



PREPARED BY:  
**ModTruss** INC

# CONNECTION GUIDE

REV DATE: 2/3/2022

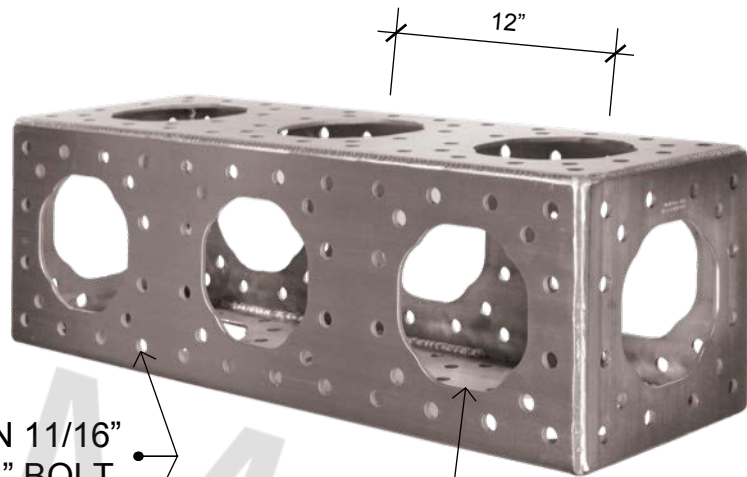
LOAD TABLES ARE BASED ON END TO END, HORIZONTAL CONNECTIONS OF TRUSS AND EXTRUSION ONLY.

SPECIFIC ENGINEERING CALCULATIONS NEED TO BE COMPLETED FOR EACH INDIVIDUAL STRUCTURE/PROJECT THE MODTRUSS PRODUCT LINE IS A PART OF TO DEMONSTRATE LOAD CAPACITIES ARE NOT BEING EXCEEDED.

THE FOLLOWING INSTRUCTIONS ARE THE GUIDELINES FOR GENERAL CONNECTIONS TO ACHIEVE EASE OF CONSTRUCTION FOR THE SUPPORTING MODTRUSS PRODUCTS.

ALL LOAD RATINGS AND LOAD TABLES OF THE TRUSS AND EXTRUSION WILL BE BASED ON THE FOLLOWING ASSUMPTIONS:

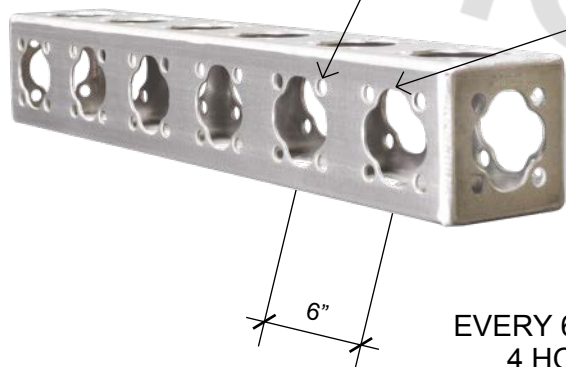
- LOADS ARE APPLIED VERTICALLY TO THE BOTTOM OF THE BEAM. (TRUSS OR EXTRUSION)
- THE BEAM MUST BE CONSTRUCTED WITH THE LONGEST PIECES POSSIBLE UTILIZING 10' MAX LENGTH, CREATING THE FEWEST JOINTS POSSIBLE (TRUSS OR EXTRUSION)
- ALL CONNECTIONS WILL USE A MINIMUM (4) BOLT ASSEMBLIES, UTILIZING THE OUTERMOST HOLE PATTERN AVAILABLE. (TRUSS)
- END TO END CONNECTIONS OF MODTRUSS ARE REINFORCED USING (4) WASHER PLATES OF THE APPROPRIATE SIZE AT ALL JOINTS. (TRUSS)



EVERY 12" OF THE 12" TRUSS SERIES UTILIZES 16 HOLES AND ONE CLOVER EVERY 12" CENTER TO CENTER

TRUSS USES AN 11/16" HOLE FOR A 5/8" BOLT

THE CUT OUT IN BOTH 6" AND 12" MODTRUSS IS CALLED THE CLOVER. THE PURPOSE OF THE CLOVER IS FOR WEIGHT REDUCTION AS WELL AS ACCESSIBILITY INSIDE THE TRUSS FOR INSTALLATION.



EVERY 6" OF THE 6" TRUSS SERIES UTILIZES 4 HOLES AND ONE CLOVER EVERY 6"

## ModTruss TR Series

ALL 3 SERIES of ModTruss TRUSS COME IN ONE FOOT INCREMENTS UP TO 10'





CLOSED TRACK



OPEN TRACK

OPEN TRACK

CLOSED TRACK

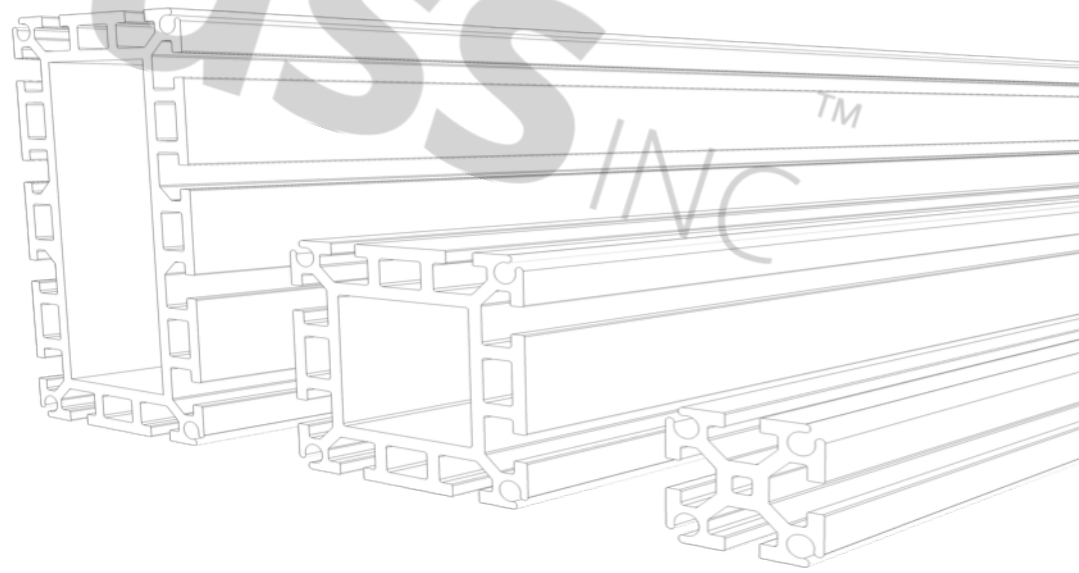
ALL MODTRUSS SERIES OF EXTRUSION UTILIZES A "T TRACK"  
3 INCHES CENTER TO CENTER TO INTEGRATE WITH ALL  
MODTRUSS COMPONENTS.

THE 6" AND 12" EXTRUSION HAVE TWO TYPES OF TRACKS:

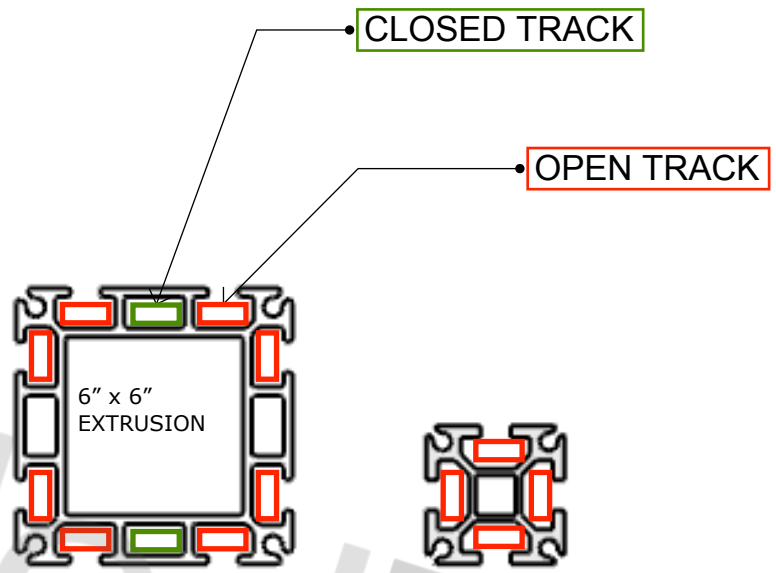
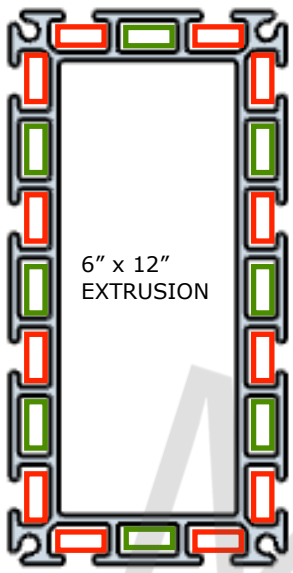
- THE "OPEN TRACK" IS DESIGNED FOR INFINITE BOLTING  
OPTIONS USING ANY OF OUR NUT BAR SERIES.
- THE "CLOSED TRACK" IS DESIGNED TO BE DRILLED  
THROUGH ALL FOR END SPLICING.

THIS KEEPS THE SPLICING HARDWARE AND ACCESSORY  
HARDWARE IN SEPARATE TRACKS SO COLLISION IS NEVER AN  
ISSUE.

ALL FOUR SIDES OF THE EXTRUSION HAVE BOTH OPEN AND  
CLOSED TRACKS FOR END SPLICING AND RIGGING.



## ModTruss EX Series

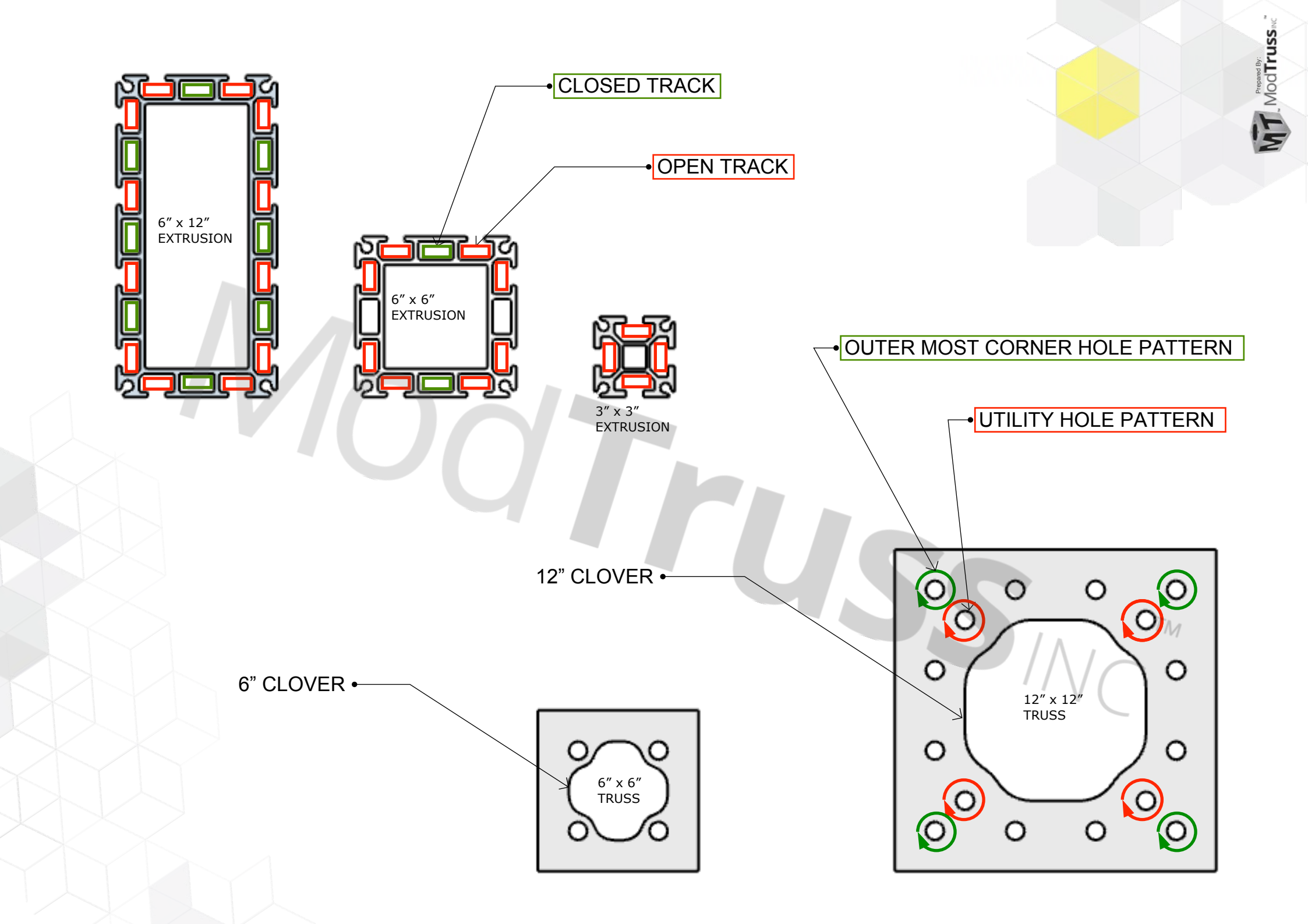
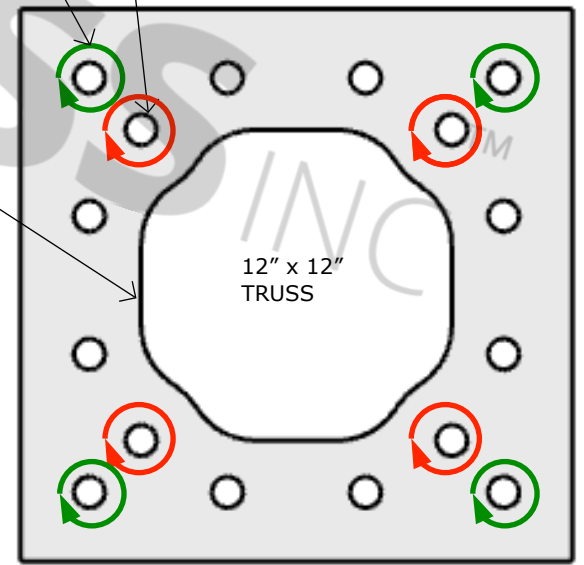
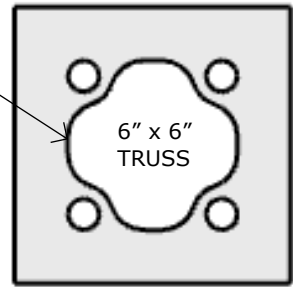


OUTER MOST CORNER HOLE PATTERN

UTILITY HOLE PATTERN

12" CLOVER

6" CLOVER



NUT BARS ARE STEEL THREADED BARS DESIGNED TO GO IN THE OPEN TRACK OF THE EXTRUSION FOR MOUNTING AND RIGGING.



A BOLT SET CONSISTS OF:

- ONE GRADE 8 HEX BOLT
- ONE GRADE 8 HEX NUT
- TWO SAE WASHERS



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# 3" TRUSS - END TO END

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

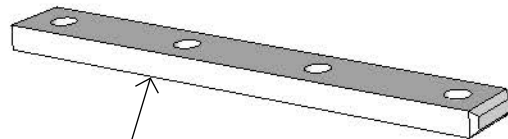
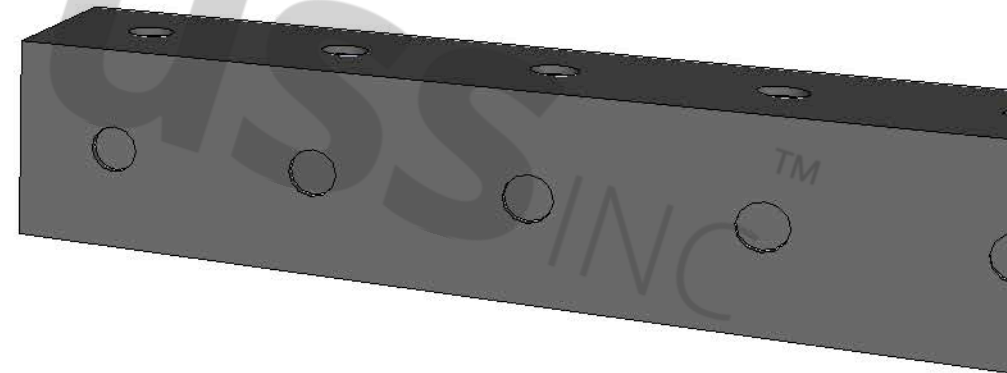
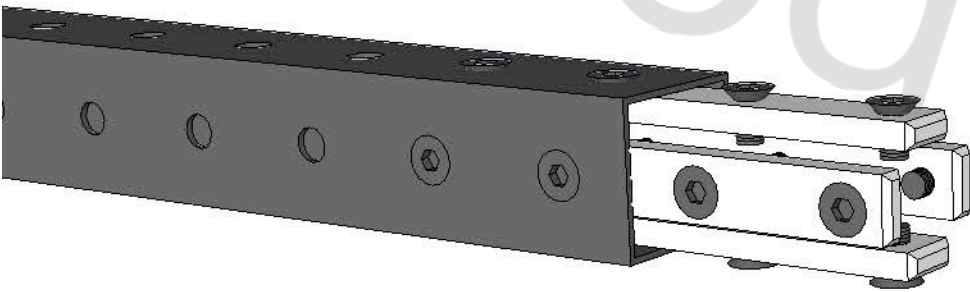
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

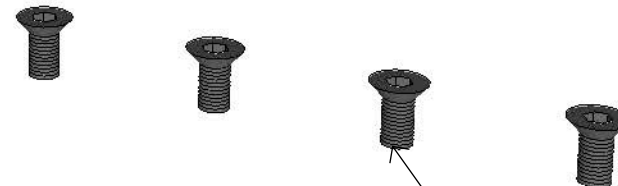
WHEN MAKING A 3" TRUSS CONNECTION END TO END, INSERT FOUR, FOUR-HOLE 1/2"-13 NUT BARS INTO THE TRUSS WITH TWO HOLES OF ENGAGEMENT PER END FOR EACH NUT BAR. CONNECT WITH 1/2"-13 X 1" FLAT HEAD SCREWS.

## HARDWARE PER CONNECTION

- [16] MT-HW-BT-FLT-0150-128 (1/2"-13 x 1.5" FLAT HEAD)
- [4] MT-HW-SB-000-128-04 (1/2"-13 FOUR HOLE SPLICE BAR)



MT-HW-SB-000-128-04  
(1/2"-13 FOUR HOLE SPLICE BAR)



MT-HW-BT-FLT-0150-128  
(1/2"-13 x 1.5" FLAT HEAD)



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# 3" TRUSS - GUSSET PLATE CORNER

\* ALL HARDWARE TO BE GRADE 8.

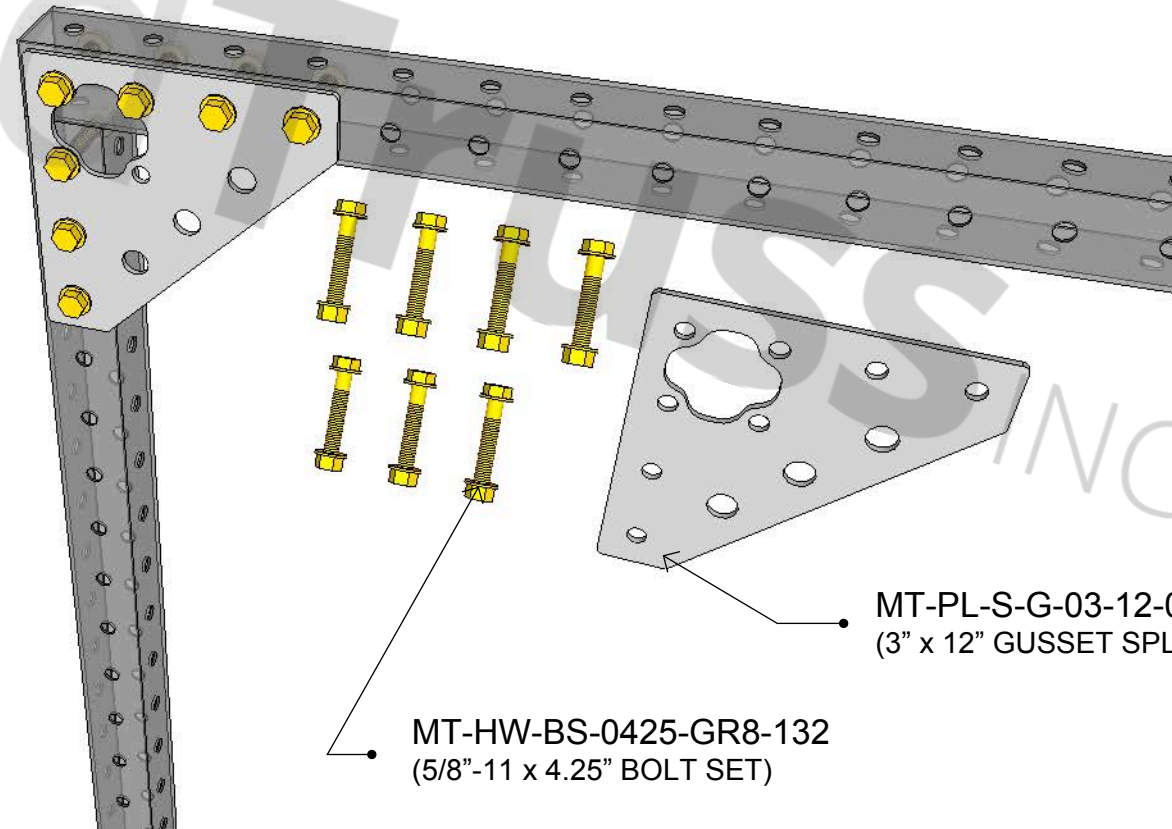
RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN MAKING A 3" TRUSS CONNECTION WITH SPLICE PLATE,  
THROUGH BOLT THE PLATE AND 3" TRUSS WITH 4.25" BOLT  
SETS. 4.5" BOLT SETS CAN ALSO BE USED BUT WILL LEAVE  
MORE BOLT TAIL EXTENDING OUTWARD.

## HARDWARE PER CONNECTION

- [7] MT-HW-BS-0425-GR8-132 (5/8"-11 x 4.25" BOLT SET)
- [1] MT-PL-S-G-03-12-090 (3" x 12" GUSSET SPLICE PLATE)



MT-PL-S-G-03-12-090  
(3" x 12" GUSSET SPLICE PLATE)

MT-HW-BS-0425-GR8-132  
(5/8"-11 x 4.25" BOLT SET)



# 3" TRUSS - GUSSET PLATE TEE

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

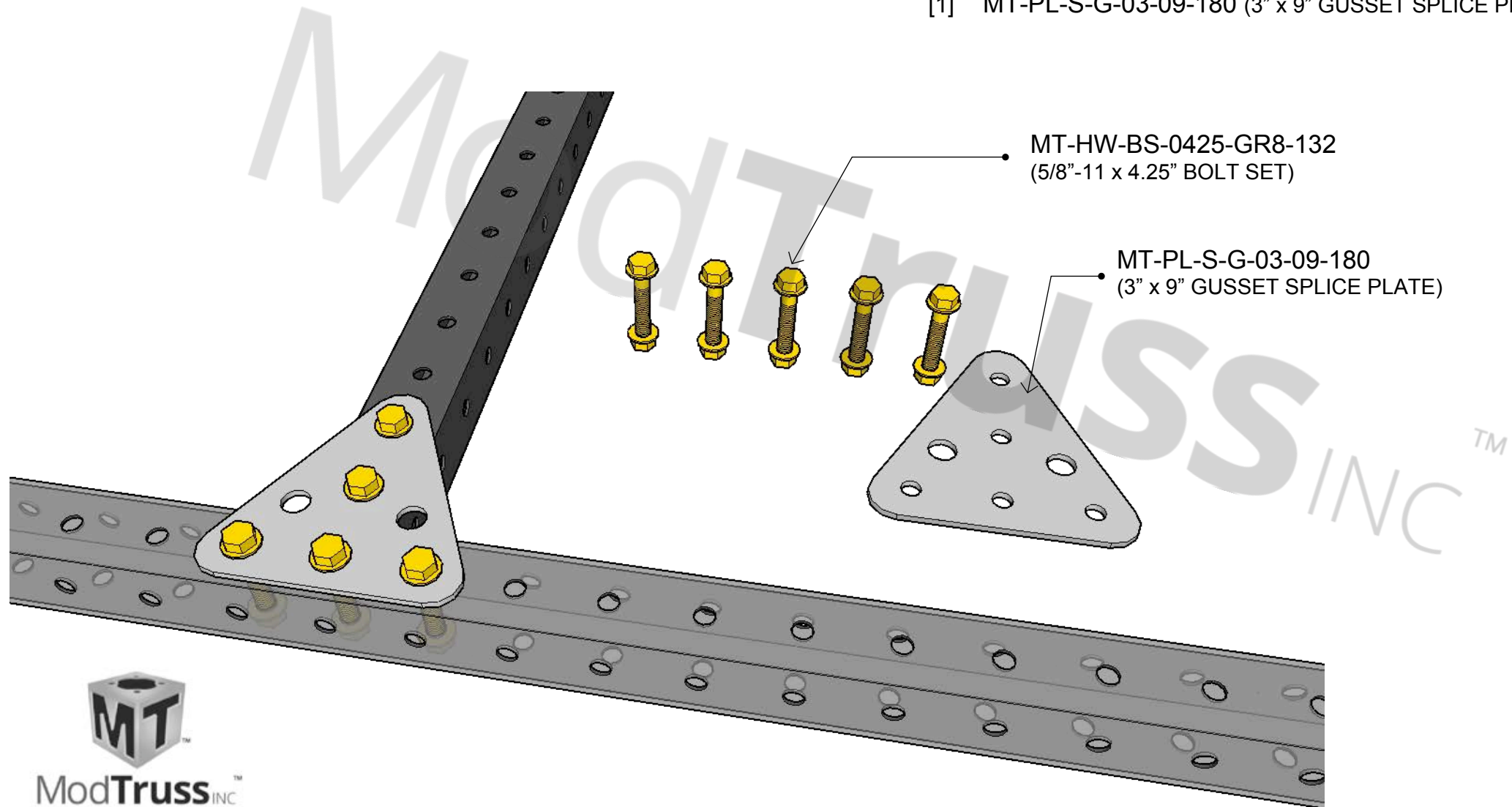
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN MAKING A 3" TRUSS CONNECTION WITH SPLICE PLATE, THROUGH BOLT THE PLATE AND 3" TRUSS WITH 4.25" BOLT SETS. 4.5" BOLT SETS CAN ALSO BE USED BUT WILL LEAVE MORE BOLT TAIL EXTENDING OUTWARD.

## HARDWARE PER CONNECTION

- [5] MT-HW-BS-0425-GR8-132 (5/8"-11 x 4.25" BOLT SET)
- [1] MT-PL-S-G-03-09-180 (3" x 9" GUSSET SPLICE PLATE)



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# 3" TRUSS - SPLICE PLATE PLATE TEE

\* ALL HARDWARE TO BE GRADE 8.

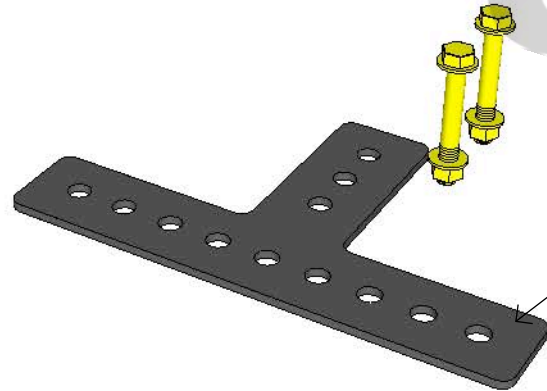
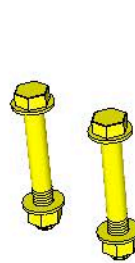
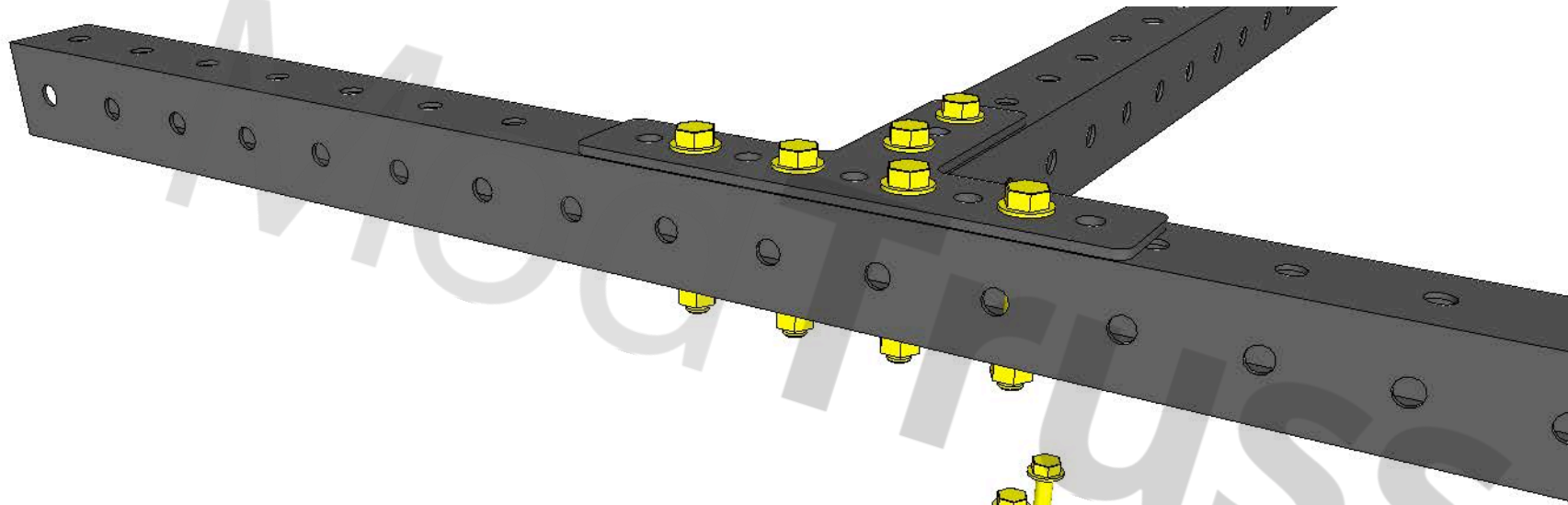
RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN MAKING A 3" TRUSS CONNECTION WITH SPLICE PLATE, THROUGH BOLT THE PLATE AND 3" TRUSS WITH 4.25" BOLT SETS. 4.5" BOLT SETS CAN ALSO BE USED BUT WILL LEAVE MORE BOLT TAIL EXTENDING OUTWARD.

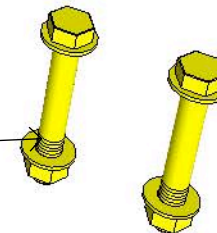
**HARDWARE PER CONNECTION**

- [6] MT-HW-BS-0425-GR8-132 (5/8"-11 x 4.25" BOLT SET)
- [1] MT-PL-S-G-03-15-TEE (3" x 15" TEE SPLICE PLATE)



MT-PL-S-03-15-TEE  
(3" x 15" TEE SPLICE PLATE)

MT-HW-BS-0425-GR8-132  
(5/8"-11 x 4.25" BOLT SET)



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# 6" TRUSS - END TO END CONNECTION

\* ALL HARDWARE TO BE GRADE 8.

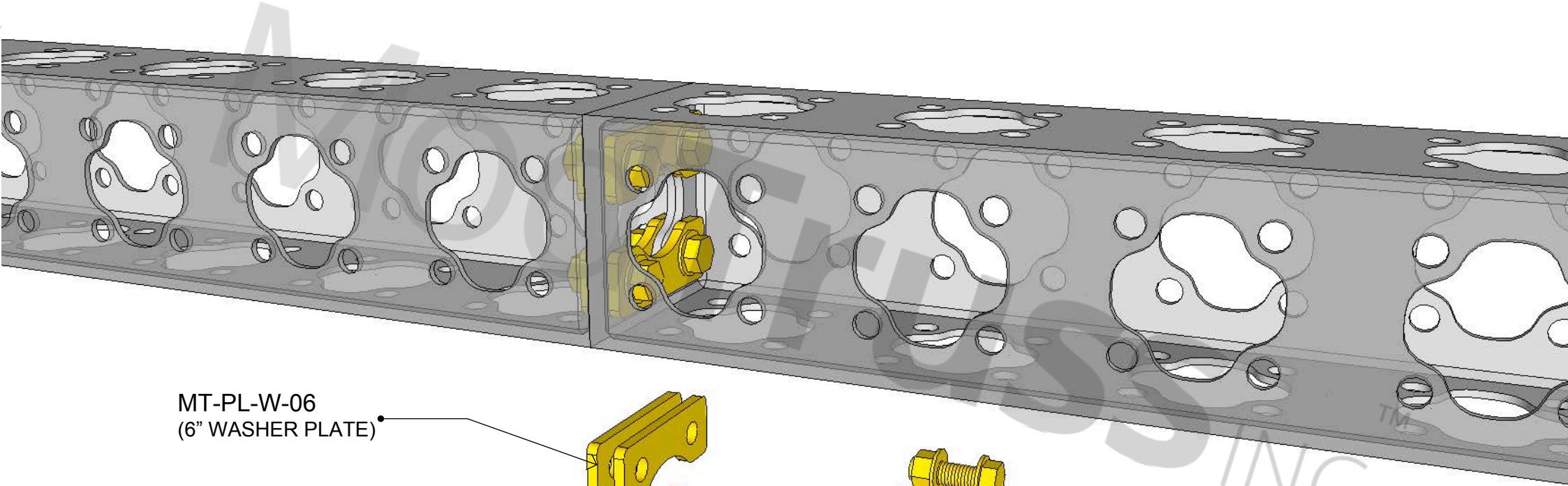
RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

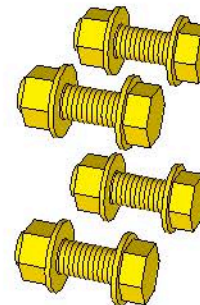
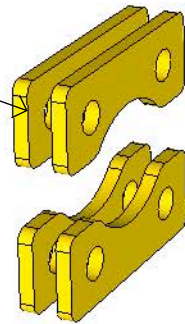
WHEN MAKING A 6" TRUSS END TO END CONNECTION, PLACE TWO WASHER PLATES INSIDE EACH MEMBER (FOUR WASHER PLATES TOTAL PER CONNECTION) IN THE HORIZONTAL ORIENTATION WITH FOUR, 5/8"-11 x 2" BOLT SETS.

**HARDWARE PER CONNECTION**

- [4] MT-PL-W-06 (6" WASHER PLATE)
- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)



MT-PL-W-06  
(6" WASHER PLATE)



MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

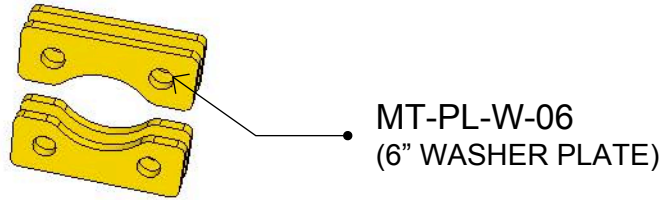
# 6" TRUSS - TEE CONNECTION

**\*NOTE:**

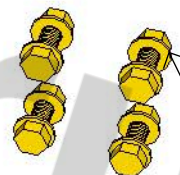
WHEN MAKING A 6" TRUSS TEE CONNECTION, PLACE TWO WASHER PLATES INSIDE EACH MEMBER (FOUR WASHER PLATES TOTAL PER CONNECTION) IN THE HORIZONTAL ORIENTATION WITH FOUR, 5/8"-11 x 2" BOLT SETS.

**HARDWARE PER CONNECTION**

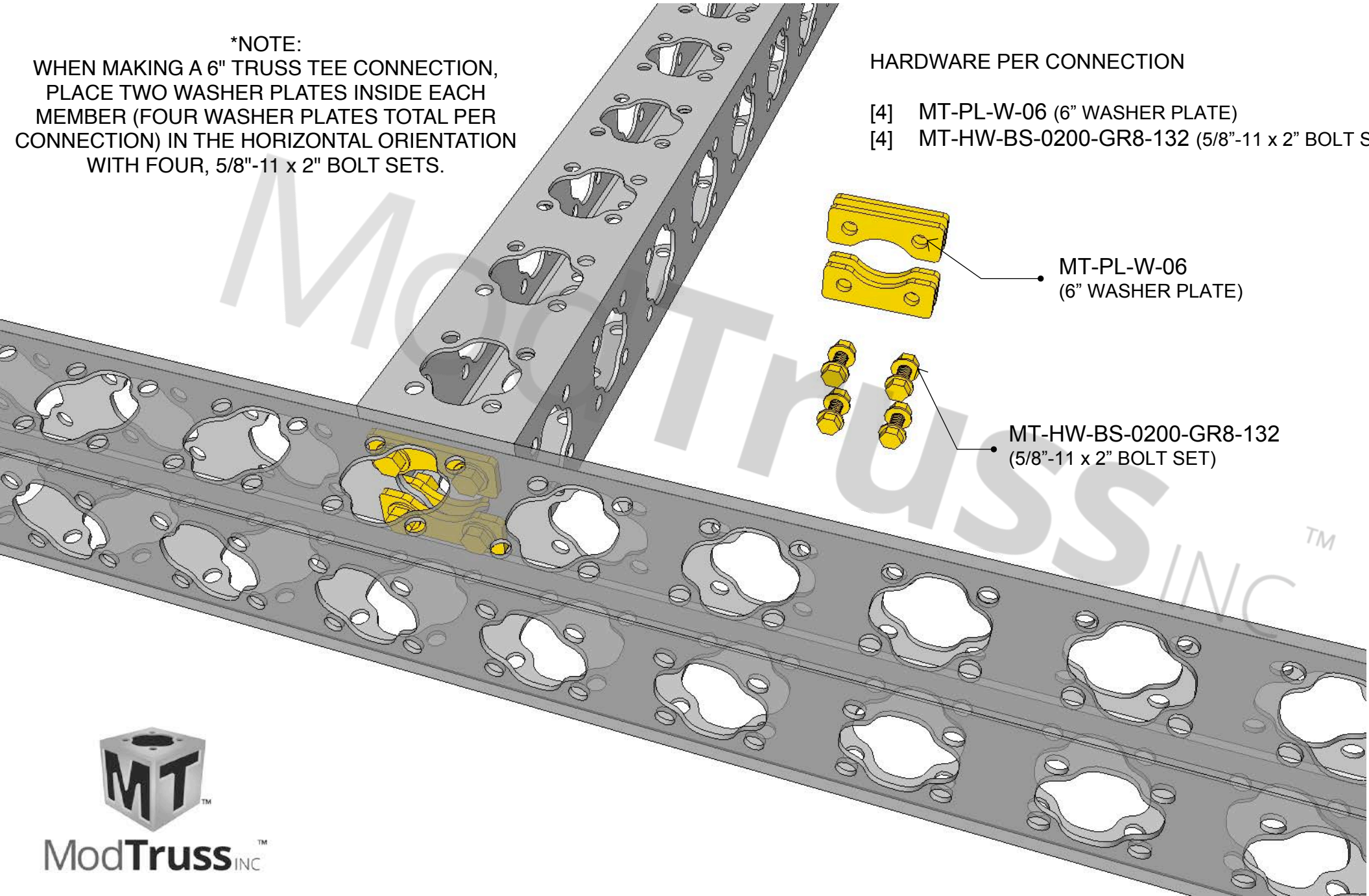
- [4] MT-PL-W-06 (6" WASHER PLATE)
- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)



MT-PL-W-06  
(6" WASHER PLATE)



MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

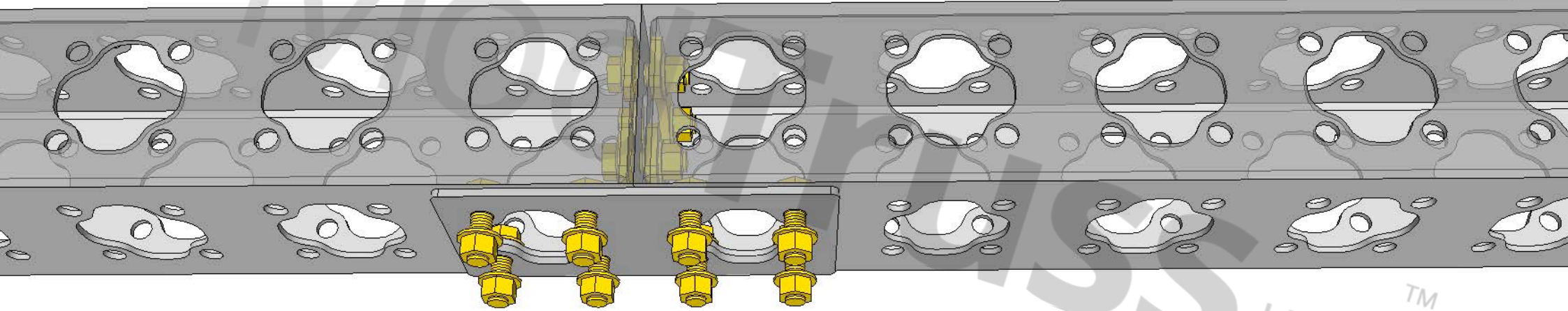
# 6" TRUSS - 6"x12" SPLICE PLATE

**\*NOTE:**

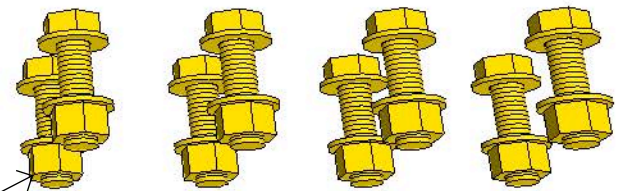
WHEN INSTALLING A 6"x12" SPLICE PLATE, USE EIGHT BOLT SETS AS SHOWN. WASHER PLATES ARE NOT NEEDED AT THE SPLICE PLATE BUT ARE STILL REQUIRED AT THE STANDARD END TO END CONNECTION. BE SURE TO HAVE THE ORIENTATION OF THE BOLTS AS SHOWN WITH THE BOLT TAILS GOING DOWN TO AVOID COLLISION WITH THE BOLT SETS AND WASHER PLATES USED IN THE STANDARD CONNECTION.

**HARDWARE PER CONNECTION**

- [1] MT-PL-S-06-12-000 (6"x12" SPLICE PLATE)
- [8] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)



MT-PL-S-06-12-000  
(6"x12" SPLICE PLATE)



MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



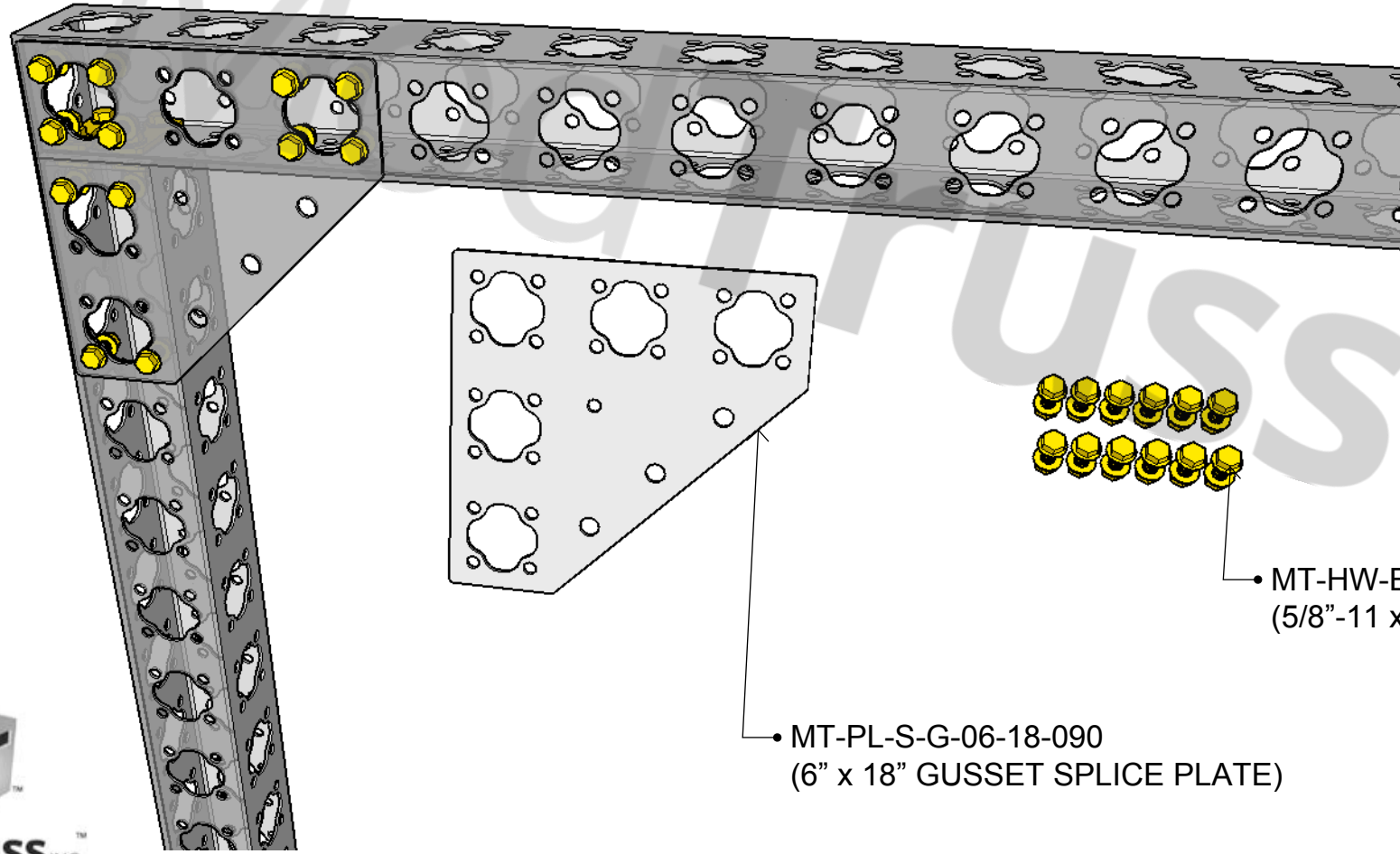
# 6" TRUSS - GUSSET PLATE CORNER

**\*NOTE:**

WHEN MAKING A 6" TRUSS CONNECTION WITH SPLICE PLATE, USE TWELVE BOLT SETS AS SHOWN. WASHER PLATES ARE NOT NEEDED WITH THE SPLICE PLATE BUT ARE STILL REQUIRED AT THE STANDARD CONNECTION. WHEN BOLT TAILS MAY INTERFERE WITH HARDWARE USED IN THE STANDARD CONNECTION HAVE THE BOLT TAILS OUTSIDE OF THE TRUSS TO AVOID COLLISION.

**HARDWARE PER CONNECTION**

- [1] MT-PL-S-G-06-18-090 (6" x 18" GUSSET SPLICE PLATE)
- [12] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)



• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)

• MT-PL-S-G-06-18-090  
(6" x 18" GUSSET SPLICE PLATE)





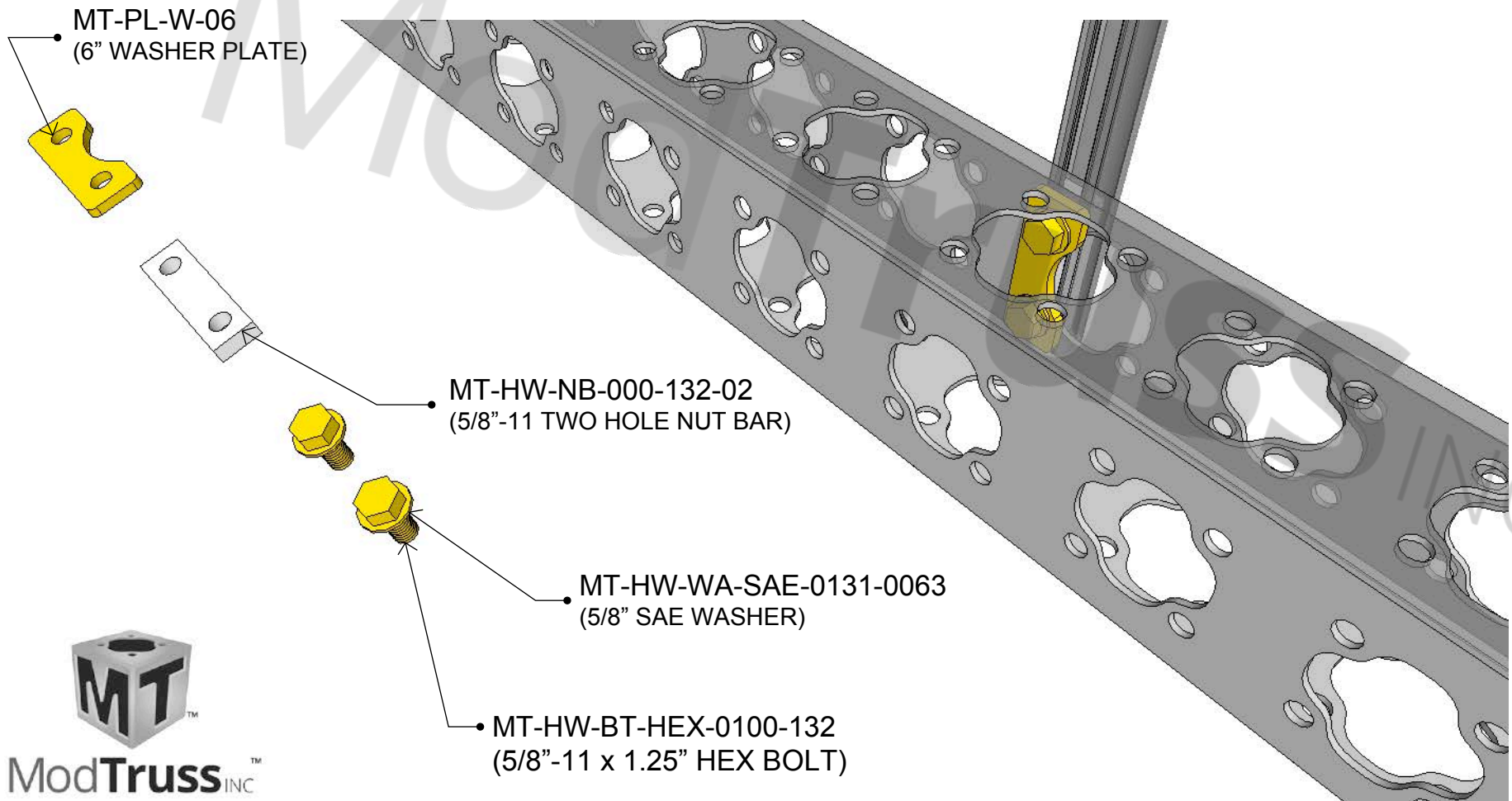
# 6" TRUSS - EXTRUSION T SLOT PIPE

**\*NOTE:**

WHEN CONNECTING THE EXTRUSION PIPE TO TRUSS, SLIDE A TWO HOLE 5/8"-11 NUT BAR INTO THE "T SLOT" OF THE PIPE. WITH THE HEADS OF THE BOLTS TOWARDS THE INSIDE OF THE TRUSS, INSERT TWO 5/8"-11 X 1.25" BOLTS WITH WASHERS INSIDE THE 6" TRUSS THROUGH THE 6" WASHER PLATE AND THREAD INTO THE 5/8"-11 NUT BAR.

**HARDWARE PER CONNECTION**

- [1] MT-PL-W-06 (6" WASHER PLATE)
- [1] MT-HW-NB-000-132-02 (5/8"-11 TWO HOLE NUT BAR)
- [2] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [2] MT-HW-BT-HEX-0100-132 (5/8"-11 x 1.25" HEX BOLT)



# 6" TRUSS - BASE PLATE

\* ALL HARDWARE TO BE GRADE 8.

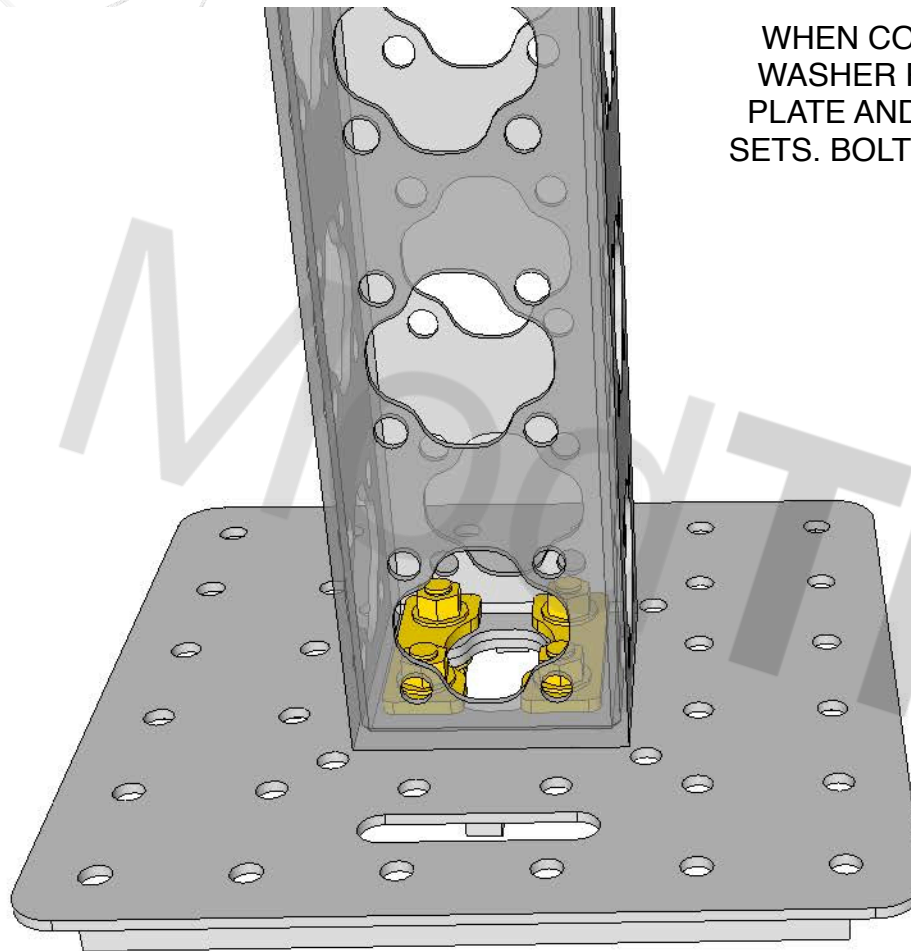
RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

## \*NOTE:

WHEN CONNECTING 6" TRUSS TO A BASE PLATE, PLACE TWO 6" WASHER PLATES INSIDE THE TRUSS. BOLT THROUGH THE BASE PLATE AND TRUSS WITH WASHER PLATES USING 5/8"-11 x 2" BOLT SETS. BOLT TAILS SHOULD BE FACING UP OR INSIDE THE TRUSS TO AVOID COLLISION WITH THE GROUND.



• MT-PL-W-06  
(6" WASHER PLATE)



• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



## HARDWARE PER CONNECTION

- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [2] MT-PL-W-06 (6" WASHER PLATE)



# 6" TRUSS - 180 HINGE ASSEMBLY

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)

MT-PL-W-06  
(6" WASHER PLATE)

\*NOTE:

WHEN CONNECTING 6" TRUSS TO A 180 HINGE ASSEMBLY, PLACE TWO 6" WASHER PLATES INSIDE THE TRUSS. BOLT THROUGH THE HINGE AND TRUSS WITH WASHER PLATES USING 5/8"-11 x 2" BOLT SETS.



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## HARDWARE PER CONNECTION

- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [2] MT-PL-W-06 (6" WASHER PLATE)

# 6" TRUSS - 6" TEE RIGGING MOUNT

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

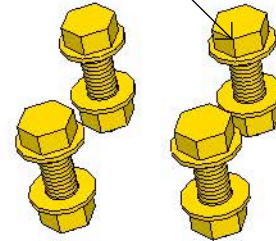
TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

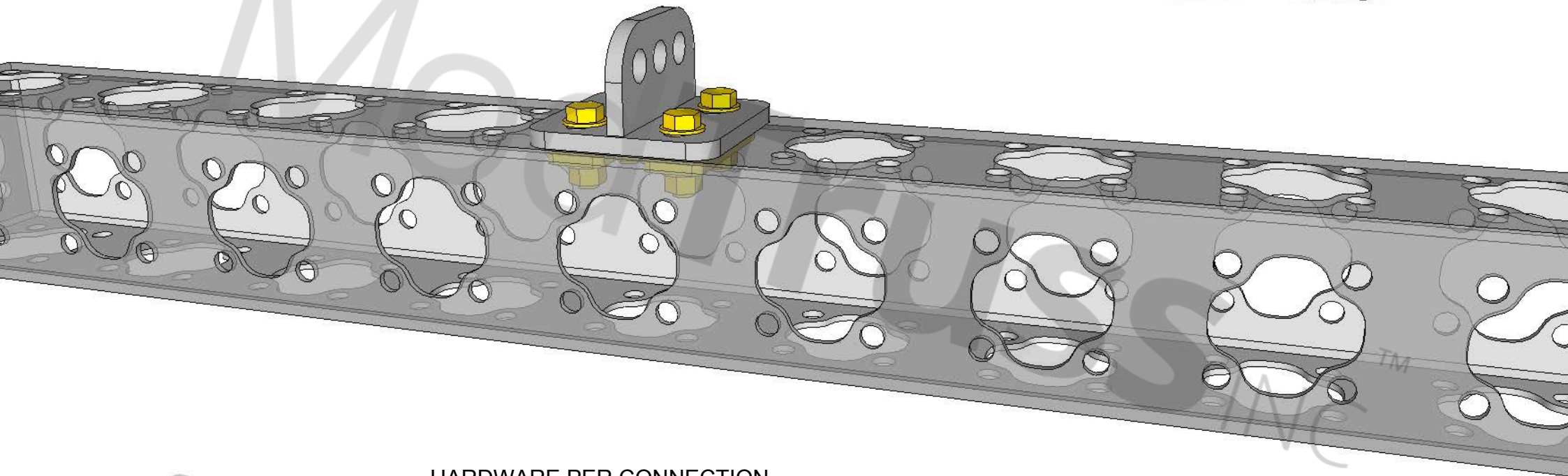
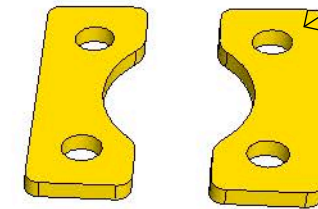
**\*NOTE:**

WHEN CONNECTING 6" TRUSS TO A 6" TEE RIGGING MOUNT, PLACE TWO 6" WASHER PLATES INSIDE THE TRUSS. BOLT THROUGH THE TEE RIGGING MOUNT AND TRUSS WITH WASHER PLATES USING 5/8"-11 x 2" BOLT SETS.

• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



MT-PL-W-06  
(6" WASHER PLATE)



## HARDWARE PER CONNECTION

- [1] MT-MR-RM-06-06-TEE-H (6" TEE RIGGING MOUNT)
- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [2] MT-PL-W-06 (6" WASHER PLATE)



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# 12" TRUSS - END TO END

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

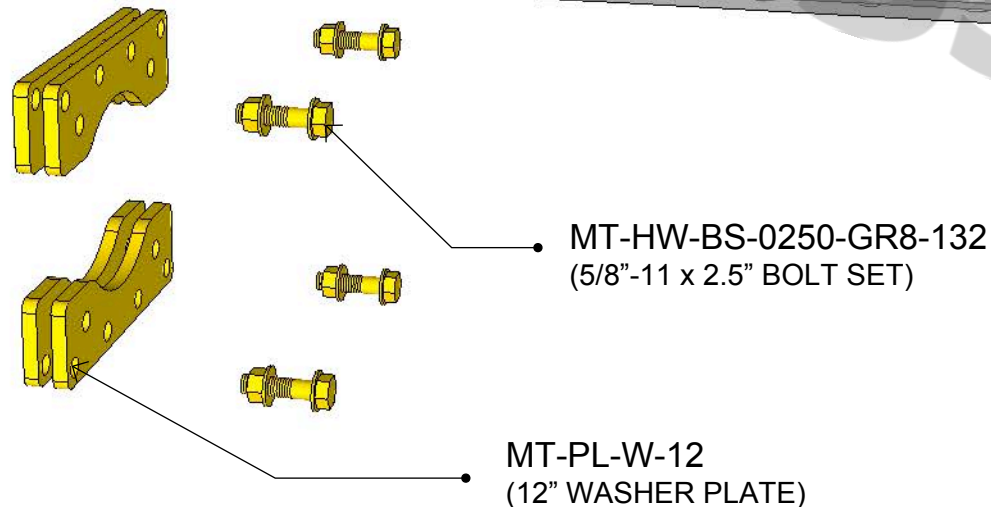
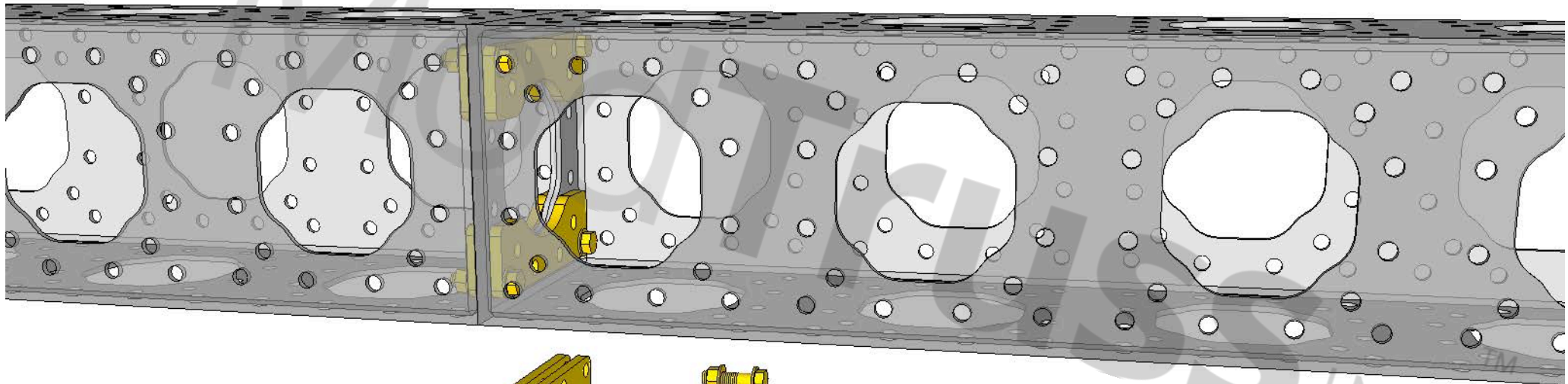
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN MAKING A 12" TRUSS END TO END CONNECTION, PLACE TWO 12" WASHER PLATES INSIDE EACH MEMBER (FOUR WASHER PLATES TOTAL PER CONNECTION) IN THE HORIZONTAL ORIENTATION WITH FOUR, 5/8"-11 x 2.5" BOLT SETS.

**HARDWARE PER CONNECTION**

- [4] MT-PL-W-12 (12" WASHER PLATE)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)



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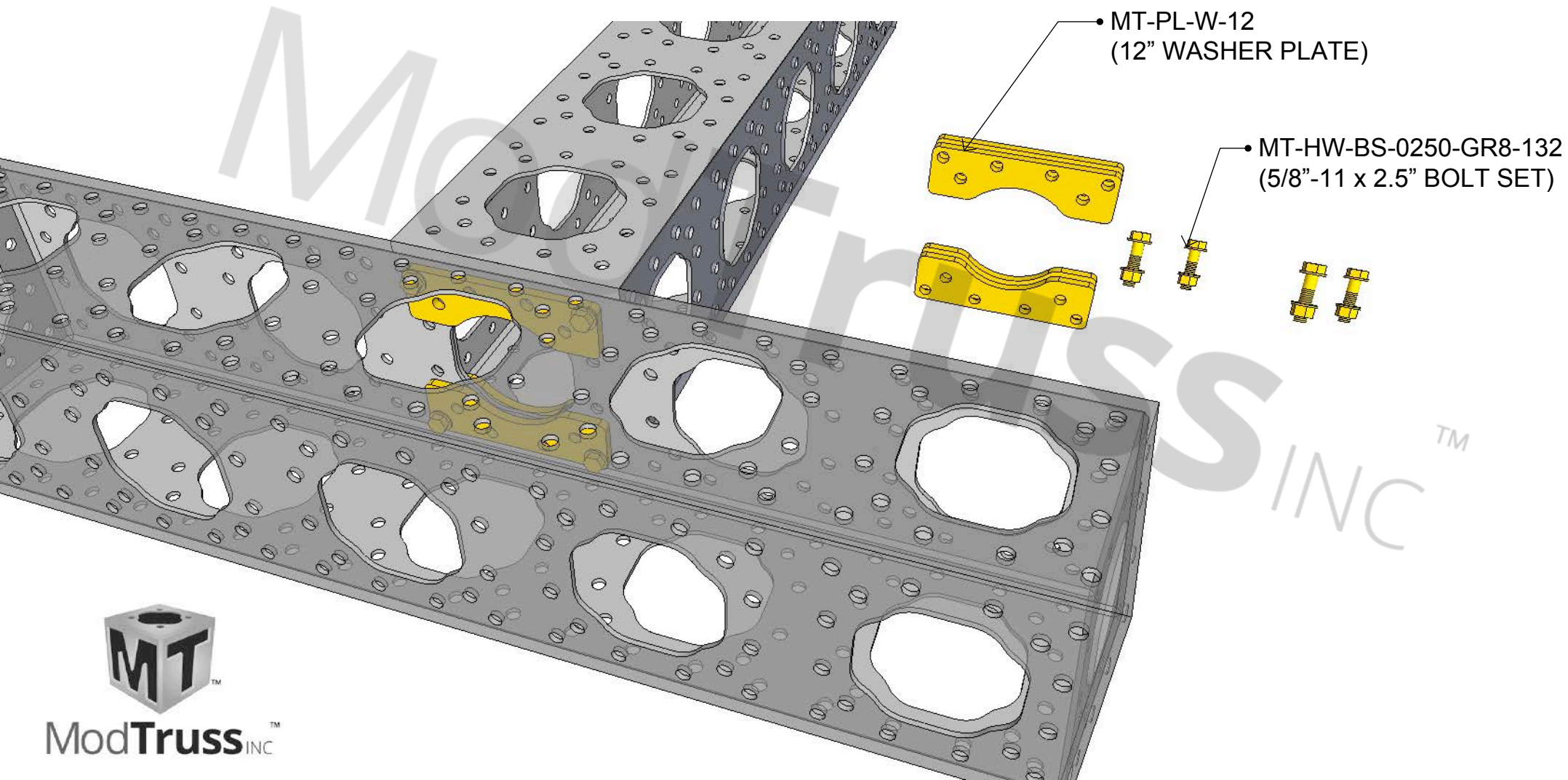
# 12" TRUSS - TEE CONNECTION

**\*NOTE:**

WHEN MAKING A 12" TRUSS TEE CONNECTION, PLACE TWO 12" WASHER PLATES INSIDE EACH MEMBER (FOUR WASHER PLATES TOTAL PER CONNECTION) IN THE HORIZONTAL ORIENTATION WITH FOUR, 5/8"-11 x 2.5" BOLT SETS.

**HARDWARE PER CONNECTION**

- [4] MT-PL-W-12 (12" WASHER PLATE)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)



# 12" TRUSS - 12"x24" SPLICE PLATE

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

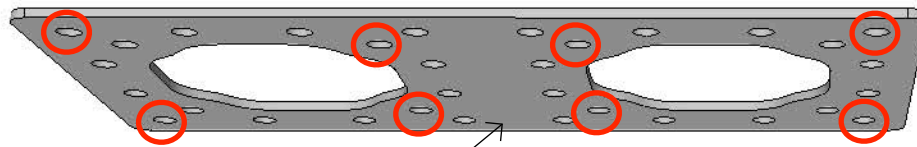
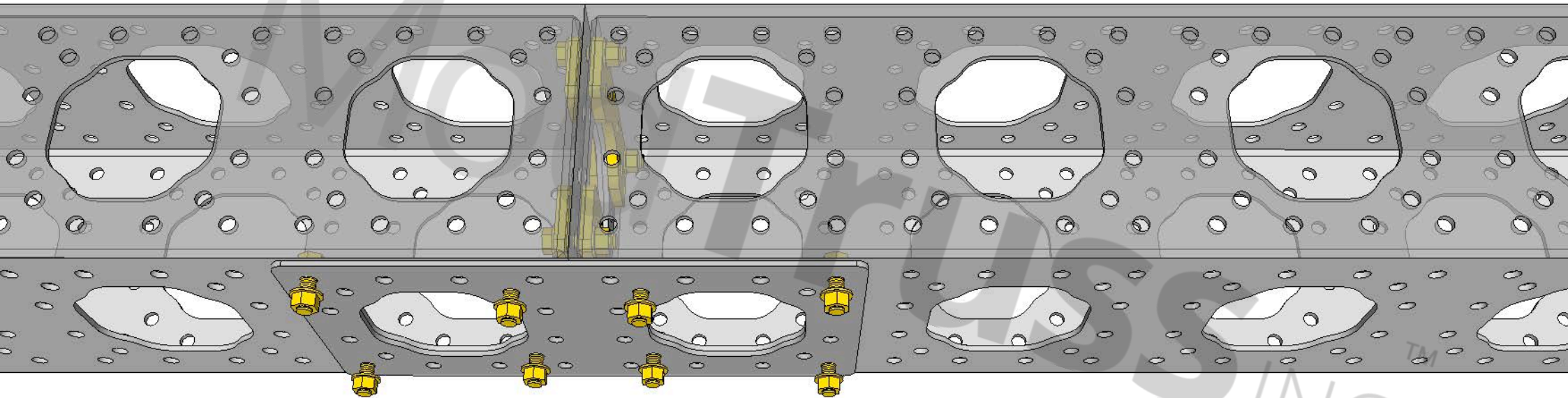
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

## \*NOTE:

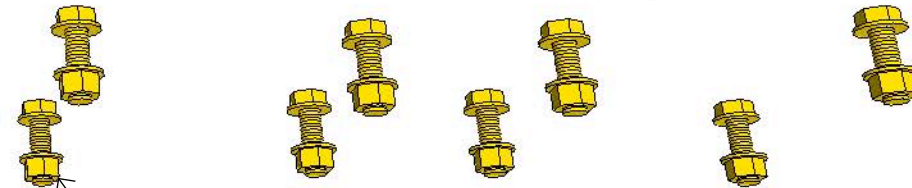
WHEN INSTALLING A 12"x24" SPLICE PLATE, USE EIGHT BOLT SETS AS SHOWN. WASHER PLATES ARE NOT NEEDED AT THE SPLICE PLATE BUT ARE STILL REQUIRED AT THE STANDARD END TO END CONNECTION. BE SURE TO USE THE HOLES SHOWN SO THERE IS NOT BOLT COLLISION WITH THE HARDWARE IN THE STANDARD END TO END CONNECTION.

## HARDWARE PER CONNECTION

- [1] MT-PL-S-12-24-000 (12"x24" SPLICE PLATE)
- [8] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)



• MT-PL-S-12-24-000  
(12"x24" SPLICE PLATE)



• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)





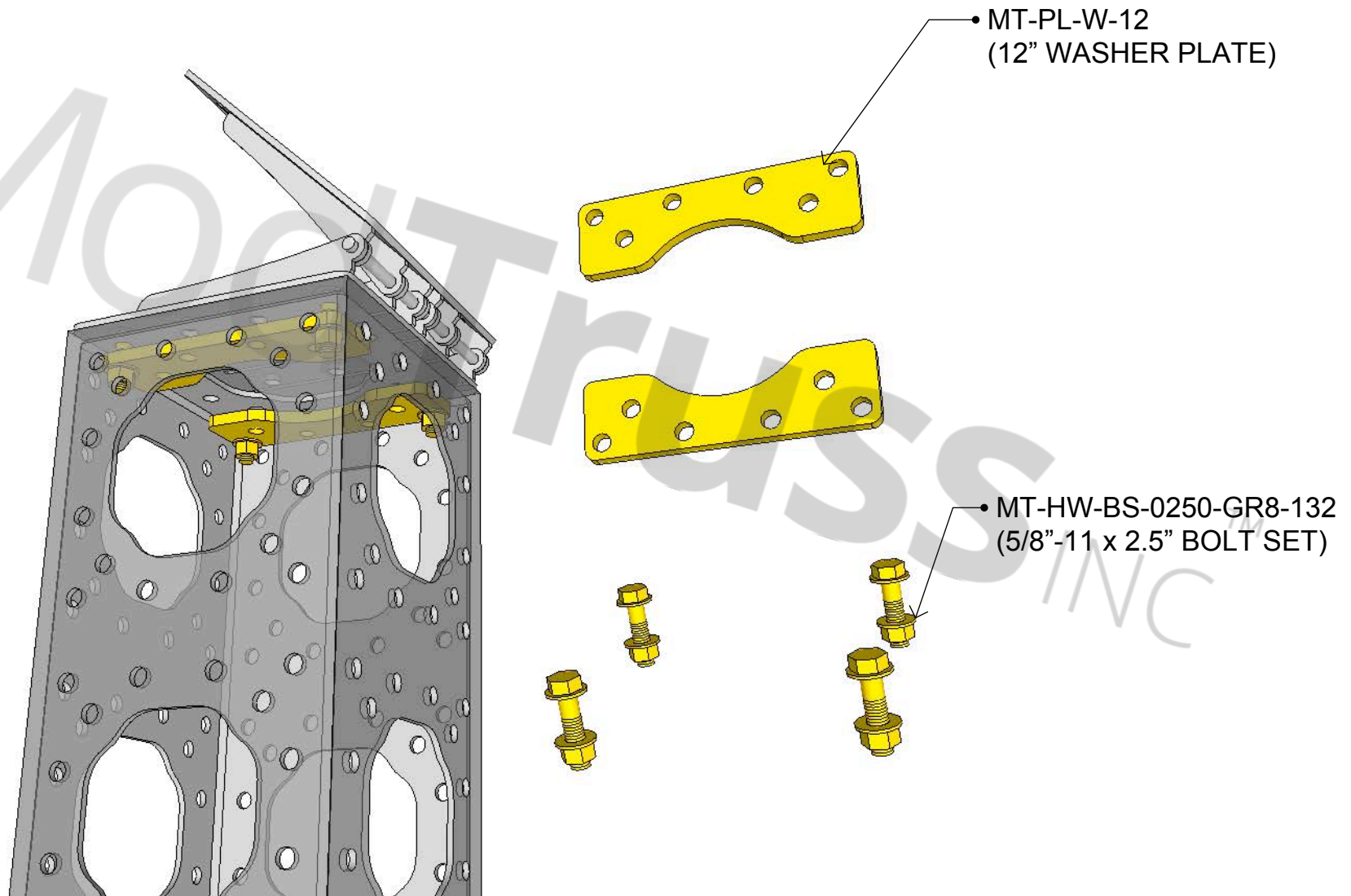
# 12" TRUSS - 12" FLAT HINGE

**\*NOTE:**

WHEN CONNECTING A 12" FLAT HINGE TO 12" TRUSS, PLACE TWO 12" WASHER PLATES INSIDE TRUSS MEMBER AS SHOWN. BOLT THROUGH THE HINGE AND TRUSS WITH WASHER PLATES USING FOUR 5/8"-11 x 2.5" BOLT SETS IN THE OUTER MOST CORNER.

**HARDWARE PER CONNECTION**

- [2] MT-PL-W-12 (12" WASHER PLATE)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)



# 12" TRUSS - 12" 180 HINGE

\* ALL HARDWARE TO BE GRADE 8.

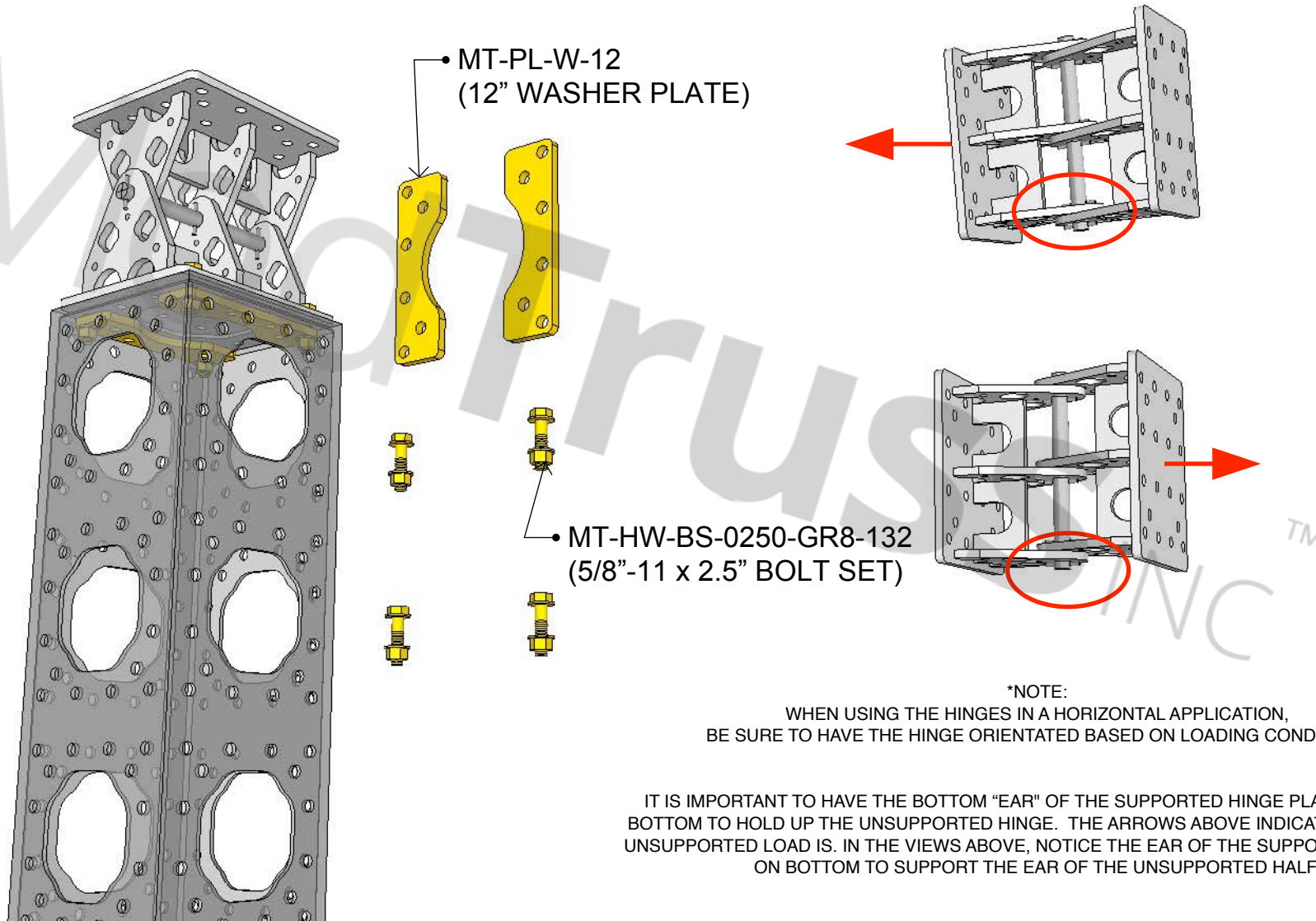
RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN CONNECTING A 12" 180 HINGE TO 12" TRUSS, PLACE TWO 12" WASHER PLATES INSIDE TRUSS MEMBER AS SHOWN. BOLT THROUGH THE HINGE AND TRUSS WITH WASHER PLATES USING FOUR 5/8"-11 x 2.5" BOLT SETS IN THE OUTER MOST CORNER.

**HARDWARE PER CONNECTION**

- [2] MT-PL-W-12 (12" WASHER PLATE)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)



**\*NOTE:**

WHEN USING THE HINGES IN A HORIZONTAL APPLICATION, BE SURE TO HAVE THE HINGE ORIENTATED BASED ON LOADING CONDITION.

IT IS IMPORTANT TO HAVE THE BOTTOM "EAR" OF THE SUPPORTED HINGE PLACED ON THE BOTTOM TO HOLD UP THE UNSUPPORTED HINGE. THE ARROWS ABOVE INDICATE WHERE THE UNSUPPORTED LOAD IS. IN THE VIEWS ABOVE, NOTICE THE EAR OF THE SUPPORTED WIGHT IS ON BOTTOM TO SUPPORT THE EAR OF THE UNSUPPORTED HALF.



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\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

# 12" TRUSS - 6" x 12" ZERO DEGREE PIPE ADAPTER

**\*NOTE:**

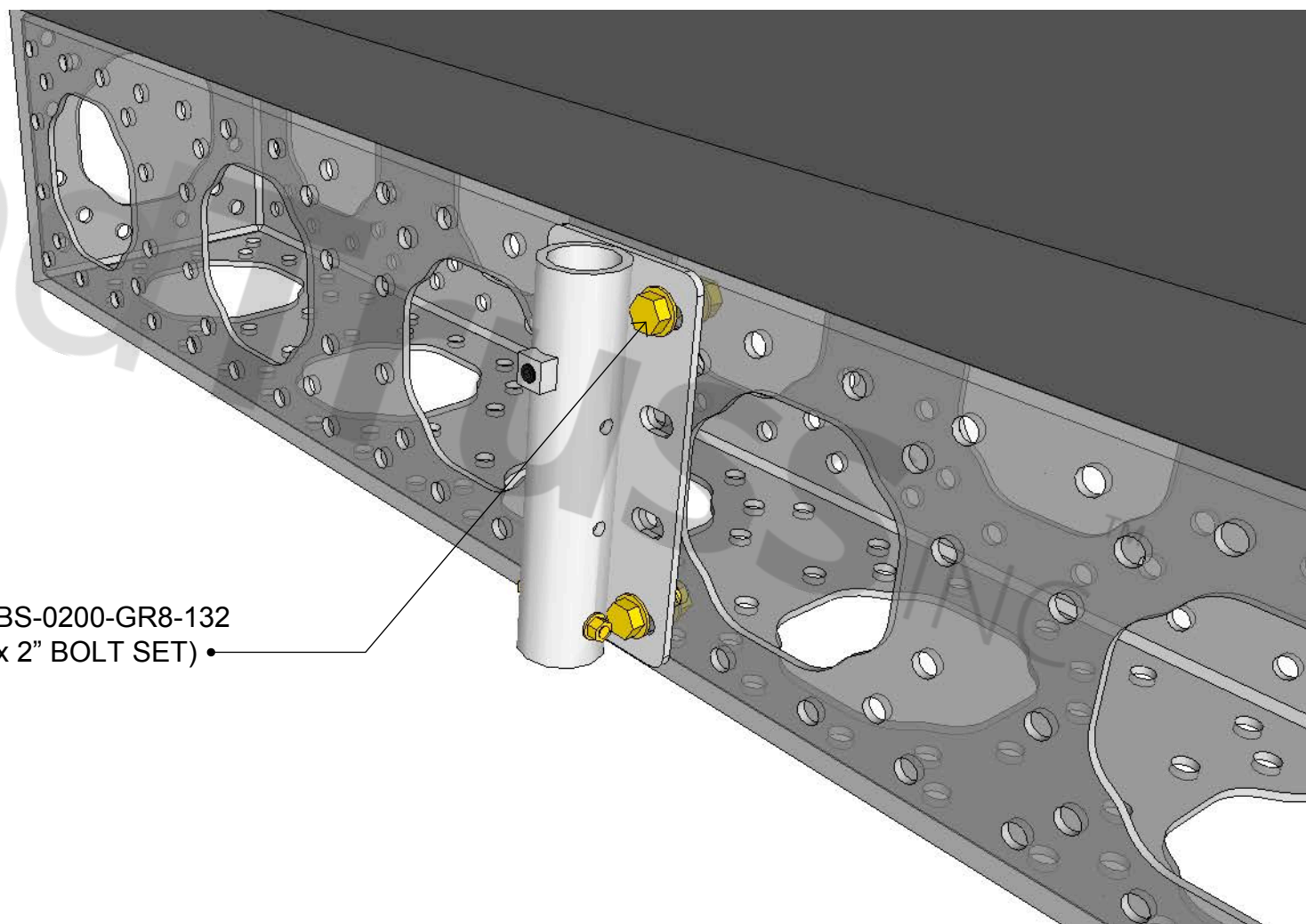
WHEN BOLTING A ZERO DEGREE PIPE ADAPTER TO TRUSS USE FOUR 5/8"-11 x 2" BOLT SETS IN THE OUTER MOST CORNERS POSSIBLE.

FOR GUARDRAIL MOUNTING, WASHER PLATES ARE NOT NEEDED.

## HARDWARE PER CONNECTION

- [1] MT-PL-W-12 (6" x 12" ZERO DEGREE PIPE ADAPTER)
- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2.0" BOLT SET)

MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET) •



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# 12" TRUSS - EXTRUSION T SLOT PIPE

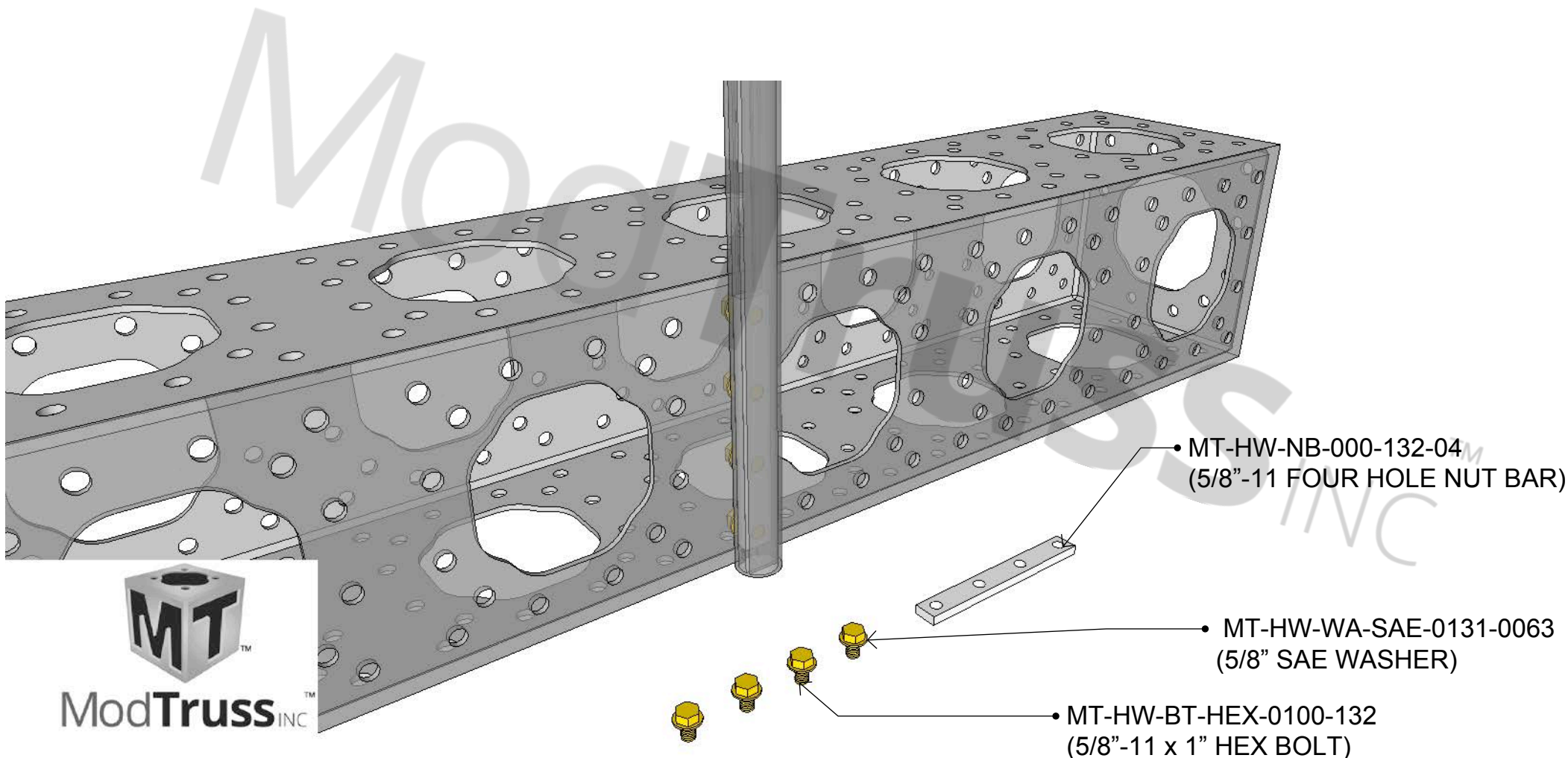
**\*NOTE:**

WHEN CONNECTING THE EXTRUSION PIPE TO 12" TRUSS, SLIDE A FOUR HOLE 5/8"-11 NUT BAR INTO THE "T SLOT" OF THE PIPE. BOLT THROUGH THE TRUSS INTO THE FOUR HOLE NUT BAR WITH FOUR 5/8"-11 X 1" BOLTS WITH WASHERS.

FOR GUARDRAIL MOUNTING, WASHER PLATES ARE NOT NEEDED.

## HARDWARE PER CONNECTION

- [1] MT-HW-NB-000-132-04 (5/8"-11 FOUR HOLE NUT BAR)
- [4] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [4] MT-HW-BT-HEX-0100-132 (5/8"-11 x 1" HEX BOLT)



\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

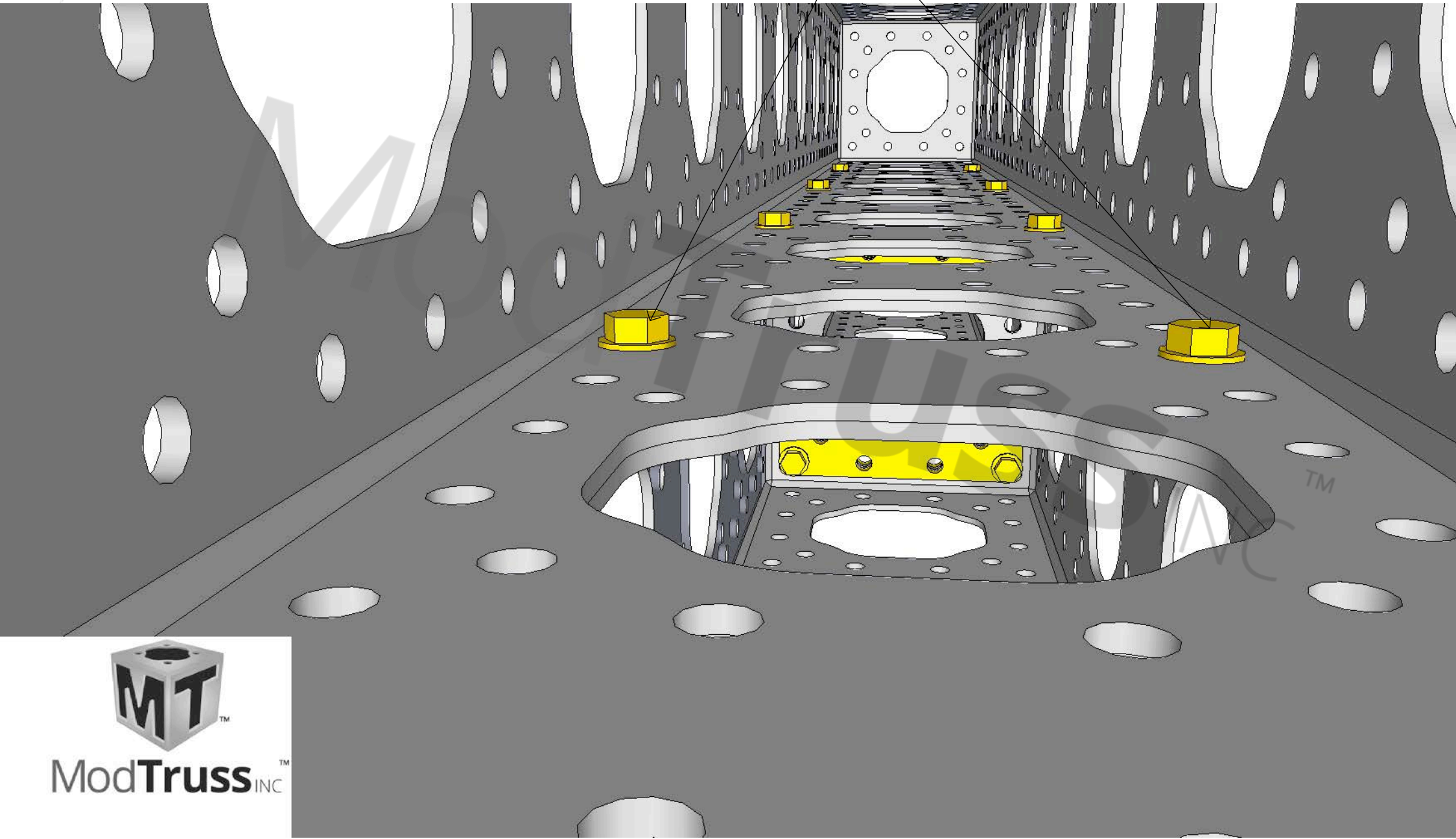
TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

# 12" TRUSS - LAMINATION

\*NOTE: WHEN MAKING A 12" TRUSS LAMINATION, PLACE YOUR BOLTS IN GROUPS OF TWO, EVERY TWO FEET CENTER TO CENTER DOWN THE LAMINATION SPAN. NO WASHER PLATES NEEDED.

• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



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# 12" TRUSS - HEAD BLOCK

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN CONNECTING A 12" HEAD BLOCK TO 12" TRUSS, PLACE TWO 12" WASHER PLATES INSIDE TRUSS MEMBER AS SHOWN. BOLT THROUGH THE HEAD BLOCK AND TRUSS WITH WASHER PLATES USING EIGHT 5/8"-11 x 2.5" BOLT SETS.

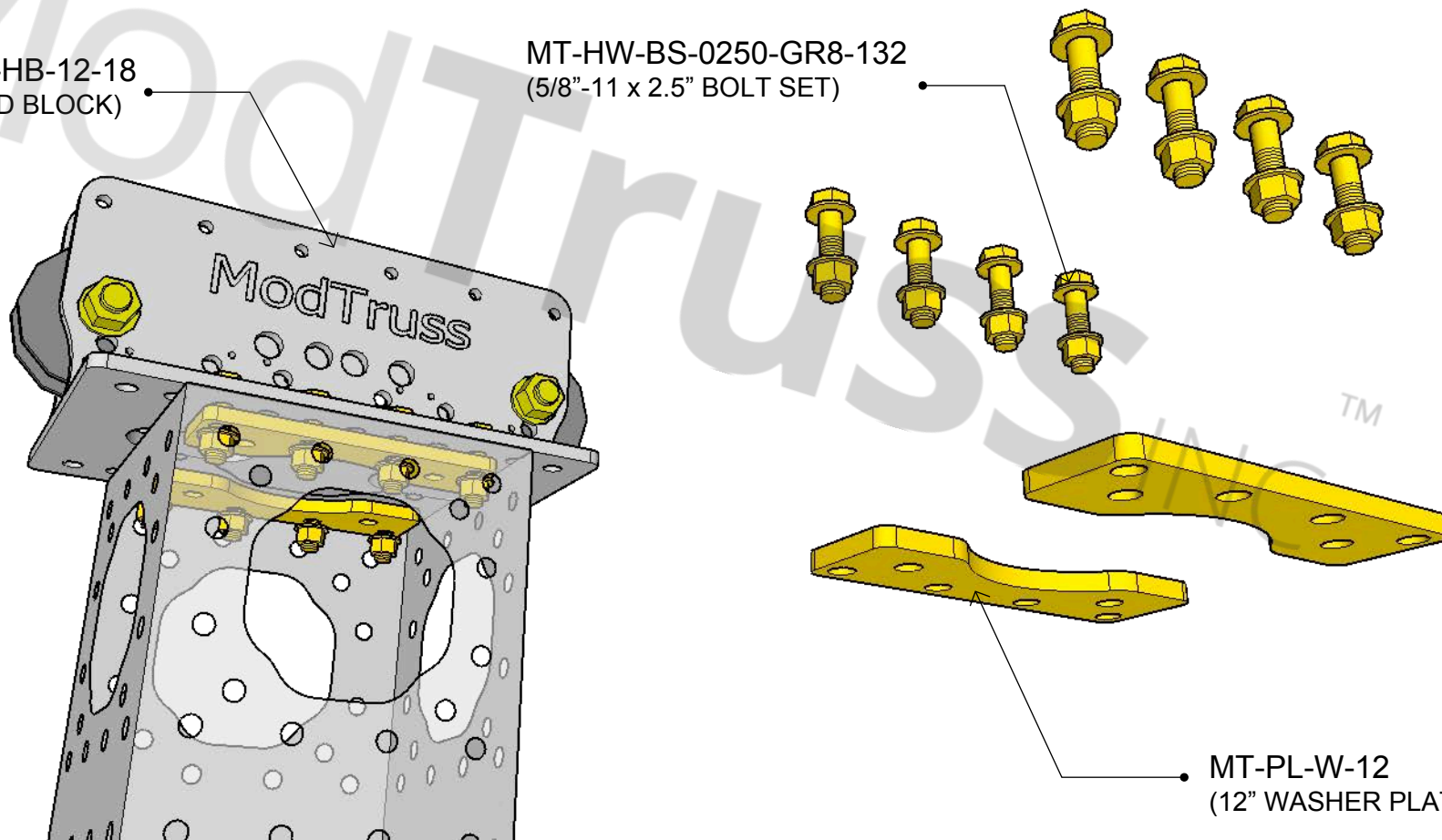
## HARDWARE PER CONNECTION

- [1] MT-MR-HB-12-18 (12" HEAD BLOCK)
- [8] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)
- [2] MT-PL-W-12 (12" WASHER PLATE)

MT-MR-HB-12-18  
(12" HEAD BLOCK)

MT-HW-BS-0250-GR8-132  
(5/8"-11 x 2.5" BOLT SET)

MT-PL-W-12  
(12" WASHER PLATE)



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# 12" TRUSS - BASE PLATE

RECOMMENDED TORQUE VALUE:

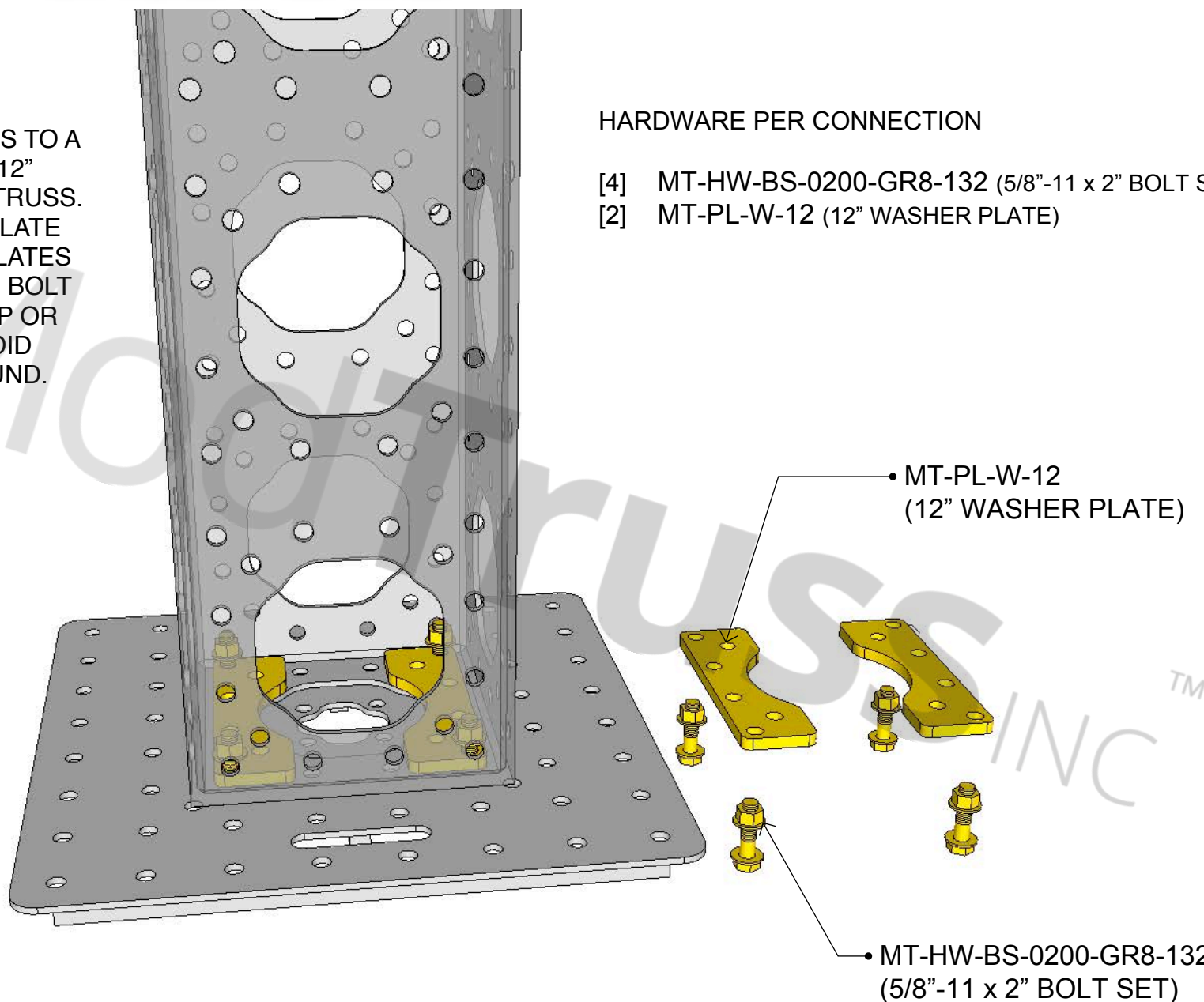
TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**  
WHEN CONNECTING 12" TRUSS TO A  
BASE PLATE, PLACE TWO 12"  
WASHER PLATES INSIDE THE TRUSS.  
BOLT THROUGH THE BASE PLATE  
AND TRUSS WITH WASHER PLATES  
USING 5/8"-11 x 2" BOLT SETS. BOLT  
TAILS SHOULD BE FACING UP OR  
INSIDE THE TRUSS TO AVOID  
COLLISION WITH THE GROUND.

## HARDWARE PER CONNECTION

- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [2] MT-PL-W-12 (12" WASHER PLATE)



# 12" TRUSS - 3" x 6" ZERO DEGREE PIPE ADAPTER

\* ALL HARDWARE TO BE GRADE 8.

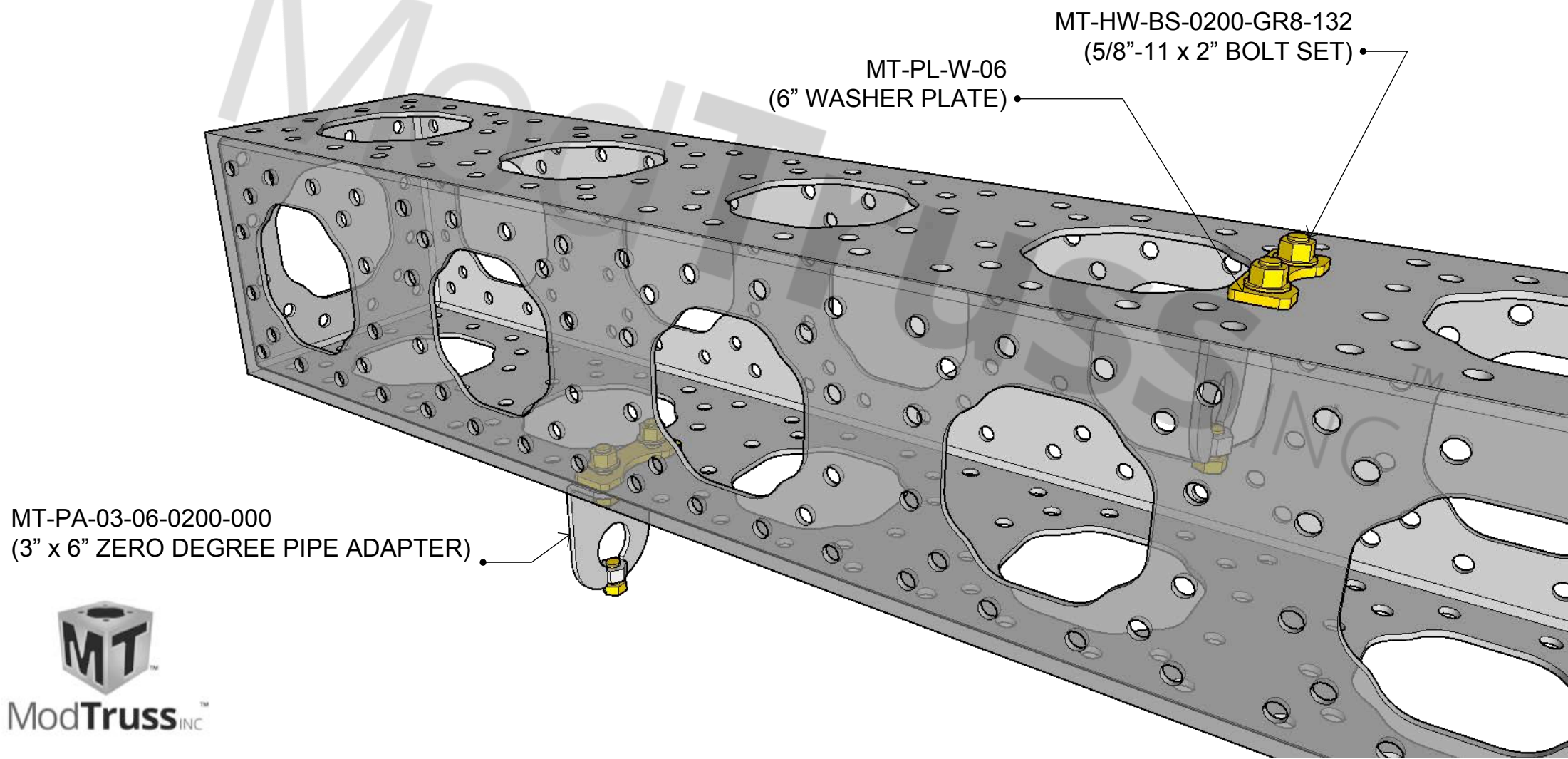
RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN CONNECTING A 3" x 6" PIPE ADAPTER TO TRUSS, PLACE ONE 6" WASHER PLATES INSIDE THE TRUSS. BOLT THROUGH THE PIPE ADAPTER AND TRUSS WITH WASHER PLATE USING TWO 5/8"-11 x 2" BOLT SETS. PIPE ADAPTER CAN ALSO BE BOLTED INSIDE TRUSS TO RUN PIPE INSIDE THE CLOVERS. WHEN DOING SO THE WASHER PLATE SHOULD BE OUTSIDE OF THE TRUSS AS SHOWN.

**HARDWARE PER CONNECTION**

- [1] MT-PA-03-06-0200-000 (3" x 6" ZERO DEGREE PIPE ADAPTER)
- [2] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [1] MT-PL-W-06 (6" WASHER PLATE)



MT-PA-03-06-0200-000  
(3" x 6" ZERO DEGREE PIPE ADAPTER)

MT-PL-W-06  
(6" WASHER PLATE)

MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



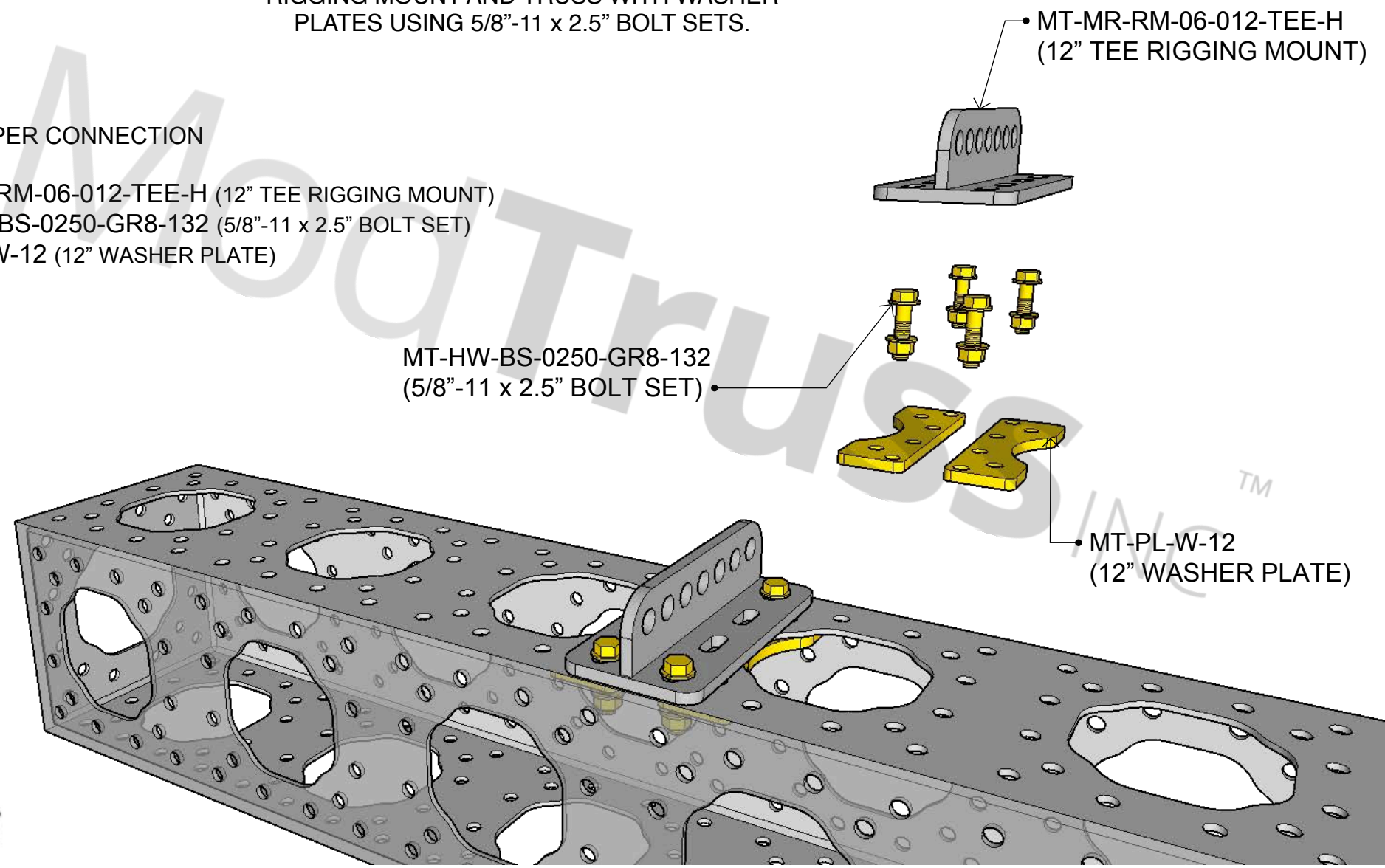


# 12" TRUSS - 12" TEE RIGGING MOUNT

**\*NOTE:**  
WHEN CONNECTING A 12" TEE RIGGING MOUNT TO  
12" TRUSS TO, PLACE TWO 12" WASHER PLATES  
INSIDE THE TRUSS. BOLT THROUGH THE TEE  
RIGGING MOUNT AND TRUSS WITH WASHER  
PLATES USING 5/8"-11 x 2.5" BOLT SETS.

## HARDWARE PER CONNECTION

- [1] MT-MR-RM-06-012-TEE-H (12" TEE RIGGING MOUNT)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)
- [2] MT-PL-W-12 (12" WASHER PLATE)



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# 3" EXTRUSION - END TO END

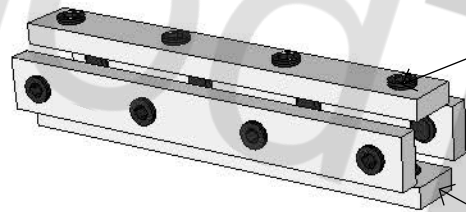
**\*NOTE:**

WHEN MAKING A 3" EXTRUSION CONNECTION END TO END, INSERT FOUR, FOUR-HOLE 5/8"-11 NUT BARS INTO THE EXTRUSION TRACK WITH TWO SET SCREWS PER END FOR EACH NUT BAR. CONNECT WITH 5/8"-11 SET SCREWS.

## HARDWARE PER CONNECTION

[16] MT-HW-BT-SHC-0075-132 (5/8"-11 x .75" SET SCREW)

[4] MT-HW-NB-000-132-04 (5/8"-11 FOUR HOLE NUT BAR)



MT-HW-BT-SHC-0075-132  
(5/8"-11 x .75" SET SCREW)

MT-HW-NB-000-132-04  
(5/8"-11 FOUR HOLE NUT BAR)



# 3" EXTRUSION - GUSSET PLATE CORNER

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

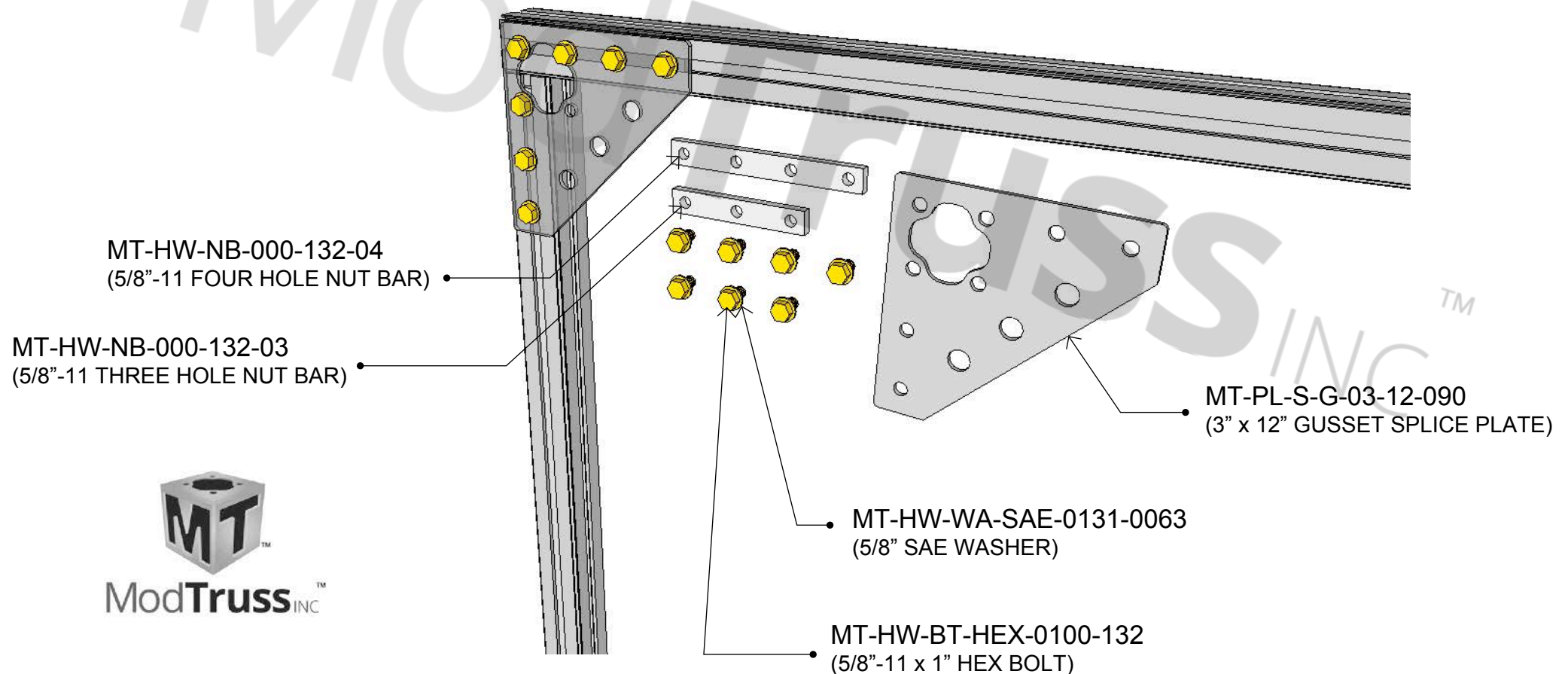
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN MAKING A 3" EXTRUSION CONNECTION WITH SPLICE PLATE, INSERT THE APPROPRIATE LENGTH NUT BAR INTO THE TRACK FOR THE SIZE SPLICE PLATE USED. CONNECT WITH 5/8"-11 x 1" GRADE 8 HEX BOLTS WITH ONE SAE WASHER.

## HARDWARE PER CONNECTION

- [1] MT-PL-S-G-03-12-090 (3" x 12" GUSSET SPLICE PLATE)
- [7] MT-HW-BT-HEX-0100-132 (5/8"-11 x 1" HEX BOLT)
- [7] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [1] MT-HW-NB-000-132-04 (5/8"-11 FOUR HOLE NUT BAR)
- [1] MT-HW-NB-000-132-03 (5/8"-11 THREE HOLE NUT BAR)



\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

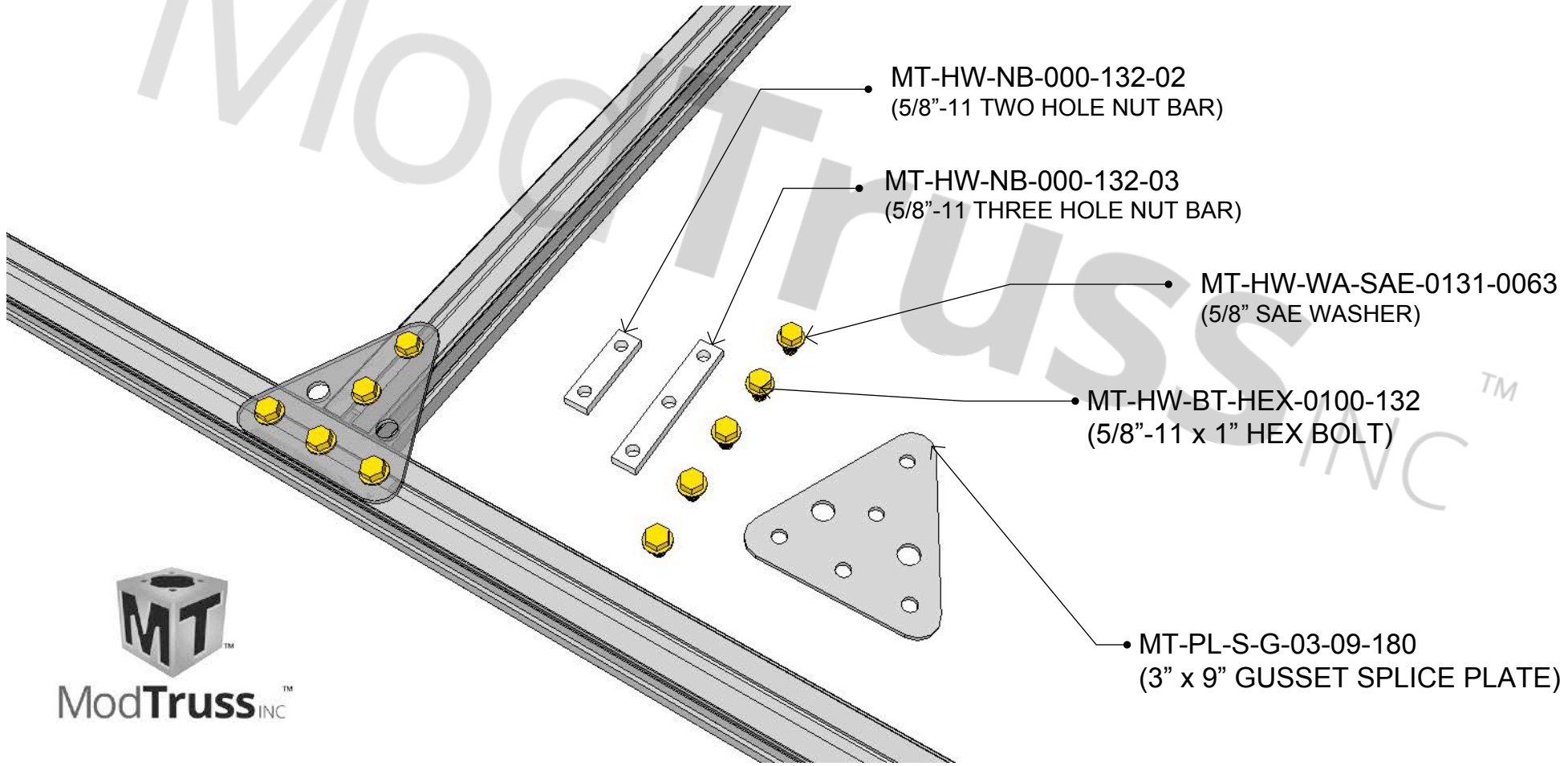
# 3" EXTRUSION - GUSSET PLATE TEE

**\*NOTE:**

WHEN MAKING A 3" EXTRUSION CONNECTION WITH SPLICE PLATE, INSERT THE APPROPRIATE LENGTH NUT BAR INTO THE TRACK FOR THE SIZE SPLICE PLATE USED. CONNECT WITH 5/8"-11 x 1" GRADE 8 HEX BOLTS WITH ONE SAE WASHER.

## HARDWARE PER CONNECTION

- [1] MT-PL-S-G-03-09-180 (3" x 9" GUSSET SPLICE PLATE)
- [5] MT-HW-BT-HEX-0100-132 (5/8"-11 x 1" HEX BOLT)
- [5] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [1] MT-HW-NB-000-132-02 (5/8"-11 TWO HOLE NUT BAR)
- [1] MT-HW-NB-000-132-03 (5/8"-11 THREE HOLE NUT BAR)



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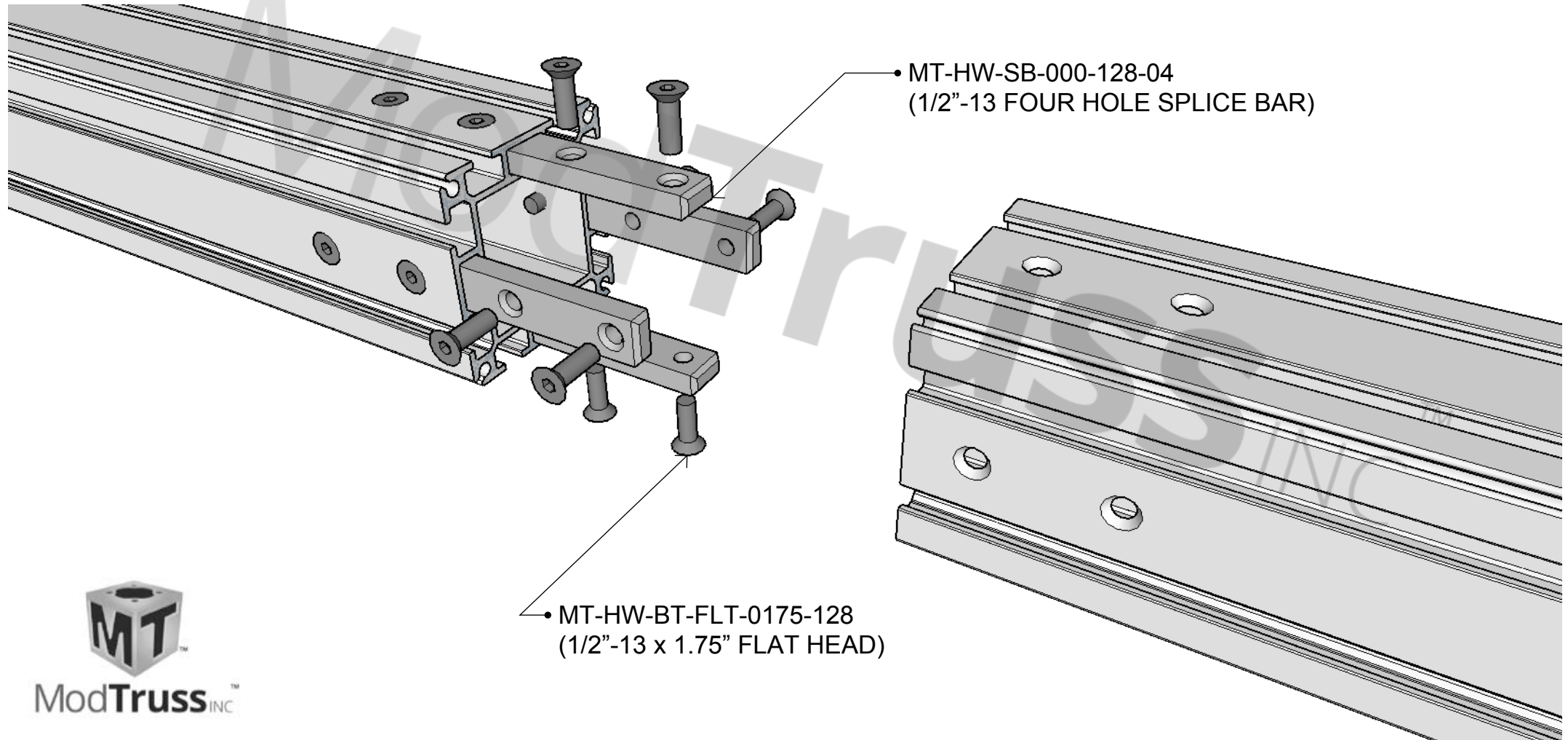
# 6" EXTRUSION - END TO END COUNTERSUNK

**\*NOTE:**

WHEN MAKING AN END TO END CONNECTION WITH 6" x 6" EXTRUSION USE FOUR 1/2"-13, FOUR HOLE SPLICE BARS IN THE CLOSED EXTRUSION TRACKS. EXTRUSION MUST BE DRILLED AND OR DRILLED AND COUNTERSUNK FOR THE SPLICE BARS. THE TAPERED END OF THE SPLICE BAR ALLOWS FOR EASIER INSTALLATION WHEN INSTALLING THE SECOND EXTRUSION MEMBER. USE FOUR 1/2"-13 x 1.75" FLAT HEADS PER SPLICE BAR WITH THE SEAM OF THE TWO EXTRUSION MEMBERS SPLITTING THE SPLICE BAR TWO HOLES PER MEMBER.

### HARDWARE PER CONNECTION

- [4] MT-HW-SB-000-128-04 (1/2"-13 FOUR HOLE SPLICE BAR)
- [16] MT-HW-BT-FLT-0175-128 (1/2"-13 x 1.75" FLAT HEAD)



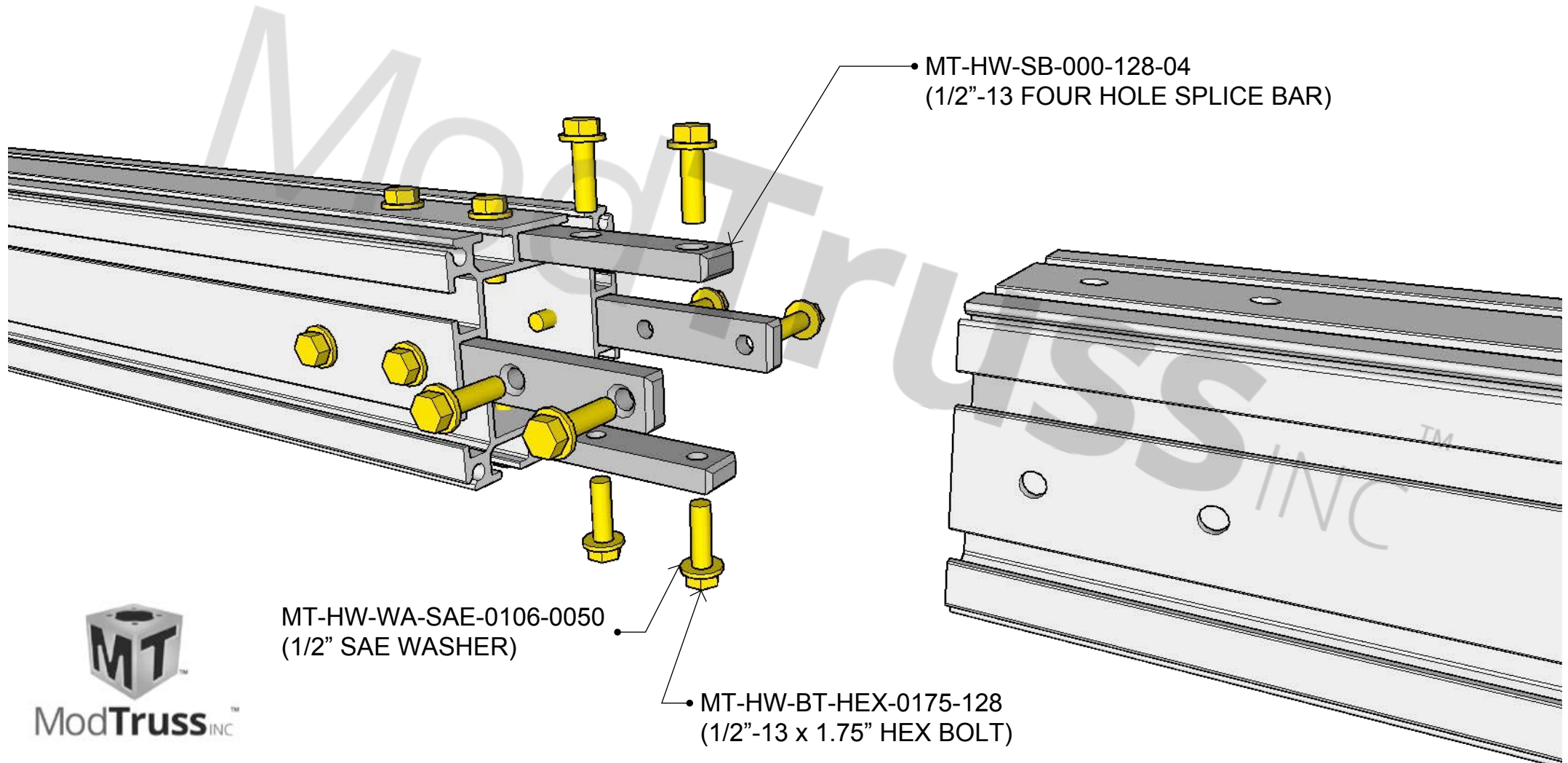
# 6" EXTRUSION - END TO END HEX BOLT

**\*NOTE:**

WHEN MAKING AN END TO END CONNECTION WITH 6" x 6" EXTRUSION USE FOUR 1/2"-13, FOUR HOLE SPLICE BARS IN THE CLOSED EXTRUSION TRACKS. EXTRUSION MUST BE DRILLED AND OR DRILLED AND COUNTERSUNK FOR THE SPLICE BARS. THE TAPERED END OF THE SPLICE BAR ALLOWS FOR EASIER INSTALLATION WHEN INSTALLING THE SECOND EXTRUSION MEMBER. USE FOUR 1/2"-13 x 1.75" HEX BOLTS PER SPLICE BAR WITH THE SEAM OF THE TWO EXTRUSION MEMBERS SPLITTING THE SPLICE BAR TWO HOLES PER MEMBER.

## HARDWARE PER CONNECTION

- [4] MT-HW-SB-000-128-04 (1/2"-13 FOUR HOLE SPLICE BAR)
- [16] MT-HW-BT-HEX-0175-128 (1/2"-13 x 1.75" HEX BOLT)
- [16] MT-HW-WA-SAE-0106-0050 (1/2" SAE WASHER)





# 6" EXTRUSION - 6" TEE RIGGING MOUNT

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

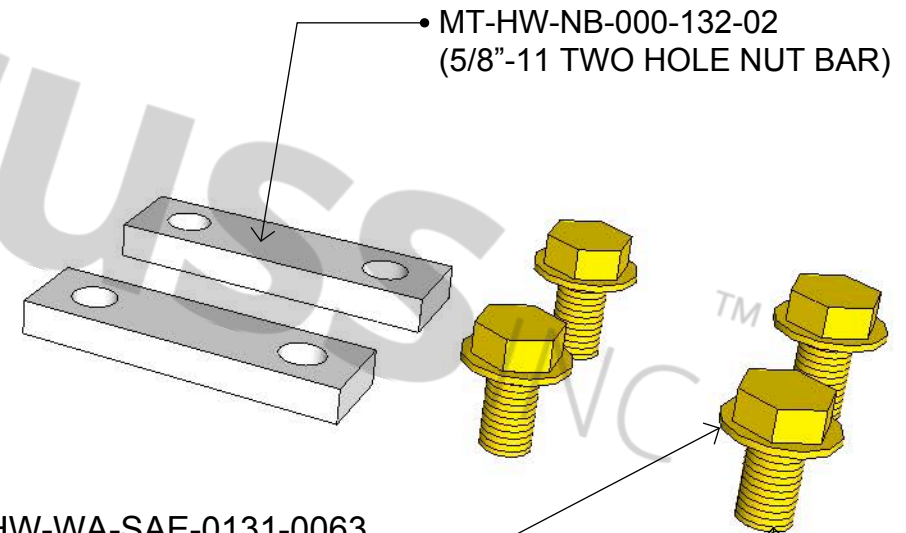
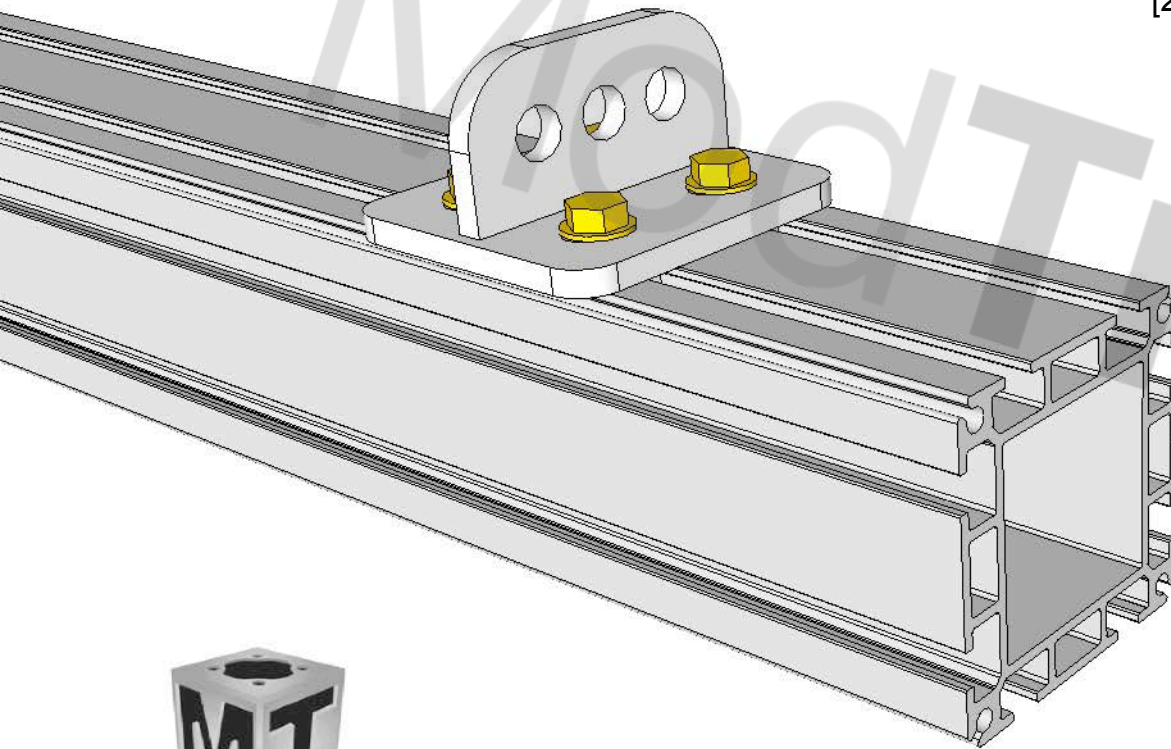
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN CONNECTING A 6" TEE RIGGING MOUNT TO EXTRUSION, PLACE TWO 5/8"-11 TWO HOLE NUT BARS IN THE EXTRUSION TRACK. ORIENTATE THE RIGGING MOUNT AS SHOWN WITH THE MOUNTING SLOTS PERPENDICULAR TO THE LENGTH OF THE EXTRUSION AND TRACK. BOLT THROUGH THE TEE RIGGING MOUNT INTO THE NUT BARS USING FOUR 5/8"-11 x 1.25" HEX BOLTS AND WASHERS.

## HARDWARE PER CONNECTION

- [1] MT-MR-RM-06-06-TEE-H (6" TEE RIGGING MOUNT)
- [4] MT-HW-BT-HEX-0125-132 (5/8"-11 x 1.25" HEX BOLT)
- [4] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [2] MT-HW-NB-000-132-02 (5/8"-11 TWO HOLE NUT BAR)



MT-HW-WA-SAE-0131-0063  
(5/8" SAE WASHER)

MT-HW-BT-HEX-0125-132  
(5/8"-11 x 1.25" HEX BOLT)



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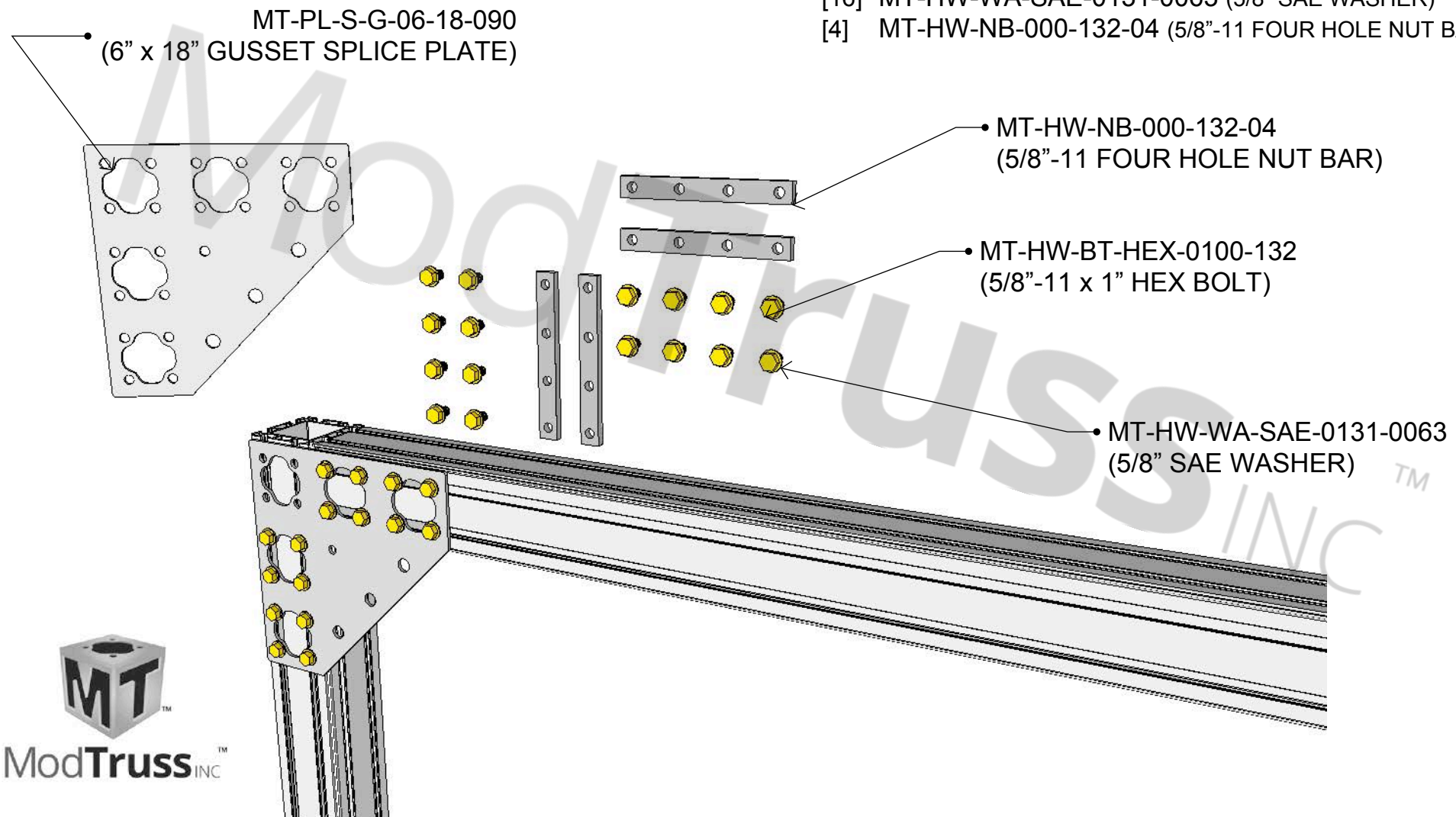
# 6" EXTRUSION - GUSSET PLATE CORNER

**\*NOTE:**

WHEN MAKING A 6" EXTRUSION CONNECTION WITH SPLICE PLATE, INSERT THE APPROPRIATE LENGTH NUT BARS INTO THE TRACK FOR THE SIZE SPLICE PLATE USED. CONNECT WITH 5/8"-11 x 1" GRADE 8 HEX BOLTS WITH SAE WASHER.

## HARDWARE PER CONNECTION

- [1] MT-PL-S-G-06-18-090 (6" x 18" GUSSET SPLICE PLATE)
- [16] MT-HW-BT-HEX-0100-132 (5/8"-11 x 1" HEX BOLT)
- [16] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [4] MT-HW-NB-000-132-04 (5/8"-11 FOUR HOLE NUT BAR)



# 6" EXTRUSION - 3" x 6" ZERO DEGREE PIPE ADAPTER

\* ALL HARDWARE TO BE GRADE 8.

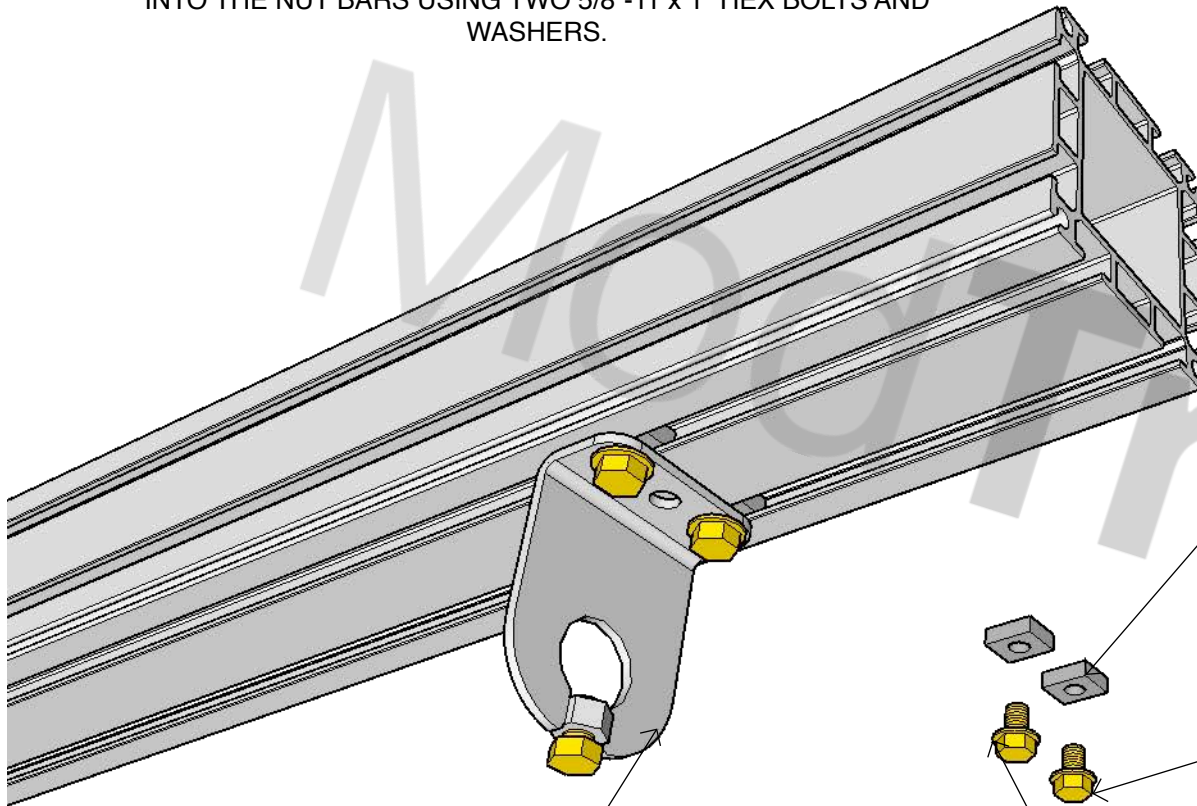
RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN CONNECTING A 3" x 6" PIPE ADAPTER TO EXTRUSION, PLACE TWO 5/8"-11 ONE HOLE NUT BARS IN THE EXTRUSION TRACK. ORIENTATE THE PIPE ADAPTER AS SHOWN WITH THE PIPE ADAPTER PERPENDICULAR TO THE LENGTH OF THE EXTRUSION AND TRACK. BOLT THROUGH THE PIPE ADAPTER INTO THE NUT BARS USING TWO 5/8"-11 x 1" HEX BOLTS AND WASHERS.

## HARDWARE PER CONNECTION

- [1] MT-PA-03-06-0200-000 (3" x 6" ZERO DEGREE PIPE ADAPTER)
- [2] MT-HW-BT-HEX-0100-132 (5/8"-11 x 1" HEX BOLT)
- [2] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [2] MT-HW-NB-000-132-01 (5/8"-11 ONE HOLE NUT BAR)



• MT-HW-NB-000-132-01  
(5/8"-11 ONE HOLE NUT BAR)

• MT-HW-BT-HEX-0125-132  
(5/8"-11 x 1.25" HEX BOLT)

• MT-HW-WA-SAE-0131-0063  
(5/8" SAE WASHER)

• MT-PA-03-06-0200-000  
(3" x 6" ZERO DEGREE PIPE ADAPTER)



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\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

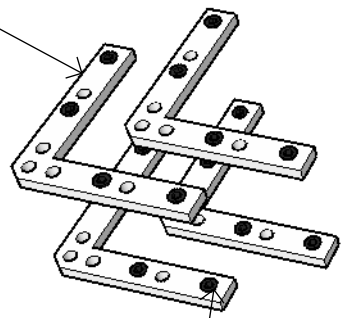
# 6" EXTRUSION MITERED CORNER

## HARDWARE PER CONNECTION

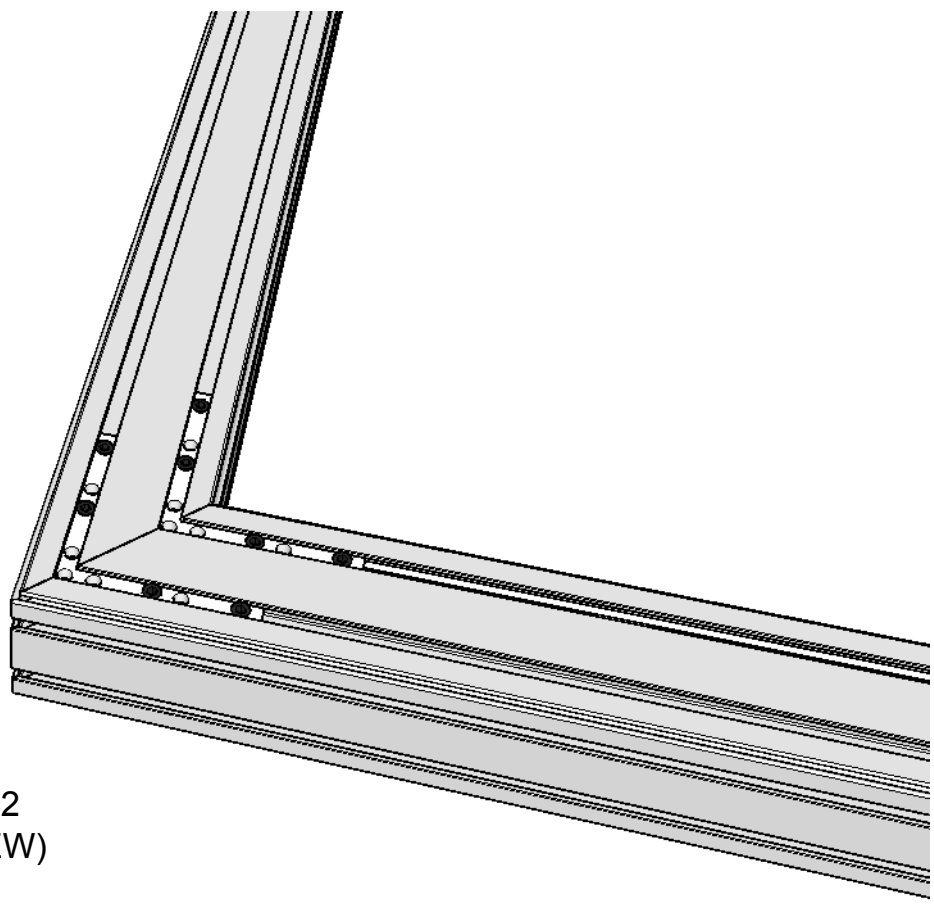
- [4] MT-HW-NB-0738-090-132-09 (5/8"-11 NINE HOLE 90 DEGREE NUT BAR)
- [16] MT-HW-BT-SHC-0075-132 (5/8"-11 x .75" SET SCREW)

\*NOTE:  
WHEN CONNECTING 6" EXTRUSION WITH A MITERED CORNER USE A TOTAL OF FOUR 90 DEGREE NUT BARS IN THE OPEN TRACK OF THE EXTRUSION. WITH TWO NUTS BARS IN THE TOP TWO TRACKS AND TWO NUT BARS IN THE BOTTOM TWO TRACKS SET SCREW DOWN WITH FOUR 5/8"-11 X 3/4" SET SCREWS PER NUT BAR.

• MT-HW-NB-0738-090-132-09  
(5/8"-11 NINE HOLE 90 DEGREE NUT BAR)



• MT-HW-BT-SHC-0075-132  
(5/8"-11 x .75" SET SCREW)



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# 12" EXTRUSION - END TO END COUNTERSUNK

\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 60 ft-lbs

PERMANENT INSTALL: 90 ft-lbs

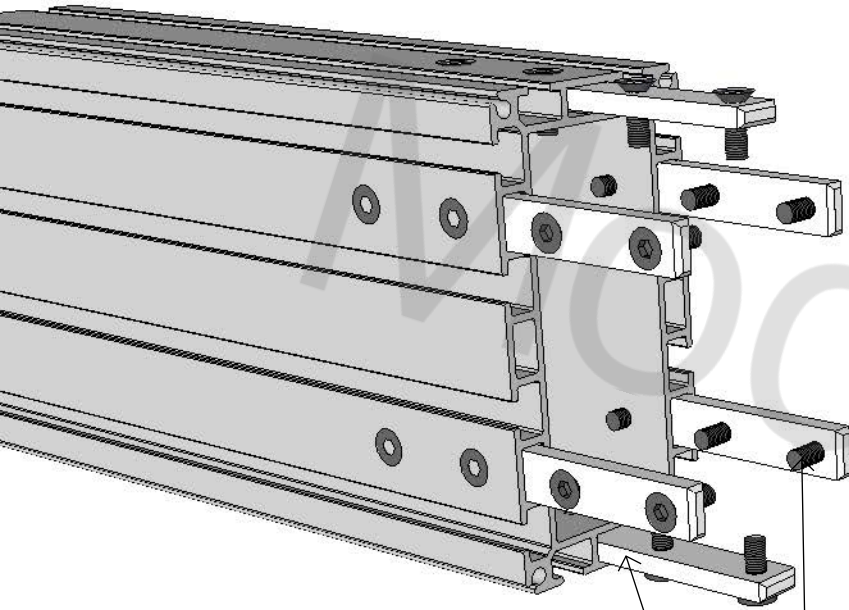
**\*NOTE:**

WHEN MAKING AN END TO END CONNECTION WITH 6" x 12" EXTRUSION USE SIX 1/2"-13 FOUR HOLE SPLICE BARS IN THE CLOSED EXTRUSION TRACKS. EXTRUSION MUST BE DRILLED AND OR DRILLED AND COUNTERSUNK FOR THE SPLICE BARS. THE TAPERED END OF THE SPLICE BAR ALLOWS FOR EASIER INSTALLATION WHEN INSTALLING THE SECOND EXTRUSION MEMBER. USE FOUR 1/2"-13 x 1.75" FLAT HEADS PER SPLICE BAR WITH THE SEAM OF THE TWO EXTRUSION MEMBERS SPLITTING THE SPLICE BAR TWO HOLES PER MEMBER.

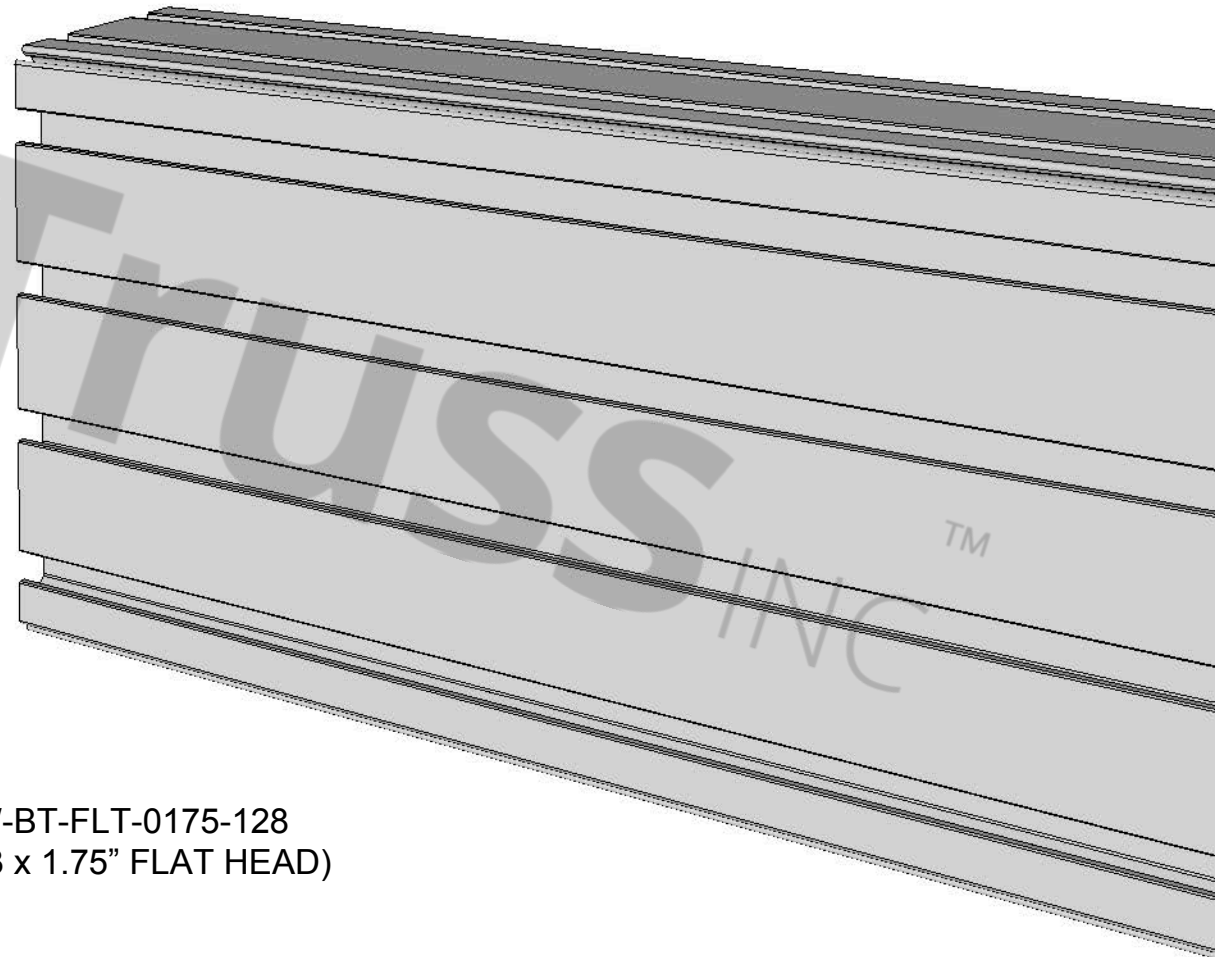
## HARDWARE PER CONNECTION

[6] MT-HW-SB-000-128-04 (1/2"-13 FOUR HOLE SPLICE BAR)

[24] MT-HW-BT-FLT-0175-128 (1/2"-13 x 1.75" FLAT HEAD)



MT-HW-SB-000-128-04  
(1/2"-13 FOUR HOLE SPLICE BAR)



MT-HW-BT-FLT-0175-128  
(1/2"-13 x 1.75" FLAT HEAD)



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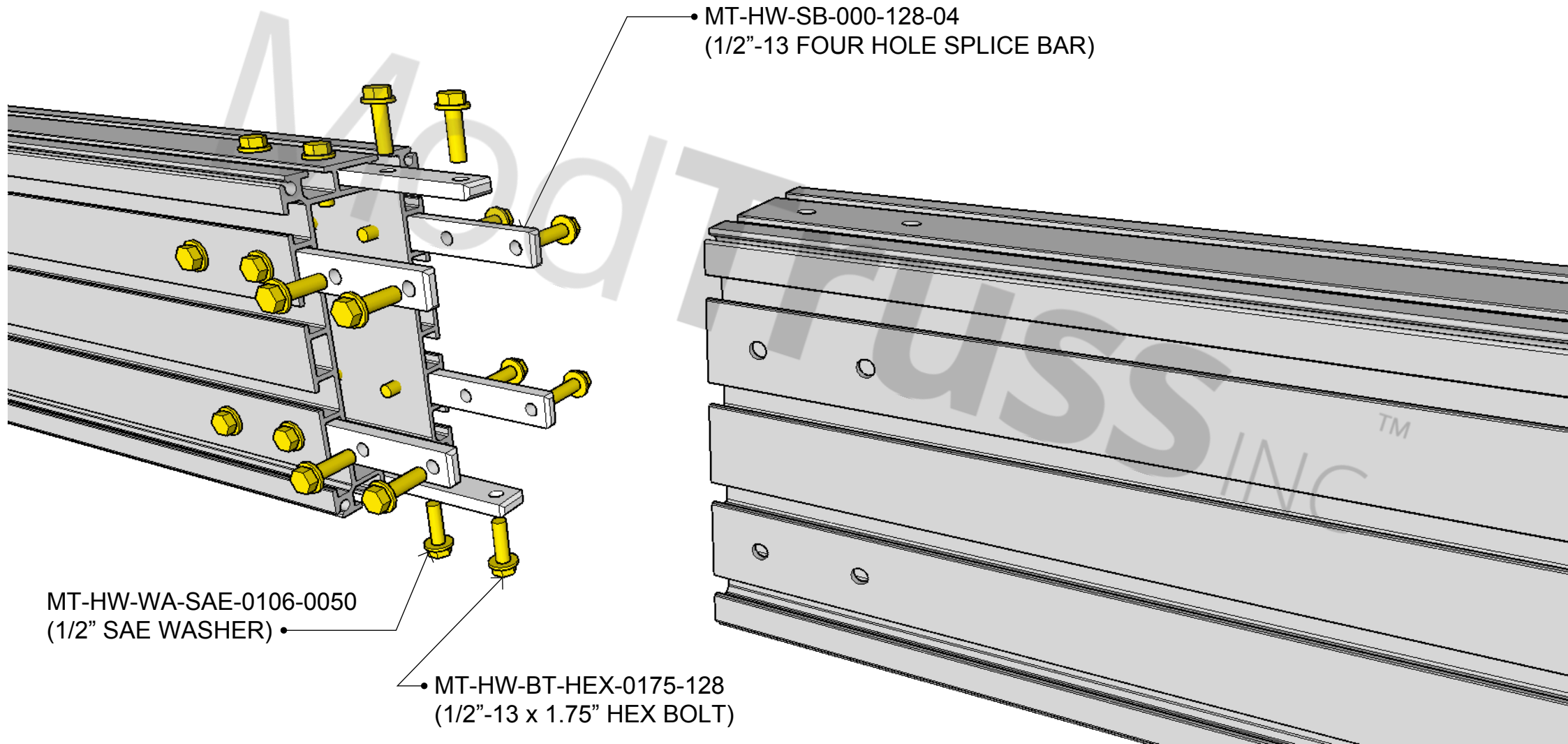
# 12" EXTRUSION - END TO END HEX BOLT

**\*NOTE:**

WHEN MAKING AN END TO END CONNECTION WITH 6" x 12" EXTRUSION USE SIX 1/2"-13 FOUR HOLE SPLICE BARS IN THE CLOSED EXTRUSION TRACKS. EXTRUSION MUST BE DRILLED AND OR DRILLED AND COUNTERSUNK FOR THE SPLICE BARS. THE TAPERED END OF THE SPLICE BAR ALLOWS FOR EASIER INSTALLATION WHEN INSTALLING THE SECOND EXTRUSION MEMBER. USE FOUR 1/2"-13 x 1.75" HEX BOLTS PER SPLICE BAR WITH THE SEAM OF THE TWO EXTRUSION MEMBERS SPLITTING THE SPLICE BAR TWO HOLES PER MEMBER.

## HARDWARE PER CONNECTION

- [6] MT-HW-SB-000-128-04 (1/2"-13 FOUR HOLE SPLICE BAR)
- [24] MT-HW-BT-HEX-0175-128 (1/2"-13 x 1.75" HEX BOLT)
- [24] MT-HW-WA-SAE-0106-0050 (1/2" SAE WASHER)



• MT-HW-SB-000-128-04  
(1/2"-13 FOUR HOLE SPLICE BAR)

• MT-HW-WA-SAE-0106-0050  
(1/2" SAE WASHER)

• MT-HW-BT-HEX-0175-128  
(1/2"-13 x 1.75" HEX BOLT)

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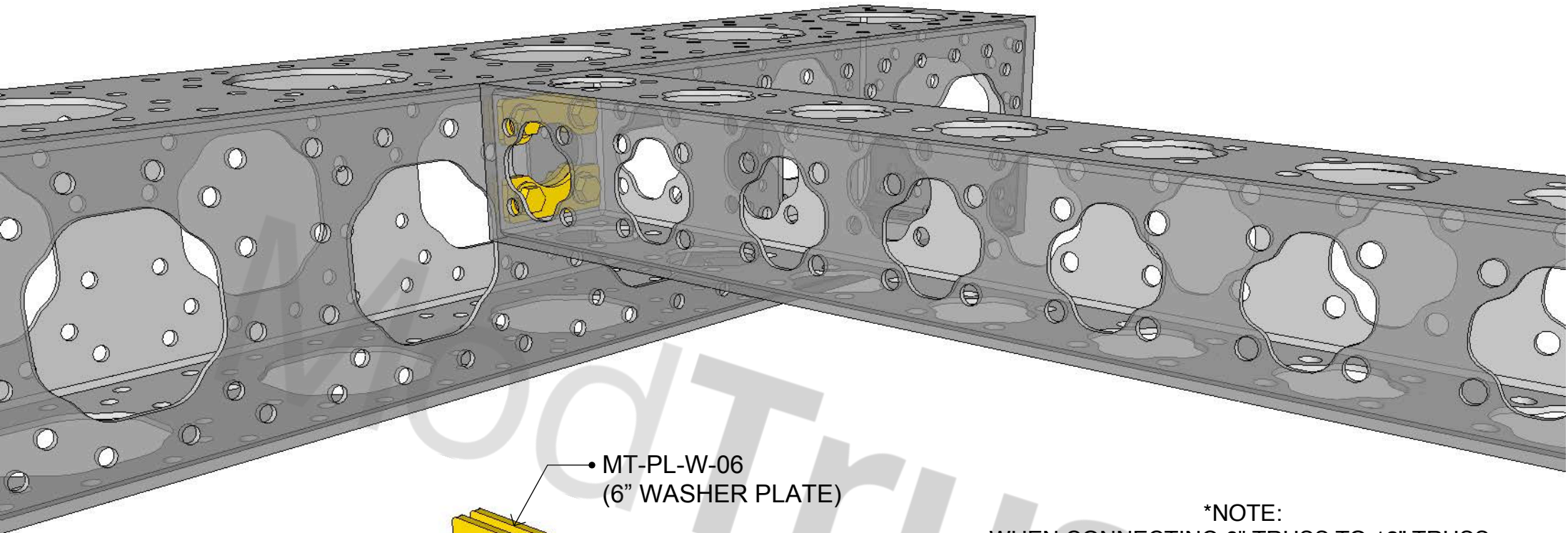
# 6" TRUSS - 12" TRUSS

\* ALL HARDWARE TO BE GRADE 8.

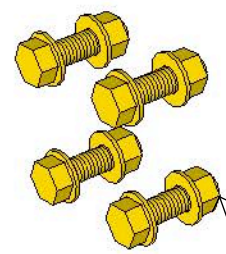
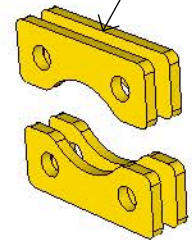
RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs



• MT-PL-W-06  
(6" WASHER PLATE)



• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)

\*NOTE:  
WHEN CONNECTING 6" TRUSS TO 12" TRUSS,  
PLACE TWO 6" WASHER PLATES INSIDE EACH  
MEMBER (FOUR WASHER PLATES TOTAL PER  
CONNECTION) IN THE HORIZONTAL ORIENTATION  
WITH FOUR, 5/8"-11 x 2" BOLT SETS!

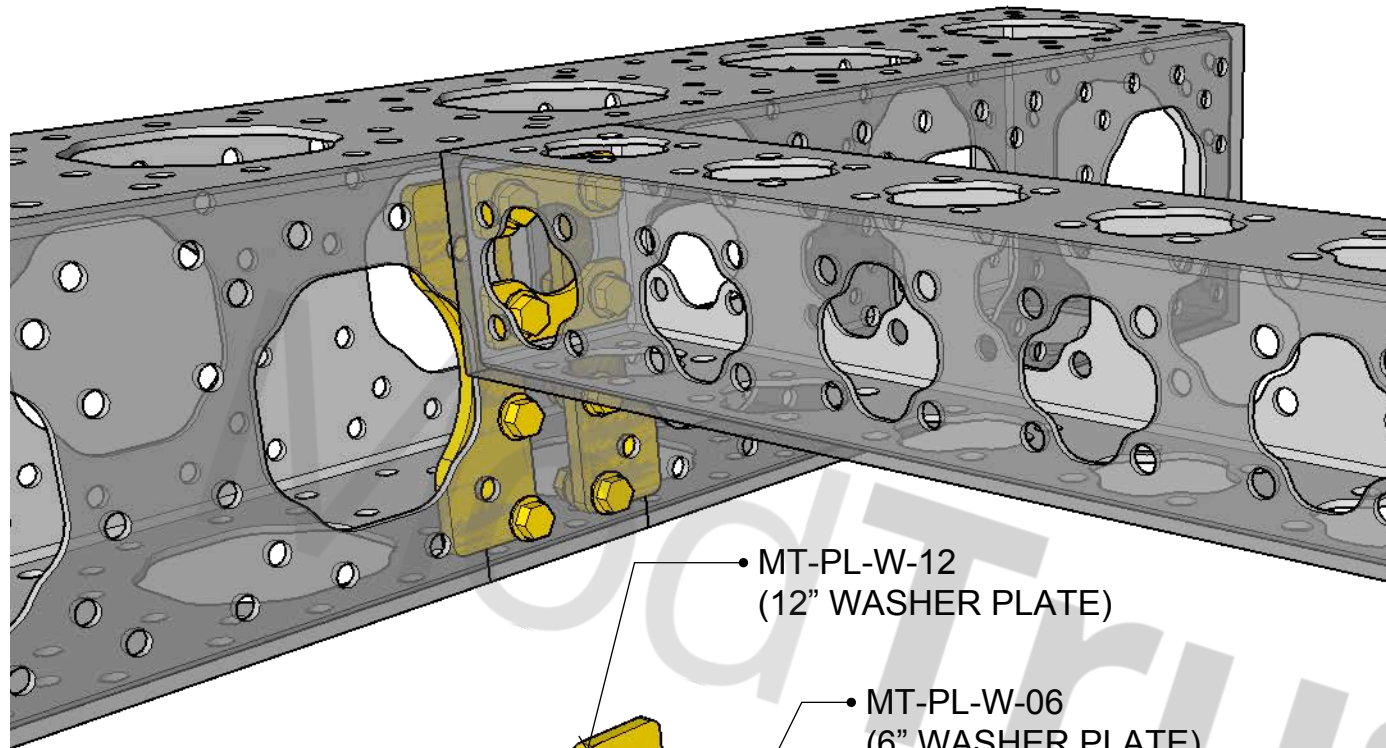
## HARDWARE PER CONNECTION

- [4] MT-PL-W-06 (6" WASHER PLATE)
- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)



**\*NOTE:**

WHEN CONNECTING 6" TRUSS TO 12" TRUSS, PLACE TWO 6" WASHER PLATES INSIDE THE 6" MEMBER IN THE HORIZONTAL ORIENTATION. PLACE TWO 12" WASHER PLATES INSIDE THE 12" MEMBER IN THE VERTICAL ORIENTATION AS SHOWN. USE FOUR 5/8"-11 x 2.5" BOLT SETS BOLTING THROUGH THE 6" TRUSS AND 6" WASHER PLATES TO THE 12" TRUSS AND 12" WASHER PLATES. USE FOUR 5/8"-11 x 2" BOLT SETS TO BOLT THE TWO 12" WASHER PLATE TO THE 12" TRUSS AS SHOWN.

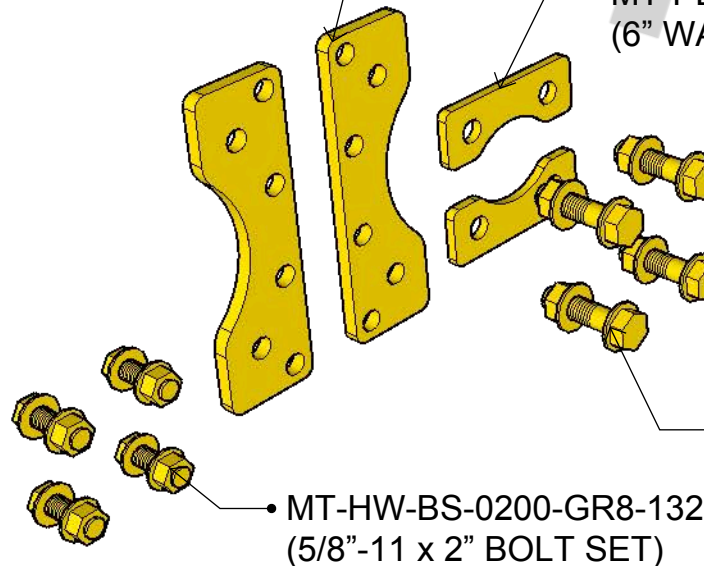


• MT-PL-W-12  
(12" WASHER PLATE)

• MT-PL-W-06  
(6" WASHER PLATE)

**HARDWARE PER CONNECTION**

- [2] MT-PL-W-06 (6" WASHER PLATE)
- [2] MT-PL-W-12 (12" WASHER PLATE)
- [4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)



• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)

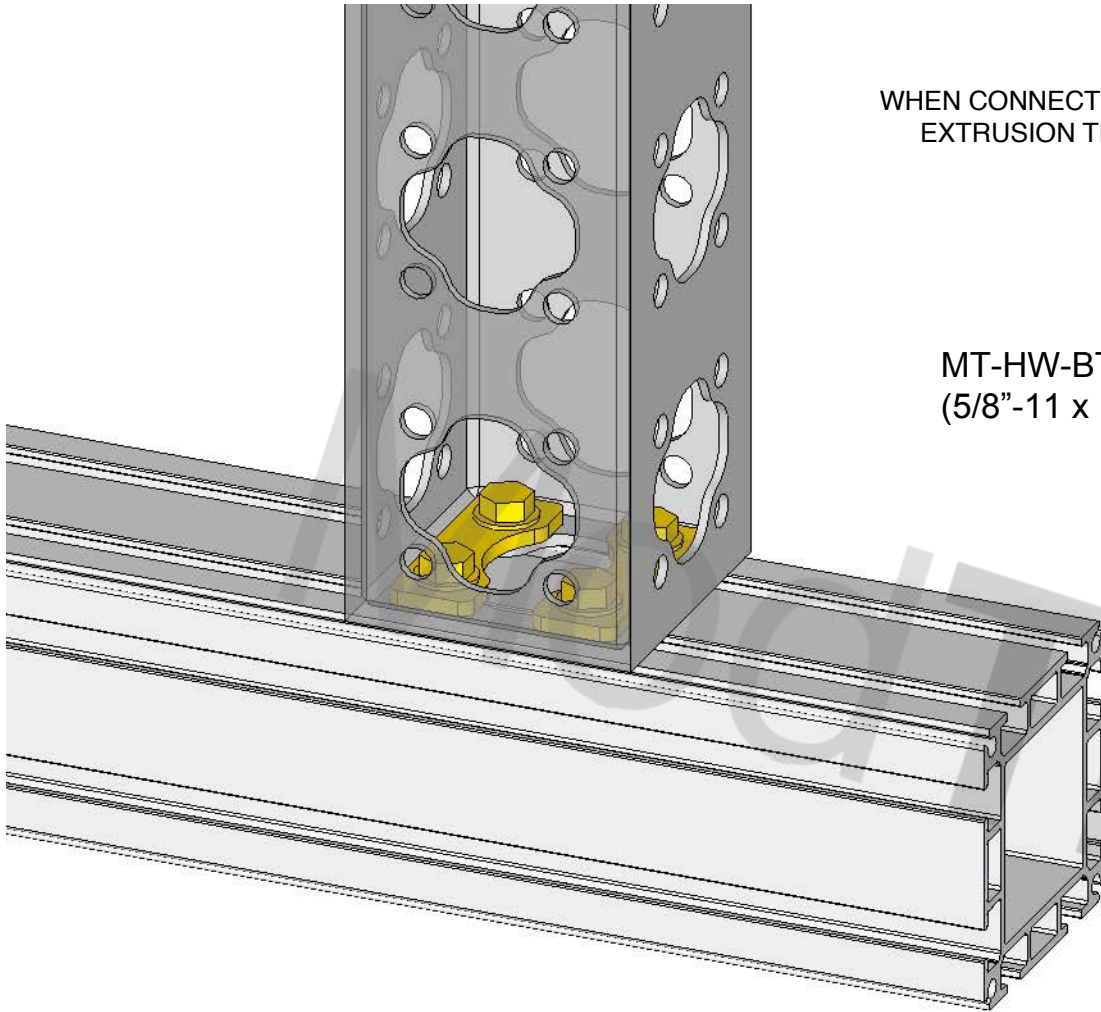
• MT-HW-BS-0250-GR8-132  
(5/8"-11 x 2.5" BOLT SET)



# 6" TRUSS - 6" EXTRUSION

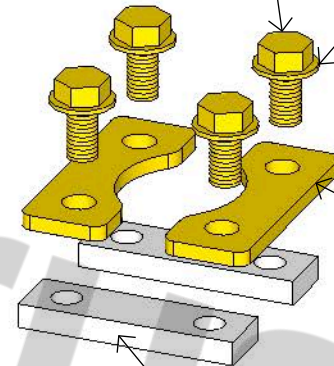
**\*NOTE:**

WHEN CONNECTION 6" TRUSS TO 6" EXTRUSION, PLACE TWO 5/8"-11 TWO HOLE NUT BARS IN THE EXTRUSION TRACK. BOLT THROUGH THE TRUSS AND WASHER PLATES INTO THE NUT BARS USING FOUR 5/8"-11 x 1.25" HEX BOLTS AND WASHERS.



MT-HW-BT-HEX-0125-132  
(5/8"-11 x 1.25" HEX BOLT)

MT-HW-WA-SAE-0131-0063  
(5/8" SAE WASHER)



MT-PL-W-06  
(6" WASHER PLATE)

MT-HW-NB-000-132-02  
(5/8"-11 TWO HOLE NUT BAR)

## HARDWARE PER CONNECTION

- [2] MT-PL-W-06 (6" WASHER PLATE)
- [2] MT-HW-NB-000-132-02 (5/8"-11 TWO HOLE NUT BAR)
- [4] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [4] MT-HW-BT-HEX-0125-132 (5/8"-11 x 1.25" HEX BOLT)



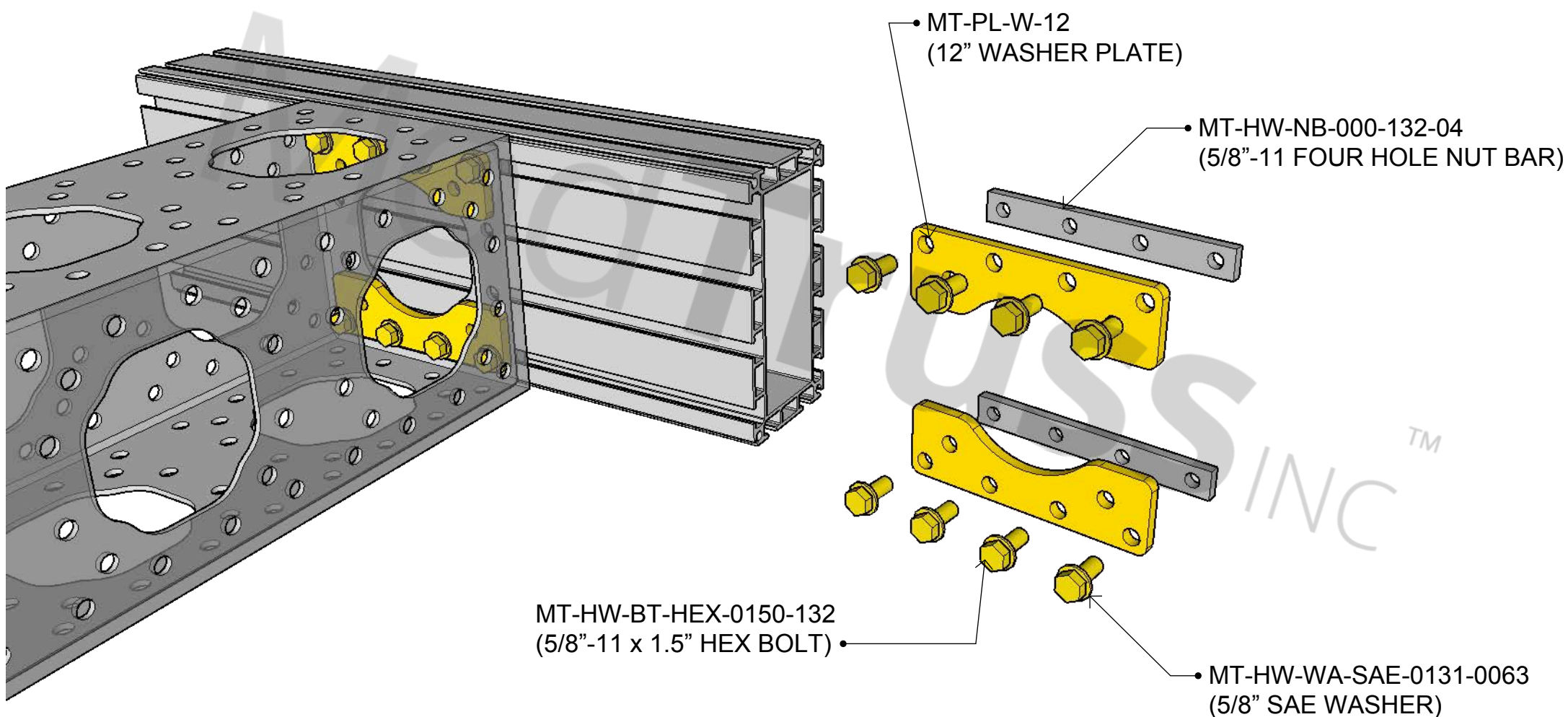
# 12" TRUSS - 12" EXTRUSION

## HARDWARE PER CONNECTION

- [2] MT-PL-W-12 (12" WASHER PLATE)
- [2] MT-HW-NB-000-132-04 (5/8"-11 FOUR HOLE NUT BAR)
- [8] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [8] MT-HW-BT-HEX-0150-132 (5/8"-11 x 1.5" HEX BOLT)

### \*NOTE:

WHEN CONNECTING 12" TRUSS TO 12" EXTRUSION, PLACE TWO 5/8"-11 FOUR HOLE NUT BARS IN THE EXTRUSION TRACK. BOLT THROUGH THE TRUSS AND WASHER PLATES INTO THE NUT BARS USING EIGHT 5/8"-11 x 1.5" HEX BOLTS AND WASHERS.



# 12" TRUSS - 12" EXTRUSION (PLATED)

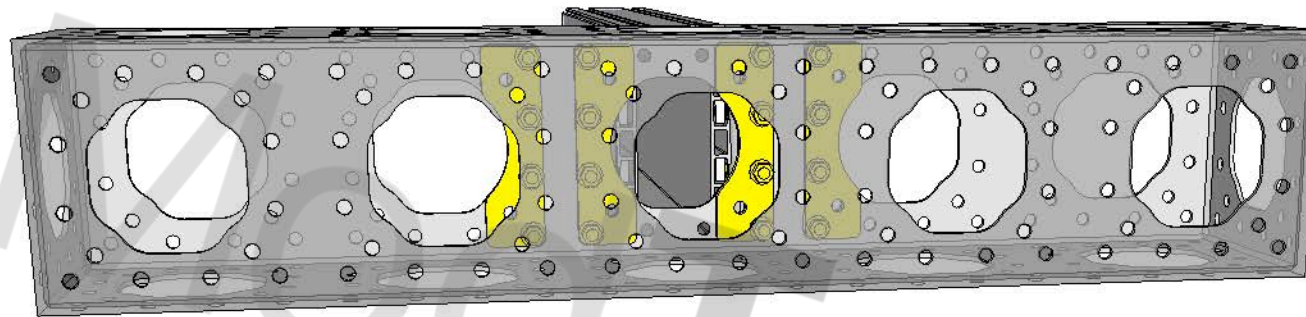
\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

## HARDWARE PER CONNECTION

- [4] MT-PL-W-12 (12" WASHER PLATE)
- [16] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [8] MT-HW-NB-000-132-02 (5/8"-11 TWO HOLE NUT BAR)
- [16] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [16] MT-HW-BT-HEX-0150-132 (5/8"-11 x 1" HEX BOLT)

\*NOTE:  
WHEN CONNECTING 12" TRUSS TO 12" EXTRUSION, PLACE FOUR 5/8"-11 TWO HOLE NUT BARS IN THE EXTRUSION TRACK ON EACH SIDE OF THE EXTRUSION. BOLT THROUGH THE PLATE INTO THE TWO HOLE NUT BARS IN THE EXTRUSION. WITH 5/8"-11 x 2" BOLT SETS BOLT THROUGH THE PLATE AND TRUSS WITH WASHER PLATES INSIDE THE TRUSS FOR BOTH PLATES.



• MT-PL-W-12  
(12" WASHER PLATE)

• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)

• MT-HW-WA-SAE-0131-0063  
(5/8" SAE WASHER)

• MT-HW-BT-HEX-0100-132  
(5/8"-11 x 1" HEX BOLT)

• MT-HW-NB-000-132-02  
(5/8"-11 TWO HOLE NUT BAR)



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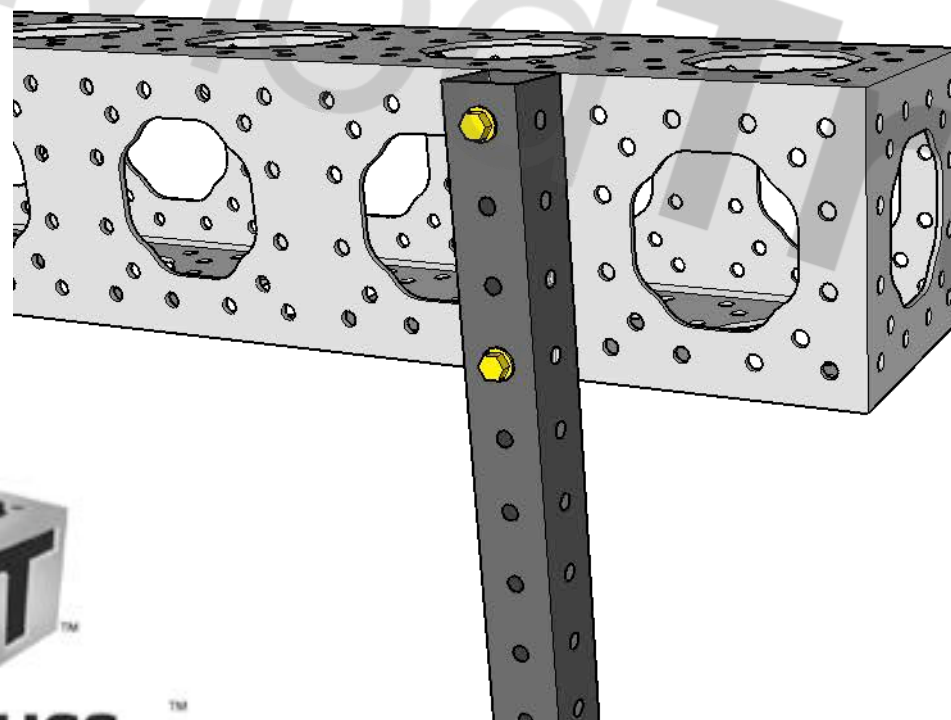
# 3" TRUSS TO 12" TRUSS

## HARDWARE PER CONNECTION

- [1] MT-PL-W-12 (12" WASHER PLATE)
- [2] MT-HW-BS-0500-GR8-132 (5/8"-11 x 5" BOLT SET)

### \*NOTE:

WHEN CONNECTING 3" TRUSS TO THE FACE OF 12" TRUSS, BOLT THROUGH THE 3" TRUSS USING TWO OR FOUR 5/8"-11 x 5" BOLT SETS. WITH THE 5/8"-11 x 5" BOLT SETS BOLT THROUGH THE 3" TRUSS INTO THE 12" TRUSS WITH A 12" WASHER PLATE INSIDE THE 12" TRUSS.



• MT-PL-W-12  
(12" WASHER PLATE)

• MT-HW-BS-0500-GR8-132  
(5/8"-11 x 5" BOLT SET)

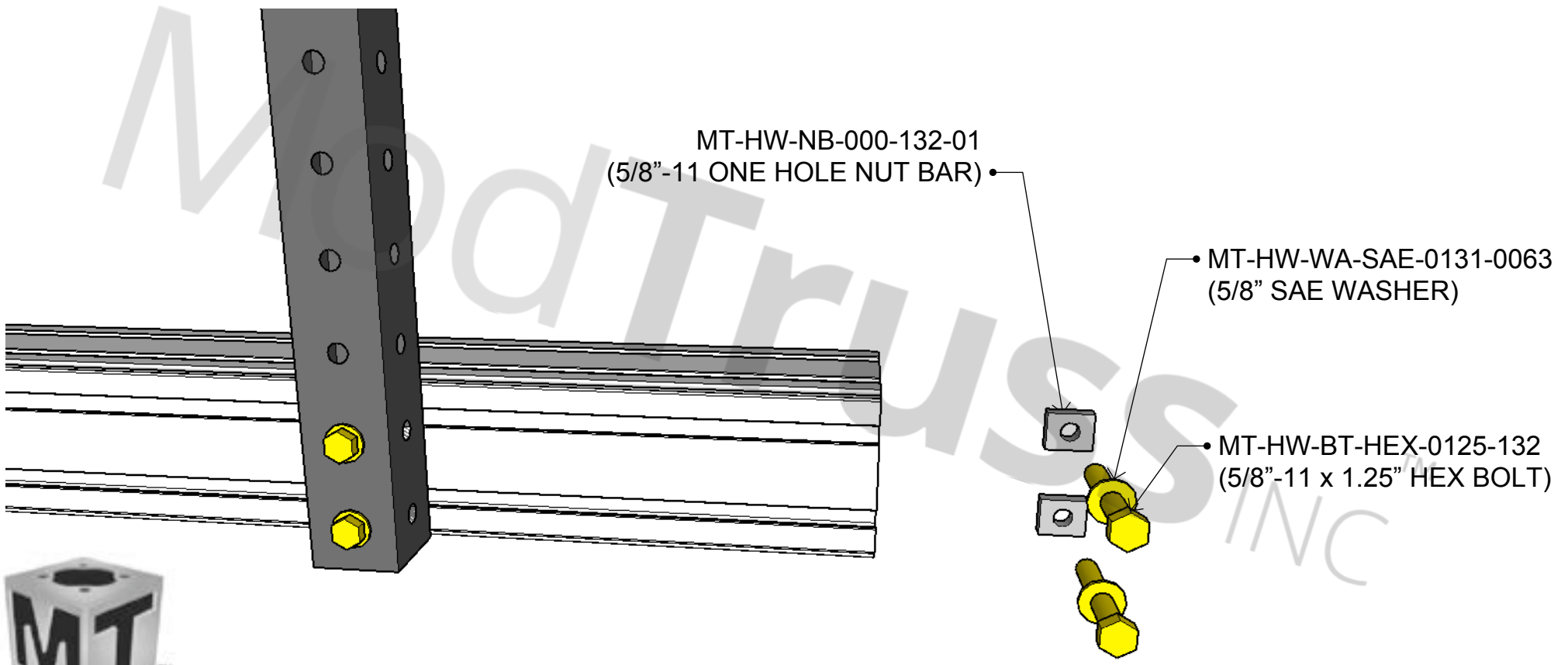


# 3" TRUSS TO 6" EXTRUSION

## HARDWARE PER CONNECTION

- [2] MT-HW-NB-000-132-01 (5/8"-11 ONE HOLE NUT BAR)
- [2] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [2] MT-HW-BT-HEX-0400-132 (5/8"-11 x 4" HEX BOLT)

\*NOTE:  
WHEN CONNECTING 3" TRUSS TO THE FACE OF 6" EXTRUSION BOLT THROUGH THE 3" TRUSS USING TWO 5/8"-11 x 4" HEX BOLTS WITH WASHERS. WITH THE 5/8"-11 x 4" HARDWARE BOLT THROUGH THE 3" TRUSS INTO TWO ONE HONE NUT BARS INTO THE 6" EXTRUSION TRACK.



\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

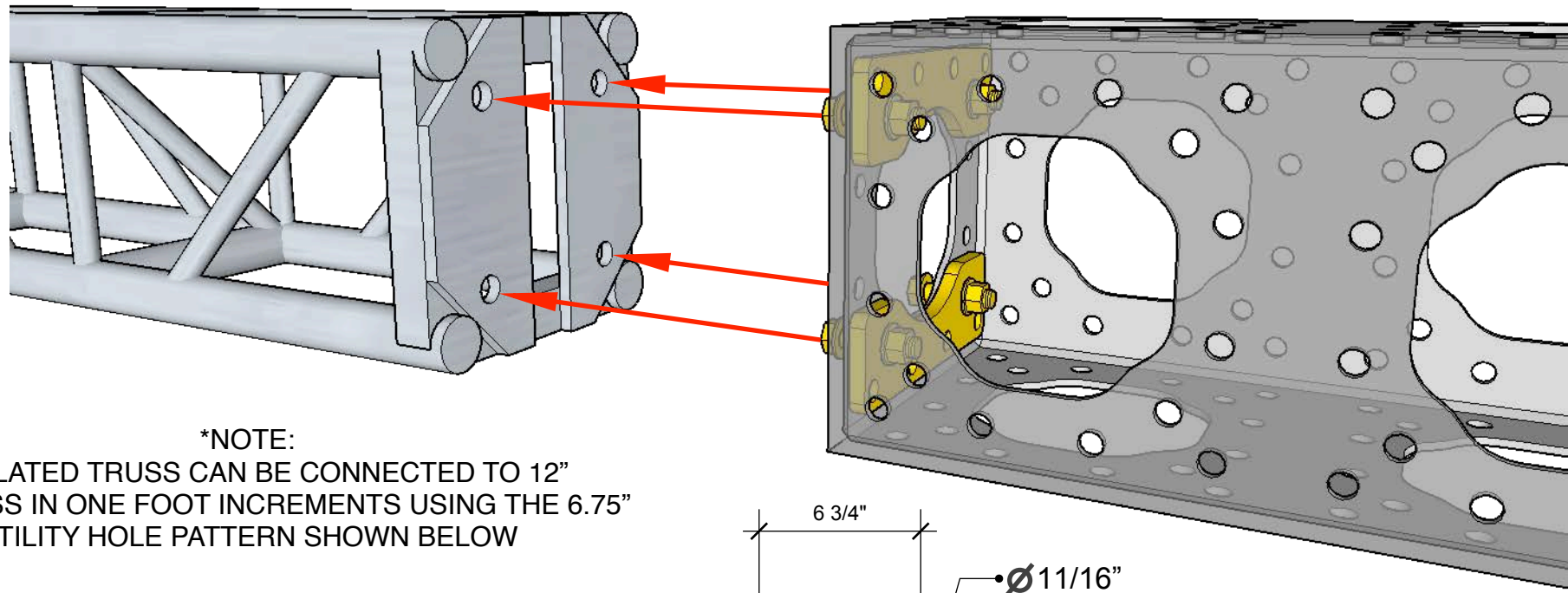
# 12" MODTRUSS TO 12" PLATED TRUSS

**\*NOTE:**

WHEN MAKING A 12" MODTRUSS CONNECTION TO 12" PLATED TRUSS, PLACE TWO 12" WASHER PLATES INSIDE THE MODTRUSS MEMBER IN THE HORIZONTAL ORIENTATION WITH FOUR, 5/8"-11 x 2.5" BOLT SETS. WASHERS OR HARDWARE MAY VARY FOR NONE MODTRUSS SIDE OF CONNECTION.

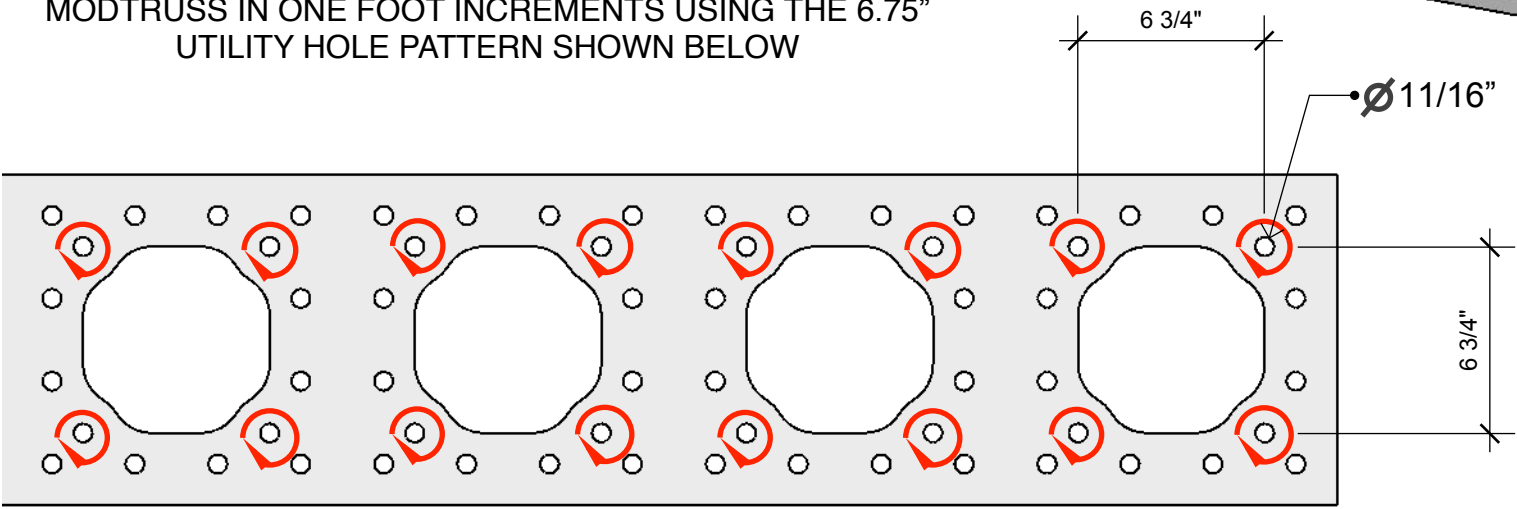
**HARDWARE PER CONNECTION**

- [2] MT-PL-W-12 (12" WASHER PLATE)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)



**\*NOTE:**

12" PLATED TRUSS CAN BE CONNECTED TO 12" MODTRUSS IN ONE FOOT INCREMENTS USING THE 6.75" UTILITY HOLE PATTERN SHOWN BELOW



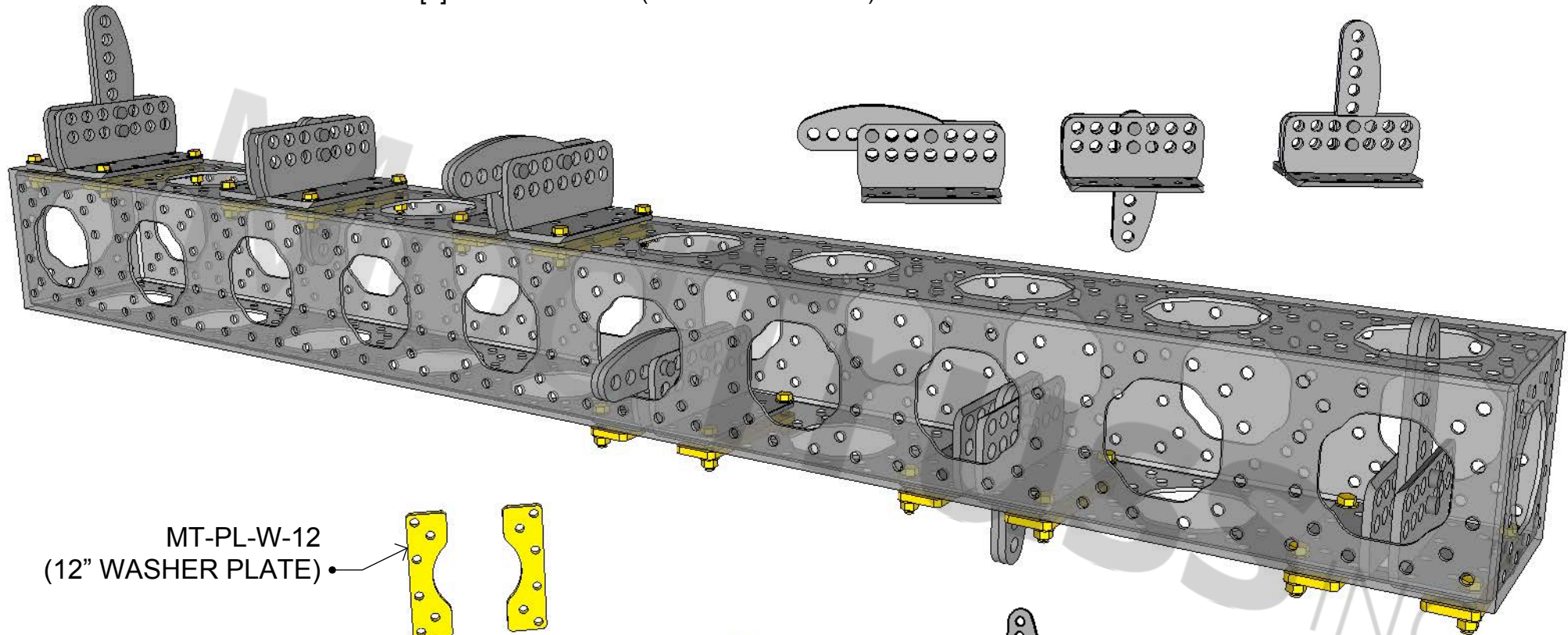


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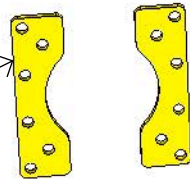
# 12" TRUSS - UNIVERSAL MOUNT AND BISCUITS

## HARDWARE PER CONNECTION

- [2] MT-MR-UM-A-12-06-14-01 (UNIVERSAL MOUNT HALF)
- [2] MT-MR-UM-B-07-01 (UNIVERSAL MOUNT BISCUIT)
- [4] MT-HW-BS-0250-GR8-132 (5/8"-11 x 2.5" BOLT SET)
- [2] MT-PL-W-12 (12" WASHER PLATE)



MT-PL-W-12  
(12" WASHER PLATE)

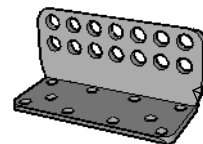


MT-HW-BS-0250-GR8-132  
(5/8"-11 x 2.5" BOLT SET)

MT-MR-UM-B-07-01  
(UNIVERSAL MOUNT BISCUIT)



MT-MR-UM-A-12-06-14-01  
(UNIVERSAL MOUNT HALF)



# MODPANELS

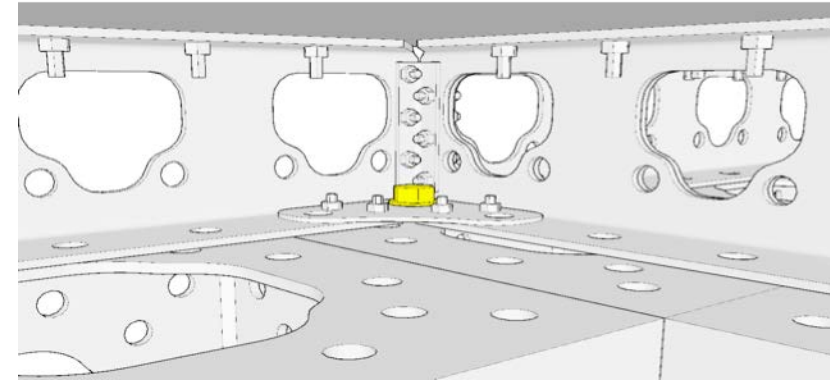
\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

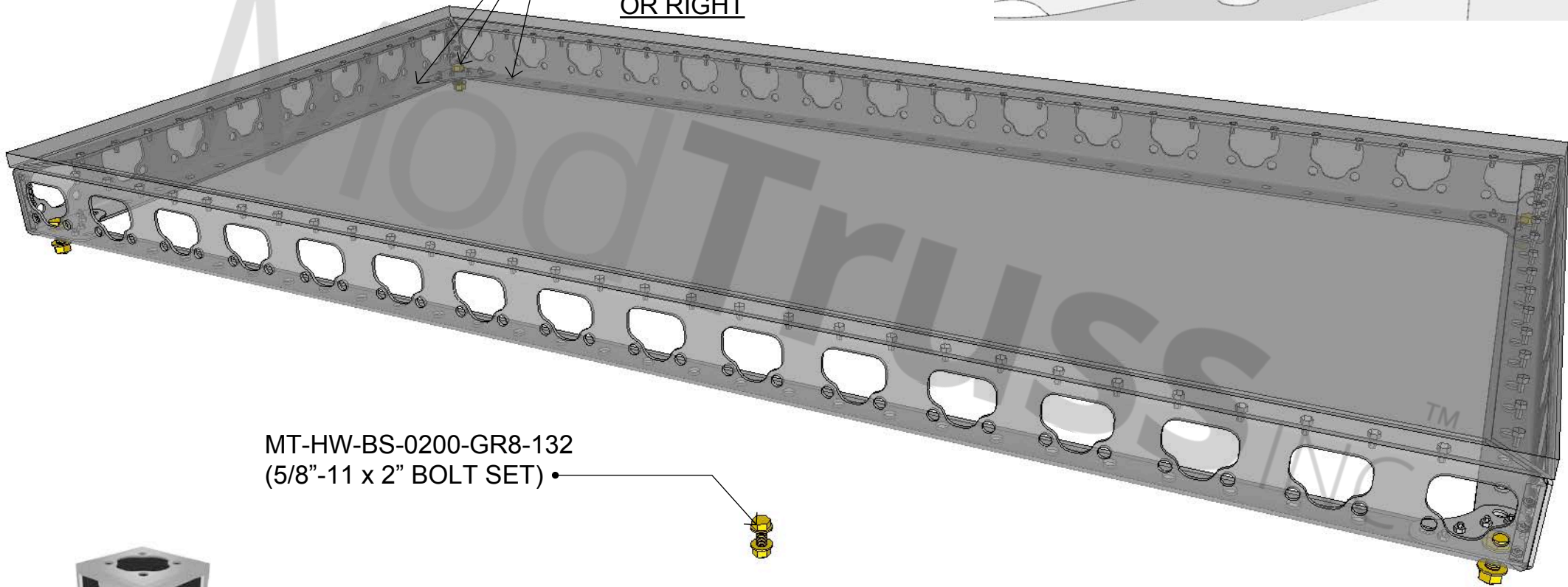
TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs

WHEN INSTALLING MODPANELS, PLACE A 5/8"-11 x 2" BOLT SET IN THE OUTER MOST CORNERS. THE BOLT SET CAN BE PLACED THROUGH THE CORNER MOUNTING BRACKET OR THROUGH THE FRAME RAIL SIDES OF THE MODPANEL.



• IF CORNER HOLE IS NOT AVAILABLE USE A HOLE TO THE LEFT OR RIGHT



MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)



HARDWARE PER CONNECTION

[4] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)



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# T SLOT EXTRUSION PIPE END TO END

\* ALL HARDWARE TO BE GRADE 8.

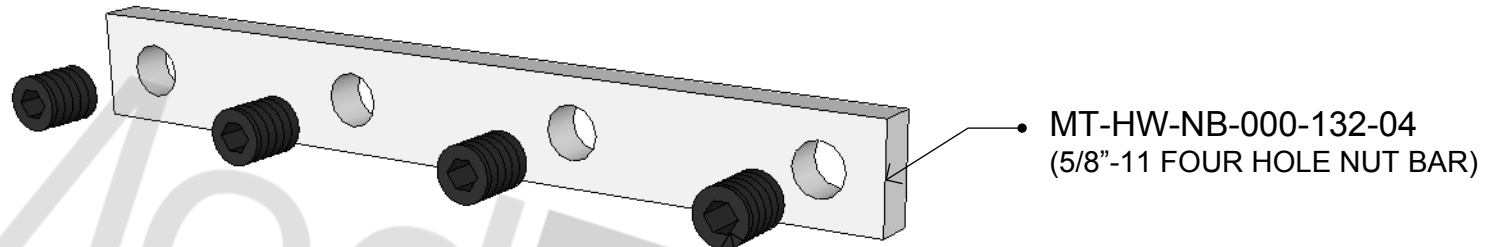
RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

**\*NOTE:**

WHEN CONNECTING T SLOT EXTRUSION PIPE END TO END,  
INSERT ONE FOUR-HOLE 5/8"-11 NUT BAR INTO THE  
EXTRUSION TRACK WITH TWO SET SCREWS PER END.  
CONNECT WITH FOUR 5/8"-11 SET SCREWS.

## HARDWARE PER CONNECTION

- [4] MT-HW-BT-SHC-0075-132 (5/8"-11 x .75" SET SCREW)
- [1] MT-HW-NB-000-132-04 (5/8"-11 FOUR HOLE NUT BAR)



• MT-HW-BT-SHC-0075-132  
(5/8"-11 x .75" SET SCREW)



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INC<sup>TM</sup>

# JOIST HANGERS

\* ALL HARDWARE MUST BE A GRADE 8.

## WHEN CONNECTION A JOIST HANGER TO LUMBER YOU WILL NEED:

DEPENDING ON SIZE OF JOIST HANGED (1/2" BOLT SET)

- 2X4 JOIST HANGER: 1 MT-HW-BS-0300-GR8-128
- 2X6 JOIST HANGER: 2 MT-HW-BS-0300-GR8-128
- 2X8 JOIST HANGER: 2 MT-HW-BS-0300-GR8-128
- 2X12 JOIST HANGER: 3 MT-HW-BS-0300-GR8-128

OR

DEPENDING ON SIZE OF JOIST HANGER

- YOU WILL USE 4-14 (WOOD SCREWS)
- 2X4 JOIST HANGER: 3 WOOD SCREWS
- 2X6 JOIST HANGER: 5 WOOD SCREWS
- 2X8 JOIST HANGER: 5 WOOD SCREWS
- 2X12 JOIST HANGER: 7 WOOD SCREWS

IN PERMANENT APPLICATIONS  
USE WOOD SCREWS.

IN TEMPORARY APPLICATIONS  
WHERE FASTENERS WILL  
NEED TO BE REMOVED USE  
1/2"-13 BOLT SETS

SIZE 8 OR SIZE 9 WOOD SCREW

OR

• MT-HW-BS-0200-GR8-132  
(1/2"-13 x 3" BOLT SET)

HARDWARE PER  
CONNECTION TO TRUSS

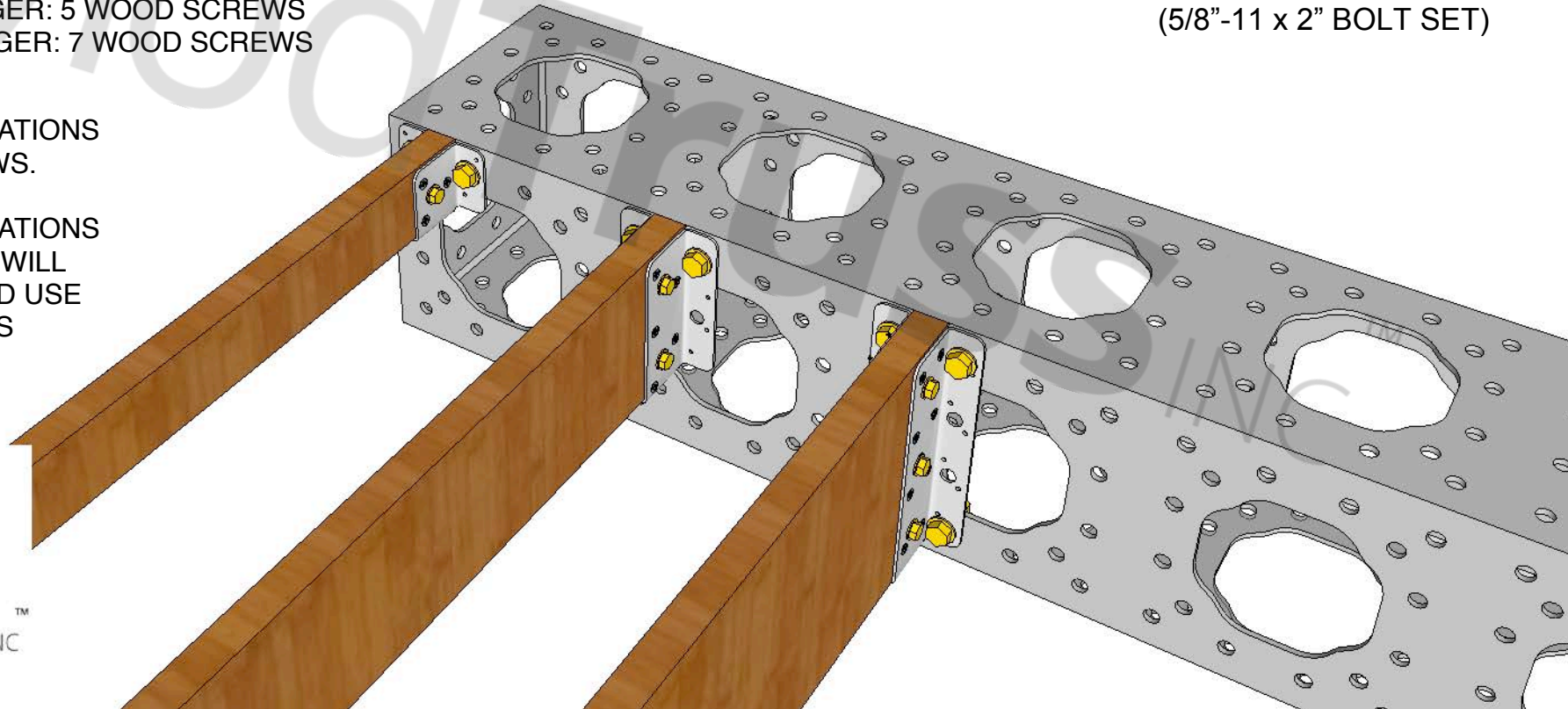
[4] MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)

• MT-HW-BS-0200-GR8-132  
(5/8"-11 x 2" BOLT SET)

5/8"-11 BOLT TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs



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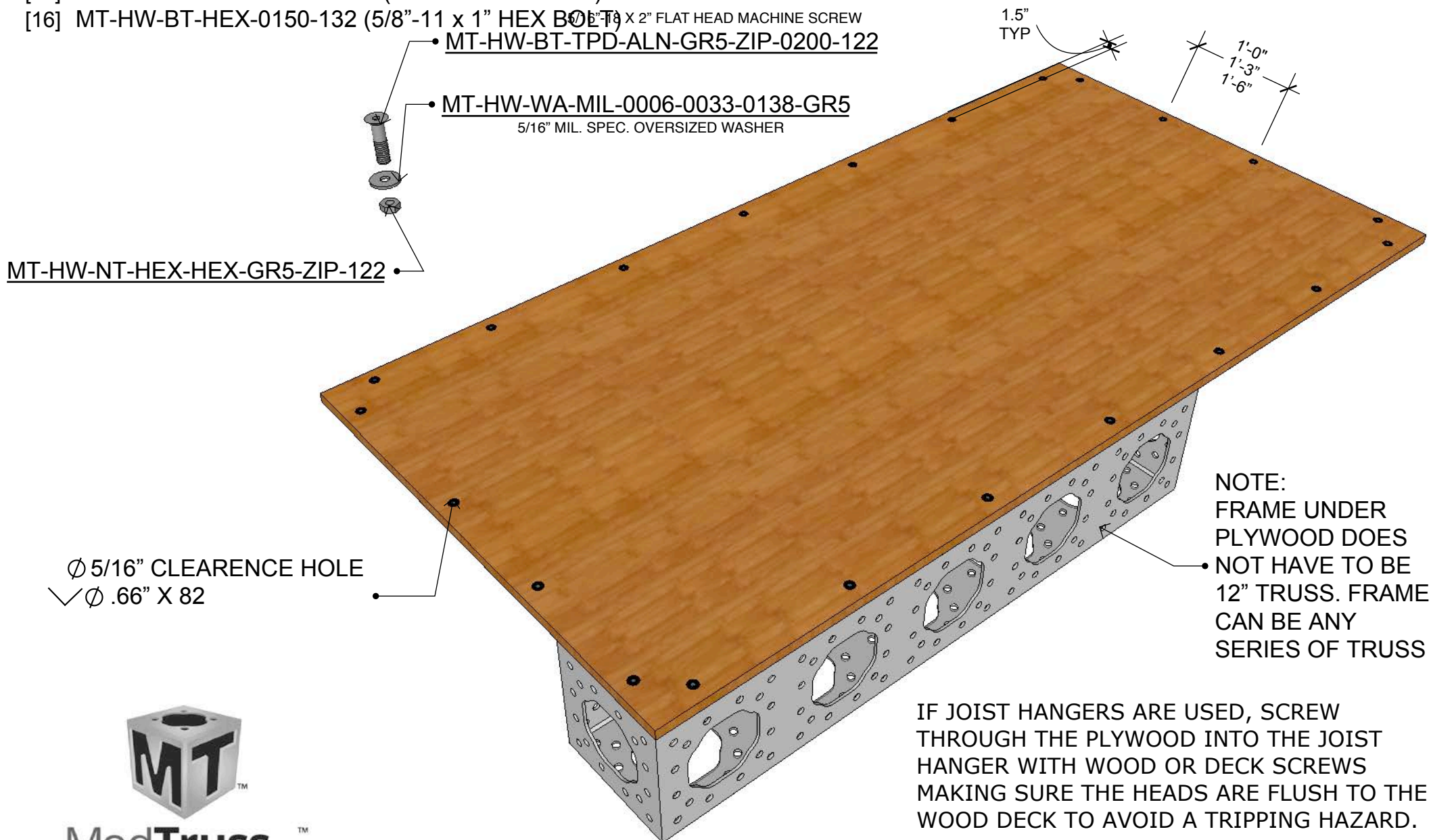


## HARDWARE PER CONNECTION

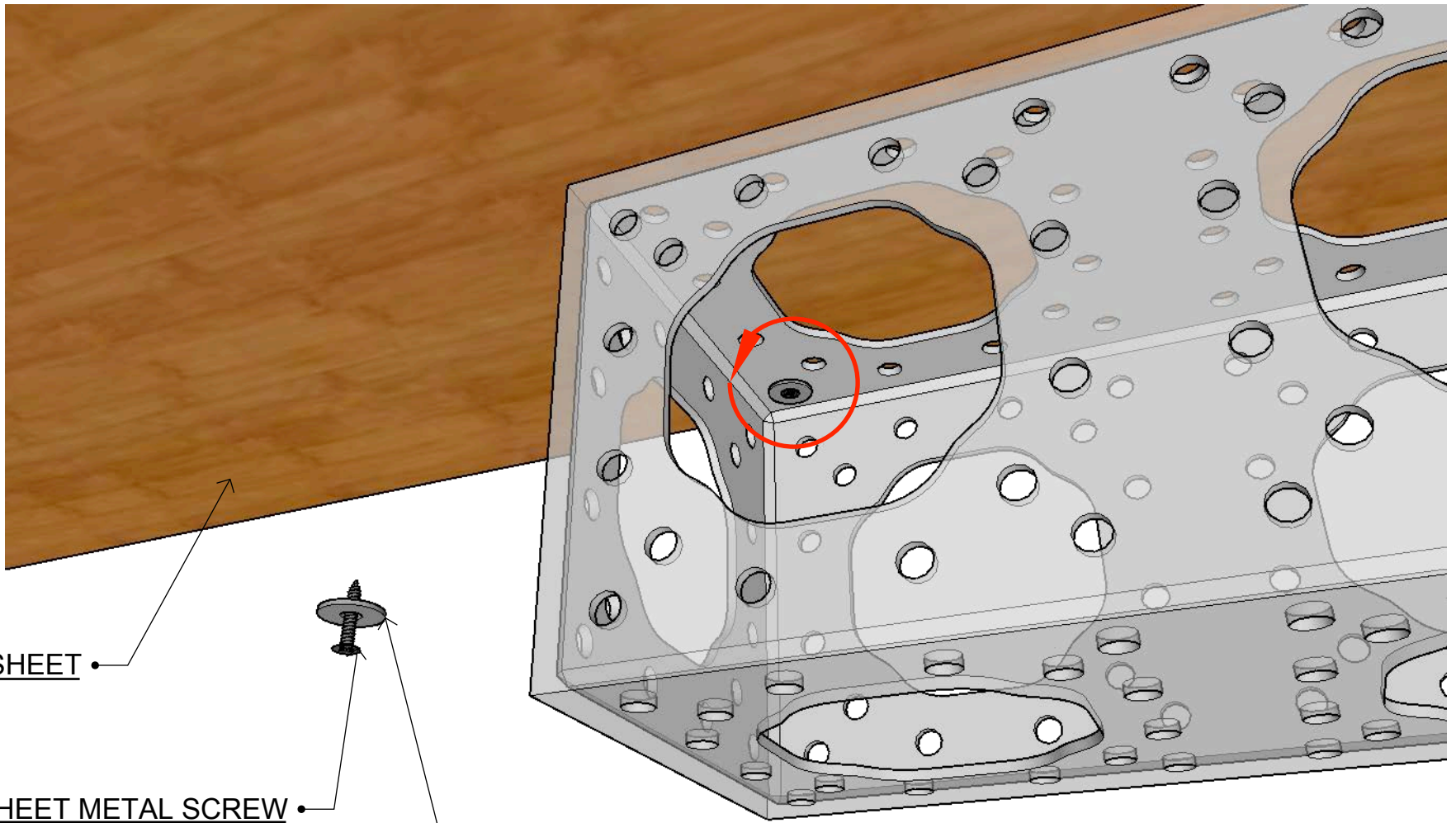
- [X] MT-PL-W-12 (12" WASHER PLATE)
- [16] MT-HW-BS-0200-GR8-132 (5/8"-11 x 2" BOLT SET)
- [8] MT-HW-NB-000-132-02 (5/8"-11 TWO HOLE NUT BAR)
- [16] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [16] MT-HW-BT-HEX-0150-132 (5/8"-11 x 1" HEX BOLT)

5/16" CLEARANCE HOLES SHOULD BE DRILLED AND COUNTER SUNK FOR 5/16"-18 FLAT HEAD MACHINE SCREWS. ALL HOLES SHOULD START 1.5" FROM THE EDGE AND DRILLED TO MATCH THE 3" HOLE PATTERN IN ALL ModTruss COMPONENTS. HOLES CAN BE DRILLED 12" 15" OR 18" ON CENTER.

DOUBLED SIDED TAPE CAN BE USED BETWEEN PLYWOOD AND TRUSS TO AVOID SQUEAKING OR SHIFTING.



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PLYWOOD OR SHEET

WOOD SCREW OR SHEET METAL SCREW

OVERSIZED WASER (1.3" RECOMENDED OD)

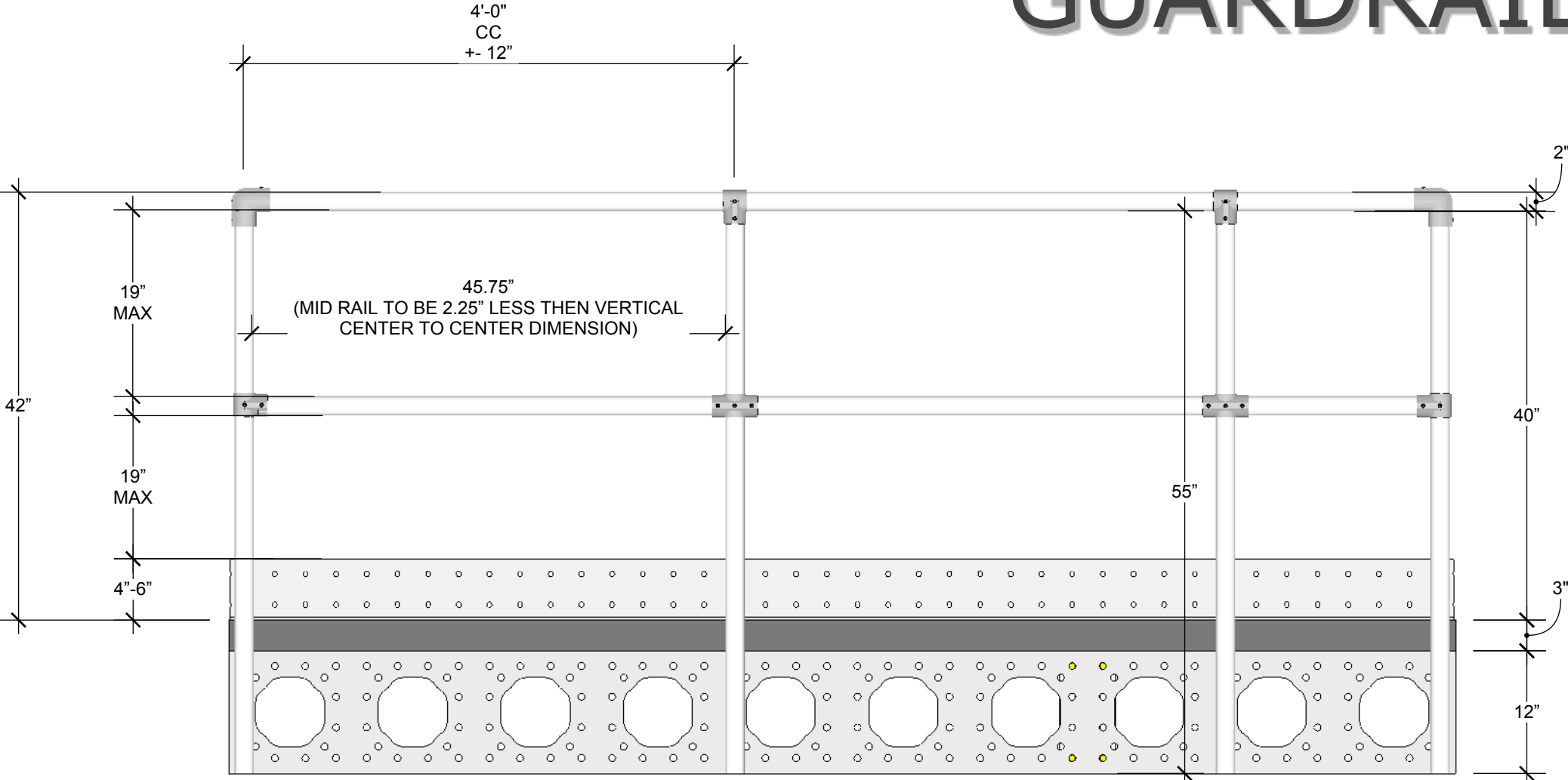
**\*NOTE:**

WHEN CONNECTING PLY WOOD OR DECORATIVE SHEET USE A SCREW NO LONGER THAN THE THICKNESS OF THE MATERIAL SCREWING INTO. FROM INSIDE THE TRUSS SCREW INTO THE SHEET WITH AN OVER SIZED WASHER WITH THE APPROPRIATE INSIDE DIAMETER FOR THE SCREW USED AND AN OUTSIDE DIAMETER LARGER THAN THE 11/16" HOLE IN THE TRUSS. USE AS MANY SCREWS NEEDED TO ATTACHED SHEET TO TRUSS.



**ModTruss**™  
INC

# GUARDRAIL

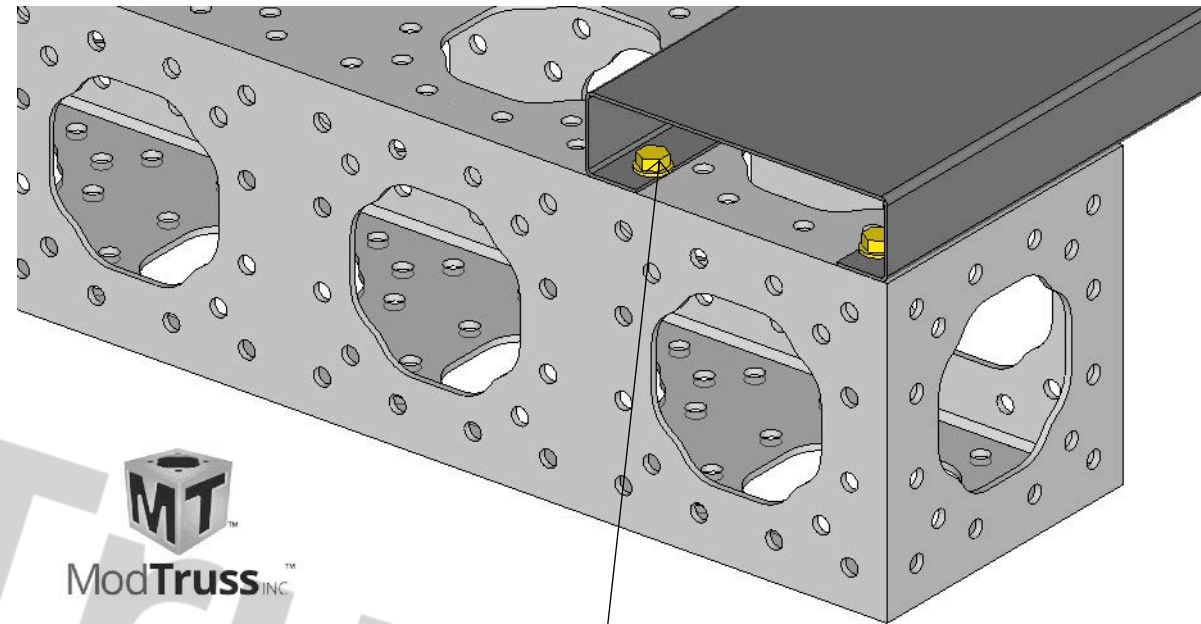
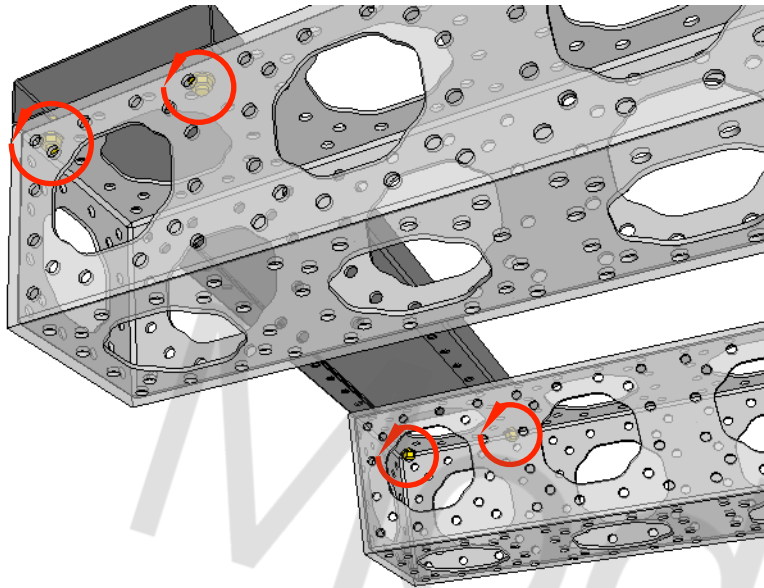




\* ALL HARDWARE TO BE GRADE 8.

# 3" x 12" STEEL MODPLANK TO TRUSS

RECOMMENDED TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs



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MT-HW-BS-0150-GR8-132  
(5/8"-11 x 1.5" BOLT SET) •

## HARDWARE PER CONNECTION

[4] MT-HW-BS-0150-GR8-132 (5/8"-11 x 1.5" BOLT SET)

## \*NOTE

WHEN BOLTING A STEEL MODPLANK TO TRUSS USE FOUR 5/8"-11 x 1.5" BOLTS SETS IN THE OUTER MOST CORNERS POSSIBLE.

# SLEEVE BLOCKS

\* ALL HARDWARE MUST BE A GRADE 8.

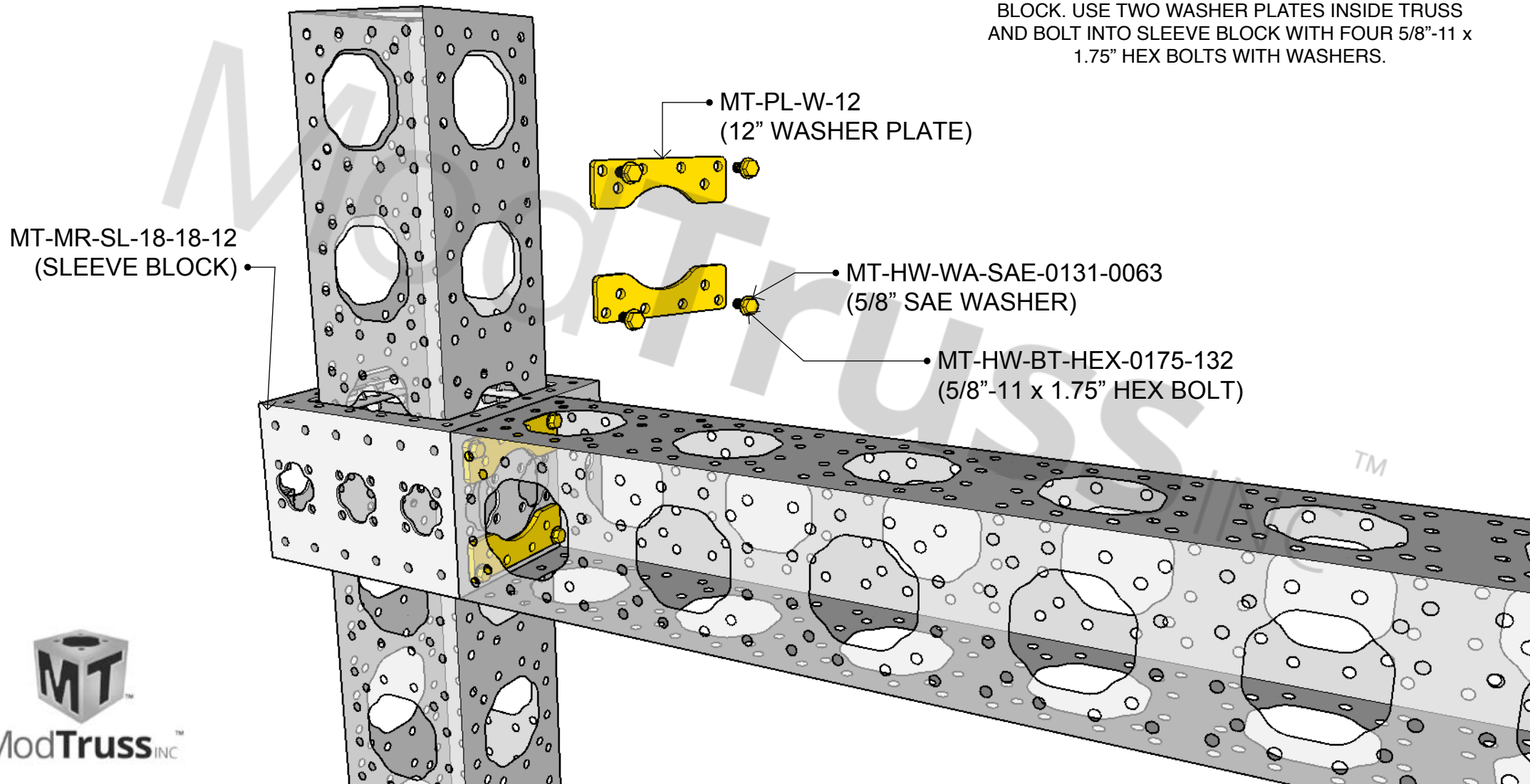
5/8"-11 BOLT TORQUE VALUE:  
TEMPORARY INSTALL: 80 ft-lbs  
PERMANENT INSTALL: 150 ft-lbs

## HARDWARE PER CONNECTION

- [1] MT-MR-SL-18-18-12 (SLEEVE BLOCK)
- [4] MT-HW-BT-HEX-0175-132 (5/8"-11 x 1.75" HEX BOLT)
- [4] MT-HW-WA-SAE-0131-0063 (5/8" SAE WASHER)
- [2] MT-PL-W-12 (12" WASHER PLATE)

### \*NOTE:

WHEN MOUNTING TRUSS TO A SLEEVE BLOCK USE WASHER PLATES INSIDE TRUSS BEING MOUNTED TO THE SLEEVE BLOCK. WASHER PLATES AND NUTS ARE NOT NEEDED INSIDE THE SLEEVE BLOCK AS MOUNTING UTILIZES WELD NUTS INSIDE SLEEVE BLOCK. USE TWO WASHER PLATES INSIDE TRUSS AND BOLT INTO SLEEVE BLOCK WITH FOUR 5/8"-11 x 1.75" HEX BOLTS WITH WASHERS.



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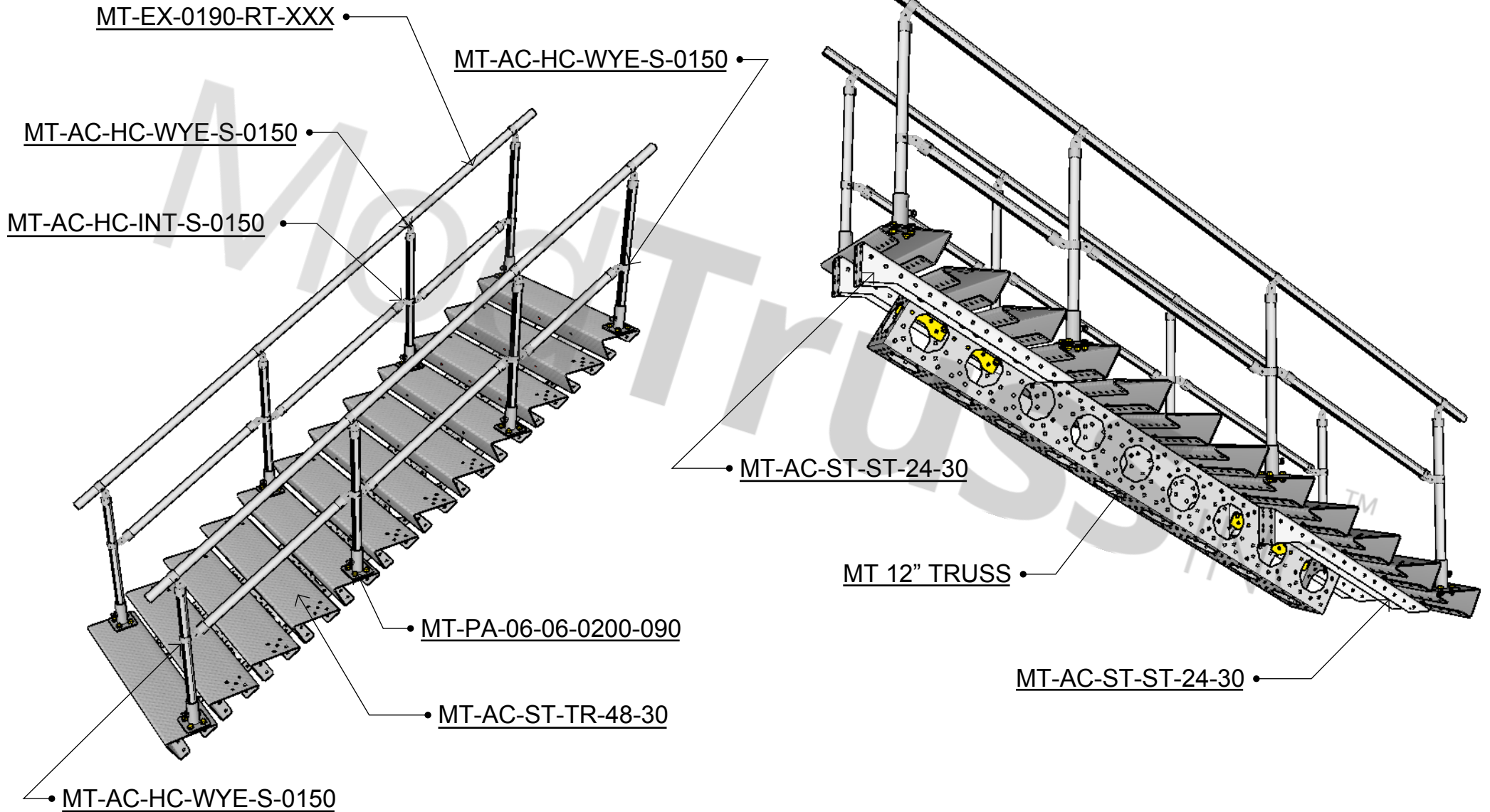
# STAIRS

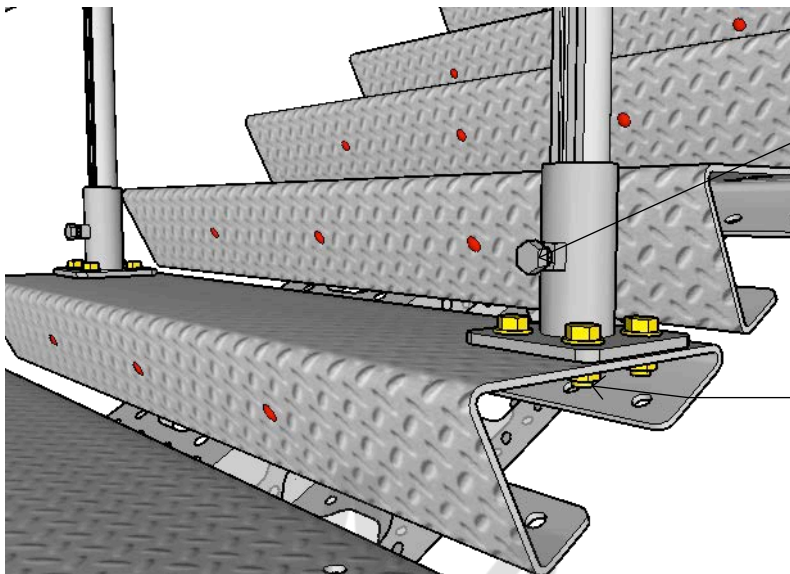
FOUR STAIR STRINGERS (MT-AC-ST-ST-24-30) PER STAIR.

NUMBER OF STAIR TREADS (MT-AC-ST-TR-48-30) VARIES ON DESIRED HEIGHT OF STAIR.

LENGTH OF 12" TRUSS (MT-TR-12-12-XXX-AL) VARIES ON DESIRED HEIGHT OF STAIR.

NUMBER OF PIPE ADAPTERS (MT-PA-06-06-0200-090) VARIES ON DESIRED HEIGHT OF STAIR.





USE A 5/8"-11 X 2.25" FULL THREAD HEX BOLT TO SET SCREW THE T SLOT PIPE INTO THE PIPE ADAPTER. ORIENTATE THE PIPE SO THE FLAT FACE IS TO THE DOWNWARD PART OF THE STAIR. THIS ALLOWS THE BOLT TO TIGHTEN INTO THE FLAT FACE OF THE T SLOT

WHEN ATTACHING PIPE ADAPTERS TO THE STAIR TREADS USE FOUR 5/8"-11 X 1.5" BOLT SETS WITH THE TAILS FACING DOWN AS SHOWN. 5/8"-11 X 2" BOLT SETS CAN BE USED WITH EXCESS BOLT TAIL

ATTACH PIPE ADAPTERS TO TREADS WITH FOUR BOLT SETS PER PIPE ADAPTER

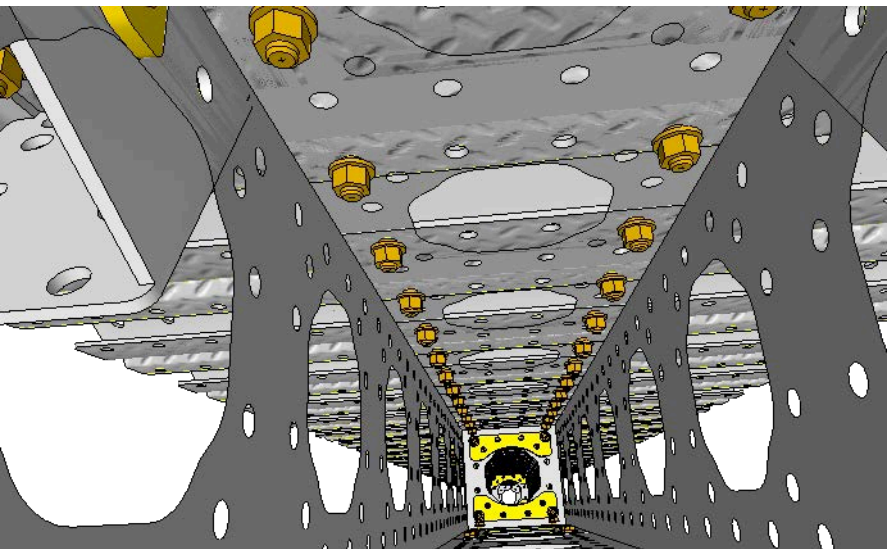
ATTACH STAIR TREADS TO TRUSS WITH FOUR BOLT SETS PER STAIR TREAD

STAIR STRINGERS, PIPE ADAPTERS AND TRUSS LOCATION MAY VARY BASED ON YOUR HEIGHT OF STAIR AND TRUSS LENGTH USED. SEE YOUR PROJECT BUILD DRAWINGS FOR LOCATIONS

ATTACH STAIR STRINGERS TO TRUSS WITH FOUR BOLT SETS AND TWO 12" WASHER PLATES PER STRINGER

ATTACH STAIR TREADS TO STRINGERS WITH FOUR BOLT SETS PER STAIR TREAD

# STAIRS

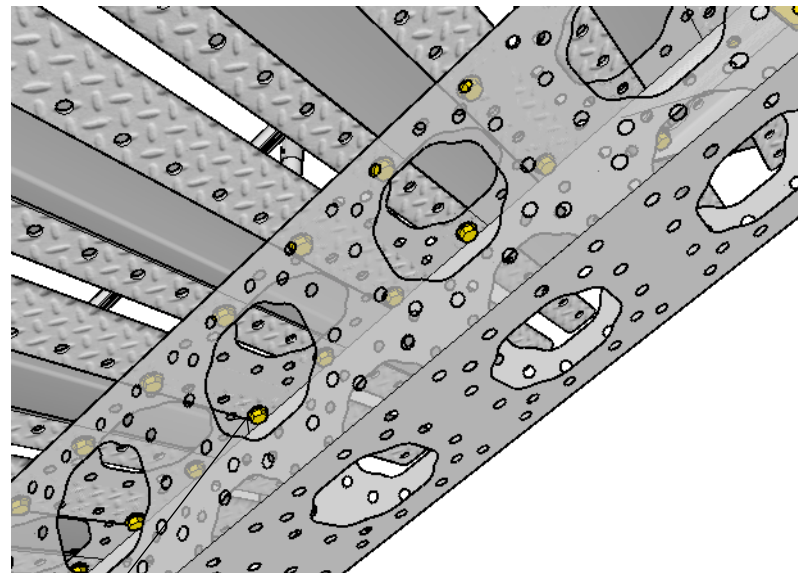


\* ALL HARDWARE TO BE GRADE 8.

RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

PERMANENT INSTALL: 150 ft-lbs



WHEN CONNECTING STAIR TREADS TO THE TRUSS, ARRANGE 5/8"-11 X 1.5" BOLT SETS AS SHOWN. (FOUR BOLT SETS PER TREAD)  
5/8"-11 X 2" BOLT SETS CAN BE USED WITH EXCESS BOLT TAIL

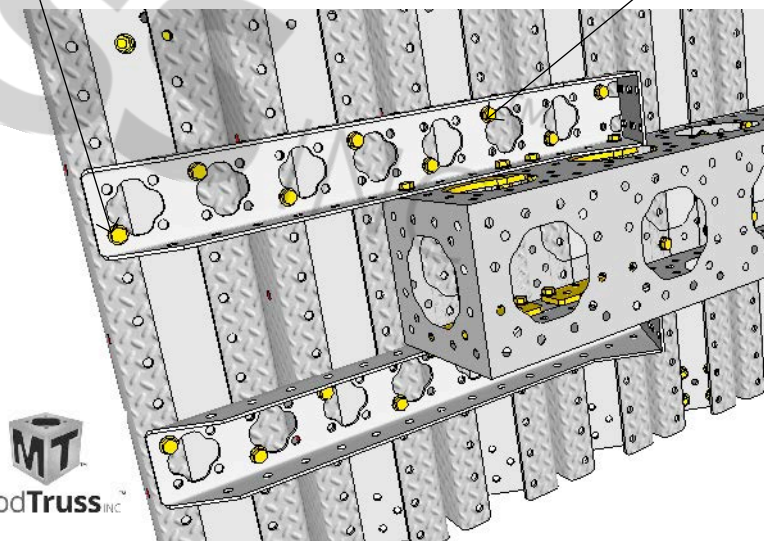
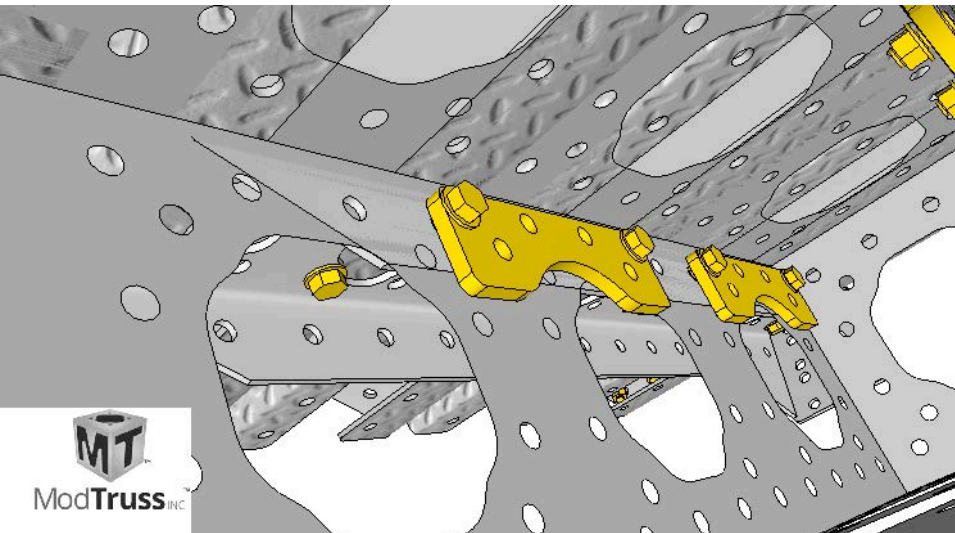
ORIENTATION OF BOLTS WHEN ATTACHING TREADS TO TRUSS DOES NOT MATTER, BOLT HEADS CAN BE UP OR DOWN

WHEN ATTACHING THE BOTTOM TREAD TO BOTTOM STAIR STRINGERS THE BOLT TAIL MUST BE FACING UP SO IT DOES NOT INTERFERE WITH GROUND.

# STAIRS

WHEN BOLTING STAIR STRINGERS TO THE TRUSS, BE SURE TO USE 12" WASHER PLATES INSIDE TRUSS WITH TWO 5/8"-11 X 2" BOLT SETS AS SHOWN

BOLT TREADS TO STAIR STRINGERS WITH 5/8"-11 X 1.5" BOT SETS (FOUR BOLT SETS PER TREAD)



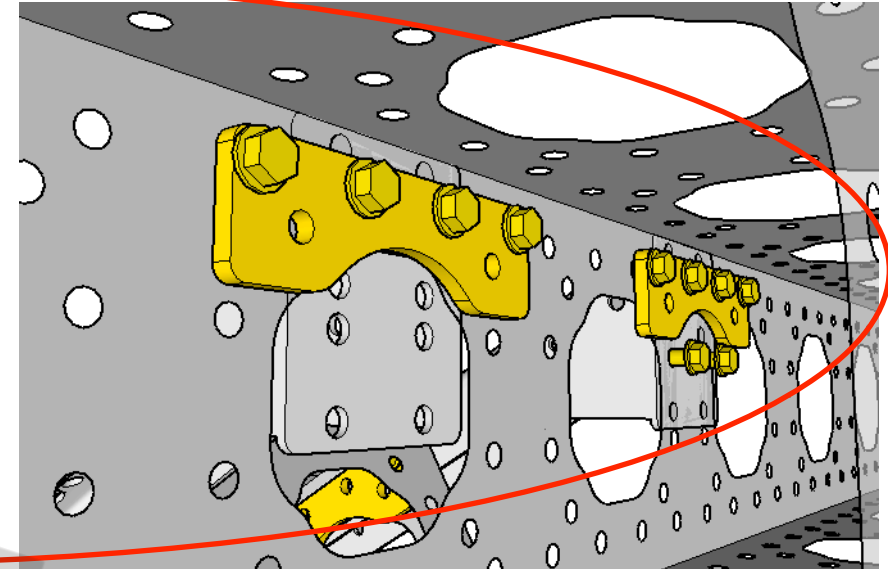
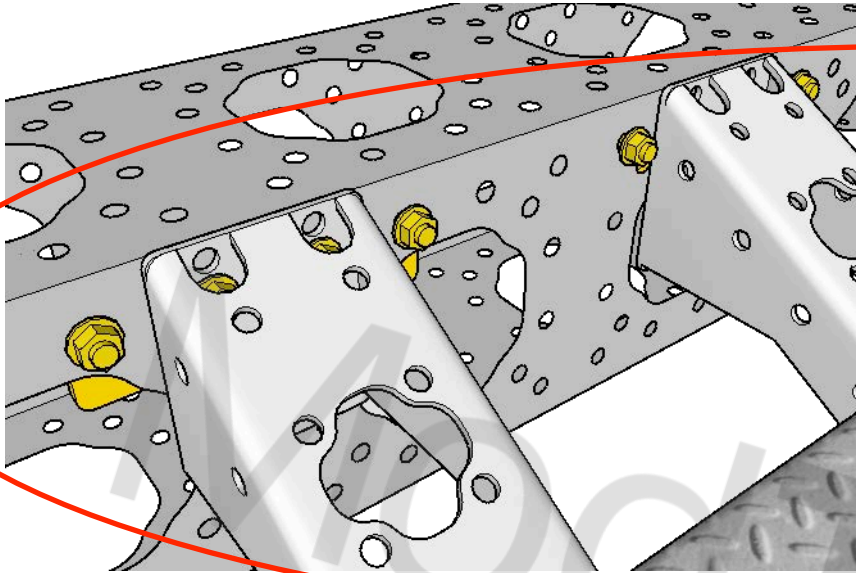
\* ALL HARDWARE TO BE GRADE 8. RECOMMENDED TORQUE VALUE:

TEMPORARY INSTALL: 80 ft-lbs

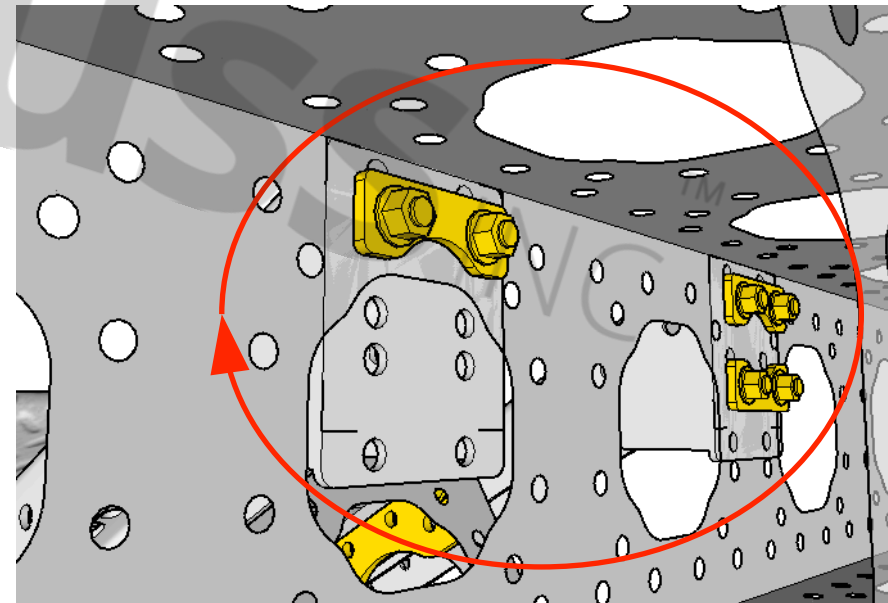
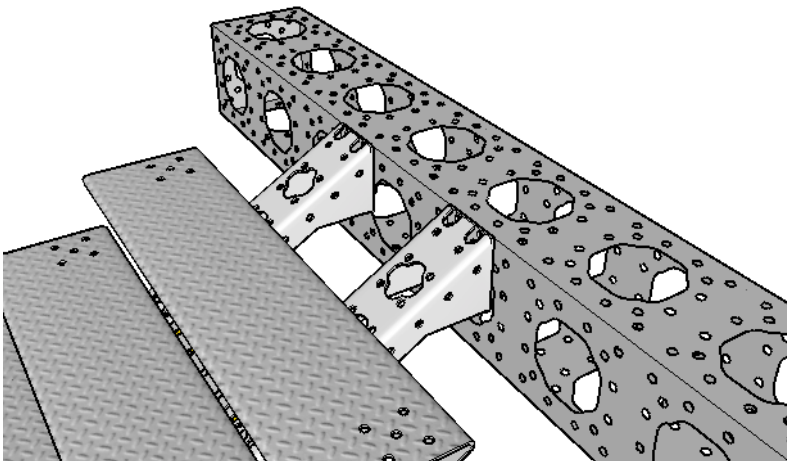
PERMANENT INSTALL: 150 ft-lbs

# STAIRS

STAIR ASSEMBLY CAN BE MOUNTED TO FRAME  
USING 12" WASHER PLATES OR 6" WASHER PLATES  
AS SHOWN BELOW WITH 5/8"-11 X 2" BOLT SETS

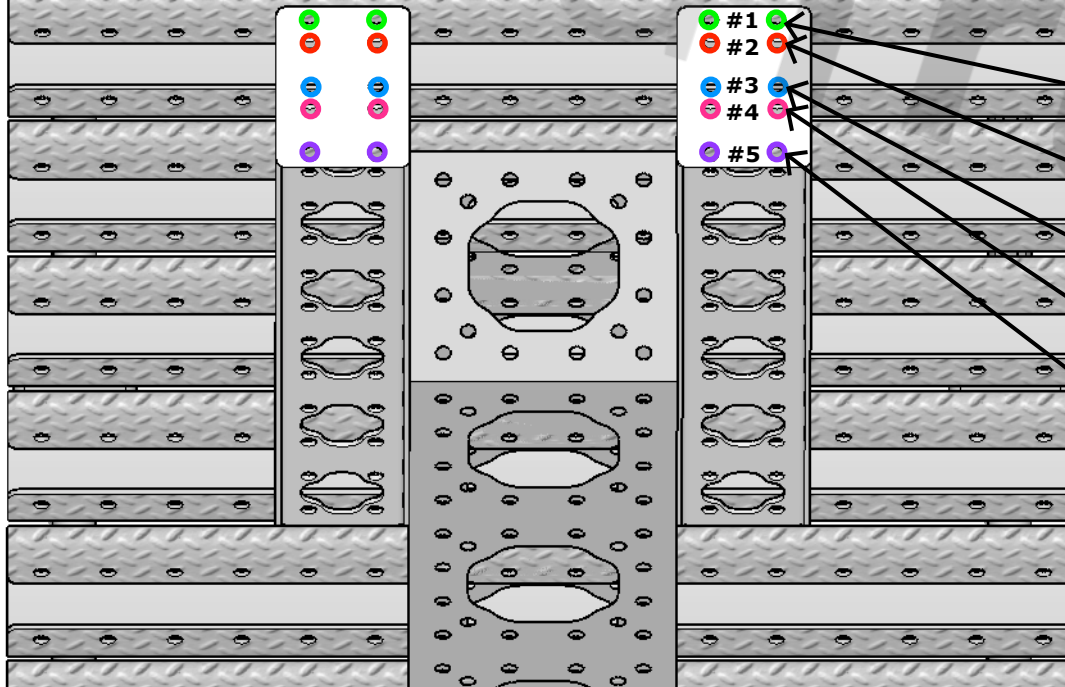
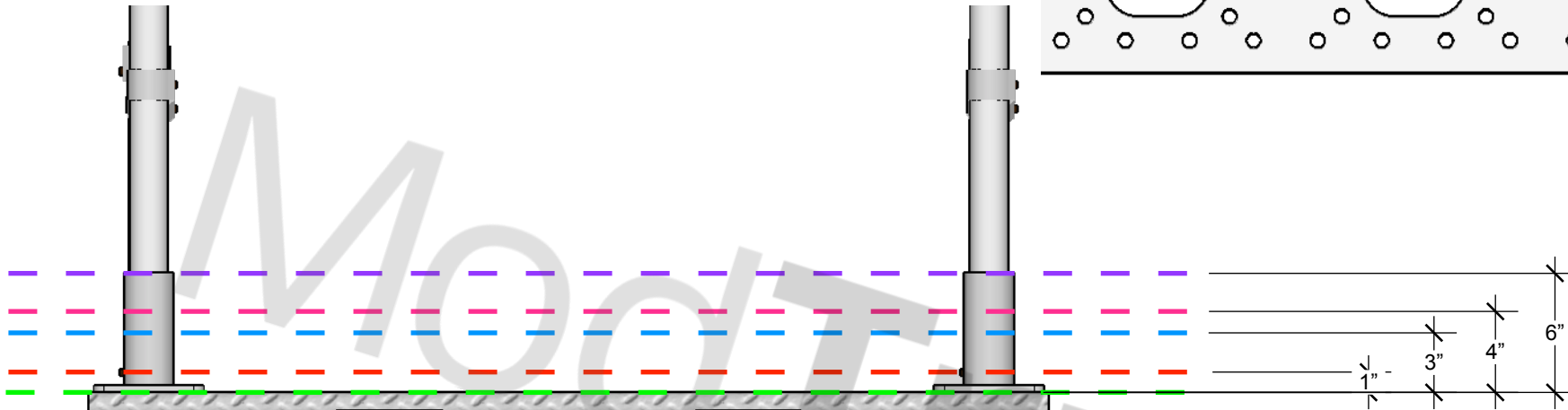
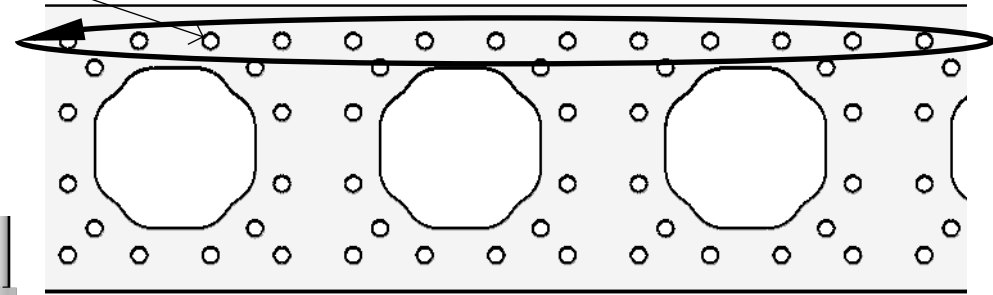


WHEN CONNECTING STAIR ASSEMBLY TO FRAME IT IS RECOMMENDED  
TO LEAVE THE TOP TREAD OFF ALLOWING EASIER ACCESS TO THE  
STRINGER MOUNTING FACE FOR TIGHTENING BOLTS



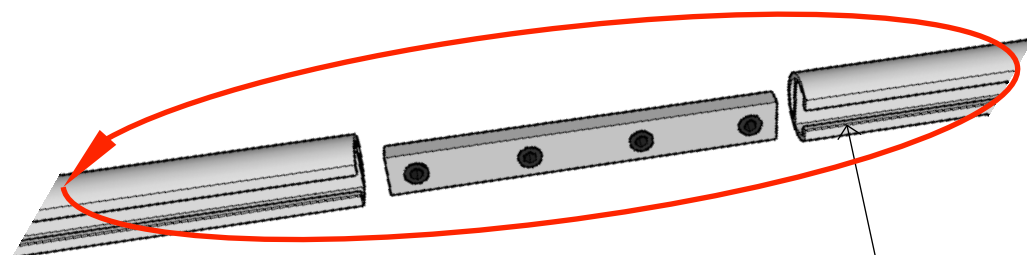
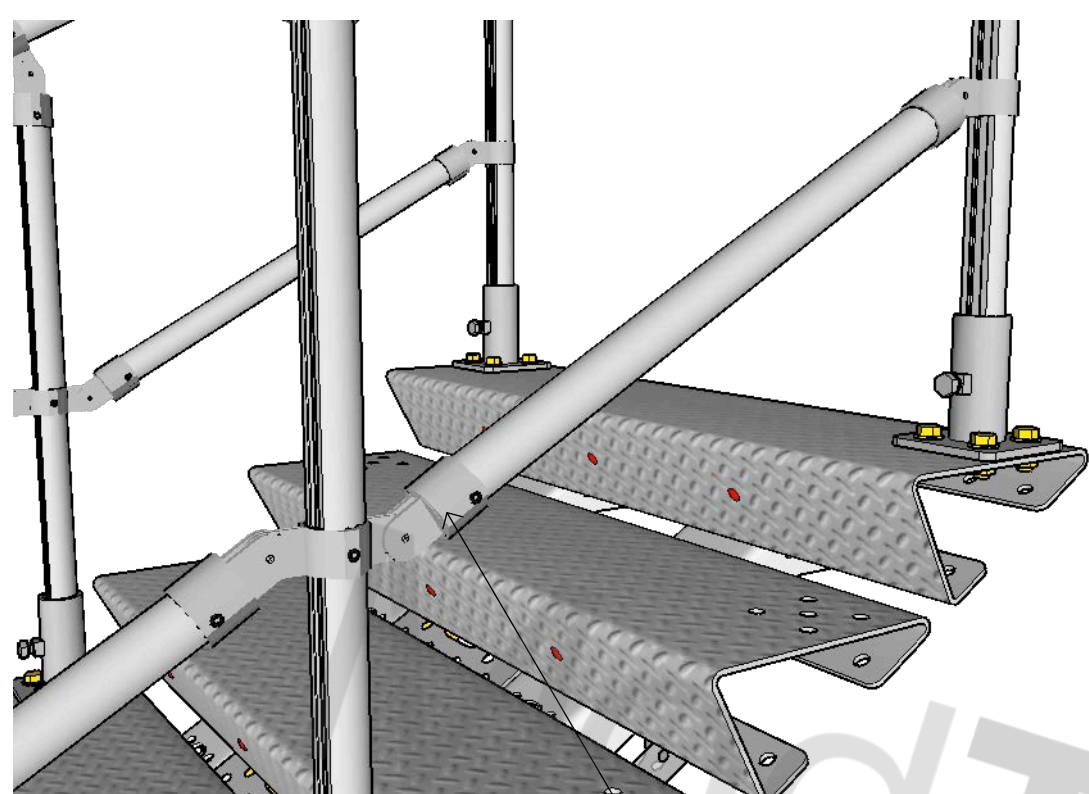
# STAIRS

INDICATED HOLES BELOW  
SHOULD BE BOLTED TO  
THE TOP ROW OF HOLES  
IN THE TRUSS FRAME



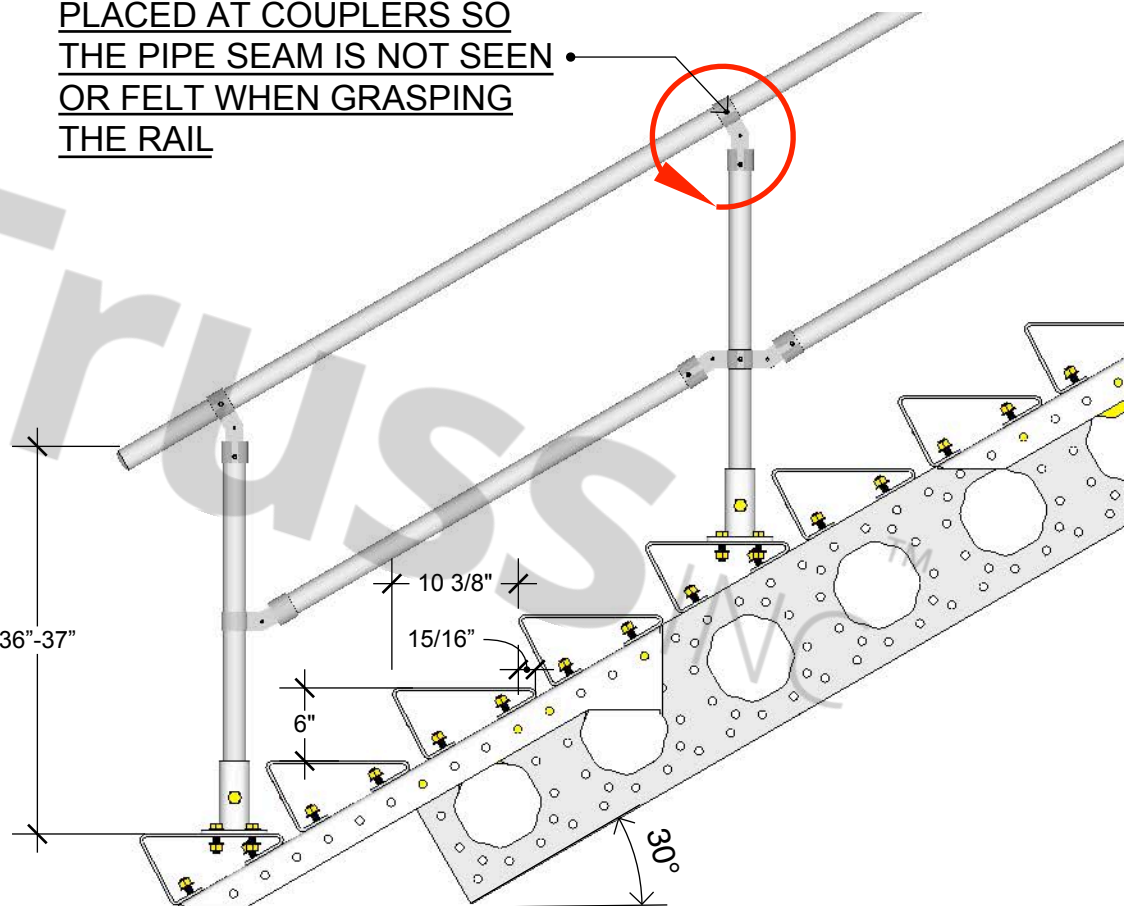
- #1
- #2
- #3
- #4
- #5

- USE #1 HOLES FOR TOP TREAD FLUSH WITH 12" TRUSS
- USE #2 HOLES FOR 1" DECK HEIGHT
- USE #3 HOLES FOR 3" DECK HEIGHT
- USE #4 HOLES FOR 4" DECK HEIGHT
- USE #5 HOLES FOR 6" DECK HEIGHT



IF TOP RAIL IS TO BE SPLICED USE STANDARD T SLOT PIPE CONNECTION

PIPE SPLICES SHOULD BE PLACED AT COUPLERS SO THE PIPE SEAM IS NOT SEEN OR FELT WHEN GRASPING THE RAIL



ATTACH COUPLERS TO T SLOT PIPE WITH THE INCLUDED SET SCREW IN PIPE COUPLERS



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# STAIRS



# ADJUSTABLE STAIRS



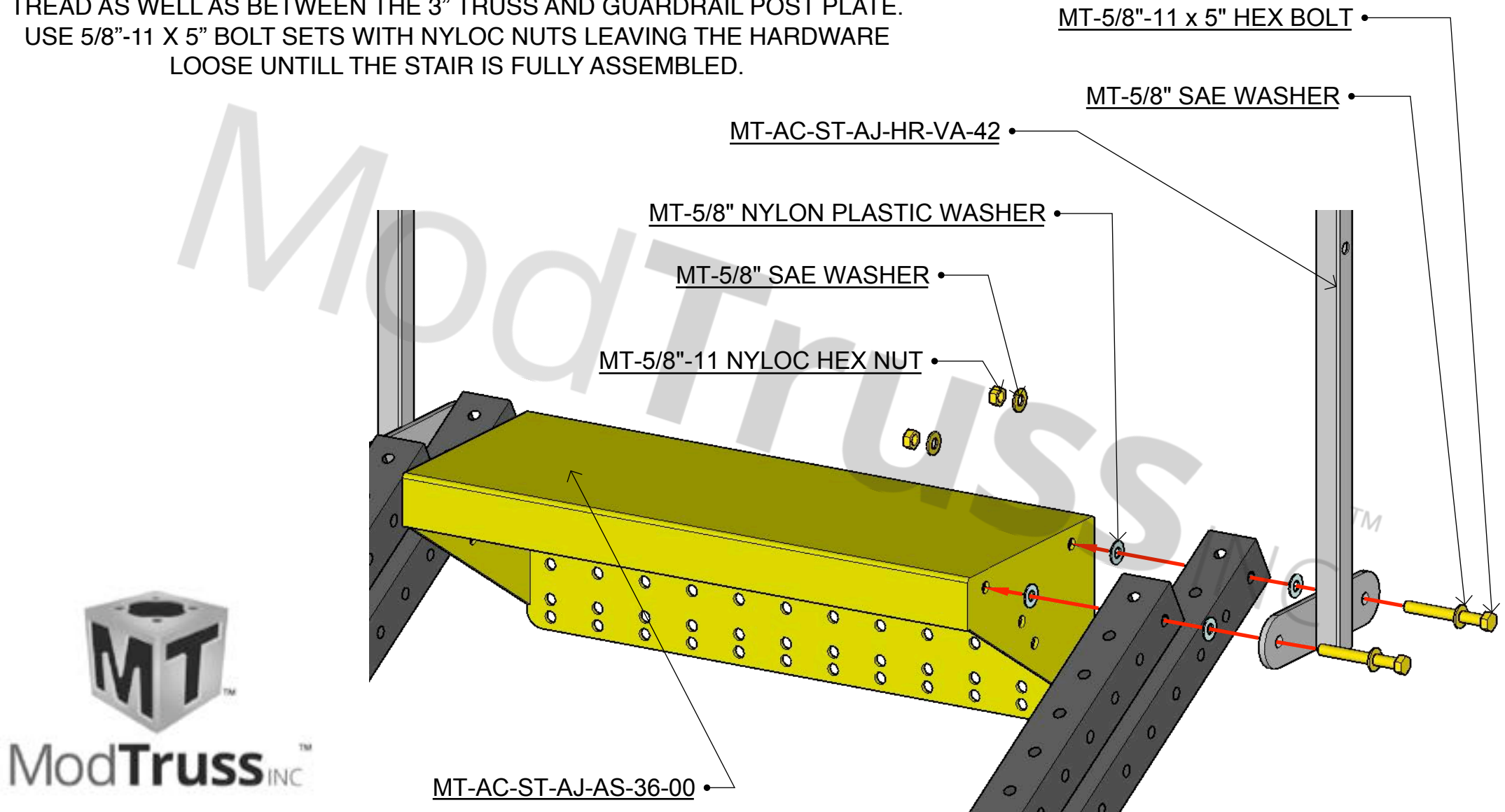
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START BY BOLTING THE TOP STAIR TREAD TO THE FRAME OF THE STRUCTURE. THIS CAN BE DONE WITH A RIGGING MOUNT TO THE TOP FACE OF THE TREAD IF NEEDED. BOLT TO TRUSS FRAME WITH 5/8"-11 X 2" BOLT SETS WITH WASHER PLATES INSIDE TRUSS.

ONCE THE TOP TREAD IS BOLTED TO THE TRUSS FRAME START ASSEMBLING THE 3" TRUSS AND GUARDRAIL POST TO THE TOP TREAD WITH PLASTIC SPACER WASHERS BETWEEN THE 3" TRUSS AND THE TOP TREAD AS WELL AS BETWEEN THE 3" TRUSS AND GUARDRAIL POST PLATE. USE 5/8"-11 X 5" BOLT SETS WITH NYLOC NUTS LEAVING THE HARDWARE LOOSE UNTILL THE STAIR IS FULLY ASSEMBLED.

# ADJUSTABLE STAIRS



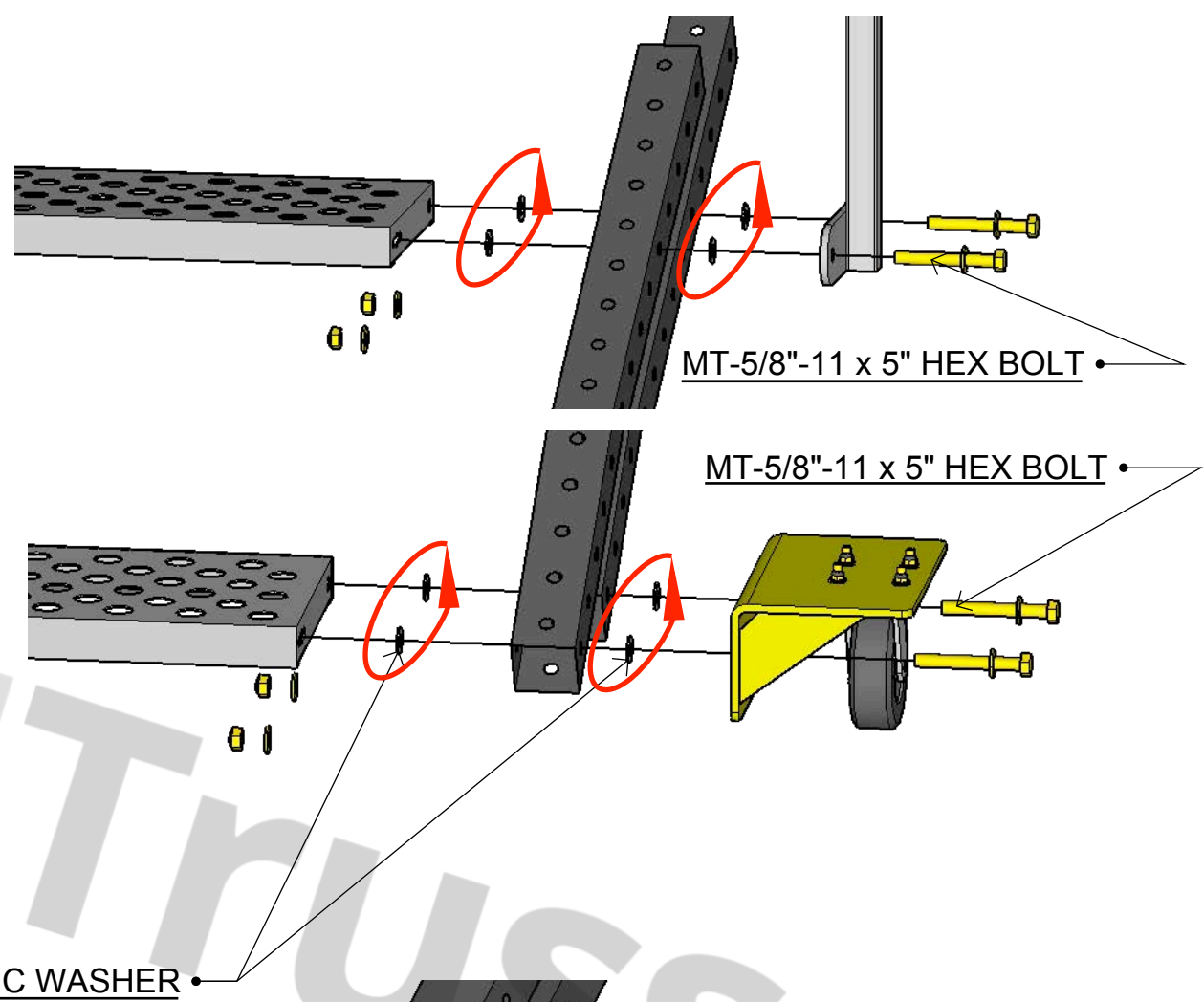
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BOLTING TREADS TO 3" TRUSS **WITHOUT** GUARDRAIL POST USE 5/8"-11 x 4.5" BOLT SETS WITH NYLOC NUTS AND PLASTIC SPACER WASHERS BETWEEN THE STAIR TREAD AND THE 3" TRUSS.

WHEN BOLTING TREADS TO 3" TRUSS **WITH** GUARDRAIL POST OR CASTER MOUNT USE 5/8"-11 x 5" BOLT SETS WITH NYLOC NUTS AND PLASTIC SPACER WASHERS BETWEEN THE STAIR TREAD AND THE 3" TRUSS.

LEAVE ALL HARDWARE LOOSE UNTILL STAIR IS FULLY ASSEMBLED BOLTING TREADS STARTING AT THE TOP AND WORKING DOWN TO THE BOTTOM.

ONCE ALL THE TREADS AND VERTICAL POSTS ARE INSTALLED TIGHTEN THE HARDWARE SO THE TREADS AND POSTS DO NOT WIGGLE BUT LOOSE ENOUGH TO ALLOW THE BOLT TO SPIN WITH A WRENCH SO THE STAIR CAN SCISSOR AND ADJUST.



MT-5/8"-11 x 5" HEX BOLT

MT-5/8"-11 x 5" HEX BOLT

MT-5/8" NYLON PLASTIC WASHER

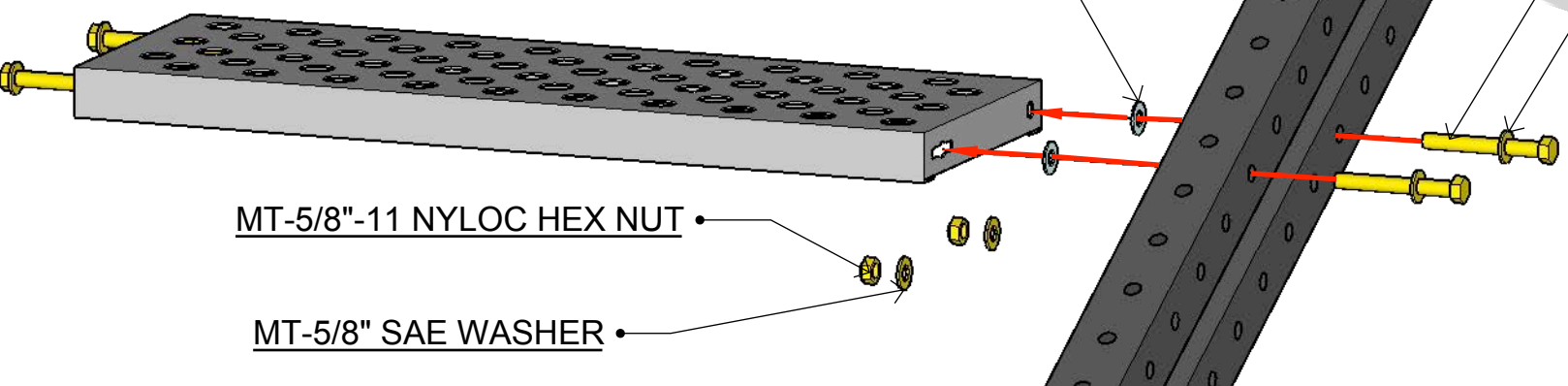
MT-5/8" NYLON PLASTIC WASHER

MT-5/8"-11 x 4.5" HEX BOLT

MT-5/8" SAE WASHER

MT-5/8"-11 NYLOC HEX NUT

MT-5/8" SAE WASHER



BOLT THE SWIVEL CASTER WHEEL THE THE CASTER MOUNT WITH FOUR 3/8"-16 x 1.5" BOLT SETS WITH NYLOC NUTS.

• MT-3/8"-16 x 1.5" HEX BOLT SET  
4X

• MT-EX-0190-RT-XXX

• 5/8"-11 x 3/4" SET SCREW

• MT-AC-ST-AJ-HW-NB-132-03

• MT-5/8"-11 x 4.5" FLAT HEAD

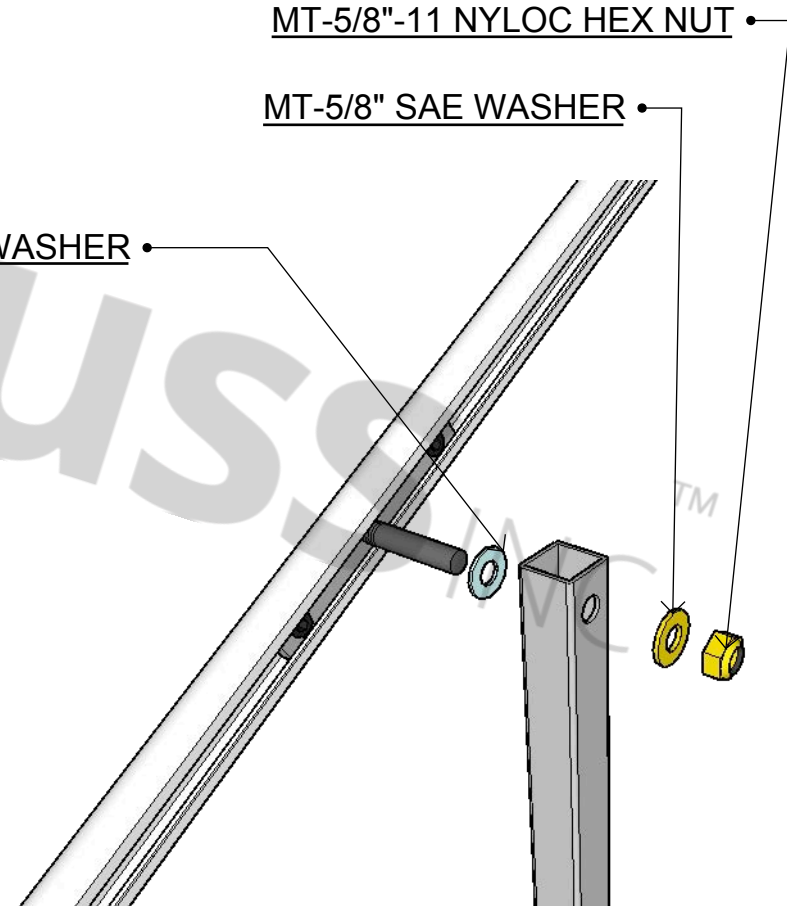
• MT-5/8" NYLON PLASTIC WASHER

• MT-5/8"-11 NYLOC HEX NUT

• MT-5/8" SAE WASHER

INSTALL THE ADJUSTABLE STAIR NUT BAR ASSEMBLY TO THE VERTICAL GUARDRAIL POSTS LOOSE ENOUGH TO SLIDE THE EXTRUSION T SLOT PIPE INTO PLACE. ONCE THE PIPE IS IN PLACE TIGHTEN DOWN THE SET SCREWS SO THE PIPE CAN NO LONGER SLIDE DOWN THE NUT BARS.

A HOLE CAN BE DRILLED IN THE ROUND SIDE OF THE PIPE TO ALLOW AN ALLEN HEX KEY TO TIGHEN THE 5/8"-11 FLAT HEAD SO THE PIPE DOES NOT WIGGLE BUT LOOSE ENOUGH TO ALLOW THE PIPE TO SCISSOR WHEN ADJUSTED.



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