concrete, use the wet set anchor manufacturers guidelines for installation procedures.

**For installations targeting compliance with ASTM F1487:** Note that mounting hardware must be covered by surfacing and finished mallet attachment height must not exceed 27" in order to maintain ASTM compliance.



Step 1: With two people, have one situate the instrument onto the portable stand and align the holes.

Step 2: Have the second person secure the instrument to the portable stand with the provided 3/8"-16 thumb screws. Thumb screws should be tightened snugly to prevent any rattling during play. The 3/8"-16 Hex Nuts come pressed into the portable stand from the factory.



**Step 1:** With two people have one hold the instrument in the desired mounting location and have the other mark hole locations with a marker. Adjustments to mounting height may be made for special populations. The instrument may be rotated slightly for a more dynamic appearance.

Recommended Mounting Heights:

Age	Height
2-5	32"
5-12	45"
13+	52"

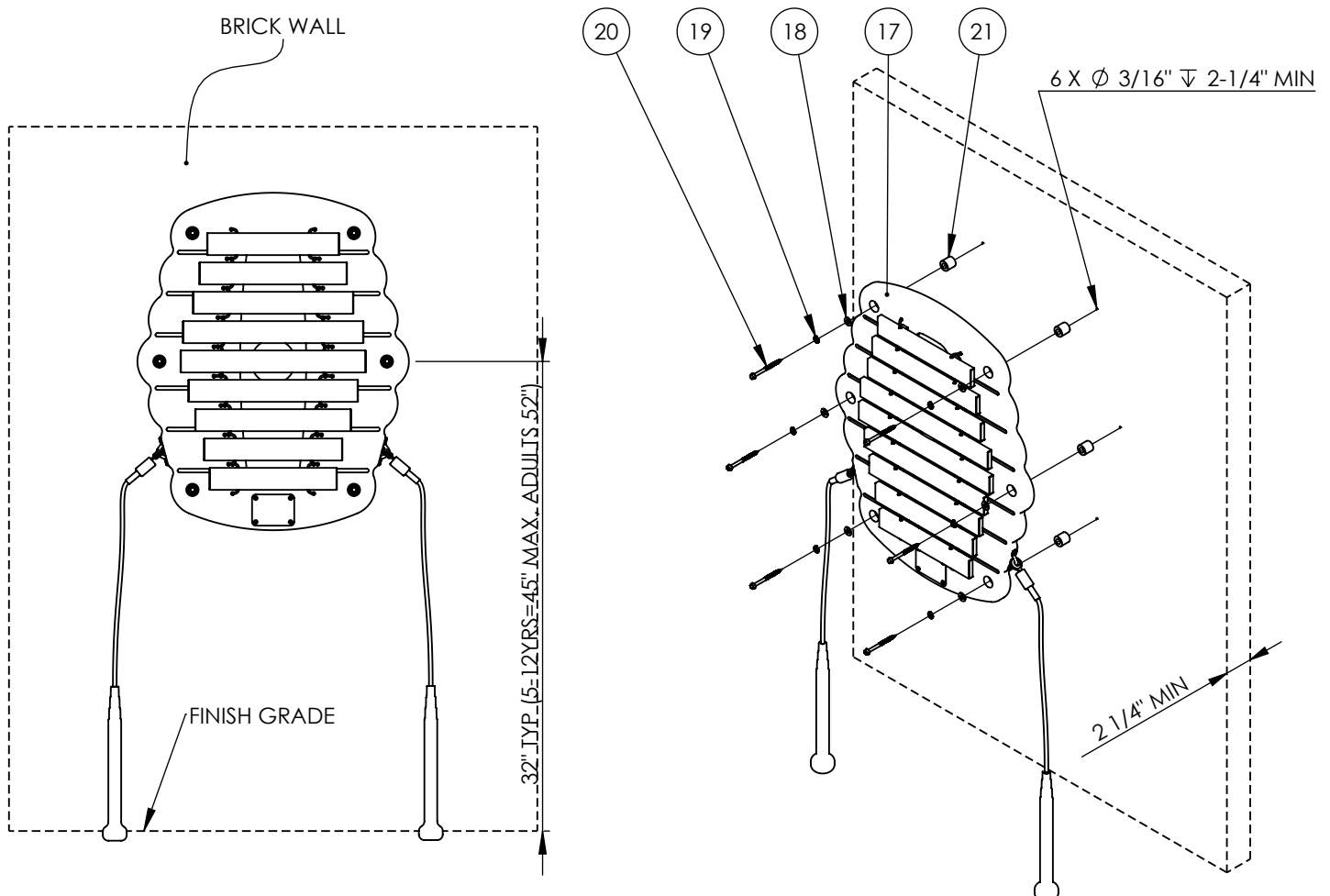
**Step 2:** At the marked locations, use a hammer or rotary drill to drill (6) 3/16" holes 2-1/4" deep minimum into the concrete or brick. Do not overdrill the holes, as this will lead to a less secure hold.

**Note:** When installing into brick, do not install/drill pilot holes into mortar.

**Step 3:** Using an impact driver with socket attachment, fasten the instrument to the frame using the provided hardware. Note that removing the screw multiple times may cause the holes to strip, reducing hold.

(Optional) If a better hold is required, add a ziptie to the hole before inserting screw. The ziptie will expand to fill the space in the hole for a more secure hold when drilled.

**Step 4:** Verify the instrument is securely fastened to the wall.



**Step 1:** Verify that the mounting surface is sturdy enough and take steps to reinforce if necessary. With two people, have one hold the instrument in the desired mounting location and have the other mark the (6) mounting hole locations with a marker. Adjustments to mounting height may be made for special populations. The instrument may be rotated slightly for a more dynamic appearance.

Recommended Mounting Heights:

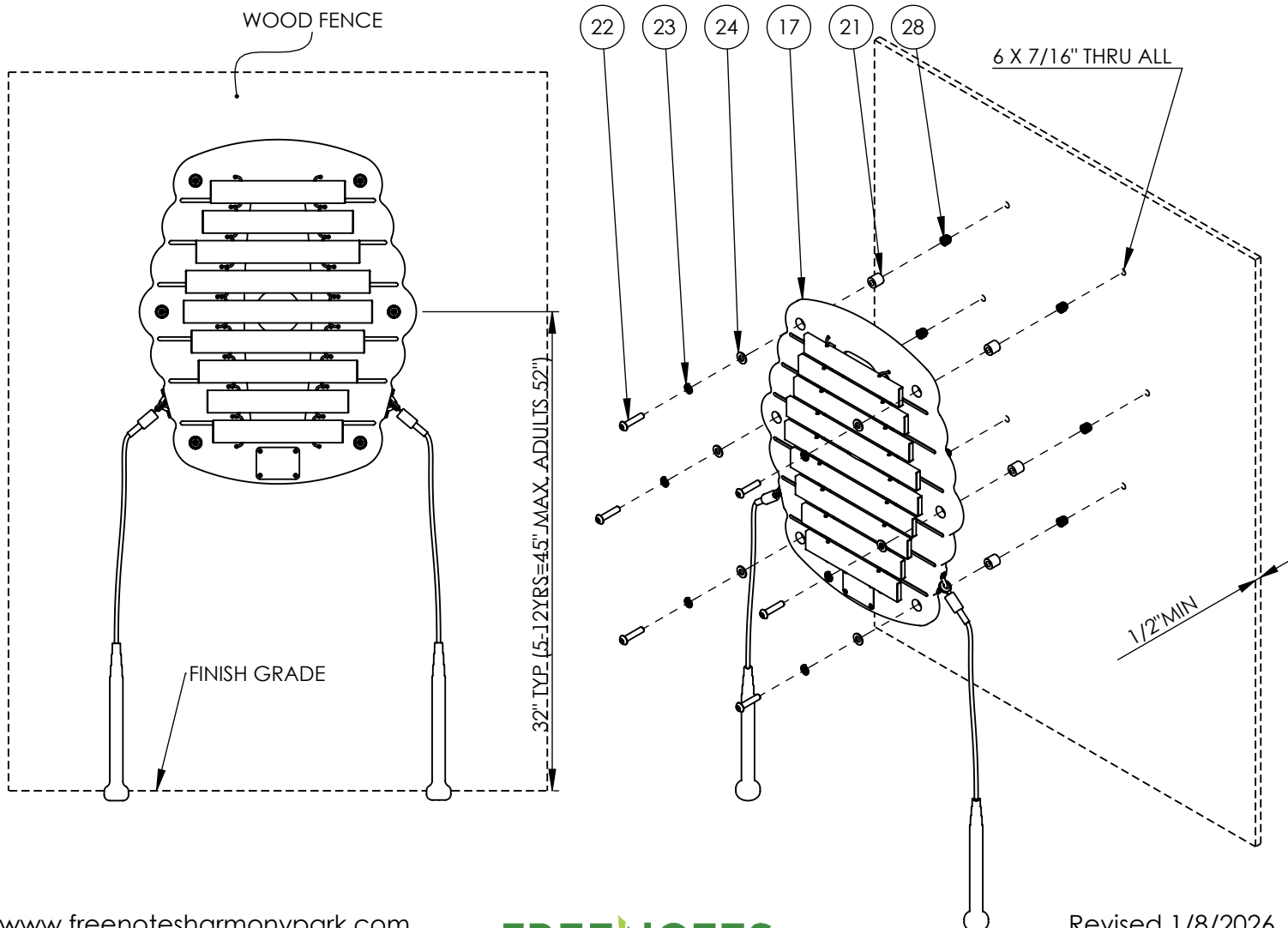
Age	Height
2-5	32"
5-12	45"
13+	52"

**Step 2:** At the marked locations, use a drill to drill (6)  $\varnothing 7/16"$  holes through the fence, atleast  $3/4"$  deep. Fence pickets must be atleast  $1/2"$  thick minimum.

**Step 3:** Using a 10mm hex allen key, thread the tapping inserts into the fence until the flange is flush with the surface of the fence.

**Step 4:** Using an impact driver with T45 tamper resistant torx bit, fasten the instrument to the fence using the  $\varnothing 3/8"$  bolts and provided hardware. Do not overtighten hardware, as this may split and crack wood fence pickets.

**Step 5:** Verify the instrument is securely fastened to the fence.



**Step 1:** Determine the desired mounting location. Adjustments to mounting height may be made for special populations. The instrument may be rotated slightly for a more dynamic appearance.

Recommended Mounting Heights:

Age	Height
2-5	32"
5-12	45"
13+	52"

**Step 2:** Using an impact driver with T45 tamper resistant torx bit and T45 tamper resistant torx L-key, fasten the instrument to the fence using the provided hardware. The bolts, washers, and instrument go on the front of the fence, and the HDPE backers and barrel nuts go on the back of the fence. Adjust the placement of the instrument so hardware has a firm hold. Some adjustment may be required to ensure a proper installation.

**Step 3:** Verify the instrument is securely fastened to the fence.

