



TYPICAL GRATE

~ NOTES ~

- ① ADDITIONAL "a" BARS: 1 REQUIRED FOR 15° SKEW, 2 REQUIRED FOR 30° SKEW.
2. ALL COMPONENTS ARE 1" X 2" STRUCTURAL STEEL BARS.
 - Ⓐ EQUALLY SPACE BARS NO. 2.
 - Ⓑ LENGTH OF GRATE SHALL BE EITHER 2'-0" OR 3'-0".
3. FOR SLOPED BOX DETAILS SEE CUR. STD. DWG [RDB-100](#).

1" X 2" STRUCTURAL STEEL BARS

BOX SIZE	GRATE		BAR NO. 1		BAR NO. 2		LBS STRUCTURAL STEEL	
	NO.	LG.	LENGTH	NO. BARS	LENGTH	EACH GRATE	TOTAL	
15" - 18"	1	2'-0"	2'-5"	3	1'-10"	70	161	
	2	3'-0"			2'-10"	91		
24"	1	2'-0"	3'-0"	4	1'-10"	91	300	
	2	3'-0"			2'-10"	118		
	3	3'-0"						

NO. 4 REINFORCEMENT BARS

PIPE SIZE	① BAR a		BAR b		BAR c1		BAR c2		BAR c3		BAR d		TOTAL STEEL	CLASS A CONC.
	NO.	LG.	NO.	LG.	NO.	LG.	NO.	LG.	NO.	LG.	NO.	LG.	LBS.	CU.YDS.
15"	12	2'-5"	4	8'-6"	0	0	6	1'-0"	4	1'-6"	4	4'-3"	62	1.2
18"	14	3'-0"	4	10'-6"	2	1'-0"	6	1'-3"	6	2'-0"	4	6'-3"	87	1.83

USE WITH CUR. STD. DWG. [RDB-100](#)

KENTUCKY DEPARTMENT OF HIGHWAYS	
GRATES FOR SLOPED BOX OUTLET TYPE 1	
STANDARD DRAWING NO. RDB-101-05	
SUBMITTED	12-01-15 DATE
APPROVED	12-01-15 DATE
<small>STATE HIGHWAY ENGINEER</small>	