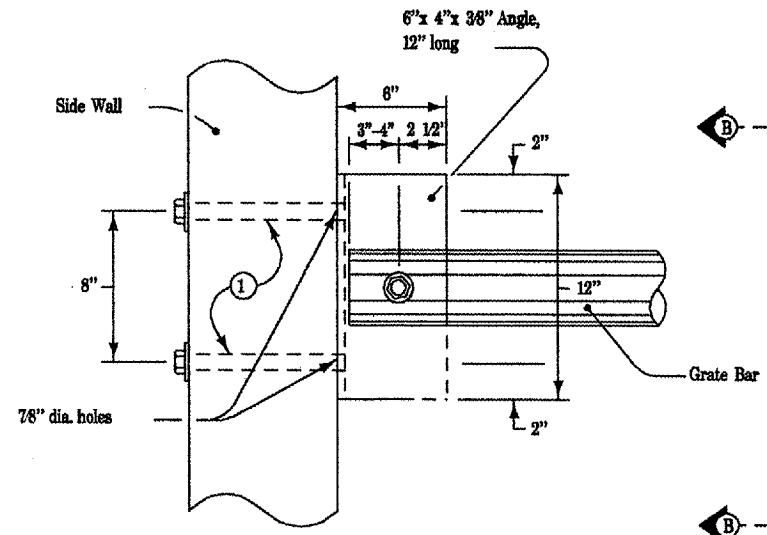
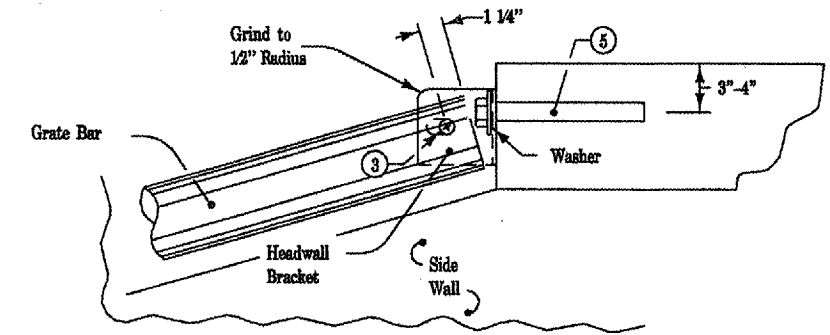


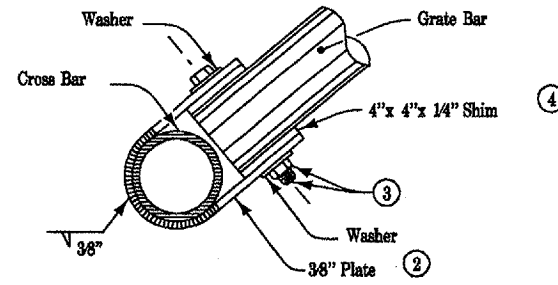
DETAIL 'A'
TOP VIEW



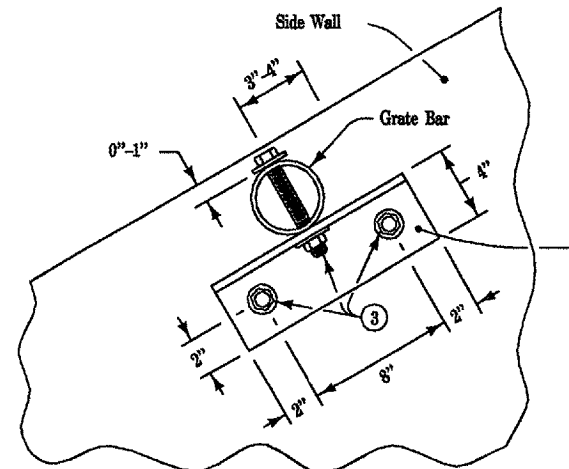
DETAIL 'B'
TOP VIEW



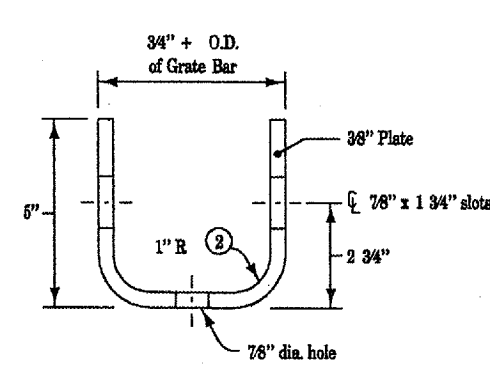
SECTION C-C
(From Detail Sheet Typical Plan)



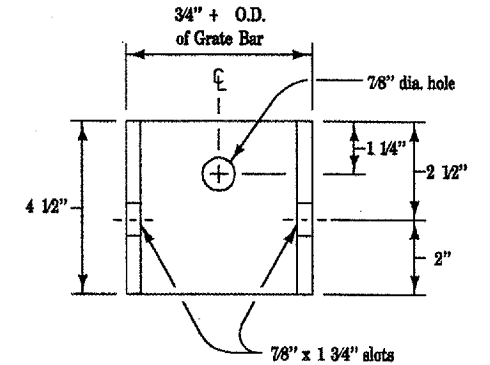
SECTION A-A



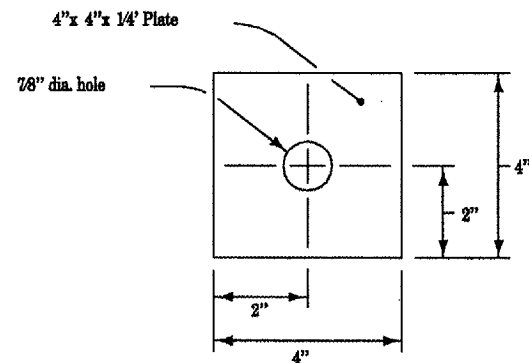
SECTION B-B



HEADWALL BRACKET
TOP VIEW



HEADWALL BRACKET
FRONT VIEW



SHIM DETAIL

- ① Holes are to be made with equipment designed to cut through concrete and reinforcing steel. All holes shall be 7/8 inch diameter.
- ② All bending of plates or strips shall be accomplished without cracking material.
- ③ 3/4 inch bolt, lock nut and washers. All holes shall be 7/8 inch diameter.
- ④ Shim thickness equal to difference in diameters of Grate Bar and Cross Bar.
- ⑤ 3/4 X 5 inch anchor bolt with lock washers.

GRATE & CROSS BAR SIZE REQUIREMENTS		
Length of Span	Nominal Pipe Size	O.D. Size
0'-12'	3.0"	3.5"
12'-16'	3.5"	4.0"
16'-20'	4.0"	4.5"

Not to Scale