NB-0324APRF

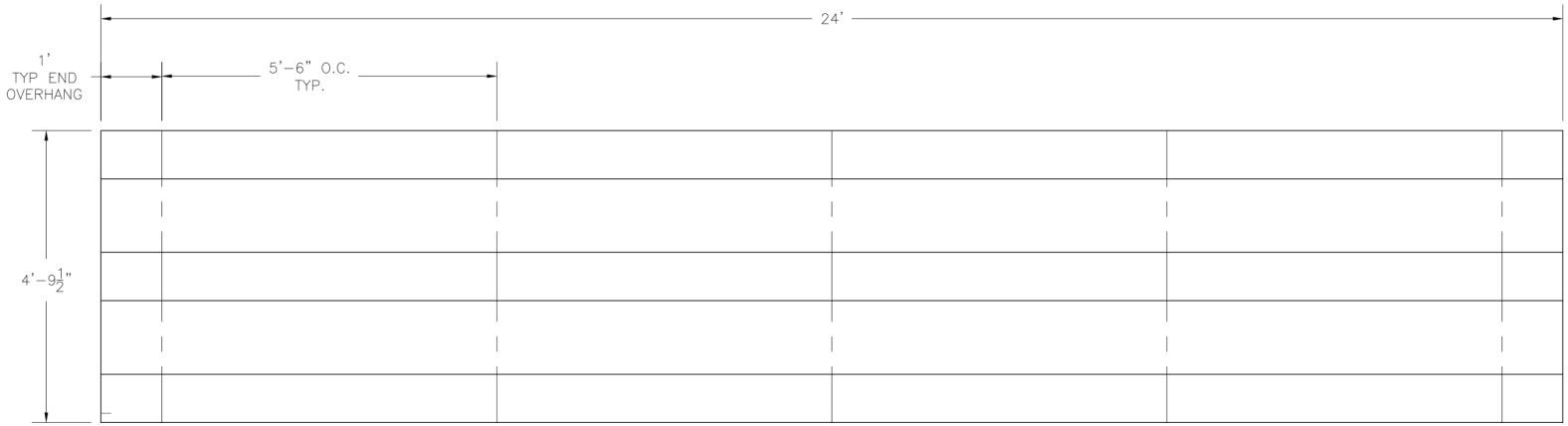
NON ELEVATED ALUMINUM 3 ROW x 24'-0" BLEACHER

DRAWING REFERENCE NUMBER: NB–0324APRF	
DRAWING SHEET INDEX	
1.CS	COVER SHEET
2.TD	SEATING PLAN
3.FP	FOUNDATION PLAN
5.AP	ANCHORING PLAN
6.BA	BLEACHER ASSEMBLY
7.PF	PLANK AND FRAMING PLAN

RECOMMENDED TOOLS		
SOCKET WRENCH	POP RIVET GUN	CORDLESS DRILL
½" DEEP WELL SOCKET	LEVEL	3/16" DRILL BIT
9/16" DEEP WELL SOCKET	RUBBER MALLET	7/16" DRILL BIT
TAPE MEASURE	GLOVES	SAFETY GLASSES

This drawing and all information contained herein is the property of NATIONAL RECREATION SYSTEMS, INC. and is not to be reproduced without the express written permission of this manufacturer. We assume no responsibility for unauthorized use of this drawing. NATIONAL RECREATION SYSTEMS, INC. is not responsible for local permits and occupancy requirements.

MODEL:	NB–0324APRF				
DESCRIPTION:	NON–ELEV. 3 ROW x 24 ASSEMBLY COVER SHEET				
DRAWN BY: IP	DATE: 8/30/23	REVISION: A	SCALE: N.T.S.	SHEET NUMBER: 1.CS	



SECTION LENGTH	GROSS SEATS	ACTUAL SEATS	NO. OF ROWS	NET SEATS
24	16.00	16.00	3	48
			NET SEATS	**48**
			WHEELCHAIR SPACES	**0**
			TOTAL NET SEATING CAPACITY (BASED ON 18" PER SEAT)	**48**

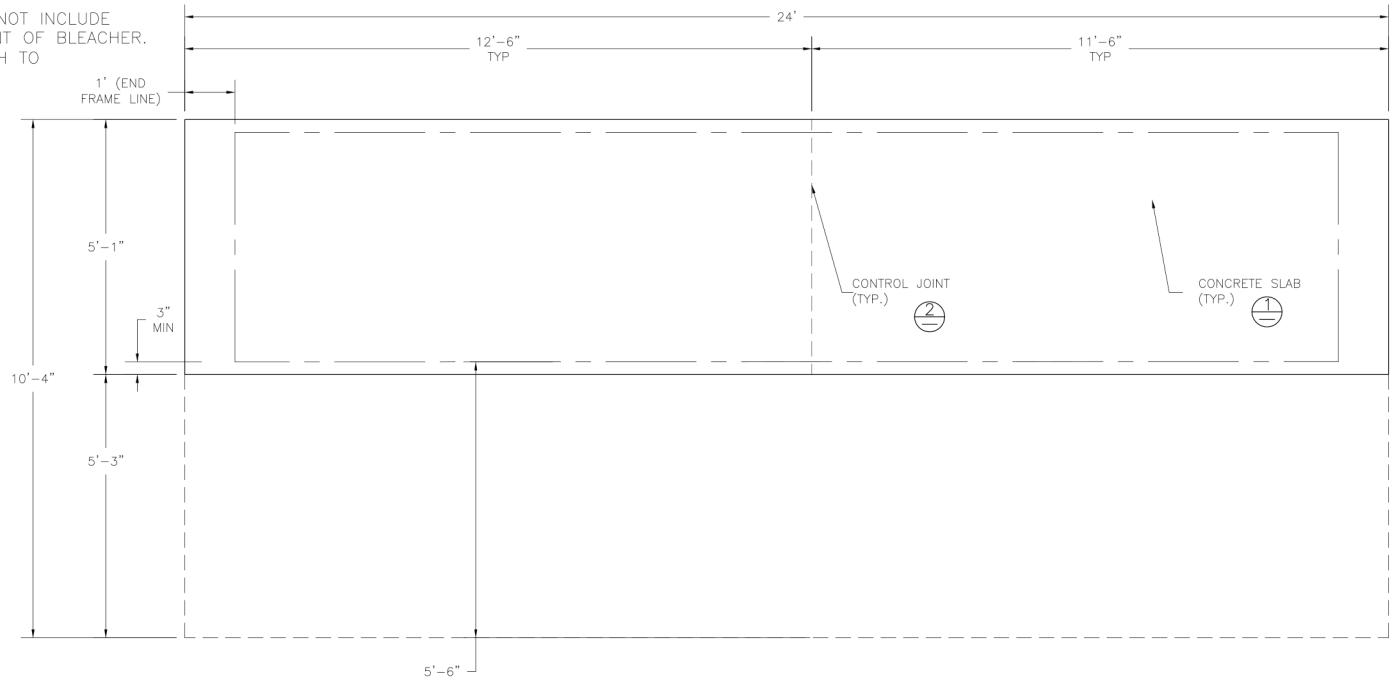
This drawing and all information contained herein is the property of NATIONAL RECREATION SYSTEMS, INC. and is not to be reproduced without the express written permission of this manufacturer. We assume no responsibility for unauthorized use of this drawing. NATIONAL RECREATION SYSTEMS, INC. is not responsible for local permits and occupancy requirements.

MODEL: NB-0324APRF

DESCRIPTION: NON-ELEV. 3 ROW x 24 BLEACHER SEATING PLAN

DRAWN BY: IP | DATE: 8/30/23 | REVISION: A | SCALE: N.T.S. | SHEET NUMBER: 2.TD

NOTE: CONCRETE PAD DOES NOT INCLUDE WHEELCHAIR EGRESS IN FRONT OF BLEACHER. ADD 5'-3" IN OVERALL DEPTH TO ACCOMMODATE WHEELCHAIRS.



CONCRETE FOUNDATION SPECIFICATIONS

SCOPE:

Foundation construction is not part of NATIONAL RECREATION SYSTEMS, INC's., scope of work unless noted otherwise in the contract documents. The OWNER shall review the foundation design with local code authorities and coordinate with NRS, Inc.

FOUNDATION DESIGN & ANCHORS:

1) The foundation designs are based on the following:
   a) Minimum presumed soil bearing of 2000 psf.
   b) Bleacher frame dead and live load of 700 lbs./ft.
   c) Bleacher frame wind uplift of 250 lbs./ft.

2) Unless otherwise specified on the drawings the bleacher frames shall be attached to concrete with a ½" dia. x 3¾" wedge type expansion anchor. The anchors shall be embedded a minimum of 2" into the concrete.

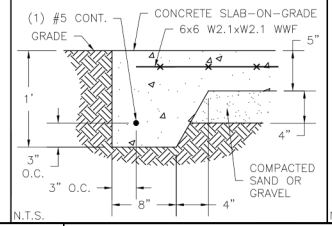
CONCRETE SPECIFICATIONS:

1) All concrete construction shall be in accordance with ***ACI 318.08.***
2) All concrete shall be air-entrained using an air entraining admixtruing meeting ***ASTM C620***. Total air content: 5%-7% per ***ASTM C173***.
3) All concrete shall have a minimum 28-day strength of Fc=3000psi. Concrete shall have air-entrainment
4) A ¼" bituminous expansion joint material shall be placed between strip and slab foundations when adjacent to each other.
5) The depressions in the top of the foundations between high spots shall not exceed 3/16" below 10-foot long straightedge. The 10-foot straightedge method used to measure foundation flatness shall be in accordance with ***ACI 302.1R-04*** *"Guide for Concrete Floor and Slab Construction"*.

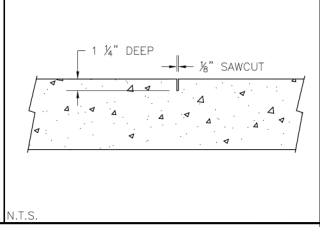
CONCRETE SLAB RECOMMENDED SPECIFICATIONS:

1) Concrete slab shall have a minimum thickness of 5" (some areas may require 6") and placed on 4" of compacted gravel or compacted sub base.
2) NRS. INC., recommends that the concrete slab be reinforced with 6x6-W2.1xW2.1 welded wire fabric at 1½" concrete cover from the top. In lieu of welded wire fabric, steel fiber substitution requires OWNER approval and his understanding of potential maintenance issues.
3) Contractor may substitute blended fiber reinforcing, provided the blend consists of multifilament polypropylene fibers and cold drawn steel wire fibers. Novamesh 950 or approved equivalent, applied at a dosage rate of 5lb/CY unless specified otherwise or a different recommendation is made by the manufacturer.
4) Crack control joints shall be sawed into slab to form approximate square patterns. The maximum spacing for control joints shall not exceed 13'-6", UNLESS INDICATED OTHERWISE. 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.
5) 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".

① CONCRETE SLAB SECTION



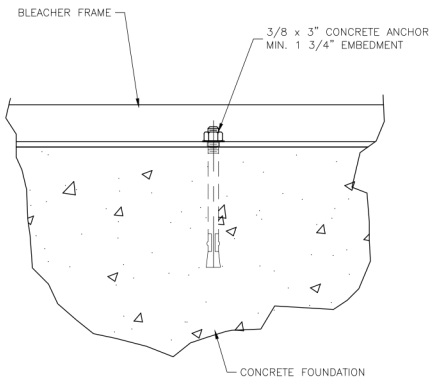
② CONTROL JOINT DETAIL

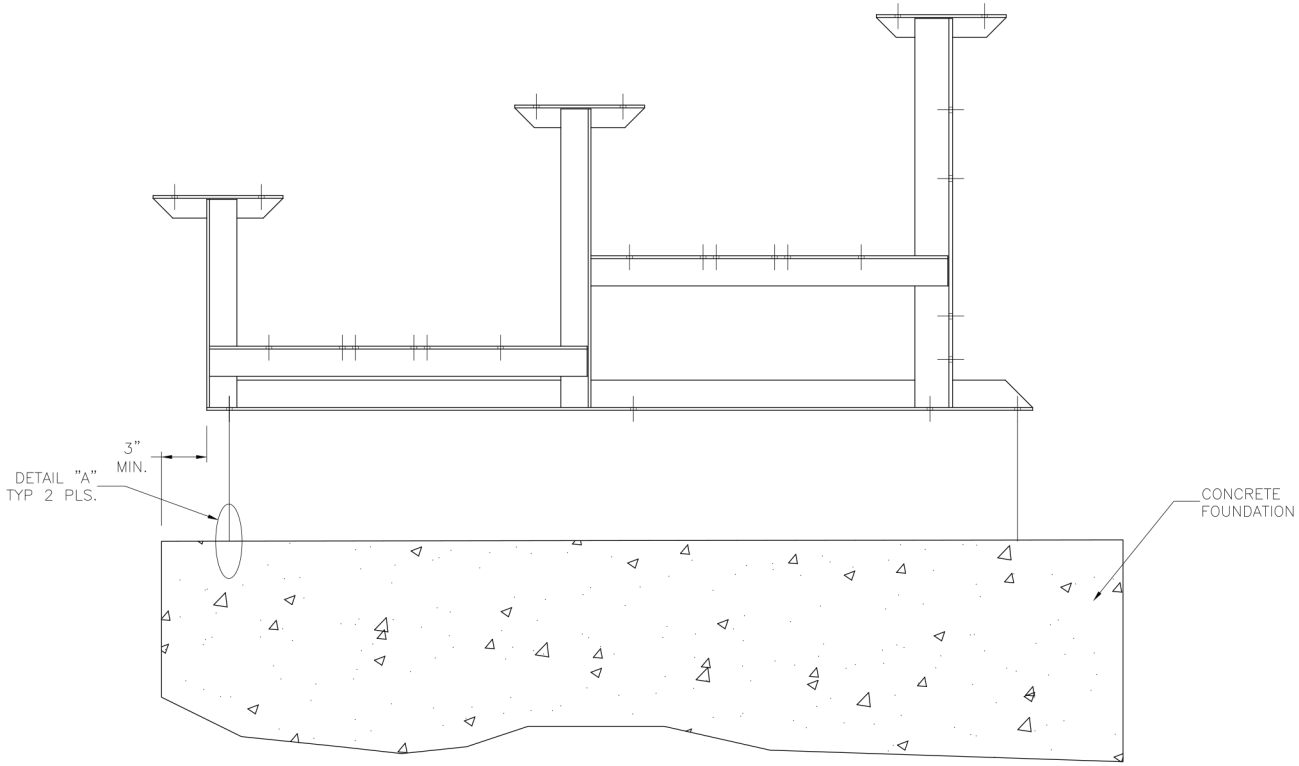


This drawing and all information contained herein is the property of NATIONAL RECREATION SYSTEMS, INC. and is not to be reproduced without the express written permission of this manufacturer. We assume no responsibility for unauthorized use of this drawing. NATIONAL RECREATION SYSTEMS, INC. is not responsible for local permits and occupancy requirements.

MODEL: NB-0324APRF					
DESCRIPTION: NON-ELEV. 3 ROW x 24 FOUNDATION PLAN					
DRAWN BY: IP	DATE: 8/30/23	REVISION: A	SCALE: N.T.S.	SHEET NUMBER: 3.FP	

DETAIL "A" - CONCRETE ANCHOR ATTACHMENT



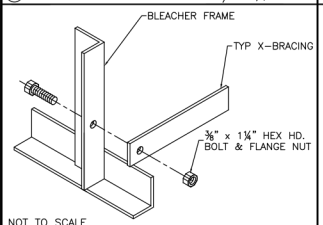


* CONCRETE WEDGE ANCHORS NOT INCLUDED WITH ALL UNITS. IF USING OTHER ANCHORING SYSTEM, SKIP THIS STEP AND REFER TO INSTRUCTIONS SPECIFIC TO THE ANCHORING SYSTEM PURCHASED FOR YOUR UNIT.

This drawing and all information contained herein is the property of NATIONAL RECREATION SYSTEMS, INC. and is not to be reproduced without the express written permission of this manufacturer. We assume no responsibility for unauthorized use of this drawing. NATIONAL RECREATION SYSTEMS, INC. is not responsible for local permits and occupancy requirements.

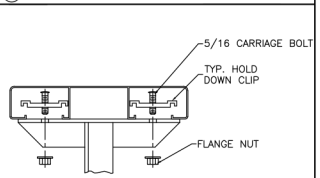
MODEL:	NB–0324APRF
DESCRIPTION:	NON–ELEV. 3 ROW x 24 BLEACHER ANCHORING PLAN
DRAWN BY: IP	DATE: 8/30/23
REVISION: A	SCALE: N.T.S.
SHEET NUMBER:	4.AP

① TYP X-BRACE CONN. W/ 1¼ BOLT

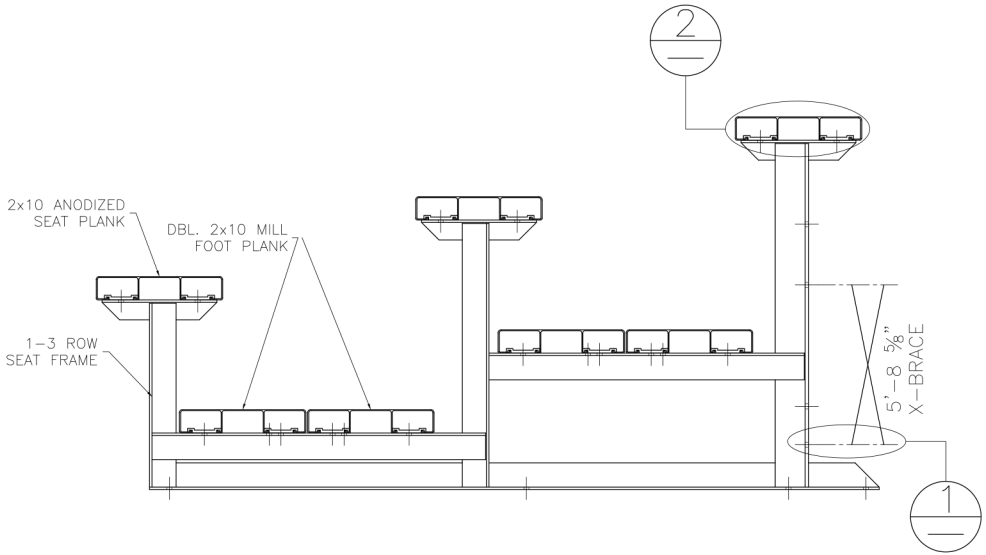


NOT TO SCALE

② TYP 2x10 PLANK ATTACHMENT



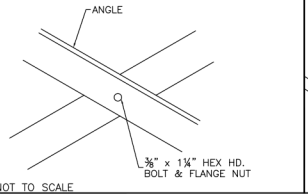
NOT TO SCALE



This drawing and all information contained herein is the property of NATIONAL RECREATION SYSTEMS, INC. and is not to be reproduced without the express written permission of this manufacturer. We assume no responsibility for unauthorized use of this drawing. NATIONAL RECREATION SYSTEMS, INC. is not responsible for local permits and occupancy requirements.

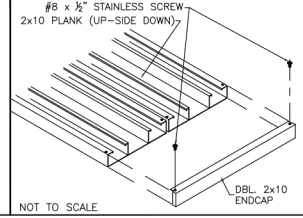
MODEL:	NB-0324APRF
DESCRIPTION:	NON-ELEV. 3 ROW x 24 BLEACHER ASSMEBLY PLAN
DRAWN BY:	IP
DATE:	8/30/23
REVISION:	A
SCALE:	N.T.S.
SHEET NUMBER:	5.BA

③ TYP X-BRACE CONN. W/ 1¼ BOLT



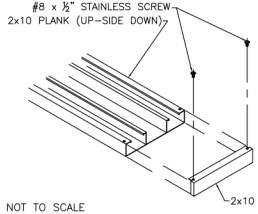
NOT TO SCALE

② DBL. 2x10 ENDCAP ATTACHMENT



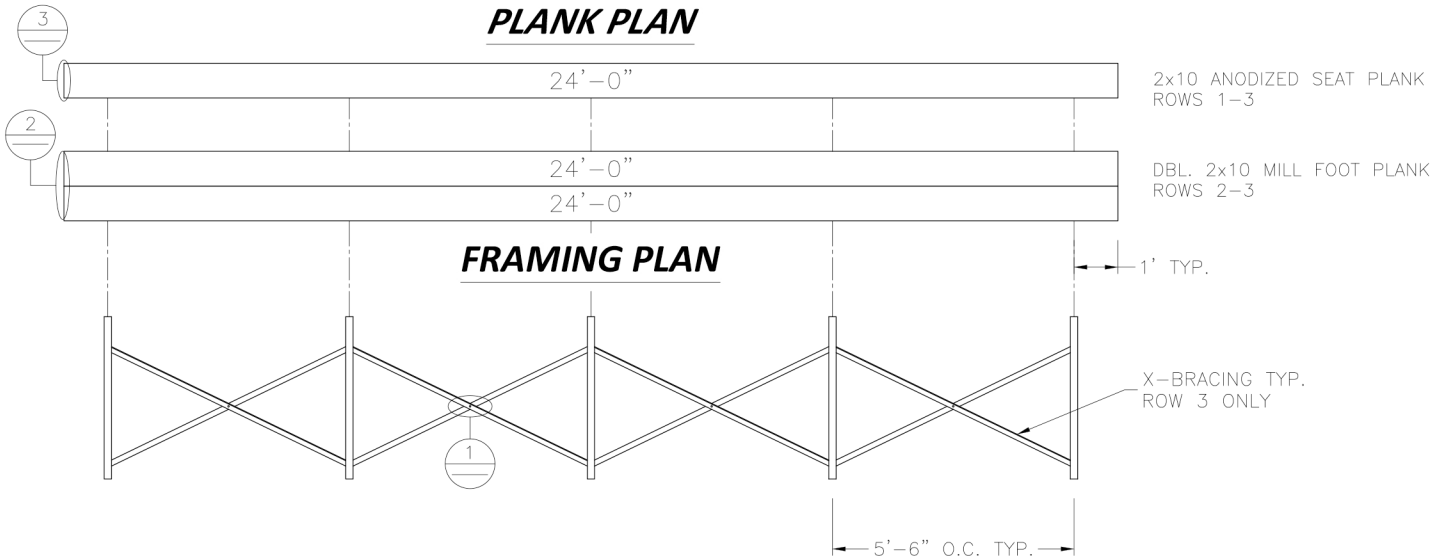
NOT TO SCALE

① TYP 2x10 ENDCAP ATTACHMENT



NOT TO SCALE

PLANK PLAN



FRAMING PLAN

This drawing and all information contained herein is the property of NATIONAL RECREATION SYSTEMS, INC. and is not to be reproduced without the express written permission of this manufacturer. We assume no responsibility for unauthorized use of this drawing. NATIONAL RECREATION SYSTEMS, INC. is not responsible for local permits and occupancy requirements.

MODEL:	NB-0324APRF
DESCRIPTION:	NON-ELEV. 3 ROW x 24 PLANK AND FRAMING PLAN
DRAWN BY:	IP
DATE:	8/30/23
REVISION:	A
SCALE:	N.T.S.
SHEET NUMBER:	6.PF