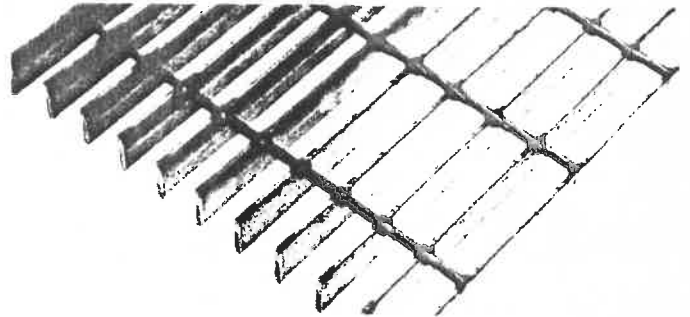
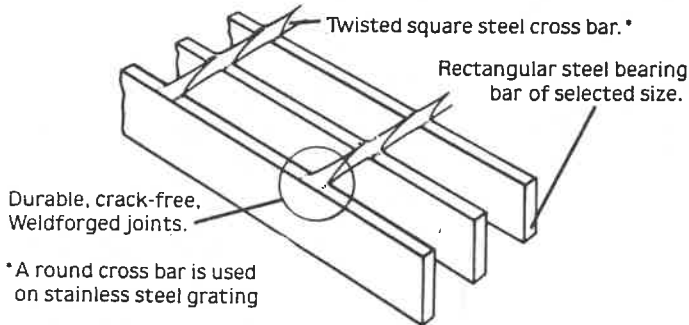


All-weld is the recommended style for general installation. It is economical, durable and the most versatile of the various types of metal grating. Precise, automated production equipment combines hydraulic pressure with a powerful electric welding current to electro forge the cross bars and bearing bars into a single rigid panel. This method eliminates cracks or open joints which might harbor moisture or other corrosive material. The twisted steel cross bars of IKG Borden Weldforged grating provide excellent traction and a flush surface. Weldforged grating, in standard sizes and styles, is usually available for same day shipment.



IKG Borden Weldforged grating WB, WF, WD, and WDF, size 1 through 12 are available to meet any requirement. WBA & WFA and other heavier bearing bars and larger sizes are available for heavy duty applications. Consult the IKG Borden engineering department for design and product selection assistance. (See Heavy Duty Grating pages 24-30.)

NOTE: Welded Stainless Steel will show discolored welded joints as a result of the process. We recommend stainless steel grating be made by the pressure locked method.

STANDARD	<p>Type W/B</p>	Approved for all general purposes.
	<p>Type W/F</p>	Same as Type W/B but with close cross bars for conditions where more steel area is required.
SPECIAL ORDER	<p>Type W/D</p>	Close bearing bars. Best for heavy public traffic, or where smaller openings or increased carrying capacity are required.
	<p>Type W/DF</p>	With closer cross bar and bearing bars. For conditions requiring greatly reduced net opening.
	<p>Type W/BA</p>	Same as WB above except furnished in 1/4 inch bar thickness. Used where intermediate loading is required.
	<p>Type W/FA</p>	Same as WF above except furnished in 1/4 inch bar thickness. Used where intermediate loading is required.

Weldforged® Steel Grating

Available in steel,
stainless steel and CorTen steel

IKG Borden Weldforged® grating is available in four types and twelve stock sizes to meet any requirement. Heavier bearing bars and larger sizes are available for heavy duty applications. Consult the IKG Borden engineering department for design and product selection assistance.

Additional Weldforged information:

Load Tables, pgs. 18 & 19.
Stair Treads, pgs. 16 & 17.
Standard Sizes and Weights, pg. 22.
Other Engineering Data, pgs. 21 & 23.

Welded Steel Grating Weights per Sq. Ft.

Bar Size #	Bearing Bar Dimensions (inches)	Weight — Lbs./Sq. Ft.					
		Grating Types					
		WB	WB-A	WF	WF-A	WD	WDF
1	¾" x ⅛"	4.1	—	5.0	—	5.0	5.9
2	¾" x ⅜"	5.8	—	6.7	—	7.2	8.1
3	1" x ⅛"	5.2	—	6.1	—	6.4	7.3
4	1" x ⅜"	7.5	—	8.4	—	9.3	10.2
4A	1" x ¼"	—	9.8	—	10.7	—	—
5	1¼" x ⅛"	6.3	—	7.2	—	7.9	8.8
6	1¼" x ⅜"	9.1	—	10.0	—	11.3	12.2
6A	1¼" x ¼"	—	12.0	—	12.9	—	—
7	1½" x ⅛"	7.4	—	8.3	—	9.3	10.2
8	1½" x ⅜"	10.8	—	11.7	—	13.5	14.4
8A	1½" x ¼"	—	14.3	—	15.1	—	—
9	1¾" x ⅜"	12.5	—	13.4	—	15.6	16.5
9A	1¾" x ¼"	—	16.5	—	17.4	—	—
10	2" x ⅜"	14.1	—	15.0	—	17.7	18.6
10A	2" x ¼"	—	18.7	—	19.6	—	—
11	2¼" x ⅜"	15.8	—	16.7	—	19.8	20.7
12	2½" x ⅜"	17.4	—	18.3	—	21.9	22.8
12A	2½" x ¼"	—	23.2	—	24.0	—	—

Other Bar Spacing

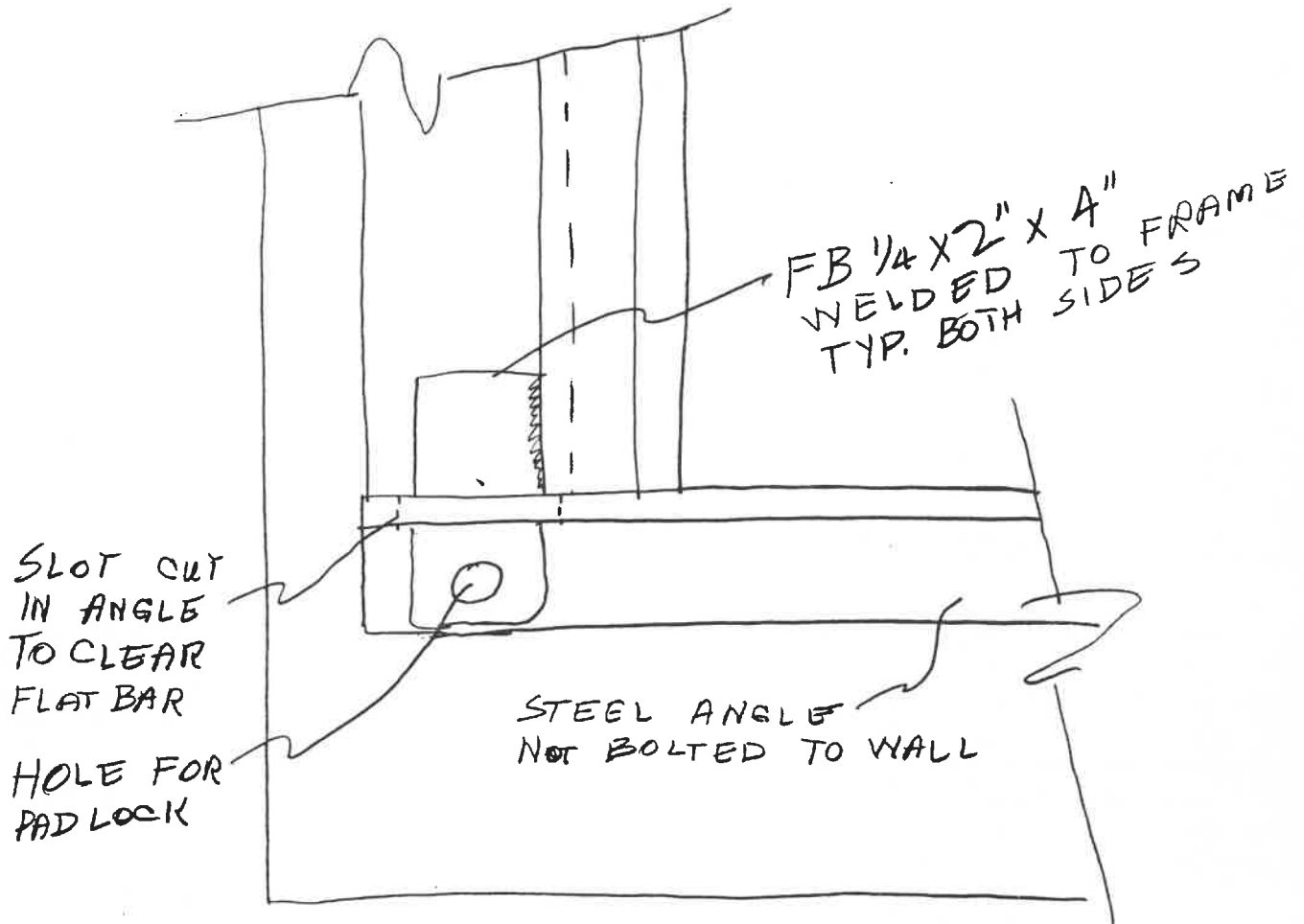
In addition to the spacings shown on page 4 Weldforged® Steel Grating is also available in 1¾" bearing bar centers and 2¾" bearing bar centers. For complete information contact any IKG Borden sales office (see back cover).

Stocked sizes are in blue tint—call first.

How to Specify Weldforged

Steel grating to be Weldforged welded rectangular design, type WB as manufactured by IKG Industries, a division of Harsco Corporation. Main bearing bars to be 1 x 3/16", spaced 1 3/16 inches center-to-center. Cross bars to be resistance welded at right angles to the bearing bars. They shall be spaced 4 inches center-to-center. No notching or cutting of bearing bars before welding is permissible. Grating is to safely sustain a uniformly distributed load of 150 pounds per square foot on a 36 inch span and deflect less than .250 inches. Finish to be [painted or galvanized]. Overall dimensions, details, and direction of bearing bars in accordance with plans (or sketch) attached. (Indicate cutouts for obstructions, banding, fasteners, nosing, etc.)

CONTINENTAL RANCH



LOCK DETAIL

ALL OTHER DETAILS PER
WLB DRAWINGS SHEETS
17 & 19 DATED 6-87

M.P.I.
12/21/86

LEGEND

1. Chamfer edged if it has not been done.
2. Fill voids in interior walls. Chip to solid concrete before patching or wiping.
3. Place grate, hasp, lock and other.
4. Exterior walls need smooth finish to 18" below top of concrete.
5. Top of walls to be smooth and flush.
6. Place grout fill. Clean floor of structure before placing grout fill, if needed.
7. Remove form seam.
8. Patch form tie holes.
9. Exterior walls to have smooth finish to 6" below grade (no voids).
10. Inlets & outlets to be smooth at face of wall.
11. Patch chipped edges at top of walls.

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Junction Box #7A Sta. 106 + 00 - Sht. 6

1. See Notes 1, 2 & 3.

Need Stub out w/ Well site 27L

Junction Box #1G Sta. 0 + 28 - Sht. 10

1. See Notes 1, 2 & 3.

Cleanout Box #3A Sta. 97 + 50 - Sht. 6

1. See Notes 1, 2, 3, 4 & 5.

Siphon #3 Stations 84 + 63 & 87 + 83 - Sht. 3

The Notes below are for structure @ 84 + 63

1. See Notes 2, 8, 6, 1, 3, 7 & 9. ✓
2. Inlet & outlet to be smooth at face of wall

#3 Outlet

The Notes below are for structure @ 87 + 83

1. See Notes 1, 6, 2, 3, 7, 9 & 10.

ck Cleanout #2A Sta. 75 + 50 - Sht. 5

1. Needs to be constructed.

ck Siphon #2 Sta. 58 + 67 & 62 + 52 - Sht. 5

1. Being constructed (forms being placed).

ck Junction Box #1F - Sht. 5

1. Being constructed (forms being placed).

ck Junction Box #6A

1. Needs to be backfilled, could not inspect.
2. Form ties to be removed and holes patch.

ck Cleanout Box #1A Sta. 37 + 75 - Sht. 4

1. Needs to be backfilled, could not inspect.
2. Form tie holes need to be patched.

Siphon #1 Sta. 28 + 80 and 25 + 62 - Sht. 4

The Notes below are for the structure @ 28 + 80.

1. See Notes 3, 1, 8, 6, 9 & 2.

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The Notes below are for the structure @ 25 + 62.

1. See Notes 1, 2, 3 & 9.

Junction Box #5A - Sht. 8

Low

1. See Notes 1, 3, 4 & 10
2. Patch chipped edges at top of walls.

Junction Box #4A and #3A - Sht. 3

1. Needs to be constructed.

Junction Box #2A Sta. 3 + 26

1. Needs to be constructed.

Junction Box #1A Sta. 2 + 97

1. See Notes 1, 3, 4, 2, 10 & 11
2. Pipe joints are not grouted out of structure (NW line).

Final Junction Box - Sht. 3

1. See Note 3.
2. Place trash rack
3. Smooth interior wall face around 27" pipe.

Well Site #16F-1 - Sht. 13

1. See Notes 1, 10 (around 18" pipe), 8, 2, 11, & 9.

Grout cracking, remove & replace w/none shrink
Grout well sites 16F-1, 21C-2 & 21C-1.

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Well Site 21C-2 - Sht. 11

1. East exterior wall has rock pockets (voids) near bottom (3'± to 4'± from top). Needs patching. Structure @ Well Site 21C-2.
2. See Notes 1, 8 (remove ties), 2, 7, 11 & 9.

Siphon #4 Sta. 2 + 94

1. See Notes 1, 3, 9, 2 & 11.
2. Place pipe to box @ 0 + 00
3. Clean top of grout fill (dirt & concrete chips).

Junction Box #2C - Sht. 8

1. See Notes 1, 3, 9, 2, 11 & 7.

Well Site #20A - Sht. 8

1. See Notes 1 & 2.
2. Pipe from well is supported by structure wall. Grout is between bottom of pipe and top of wall (looks bad).

Cleanout Box #1F - Sht. 9

1. See Notes 1 & 3.
2. Patch NE corner at top of wall

Well #21F - Sht. 9

1. Has not been backfilled, could not inspect.
2. Remove form ties & patch holes.

Junction #3F - Sht. 9

1. See Note 11, 3 & 1.
2. Remove form ties & patch.
3. Has not been backfilled, could not inspect.

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Junction Box #4F - Sht. 9

1. Contractor backfilling & compacting, could not be inspected.

Junction Box #5F - Inlet from Well #21K

1. See Notes 1, 8 (remove form ties) & 10 (also smooth structure inlet).
2. See Note 2 (exterior wall).

Junction Box #5G - Inlet from Well #21-0

1. See Notes 1, 11 & 10.

Junction Box #4G

1. See Notes 1, 9 & 3.

Junction Box #3G

1. See Notes 1, 11 & 3.
2. Clean trash and concrete pieces and dirt from bottom.