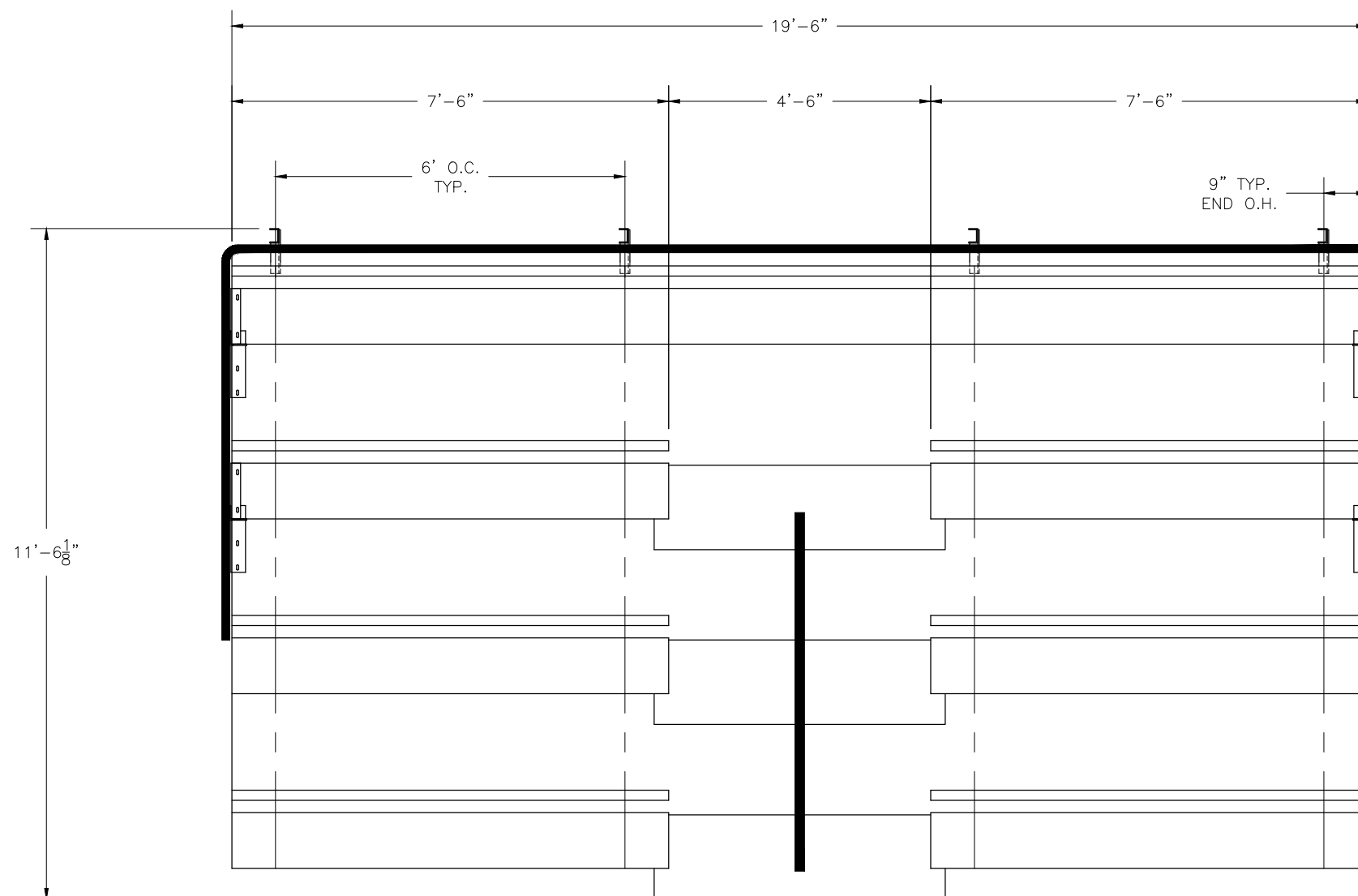


NA-0419.5SPR_VP

NON-ELEV. ALUM. 4 ROW x 19'-6" BLEACHER

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CS.1	- COVER SHEET
TD.1	- BLEACHER SEATING PLAN
FP.1	- FOUNDATION PLAN
AP.1	- ANCHORING PLAN
BA.1	- BLEACHER ASSEMBLY
PF.1	- PLANK & FRAMING PLAN
VA.1	- VERTICAL AISLE ASSEMBLY
GR.1	- GUARDRAIL ASSEMBLY
DS.1	- DETAIL SHEET



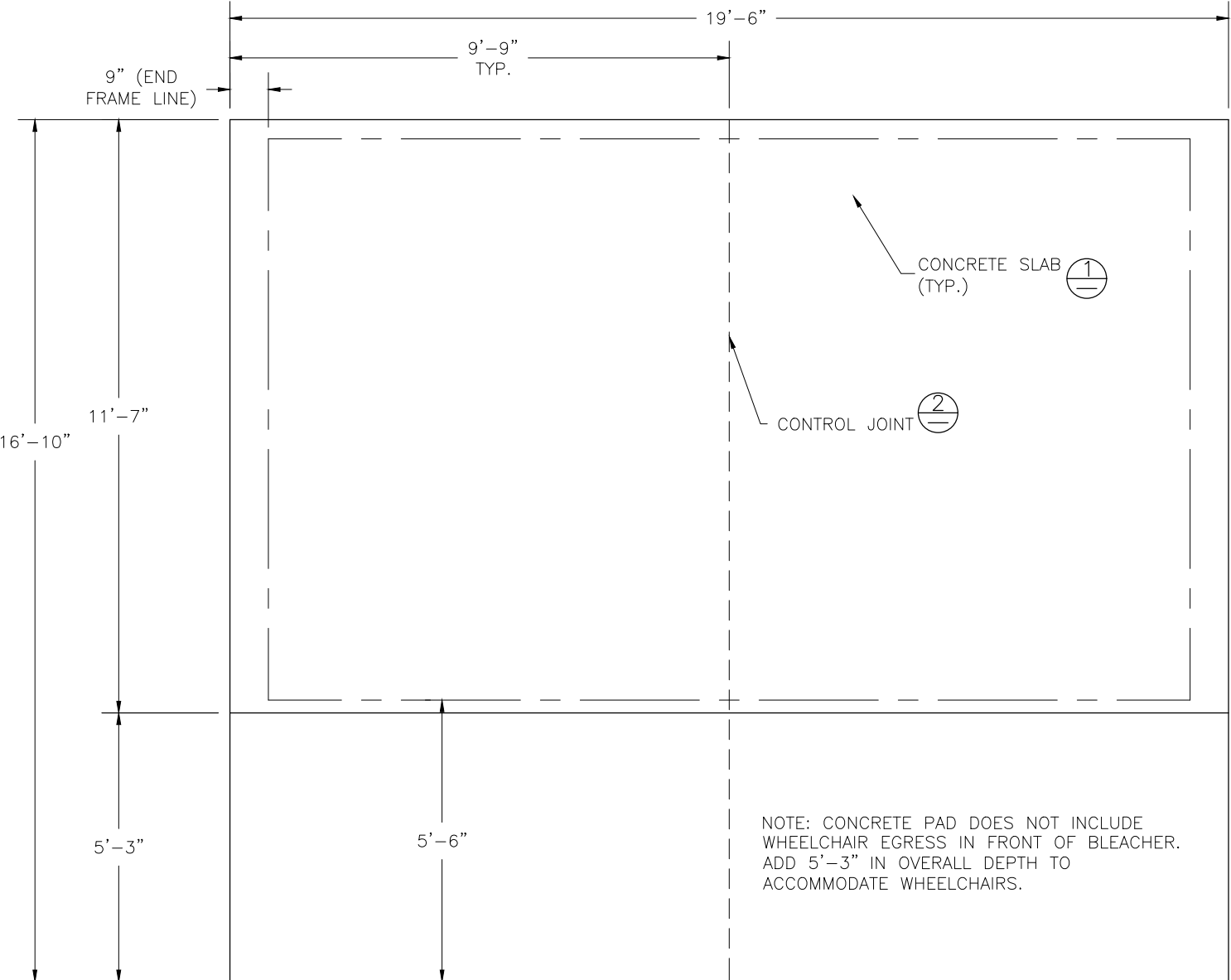
SECTION LENGTH	GROSS SEATS	ACTUAL SEATS	NO. OF ROWS	NET SEATS
19.5	13.00	13.00	1	13
7.5	5.00	5.00	6	30
NET SEATS				43
WHEELCHAIR SPACES				0
TOTAL NET SEATING CAPACITY (BASED ON 18" PER SEAT)				43



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SCALE: N.T.S.	APPROVED BY:	DRAWN BY: JML
DATE: 12/29/16		
TITLE: NON-ELEVATED 4 ROW X 19'-5" BLEACHER SEATING PLAN		
CUSTOMER: NA-0419.5SPR_VP	DRAWING NUMBER: TD.1	



CONCRETE FOUNDATION SPECIFICATIONS

SCOPE:
Foundation construction is not part of National Recreation Systems, Inc.'s (NRS) scope of work unless noted otherwise in the contract documents. The owner shall review the foundation design with the local code authorities, and coordinate with NRS.

FOUNDATION DESIGN & ANCHORS:

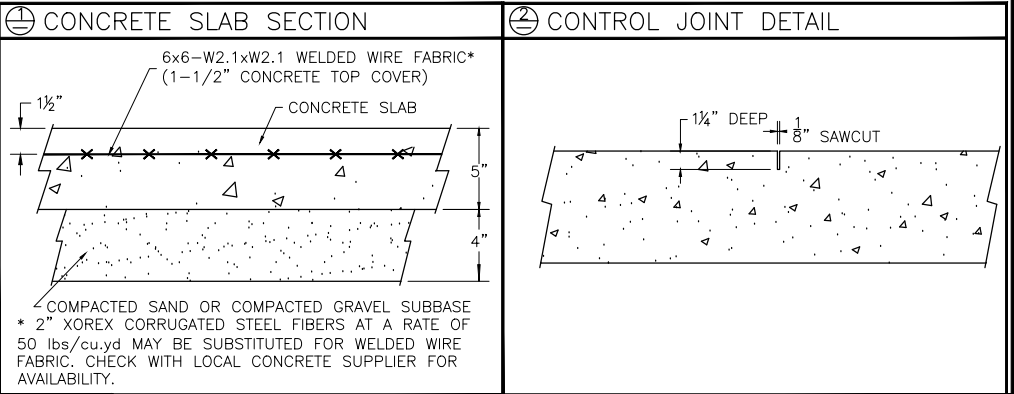
- The foundation designs are based on the following:
 - Minimum presumed soil bearing 1000 psf.
 - Bleacher frame dead and live load 700 lbs./ft.
 - Bleacher frame wind uplift load 250 lbs./ft.
- Unless otherwise noted on the drawings the bleacher frames shall be attached to the concrete with 3/8" dia. x 3" wedge type expansion anchors. The anchors shall be embedded a minimum of 2" into the concrete.

CONCRETE SPECIFICATIONS:

- All concrete construction shall be in accordance with *ACI 318-08*.
- All concrete shall have a minimum 28-day strength of $F_c=3000$ psi.
- A 1/4" bituminous expansion joint material shall be placed between strip and slab foundations when adjacent to each other.
- The depressions in the top of the foundations between high spots shall not exceed 5/16" below a 10-foot long straightedge. The 10-foot straightedge method used to measure foundation flatness shall be in accordance with Section of ACI 302.1R-04 "*Guide for Concrete Floor and Slab Construction*".

CONCRETE SLAB SPECIFICATIONS:

- Concrete slab shall have a minimum thickness of 5" (NRS, Inc. recommends, and some areas may require 6" thickness) and placed on 4" of compacted gravel or compacted sand sub-base.
- NRS, Inc. recommends that the concrete slab be reinforced with 6x6-W2.1xW2.1 welded wire fabric at 1 1/2" concrete cover from the top. In lieu of welded wire fabric, 2" XOREX by Ribbon Technology Corporation or equal corrugated steel fibers applied at a rate of 50-lbs./Cubic Yard may be used. Nylon or polypropylene fiber are not recommended.
- Crack control joints shall be sawed into slab to form approximate square patterns. The maximum spacing for control joints shall not exceed 12'-6", unless shown otherwise on this drawing. The bleacher frames shall not be set on control joints. The designer shall contact NRS to coordinate joint spacing requirements with the specific bleacher design.
- The slab may be sloped a maximum of 1/8 inch per foot for drainage. The maximum overall out of level slope for the slab perpendicular to the seats (front to rear) shall not exceed 2" and parallel to the seats (end to end) shall not exceed 4".

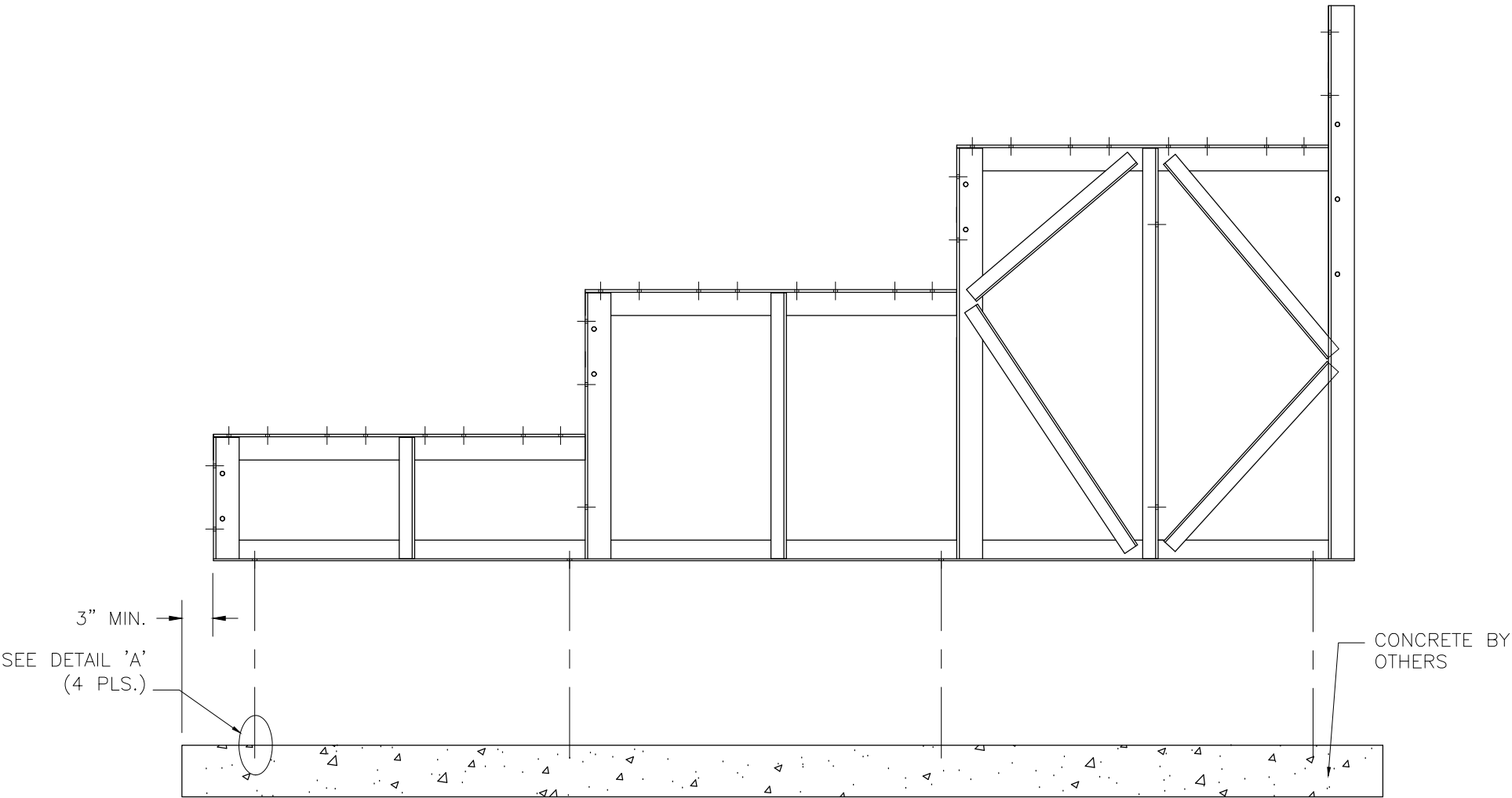
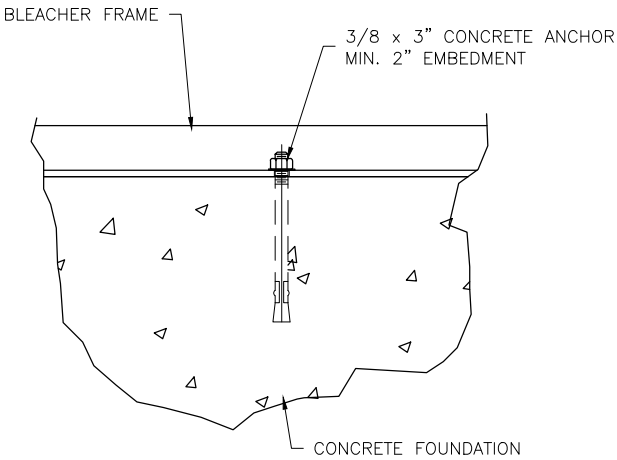


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SCALE: N.T.S.	APPROVED BY:	DRAWN BY: JML
DATE: 12/29/16		
TITLE: NON-ELEVATED 4 ROW X 19'-5" FOUNDATION PLAN		
CUSTOMER: NA-0419.5SPR_VP		DRAWING NUMBER: FP.1

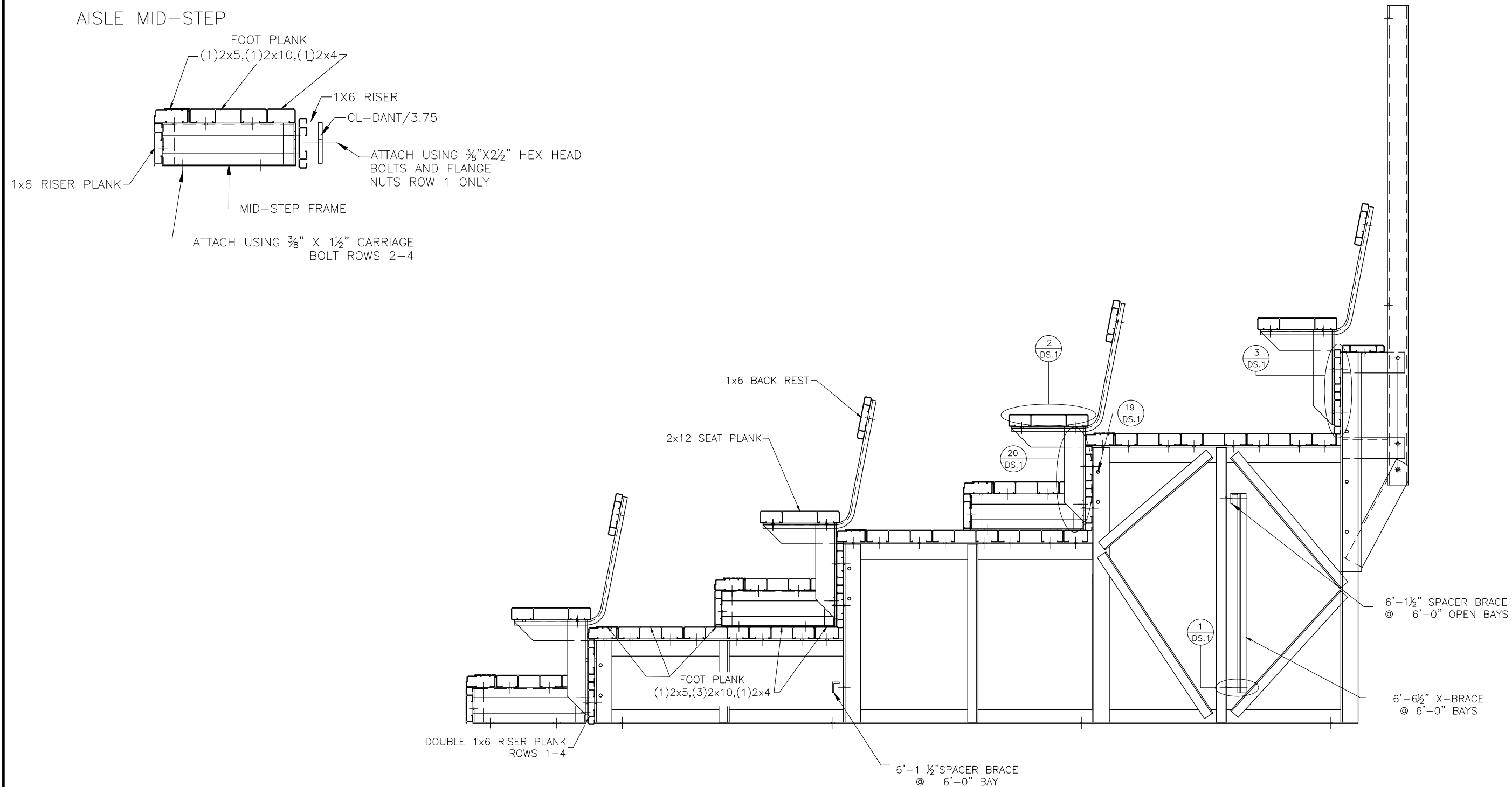
DETAIL "A" - CONCRETE ANCHOR ATTACHMENT



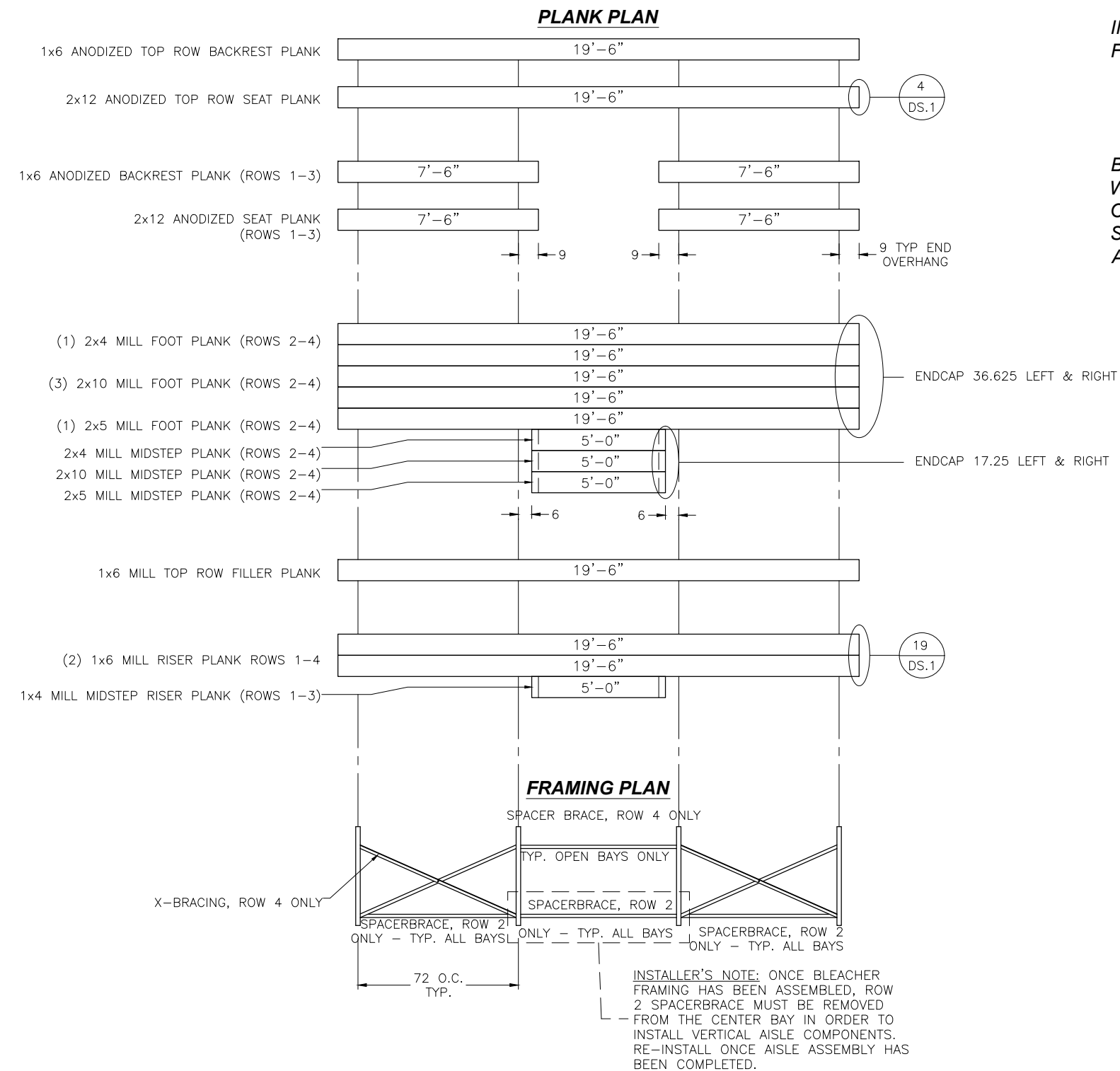
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SCALE: N.T.S.	APPROVED BY:	DRAWN BY: JML
DATE: 12/29/16		
TITLE: ANCHORING PLAN		
CUSTOMER: NA-0419.5SPR_VP	DRAWING NUMBER: AP.1	



			BuiltRiteBleachers.com 5077 Northampton Drive, Fort Myers, FL 33919	
			SCALE: N.T.S. DATE: 12/29/16	APPROVED BY:
TITLE: BLEACHER ASSEMBLY			CUSTOMER: NA-0419.5SPR_VP	
DRAWING NUMBER: BA.1				



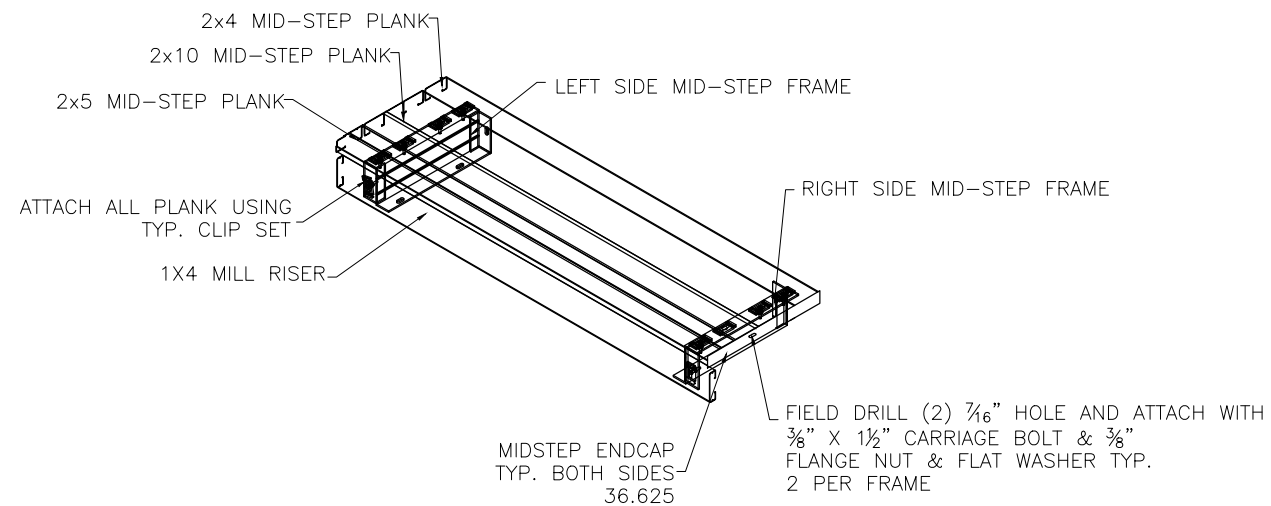
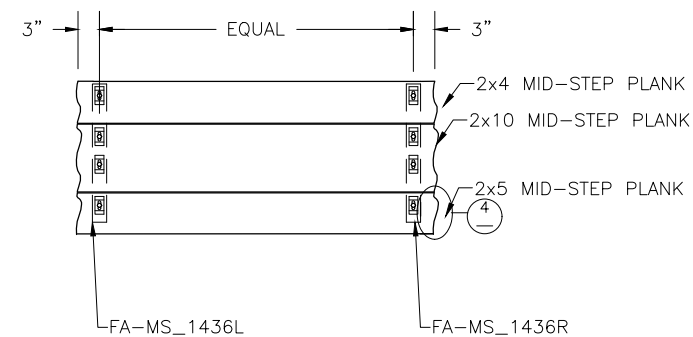
PLANK INSTALLATION NOTE:
FOR EASE OF INSTALLATION, NRS RECOMMENDS
INSTALLING PLANK ONE ROW AT A TIME, IN THE
FOLLOWING ORDER:
-DOUBLE 1x6 RISER
-L-BRACKETS (SEE BA.1)
-MIDSTEP ASSEMBLY (SEE VA.1)
-MILL FOOT PLANK
BEGIN INSTALLATION STARTING AT ROW 1, AND
WORK YOUR WAY UP THE BLEACHER AS YOU GO.
ONCE THESE PLANKS ARE IN PLACE, INSTALL THE
SEAT PLANK, BACKREST PLANK AND VERTICAL
AISLE ASSEMBLY.



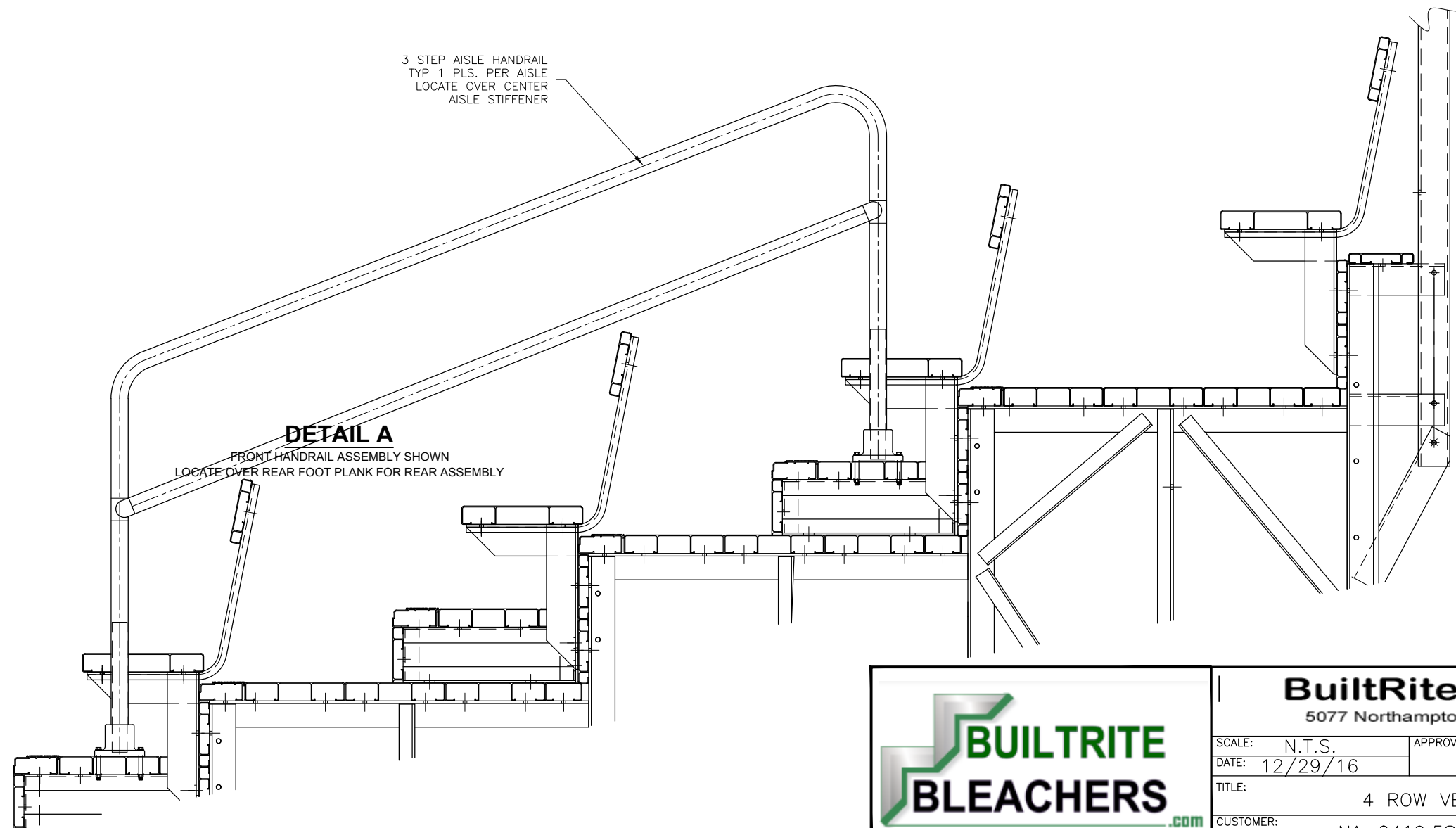
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SCALE: N.T.S.	APPROVED BY:	DRAWN BY: JML
DATE: 12/29/16		
TITLE: NON-ELEVATED 4 ROW X 19'-5" PLANK & FRAMING PLAN		
CUSTOMER: NA-0419.5SPR_VP		DRAWING NUMBER: PF.1

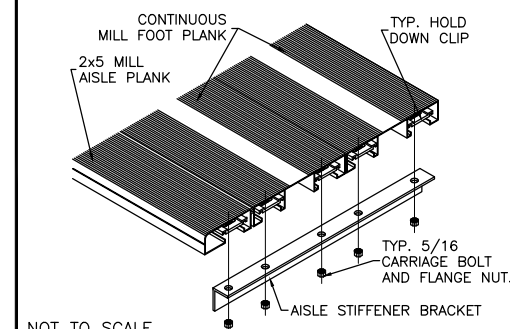
1 AISLE PLAN TYP. ALL ROWS



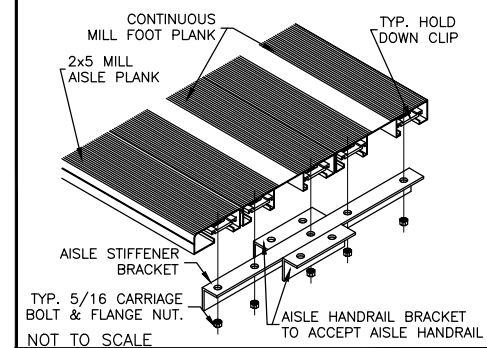
3 STEP AISLE HANDRAIL
TYP 1 PLS. PER AISLE
LOCATE OVER CENTER
AISLE STIFFENER



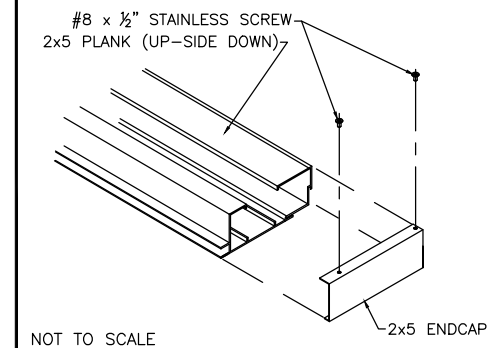
2 TYP. AISLE BRACKET DETAIL



3 FRONT H.R. BRACKET DETAIL



4 TYP 2x5 ENDCAP ATTACHMENT

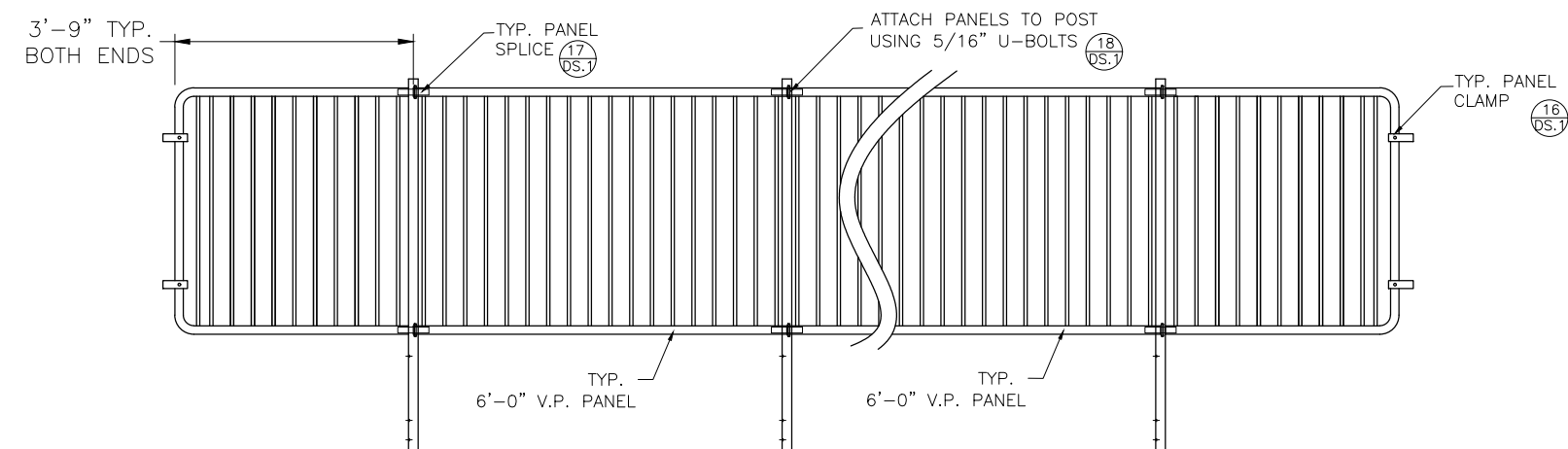


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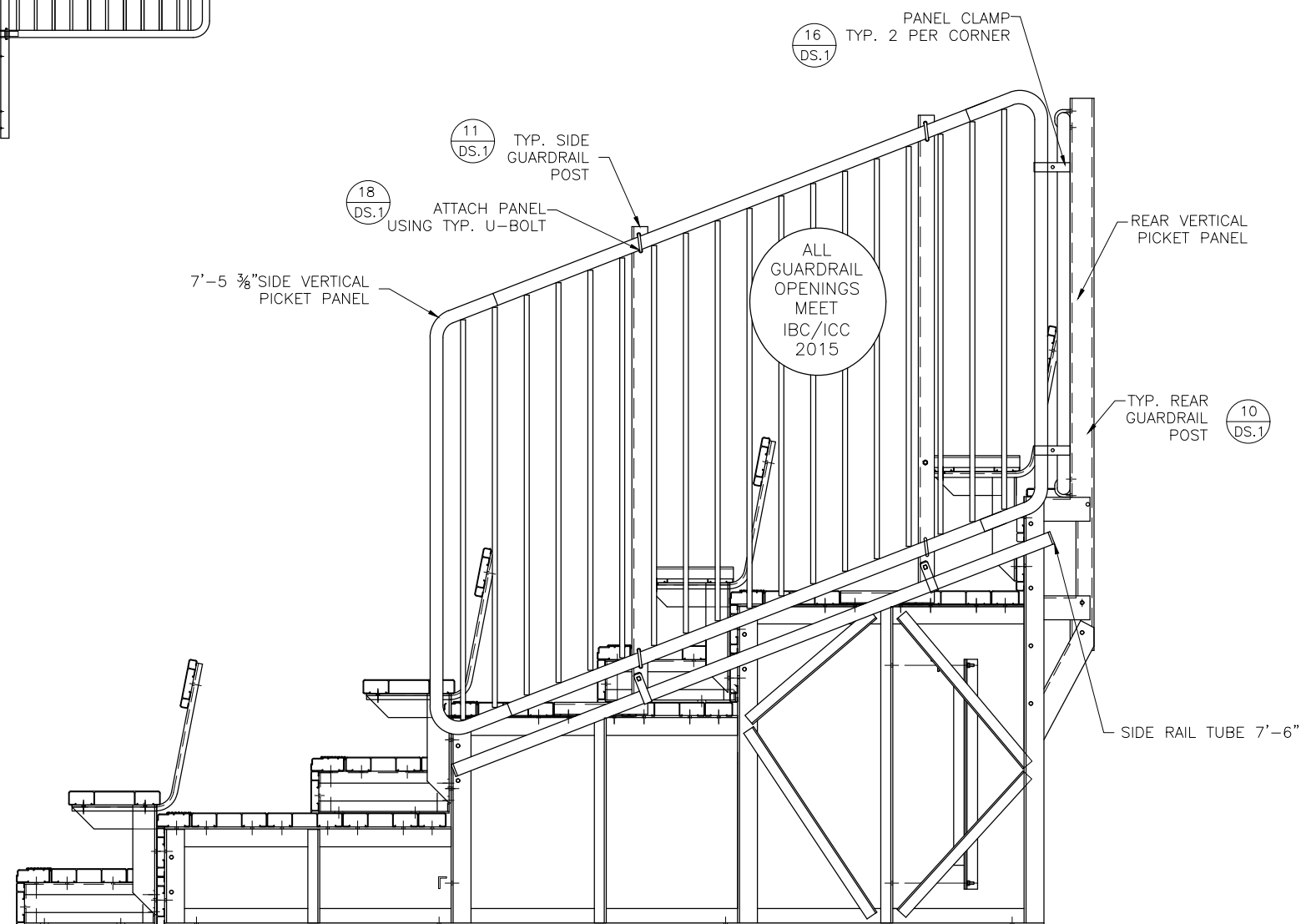
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SCALE: N.T.S.	APPROVED BY:	DRAWN BY: JML
DATE: 12/29/16		
TITLE: 4 ROW VERTICAL AISLE ASSEMBLY		
CUSTOMER: NA-0419.5SPR_VP		DRAWING NUMBER: VA.1

SIDE GUARDRAIL
(FRONT VIEW)

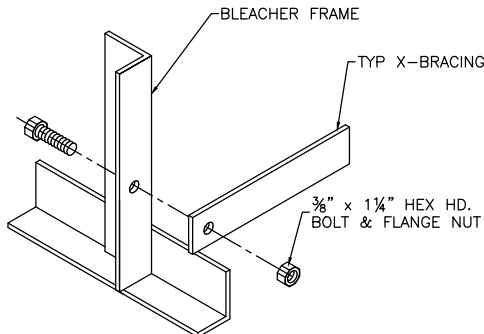
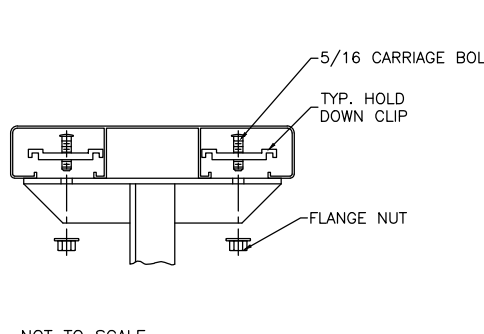
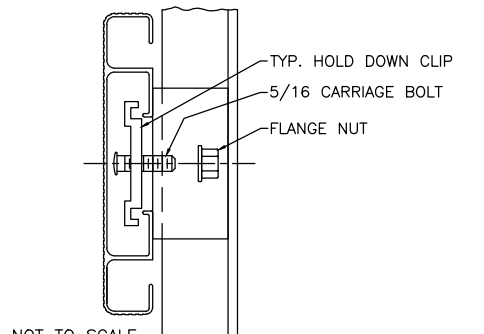
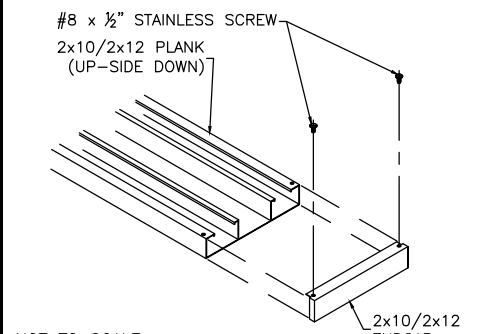
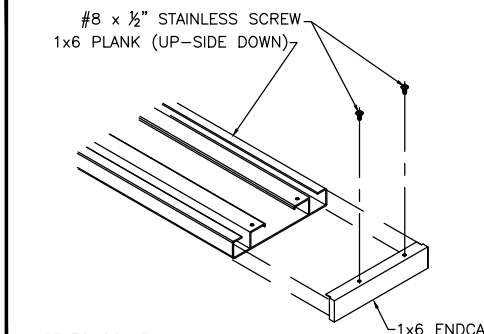
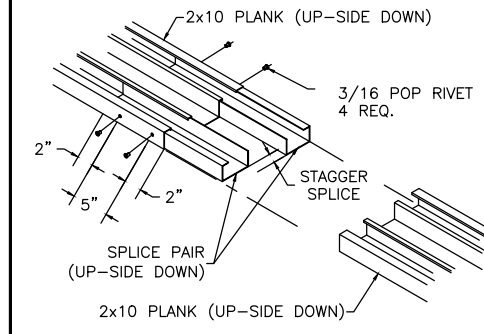
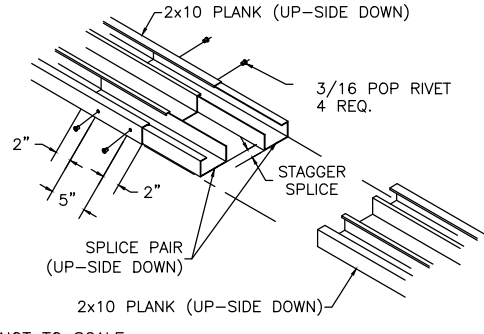
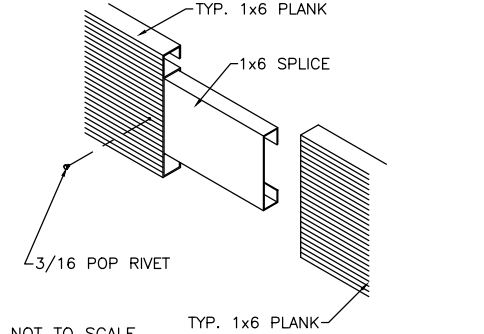
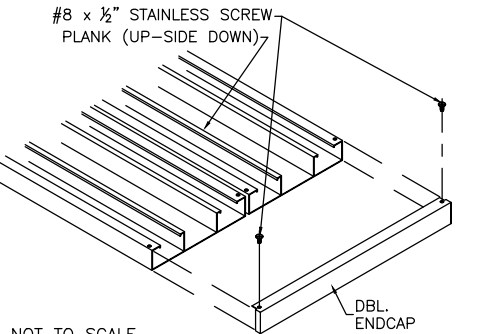
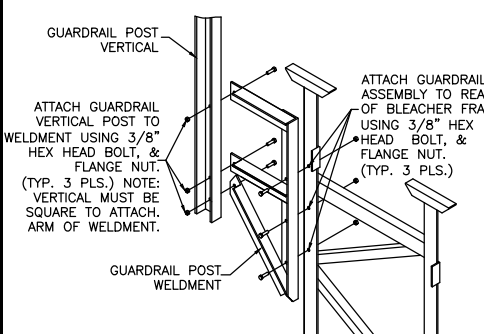
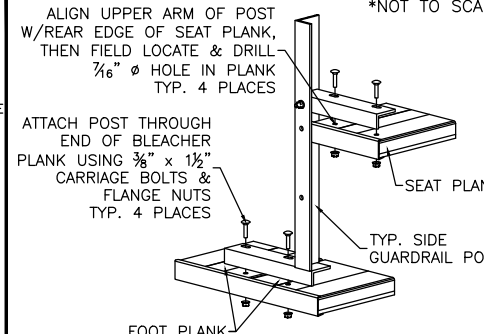
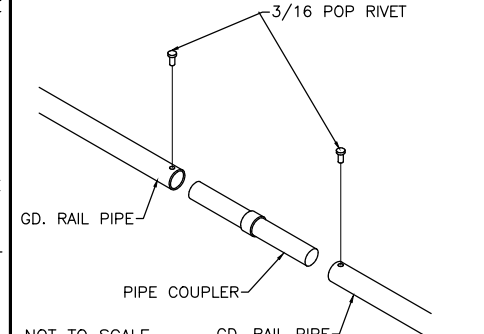
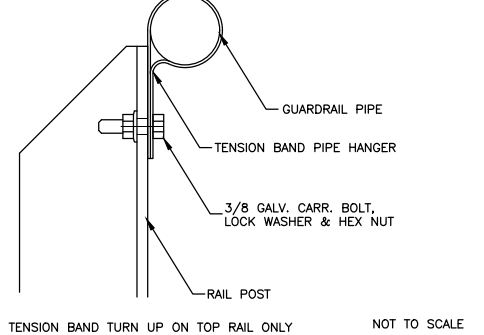
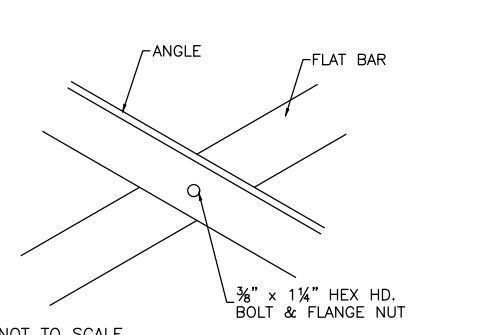
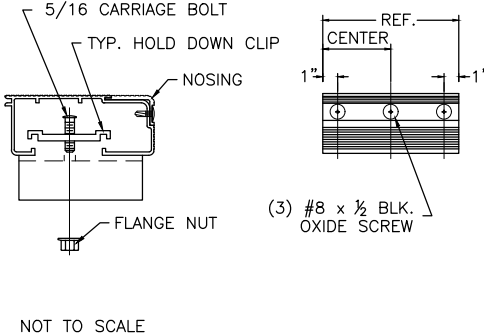
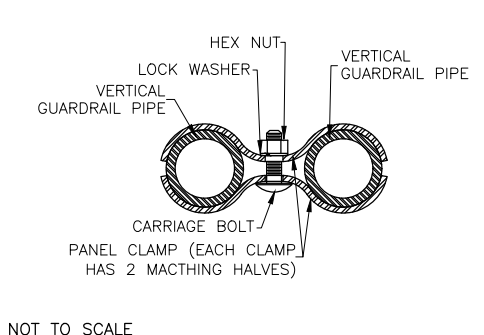
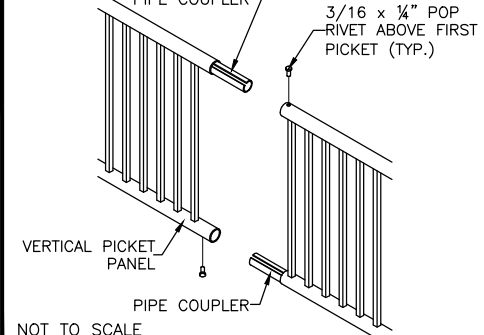
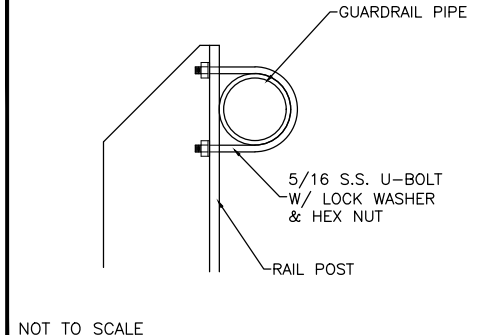
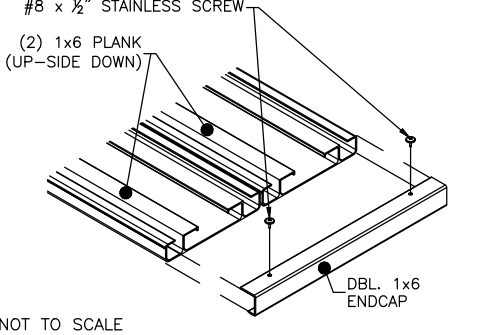
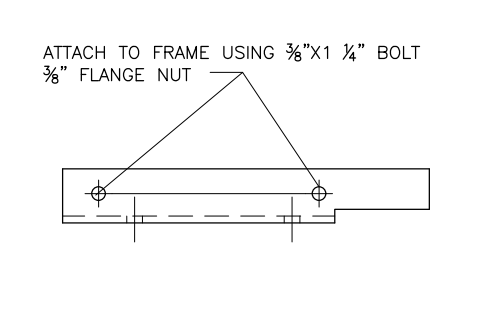
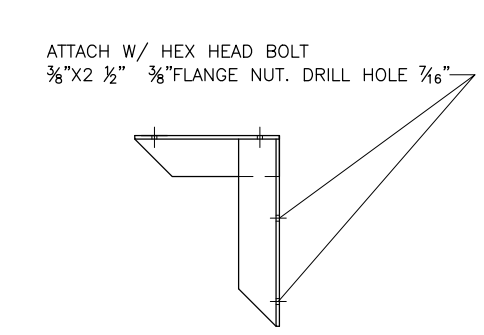


REAR GUARDRAIL
(FRONT VIEW)



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SCALE: N.T.S.	APPROVED BY:	DRAWN BY: JML
DATE: 12/29/16		
TITLE: NON-ELEVATED 4 ROW X 19'-5" GUARD RAIL ASSEMBLY		
CUSTOMER: NA-0419.5SPR_VP	DRAWING NUMBER: GR.1	

Ⓢ TYP X-BRACE CONN. W/ 1¼ BOLT  BLEACHER FRAME TYP X-BRACING 3/8" x 1 1/4" HEX HD. BOLT & FLANGE NUT NOT TO SCALE	Ⓢ TYP 2x10/2x12 PLANK ATTCH.  5/16 CARRIAGE BOLT TYP. HOLD DOWN CLIP FLANGE NUT NOT TO SCALE	Ⓢ TYP 1x6 PLANK ATTACHMENT  TYP. HOLD DOWN CLIP 5/16 CARRIAGE BOLT FLANGE NUT NOT TO SCALE	Ⓢ TYP 2x10/2x12 ENDCAP ATTACH.  #8 x 1/2" STAINLESS SCREW 2x10/2x12 PLANK (UP-SIDE DOWN) 2x10/2x12 ENDCAP NOT TO SCALE	Ⓢ TYP 1x6 ENDCAP ATTACHMENT  #8 x 1/2" STAINLESS SCREW 1x6 PLANK (UP-SIDE DOWN) 1x6 ENDCAP NOT TO SCALE	Ⓢ TYP 2x10 SPLICE CONN.  2x10 PLANK (UP-SIDE DOWN) 3/16 POP RIVET 4 REQ. 2" 5" 2" STAGGER SPLICE SPLICE PAIR (UP-SIDE DOWN) 2x10 PLANK (UP-SIDE DOWN) NOT TO SCALE
Ⓢ TYP 2x10 /2X12 SPLICE CONN.  2x10 PLANK (UP-SIDE DOWN) 3/16 POP RIVET 4 REQ. 2" 5" 2" STAGGER SPLICE SPLICE PAIR (UP-SIDE DOWN) 2x10 PLANK (UP-SIDE DOWN) NOT TO SCALE	Ⓢ TYP 1x6 SPLICE CONN.  TYP. 1x6 PLANK 1x6 SPLICE 3/16 POP RIVET TYP. 1x6 PLANK NOT TO SCALE	Ⓢ DBL. 2x10/2X12 ENDCAP ATTACH  #8 x 1/2" STAINLESS SCREW PLANK (UP-SIDE DOWN) DBL. ENDCAP NOT TO SCALE	Ⓢ REAR GUARDRAIL POST ATTACH.  GUARDRAIL POST VERTICAL ATTACH GUARDRAIL VERTICAL POST TO WELDMENT USING 3/8" HEX HEAD BOLT, & FLANGE NUT. (TYP. 3 PLS.) NOTE: VERTICAL MUST BE SQUARE TO ATTACH. ARM OF WELDMENT. ATTACH GUARDRAIL ASSEMBLY TO REAR OF BLEACHER FRAME USING 3/8" HEX HEAD BOLT, & FLANGE NUT. (TYP. 3 PLS.) GUARDRAIL POST WELDMENT	Ⓢ SIDE GD. RAIL POST INSTALLATION  *NOT TO SCALE ALIGN UPPER ARM OF POST W/ REAR EDGE OF SEAT PLANK, THEN FIELD LOCATE & DRILL 7/16" Ø HOLE IN PLANK TYP. 4 PLACES ATTACH POST THROUGH END OF BLEACHER PLANK USING 3/8" x 1 1/2" CARRIAGE BOLTS & FLANGE NUTS TYP. 4 PLACES SEAT PLANK TYP. SIDE GUARDRAIL POST FOOT PLANK	Ⓢ PIPE COUPLER INSTALLATION  3/16 POP RIVET GD. RAIL PIPE PIPE COUPLER GD. RAIL PIPE NOT TO SCALE
Ⓢ TENSION BAND ATTACHMENT  GUARDRAIL PIPE TENSION BAND PIPE HANGER 3/8 GALV. CARR. BOLT, LOCK WASHER & HEX NUT RAIL POST TENSION BAND TURN UP ON TOP RAIL ONLY NOT TO SCALE	Ⓢ TYP X-BRACE CONN. W/ 1¼ BOLT  ANGLE FLAT BAR 3/8" x 1 1/4" HEX HD. BOLT & FLANGE NUT NOT TO SCALE	Ⓢ TYP 2x5 PLANK/NOSING ATTACH.  5/16 CARRIAGE BOLT TYP. HOLD DOWN CLIP NOSING FLANGE NUT (3) #8 x 1/2 BLK. OXIDE SCREW REF. CENTER 1" NOT TO SCALE	Ⓢ PANEL CLAMP DETAIL  HEX NUT LOCK WASHER VERTICAL GUARDRAIL PIPE CARRIAGE BOLT PANEL CLAMP (EACH CLAMP HAS 2 MATCHING HALVES) NOT TO SCALE	Ⓢ PIPE COUPLER INSTALLATION  PIPE COUPLER 3/16 x 1/4" POP RIVET ABOVE FIRST PICKET (TYP.) VERTICAL PICKET PANEL PIPE COUPLER NOT TO SCALE	Ⓢ U-BOLT DETAIL  GUARDRAIL PIPE 5/16 S.S. U-BOLT W/ LOCK WASHER & HEX NUT RAIL POST NOT TO SCALE
Ⓢ DBL_1X6_ENDCAP  #8 x 1/2" STAINLESS SCREW (2) 1x6 PLANK (UP-SIDE DOWN) DBL. 1x6 ENDCAP NOT TO SCALE	Ⓢ RB-D106/BOLT  ATTACH TO FRAME USING 3/8"x1 1/4" BOLT 3/8" FLANGE NUT	Ⓢ LB-S212A_CD  ATTACH W/ HEX HEAD BOLT 3/8"x2 1/2" 3/8" FLANGE NUT. DRILL HOLE 7/16"			



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SCALE: N.T.S.	APPROVED BY:	DRAWN BY: JML
DATE: 12/29/16		
TITLE: DETAIL SHEETS		
CUSTOMER: NA-0419.5SPR_VP	DRAWING NUMBER:	DS.1