



VIEW A-A
STEEL ANGLES SHOWN, ALUMINUM Z-BAR SIMILAR

SIGN PANEL LENGTH	ATTACHMENT ANGLE LENGTH, L	Z-BAR LENGTH, T	CONCRETE ANCHORS			STRINGER BOLTS FOR STRINGER & ATTACHMENT ANGLES					SIGN PANEL ATTACHMENT			
			A (IN.)	NO. SPACES, N	B (IN.)	U (IN.)	STRINGER ANGLE LENGTH, F	C (IN.)	NO. SPACES, M	D (IN.)	G (IN.)	H (IN.)	NO. SPACES, P	J (IN.)
60", 66"	48"	54"	9	1	30	12	54"	3	2	21	6	3	4	12
72", 78"	60"	66"	12	1	36	15	66"	3	2	27	6	3	5	12
84", 90"	72"	78"	15	1	42	18	78"	3	2	33	6	3	6	12
96", 102"	84"	90"	12	2	30	15	90"	3	3	26	6	3	7	12
108", 114"	96"	102"	15	2	33	18	102"	3	3	30	6	3	8	12
120", 126"	114"	114"	12	3	30	15	114"	3	4	27	3	3	9	12
132", 138"	126"	126"	12	3	34	15	126"	3	4	30	3	3	10	12
144", 150"	138"	138"	15	3	36	18	138"	3	4	33	3	3	11	12
156", 162"	144"	150"	12	4	30	15	150"	2	5	28	5	3	12	12
168", 174"	156"	162"	12	4	33	15	162"	3	5	30	6	3	13	12
180", 186"	168"	174"	12	4	36	15	174"	4	5	32	7	3	14	12
192", 198"	180"	186"	15	5	30	18	186"	3	6	29	6	3	15	12
204", 210"	192"	198"	9	6	29	12	198"	5	7	26	8	3	16	12
216", 222"	204"	210"	12	6	30	15	210"	4	7	28	7	3	17	12

NOTES:

PROVIDE STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3306 AND GALVANIZE IN ACCORDANCE WITH SPEC. 3394. PROVIDE FASTENERS IN ACCORDANCE WITH SPEC. 3391 AND GALVANIZE IN ACCORDANCE WITH SPEC. 3392.

PROVIDE ALUMINUM Z-BAR IN ACCORDANCE WITH SPEC. 3336. PROVIDE AN ANODIC COATING IN ACCORDANCE WITH SPEC. MIL-A-8625C FOR A TYPE II, CLASS I COATING.

PLACE SIGN PANEL IN A HORIZONTAL POSITION.

FASTEN SIGN PANELS TO STRINGER ANGLE AT 12" INTERVALS BEGINNING 6" OR 9" FROM THE SIGN PANEL EDGE.

FOR SITES WHERE THE BRIDGE PROFILE GRADE IS GREATER THAN 1.5%, PLACE THE ATTACHMENT ANGLE AND STRINGER ANGLE PARALLEL TO THE BRIDGE PROFILE GRADE AND ADJUST THE HOLE LOCATIONS IN THE SIGN PANEL FOR THE 5/16" DIAMETER FASTENERS TO PROVIDE A HORIZONTAL SIGN.

WHEN MOUNTING ANGLES (STRINGER ANGLE AND ATTACHMENT ANGLE) OR Z-BARS ARE LONGER THAN 144", BUTT TWO SECTIONS OF ANGLES TOGETHER.

① 1/2" DIAMETER CONCRETE ANCHOR WITH A MINIMUM EMBEDMENT DEPTH OF 4 1/2". ANCHOR ROD IN ACCORDANCE WITH SPEC. 3385, TYPE A WITH FLAT WASHER AND LOCK NUT OR PAIR OF JAM NUTS. FASTEN ANCHOR ROD TO CONCRETE WITH AN APPROVED ADHESIVE. PROVIDE AN ADHESIVE WITH A MINIMUM CHARACTERISTIC BOND STRENGTH IN UNCRACKED CONCRETE OF 1.5 KSI. SLIGHTLY ADJUST POSITION OF SIGN AND ANCHORS HORIZONTALLY IF REINFORCEMENT IS ENCOUNTERED. TEST ANCHORS TO A PROOF LOAD OF 4.6 KIPS. TORQUE ANCHORS TO 30 FT-LBS UNLESS A HIGHER TORQUE IS REQUIRED BY THE EPOXY MANUFACTURER. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS. FOR POST-TENSIONED BRIDGE STRUCTURES, VERIFY ANCHOR COMPATIBILITY WITH INTERNAL POST-TENSIONING. IF CONFLICTS EXIST, A SPECIAL DESIGN IS REQUIRED. DISTRICT BRIDGE ENGINEER TO CONFIRM THE CONCRETE CONDITION IS SUFFICIENT TO ACCEPT ANCHORS PRIOR TO PLACEMENT ON EXISTING STRUCTURES.

② PROVIDE STAINLESS STEEL WASHERS AND NYLON WASHERS AS SHOWN. STAINLESS STEEL AND NYLON WASHERS SHALL HAVE IDENTICAL DIMENSIONS (T=1/32" MIN., I.D.=3/8" MAX., O.D.=7/8" MAX.).