TABLE 9 – GIRDER DEPTH (mm) – WELDED SHEAR KEY				
SPAN (m)	L–75	L–100	L–150	L–165
6	400	400	400	450
7	400	400	450	500
8	400	400	500	550
9	400	450	550	600
10	450	450	550	600
11	450	500	600	
12	500	550	600	
13	550	550		
14	550	600		

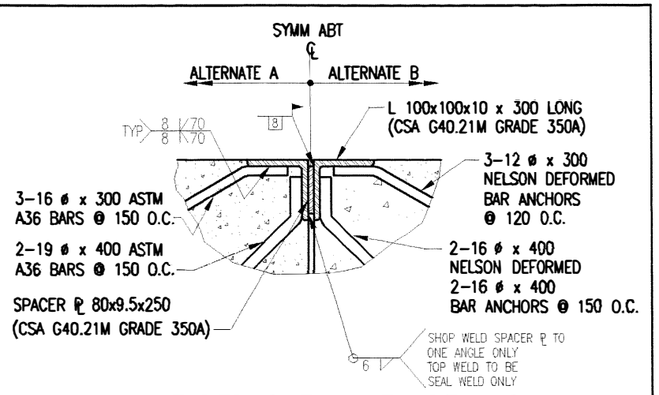
TABLE 10 – GIRDER 28 DAY CONCRETE STRENGTH – WELDED SHEAR KEY				
SPAN (m)	L–75	L–100	L–150	L–165
6	40	40	45	50
7	40	45	45	45
8	45	50	45	45
9	50	45	40	45
10	45	50	50	50
11	50	50	45	
12	50	45	50	
13	45	50		
14	45	45		

TABLE 12 – L–75 TRUCK – WELDED SHEAR KEYS						
SPAN (m)	NO. OF STRANDS	TOP/BOTTOM BARS	STIRRUP SPACING		GIRDER WEIGHT (kg)	
			ZONE A	ZONE B	4300 WIDE	4900 WIDE
6	12	4–20M	200	200	5820	6620
7	17	4–20M	180	180	6710	7630
8	23	4–20M	180	180	7600	8650
9	26	4–20M	180	180	8490	9659
10	28	4–20M	190	190	9900	11350
11	31	4–20M	180	180	10830	12420
12	33	5–20M	210	210	12120	14040
13	29	6–20M	210	210	13200	15480
14	33	6–20M	200	200	14150	16610

TABLE 14 – L–150 TRUCK – WELDED SHEAR KEYS						
SPAN (m)	NO. OF STRANDS	TOP/BOTTOM BARS	STIRRUP SPACING		GIRDER WEIGHT (kg)	
			ZONE A	ZONE B	4300 WIDE	4900 WIDE
6	23	4–25M	100	100	5820	6620
7	26	4–25M	110	110	7100	8130
8	28	4–25M	120	120	8300	9610
9	30	4–25M	130	130	9380	10980
10	36	4–25M	130	130	10330	12110
11	37	4–25M	140	140	12810	14930
12	43	5–25M	140	140	13900	16210

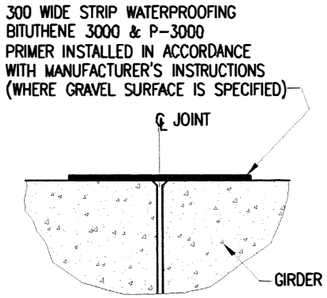
TABLE 13 – L–100 TRUCK – WELDED SHEAR KEYS						
SPAN (m)	NO. OF STRANDS	TOP/BOTTOM BARS	STIRRUP SPACING		GIRDER WEIGHT (kg)	
			ZONE A	ZONE B	4300 WIDE	4900 WIDE
6	15	4–20M	150	150	5820	6620
7	21	5–20M	150	150	6710	7630
8	26	5–20M	140	140	7600	8650
9	26	6–20M	160	160	8960	10280
10	31	4–25M	150	150	9900	11350
11	32	4–25M	170	170	1170	12930
12	32	4–25M	190	190	12240	14360
13	36	4–25M	180	180	13200	15480
14	38	4–25M	200	200	16080	18760

TABLE 15 – L–165 TRUCK – WELDED SHEAR KEYS						
SPAN (m)	NO. OF STRANDS	TOP/BOTTOM BARS	STIRRUP SPACING		GIRDER WEIGHT (kg)	
			ZONE A	ZONE B	4300 WIDE	4900 WIDE
6	26	4–25M	90	90	6170	7060
7	30	4–25M	100	100	7350	8500
8	33	4–25M	110	110	8420	9850
9	34	4–25M	110	110	10630	12380
10	40	5–25M	110	110	11723	13658



WELDED SHEAR KEY DETAILS

1:5



GIRDER JOINT DETAIL BETWEEN WELDED SHEAR KEYS

1:5

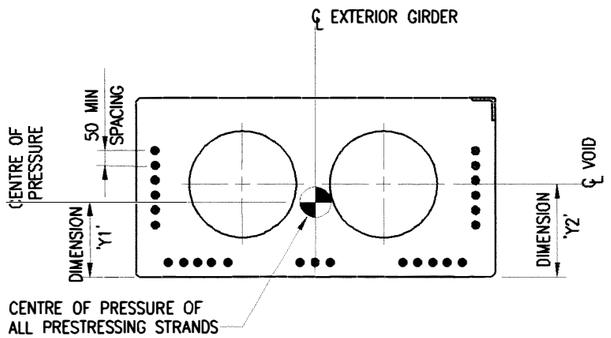
LOCATION AND SPACING OF WELDED SHEAR KEYS
- 500 FROM BEARINGS
- MIDSPAN
- MAX SPACING 3000

ASSUME NOT TO SCALE

NOTE: TOP/BOTTOM BARS IN TABLES 12–15 ARE NUMBER AND SIZE OF BARS IN EACH FLANGE

TABLE 11 – SIZE & NUMBER OF OPEN STIRRUPS/SECTION – WELDED SHEAR KEY					
SPAN (m)	STIRRUP ZONE	L–75	L–100	L–150	L–165
6	ZONE A	–	–	–	–
	ZONE B	2–10M	2–15M	2–15M	2–15M
7	ZONE A	–	–	–	–
	ZONE B	2–10M	2–15M	2–15M	2–15M
8	ZONE A	–	–	–	–
	ZONE B	2–10M	2–15M	2–15M	2–15M
9	ZONE A	–	–	–	1–10M
	ZONE B	2–15M	2–15M	2–15M	2–15M
10	ZONE A	–	–	–	1–10M
	ZONE B	2–10M	2–15M	2–15M	2–15M
11	ZONE A	–	–	–	
	ZONE B	2–10M	2–15M	2–15M	
12	ZONE A	–	–	–	
	ZONE B	2–10M	2–15M	2–15M	
13	ZONE A	–	–		
	ZONE B	2–10M	2–15M		
14	ZONE A	–	–		
	ZONE B	2–10M	2–15M		

TABLE 16 – VOID & PRESTRESS STRAND DATA			
GIRDER DEPTH (mm)	VOIDS	DIMENSION 'Y1' (mm)	DIMENSION 'Y2' (mm)
350	2–152 ø	123	154
400	2–203 ø	137	178
450	2–254 ø	149	203
500	2–305 ø	161	225
550	2–356 ø	169	252
600	2–356 ø	177	300



PRESTRESS STRAND LAYOUT

Rev	Date	Description	Init

ISSUE RECORD

SCALE

DESIGNED GWT DATE MAR/99
CHECKED GWT DATE MAR/99
DRAWN DG DATE MAR/99

Rev	Date	Description	Init

REVISIONS

Province of British Columbia
MINISTRY OF FORESTS
RESOURCE TENURES AND ENGINEERING BRANCH

STANDARD BRIDGE DRAWING

PRECAST PRESTRESSED CONCRETE SLAB GIRDERS
GIRDER DETAILS – WELDED SHEAR KEYS

ORIGINAL SIGNED AND SEALED BY: GRAHAM W. TAYLOR, P.ENG.
DESIGN ENGINEER GRAHAM W. TAYLOR, P.ENG.
DATE
FILE No.

APPROVED BY:
MOF ENGINEER
DATE
DRAWING No. STD–E–080–04 A

CANCEL PRINTS BEARING PREVIOUS LETTER