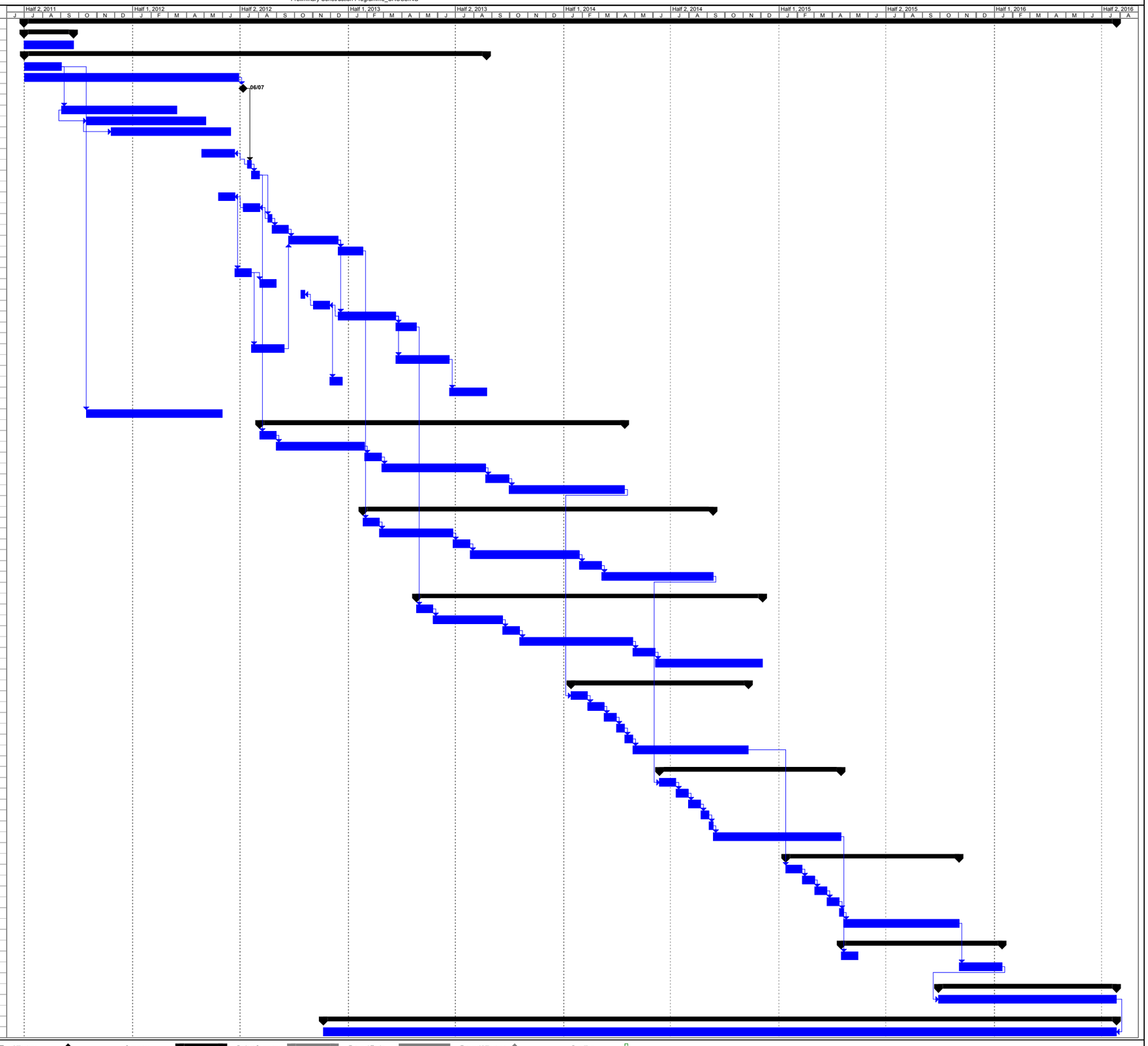
VARIANTS 4 & 5 – MONO-TOWER WITH LADDER BEAM DECK

Forth Replacement Crossing
Preliminary Construction Programme_CROSSING

ID	Task Name	Duration	Start	Finish	Predecessors
1	**D2M Variant 4 & 5 - Mono Tower - Ladder Beam - Composite**	**1246.75 days**	**Fri 01/07/11**	**Tue 26/07/16**	
2	**Mobilisation and Site Clearance**	**60 days**	**Fri 01/07/11**	**Thu 22/09/11**	
3	Mobilisation and Site Clearance	60 days	Fri 01/07/11	Thu 22/09/11	
4	**Foundations**	**530 days**	**Fri 01/07/11**	**Fri 23/08/13**	
5	Dry Dock Mobilisation	45 days	Fri 01/07/11	Fri 02/09/11	
6	Dry dock for CT, NT and ST	245 days	Fri 01/07/11	Fri 29/06/12	
7	Dry dock open	0 days	Fri 06/07/12	Fri 06/07/12	6FS+5 days
8					
9	Cast NT	130 days	Fri 02/09/11	Fri 16/03/12	5
10	Cast ST	130 days	Fri 14/10/11	Fri 04/05/12	9SS+30 days
11	Cast CT	130 days	Fri 25/11/11	Fri 15/06/12	10SS+30 days
12					
13	Excavation works CT	40 days	Fri 27/04/12	Fri 22/06/12	14SF-15 days
14	Float CT caission	5 days	Fri 13/07/12	Fri 20/07/12	7FS+5 days
15	Position and Grout CT caisson	10 days	Fri 20/07/12	Fri 03/08/12	14
16					
17	Early piling ST, pile plant	20 days	Fri 25/05/12	Fri 22/06/12	18SF-10 days
18	Early piling ST concrete plant	20 days	Fri 06/07/12	Fri 03/08/12	19SF-10 days
19	Float ST caisson	5 days	Fri 17/08/12	Fri 24/08/12	15FS+10 days
20	Locate and Grout ST caisson	20 days	Fri 24/08/12	Fri 21/09/12	19
21	Final 12 piles ST, pile plant	60 days	Fri 21/09/12	Fri 14/12/12	20,31
22	Final 12 piles ST, concrete plant	20 days	Fri 14/12/12	Fri 25/01/13	21
23					
24	Early piling NT, pile plant	20 days	Fri 22/06/12	Fri 20/07/12	17
25	Early piling NT, concrete plant	20 days	Fri 03/08/12	Fri 31/08/12	24FS+10 days
26	Float NT caisson	5 days	Fri 12/10/12	Fri 19/10/12	27SF-10 days
27	Locate and Grout NT caisson	20 days	Fri 02/11/12	Fri 30/11/12	28SF-10 days
28	Final 12 piles NT, pile plant	60 days	Fri 14/12/12	Fri 22/03/13	21
29	Final 12 piles NT, concrete plant	20 days	Fri 22/03/13	Fri 26/04/13	28
30					
31	Piling to approach spans 1	40 days	Fri 20/07/12	Fri 14/09/12	24
32	Piling to approach spans 2	60 days	Fri 22/03/13	Fri 21/06/13	28
33					
34	Float out and grout N1	15 days	Fri 30/11/12	Fri 21/12/12	27
35	Float out and grout S1-4	45 days	Fri 21/06/13	Fri 23/08/13	32
36					
37	Construction of S5-6 - offline	150 days	Fri 14/10/11	Fri 01/06/12	5FS+30 days
38	**Central Tower**	**416 days**	**Fri 03/08/12**	**Mon 14/04/14**	
39	Prepare temporary access and assemble formwok	20 days	Fri 03/08/12	Fri 31/08/12	15
40	Concrete tower shaft to deck level +5m to 62.8m	96 days	Fri 31/08/12	Mon 28/01/13	39
41	Install prestressing ducts, anchorage etc for monolithic connection	21 days	Mon 28/01/13	Tue 26/02/13	40
42	Concrete tower shaft from deck level to 135.2m	121 days	Tue 26/02/13	Wed 21/08/13	41
43	Modify climbing forms to receive stay anchor boxes	28 days	Wed 21/08/13	Mon 30/09/13	42
44	Concrete tower head including stay boxes	130 days	Mon 30/09/13	Mon 14/04/14	43
45					
46	**South Flanking Tower**	**404 days**	**Fri 25/01/13**	**Thu 11/09/14**	
47	Prepare temporary access and assemble formwok	20 days	Fri 25/01/13	Fri 22/02/13	22
48	Concrete tower shaft to deck level +5m to +55.3m	84 days	Fri 22/02/13	Thu 27/06/13	47
49	Install anchorages for bearings and buffers for floating connection	21 days	Thu 27/06/13	Fri 26/07/13	48
50	Concrete tower shaft from deck level to 127.7m	121 days	Fri 26/07/13	Mon 27/01/14	49
51	Modify climbing forms to receive stay anchor boxes	28 days	Mon 27/01/14	Thu 06/03/14	50
52	Concrete tower head including stay boxes	130 days	Thu 06/03/14	Thu 11/09/14	51
53					
54	**North Flanking Tower**	**404 days**	**Fri 26/04/13**	**Thu 04/12/14**	
55	Prepare temporary access and assemble formwok	20 days	Fri 26/04/13	Fri 24/05/13	29
56	Concrete tower shaft to deck level +5m to +55.3m	84 days	Fri 24/05/13	Thu 19/09/13	55
57	Install anchorages for bearings and buffers for floating connection	21 days	Thu 19/09/13	Fri 18/10/13	56
58	Concrete tower shaft from deck level to 127.7m	121 days	Fri 18/10/13	Mon 28/04/14	57
59	Modify climbing forms to receive stay anchor boxes	28 days	Mon 28/04/14	Thu 05/06/14	58
60	Concrete tower head including stay boxes	130 days	Thu 05/06/14	Thu 04/12/14	59
61					
62	**Main Span - Central Tower Fan**	**210 days**	**Mon 13/01/14**	**Mon 10/11/14**	
63	Erect deck segments CS1E+CTE+CN1E and CS1W+CTW+CN1W	20 days	Mon 13/01/14	Mon 10/02/14	44FS-65 days
64	Monlithic Connection between deck and tower	20 days	Mon 10/02/14	Mon 10/03/14	63
65	Connect cross girders and concrete longitudinal stitch	15 days	Mon 10/03/14	Mon 31/03/14	64
66	Mobilise Stay erection equipment and erect Stays CN1 and CS1	10 days	Mon 31/03/14	Mon 14/04/14	65
67	Commision erection gantries	5 days	Mon 14/04/14	Mon 28/04/14	66
68	Erect Deck Segments - CN2 to CN17 and CS2 to CS17	140 days	Mon 28/04/14	Mon 10/11/14	67
69					
70	**Main Span - South Tower Fan**	**205 days**	**Thu 12/06/14**	**Thu 16/04/15**	
71	Erect deck segments FS1E+STE+SS1E and FS1W+STW+SS1W	20 days	Thu 12/06/14	Thu 10/07/14	52FS-65 days
72	Temporary Connection between deck and tower	15 days	Thu 10/07/14	Thu 31/07/14	71
73	Connect cross girders and concrete longitudinal stitch	15 days	Thu 31/07/14	Thu 21/08/14	72
74	Mobilise Stay erection equipment and erect Stays FS11 and SS1	10 days	Thu 21/08/14	Thu 04/09/14	73
75	Commision erection gantries	5 days	Thu 04/09/14	Thu 11/09/14	74
76	Erect Deck Segments - FS2 to FS17 and SS2 to SS17	140 days	Thu 11/09/14	Thu 16/04/15	75
77					
78	**Main Span - North Tower Fan**	**205 days**	**Mon 12/01/15**	**Mon 02/11/15**	
79	Erect deck segments FN1E+NTE+SN1E and FN1W+NTW+SN1W	20 days	Mon 12/01/15	Mon 09/02/15	68FS+35 days
80	Temporary Connection between deck and tower	15 days	Mon 09/02/15	Mon 02/03/15	79
81	Connect cross girders and concrete longitudinal stitch	15 days	Mon 02/03/15	Mon 23/03/15	80
82	Mobilise Stay erection equipment and erect Stays FN11 and SN1	10 days	Mon 23/03/15	Mon 13/04/15	81
83	Commision erection ganries	5 days	Mon 13/04/15	Mon 20/04/15	82
84	Erect Deck Segments - FN2 to FN17 and SN2 to SN17	140 days	Mon 20/04/15	Mon 02/11/15	83
85					
86	**Main Span Closure**	**184 days**	**Thu 16/04/15**	**Thu 14/01/16**	
87	Central to South Fan	21 days	Thu 16/04/15	Fri 15/05/15	76
88	Central to North Fan	42 days	Mon 02/11/15	Thu 14/01/16	84
89					
90	**Finishes**	**200 days**	**Mon 28/09/15**	**Tue 26/07/16**	
91	Finishes	200 days	Mon 28/09/15	Tue 26/07/16	88FS-67 days
92					
93	**Piers and Approach Viaducts**	**900 days**	**Mon 19/11/12**	**Tue 26/07/16**	
94	Piers and Approach Viaducts	900 days	Mon 19/11/12	Tue 26/07/16	91FF



Project: MSProj11
Date: Mon 06/10/08

Task | Split | Progress | Milestone | Summary | Project Summary | External Tasks | External Milestone | Deadline