

Activity Name	2016				2017			
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
TMCLK - Northern Connection Sub-Sea Tunnel Section								
Contract Dates								
Commencement and Completion Dates								
KD01 - Achievement of Stage 1 - Nth TBM & C&C for E&MS/TCSS					◆ KD01 - Achievement of Stage 1 - Nth TBM & C&C for E&MS/TCSS			
Site Possession Date								
Portions: X1,(N10,11,13 & 14) - Sth Landfall								
Portions: N1 to N4 & N12					◆ Portions: N1 to N4 & N12			
General Submissions								
Environmental								
Environmental Permit Submissions								
Supplementary WMP of C&C Tunnel at Sth.Landfall								
Supplementary WMP of C&C Tunnel at Sth.Landfall								
Sediment Quality Report/Dumping Permit								
Southern Landfall								
Southern landfall - Commencement of Shaft & C&C Tunnel Dwall								
Sediment Sampling & Testing Plan (SSTP) - if required								
Complete SSTP and Obtain EPD's approval								
Sediment Quality Report (SQR) - if required								
Advance Ground Investigation works for Sediment sampling								
Sediment Sample Testing & Report preparation								
Dumping Permit for Load Dumping (Loading Permit) - if required								
Finalize the application document and submit to EPD - for Dwall								
Notify the results and issue Loading Permit for Local & Cross Boundary Crossing - for Dwall								
General Design Submissions								
(G6) IFA for Tunnel GBP								
SO's Review								
SO Approval with Condition Received								
PAYMENT MILESTONE								
Design and Design Checking of the Works								
MS 2.5 Submit AIP for seawall modification works at Southern Landfall					◆ MS 2.5 Submit AIP for seawall modification works at Southern Landfall			
MS 2.32 Approve DDA for Approach Ramp Structures to Cut-and-cover Tunnels by the Supervising Officer								
MS 2.44 Approve DDA for South Ventilation Building by the Supervising Officer								
MS 2.48 Approve DDA for North Ventilation Building by the Supervising Officer								
MS 2.51 Submit DDA for Facilities Provision for TCSS								
MS 2.52 Approve DDA for Facilities Provision for TCSS by the Supervising Officer								
MS 2.56 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Southern Landfall by the Supervising Officer								
MS 2.60 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Northern Landfall by the Supervising Officer								
MS 2.69 Submit draft Operation and Maintenance Manual for all Tunnels and Cross Passgases								
MS 2.70 Accept Operation and Maintenance Manual for all Tunnels and Cross Passgases by the Supervising Officer								
MS 2.71 Submit draft Operation and Maintenance Manual for all works except Tunnels and Cross Passgases								
MS 2.72 Accept Operation and Maintenance Manual for all works except Tunnels and Cross Passgases by the Supervising Officer								
Tunnel Boring Machine (TBM) and Back-up Equipment for TBM Tunnel								
MS 3.1.5 Removal of TBM for Southbound Tunnel from Site after the completion of TBM Tunnel					◆ MS 3.1.5 Removal of TBM for Southbound Tunnel from Site after the completion of TBM Tunnel			
TBM Tunnel								
MS 3.3.5 Complete excavation to formation level for retrieval shaft and complete casting of base slab					◆ MS 3.3.5 Complete excavation to formation level for retrieval shaft and complete casting of base slab			
MS 3.3.6 Complete all necessary works of retrieval shaft to facilitate retrieval of TBM					◆ MS 3.3.6 Complete all necessary works of retrieval shaft to facilitate retrieval of TBM			
MS 3.3.26 Completion of excavation, support and permanent lining for 20% of the total length (measured on plan) of the N								
MS 3.3.27 Completion of excavation, support and permanent lining for 21% of the total length (measured on plan) of the N								
MS 3.3.28 Completion of excavation, support and permanent lining for 22% of the total length (measured on plan) of the N								
MS 3.3.29 Completion of excavation, support and permanent lining for 23% of the total length (measured on plan) of the N								
MS 3.3.30 Completion of excavation, support and permanent lining for 24% of the total length (measured on plan) of the N								
MS 3.3.31 Completion of excavation, support and permanent lining for 25% of the total length (measured on plan) of the N								
MS 3.3.32 Completion of excavation, support and permanent lining for 27.5% of the total length (measured on plan) of the N								
MS 3.3.33 Completion of excavation, support and permanent lining for 30% of the total length (measured on plan) of the N								
MS 3.3.34 Completion of excavation, support and permanent lining for 32.5% of the total length (measured on plan) of the N								
MS 3.3.35 Completion of excavation, support and permanent lining for 35% of the total length (measured on plan) of the N								
MS 3.3.36 Completion of excavation, support and permanent lining for 37.5% of the total length (measured on plan) of the N								
MS 3.3.37 Completion of excavation, support and permanent lining for 40% of the total length (measured on plan) of the N								
MS 3.3.38 Completion of excavation, support and permanent lining for 42.5% of the total length (measured on plan) of the N								
MS 3.3.39 Completion of excavation, support and permanent lining for 45% of the total length (measured on plan) of the N								
MS 3.3.40 Completion of excavation, support and permanent lining for 47.5% of the total length (measured on plan) of the N								
◆ MS 3.3.41 Completion of excavation, support and permanent lining for 50% of the total length (measured on plan) of the N								
◆ MS 3.3.42 Completion of excavation, support and permanent lining for 52.5% of the total length (measured on plan) of the N								
◆ MS 3.3.43 Completion of excavation, support and permanent lining for 55% of the total length (measured on plan) of the N								
◆ MS 3.3.44 Completion of excavation, support and permanent lining for 57.5% of the total length (measured on plan) of the N								
◆ MS 3.3.45 Completion of excavation, support and permanent lining for 60% of the total length (measured on plan) of the N								
◆ MS 3.3.46 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on plan) of the N								
◆ MS 3.3.47 Completion of excavation, support and permanent lining for 65% of the total length (measured on plan) of the N								
◆ MS 3.3.48 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on plan) of the N								
◆ MS 3.3.49 Completion of excavation, support and permanent lining for 70% of the total length (measured on plan) of the N								
◆ MS 3.3.50 Completion of excavation, support and permanent lining for 72.5% of the total length (measured on plan) of the N								
◆ MS 3.3.51 Completion of excavation, support and permanent lining for 75% of the total length (measured on plan) of the N								
◆ MS 3.3.52 Completion of excavation, support and permanent lining for 77.5% of the total length (measured on plan) of the N								
◆ MS 3.3.53 Completion of excavation, support and permanent lining for 80% of the total length (measured on plan) of the N								
◆ MS 3.3.54 Completion of excavation, support and permanent lining for 82.5% of the total length (measured on plan) of the N								
◆ MS 3.3.55 Completion of excavation, support and permanent lining for 85% of the total length (measured on plan) of the N								
◆ MS 3.3.56 Completion of excavation, support and permanent lining for 87.5% of the total length (measured on plan) of the N								
◆ MS 3.3.57 Completion of excavation, support and permanent lining for 90% of the total length (measured on plan) of the N								
◆ MS 3.3.58 Completion of excavation, support and permanent lining for 92.5% of the total length (measured on plan) of the N								
◆ MS 3.3.59 Completion of excavation, support and permanent lining for 95% of the total length (measured on plan) of the N								
◆ MS 3.3.60 Completion of excavation, support and permanent lining for 97.5% of the total length (measured on plan) of the N								
◆ MS 3.3.61 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the N								
MS 3.3.92 Completion of excavation, support and permanent lining for 40% of the total length (measured on plan) of the S								
MS 3.3.93 Completion of excavation, support and permanent lining for 42.5% of the total length (measured on plan) of the S								
MS 3.3.94 Completion of excavation, support and permanent lining for 45% of the total length (measured on plan) of the S								
MS 3.3.95 Completion of excavation, support and permanent lining for 47.5% of the total length (measured on plan) of the S								
MS 3.3.96 Completion of excavation, support and permanent lining for 50% of the total length (measured on plan) of the S								
MS 3.3.97 Completion of excavation, support and permanent lining for 52.5% of the total length (measured on plan) of the S								
MS 3.3.98 Completion of excavation, support and permanent lining for 55% of the total length (measured on plan) of the S								
◆ MS 3.3.99 Completion of excavation, support and permanent lining for 57.5% of the total length (measured on plan) of the S								
◆ MS 3.3.100 Completion of excavation, support and permanent lining for 60% of the total length (measured on plan) of the S								

■ Planned Bar
■ Planned Bar - Critical
◆ Planned Milestone
■ Progress bar
◆ Progress Milestone



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12-Feb-14	TMCLKDBJGEN-PRG-98507	WYu	SPa
08-Apr-14	TMCLKDBJGEN-PRG-98507 Rev.B	SPa	WYu
28-Aug-14	TMCLKDBJGEN-PRG-98507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJGEN-PRG-98507 Rev.F	WYu	

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MS 3.3.101 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on plan) of the Northbound TBM Tunnel	◆							
MS 3.3.102 Completion of excavation, support and permanent lining for 65% of the total length (measured on plan) of the Northbound TBM Tunnel	◆							
MS 3.3.103 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on plan) of the Northbound TBM Tunnel	◆							
MS 3.3.104 Completion of excavation, support and permanent lining for 70% of the total length (measured on plan) of the Northbound TBM Tunnel		◆						
MS 3.3.105 Completion of excavation, support and permanent lining for 72.5% of the total length (measured on plan) of the Northbound TBM Tunnel		◆						
MS 3.3.106 Completion of excavation, support and permanent lining for 75% of the total length (measured on plan) of the Northbound TBM Tunnel		◆						
MS 3.3.107 Completion of excavation, support and permanent lining for 77.5% of the total length (measured on plan) of the Northbound TBM Tunnel		◆						
MS 3.3.108 Completion of excavation, support and permanent lining for 80% of the total length (measured on plan) of the Northbound TBM Tunnel			◆					
MS 3.3.109 Completion of excavation, support and permanent lining for 82.5% of the total length (measured on plan) of the Northbound TBM Tunnel			◆					
MS 3.3.110 Completion of excavation, support and permanent lining for 85% of the total length (measured on plan) of the Northbound TBM Tunnel			◆					
MS 3.3.111 Completion of excavation, support and permanent lining for 87.5% of the total length (measured on plan) of the Northbound TBM Tunnel			◆					
MS 3.3.112 Completion of excavation, support and permanent lining for 90% of the total length (measured on plan) of the Northbound TBM Tunnel				◆				
MS 3.3.113 Completion of excavation, support and permanent lining for 92.5% of the total length (measured on plan) of the Northbound TBM Tunnel				◆				
MS 3.3.114 Completion of excavation, support and permanent lining for 95% of the total length (measured on plan) of the Northbound TBM Tunnel				◆				
MS 3.3.115 Completion of excavation, support and permanent lining for 97.5% of the total length (measured on plan) of the Northbound TBM Tunnel				◆				
MS 3.3.116 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the Northbound TBM Tunnel				◆				
MS 3.3.117 Complete tunnel internal structures for 25% of total length (measured on plan) of the Northbound TBM Tunnel			◆					
MS 3.3.118 Complete tunnel internal structures for 50% of total length (measured on plan) of the Northbound TBM Tunnel						◆		
MS 3.3.121 Complete tunnel internal structures for 25% of total length (measured on plan) of the Southbound TBM Tunnel			◆					
MS 3.3.122 Complete tunnel internal structures for 50% of total length (measured on plan) of the Southbound TBM Tunnel						◆		
Cross Passages for TBM Tunnel								
MS 3.3.1 Complete 50% of ground treatment for excavation of all Type 1 Cross Passages(Percentage to be certified for excavation)					◆			
MS 3.3.3 Complete 50% of ground treatment for excavation of all Type 2 Cross Passages(Percentage to be certified for excavation)					◆			
MS 3.3.5 Complete 50% of excavation and support for all Type 1 Cross Passages(Percentage to be certified for excavation)						◆		
MS 3.3.7 Complete 50% of excavation and support for all Type 2 Cross Passages(Percentage to be certified for excavation)						◆		
MS 3.3.9 Complete 50% of permanent lining and internal structures for all Type 1 Cross Passages(Percentage to be certified for excavation)							◆	
Cut-and-cover Tunnels at Southern Landfalls								
MS 4.1.1 Complete 10% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.2 Complete 20% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.3 Complete 30% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.4 Complete 40% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.5 Complete 50% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.6 Complete 60% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.7 Complete 70% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.8 Complete 80% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.9 Complete 90% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.10 Complete 100% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel								
MS 4.1.11 Complete 40% of excavation for Cut-and-cover tunnel	◆							
MS 4.1.12 Complete 60% of excavation for Cut-and-cover tunnel		◆						
MS 4.1.13 Complete 80% of excavation for Cut-and-cover tunnel			◆					
MS 4.1.14 Complete 80% of excavation for Cut-and-cover tunnel					◆			
MS 4.1.16 Complete permanent tunnel structure for 10% of the total length (measured on plan) of Cut-and-cover Tunnel								
MS 4.1.17 Complete permanent tunnel structure for 20% of the total length (measured on plan) of Cut-and-cover Tunnel	◆							
MS 4.1.18 Complete permanent tunnel structure for 30% of the total length (measured on plan) of Cut-and-cover Tunnel		◆						
MS 4.1.19 Complete permanent tunnel structure for 40% of the total length (measured on plan) of Cut-and-cover Tunnel		◆						
MS 4.1.20 Complete permanent tunnel structure for 50% of the total length (measured on plan) of Cut-and-cover Tunnel			◆					
MS 4.1.21 Complete permanent tunnel structure for 60% of the total length (measured on plan) of Cut-and-cover Tunnel						◆		
MS 4.1.26 Complete excavation for 50% of total length (measured on plan) of all Cross Passages								
MS 4.1.27 Complete excavation for 100% of total length (measured on plan) of all Cross Passages								
MS 4.1.29 Complete pavement for 50% of the total length (measured on plan) of Cut-and-cover Tunnel						◆		
Cut-and-cover Tunnel at Northern Landfall								
MS 4.2.22 Complete tunnel internal structure for 50% of NB Northern Landfall TBM Tunnel	◆							
MS 4.2.23 Complete tunnel internal structure for 100% of NB Northern Landfall TBM Tunnel		◆						
MS 4.2.24 Complete tunnel internal structure for 50% of SB Northern Landfall TBM Tunnel			◆					
MS 4.2.25 Complete tunnel internal structure for 100% of SB Northern Landfall TBM Tunnel				◆				
MS 4.2.27 Complete 50% of permanent lining and internal structures for all Northern Landfall Cross Passages	◆							
MS 4.2.28 Complete 75% of permanent lining and internal structures for all Northern Landfall Cross Passages		◆						
MS 4.2.29 Complete 100% of permanent lining and internal structures for all Northern Landfall Cross Passages			◆					
MS 4.2.30 Complete Permanent tunnel structure for 25% of Cut and Cover Tunnel	◆							
MS 4.2.31 Complete Permanent tunnel structure for 50% of Cut and Cover Tunnel		◆						
MS 4.2.32 Complete Permanent tunnel structure for 75% of Cut and Cover Tunnel				◆				
MS 4.2.34 Complete Permanent junction structure at interface between Cut-and-cover and TBM Tunnel								
Approach Ramp Structures to Cut-and-cover Tunnel at Southern Landfall								
MS 5.1.2 Complete 40% of excavation for approach ramp structures								
MS 5.1.3 Complete 60% of excavation for approach ramp structures								
MS 5.1.4 Complete 80% of excavation for approach ramp structures								
MS 5.1.5 Complete 100% of excavation for approach ramp structures								
MS 5.1.6 Complete retaining wall foundation for 10% of the total length (measured on plan) of approach ramp structure								
MS 5.1.7 Complete retaining wall foundation for 20% of the total length (measured on plan) of approach ramp structure								
MS 5.1.8 Complete retaining wall foundation for 30% of the total length (measured on plan) of approach ramp structure								
MS 5.1.9 Complete retaining wall foundation for 40% of the total length (measured on plan) of approach ramp structure								
MS 5.1.10 Complete retaining wall foundation for 50% of the total length (measured on plan) of approach ramp structure								
MS 5.1.11 Complete retaining wall foundation for 60% of the total length (measured on plan) of approach ramp structure								
MS 5.1.12 Complete retaining wall foundation for 70% of the total length (measured on plan) of approach ramp structure								
MS 5.1.13 Complete retaining wall foundation for 80% of the total length (measured on plan) of approach ramp structure								
MS 5.1.14 Complete retaining wall foundation for 90% of the total length (measured on plan) of approach ramp structure								
MS 5.1.15 Complete retaining wall foundation for 100% of the total length (measured on plan) of approach ramp structure								
South Ventilation Buildings								
MS 7.1.1 Complete 100% of cofferdam for excavation			◆					
MS 7.1.2 Complete 100% of excavation to the formation level			◆					
MS 7.1.3 Complete 100% of foundation for the ventilation building								
MS 7.1.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building				◆				
MS 7.1.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building					◆			
North Ventilation Buildings								
MS 7.2.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building					◆			
MS 7.2.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building					◆			
MS 7.2.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building						◆		
Facilities Provision for E&M Works for TBM Tunnel, Cut & Cover Tunnels and Cross Passages								
MS 9.1.1 Complete 25% of bonding terminal, opening and accessories, etc.			◆					
MS 9.1.2 Complete 25% of plinth, hoisting facilities and accessories, etc.			◆					
MS 9.1.3 Complete 50% of bonding terminal, opening and accessories, etc.						◆		
MS 9.1.4 Complete 50% of plinth, hoisting facilities and accessories, etc.						◆		

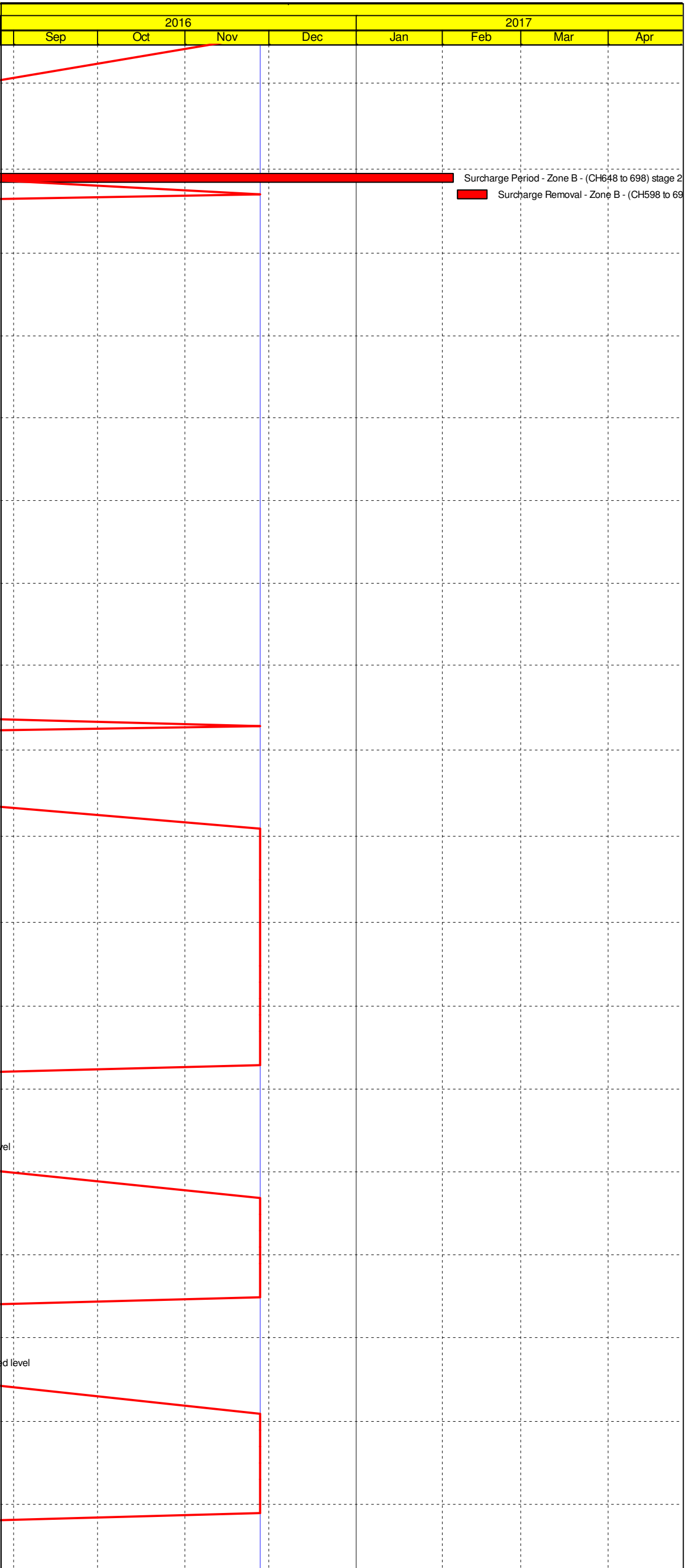
■ Planned Bar
■ Planned Bar - Critical
◆ Planned Milestone
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TMCLK - Northern Connection Sub-Sea Tunnel Section
Detailed Works Programme (Rev. F)
Three Months Rolling Programme
Progress as of 27-Nov-16



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Construction								
Northern Landfall								
North Reclamation (Phase 1)								
Construction								
Zone B								
Reclamation								
Surcharge Removal - Zone B - (CH598 to 648)								
Surcharge Period - Zone B - (CH648 to 698) stage 2								
Surcharge Removal - Zone B - (CH598 to 698) stage 2								
Zone F								
CH184 to CH231								
F - Anchor wall Installation - CH184 to CH231								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH184 to CH231								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH184 to CH231								
F - Backfilling up to +6.0mPD to Anchor Wall - CH184 to CH231								
F - Backfilling to +6.0mPD to Existing Seawall - CH184 to CH231								
CH231 to CH278								
F - Backfilling up to +6.0mPD - CH231 to CH278								
F - Anchor wall Installation - CH231 to CH278								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH231 to CH278								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH231 to CH278								
F - Backfilling up to +6.0mPD to Anchor Wall - CH231 to CH278								
F - Backfilling to +6.0mPD to Existing Seawall - CH231 to CH278								
CH278 to CH327								
F - Backfilling up to +6.0mPD - CH278 to CH327								
F - Anchor wall Installation - CH278 to CH327								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH278 to CH327								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH278 to CH327								
F - Backfilling up to +6.0mPD to Anchor Wall - CH278 to CH327								
F - Backfilling to +6.0mPD to Existing Seawall - CH278 to CH327								
CH327 to CH381								
F - Backfilling up to +6.0mPD - CH327 to CH381								
F - Anchor wall Installation - CH327 to CH381								
F - Backfilling up to 0.0mPD & G2 Installation to Anchor Wall - CH327 to CH381								
F - Backfilling up to +3.0mPD & G1 Installation to Anchor Wall - CH327 to CH381								
F - Backfilling up to +6.0mPD to Anchor Wall - CH327 to CH381								
F - Backfilling to +6.0mPD to Existing Seawall - CH327 to CH381								
Box Culvert Extension								
Construction								
Ch000-010 Culvert Outfall								
Concreting in-situ Top Slab and stich joint								
Removal of temporary bulk head								
CH000-150 Land Section								
ELS & Structure								
Pile A43/A41 CJ to Pile A41/A39 CJ								
Box Culvert Structure								
Removal of strut S2 & Backfilling up to required level								
Pile A45/A43 CJ to Pile A43/A41 CJ								
Box Culvert Structure								
Removal of strut S2 & Backfilling up to required level								
Ch150-250 Marine Section								
ELS & Structure								
Pile A41/A39 CJ to Pile A39/A37 CJ								
ELS								
Excavation to 0.5m below strut S2								
Installation of strut S2								
Excavation to 0.5m below strut S1								
Installation of strut S1								
Excavation to FEL								
Box Culvert Structure								
Pile cap construction								
Base slab construction including kicker								
Removal of strut S1								
Sliding formworks 1st assembly								
Walls & top slab construction								
Removal of strut S2 & Backfilling up to required level								
Pile A39/A37 CJ to Pile A37/A35 CJ								
ELS								
Excavation to 0.5m below strut S2								
Installation of strut S2								
Excavation to 0.5m below strut S1								
Installation of strut S1								
Excavation to FEL								
Box Culvert Structure								
Pile cap construction								
Base slab construction including kicker								
Removal of strut S1								
Walls & top slab construction								
Removal of strut S2 & Backfilling up to required level								
Pile A37/A35 CJ to Pile A35/A33 CJ								
ELS								
Excavation to 0.5m below strut S2								
Installation of strut S2								
Excavation to 0.5m below strut S1								
Installation of strut S1								
Excavation to FEL								
Box Culvert Structure								
Pile cap construction								
Base slab construction including kicker								
Removal of strut S1								
Walls & top slab construction								

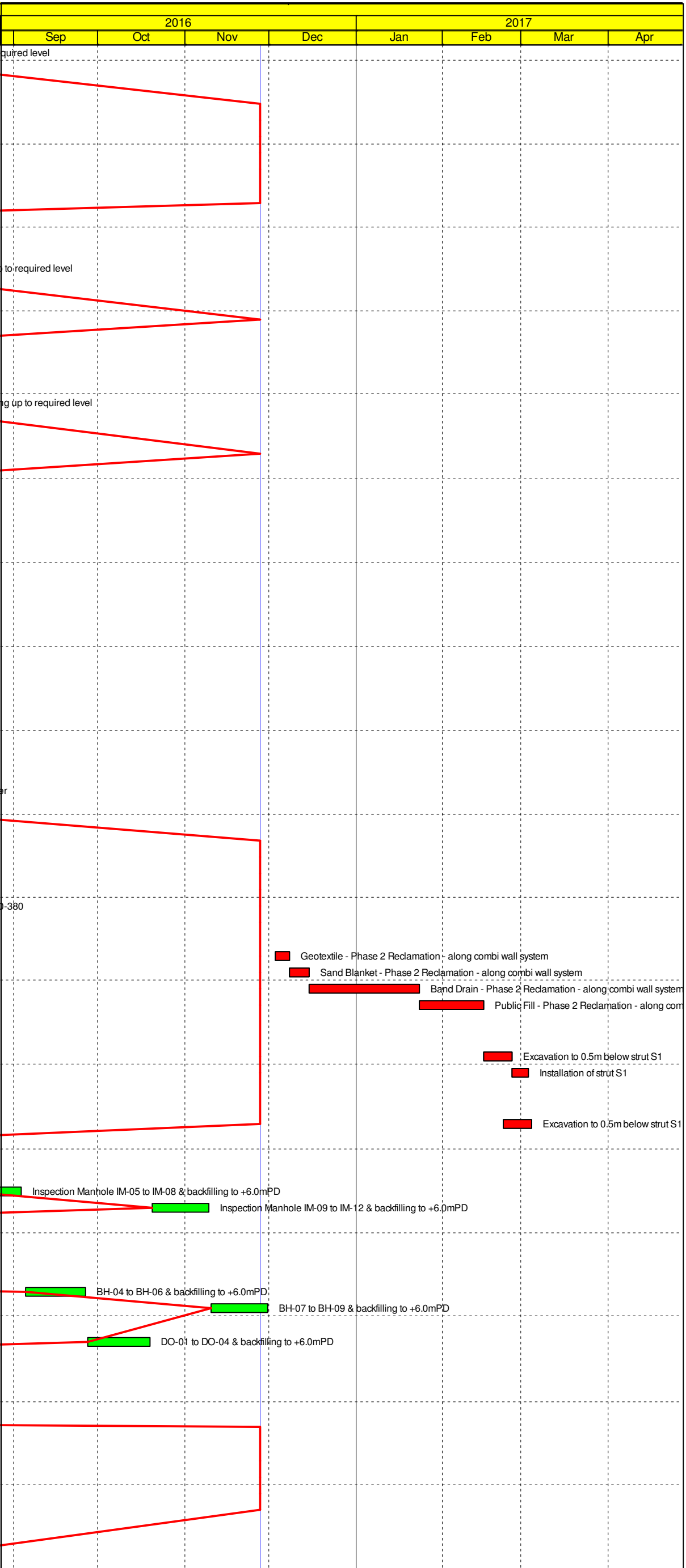


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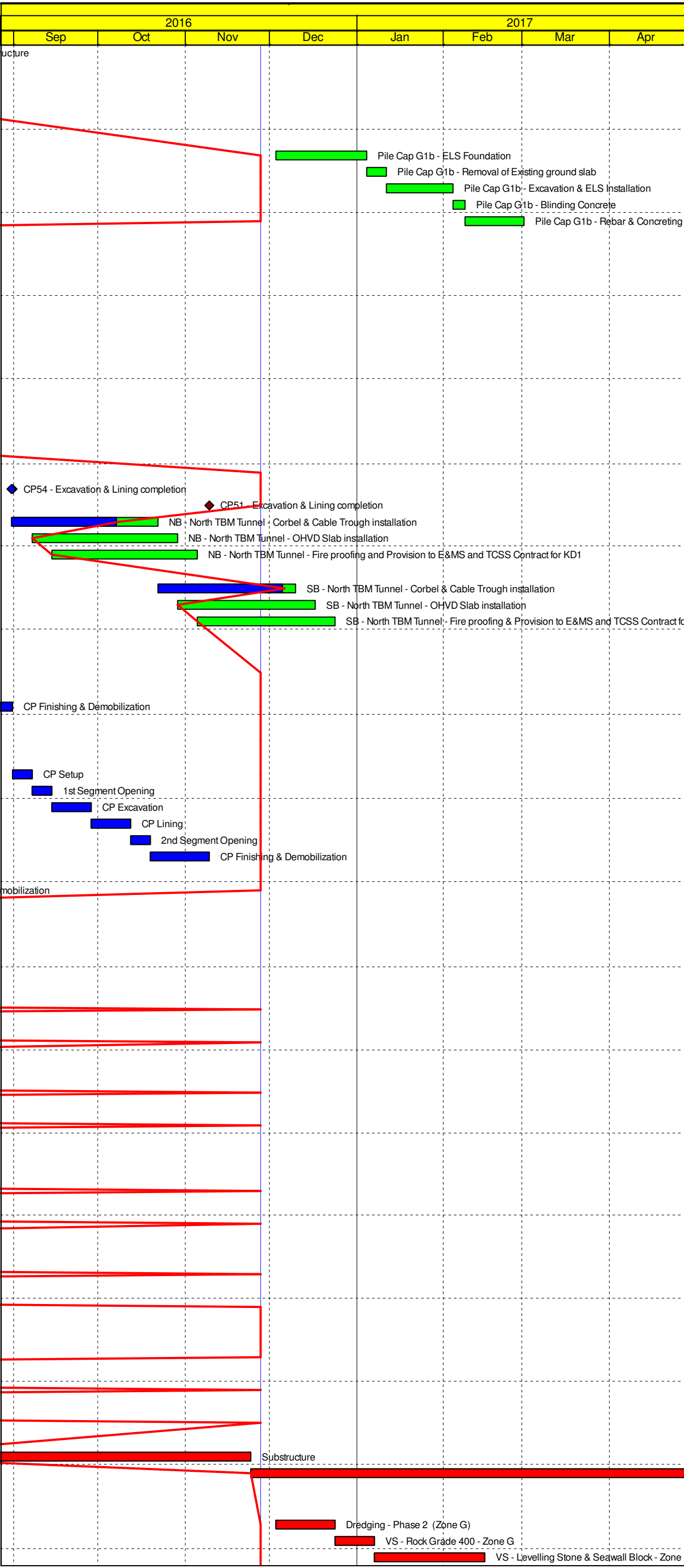
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		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Removal of strut S2 & Backfilling up to required level									
Pile A35/A33 CJ to Pile A33/P117 CJ									
ELS									
Excavation to 0.5m below strut S2									
Installation of strut S2									
Excavation to 0.5m below strut S1									
Installation of strut S1									
Excavation to FEL									
Box Culvert Structure									
Pile cap construction									
Base slab construction including kicker									
Removal of strut S1									
Walls & top slab construction									
Removal of strut S2 & Backfilling up to required level									
Pile A33/P117 CJ to Pile P113/P109 CJ									
ELS									
Excavation to FEL									
Box Culvert Structure									
Base slab construction including kicker									
Removal of strut S1									
Walls & top slab construction									
Removal of strut S2 & Backfilling up to required level									
Pile P113/P109 CJ to Pile P105/P101 CJ									
ELS									
Excavation to FEL									
Box Culvert Structure									
Base slab construction including kicker									
Removal of strut S1									
Walls & top slab construction									
Pile P105/P101 CJ to Pile P97/P93 CJ									
Box Culvert Structure									
Base slab construction including kicker									
Removal of strut S1									
Walls & top slab construction									
Pile P97/P93 CJ to Pile P89/P85 CJ									
Box Culvert Structure									
Base slab construction including kicker									
Removal of strut S1									
Pile P89/P85 CJ to Pile P81/P77 CJ									
Box Culvert Structure									
Base slab construction including kicker									
Removal of strut S1									
Pile P81/P77 CJ to Pile P73/P69 CJ									
Box Culvert Structure									
Base slab construction including kicker									
Removal of strut S1									
Ch250-380 Marine Section									
Installation of Dewatering & Observation Well Ch 250-380									
1st Pumping Test & Analysis									
Toe Grouting									
2nd Pumping test & Analysis									
Remaining toe grouting Ch250-380									
NewActivity									
ELS & Structure									
Geotextile - Phase 2 Reclamation - along combi wall system									
Sand Blanket - Phase 2 Reclamation - along combi wall system									
Band Drain - Phase 2 Reclamation - along combi wall system									
Public Fill - Phase 2 Reclamation - along combi wall system									
Pile P73/P69 CJ to Pile P65/P61 CJ									
ELS									
Excavation to 0.5m below strut S1									
Installation of strut S1									
Pile P65/P61 CJ to Pile P57/P53 CJ									
ELS									
Excavation to 0.5m below strut S1									
Miscellaneous works									
Inspection Manhole (IM)									
Inspection Manhole IM-01 to IM-04 & backfilling to +6.0mPD									
Inspection Manhole IM-05 to IM-08 & backfilling to +6.0mPD									
Inspection Manhole IM-09 to IM-12 & backfilling to +6.0mPD									
Stop Log Opening (SLO)									
SLO-01 to SLO-05 & backfilling to +6.0mPD									
Balance Hole (BH)									
BH-01 to BH-03 & backfilling to +6.0mPD									
BH-04 to BH-06 & backfilling to +6.0mPD									
BH-07 to BH-09 & backfilling to +6.0mPD									
Desilting Opening (DO)									
DO-01 to DO-04 & backfilling to +6.0mPD									
North Launching Shaft									
Design Submission									
(C1) DDA for North C&C Tunnel Permanent Structure									
SO's Review									
SO Approval with Condition Received									
(C1) DDA for North Approach Ramp Permanent Structure									
IPs Review									
IP's No Objection Received									
SO's Review									
SO Approval with Condition Received									
North Ventilation Shaft									
Construction									
North Ventilation Shaft Structure									



	Planned Bar
	Planned Bar - Critical
	Planned Milestone
	Progress bar
	Progress Milestone

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30-Oct-15	TMCLKDBJGEN.PRG.98507 Rev.F	WYu	

Activity Name	
NVS - ML03 Tunnel Structure	Structure
NVS - ML02 Tunnel Structure	Structure
TMCLK VO-008 - Construction of Viaduct Foundations at Portion N6A	
Viaduct Pile Cap	
Construction	
Pier G1b	
Pile Cap G1b - ELS Foundation	
Pile Cap G1b - Removal of Existing ground slab	
Pile Cap G1b - Excavation & ELS Installation	
Pile Cap G1b - Blinding Concrete	
Pile Cap G1b - Rebar & Concreting	
Pier G1c	
Pile Cap G1c - Preparation for ELS	
Pile Cap G1c - Removal of Existing ground slab	
Pile Cap G1c - Excavation & ELS Installation	
Pile Cap G1c - Blinding Concrete	
Pile Cap G1c - Rebar & Concreting	
Pile Cap G1c - Backfilling & Temp Reinstatement	
Pier H1c	
Pile Cap H1c - Preparation for ELS	
Pile Cap H1c - Removal of Existing ground slab	
Pile Cap H1c - Excavation & ELS Installation	
North Approach TBM Tunnelling & Cross Passage	
Construction	
North Approach Tunnel Internal Structure - NB	
CP55 - Excavation & Lining completion	
CP54 - Excavation & Lining completion	
CP51 - Excavation & Lining completion	
NB - North TBM Tunnel - Corbel & Cable Trough installation	
NB - North TBM Tunnel - OHVD Slab installation	
NB - North TBM Tunnel - Fire proofing and Provision to E&MS and TCSS Contract for KD1	
North Approach Tunnel Internal Structure - SB	
SB - North TBM Tunnel - Corbel & Cable Trough installation	
SB - North TBM Tunnel - OHVD Slab installation	
SB - North TBM Tunnel - Fire proofing & Provision to E&MS and TCSS Contract for KD1	
North Approach Cross Passage	
CP55 - Traditional Method	
CP Finishing & Demobilization	
CP54 - Traditional Method	
CP Finishing & Demobilization	
CP52 - Pipe Jacking Method	
CP Finishing & Demobilization	
CP51 - Traditional Method	
CP Setup	
1st Segment Opening	
CP Excavation	
CP Lining	
2nd Segment Opening	
CP Finishing & Demobilization	
CP50 - Pipe Jacking Method	
CP Finishing & Demobilization	
North Ventilation Building	
Design Submission	
(A1) Submissions to Design Advisory Panel of ArchSD	
ArchSD's comment	
(1) DDA for North Vent.Bldgs. GBP & Arch.Submission	
IPs Review	
IP's No Objection Received	
SO's Review	
SO Approval with Condition Received	
(1) DDA for North & South Vent.Bldg. ABWF works	
IPs/ SO's Advance Comments/ ICE Comments	
Comments Received	
Designer to Reply RtC + Update Submission	
Submit Updated DDA to SO/ ICE/ IPs	
ICE Approval & Issue Check Cert	
Submit ICE Check Cert to SO	
IPs Review	
IP's No Objection Received	
SO's Review	
SO Approval with Condition Received	
(2) DDA for North Vent.Bldgs.Structural Design incl.Vent.Connections	
IPs Review	
IP's No Objection Received	
SO's Review	
SO Approval with Condition Received	
(3) DDA for North & South Vent.Bldgs. Service and E&M Provision	
ICE Approval & Issue Check Cert	
Submit ICE Check Cert to SO	
IPs Review	
IP's No Objection Received	
SO's Review	
SO Approval with Condition Received	
Construction	
Substructure	Substructure
Superstructure	
North Reclamation (Phase 2)	
Construction	
Dredging - Phase 2 (Zone G)	
VS - Rock Grade 400 - Zone G	
VS - Levelling Stone & Seawall Block - Zone G	



Activity Name
VS - Rock Type A - Zone G
Geotextile (Zone G)
Sand Blanket (Zone G)
Band Drain (Zone G)
Reclamation - Phase 2
Backfilling to +10mPD - Phase 2
North Surface Roadworks, Utility & Drainage works
Construction
North Landfall - Underground Sewerage & Drainage - Summary
Sub-sea Tunnel
Sub-sea TBM Tunnelling
Major Procurement
Precast Segment ID12.40 - Production for Sub-sea TBM Tunnel
ID12.40 TBM Segment Ring Fabrication - 12 rings per day
Design Submission
(G1) DDA for TBM Tunnel Lining Structural Design - Sub-sea tunnel
Sub-sea TBM Tunnel Segment - Fabrication
(G3) DDA for TBM Tunnel Internal Structures (Sub-sea)
Sub-sea Tunnel - Precast Gallery Fabrication
Construction
Sub-sea TBM Tunnel - NB ID12.2m - S881
NB - Sub-sea TBM Tunnel - CDG+Boulder with Saturation (Ch5740 to 5550 - 190m)
NB - Sub-sea TBM Tunnel - CDG with Saturation (Ch5550 to 5330 - 220m)
NB - Sub-sea TBM Tunnel - CDG with Saturation (Ch5330 to 4950 - 380m)
NB - Sub-sea TBM Tunnel - CDG with Saturation (Ch4950 to 4870 - 80m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4870 to 4750 - 120m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4750 to 4600 - 150m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4600 to 4400 - 200m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4400 to 4300 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4300 to 4200 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4200 to 3830 - 370m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3830 to 3710 - 120m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3710 to 3590 - 120m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3590 to 3460 - 130m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3460 to 3360 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3360 to 3160 - 200m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3160 to 3060 - 100m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3060 to 2920 - 140m)
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2920 to 2820 - 100m)
Sub-sea TBM Tunnel - SB ID12.2m - S882
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4891 to 4771 - 120)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4771 to 4621 - 150m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4621 to 4421 - 200m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4421 to 4321 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4321 to 4221 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4221 to 3851 - 370m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3851 to 3731 - 120m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3731 to 3611 - 120m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3611 to 3481 - 130m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3481 to 3381 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3381 to 3181 - 200m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3181 to 3081 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3081 to 2941 - 140m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2941 to 2841 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch2841 to 2741 - 100m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2741 to 2694 - 47m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2694 to 2595 - 99m)
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2595 to 2533 - 62m)
SB - TBM Removal at Southern Landfall
Sub-sea TBM Tunnel - NB - Precast Invert Gallery
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP42
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP41
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP40
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP39
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP38
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP37
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP36
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP35
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP34
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP33
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP32
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP31
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP30
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP29
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP28
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP27
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP26
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP25
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP24
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP23
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP22
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP15
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP14
Sub-sea TBM Tunnel - SB - Precast Invert Gallery
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP35
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP34



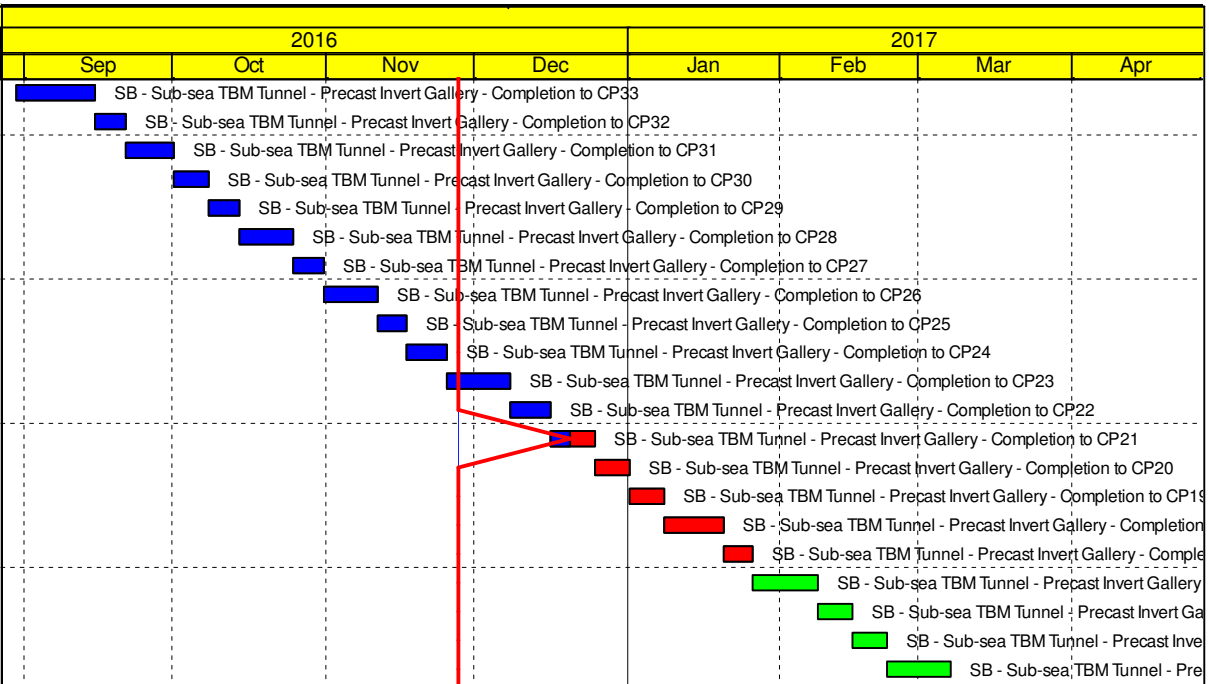
■	Planned Bar
■	Planned Bar - Critical
■	Progress bar
◆	Planned Milestone
◆	Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section
 Detailed Works Programme (Rev. F)
 Three Months Rolling Programme
 Progress as of 27-Nov-16



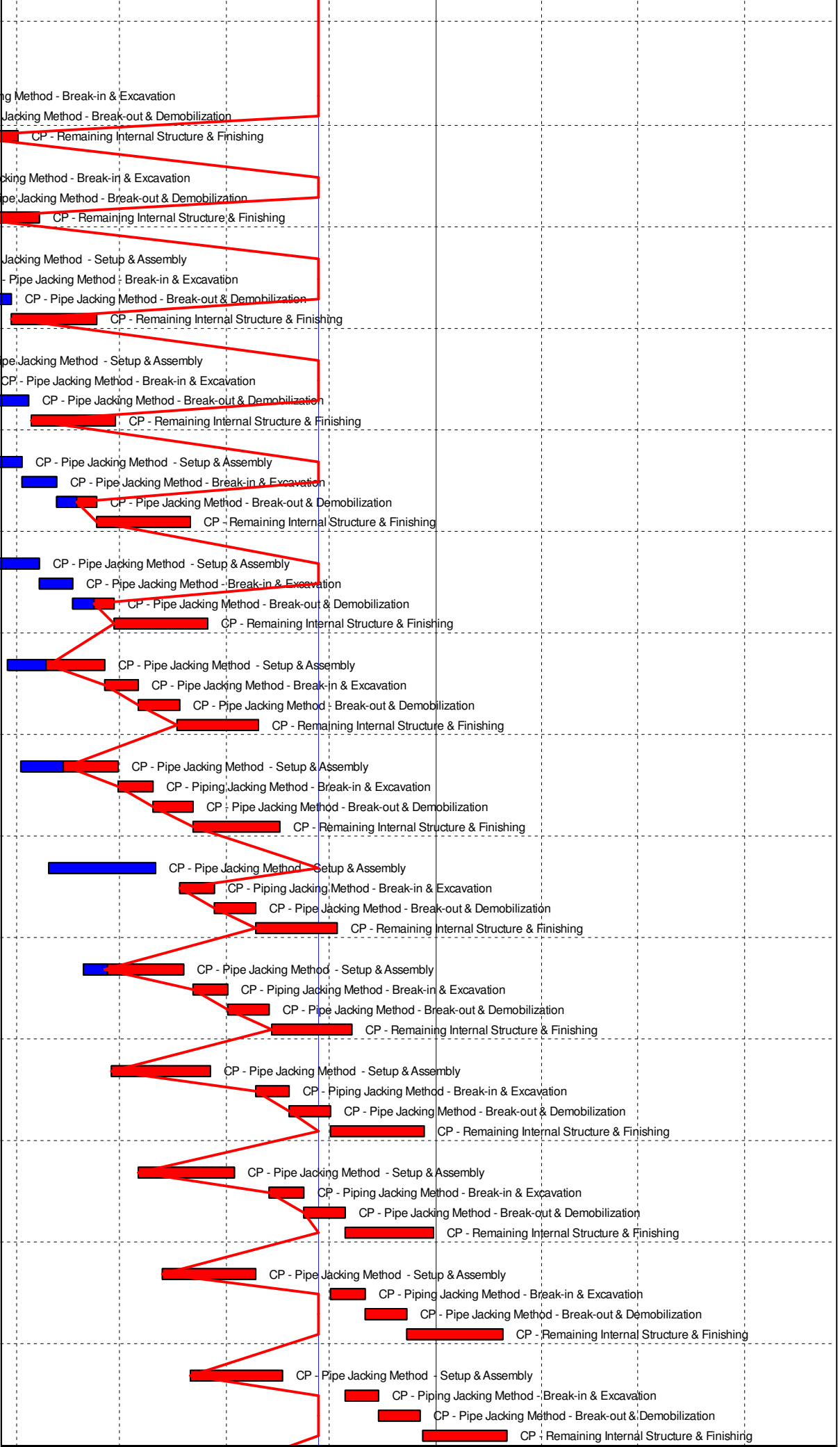
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30-Oct-15	TMCLKDBJGEN.FRG.98507 Rev.F	WYu	

Activity Name
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP33
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP32
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP31
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP30
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP29
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP28
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP27
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP26
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP25
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP24
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP23
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP22
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP15
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP14
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP13



Sub-sea Tunnel Cross Passage & Internal Structure

Construction	
Sub-sea Tunnel Cross Passage	
CP48 - ML03 - Ch6489	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP47 - ML03 - Ch6390	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP46 - ML03 - Ch6292	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Pipe Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP45 - ML03 - Ch6193	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Pipe Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP44 - ML03 - Ch6095	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Pipe Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP43 - ML03 - Ch5996	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Pipe Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP42 - ML03 - Ch5898	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Pipe Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP41 - ML03 - Ch5800	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP40 - ML03 - Ch5703	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP39 - ML03 - Ch5607	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP38 - ML03 - Ch5510	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP37 - ML03 - Ch5413	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP36 - ML03 - Ch5315	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	
CP35 - ML03 - Ch5217	
CP - Pipe Jacking Method - Setup & Assembly	
CP - Piping Jacking Method - Break-in & Excavation	
CP - Pipe Jacking Method - Break-out & Demobilization	
CP - Remaining Internal Structure & Finishing	



- Planned Bar
- Planned Bar - Critical
- ◆ Planned Milestone
- Progress bar
- ◆ Progress Milestone

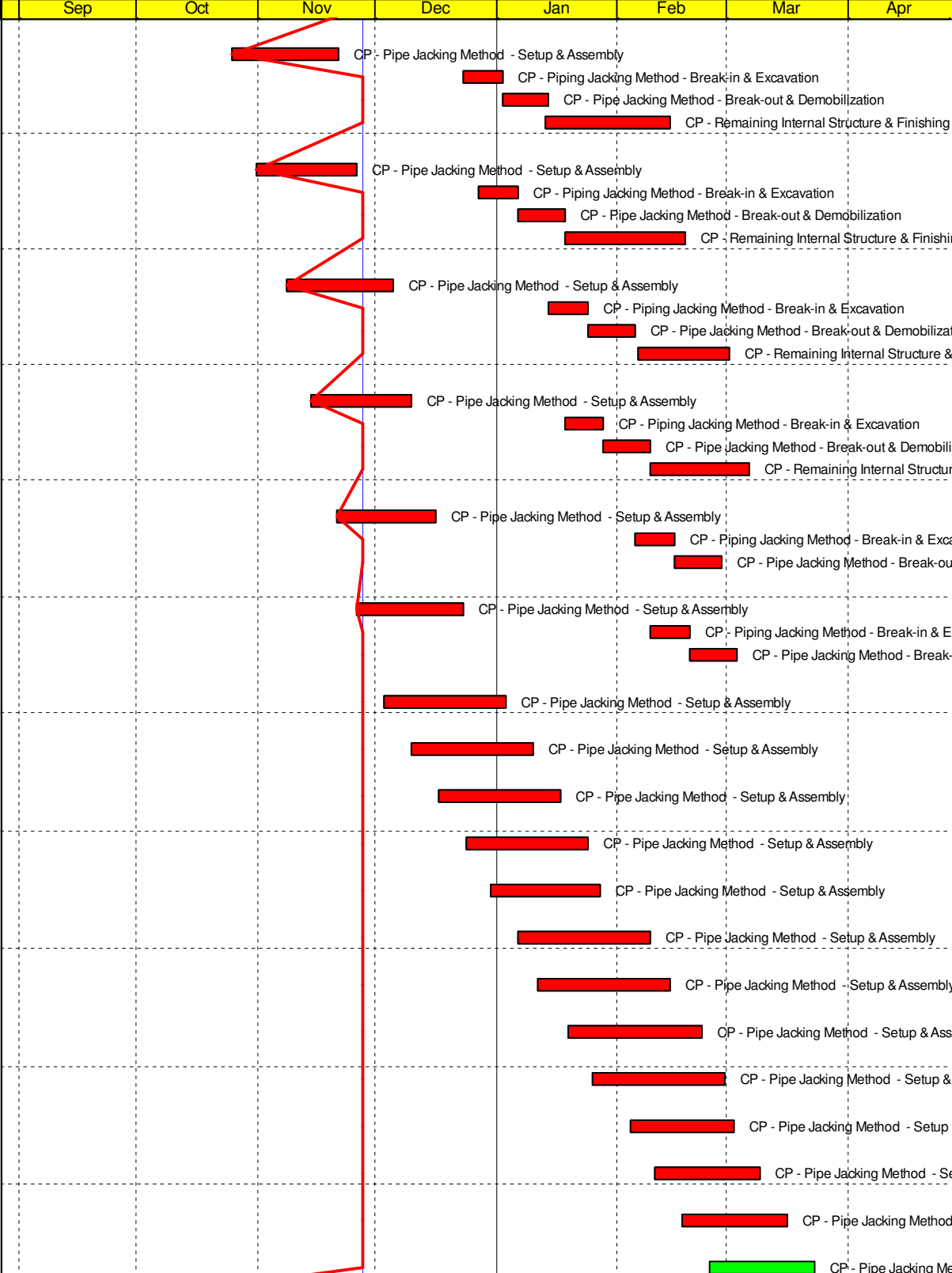


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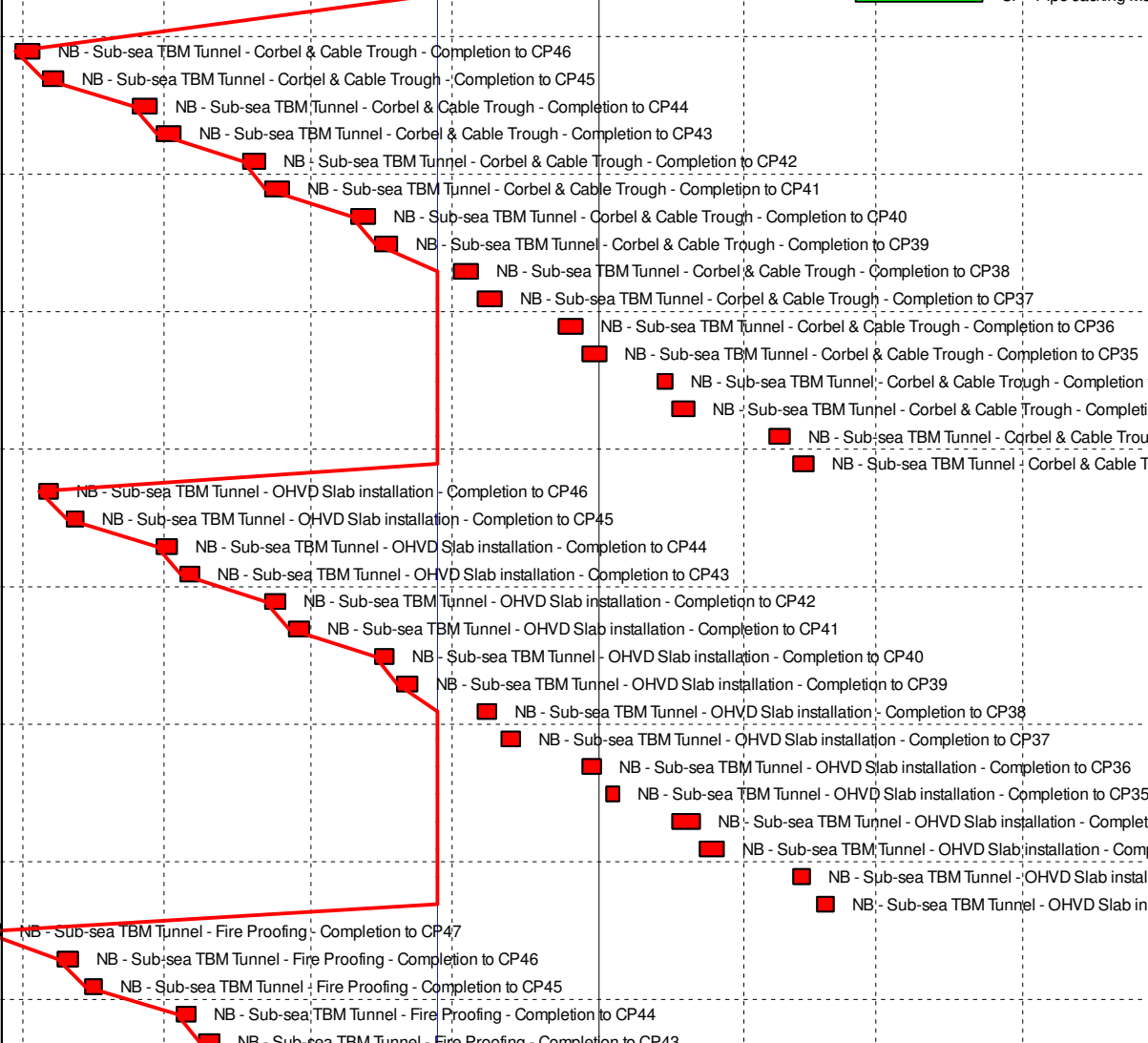
Activity Name

2016				2017			
Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr

- CP34 - ML03 - Ch5118**
- CP - Pipe Jacking Method - Setup & Assembly
- CP - Piping Jacking Method - Break-in & Excavation
- CP - Pipe Jacking Method - Break-out & Demobilization
- CP - Remaining Internal Structure & Finishing
- CP33 - ML03 - Ch5020**
- CP - Pipe Jacking Method - Setup & Assembly
- CP - Piping Jacking Method - Break-in & Excavation
- CP - Pipe Jacking Method - Break-out & Demobilization
- CP - Remaining Internal Structure & Finishing
- CP32 - ML03 - Ch4921**
- CP - Pipe Jacking Method - Setup & Assembly
- CP - Piping Jacking Method - Break-in & Excavation
- CP - Pipe Jacking Method - Break-out & Demobilization
- CP - Remaining Internal Structure & Finishing
- CP31 - ML03 - Ch4823**
- CP - Pipe Jacking Method - Setup & Assembly
- CP - Piping Jacking Method - Break-in & Excavation
- CP - Pipe Jacking Method - Break-out & Demobilization
- CP - Remaining Internal Structure & Finishing
- CP30 - ML03 - Ch4724**
- CP - Pipe Jacking Method - Setup & Assembly
- CP - Piping Jacking Method - Break-in & Excavation
- CP - Pipe Jacking Method - Break-out & Demobilization
- CP29 - ML03 - Ch4626**
- CP - Pipe Jacking Method - Setup & Assembly
- CP - Piping Jacking Method - Break-in & Excavation
- CP - Pipe Jacking Method - Break-out & Demobilization
- CP28 - ML03 - Ch4527**
- CP - Pipe Jacking Method - Setup & Assembly
- CP27 - ML03 - Ch4429**
- CP - Pipe Jacking Method - Setup & Assembly
- CP26 - ML03 - Ch4330**
- CP - Pipe Jacking Method - Setup & Assembly
- CP25 - ML03 - Ch4232**
- CP - Pipe Jacking Method - Setup & Assembly
- CP24 - ML03 - Ch4133**
- CP - Pipe Jacking Method - Setup & Assembly
- CP23 - ML03 - Ch4035**
- CP - Pipe Jacking Method - Setup & Assembly
- CP22 - ML03 - Ch3936**
- CP - Pipe Jacking Method - Setup & Assembly
- CP21 - ML03 - Ch3838**
- CP - Pipe Jacking Method - Setup & Assembly
- CP20 - ML03 - Ch3739**
- CP - Pipe Jacking Method - Setup & Assembly
- CP19 - ML03 - Ch3641**
- CP - Pipe Jacking Method - Setup & Assembly
- CP18 - ML03 - Ch3542**
- CP - Pipe Jacking Method - Setup & Assembly
- CP17 - ML03 - Ch3444**
- CP - Pipe Jacking Method - Setup & Assembly
- CP16 - ML03 - Ch3345**
- CP - Pipe Jacking Method - Setup & Assembly



- Sub-sea TBM Tunnel - NB - Remaining Internal Structure**
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP46
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP45
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP44
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP43
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP40
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP39
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP37
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP36
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP35
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP34
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP33
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP32
- NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP31
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP46
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP45
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP44
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP43
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP42
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP41
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP40
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP39
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP38
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP37
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP36
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP35
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP34
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP33
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP32
- NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP31
- NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP47
- NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP46
- NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP45
- NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP44
- NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP43



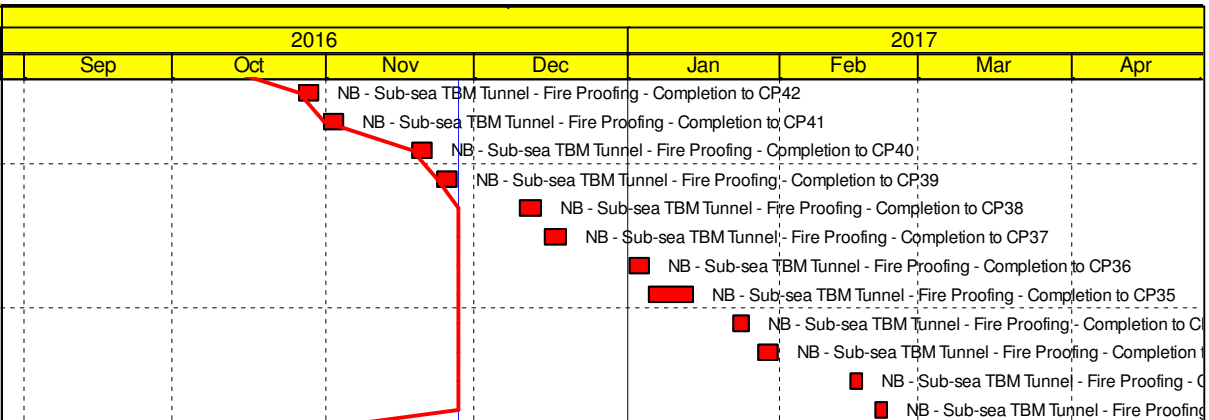
■ Planned Bar
■ Planned Bar - Critical
◆ Planned Milestone
■ Progress bar
◆ Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section
 Detailed Works Programme (Rev. F)
 Three Months Rolling Programme
 Progress as of 27-Nov-16



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30-Oct-15	TMCLKDBJGEN/PRG/98507 Rev.F	WYu	

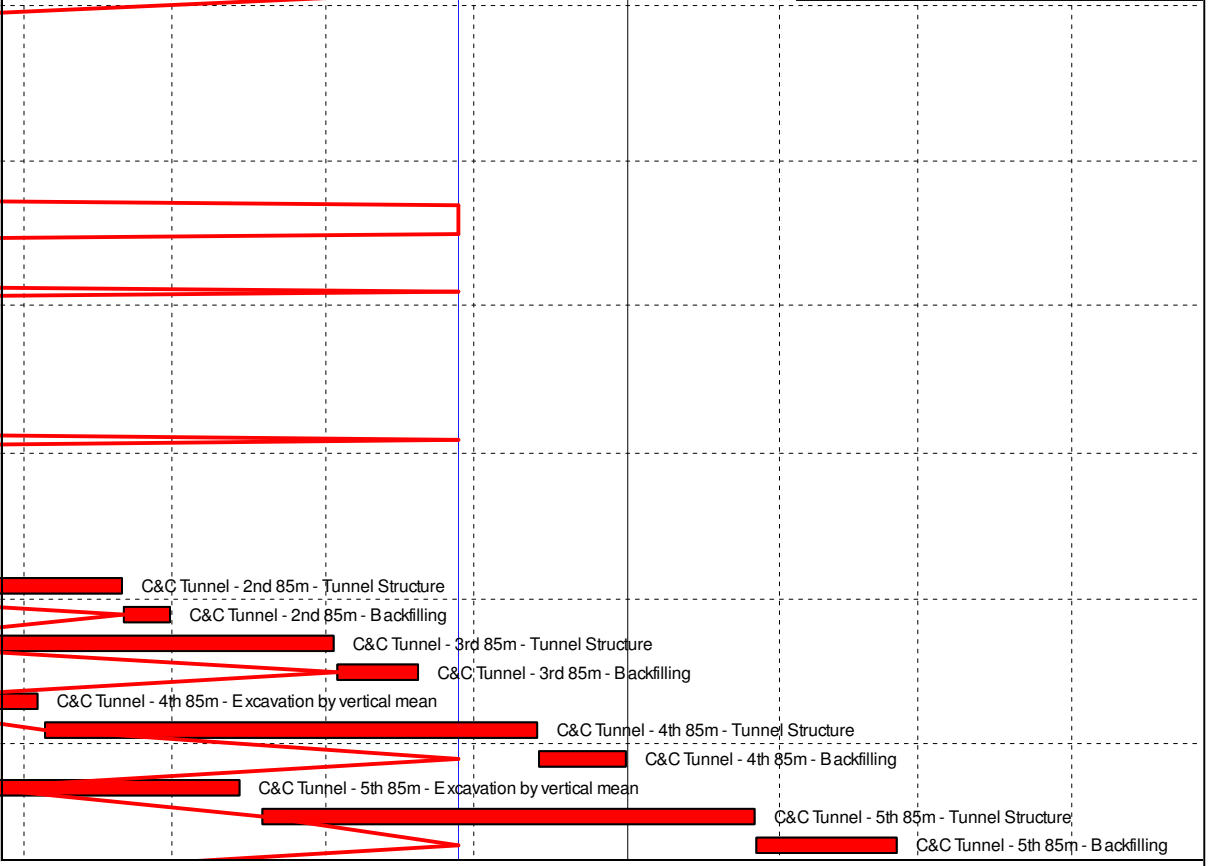
Activity Name
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP42
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP41
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP40
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP35
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP34
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP33
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP32
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP31



Sub-sea TBM Tunnel - SB - Remaining Internal Structure
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP46
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP45
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP44
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP43
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP40
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP39
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP37
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP36
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP35
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP34
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP33
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP32
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP31
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP46
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP45
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP44
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP43
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP42
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP41
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP40
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP39
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP38
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP37
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP36
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP35
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP34
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP33
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP32
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP31
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP47
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP46
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP45
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP44
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP43
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP42
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP41
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP40
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP35
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP34
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP33
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP32
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP31
SB - Remaining Fire Proofing in Tunnel



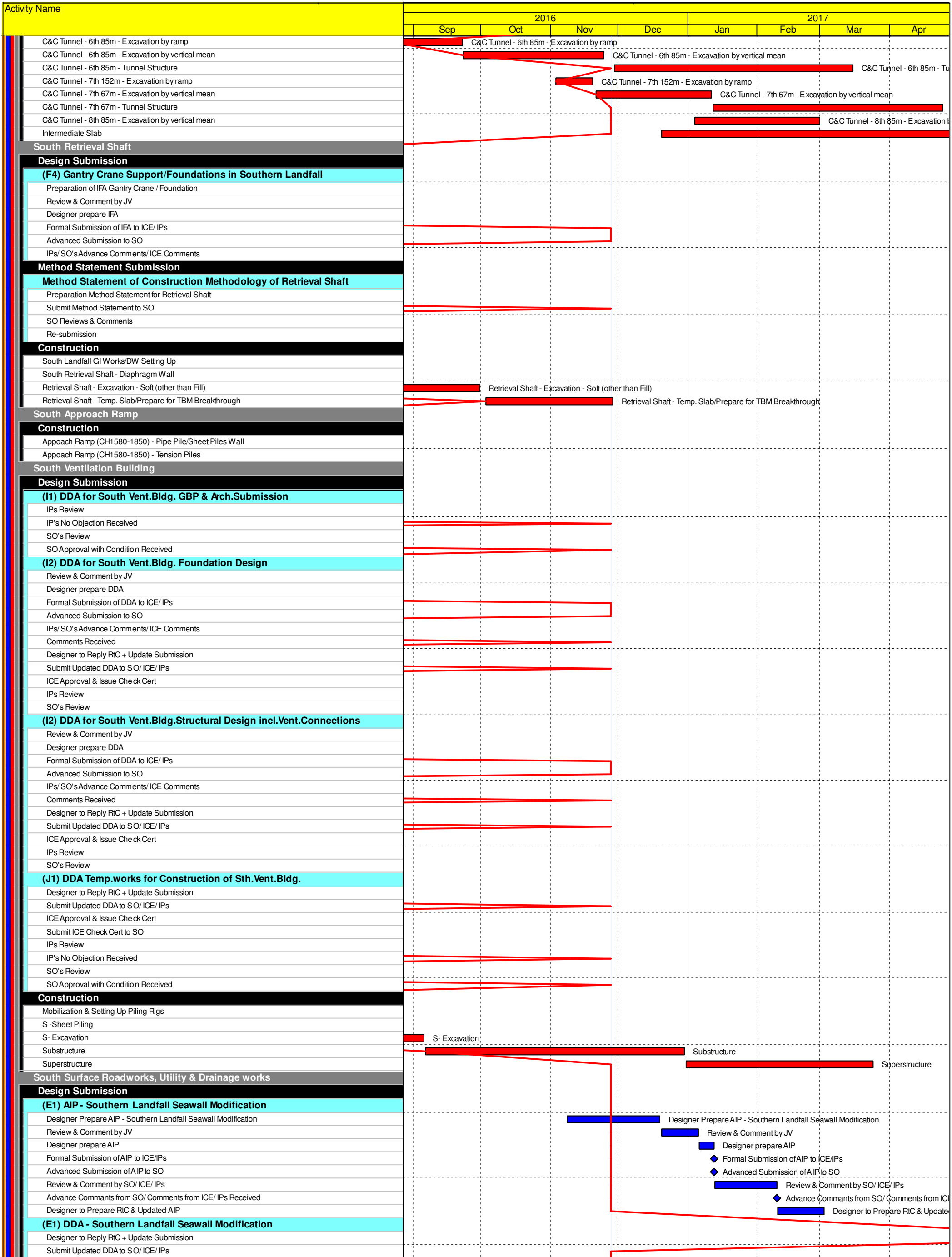
Southern Landfall
South Cut & Cover Tunnel
Design Submission
(E2) DDA for South C&C Box & Approach Ramp
Review & Comment by JV
Designer prepare DDA
Formal Submission of DDA to ICE/ IPs
Advanced Submission to SO
IPs/ SO's Advance Comments/ ICE Comments
Comments Received
Designer to Reply RTC + Update Submission
Method Statement Submission
Method Statement of Construction Methodology of C&C Tunnels
Preparation Method Statement for C&C Tunnels
Submit Method Statement to SO
SO Reviews & Comments
Re-submission
SO's Review
Construction
C&C Tunnel - 2nd 85m - Tunnel Structure
C&C Tunnel - 2nd 85m - Backfilling
C&C Tunnel - 3rd 85m - Tunnel Structure
C&C Tunnel - 3rd 85m - Backfilling
C&C Tunnel - 4th 85m - Excavation by vertical mean
C&C Tunnel - 4th 85m - Tunnel Structure
C&C Tunnel - 4th 85m - Backfilling
C&C Tunnel - 5th 85m - Excavation by vertical mean
C&C Tunnel - 5th 85m - Tunnel Structure
C&C Tunnel - 5th 85m - Backfilling



- Planned Bar
- Planned Bar - Critical
- ◆ Planned Milestone
- Progress bar
- ◆ Progress Milestone



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■ Planned Bar
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Activity Name	2016				2017			
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
	ICE Approval & Issue Check Cert							
Submit ICE Check Cert to SO								
IPs Review								
IP's No Objection Received								
SO's Review								
SO Approval with Condition Received								
(E3) DDA for Sewerage, Drainage, Waterworks & Utility works for South Landf								
IPs Review								
IP's No Objection Received								
SO's Review								
SO Approval with Condition Received								
Method Statement Submission								
Method Statement of Ground Treatment for TBMs Passing under Southern La								
Preparation Method Statement for Ground Improvement in South Landfall								
Submit Method Statement to SO								
SO Reviews & Comments								
Re-submission								
SO's Review								
SO's Approval								
Construction								
Temporary Platform for Ground Treatment for TBM passing under Southern Seawall								
Grouting Treatment for TBM passing under Southern Seawall					Grouting Treatment for TBM passing under Southern Seawall			
Testing & Commissioning/Inspection & Handover								
Final Inspection & Handover								
Design Submission								
(A12) Maintenance Matrix								
Preparation of Maintenance Matrix								
Prepare Re-submission								
2nd Submission								
SO's Condition Approval								
(A13) Operation & Maintenance Manual								
Preparation of Operation and Maintenance Manual								
1st Submission								
SO's Comments for 1st Submission								
Prepare Re-submission								
(A14) As-built & As-fabricated Drawings								
Preparation of As-built and As-fabricated Drawings								
1st Submission								
SO's Comments for 1st Submission								
(A15) Health & Safety File incl. As-built Dwgs & Records, Maintenance Schedul								
Preparation of Health and Safety File including as-built drawings and records, maintenance schedules, op ai								
1st Submission								
SO's Comments for 1st Submission								

- Planned Bar
- Planned Bar - Critical
- Planned Milestone
- Progress bar
- Progress Milestone

TMCLK - Northern Connection Sub-Sea Tunnel Section
Detailed Works Programme (Rev. F)
Three Months Rolling Programme
Progress as of 27-Nov-16



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