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APPROVAL REPORT

Project No: 3049081

Supplements Project No.: N/A

Class: 4451

Product Name: Type 1.5A, Type 1.5B, Type 1.5BI, Type 1.5BP, Type 1.5BA, Type 1.5BIA, Type 1.5BPA, Type 1.5F, B0.0334, B0.0376, B0.0398, BI0.0334, BI0.0376, BI0.0398, 3N, 3NI, 3NP, 3NA, 3NPA, and 3NIA

Name of Listing Company: Nucor Vulcraft Group

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2/12/2015

Date of Approval

1 INTRODUCTION

1.1 Nucor Vulcraft Group requested re-examination of their Type 1.5A, Type 1.5B, Type 1.5BI, Type 1.5BP, Type 1.5BA, Type 1.5BIA, Type 1.5BPA, Type 1.5F, B0.0334, B0.0376, B0.0398, B10.0334, B10.0376, B10.0398, 3N, 3NI, 3NP, 3NA, 3NPA, and 3NIA steel roof decks to determine if they meet the Approval requirements of the Standard listed in Section 1.3.

1.2 This report may be freely reproduced only in its entirety and without modification.

1.3 Standards

Title	Number	Issue Date
Approval Standard for Profiled Steel Panels for Use as Decking in Class 1 Insulated Roof Construction	4451	6/2012

1.4 Listing

The products and assemblies will be listed in RoofNav, an on-line resource of FM Approvals. Formulations, drawings and specifications are on file at FM Approvals.

2 DESCRIPTION

All products are as described in RoofNav, an on-line resource of FM Approvals.

3 EXAMINATIONS AND TESTS

3.1 This program consisted of a re-examination of Approved products according to revised Standard 4451, June 2012. Calculations were submitted for review in conjunction with data on file at FM Approvals under J.I. 0C8A7.AM, 0G1A4.AM , 0M4A1.AM, 3Y1A6.AM, 3029260, and 3035661.

3.2 Several performance requirements and tests required by the Standard have been waived due to previous successful testing. See Table 1 below for details.

Table 1

FM Standard 4451 Performance Requirement	Submissions Required / Waivers
Allowable Live Load Deflection	Calculations included
Combustibility From Below the Roof Deck	Waived, see Project ID 3035661
Combination pull out / pull over resistance of fasteners (Testing)	Waived ¹
Pull over resistance of fasteners (Calculation)	Waived ¹
Combination pull off / pull over resistance of arc spot welds	Calculations included
Side lap fastener and side lap crimping and interlocking resistance	Waived ¹ for side lap fasteners
	Waived, see Project ID 0C8A7.AM, 0G1A4.AM, 0M4A1.AM, and 3029260
Fastener pull out resistance for above	Not required

FM Standard 4451 Performance Requirement	Submissions Required / Waivers
deck components	
Steel Deck Bending Stresses Under Service Wind Loads	Calculations included
Wind Uplift Ratings Greater Than Class 1-90 and all assemblies that utilize steel deck with a design thickness less than 0.0295 in. (0.75 mm)	Not requested
Foot Traffic Resistance of Insulation	Testing included
Bearing Capacity of Insulation	Not required
Corrosion Resistance Test (Optional Test)	Not required
Drivability Evaluation of Fasteners	Waived ¹

¹ All fasteners are Approved by the OEM, no new fasteners included.

3.3 Foot Traffic Resistance of Insulation

3.3.1 Testing was conducted to evaluate the ability of the insulation to resist simulated foot traffic without damage when spanning the rib opening of the deck.

3.3.2 A 3 in. (76 mm) round plate was centered on the 12 in. (305 mm) square horizontal test panel and positioned over the center rib opening. A 200 lb. (91 kg) load was imposed on the plate and then removed. This cycle was repeated four additional times. Penetration and residual readings were taken after each cycle without removing the plate. The insulation board was inspected for damage at the plate interface after the last cycle.

3.3.3 There must be no breaking of the insulation board due to the wide rib opening of the deck.

3.3.4 Four (4) samples were prepared. The components and sequence of installation were as follows:

Sample No. 1: 22 gauge Nucor Vulcraft Group 22 ga. 3NI steel deck
0.5 in. (13 mm) Georgia-Pacific Gypsum LLC Dens Deck loose laid on the steel deck

Sample No. 2: 22 gauge Nucor Vulcraft Group 22 ga. 3NI steel deck
1.5 in. (38 mm) Atlas Roofing Corp (GA) ACFoam-II

Sample No. 3: 22 gauge Nucor Vulcraft Group 22 ga. 3NI steel deck
1.5 in. (38 mm) Rmax Operating LLC Multi-Max FA-3

Sample No. 4: 22 gauge Nucor Vulcraft Group 22 ga. 3NI steel deck
1.5 in. (38 mm) Firestone Building Products Co, LLC ISO 95+ GL

3.3.5 The insulation samples did not break under the simulated foot traffic load.

4 MARKING

4.1 The manufacturer shall mark each product and/or packaging with the manufacturer's name and product trade name. In addition, product and/or packaging must be marked with the Approval Mark of FM Approvals.

- 4.2 Markings denoting Approval by FM Approvals shall be applied by the manufacturer only within and on the premises of manufacturing locations under the FM Approvals Surveillance Audit program.
- 4.3 The manufacturer agrees that use of the FM Approvals name or Approval Mark is subject to the conditions and limitations of the Approval by FM Approvals. Such conditions and limitations must be included in all references to Approval by FM Approvals.

5 REMARKS

- 5.1 The securement of the roof system must be enhanced at the building corners and perimeter as outlined in FM Global Property Loss Prevention Data Sheet 1-29.
- 5.2 The roof cover must be installed using a roof perimeter flashing system Approved by FM Approvals. See RoofNav.

6 SURVEILLANCE AUDIT

The manufacturing facilities at the following locations shall be visited on a routine basis. The facility processes and quality control procedures in place have been determined to be satisfactory to manufacture products identical to that tested and Approved. A Form 797 shall be submitted to FM Approvals for requesting to manufacture products at any additional or alternate manufacturing facilities not listed below.

Audit Locations

1601 W. Omaha Avenue Norfolk, NE 68702 175 CR 2345 Grapeland, TX 75844	1501 W. Darlington Street Florence, SC 29501 7205 Gault Avenue North Ft. Payne, AL 35967	6610 County Road 60 St. Joe, IN 46785 5362 Railroad Street Chemung, NY 14825
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7 MANUFACTURER'S RESPONSIBILITIES

- 7.1 The manufacturer shall notify FM Approvals of any planned change in the Approved products, prior to general sale or distribution, using Form 797, Approved Product Revision Report. No changes of any nature shall be made unless notice of the proposed change has been given and written authorization obtained from FM Approvals.
- 7.2 To ensure compliance with procedures in the field, the manufacturer shall supply to the installer such necessary instruction or assistance required to produce the desired performance achieved in the tests.
- 7.3 In accordance with the Master Agreement, the manufacturer shall make full and immediate disclosure to FM Approvals of all information concerning any defect in, or potential hazard of, the product or service manufactured or provided by the Customer which is Approved by, or being examined by, FM Approvals. The manufacturer shall make all necessary arrangements for the investigation of complaints / anomalies applicable to this approval and shall keep records of all complaints / anomalies including actions taken.

8 DOCUMENTATION

No new documents have been created as all products are currently Approved.

9 CONCLUSIONS

9.1 Evaluation from this re-examination indicates that the Nucor Vulcraft Group Type 1.5A, Type 1.5B, Type 1.5BI, Type 1.5BP, Type 1.5BA, Type 1.5BIA, Type 1.5BPA, Type 1.5F, B0.0334, B0.0376, B0.0398, BI0.0334, BI0.0376, BI0.0398, 3N, 3NI, 3NP, 3NA, 3NPA, and 3NIA steel roof decks with a minimum yield strength of 40 ksi (276 MPa) and a minimum tensile strength of 52 ksi (358 MPa) continue to meet the Approval requirements of FM Approval Standard 4451 for use as a component in Class 1-60, Class 1-75, and Class 1-90 wind uplift rated insulated steel deck roof constructions when installed as described in RoofNav, an on-line resource of FM Approvals.

9.1.1 Nucor Vulcraft Group steel roof deck is secured to the building structural supports with FM Approved steel deck fasteners spaced at the maximum center to center span as determined by the lesser of the values shown in the tables as follows or as specified within listings of the FM Approved steel deck fastener. The side laps of interlocking steel decks are secured by button punch, spaced at maximum 36 in. (914 mm) on center. The side laps of all other steel decks are secured using fasteners FM Approved for securing steel deck laps. An FM Approved fully or partially adhered roof covering or mechanically attached roof covering when the in-row fastener spacing is less than or equal to one-half of the deck span is applied per proprietary listings. For 3N, 3NI, 3NP, 3NA, 3NPA, and 3NIA steel roof decks, above deck component fastener spacing is reduced as described in the following table to accommodate the 8 in. (203 mm) rib module. Refer to the use of steel roof decks and fasteners throughout listings for details and limitations. Meets maximum Class 1-90 or per proprietary listings.

FM Approved above deck component fastener row on center spacing, mm (in.)	Above deck component fastener in-row on center modified spacing used in conjunction with Nucor Vulcraft Group Type 3N, 3NI, 3NP, 3NA, 3NPA, and 3NIA steel roof decks, in. (mm)
6 (152)	Not Applicable (the specified RoofNav assembly is not suitable for use with this steel deck)
12 (305)	8 (203)
18 (457)	16 (406)

9.1.1.1 Nucor Vulcraft Group Type 1.5A steel roof deck is secured to the building structural supports spaced at the maximum center to center spans shown in the tables as follows.

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	59	1499	59	1499
20 (0.0358 [0.91])	65	1651	65	1651	65	1651
18 (0.0474 [1.2])	75	1905	75	1905	75	1905

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

9.1.1.2 Nucor Vulcraft Group Type 1.5B, Type 1.5BI, or Type 1.5BP steel roof deck is secured to the building structural supports spaced at the maximum center to center spans shown in the tables as follows.

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	73	1854	73	1854
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	93	2362	93	2362	93	2362
16 (0.0598 [1.52])	104	2642	104	2642	104	2642

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

9.1.1.3 Nucor Vulcraft Group Type 1.5BA, Type 1.5BPA, or Type 1.5BIA steel roof deck is secured to the building structural supports spaced at the maximum center to center spans shown in the following tables. Nominal 0.6 lb/ft³ (9.6 kg/m³) fiberglass insulation, 2.5 in. (64 mm) wide by 1.5 in. (38 mm) thick is placed in the steel deck bottom ribs. When an asphaltic roof cover is used, minimum 0.5 in. (13 mm) Dens Deck thermal barrier is placed over the steel deck. Minimum 1.5 in. (38 mm) thick polyisocyanurate insulation boards are placed over the deck or thermal barrier when present and fastened per proprietary listings.

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	71	1803	71	1803
20 (0.0358 [0.91])	78	1981	78	1981	78	1981
18 (0.0474 [1.2])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	102	2591	102	2591	102	2591
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

9.1.1.4 Nucor Vulcraft Group Type 1.5F steel roof deck is secured to the building structural supports spaced at the maximum center to center spans shown in the tables as follows.

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	61	1549	61	1549
20 (0.0358 [0.91])	68	1727	68	1727	68	1727
18 (0.0474 [1.2])	78	1981	78	1981	78	1981
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

9.1.1.5 Nucor Vulcraft Group B0.0334, B0.0376, B0.0398, B10.0334, B10.0376, or B10.0398 steel roof deck is secured to the building structural supports spaced at the maximum center to center spans shown in the tables as follows.

Nucor Vulcraft Group B0.0334-B0.0398/B10.0334-B10.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	78	1981	78	1981
0.0376 (0.96)	82	2083	82	2083	82	2083
0.0398 (1.0)	85	2159	85	2159	85	2159
Nucor Vulcraft Group B0.0334-B0.0398/B10.0334-B10.0398 steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540
Nucor Vulcraft Group B0.0334-B0.0398/B10.0334-B10.0398 steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

9.1.1.6 Nucor Vulcraft Group 3N, 3NP, or 3NI steel roof deck is secured to the building structural supports spaced at the maximum center to center spans shown in the tables as follows.

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	161	4089	161	4089	146	3708
20 (0.0358 [0.91])	178	4521	178	4521	166	4216
18 (0.0474 [1.2])	205	5207	205	5207	195	4953
16 (0.0598 [1.52])	230	5842	230	5842	219	5563
Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	168	4267	150	3810	137	3480
20 (0.0358 [0.91])	192	4877	172	4369	157	3988
18 (0.0474 [1.2])	228	5791	204	5182	186	4724
16 (0.0598 [1.52])	260	6604	232	5893	212	5385
Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	187	4750	168	4267	153	3886
20 (0.0358 [0.91])	210	5334	192	4877	175	4445
18 (0.0474 [1.2])	242	6147	228	5791	208	5283
16 (0.0598 [1.52])	272	6909	260	6604	237	6020

9.1.1.7 Nucor Vulcraft Group 3NA, 3NPA, or 3NIA steel roof deck is secured to the building structural supports spaced at the maximum center to center spans shown in the tables as follows. Nominal 0.6 lb/ft³ (9.6 kg/m³) fiberglass insulation, 2.5 in. (64 mm) wide by 1.5 in. (38 mm) thick is placed in the steel deck bottom ribs. When an asphaltic roof cover is used, minimum 0.5 in. (13 mm) Dens Deck thermal barrier is placed over the steel deck. Minimum 1.5 in. (38 mm) thick polyisocyanurate insulation boards are placed over the deck or thermal barrier when present and fastened per proprietary listings.

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	157	3988	156	3962	143	3632
20 (0.0358 [0.91])	173	4394	173	4394	161	4089
18 (0.0474 [1.2])	200	5080	200	5080	190	4826
16 (0.0598 [1.52])	225	5715	225	5715	214	5436

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	163	4140	146	3708	133	3378
20 (0.0358 [0.91])	187	4750	167	4242	153	3886
18 (0.0474 [1.2])	222	5639	199	5055	181	4597
16 (0.0598 [1.52])	253	6426	226	5740	207	5258

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	183	4648	163	4140	149	3785
20 (0.0358 [0.91])	204	5182	187	4750	171	4343
18 (0.0474 [1.2])	235	5969	222	5639	203	5156
16 (0.0598 [1.52])	265	6731	253	6426	231	5867

9.1.2 Nucor Vulcraft Group steel roof deck is secured to the building structural supports with puddle welds spaced at the maximum center to center span shown in the tables as follows. Puddle welds, sized and spaced as noted in the following tables, are fabricated using a minimum weld electrode of strength of 60 ksi (414 MPa) located at bottom ribs and at supports where deck sides lap. The side laps of interlocking steel decks are secured by button punch, spaced at maximum 36 in. (914 mm) on center. The side laps of all other steel decks are secured using fasteners FM Approved for securing steel deck laps. An FM Approved fully or partially adhered roof covering or mechanically attached roof covering when the in-row fastener spacing is less than or equal to one-half of the deck span is applied per proprietary listings. For 3N, 3NP, 3NI, 3NA, 3NPA, and 3NIA steel roof decks, above deck component fastener spacing is reduced as described in the following table to accommodate the 8 in. (203 mm) rib module. Refer to the use of steel roof decks and fasteners throughout listings for details and limitations. Meets maximum Class 1-90 or per proprietary listings.

FM Approved roof cover fastener row on center spacing, mm (in.)	Roof cover fastener in-row on center modified spacing used in conjunction with Nucor Vulcraft Group Type 3N, 3NP, 3NI, 3NA, 3NPA, and 3NIA steel roof decks, in. (mm)
6 (152)	Not Applicable (the specified RoofNav assembly is not suitable for use with this steel deck)
12 (305)	8 (203)
18 (457)	
24 (610)	16 (406)

9.1.2.1 Nucor Vulcraft Group Type 1.5A steel roof deck is secured to the building structural supports at the maximum center to center spans as noted in the tables below.

0.5" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	-	-	-	-
20 (0.0358 [0.91])	65	1651	-	-	-	-
18 (0.0474 [1.2])	75	1905	-	-	-	-

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	62	1575	-	-	-	-
20 (0.0358 [0.91])	74	1880	-	-	-	-
18 (0.0474 [1.2])	88	2235	-	-	-	-

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	-	-	-	-
20 (0.0358 [0.91])	77	1956	-	-	-	-
18 (0.0474 [1.2])	88	2235	-	-	-	-

0.625" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	59	1499	59	1499
20 (0.0358 [0.91])	65	1651	65	1651	65	1651
18 (0.0474 [1.2])	75	1905	75	1905	75	1905

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	63	1600	52	1321
20 (0.0358 [0.91])	77	1956	75	1905	63	1600
18 (0.0474 [1.2])	88	2235	88	2235	82	2083

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	65	1651
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

0.75" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	59	1499	59	1499
20 (0.0358 [0.91])	65	1651	65	1651	65	1651
18 (0.0474 [1.2])	75	1905	75	1905	75	1905

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	63	1600
20 (0.0358 [0.91])	77	1956	77	1956	76	1930
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

0.875" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	59	1499	59	1499
20 (0.0358 [0.91])	65	1651	65	1651	65	1651
18 (0.0474 [1.2])	75	1905	75	1905	75	1905

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

0.5" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	-	-	-	-
20 (0.0358 [0.91])	65	1651	-	-	-	-
18 (0.0474 [1.2])	75	1905	-	-	-	-

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	-	-	-	-
20 (0.0358 [0.91])	77	1956	-	-	-	-
18 (0.0474 [1.2])	88	2235	-	-	-	-

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	-	-	-	-
20 (0.0358 [0.91])	77	1956	-	-	-	-
18 (0.0474 [1.2])	88	2235	-	-	-	-

0.625" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	59	1499	59	1499
20 (0.0358 [0.91])	65	1651	65	1651	65	1651
18 (0.0474 [1.2])	75	1905	75	1905	75	1905

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

0.75" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	59	1499	59	1499
20 (0.0358 [0.91])	65	1651	65	1651	65	1651
18 (0.0474 [1.2])	75	1905	75	1905	75	1905

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

0.875" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	59	1499	59	1499	59	1499
20 (0.0358 [0.91])	65	1651	65	1651	65	1651
18 (0.0474 [1.2])	75	1905	75	1905	75	1905

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

Nucor Vulcraft Group Type 1.5A steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	70	1778	70	1778	70	1778
20 (0.0358 [0.91])	77	1956	77	1956	77	1956
18 (0.0474 [1.2])	88	2235	88	2235	88	2235

9.1.2.2 Nucor Vulcraft Group Type 1.5B, Type 1.5BI, or Type 1.5BP steel roof deck is secured to the building structural supports at the maximum center to center spans as noted in the tables below.

0.5" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	-	-	-	-
20 (0.0358 [0.91])	80	2032	-	-	-	-
18 (0.0474 [1.2])	93	2362	-	-	-	-
16 (0.0598 [1.52])	104	2642	-	-	-	-

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	62	1575	-	-	-	-
20 (0.0358 [0.91])	74	1880	-	-	-	-
18 (0.0474 [1.2])	96	2438	-	-	-	-
16 (0.0598 [1.52])	87	2210	-	-	-	-

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	78	1981	-	-	-	-
20 (0.0358 [0.91])	93	2362	-	-	-	-
18 (0.0474 [1.2])	109	2769	-	-	-	-
16 (0.0598 [1.52])	109	2769	-	-	-	-

0.625" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	73	1854	73	1854
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	93	2362	93	2362	93	2362
16 (0.0598 [1.52])	104	2642	104	2642	104	2642

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	79	2007	63	1600	52	1321
20 (0.0358 [0.91])	94	2388	75	1905	63	1600
18 (0.0474 [1.2])	109	2769	98	2489	82	2083
16 (0.0598 [1.52])	123	3124	121	3073	101	2565

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	79	2007	65	1651
20 (0.0358 [0.91])	95	2413	94	2388	79	2007
18 (0.0474 [1.2])	109	2769	109	2769	102	2591
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

0.75" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	73	1854	73	1854
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	93	2362	93	2362	93	2362
16 (0.0598 [1.52])	104	2642	104	2642	104	2642

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	76	1930	63	1600
20 (0.0358 [0.91])	95	2413	92	2337	76	1930
18 (0.0474 [1.2])	109	2769	109	2769	99	2515
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	79	2007
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

0.875" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	73	1854	73	1854
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	93	2362	93	2362	93	2362
16 (0.0598 [1.52])	104	2642	104	2642	104	2642

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	74	1880
20 (0.0358 [0.91])	95	2413	95	2413	90	2286
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

0.5" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	-	-	-	-
20 (0.0358 [0.91])	80	2032	-	-	-	-
18 (0.0474 [1.2])	93	2362	-	-	-	-
16 (0.0598 [1.52])	104	2642	-	-	-	-

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	-	-	-	-
20 (0.0358 [0.91])	95	2413	-	-	-	-
18 (0.0474 [1.2])	109	2769	-	-	-	-
16 (0.0598 [1.52])	123	3124	-	-	-	-

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	-	-	-	-
20 (0.0358 [0.91])	95	2413	-	-	-	-
18 (0.0474 [1.2])	109	2769	-	-	-	-
16 (0.0598 [1.52])	123	3124	-	-	-	-

0.625" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	73	1854	73	1854
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	93	2362	93	2362	93	2362
16 (0.0598 [1.52])	104	2642	104	2642	104	2642

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

0.75" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	73	1854	73	1854
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	93	2362	93	2362	93	2362
16 (0.0598 [1.52])	104	2642	104	2642	104	2642

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

0.875" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	73	1854	73	1854	73	1854
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	93	2362	93	2362	93	2362
16 (0.0598 [1.52])	104	2642	104	2642	104	2642

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

Nucor Vulcraft Group Type 1.5B/Type 1.5BI/Type 1.5BP steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	86	2184	86	2184	86	2184
20 (0.0358 [0.91])	95	2413	95	2413	95	2413
18 (0.0474 [1.2])	109	2769	109	2769	109	2769
16 (0.0598 [1.52])	123	3124	123	3124	123	3124

9.1.2.3 Nucor Vulcraft Group Type 1.5BA, Type 1.5BPA, or Type 1.5BIA steel roof deck is secured to the building structural supports at the maximum center to center spans as noted in the tables below. Nominal 0.6 lb/ft³ (9.6 kg/m³) fiberglass insulation, 2.5 in. (64 mm) wide by 1.5 in. (38 mm) thick is placed in the steel deck bottom ribs. When an asphaltic roof cover is used, minimum 0.5 in. (13 mm) Dens Deck thermal barrier is placed over the steel deck. Minimum 1.5 in. (38 mm) thick polyisocyanurate insulation boards are placed over the deck or thermal barrier when present and fastened per proprietary listings.

0.5" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	-	-	-	-
20 (0.0358 [0.91])	78	1981	-	-	-	-
18 (0.0474 [1.2])	90	2286	-	-	-	-
16 (0.0598 [1.52])	102	2591	-	-	-	-
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	62	1575	-	-	-	-
20 (0.0358 [0.91])	74	1880	-	-	-	-
18 (0.0474 [1.2])	96	2438	-	-	-	-
16 (0.0598 [1.52])	87	2210	-	-	-	-
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	78	1981	-	-	-	-
20 (0.0358 [0.91])	92	2337	-	-	-	-
18 (0.0474 [1.2])	107	2718	-	-	-	-
16 (0.0598 [1.52])	109	2769	-	-	-	-

0.625" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	71	1803	71	1803
20 (0.0358 [0.91])	78	1981	78	1981	78	1981
18 (0.0474 [1.2])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	102	2591	102	2591	102	2591

Nucor Vulcraft Group Type 1.5BA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	79	2007	63	1600	52	1321
20 (0.0358 [0.91])	92	2337	75	1905	63	1600
18 (0.0474 [1.2])	107	2718	98	2489	82	2083
16 (0.0598 [1.52])	120	3048	120	3048	101	2565

Nucor Vulcraft Group Type 1.5BA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	79	2007	65	1651
20 (0.0358 [0.91])	92	2337	92	2337	79	2007
18 (0.0474 [1.2])	107	2718	107	2718	102	2591
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

0.75" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	71	1803	71	1803
20 (0.0358 [0.91])	78	1981	78	1981	78	1981
18 (0.0474 [1.2])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	102	2591	102	2591	102	2591

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	76	1930	63	1600
20 (0.0358 [0.91])	92	2337	92	2337	76	1930
18 (0.0474 [1.2])	107	2718	107	2718	99	2515
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	79	2007
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

0.875" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	71	1803	71	1803
20 (0.0358 [0.91])	78	1981	78	1981	78	1981
18 (0.0474 [1.2])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	102	2591	102	2591	102	2591

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	74	1880
20 (0.0358 [0.91])	92	2337	92	2337	90	2286
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

0.5" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	-	-	-	-
20 (0.0358 [0.91])	78	1981	-	-	-	-
18 (0.0474 [1.2])	90	2286	-	-	-	-
16 (0.0598 [1.52])	102	2591	-	-	-	-

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	-	-	-	-
20 (0.0358 [0.91])	92	2337	-	-	-	-
18 (0.0474 [1.2])	107	2718	-	-	-	-
16 (0.0598 [1.52])	120	3048	-	-	-	-

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	-	-	-	-
20 (0.0358 [0.91])	92	2337	-	-	-	-
18 (0.0474 [1.2])	107	2718	-	-	-	-
16 (0.0598 [1.52])	120	3048	-	-	-	-

0.625" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	71	1803	71	1803
20 (0.0358 [0.91])	78	1981	78	1981	78	1981
18 (0.0474 [1.2])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	102	2591	102	2591	102	2591

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

0.75" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	71	1803	71	1803
20 (0.0358 [0.91])	78	1981	78	1981	78	1981
18 (0.0474 [1.2])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	102	2591	102	2591	102	2591

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

0.875" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	71	1803	71	1803	71	1803
20 (0.0358 [0.91])	78	1981	78	1981	78	1981
18 (0.0474 [1.2])	90	2286	90	2286	90	2286
16 (0.0598 [1.52])	102	2591	102	2591	102	2591

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

Nucor Vulcraft Group Type 1.5BA/Type 1.5BPA/Type 1.5BIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	84	2134	84	2134	84	2134
20 (0.0358 [0.91])	92	2337	92	2337	92	2337
18 (0.0474 [1.2])	107	2718	107	2718	107	2718
16 (0.0598 [1.52])	120	3048	120	3048	120	3048

9.1.2.4 Nucor Vulcraft Group Type 1.5F steel roof deck is secured to the building structural supports at the maximum center to center spans as noted in the tables below.

0.5" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	-	-	-	-
20 (0.0358 [0.91])	68	1727	-	-	-	-
18 (0.0474 [1.2])	78	1981	-	-	-	-

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	62	1575	-	-	-	-
20 (0.0358 [0.91])	74	1880	-	-	-	-
18 (0.0474 [1.2])	92	2337	-	-	-	-

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	-	-	-	-
20 (0.0358 [0.91])	80	2032	-	-	-	-
18 (0.0474 [1.2])	92	2337	-	-	-	-

0.625" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	61	1549	61	1549
20 (0.0358 [0.91])	68	1727	68	1727	68	1727
18 (0.0474 [1.2])	78	1981	78	1981	78	1981
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	63	1600	52	1321
20 (0.0358 [0.91])	80	2032	75	1905	63	1600
18 (0.0474 [1.2])	92	2337	92	2337	82	2083
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	65	1651
20 (0.0358 [0.91])	80	2032	80	2032	79	2007
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

0.75" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	61	1549	61	1549
20 (0.0358 [0.91])	68	1727	68	1727	68	1727
18 (0.0474 [1.2])	78	1981	78	1981	78	1981
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	63	1600
20 (0.0358 [0.91])	80	2032	80	2032	76	1930
18 (0.0474 [1.2])	92	2337	92	2337	92	2337
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

0.875" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	61	1549	61	1549
20 (0.0358 [0.91])	68	1727	68	1727	68	1727
18 (0.0474 [1.2])	78	1981	78	1981	78	1981
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

0.5" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	-	-	-	-
20 (0.0358 [0.91])	68	1727	-	-	-	-
18 (0.0474 [1.2])	78	1981	-	-	-	-
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	-	-	-	-
20 (0.0358 [0.91])	80	2032	-	-	-	-
18 (0.0474 [1.2])	92	2337	-	-	-	-
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	-	-	-	-
20 (0.0358 [0.91])	80	2032	-	-	-	-
18 (0.0474 [1.2])	92	2337	-	-	-	-

0.625" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	61	1549	61	1549
20 (0.0358 [0.91])	68	1727	68	1727	68	1727
18 (0.0474 [1.2])	78	1981	78	1981	78	1981
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

0.75" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	61	1549	61	1549
20 (0.0358 [0.91])	68	1727	68	1727	68	1727
18 (0.0474 [1.2])	78	1981	78	1981	78	1981
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337
Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

0.875" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group Type 1.5F steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	61	1549	61	1549	61	1549
20 (0.0358 [0.91])	68	1727	68	1727	68	1727
18 (0.0474 [1.2])	78	1981	78	1981	78	1981

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	72	1829	72	1829	72	1829
20 (0.0358 [0.91])	80	2032	80	2032	80	2032
18 (0.0474 [1.2])	92	2337	92	2337	92	2337

9.1.2.5 Nucor Vulcraft Group B0.0334, B0.0376, B0.0398, B10.0334, B10.0376, or B10.0398 steel roof deck is secured to the building structural supports at the maximum center to center spans as noted in the tables below.

0.5" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/B10.0334-B10.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	-	-	-	-
0.0376 (0.96)	82	2083	-	-	-	-
0.0398 (1.0)	85	2159	-	-	-	-

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	70	1778	-	-	-	-
0.0376 (0.96)	78	1981	-	-	-	-
0.0398 (1.0)	82	2083	-	-	-	-

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	87	2210	-	-	-	-
0.0376 (0.96)	97	2464	-	-	-	-
0.0398 (1.0)	100	2540	-	-	-	-

0.625" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	78	1981	78	1981
0.0376 (0.96)	82	2083	82	2083	82	2083
0.0398 (1.0)	85	2159	85	2159	85	2159

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	88	2235	71	1803	59	1499
0.0376 (0.96)	97	2464	79	2007	66	1676
0.0398 (1.0)	100	2540	83	2108	69	1753

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	88	2235	74	1880
0.0376 (0.96)	97	2464	97	2464	82	2083
0.0398 (1.0)	100	2540	100	2540	87	2210

0.75" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	78	1981	78	1981
0.0376 (0.96)	82	2083	82	2083	82	2083
0.0398 (1.0)	85	2159	85	2159	85	2159

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	86	2184	71	1803
0.0376 (0.96)	97	2464	96	2438	80	2032
0.0398 (1.0)	100	2540	100	2540	84	2134

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	89	2261
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

0.875" Diameter Puddle Welds, 36/4 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	78	1981	78	1981
0.0376 (0.96)	82	2083	82	2083	82	2083
0.0398 (1.0)	85	2159	85	2159	85	2159

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	84	2134
0.0376 (0.96)	97	2464	97	2464	94	2388
0.0398 (1.0)	100	2540	100	2540	99	2515

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

0.5" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	-	-	-	-
0.0376 (0.96)	82	2083	-	-	-	-
0.0398 (1.0)	85	2159	-	-	-	-

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	-	-	-	-
0.0376 (0.96)	97	2464	-	-	-	-
0.0398 (1.0)	100	2540	-	-	-	-

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	-	-	-	-
0.0376 (0.96)	97	2464	-	-	-	-
0.0398 (1.0)	100	2540	-	-	-	-

0.625" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	78	1981	78	1981
0.0376 (0.96)	82	2083	82	2083	82	2083
0.0398 (1.0)	85	2159	85	2159	85	2159

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

0.75" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	78	1981	78	1981
0.0376 (0.96)	82	2083	82	2083	82	2083
0.0398 (1.0)	85	2159	85	2159	85	2159

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

0.875" Diameter Puddle Welds, 36/7 Spacing

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	78	1981	78	1981	78	1981
0.0376 (0.96)	82	2083	82	2083	82	2083
0.0398 (1.0)	85	2159	85	2159	85	2159

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

Nucor Vulcraft Group B0.0334-B0.0398/BI0.0334-BI0.0398 steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
in. (mm)	in.	mm	in.	mm	in.	mm
0.0334 (0.85)	92	2337	92	2337	92	2337
0.0376 (0.96)	97	2464	97	2464	97	2464
0.0398 (1.0)	100	2540	100	2540	100	2540

9.1.2.6 Nucor Vulcraft Group 3N, 3NP, or 3NI steel roof deck is secured to the building structural supports at the maximum center to center spans as noted in the tables below.

0.5" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	161	4089	-	-	-	-
20 (0.0358 [0.91])	178	4521	-	-	-	-
18 (0.0474 [1.2])	205	5207	-	-	-	-
16 (0.0598 [1.52])	230	5842	-	-	-	-

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	93	2362	-	-	-	-
20 (0.0358 [0.91])	112	2845	-	-	-	-
18 (0.0474 [1.2])	144	3658	-	-	-	-
16 (0.0598 [1.52])	131	3327	-	-	-	-

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	117	2972	-	-	-	-
20 (0.0358 [0.91])	140	3556	-	-	-	-
18 (0.0474 [1.2])	180	4572	-	-	-	-
16 (0.0598 [1.52])	164	4166	-	-	-	-

0.625" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	161	4089	161	4089	146	3708
20 (0.0358 [0.91])	178	4521	178	4521	166	4216
18 (0.0474 [1.2])	205	5207	205	5207	195	4953
16 (0.0598 [1.52])	230	5842	230	5842	219	5563

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	118	2997	94	2388	79	2007
20 (0.0358 [0.91])	142	3607	113	2870	94	2388
18 (0.0474 [1.2])	184	4674	147	3734	123	3124
16 (0.0598 [1.52])	228	5791	182	4623	152	3861

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	148	3759	118	2997	98	2489
20 (0.0358 [0.91])	177	4496	142	3607	118	2997
18 (0.0474 [1.2])	230	5842	184	4674	153	3886
16 (0.0598 [1.52])	272	6909	228	5791	190	4826

0.75" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	161	4089	161	4089	146	3708
20 (0.0358 [0.91])	178	4521	178	4521	166	4216
18 (0.0474 [1.2])	205	5207	205	5207	195	4953
16 (0.0598 [1.52])	230	5842	230	5842	219	5563

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	143	3632	114	2896	95	2413
20 (0.0358 [0.91])	172	4369	138	3505	115	2921
18 (0.0474 [1.2])	224	5690	179	4547	149	3785
16 (0.0598 [1.52])	260	6604	222	5639	185	4699

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	179	4547	143	3632	119	3023
20 (0.0358 [0.91])	210	5334	172	4369	143	3632
18 (0.0474 [1.2])	242	6147	224	5690	187	4750
16 (0.0598 [1.52])	272	6909	260	6604	232	5893

0.875" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	161	4089	161	4089	146	3708
20 (0.0358 [0.91])	178	4521	178	4521	166	4216
18 (0.0474 [1.2])	205	5207	205	5207	195	4953
16 (0.0598 [1.52])	230	5842	230	5842	219	5563

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	168	4267	134	3404	112	2845
20 (0.0358 [0.91])	192	4877	162	4115	135	3429
18 (0.0474 [1.2])	228	5791	204	5182	176	4470
16 (0.0598 [1.52])	260	6604	232	5893	212	5385

Nucor Vulcraft Group 3N/3NP/3NI steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	187	4750	168	4267	140	3556
20 (0.0358 [0.91])	210	5334	192	4877	168	4267
18 (0.0474 [1.2])	242	6147	228	5791	208	5283
16 (0.0598 [1.52])	272	6909	260	6604	237	6020

9.1.2.7 Nucor Vulcraft Group 3NA, 3NPA, or 3NIA steel roof deck is secured to the building structural supports at the maximum center to center spans as noted in the tables below. Nominal 0.6 lb/ft³ (9.6 kg/m³) fiberglass insulation, 2.5 in. (64 mm) wide by 1.5 in. (38 mm) thick is placed in the steel deck bottom ribs. When an asphaltic roof cover is used, minimum 0.5 in. (13 mm) Dens Deck thermal barrier is placed over the steel deck. Minimum 1.5 in. (38 mm) thick polyisocyanurate insulation boards are placed over the deck or thermal barrier when present and fastened per proprietary listings.

0.5" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	157	3988	-	-	-	-
20 (0.0358 [0.91])	173	4394	-	-	-	-
18 (0.0474 [1.2])	200	5080	-	-	-	-
16 (0.0598 [1.52])	225	5715	-	-	-	-

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	93	2362	-	-	-	-
20 (0.0358 [0.91])	112	2845	-	-	-	-
18 (0.0474 [1.2])	144	3658	-	-	-	-
16 (0.0598 [1.52])	131	3327	-	-	-	-

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	117	2972	-	-	-	-
20 (0.0358 [0.91])	140	3556	-	-	-	-
18 (0.0474 [1.2])	180	4572	-	-	-	-
16 (0.0598 [1.52])	164	4166	-	-	-	-

0.625" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	157	3988	156	3962	143	3632
20 (0.0358 [0.91])	173	4394	173	4394	161	4089
18 (0.0474 [1.2])	200	5080	200	5080	190	4826
16 (0.0598 [1.52])	225	5715	225	5715	214	5436

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	118	2997	94	2388	79	2007
20 (0.0358 [0.91])	142	3607	113	2870	94	2388
18 (0.0474 [1.2])	184	4674	147	3734	123	3124
16 (0.0598 [1.52])	228	5791	182	4623	152	3861

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	148	3759	118	2997	98	2489
20 (0.0358 [0.91])	177	4496	142	3607	118	2997
18 (0.0474 [1.2])	230	5842	184	4674	153	3886
16 (0.0598 [1.52])	265	6731	228	5791	190	4826

0.75" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	157	3988	156	3962	143	3632
20 (0.0358 [0.91])	173	4394	173	4394	161	4089
18 (0.0474 [1.2])	200	5080	200	5080	190	4826
16 (0.0598 [1.52])	225	5715	225	5715	214	5436

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	143	3632	114	2896	95	2413
20 (0.0358 [0.91])	172	4369	138	3505	115	2921
18 (0.0474 [1.2])	222	5639	179	4547	149	3785
16 (0.0598 [1.52])	253	6426	222	5639	185	4699

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	179	4547	143	3632	119	3023
20 (0.0358 [0.91])	204	5182	172	4369	143	3632
18 (0.0474 [1.2])	235	5969	222	5639	187	4750
16 (0.0598 [1.52])	265	6731	253	6426	231	5867

0.875" Diameter Puddle Welds, 24/4 Spacing

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	157	3988	156	3962	143	3632
20 (0.0358 [0.91])	173	4394	173	4394	161	4089
18 (0.0474 [1.2])	200	5080	200	5080	190	4826
16 (0.0598 [1.52])	225	5715	225	5715	214	5436

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	163	4140	134	3404	112	2845
20 (0.0358 [0.91])	187	4750	162	4115	135	3429
18 (0.0474 [1.2])	222	5639	199	5055	176	4470
16 (0.0598 [1.52])	253	6426	226	5740	207	5258

Nucor Vulcraft Group 3NA/3NPA/3NIA steel deck						
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
22 (0.0295 [0.75])	183	4648	163	4140	140	3556
20 (0.0358 [0.91])	204	5182	187	4750	168	4267
18 (0.0474 [1.2])	235	5969	222	5639	203	5156
16 (0.0598 [1.52])	265	6731	253	6426	231	5867

- 9.2 Tests show that the tested roof constructions in and of themselves would not create a need for automatic sprinklers.
- 9.3 Since a duly signed Master Agreement is on file for this customer, Approval is effective as of the date of this report.
- 9.4 Continued Approval will depend upon satisfactory field experience and periodic Facilities and Procedures Audits.

PROJECT DATA RECORD: 3049081

ATTACHMENTS: N/A

ORIGINAL TEST DATA See PDRs for projects in Table 1