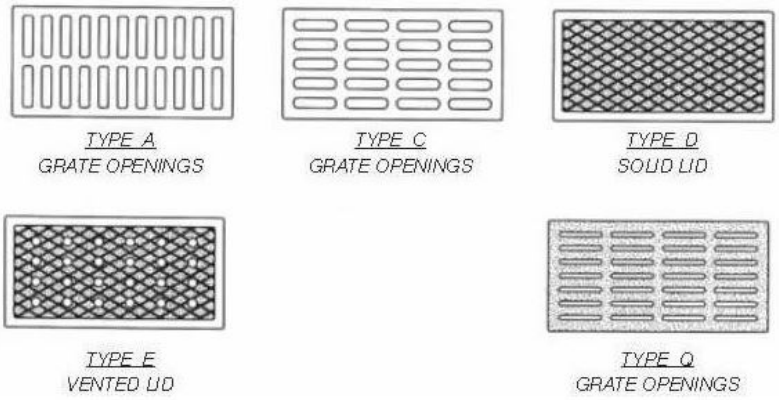
+1646-227-0910 SWIFTDRAIN www.swiftdrain.com

Neenah R-4990-HX Unbolted

Series **R-4990-HX**
Cut Sheet
26” Wide Unbolted

26” Wide NEENAH Unbolted Heavy Duty Trench Drain Grates and Frames

Product ID: R-4990-HX

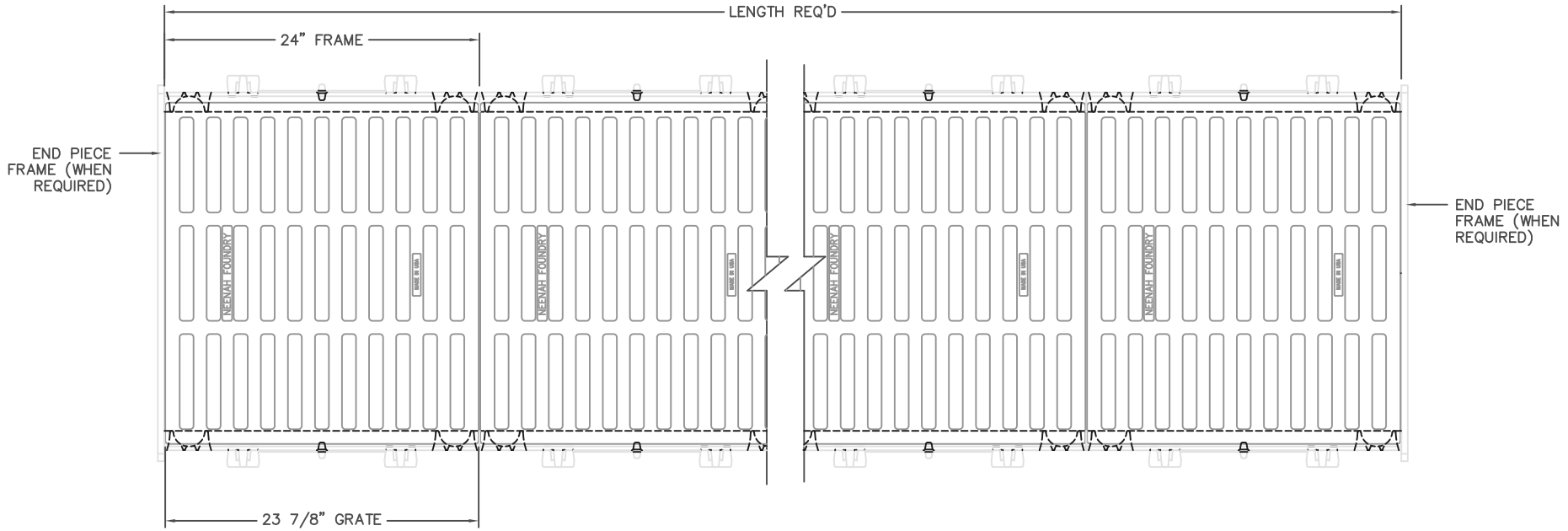


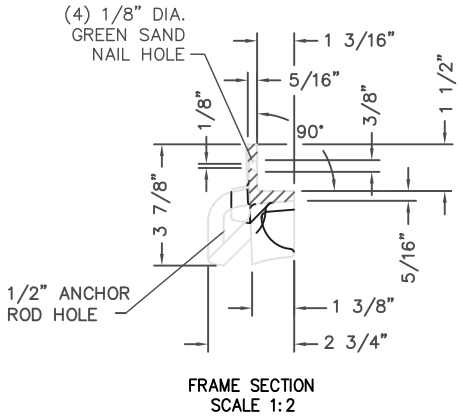
26" Wide Unbolted Neenah R-4990-HX Series Trench Grate

26"W X 24"L X 1 1/2"D
Choose Type A,C,D,E,Q

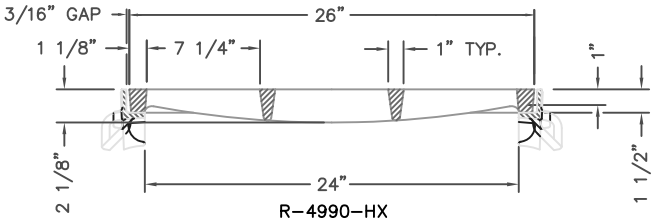
Materials: All frames and grates/lids are furnished standard in gray iron, meeting ASTM-A48 Class 35-B for heavy-duty use. In Type A and P grates the slots are perpendicular to the trench run. In Type C and Q grates the slots are parallel with the trench run.

Neenah recommends project designers avoid the use of light duty trench installations because it is likely that applications will be subjected to heavy delivery vehicle traffic at some time. Furthermore, the use of a site could be changed to heavy duty use patterns at some unanticipated future date.

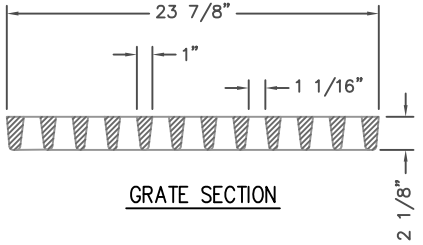




FRAME SECTION
SCALE 1:2



R-4990-HX
TYP. SECTION TYPE "A" GRATE
AND TYPE 'B' FRAME



GRATE SECTION

NOTES: FRAMES AND COVERS ARE FURNISHED IN STANDARD 2'-0" INCREMENTS. SPECIAL LENGTH FRAMES AND COVERS ARE FURNISHED FOR ANY OVERALL LENGTH.

COMPONENT NOS.: GRATE 4990-3261, SIDE PC. FRAME 4999-2415, END PC. FRAME 4990-3226

SIDE PC. FRAMES - CAST GRAY IRON ASTM A-48, CLASS 35A
END PC. FRAMES AND GRATES - CAST GRAY IRON ASTM A-48, CLASS 35B

NO PAINT

1	9/25/2014	UPDATED DWG. WITH NEW FRAME	CAG	ELN	JDB	
#	DATE	REVISION	DR	CH	APP	

DR. K. HOGE
CH.
APP.
DATE 03-11-2010

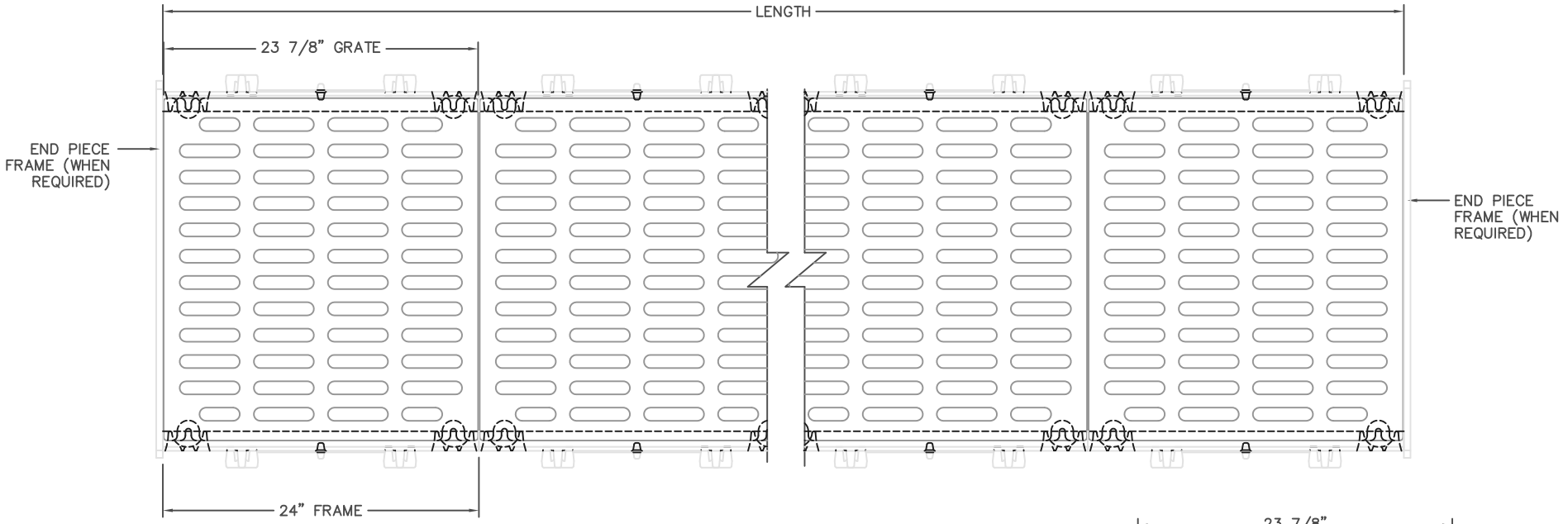
SCALE 1/8"=1"
DIM CHK.

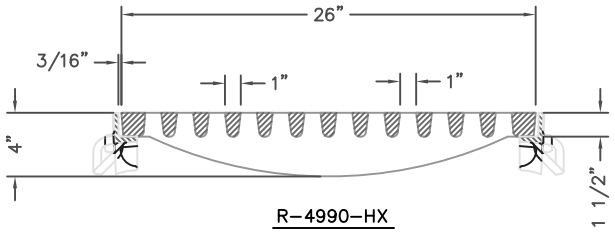
TITLE: R-4990-HX TRENCH ASSEMBLY
TYPE "A" GRATE WITH TYPE "B" FRAME

NEENAH FOUNDRY COMPANY
NEENAH WISCONSIN 54956

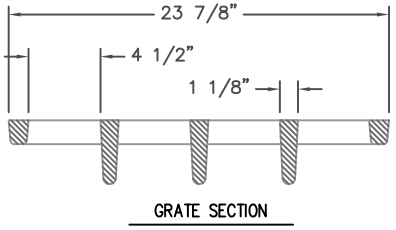
NF-4990HX A B

CAD DWG. REF:4990HX A.DWG- 2

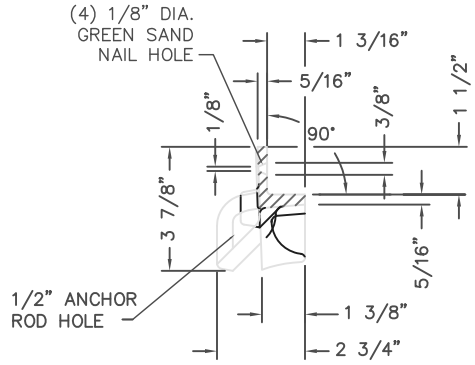




R-4990-HX
TYPE "C" GRATE w/ TYPE "B" FRAME
TYPICAL SECTION THROUGH TRENCH



GRATE SECTION



FRAME SECTION
SCALE 1:2

NOTES: FRAMES AND COVERS ARE FURNISHED IN STANDARD 2'-0" INCREMENTS. SPECIAL LENGTH FRAMES AND COVERS ARE FURNISHED FOR ANY OVERALL LENGTH.

COMPONENT NOS.: GRATE 4990-3263, SIDE PC. FRAME 4999-2415, END PC. FRAME 4990-3226

SIDE PC. FRAMES - CAST GRAY IRON ASTM A-48, CLASS 35A
END PC. FRAMES AND GRATES - CAST GRAY IRON ASTM A-48, CLASS 35B

NO PAINT

1	10/17/2014	UPDATED DWG. WITH NEW FRAME	CAG	RKB	SPT
2	DATE	REVISION	DR	CH	APP

DR. K. HOGE
CH.
APP.
DATE 03-11-2010

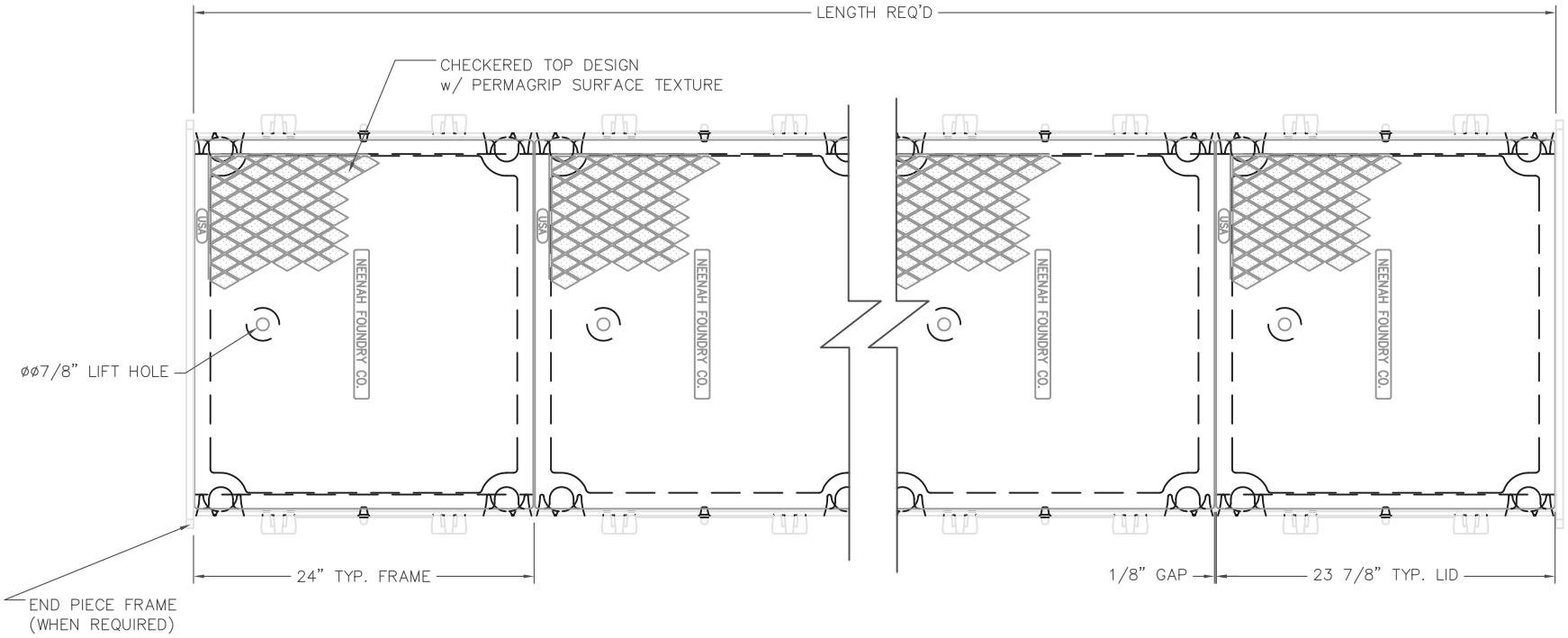
SCALE 1/8"=1"
DIM CHK.

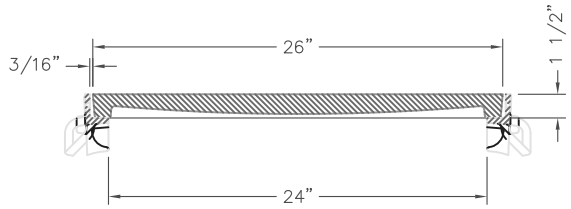
TITLE: R-4990-HX TRENCH ASSEMBLY
TYPE "C" GRATE WITH TYPE "B" FRAME

NEENAH FOUNDRY COMPANY
NEENAH WISCONSIN 54956

NF-4990HX C B

CAD DWG. REF:4990HX C.DWG- 2





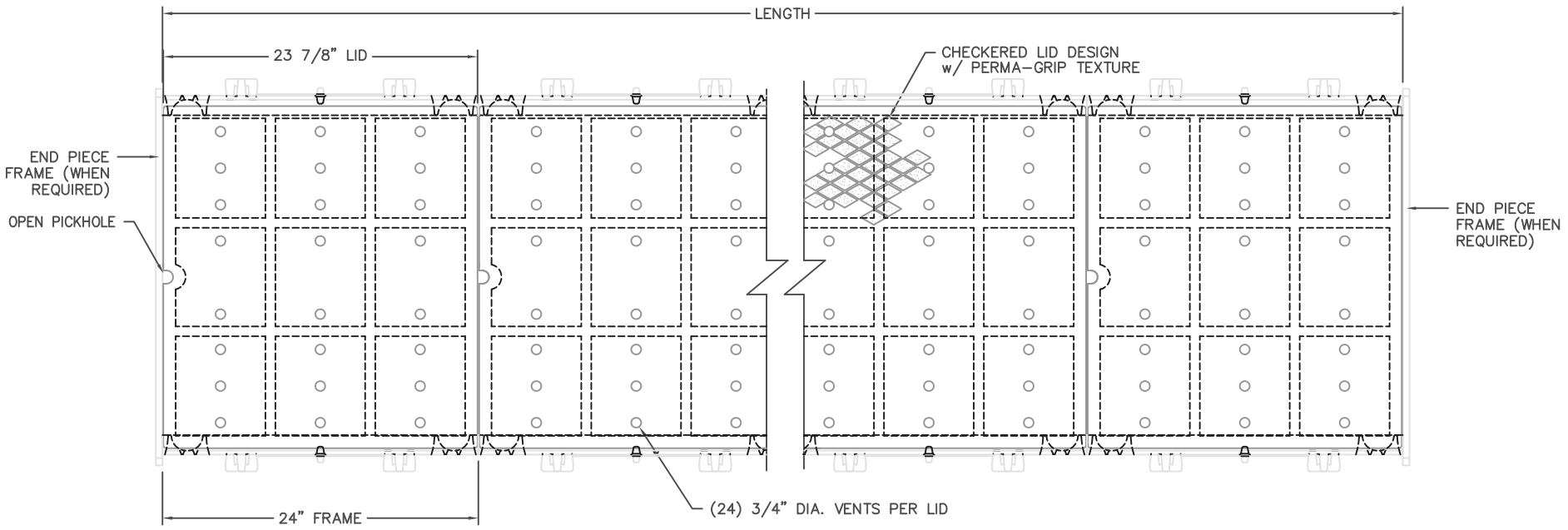
R-4990-HX
TYPE "D" LID & TYPE "B" FRAME
TYPICAL SECTION

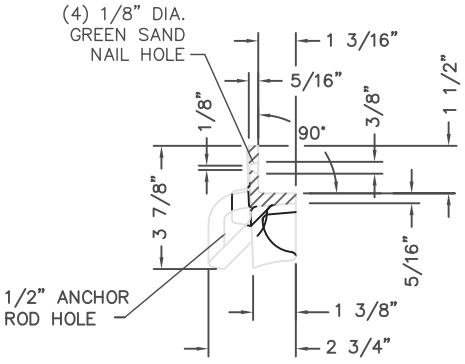
COMPONENT NOS.: SIDE PC. FRAME 4999-2415
END PC. FRAME 4990-3226
LID 4990-3264

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER

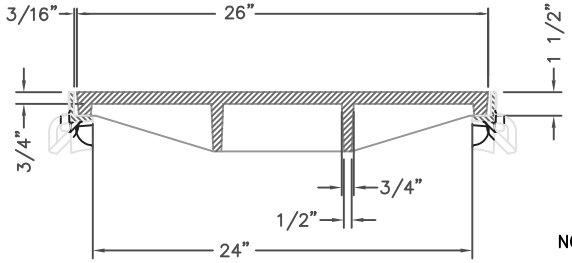
DR. CAG	SCALE 1/8"=1"	TITLE: R-4990-HX TRENCH w/ TYPE "D" PLATEN LID & TYPE "B" FRAME	
CH.			
APP.	DIM CHK.	NEENAH FOUNDRY NEENAH WISCONSIN 54956	NF-4990HX D B
DATE 04-05-2013			
www.neenahfoundry.com		PHONE: 1-800-558-5075	

CAD DWG. REF: 4990HX D.DWG- 1

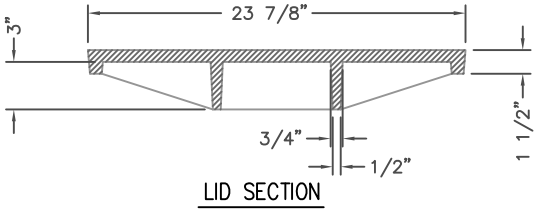




FRAME SECTION
SCALE 1:2



R-4999-HX
TYPE "E" LID w/ TYPE "B" FRAME
TYPICAL SECTION THROUGH TRENCH



LID SECTION

NOTES: FRAMES AND COVERS ARE FURNISHED IN STANDARD 2'-0" INCREMENTS. SPECIAL LENGTH FRAMES AND COVERS ARE FURNISHED FOR ANY OVERALL LENGTH.

COMPONENT NOS.: LID 4990-8265, SIDE PC. FRAME 4999-2415, END PC. FRAME 4990-3226

SIDE PC. FRAMES – CAST GRAY IRON ASTM A-48, CLASS 35A
END PC. FRAMES AND GRATES – CAST GRAY IRON ASTM A-48, CLASS 35B

NO PAINT

#	DATE	REVISION	DR	CH	APP
1	10/17/2014	UPDATED DWG. WITH NEW FRAME	CAG	RKB	SPT

DR. RKB
CH.
APP.
DATE 08-11-2009

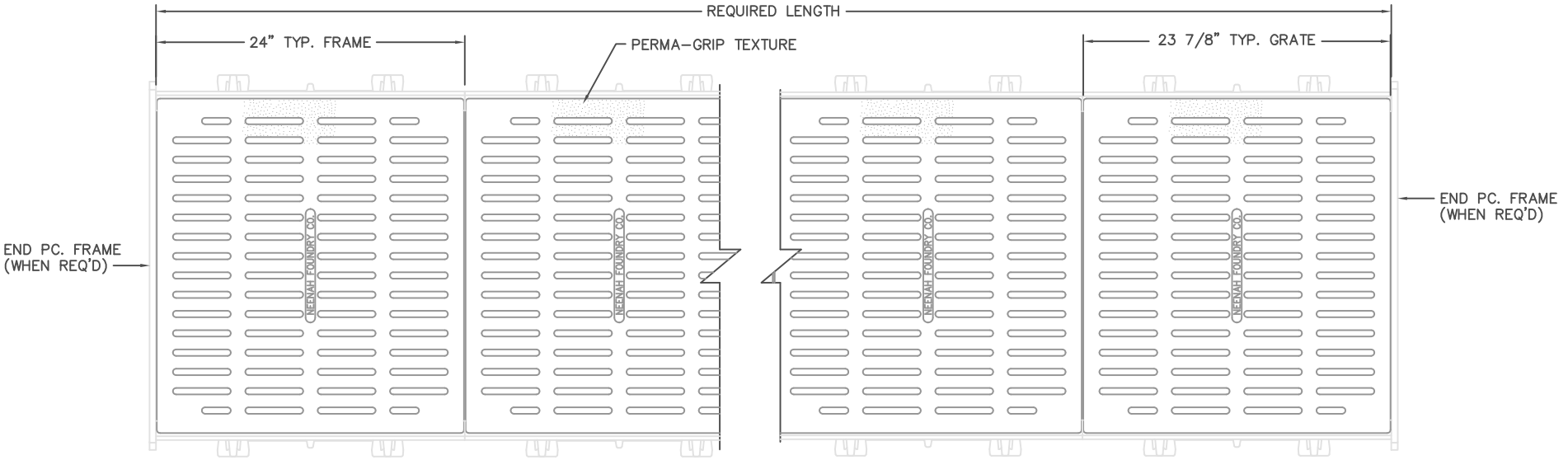
SCALE 1/8"=1"
DIM CHK.

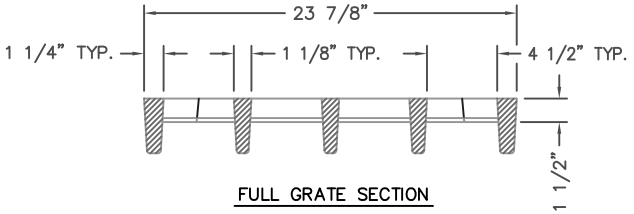
TITLE: R-4990-HX TRENCH ASSEMBLY
TYPE "E" LID WITH TYPE "B" FRAME

NEENAH FOUNDRY COMPANY
NEENAH WISCONSIN 54956

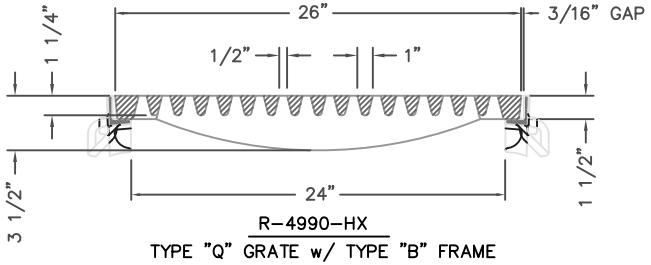
NF- 4990HX E B

CAD DWG. REF:4990HX E.DWG- 2





FULL GRATE SECTION



R-4990-HX
TYPE "Q" GRATE w/ TYPE "B" FRAME
TYPICAL SECTION THROUGH TRENCH

NOTE: FRAMES AND GRATES ARE FURNISHED IN STANDARD 2'-0" INCREMENTS.
SPECIAL LENGTH FRAMES AND GRATES ARE FURNISHED FOR ANY OVERALL LENGTH.

COMPONENT NOS.: FRAME 4999-2415, GRATE 4990-3267. END PC. FRAME 4990-3226
MATERIAL: END PC. FRAMES AND GRATES-CAST GRAY IRON ASTM A-48, CLASS 35B
SIDE PC. FRAMES-CAST GRAY IRON ASTM A-48, CLASS 35A
FINISH: NO PAINT

DR. CAG	SCALE 1/8"=1"	TITLE: R-4990-HX TRENCH ASSEMBLY TYPE "B" FRAME, TYPE "Q" GRATE	
CH. RKB			
APP. SPT	NEENAH FOUNDRY		
DATE 3/17/2014	NEENAH WISCONSIN 54956 PHONE 800-558-5075	NF-4990HX Q	B
www.neenahfoundry.com	LINCOLN, NEBRASKA 68529 PHONE 800-234-7466		

CAD DWG. REF: 4990HX Q.DWG- 1

R-4990
HEAVY DUTY TRENCH

SWIFTDRAIN
+1646-227-0910
www.swiftdrain.com

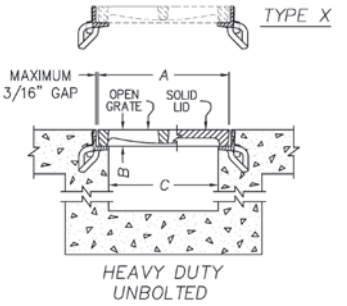
Materials: All frames and grates/lids are furnished standard in gray iron, meeting ASTM-A48 Class 35-B for heavy-duty use. For extra heavy-duty use or superior durability requirements, see our ductile iron Airport and Port Grating Series on page 286.

Neenah recommends project designers avoid the use of light duty trench installations because it is likely that applications will be subjected to heavy delivery vehicle traffic at some time. Furthermore, the use of a site could be changed to heavy duty use patterns at some unanticipated future date.

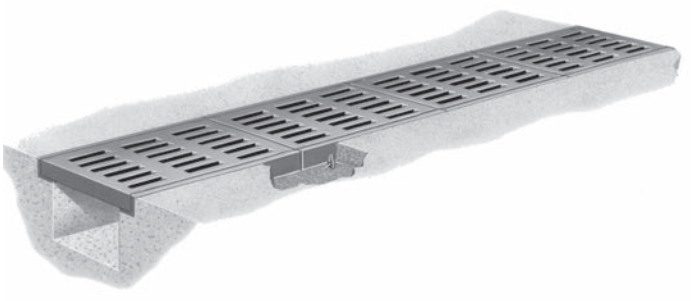
Dimensions in inches

Un-Bolted Catalog No.	A	B	C	Type A	Type C	Type D	Type E	Type P	Type Q
R-4990-AX	8	1 1/2	6	x	x	x	x	x	
R-4990-BX	10	1 1/2	8	x	x	x	x	x	
R-4990-CX	12	1 1/2	10	x	x	x	x	x	x
R-4990-DX	14	1 1/2	12	x	x	x	x	x	x
R-4990-EX	17	1 1/2	15	x	x	x	x	x	
R-4990-FX	20	1 1/2	18	x	x	x	x	x	
R-4990-GX	23	1 1/2	21	x	x*	x			
R-4990-HX	26	1 1/2	24	x	x*	x	x		x
R-4990-JX	30	2	27	x	x	x			
R-4990-KX	33	2	30	x	x	x*	x		
R-4990-LX	36	2	33	x	x	x*			
R-4990-MX	39	2	36	x	x*	x			
R-4990-NX	45	2	42	x	x*	x			
R-4990-OX	51	2	48	x		x*			

x - Indicates availability.
* Deep Ribs (consult shop drawing for dimensions).
Deep Ribs = “B” dimension times 2 or greater.

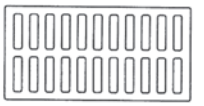


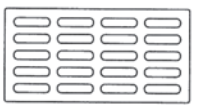
General schematic shown may not apply to all designs. Bar and rib depths, plate thicknesses and seating widths vary on different sizes and styles. If your project has design restrictions, contact your sales representative or product engineering.

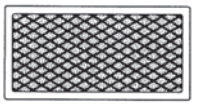


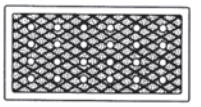
Illustrating Type C trench. Trench sections are furnished in 24” standard lengths.

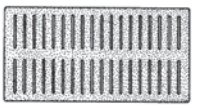
Note: In Type A and P grates the slots are perpendicular to the trench run. In Type C and Q grates the slots are parallel with the trench run.

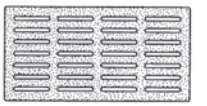

TYPE A
GRATE OPENINGS


TYPE C
GRATE OPENINGS

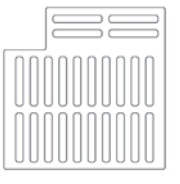

TYPE D
SOLID LID

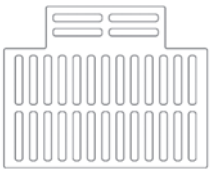

TYPE E
VENTED LID


TYPE P
GRATE OPENINGS


TYPE Q
GRATE OPENINGS


TYPE A
45 DEGREE
INTERSECTION PC.


TYPE A
90 DEGREE
INTERSECTION PC.


TYPE A
“T” INTERSECTION PC.

Note: 45º, 90º and “T” available in limited sizes and types.

Read Carefully Before Ordering

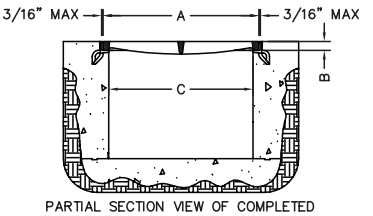
The various standard trench drains are available with a number of alternatives. It is important to examine all of the variables carefully and specify your requirements fully. Your order will be entered correctly and promptly if it includes the following information:

- Complete catalog number
- Frame end pieces, when required
- Type of Lid or Grate: A, C, D, E, P or Q
- Length of trench sections
- Angles and intersections *
- Load requirements

*Trenches with angles, intersections, size changes or other special requirements require detail drawings prior to ordering. Contact your sales representative or product engineering for assistance.

800-558-5075

Suggested Forming Instructions for R-4990 Frame and Grate/Lid



PARTIAL SECTION VIEW OF COMPLETED TRENCH INSTALLATION
FIGURE 1

Unbolted Units

A typical installation is shown in Figure 1. Details and suggestions are based on using the Neenah Foundry Type X Frame.

Materials

Under normal situations, use ¾ inch plywood for forming walls. 2x4s are suitable for studs, plates, bracing and spreaders.

Forming Procedures

Pour the floor slab of the trench according to the plans and specifications. The width of the forming, (see Figure 2) measured from the outside edges of the forms, corresponds to the "C" dimension on Figure 1. During the entire forming procedure, verify that the forms are plumb, straight, solid and level.

The height of the form corresponds to the final grade elevation. Extend the spreaders beyond the edge of the forms (see Figure 3 and 4) to provide a stop for the frame and seat form.

To attach the cast iron frame to the forming, the use of a "seat form" is recommended to assure that the frame is at the proper elevation and true. The seat form has the same dimensions as the frame, with the height corresponding to the frame height (the "B" dimension), and the width the same as the seat width of the frame. The seat width should be field measured to assure as proper fit. All Neenah frames have a slight radius at the corner of the seat and vertical face so the seat form should be beveled to accommodate the radius. Most 2x4's have this radius.

Nail the seat form to the frame using the holes in the frame. (Figures 3 & 4)

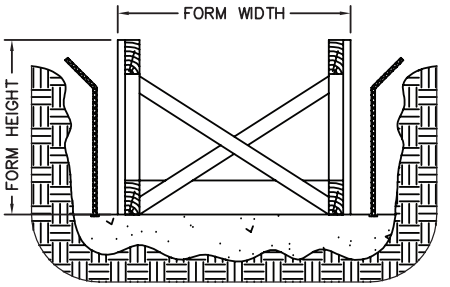


FIGURE 2

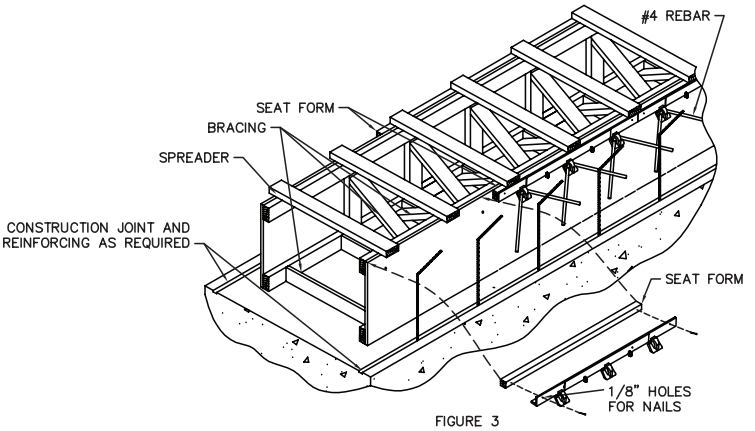


FIGURE 3

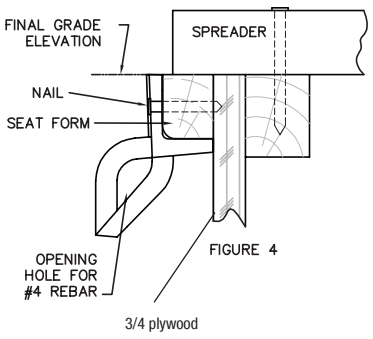


FIGURE 4

(The rebar shown in the vertical walls of the trench is for illustrative purposes only. Proper sizing and placement is the responsibility of the engineering firm providing the project design.)

Frames should butt together snugly, leaving as little gap as possible. Place a 90 degree bent #4 rebar through the holes in the anchor lugs to provide anchorage in the concrete. Verify the space between the edges of the grate and frame so grates will fit properly. There should be a gap but no greater than 3/16" (see Figure 1).

Pour concrete and use the top edge of the frame as a screed point.