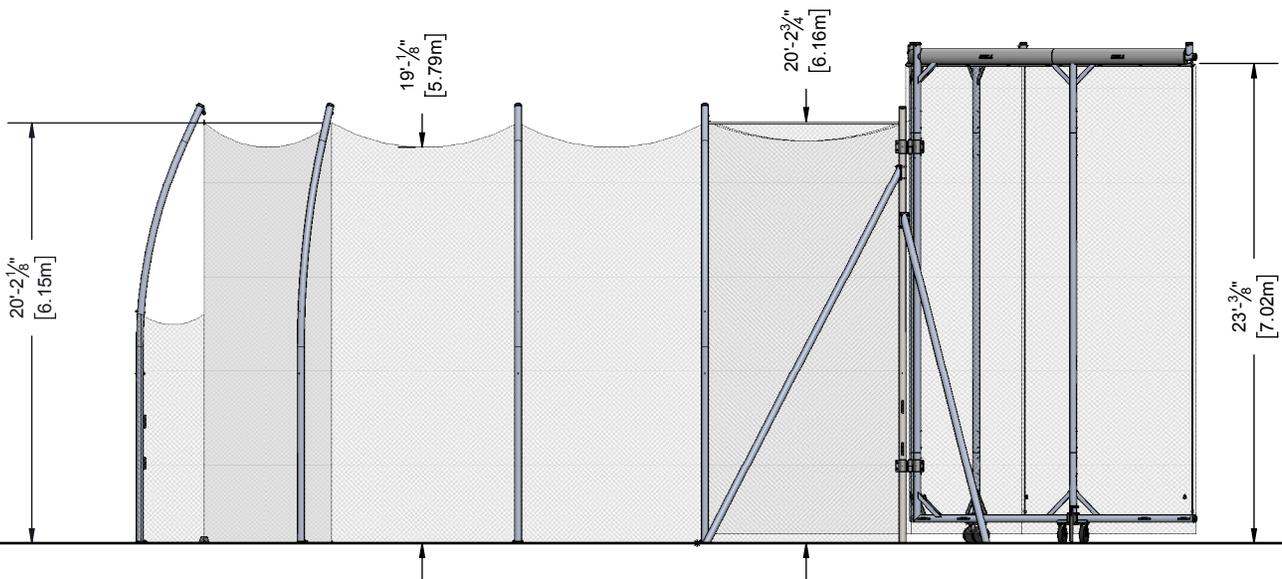
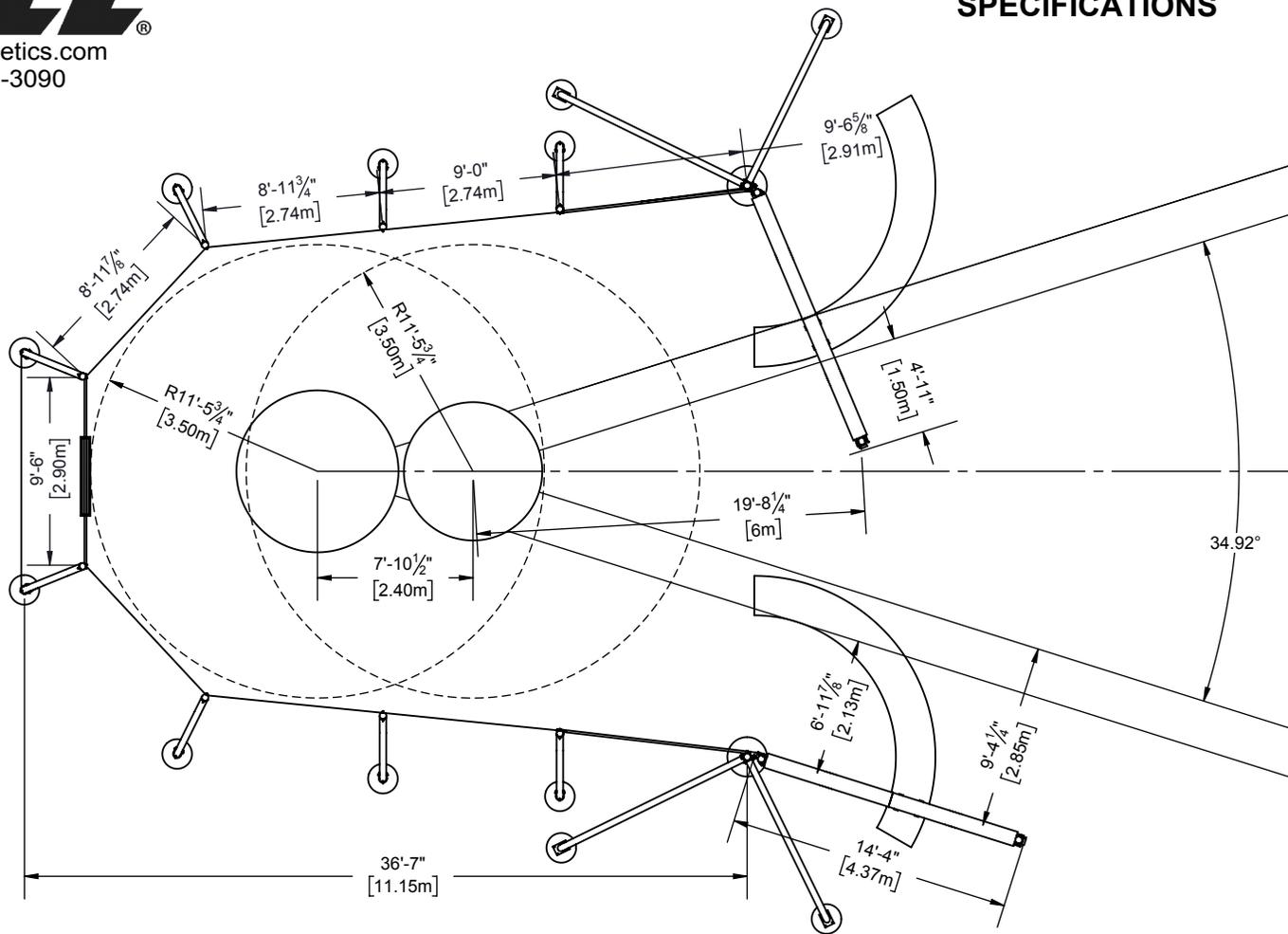




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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE SPECIFICATIONS



The 742115, NCAA Double Ring Hammer/Discus Cage, consists of eight rolled aluminum net poles, two galvanized steel door hinge poles, and two 4.35 m wide aluminum movable doors. Per NCAA rules, net is supported at full cage height between the door poles and first net support poles. Includes door braces to help prevent wind damage.



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## 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE SPECIFICATIONS

1. The net poles are 4" diameter, 7/32" wall, 6061-T6 aluminum tube and stand 21' (6.40m) tall in their 3'-6" ground sleeves. The poles roll inward offsetting the net 1 meter at ground level. Vertically swinging net arms at each pole position hold the net in place and allow the net to envelop an errant hammer then drop back into position. 5/16" net rope swivel pulleys with eyebolts attach to the top of each net pole to facilitate the raising and lowering of the net.

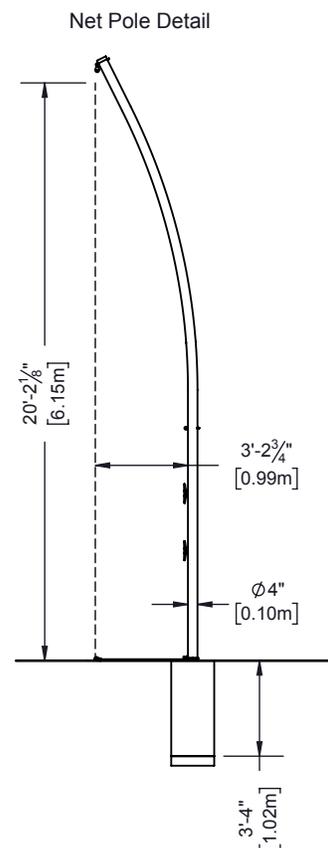
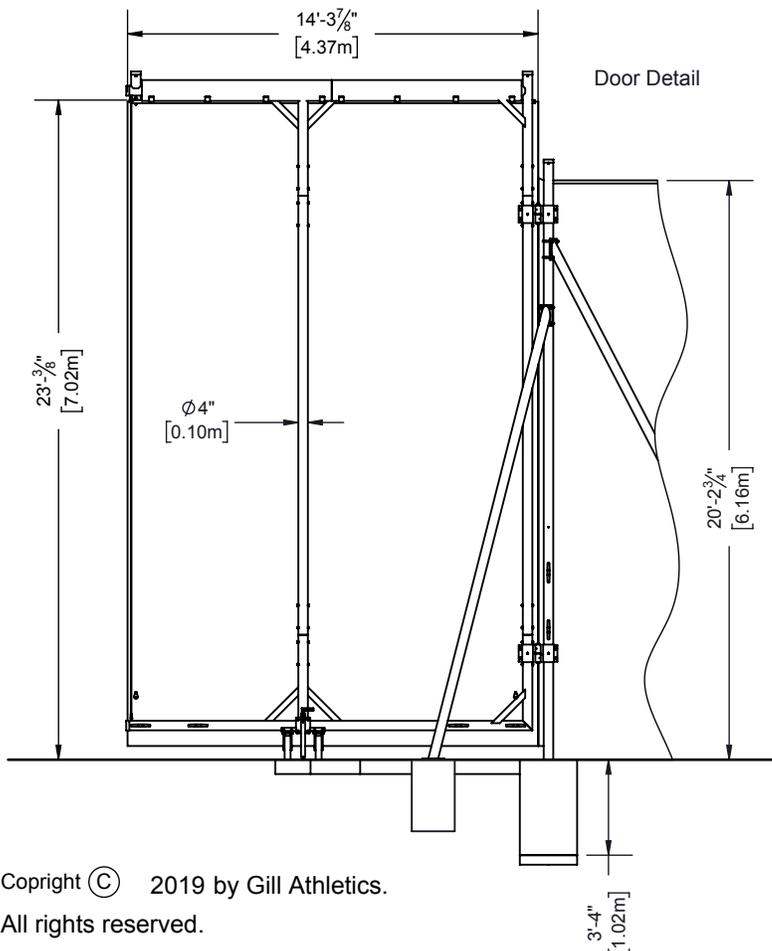
2. The 14' 3 1/4" (4.35m) wide by 23' (7.01m) tall aluminum doors are constructed of the same heavy wall tubing as the net poles. All corner joints are securely welded and cross braced. Each door comes in four sections and is easily assembled at the site. Sections are securely bolted together utilizing 28" long, 1/4" wall, inner sleeve tubes. The outermost vertical frame member has been replaced with a steel cable to hold the door net in position. This design minimizes the frame structure a hammer can hit at its most vulnerable position.

3. The doors pivot on two 4" diameter, 8 gauge galvanized steel poles set vertically in 3'-6" ground sleeves. Each pole utilizes two heavy duty hinges with bronze thrust bearings and 1 1/4" stainless steel hinge pins. The positions of these hinges can be adjusted to compensate for any settling of the concrete door runways. Doors swing from the closed to fully open position.

4. The net is fully supported between the doors and the first net poles by 1 5/16" galvanized steel tubes. There is also a net support tube between the two rear most net poles, above the rear entrance. The rest of the net hangs free with a heavy rope reinforcement to minimize sag. The nets are constructed of 749 lb. test, #84 knotted, weather treated nylon. The cage doors are double netted.

NOTE: Ground Sleeves are sold separately.  
Use ground sleeve kit 74211501.

NOTE: Barrier net is sold separately.  
Use barrier net 732108



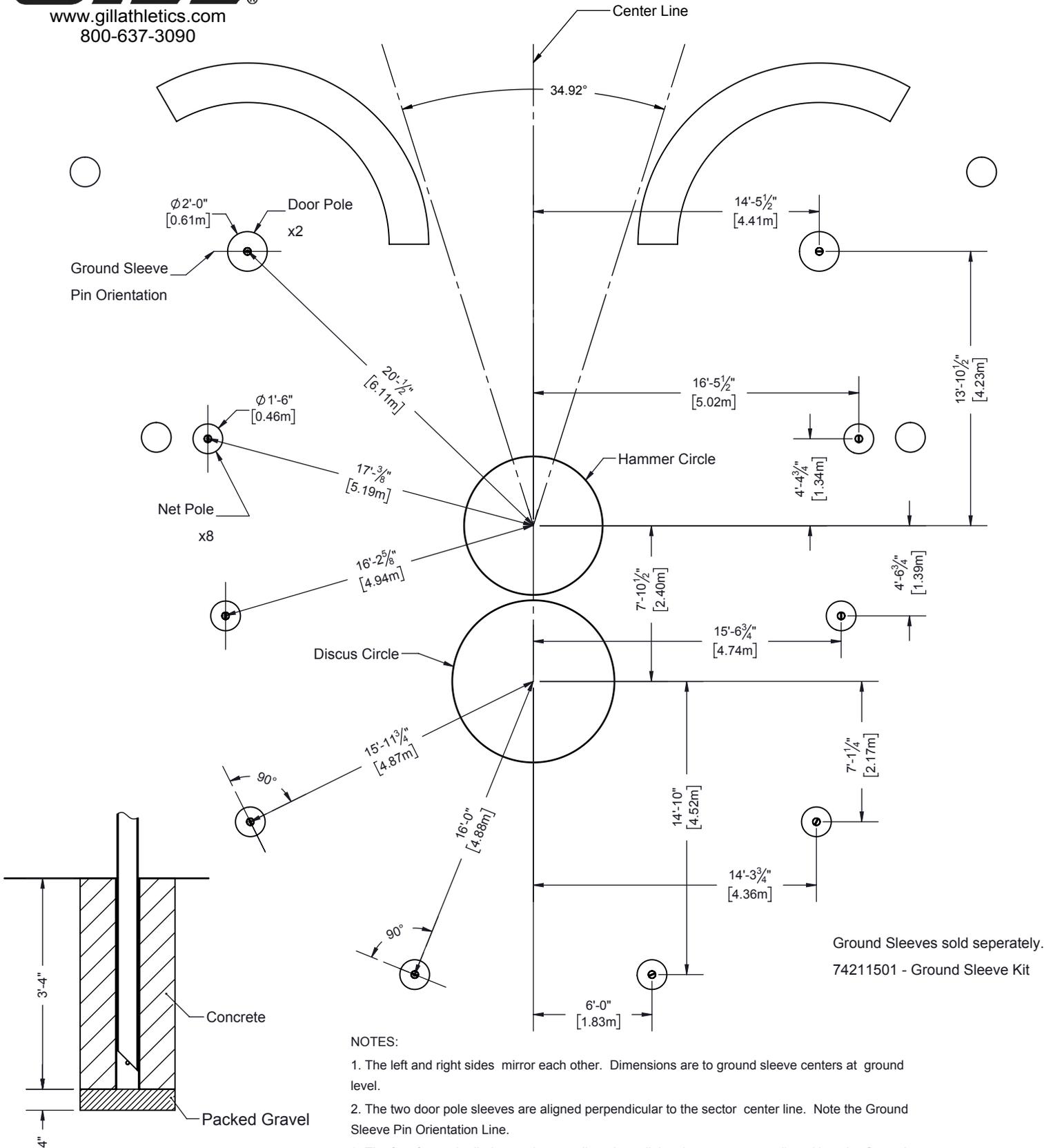
## Important Safety Instructions

It is the owner's/manager's responsibility to insure that all users of this equipment become familiar with the contents of this manual, to instruct users on the proper operation of the equipment, and to warn them of the potential hazards.

### Prior to Operating:

- Read all instructions before using the equipment.
- Do not allow children on or near the equipment.
- Inspect the unit carefully for any worn, loose, or missing parts. If any defect is suspected, do not use! Report suspected problems to authorized personnel immediately!
- Use the equipment only for its intended purpose.
- Do not use the equipment alone.

 **WARNING:** This product can expose you to Titanium Dioxide, which is known to the State of California to cause cancer. For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).



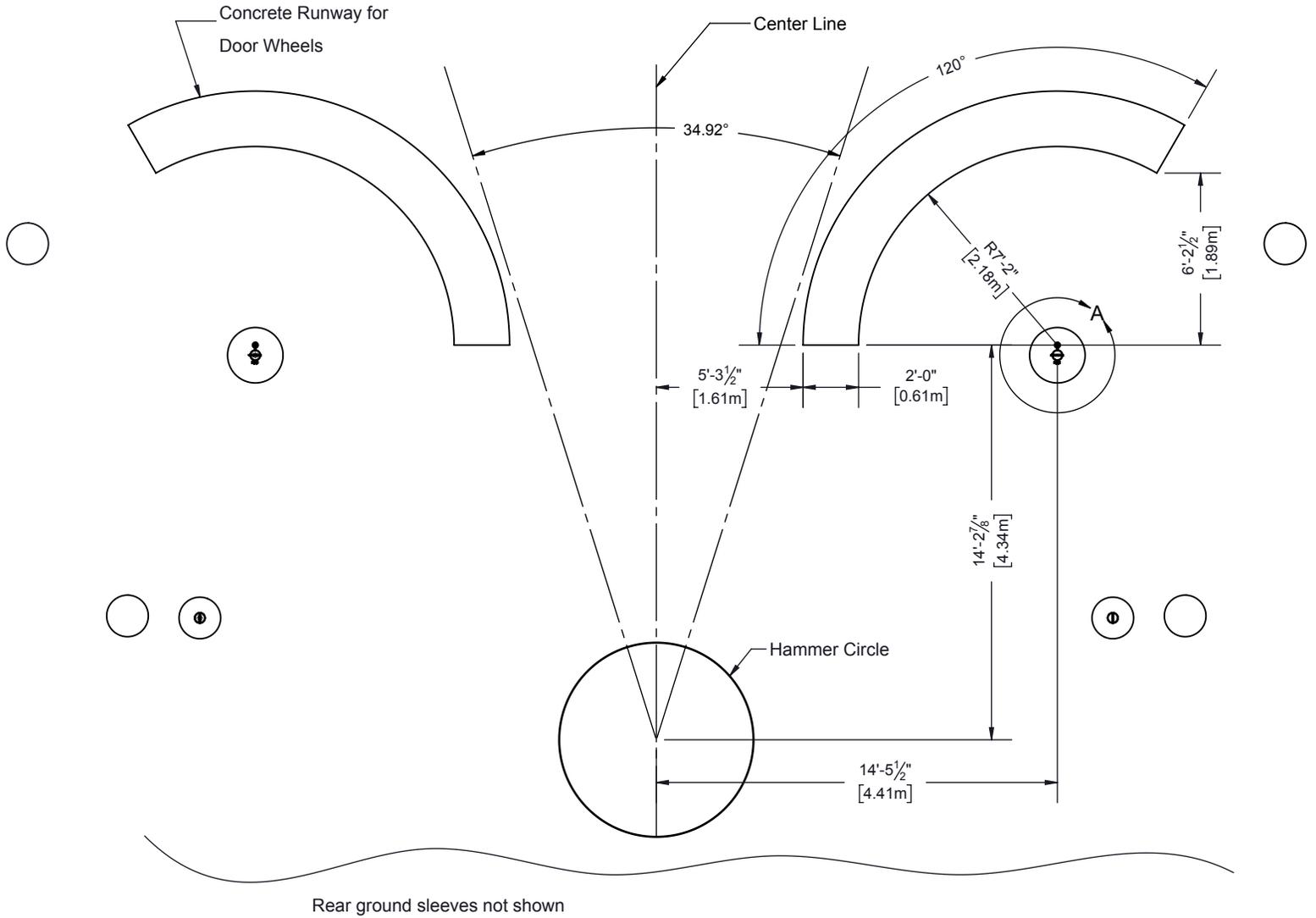
NOTES:

1. The left and right sides mirror each other. Dimensions are to ground sleeve centers at ground level.
2. The two door pole sleeves are aligned perpendicular to the sector center line. Note the Ground Sleeve Pin Orientation Line.
3. The four forward rolled net poles are aligned parallel to the sector center line. Note the Ground Sleeve Pin Orientation Line.
4. The four net poles at the back are aligned perpendicular to the circle center. Note the Ground Sleeve Pin Orientation Line.
5. Sleeves for all poles can be installed on crushed rock or a concrete block. To allow for drainage, sleeves should not be completely encased in concrete.
6. The overall dimensions of the concrete piers for the sleeves are to be determined by the local contractor and should take into consideration the local soil conditions, water table, and frost line.



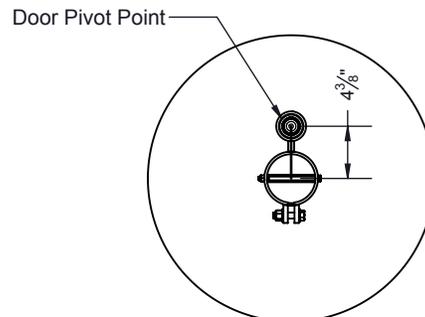
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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE DOOR RUNWAY



**NOTES:**

1. Left and right sides mirror each other.
2. Surface of caster wheel runways must be level to support doors through their entire swing.
3. Recommend concrete runways to be a minimum 6" thick.
4. Runway arc measured from door hinge pivot point, Detail "A".
5. Recommend holes in the runways for the door latch pins be drilled after the doors are in place to ensure proper position and function.

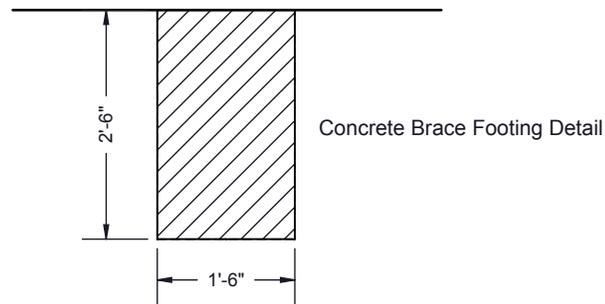
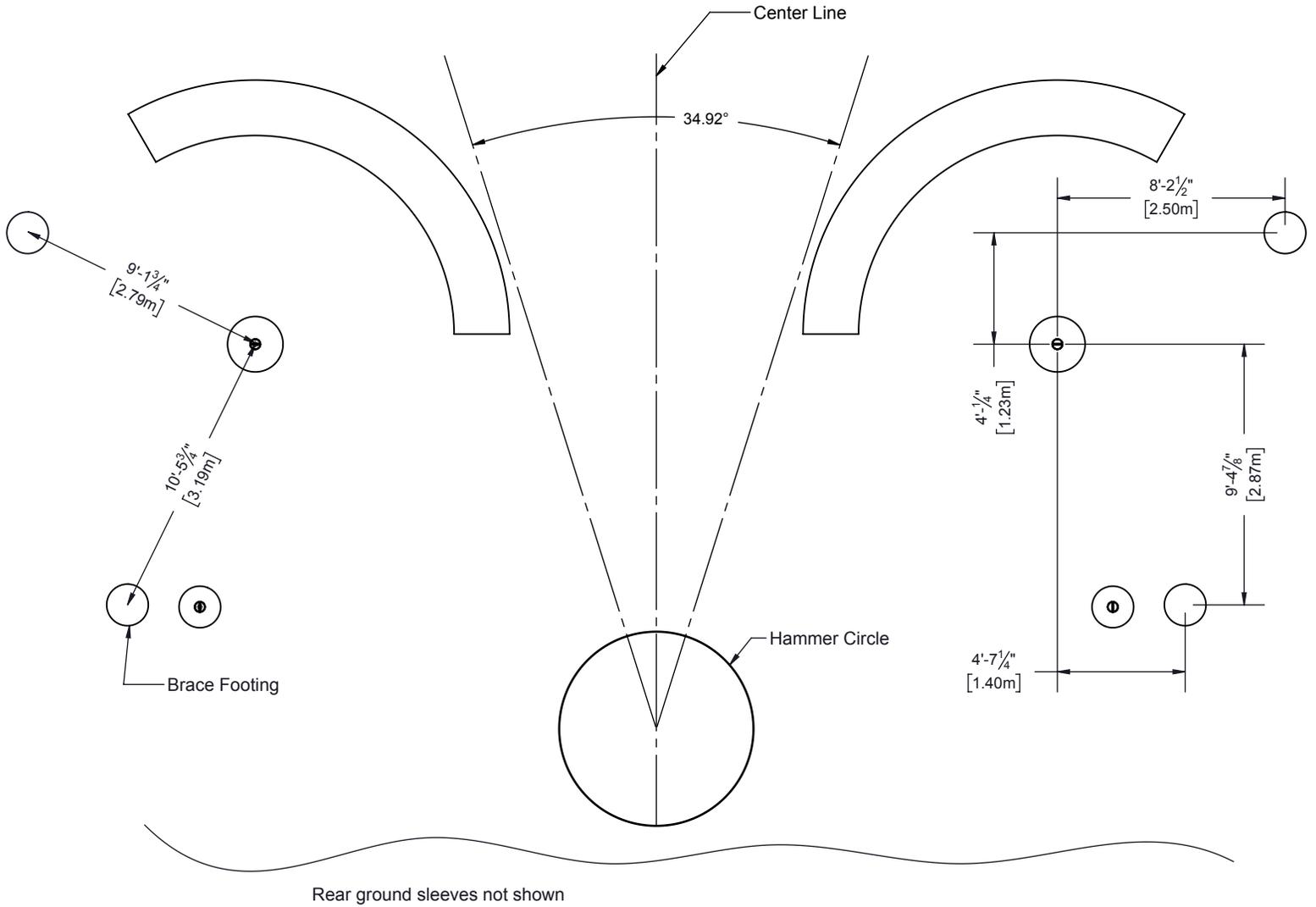


DETAIL A



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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE BRACE FOOTINGS



**NOTES:**

1. The left and right sides mirror each other. Dimensions are to footing centers at ground level.
2. The overall dimensions of the concrete piers for the sleeves are to be determined by the local contractor and should take into consideration the local soil conditions, water table, and frost line.

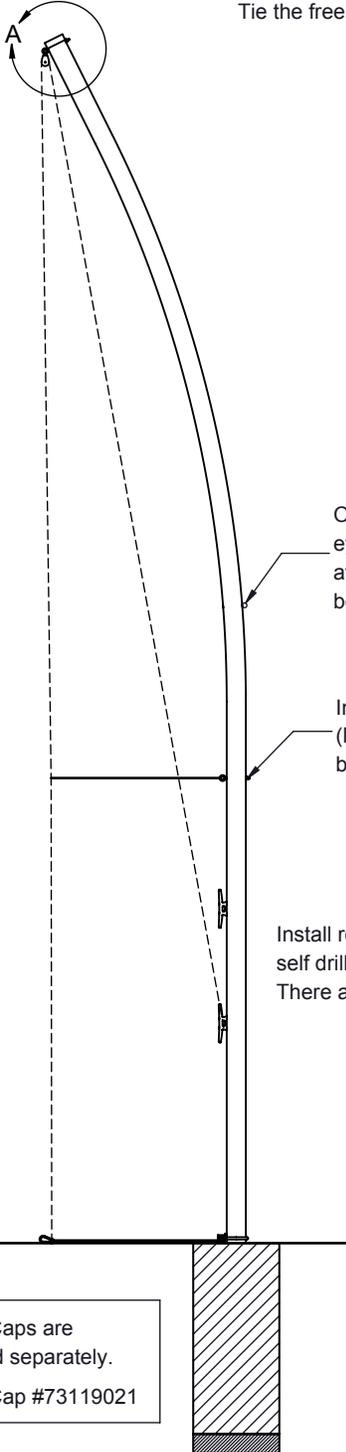


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## 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE NET POLE INSTALLATION

Before putting the net poles into the ground sleeves, install all of the hardware onto the poles.

Tie one end of a 50ft rope to the bottom rope cleat. Run it through the top pulley and back down. Tie the free end of the rope onto a snap hook (M2223). This will be used to raise the net.



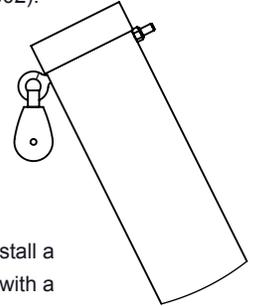
On the two rear most poles, install eyebolt (M2745) with nylock nut (1254) at hole 11ft from the ground. These will be used to secure the rear door flap.

Install eyebolt (M2745) with nylock nut (M1254). Hook rubber strap (M733) between the eyebolt and main net.

Install rope cleats (M2245) with self drilling screws (HDWE06288). There are pilot holes.

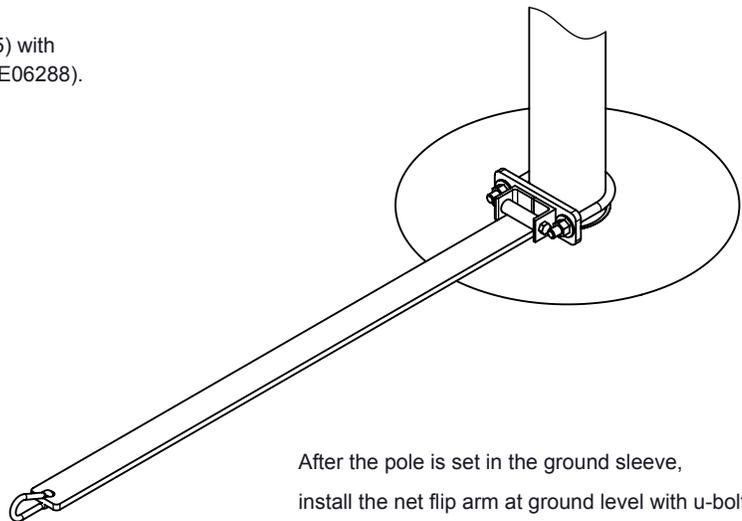
Install the pipe cap (PCAP00158002).

Install pulley (73210042) with 5/16"-18 nylock nut (M1254). The open side of the eye-bolt should be up.



DETAIL A

On the two front poles, install a second pulley (PULY00100) with a quick link (CHAN00021000).



After the pole is set in the ground sleeve,

install the net flip arm at ground level with u-bolt (M2298), washers (M2263), and 1/2"-13 nuts (HDWE030030E0).

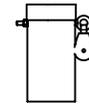
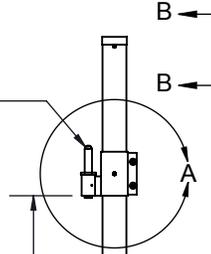
After the net is installed, clip the bottom of the net to the end of the flip arm.



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## 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE DOOR POLE INSTALLATION

Lower pole hinge segment with LONG PIN (M1799), snap ring (M2248) and bronze bearing (73110013).



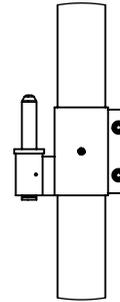
SECTION B-B

Install the pipe cap (PCAP00158002).

Install pulley (73210042) with 5/16"-18 nylock nut (M1254). The open side of the eye-bolt should be up. The pulley should face the inside of the cage.

### NOTES:

1. The longer hinge pin is installed in the upper hinge to aid in hinge alignment during door installation.
2. During installation of the door, ensure hinge segments are not knocked out of alignment and bronze bearings are in place.
3. With the door in place on the hinge pins and the castor wheels resting on the runway, both door hinge segments should be resting on the bronze bearings. To make small adjustments, carefully loosen the door pole segment clamping ring, one hinge at a time, and adjust. The door should be braced to prevent motion from side to side which will upset the alignment of the hinge pins.



DETAIL A

Clamp lower hinge section to door pole. Make sure the bolt head side of the connection is towards the inside of the cage. Use the following hardware:

- 2x 1/2"-13 x 2 1/4" hex bolts (HDWE011480E0)
- 4x 1/2" washers (HDWE05017)
- 2x 1/2"-13 nylock nuts (M2232)

15'-4"  
[4.67m]

Lower pole hinge segment with SHORT PIN (M1798), snap ring (M2248) and bronze bearing (73110013).



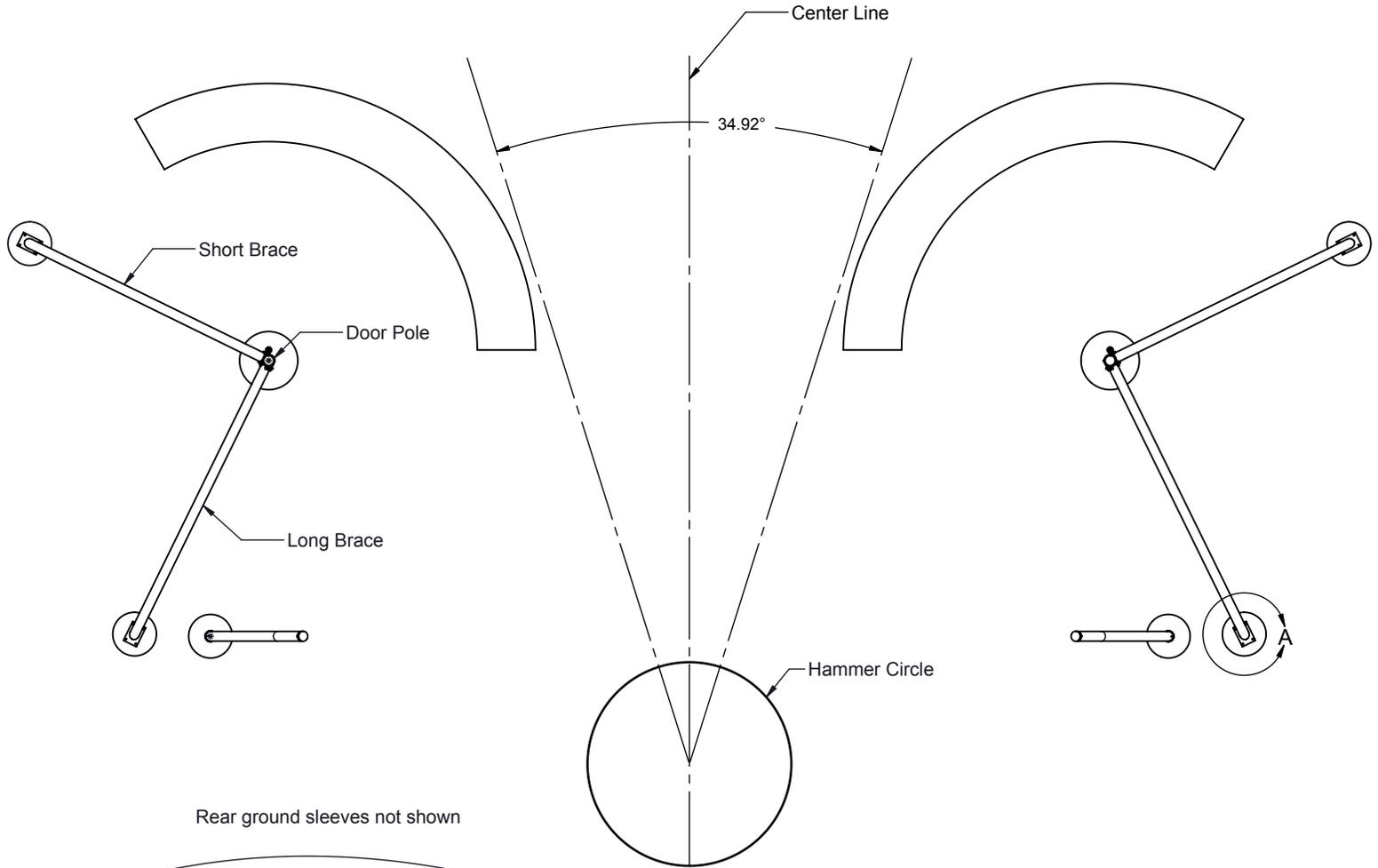
3'-4 7/8"  
[1.04m]

Install rope cleats (M2245) with self drilling screws (HDWE06288). There are pilot holes. The rope cleats must point to the outside of the cage.



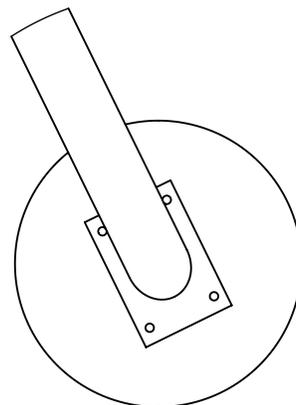
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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE BRACE POLES



Attach the braces to the door pole with u-bolts, but leave them loose until base plate anchors are installed.

Use the holes in the base plate to mark holes positions for 1/2" anchor bolts.

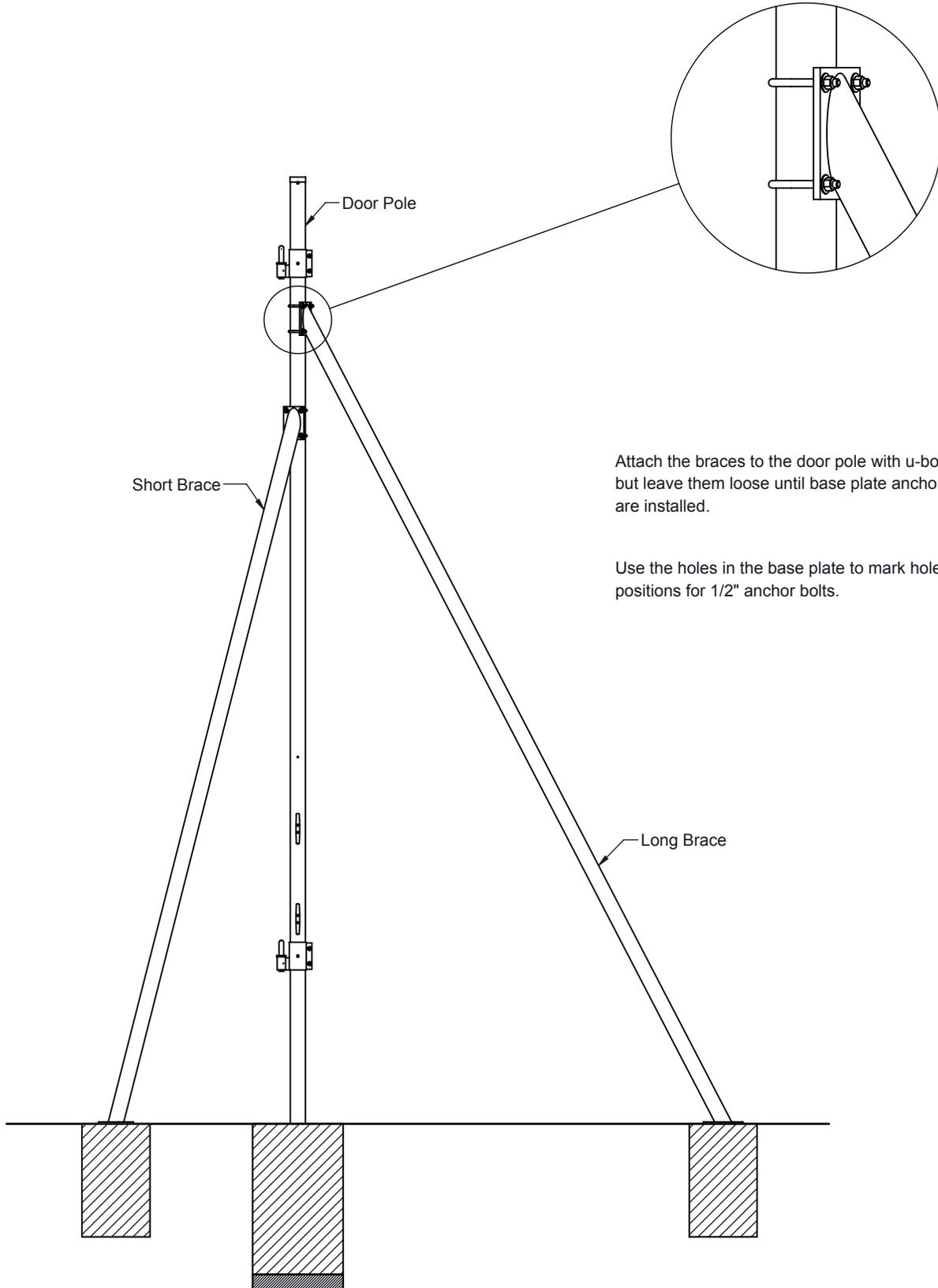


DETAIL A



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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE BRACE POLES



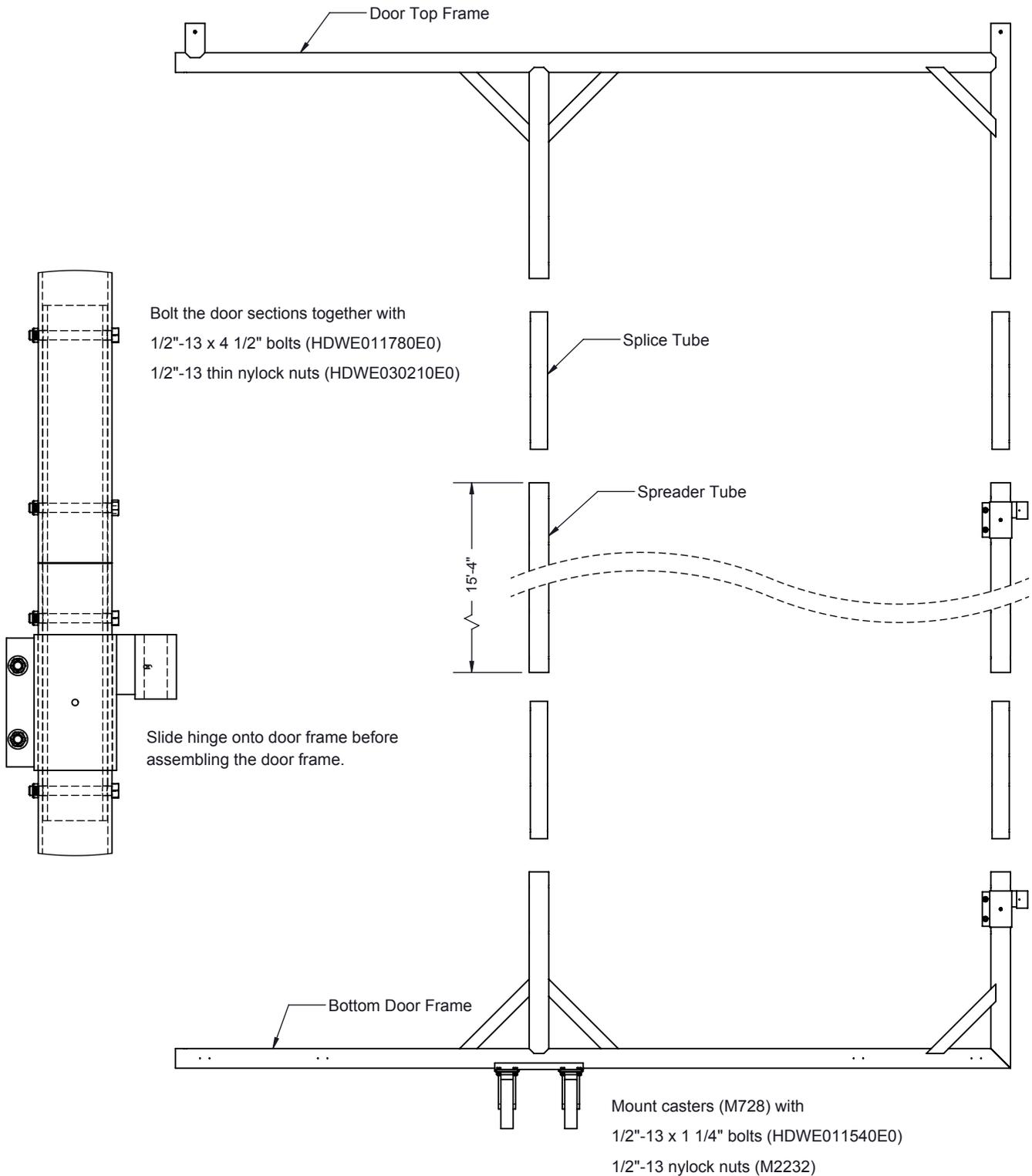
Attach the braces to the door pole with u-bolts, but leave them loose until base plate anchors are installed.

Use the holes in the base plate to mark holes positions for 1/2" anchor bolts.



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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE DOOR ASSEMBLY







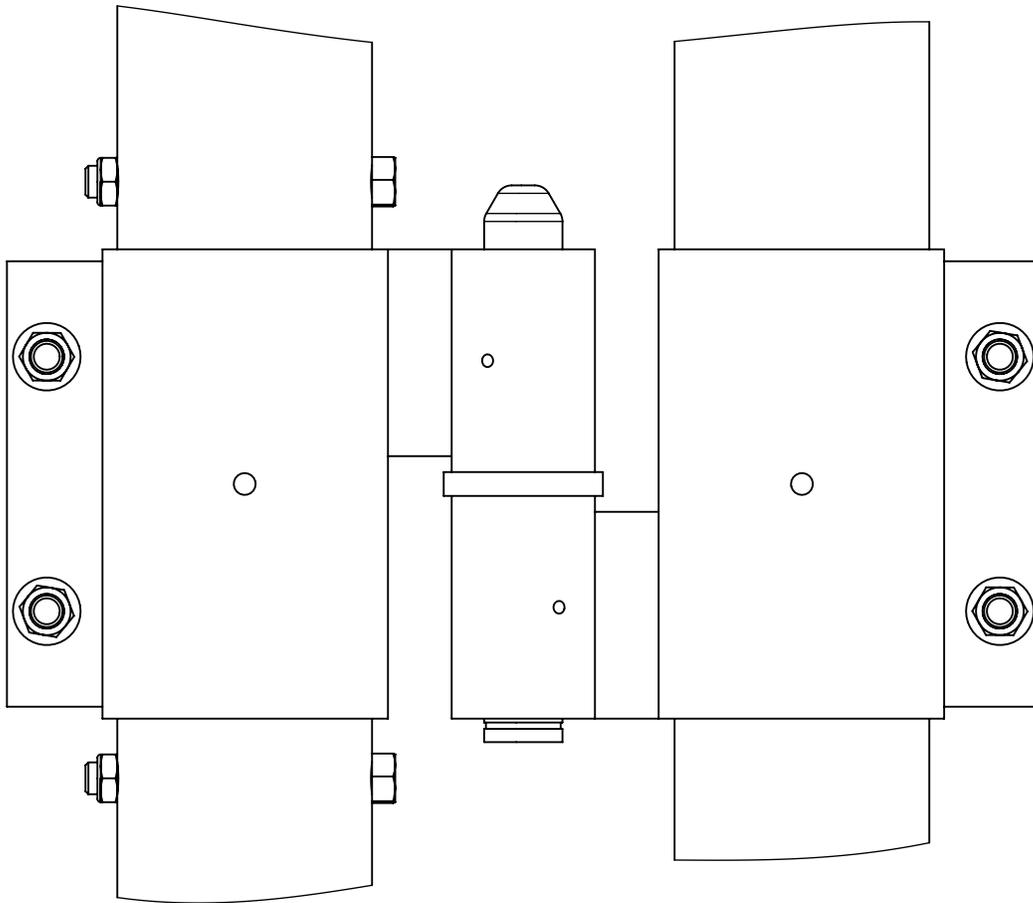
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## 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE HINGE ASSEMBLY

All hinge hardware should be oriented so that the bolt head is facing the inside of the cage. This will help prevent the net from getting caught on the hardware.

After the doors have been installed and all final adjustments have been made, lock the hinges in place. Use the holes in the body of the hinge as guides to drill  $21/64$ " diameter holes through the door pole and door frame.

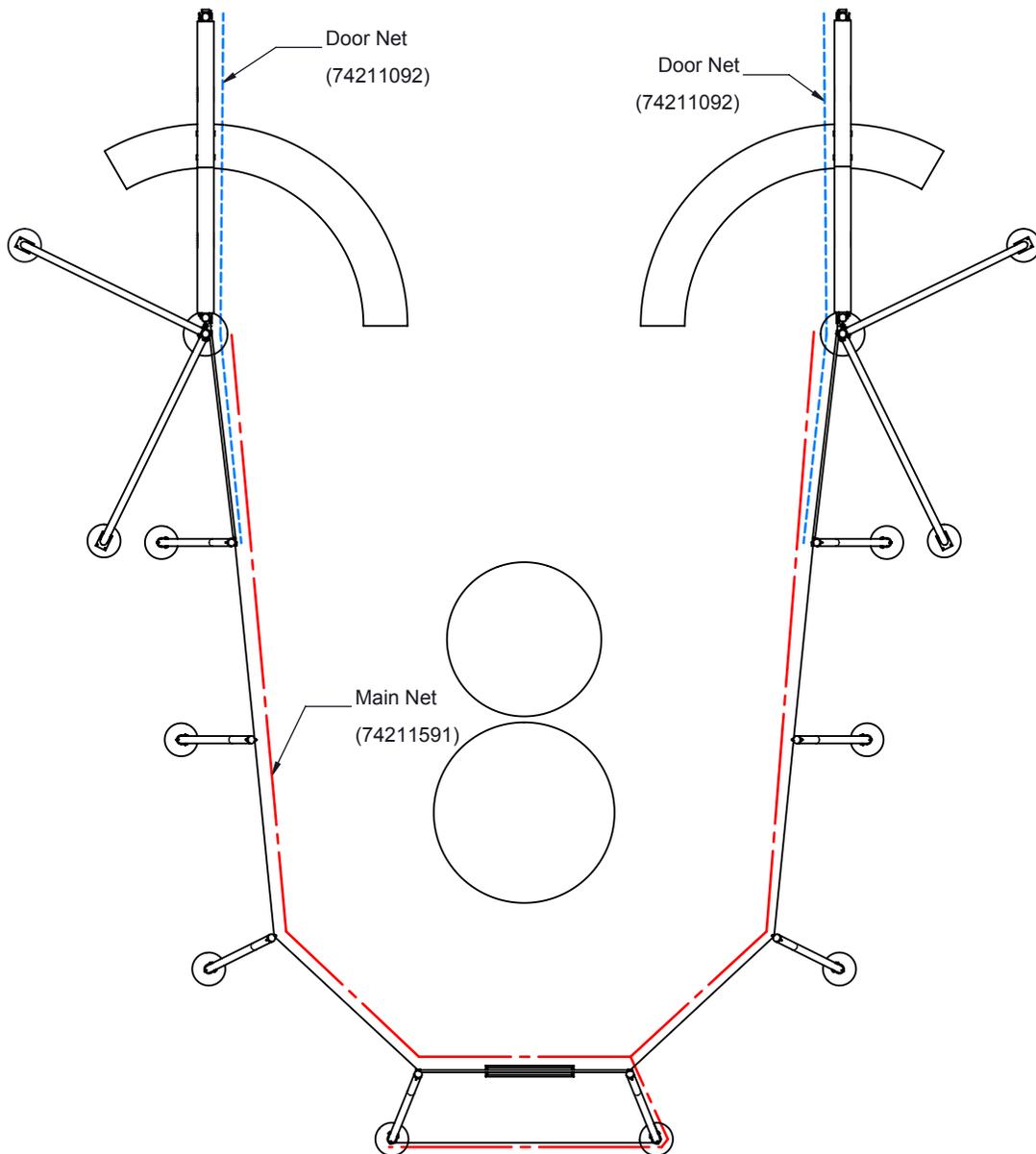
Install a  $5/16$ "-18 bolt (HDWE012560E0) through the holes and secure with a  $5/16$ "-18 nylock nut (M1254).



The netting consists of three parts. There are two door nets and one main net.

The door nets should be installed first. The door net has a double layered section and a tail that extends back to the first net pole.

The main net should be installed last and overlap in front of the tail of the door net.



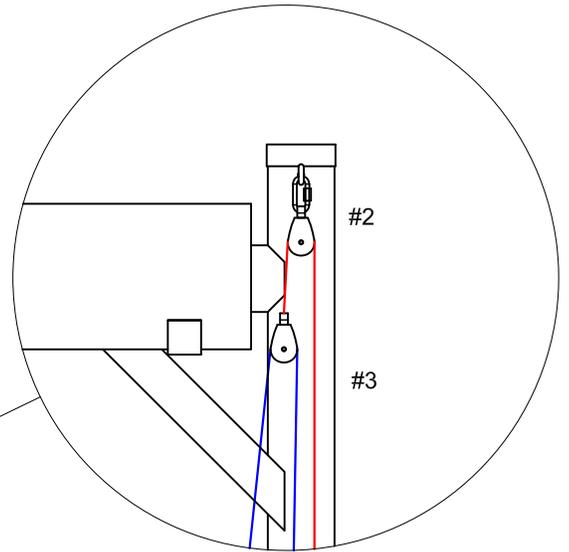


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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE DOOR NET INSTRUCTIONS

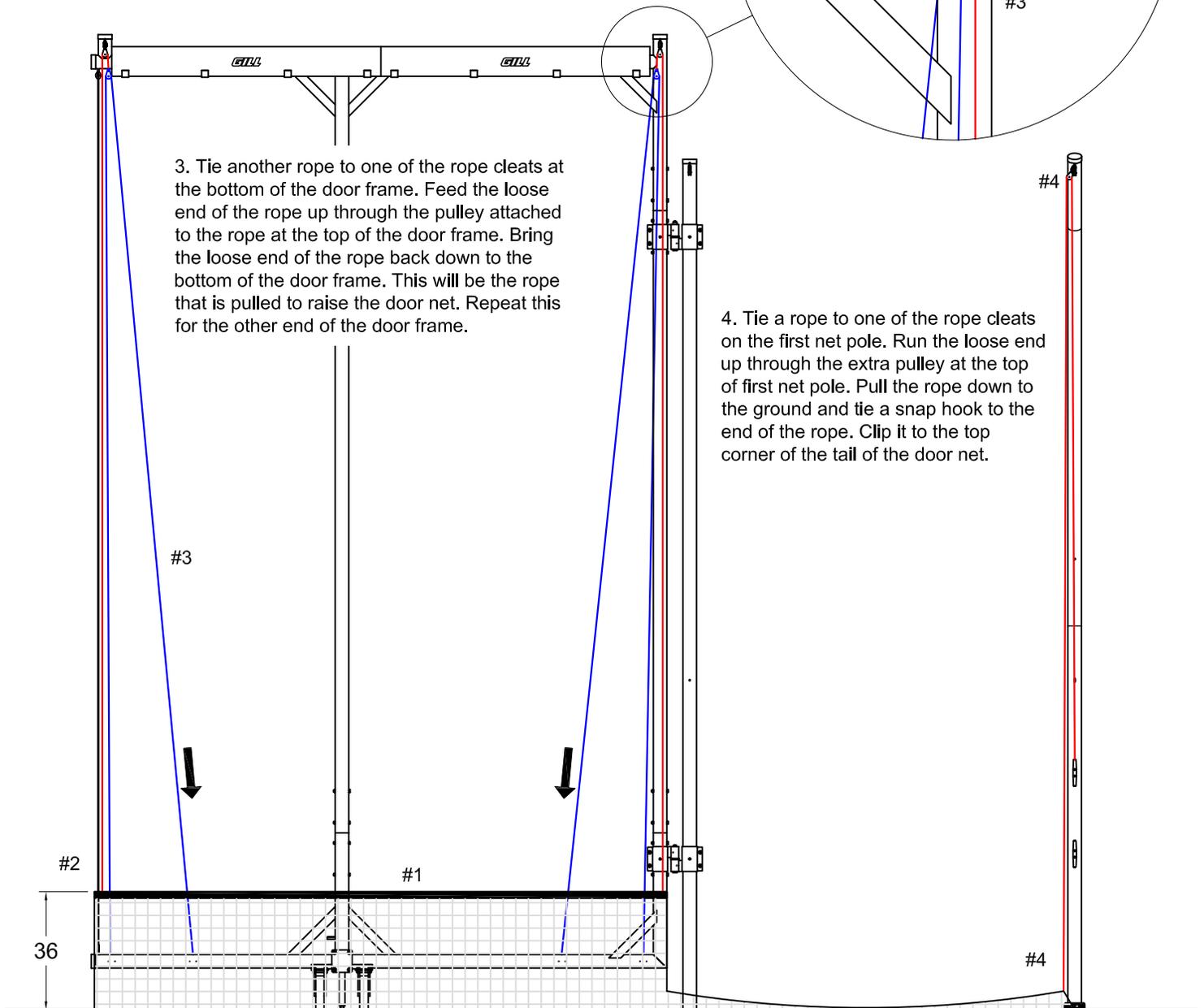
These instructions are best viewed in color.

1. Feed the net support tube (74211041) through the double layered portion of the door net. Install the eyebolts (M2249) in the net support tube with nylock nuts (M1254).
2. Tie the end of a rope to a pulley. Feed the loose end of the rope through the pulley at the top of the door frame. Pull the loose end of the rope down and cut the rope where it is about 36" from the ground. Tie a snap hook to the loose end of the rope clip it to the eyebolt on the net support tube. Repeat this for the other end of the door frame.



3. Tie another rope to one of the rope cleats at the bottom of the door frame. Feed the loose end of the rope up through the pulley attached to the rope at the top of the door frame. Bring the loose end of the rope back down to the bottom of the door frame. This will be the rope that is pulled to raise the door net. Repeat this for the other end of the door frame.

4. Tie a rope to one of the rope cleats on the first net pole. Run the loose end up through the extra pulley at the top of first net pole. Pull the rope down to the ground and tie a snap hook to the end of the rope. Clip it to the top corner of the tail of the door net.

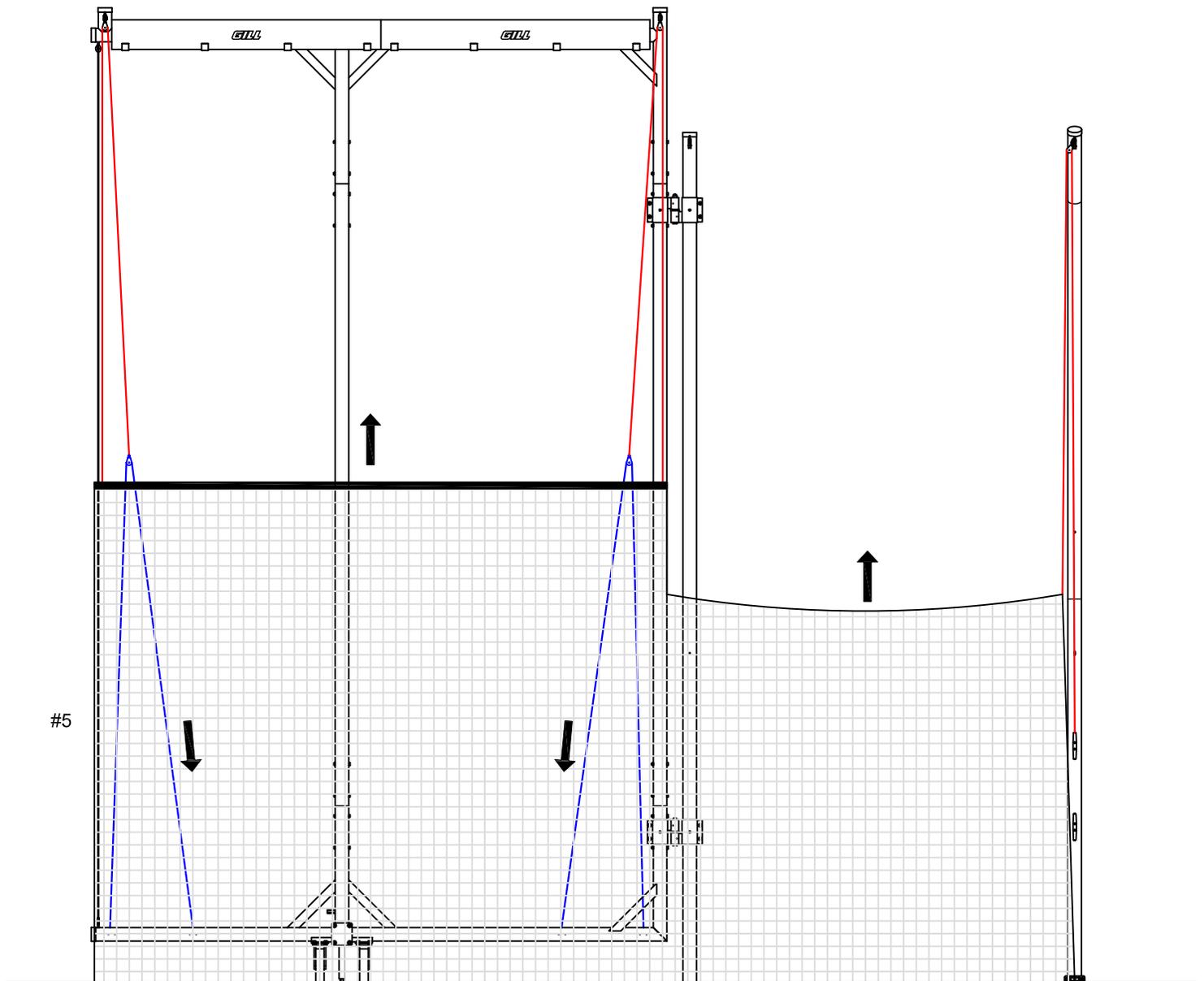




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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE DOOR NET INSTRUCTIONS

5. Slowly raise the net. Use a snap hook about every 2 feet to connect the front edge of the net to the door cable.

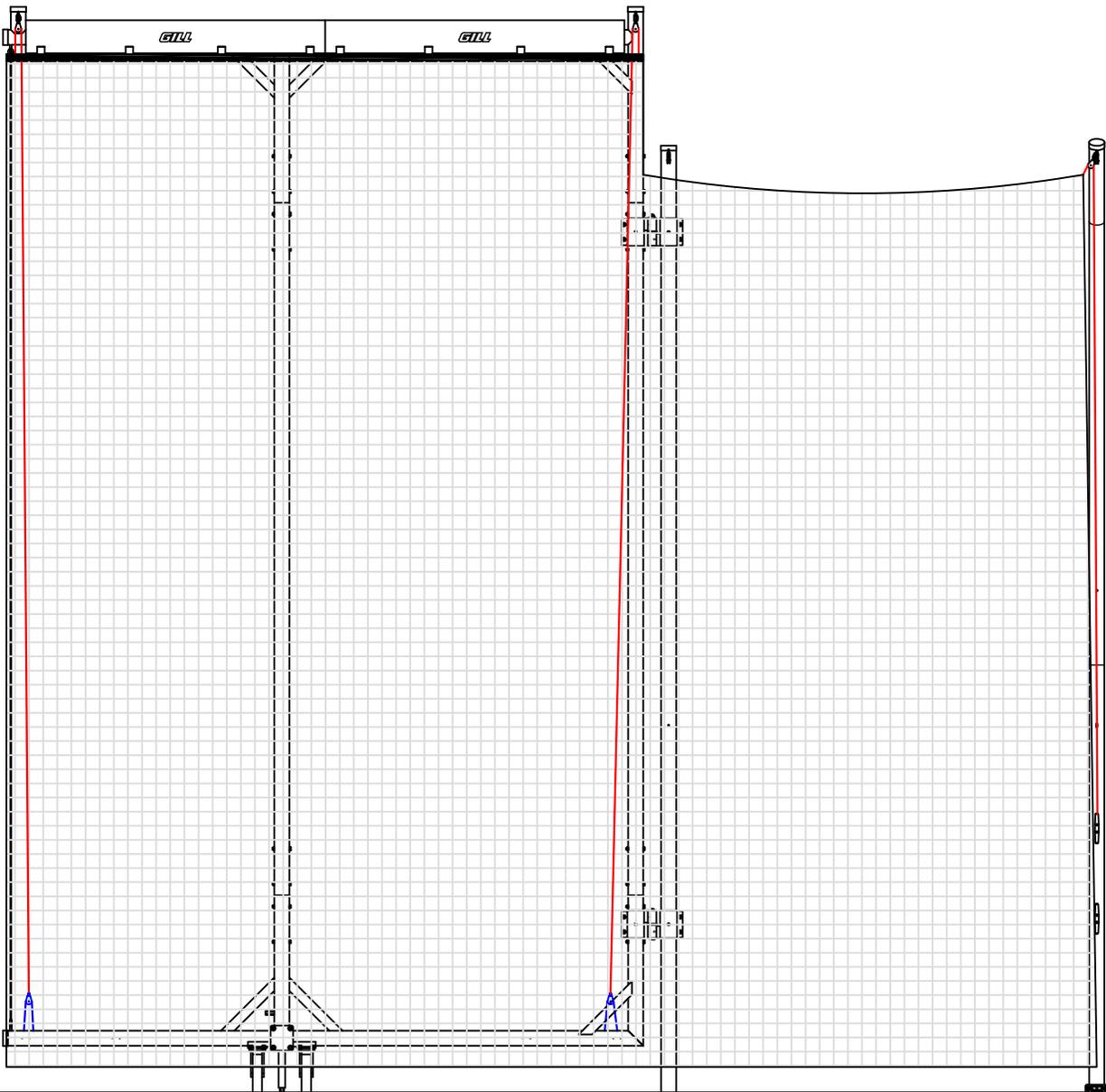




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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE DOOR NET INSTRUCTIONS

This is what the door net should look like when complete.

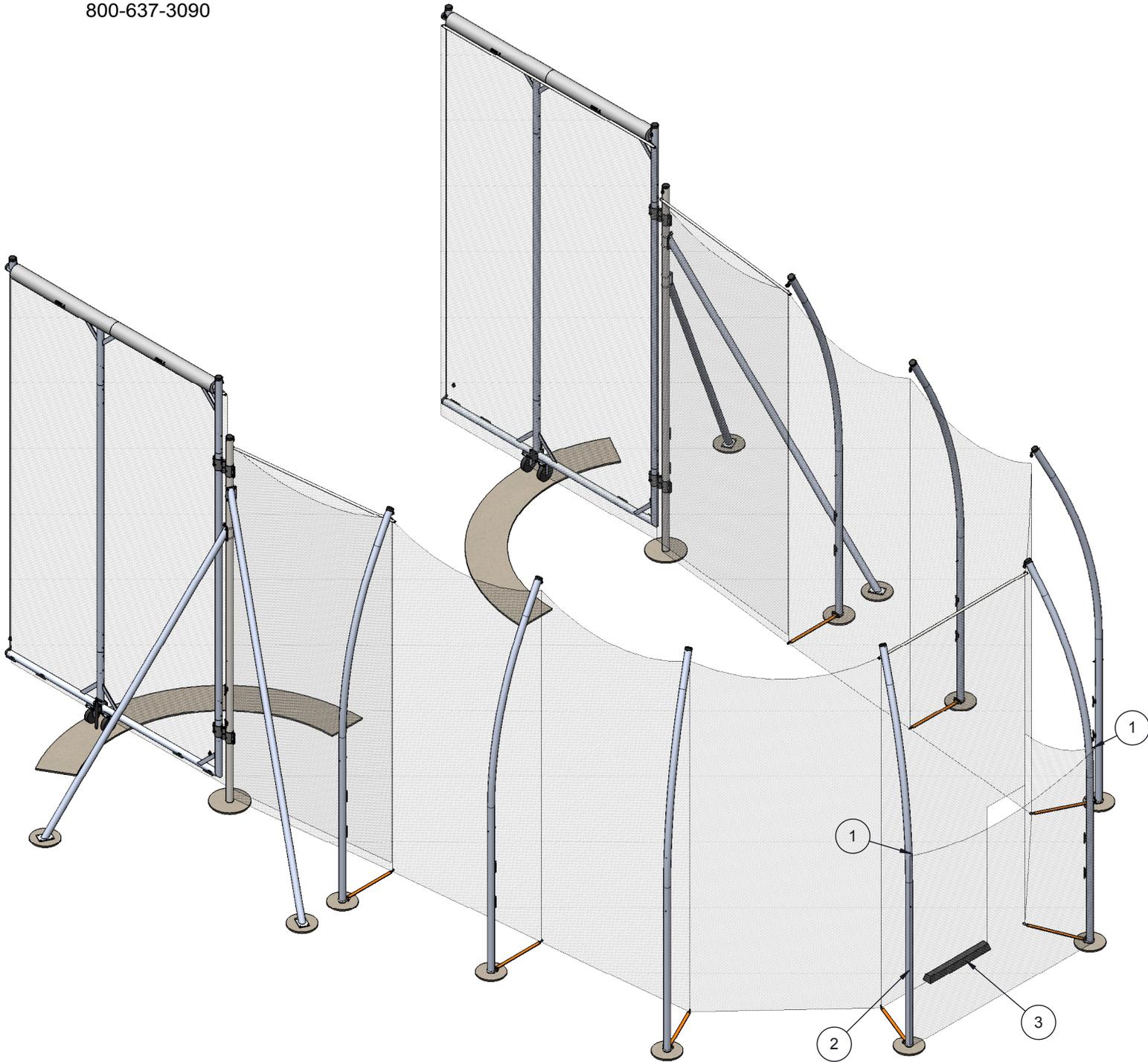






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## 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE MAIN NET REAR DOOR



1. Wrap the rear access net extension around the outside of the two rear most net poles. Hook the net to the poles at the eyebolt 11ft from the ground.

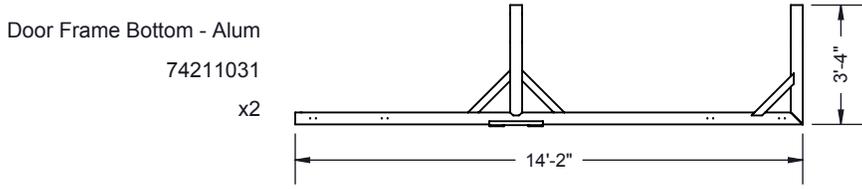
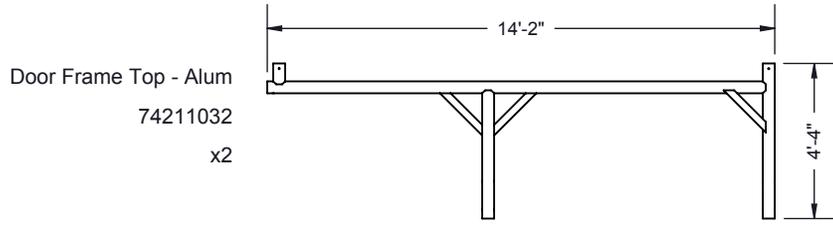
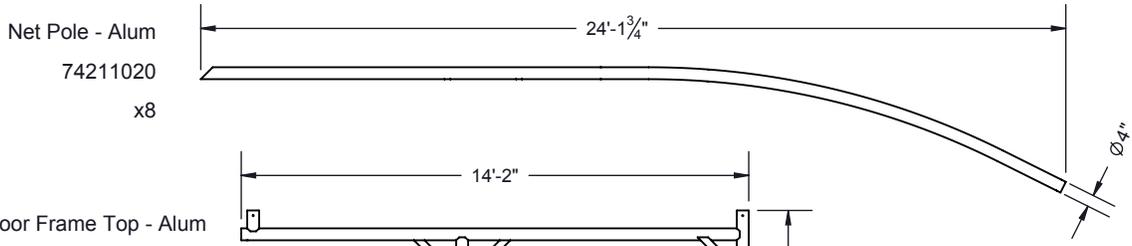
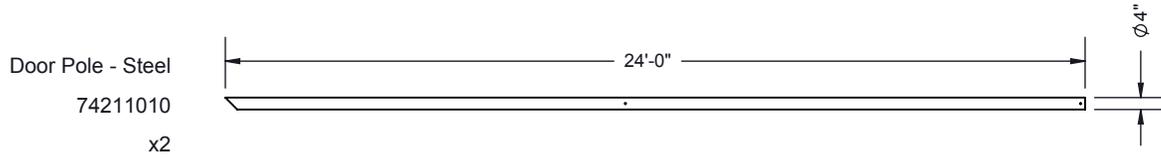
2. Lace the entire end of the net extension to this pole using rope.

3. Clip the door flap weight (73210050) to the bottom net edge rope next to the entry way to keep the net from moving in the wind.



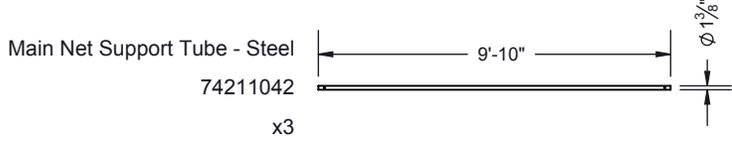
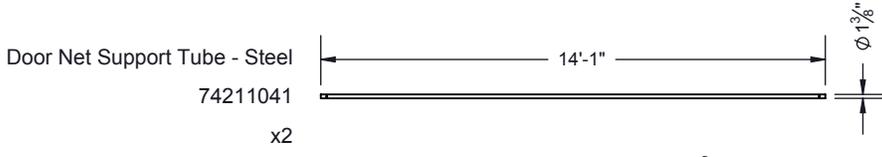
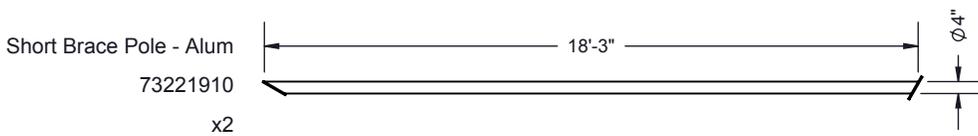
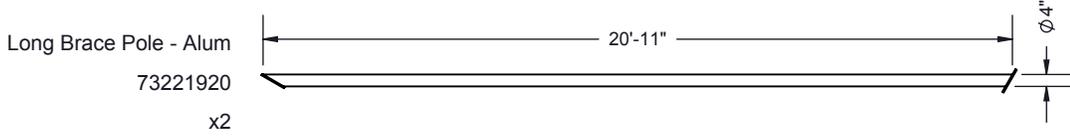
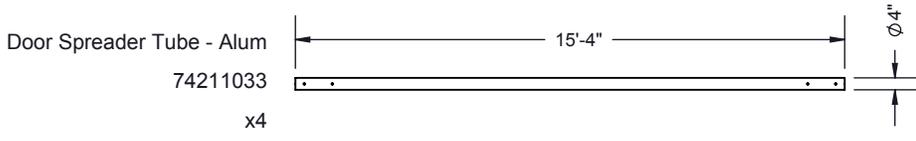
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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE SHIPPING LIST



Main Net  
74211591  
x1

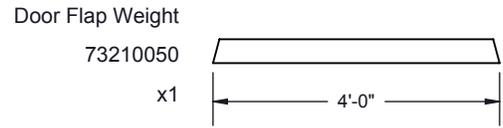
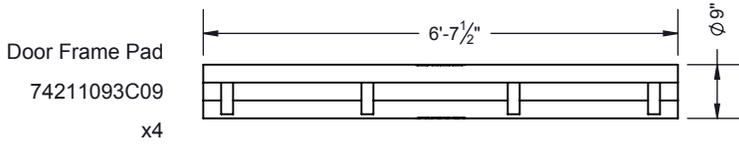
Door Net  
74211092  
x2





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# 742115 - NCAA DOUBLE CIRCLE HAMMER/DISCUS CAGE SHIPPING LIST



Hardware  
74211560  
x1

HDWE - Net Support Tubes  
7421106001  
x1

HDWE - Doors  
7421106002  
x1

HDWE - Poles  
7421156003  
x1

HDWE - Rope Cleats  
7421156004  
x1

HDWE - Brace Poles  
73210460  
x1

Door Cable Assembly  
74211035  
x2

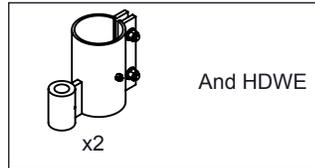
Rubber Strap 24"  
M733  
x8

5/16" Polyester Rope  
50' Roll  
M2016  
x20

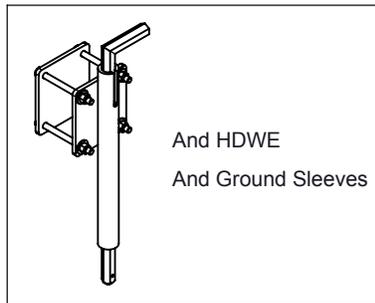
Warning Sign  
M2322  
x3

Loose Leaf Ring  
M1250  
x12

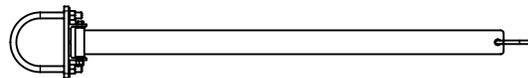
Hinge Assembly  
73110012  
x4



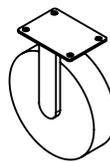
Latch Assembly  
73110045  
x2



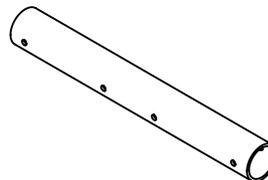
Flip Arm  
73210043  
x8



10" Caster  
M728  
x4



Door Splice Tube  
732100054  
x8



4" Pipe Cap  
PCAP00158002  
x18