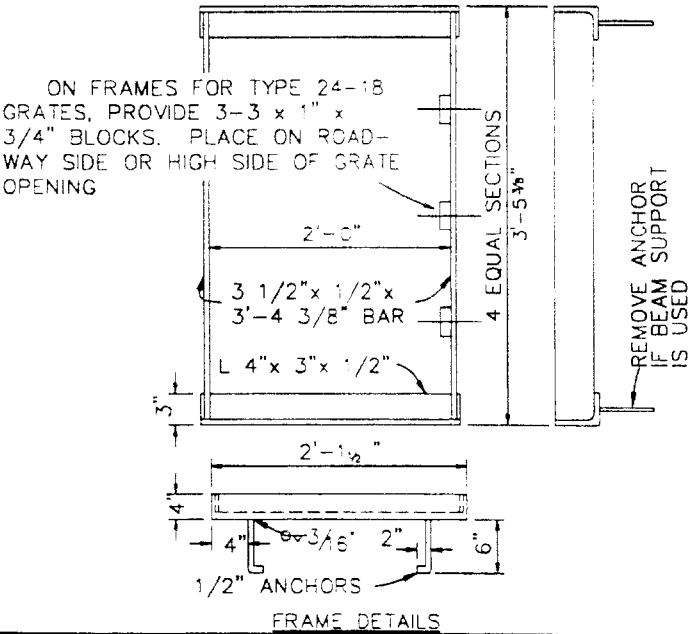


GRATE DETAILS
(SEE TABLE BELOW)

TYPE	NO	"W"	"X"	USAGE
24-9	9	2"	1 9/16"	USE IN LOCATIONS OFF THE ROADBED ON ALL TYPES OF HIGHWAYS
24-12	12	1 3/8"	1 1/4"	USE WITHIN THE ROADBED ON HIGHWAYS WHERE BICYCLES AND PEDESTRIANS ARE EXCLUDED - OR FOR RURAL CONDITIONS
24-18	18	3/4"	1 1/5"	USE WITHIN THE ROADBED UNDER URBAN CONDITIONS WHERE BICYCLES AND PEDESTRIANS ARE PERMITTED



TYPE	WEIGHTS	
	WELDED	BOLTED
24-9	200	230
24-12	258	286
24-18	372	400
24" FRAME	90	

- GENERAL NOTES:
- 1.- GRATE TYPE NUMBERS REFER TO WIDTH OF GRATE IN INCHES AND THE NUMBER OF BARS RESPECTIVELY.
 - 2.- CONTRACTOR HAS THE OPTION OF USING WELDED OR BOLTED GRATES.
 - 3.- GRATES AND FRAMES TO BE PAINTED.
 - 4.- ROUND TOP OF BARS OPTIONAL ON ALL GRATES.
 - 5.- GRATE SHALL BE PLACED SO THAT BARS ARE PARALLEL TO THE DIRECTION OF PRINCIPAL SURFACE FLOW.

CITY OF MURRIETA
DEPARTMENT OF DEVELOPMENT SERVICES

REVISIONS		GRATE AND FRAME DETAIL	STD. NO.
5/92	APPROVED		427