

**Table L1** *Cumulative Statistics on Exceedances*

Parameters	Level of Exceedance	Total No. recorded in this reporting month	Total No. recorded since project commencement
1-hr TSP	Action	0	30
	Limit	0	2
24-hr TSP	Action	0	5
	Limit	0	1
Water Quality	Action	0	6
	Limit	0	1
Impact Dolphin Monitoring	Action	0	9
	Limit	1	8

**Table L2** *Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions*

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Month (February 2017)	1 <sup>(1)</sup>	0	0
Total No. received since project commencement	13	0	0

(1) <sup>(a)</sup> Environmental complaint case regarding muddy water discharge at the site area near Ho Yeung Street on 14 February 2017 is under investigation and no investigation report is available yet.

**ENVIRONMENTAL COMPLAINT INVESTIGATION REPORT**

*Our Reference: 0212330\_Complaint LOG\_20170116\_10*

***Basic Information of Complaints***

Reference Number:	EP3/N09/RS/00001641-17
Date of Complaints Received	Not disclosed
Location of Complaints	East of artificial island of the Hong Kong - Zhuhai-Macao Bridge
Nature of Complaints	Sewage discharge
Complaints Received by	EPD
Via	Not disclosed
Complainants	Not disclosed

***Details of Complaints***

On 16 January 2017, the Contractor and the Environmental Team (ET) received the complaint notification from EPD forwarded by IEC regarding sewage discharge during night-time at DBJV's construction site at the east of the artificial island of the Hong Kong - Zhuhai-Macao Bridge.

***Investigation Report***

Upon receiving the case notification from IEC on 16 January 2017, the Contractor had promptly checked the site inspection record in January 2017.

According to the site inspection record provided by the Contractor, no improper discharge was recorded up to 17 January 2017. Wastewater was treated in the Wetsep before discharge. Photos of the Wetsep and the discharge point which are provided by the Contractor are presented in Annex A. Regular inspection and maintenance of the Wetsep were also carried out to ensure that the wastewater was treated properly before discharge. Wetsep inspection record is provided in Annex B.

In addition, according to ET's weekly joint site inspection with SOR and the Contractor on 18 January 2017 morning, no improper discharge was observed at the site area at the east of artificial island. Wetsep was also functioning properly and wastewater was treated before discharge. Site drainage management plan showing the Wetsep and the discharge point is provided in Annex C. Site foreman was responsible for the operation of the Wetsep and water pipes. Photos showing the discharge point and Wetsep which were taken on 18 January 2017 are provided in Annex A. Moreover, major works during the incident period included jet grouting, CSM ground treatment and diaphragm wall construction. Construction programme is provided in Annex D.

Apart from the site investigation, ET has conducted an interview with the night-shift foreman on 24 January 2017. He was responsible for the site management and wastewater discharge arrangement during the incident period. It was reported that there was no improper discharge on site during the concerned time period. Wastewater was properly treated at the Wetsep before discharge.

Based on the above, the complaint case is considered to be not related to this Contract.

*Mitigation Measures and Follow-Up Actions Recommended to/Undertaken by Contractor*

The Contractor has been reminded to adhere strictly to implement all relevant mitigation measures of water quality impact recommended or specified in the EP (EP-354/2009/D), the approved EIA and the Updated EM&A Manual of this Project to avoid causing water pollution. The Contractor shall also fully comply with the conditions in the approved water discharge license to carry out construction works under the Contract.

- 1) Pursuant to ER Part 8 Appendix 8F Cl.8F.4(d), the dosing of coagulant and flocculant at the treatment plant shall be automatic and by means of a mixer. In addition, an automatic alkali and acid dosing device controlled by a feedback loop from an automatic pH sensor shall be provided for controlling the pH value of the effluent.
- 2) A discharge point sign should be prominently displayed on site to indicate the location of discharge point.
- 3) Good housekeeping should be maintained on site for easy identification of water pipe arrangement.
- 4) The wastewater treatment facilities should be operated by designated personnel to ensure proper functioning.

Date of File Closed : 1 March 2017

Approved and Filed by:



(Jovy Tam, ET Leader)

Date: 1 March 2017

Annex A

## Photo record



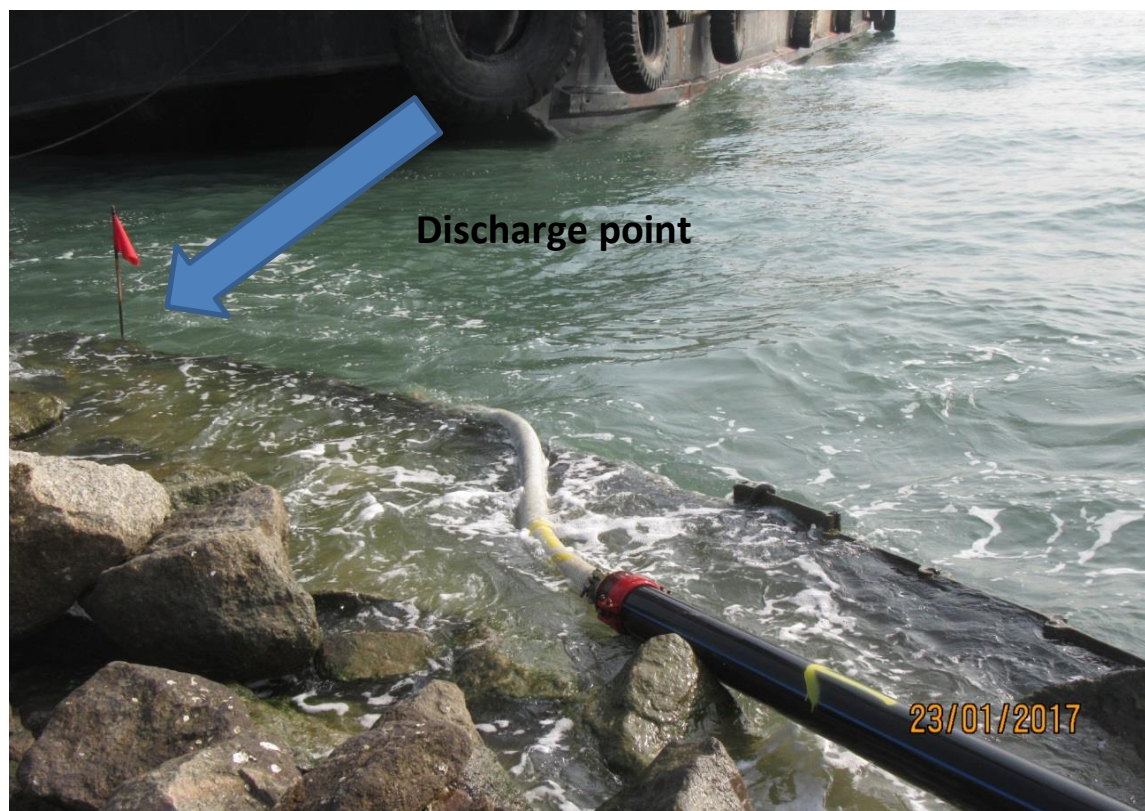
**Annex A Photo Records taken by the Contractor**

\*Note: Photos taken on 11/1/2017



Wastewater was treated in the Wetsep before discharge.

\*Note: Photos taken on 23/1/2017



Condition near the point of discharge which did not reveal any observable evidence of improper discharge





**Annex A Photo Records taken by the Contractor**

\*Note: Photos taken on 13/1/2017



Condition of the site area at the east of HKBCF artificial island which did not reveal any observable evidence of improper discharge

\*Note: Photos taken on 16/1/2017



Condition of the site area at the east of HKBCF artificial island which did not reveal any observable evidence of improper discharge





### Annex A Photo Records taken during Site Investigation

\*Note: Photos taken on 18/1/2017



Condition near the point of discharge which did not reveal any observable evidence of improper discharge

\*Note: Photos taken on 18/1/2017



Wastewater was treated in the Wetsep before discharge.

Annex B

## Inspection record of Wetsep



**WETSEP Checking Record**  
 污水處理機檢查記錄

WETSEP Location 污水處理機位置: 2号  
 Date 日期: 9-1-2017 to 至 15-1-2017

	Monday 星期二	Tuesday 星期二	Wednesday 星期三	Thursday 星期四	Friday 星期五	Saturday 星期六	Sunday 星期日
1. WETSEP In Normal Operation? 處理機是否正常運作?	✓	✓	✓	✓	✓	✓	
2. pH Value 酸鹼度 (6.0 - 9.0)	8	8.2	8.3	8.2	8.1	8.2	
3. Electrical Supply OK? 電力供應正常?	✓	✓	✓	✓	✓	✓	
4. Outlet Abnormal? (Any Sludge? Any Colour Change? Flowrate?) 出水口有否異常? (污泥有否積聚? 顏色有否改變? 流量有否異常?)	有異常	有異常	有異常	有異常	有異常	有異常	
5. Potion Enough? 藥水是否足夠?	✓	✓	✓	✓	✓	✓	
6. Clean the Sedimentation Tank? 有否清理隔沙缸?	有 9:30	有 9:30	有 9:30	有 9:30	有 9:30	有 9:30	
7. Clean the De-silt Basin? 有否清理蓄泥池?	有 10:00	有 10:00	有 10:00	有 10:00	有 10:00	有 10:00	
8. Are the Cleansing Records of Sedimentation Tank/ De-silt Basin Stored Properly? 清理蓄泥池記錄是否妥善儲存?	✓	✓	✓	✓	✓	✓	
9. Others 其他情況	一切正常	一切正常	一切正常	一切正常	一切正常	一切正常	
Verified by Site Foreman/Supervisor 地盤管工/監督簽署確認							

\*Please - tick (✓) in the box if the condition is normal. \*若情況正常, 請於方格內加上剔號(✓).  
 cross (X) in the box if the condition is abnormal, and write down the non-conformance.  
 \*若情況不尋常, 請於方格內加上交叉(X), 並寫下不尋常狀況。

17/01/2017



WETSEP Location 污水處理機位置: 2號

Date 日期: 16-1-2017 to 至 22-1-2017

	Monday 星期二	Tuesday 星期三	Wednesday 星期四	Thursday 星期五	Friday 星期六	Saturday 星期日	Sunday 星期一
1. WETSEP In Normal Operation? 處理機是否正常運作?	✓	✓					
2. pH Value 酸鹼度 (6.0 - 9.0)	8.1	8.7					
3. Electrical Supply OK? 電力供應正常?	✓	✓					
4. Outlet Abnormal? (Any Sludge? Any Colour Change? Flowrate?) 出水口有否異常? (污泥有否積聚? 顏色有否改變? 流量有否異常?)	有異常	有異常					
5. Potion Enough? 藥水是否足夠?	✓	✓					
6. Clean the Sedimentation Tank? 有否清理隔沙缸?	有 09:30	有 10:30					
7. Clean the De-silt Basin? 有否清理蓄泥池?	有 10:00	有 11:00					
8. Are the Cleansing Records of Sedimentation Tank/ De-silt Basin Stored Properly? 清理蓄泥池記錄是否妥善儲存?	✓	✓					
9. Others 其他情況	一切正常	一切正常					
Verified by Site Foreman/Supervisor 地盤管工/監督簽署確認							

\*Please - tick (✓) in the box if the condition is normal. \*若情況正常, 請於方格內加上剔號(✓)。  
cross (X) in the box if the condition is abnormal, and write down the non-conformance. \*若情況不尋常, 請於方格內加上交叉(X), 並寫下不尋常狀況。

Remarks:

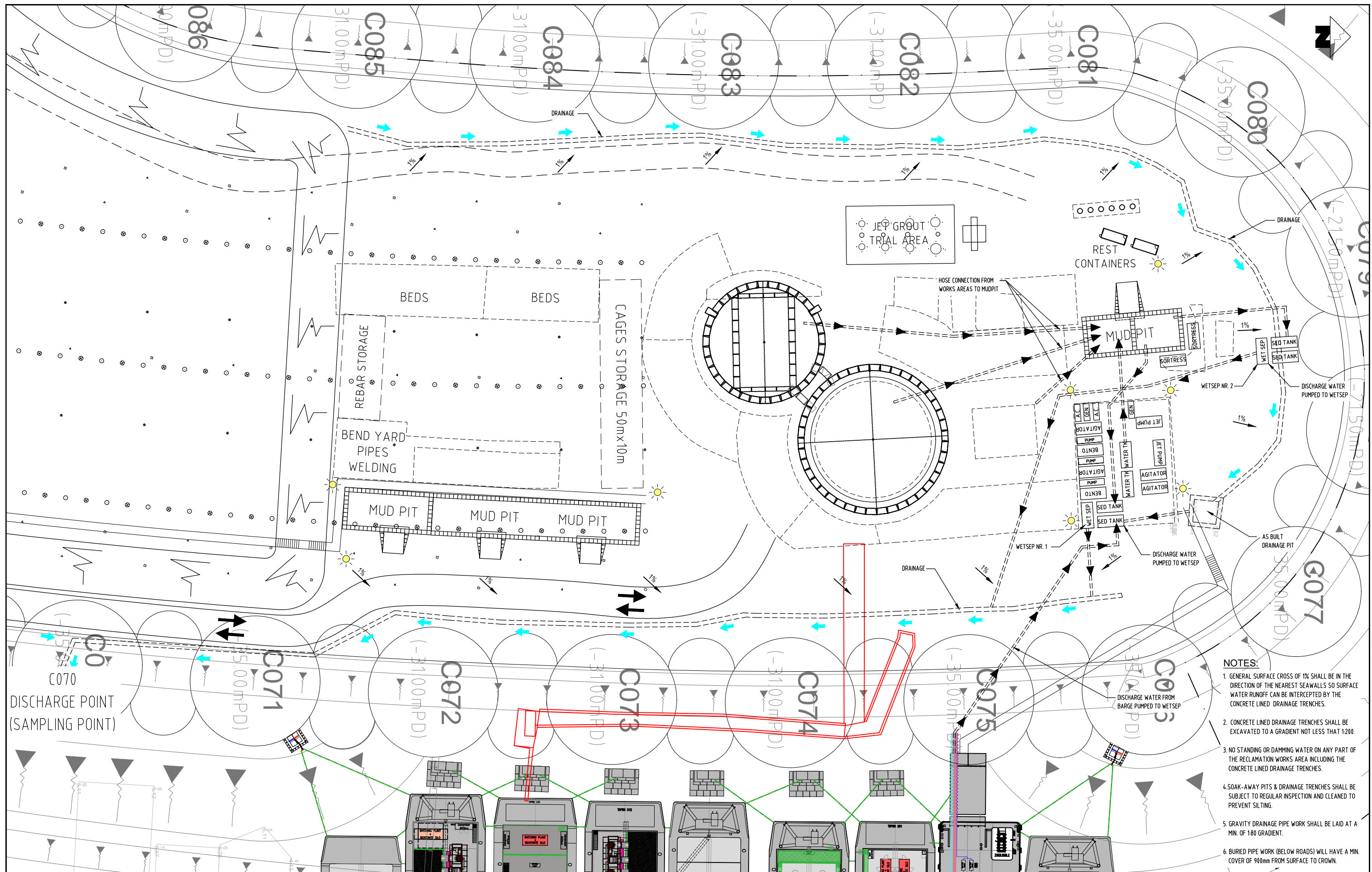
(1) Please keep the record and...

17/01/2017

Annex C

# Site Drainage Management Plan





- NOTES:**
1. GENERAL SURFACE CROSS OF 1% SHALL BE IN THE DIRECTION OF THE NEAREST SEAWALLS SO SURFACE WATER RUNOFF CAN BE INTERCEPTED BY THE CONCRETE LINED DRAINAGE TRENCHES.
  2. CONCRETE LINED DRAINAGE TRENCHES SHALL BE EXCAVATED TO A GRADIENT NOT LESS THAN 1:200.
  3. NO STANDING OR DAMMING WATER ON ANY PART OF THE RECLAMATION WORKS AREA INCLUDING THE CONCRETE LINED DRAINAGE TRENCHES.
  4. SOAK-AWAY PITS & DRAINAGE TRENCHES SHALL BE SUBJECT TO REGULAR INSPECTION AND CLEANED TO PREVENT SILTING.
  5. GRAVITY DRAINAGE PIPE WORK SHALL BE LAID AT A MIN. OF 1:80 GRADIENT.
  6. BURIED PIPE WORK (BELOW ROADS) WILL HAVE A MIN. COVER OF 900mm FROM SURFACE TO CROWN.

Rev.	Date	Drawn	Designed	Verified	Description	Approved
D	27JUL16	AGM	pkv	Ble	UPDATE	SPo
C	15JUN16	pkv	pkv	ACh	WESTSEP NR. 3 REMOVED	SPo
B	14JUN16	pkv	pkv	ACh	DISCHARGE FROM BARGE ADDED	SPo
A	07JUN16	pkv	pkv	BLe	FIRST ISSUE	SPo

Main Contractor

Dragages - Bouygues Joint Venture 宜嘉 - 中鐵建聯營

Client

路政署  
HIGHWAYS DEPARTMENT

Contractor's Designer

ARUP Ove Arup & Partners  
Hong Kong Limited

Project

Contract No. HY/2012/08  
Tuen Mun - Chek Lap Kok Link -  
Northern Connection Sub-Sea Tunnel Section

Drawing Title

SOUTHERN LANDFALL  
PORTION E1 SURFACE WATER DRAINAGE & DISCHARGE  
ARRANGEMENT - GENERAL LAYOUT

Drawing no.

TMCLKL8-DBJ-SAA-MSI-10026

Scale

NTS

CADD Ref.

SAA-MSI-10026

Issue Status

DFT (DRAFT)

Revision

D



Annex D

## Construction programme

Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016		2017					
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
					<b>TMCLK - Northern Connection Sub-Sea Tunnel Section</b>							
<b>Contract Dates</b>												
<b>Commencement and Completion Dates</b>												
KD01 - Achievement of Stage 1 - Nth TBM & C&C for E&MS/TCSS	0		09-Jan-17	0%							◆ KD01 - Achievement of Stage 1 - Nth TBM & C&C for E&MS/TCSS	
<b>Site Possession Date</b>												
Portions: X1,(N10,11,13 & 14) - Sth Landfall	0	06-Aug-15		0%								
Portions: N1 to N4 & N12	0		03-Dec-16	0%							◆ Portions: N1 to N4 & N12	
<b>General Submissions</b>												
<b>Environmental</b>												
<b>Environmental Permit Submissions</b>												
<b>Supplementary WMP of C&amp;C Tunnel at Sth.Landfall</b>												
Supplementary WMP of C&C Tunnel at Sth.Landfall	0		28-Jun-14	0%								
<b>Sediment Quality Report/Dumping Permit</b>												
<b>Southern Landfall</b>												
Southern landfall - Commencement of Shaft & C&C Tunnel Dwall	0	03-Oct-15		0%								
<b>Sediment Sampling &amp; Testing Plan (SSTP) - if required</b>												
Complete SSTP and Obtain EPD's approval	24	17-Feb-15	19-Mar-15	50%								
<b>Sediment Quality Report (SQR) - if required</b>												
Advance Ground Investigation works for Sediment sampling	24	20-Mar-15	21-Apr-15	90%								
Sediment Sample Testing & Report preparation	120	22-Apr-15	12-Sep-15	0%								
<b>Dumping Permit for Load Dumping (Loading Permit) - if required</b>												
Finalize the application document and submit to EPD - for Dwall	24	20-Jan-15	16-Feb-15	0%								
Notify the results and issue Loading Permit for Local & Cross Boundary Crossing - for Dwall	24	17-Feb-15	19-Mar-15	0%								
<b>General Design Submissions</b>												
<b>(G6) IFA for Tunnel GBP</b>												
SO's Review	35	29-Apr-14	02-Jun-14	100%								
SO Approval with Condition Received	0		03-Jun-14	100%								
<b>PAYMENT MILESTONE</b>												
<b>Design and Design Checking of the Works</b>												
MS 2.5 Submit AIP for seawall modification works at Southern Landfall	0		31-Jan-17	100%							◆ MS 2.5 Submit AIP for seawall modification works at S	
MS 2.32 Approve DDA for Approach Ramp Structures to Cut-and-cover Tunnels by the Supervising Officer	0		30-Apr-15	100%								
MS 2.44 Approve DDA for South Ventilation Building by the Supervising Officer	0		30-Jun-15	0%								
MS 2.48 Approve DDA for North Ventilation Building by the Supervising Officer	0		31-Jan-15	100%								
MS 2.52 Approve DDA for Facilities Provision for TCSS by the Supervising Officer	0		28-Feb-15	0%								
MS 2.56 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Southern Landfall by the Supervi	0		30-Apr-15	100%								
MS 2.60 Approve DDA for Drainage, Sewerage, Waterworks and Utilities at Northern Landfall by the Supervi	0		31-Dec-14	0%								
MS 2.69 Submit draft Operation and Maintenance Manual for all Tunnels and Cross Passgaes	0		29-Feb-16	0%								
MS 2.70 Accept Operation and Maintenance Manual for all Tunnels and Cross Passgaes by the Supervising	0		30-Jun-16	0%							◆ MS 2.70 Accept Operation and Maintenance Manual for all Tunnels and Cross Passgaes by the Supervising Officer	
MS 2.71 Submit draft Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes	0		29-Feb-16	0%							◆ MS 2.71 Submit draft Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes	
MS 2.72 Accept Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes by the	0		30-Jun-16	0%							◆ MS 2.72 Accept Operation and Maintenance Manual for all works except Tunnels and Cross Passgaes by the Supervising Officer	
<b>Tunnel Boring Machine (TBM) and Back-up Equipment for TBM Tunnel</b>												
MS 3.1.6 Removal of TBM for Southbound Tunnel from Site after the completion of TBM Tunnel	0		31-Jan-17	0%							◆ MS 3.1.6 Removal of TBM for Southbound Tunnel from	
MS 3.1.12 Removal of TBM for Northbound Tunnel from Site after the completion of TBM Tunnel	0		28-Feb-17	0%							◆ MS 3.1.12 Removal of TBM for Northbound	
MS 3.1.25 Demolition of Slurry Treatment Plant on completion	0		28-Feb-17	0%							◆ MS 3.1.25 Demolition of Slurry Treatment	
MS 3.1.26 Complete the whole of the activities under this Cost Centre Part to the satisfaction of the Supervisin	0		31-Dec-15	0%								
<b>TBM Tunnel</b>												
MS 3.3.4 Complete walls of retrieval shaft	0		30-Jan-16	0%								
MS 3.3.5 Complete excavation to formation level for retrieval shaft and complete casting of base slab	0		30-Nov-16	0%							◆ 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	0		30-Nov-16	0%							◆ MS 3.3.6 Complete all necessary works of retrieval shaft to facilitate retrieval of TBM	
MS 3.3.33 Completion of excavation, support and permanent lining for 30% of the total length (measured on p	0		31-May-16	100%							◆ 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 p	0		30-Jun-16	100%							◆ 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 p	0		30-Jun-16	100%							◆ 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 p	0		30-Jun-16	100%							◆ 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 p	0		30-Jul-16	100%							◆ 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 p	0		30-Jul-16	100%							◆ 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 p	0		30-Jul-16	100%							◆ 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 p	0		30-Jul-16	100%							◆ 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 p	0		31-Aug-16	100%							◆ 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 p	0		31-Aug-16	100%							◆ 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 p	0		31-Aug-16	0%							◆ 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 p	0		31-Aug-16	0%							◆ 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 p	0		31-Aug-16	0%							◆ 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 p	0		30-Sep-16	0%							◆ 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 p	0		30-Sep-16	0%							◆ 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 p	0		30-Sep-16	0%							◆ 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 p	0		30-Sep-16	0%							◆ 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 p	0		31-Oct-16	0%							◆ 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 p	0		31-Oct-16	0%							◆ 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 p	0		31-Oct-16	0%							◆ 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 p	0		31-Oct-16	0%							◆ 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 p	0		30-Nov-16	0%							◆ 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 p	0		30-Nov-16	0%							◆ 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 p	0		30-Nov-16	0%							◆ 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 p	0		30-Nov-16	0%							◆ 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 p	0		30-Nov-16	0%							◆ 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 p	0		31-Dec-16	0%							◆ 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 p	0		31-Dec-16	0%							◆ 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 p	0		31-Dec-16	0%							◆ MS 3.3.61 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the N	
MS 3.3.96 Completion of excavation, support and permanent lining for 50% of the total length (measured on p	0		30-Jul-16	100%							◆ 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 p	0		30-Jul-16	100%							◆ 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 p	0		30-Jul-16	100%							◆ 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 p	0		31-Aug-16	100%							◆ 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 p	0		31-Aug-16	100%							◆ MS 3.3.100 Completion of excavation, support and permanent lining for 60% of the total length (measured on plan) of the S	
MS 3.3.101 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on p	0		31-Aug-16	100%							◆ MS 3.3.101 Completion of excavation, support and permanent lining for 62.5% of the total length (measured on plan) of the S	
MS 3.3.102 Completion of excavation, support and permanent lining for 65% of the total length (measured on p	0		31-Aug-16	100%							◆ MS 3.3.102 Completion of excavation, support and permanent lining for 65% of the total length (measured on plan) of the S	
MS 3.3.103 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on p	0		31-Aug-16	100%							◆ MS 3.3.103 Completion of excavation, support and permanent lining for 67.5% of the total length (measured on plan) of the S	

■ 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 01-Jan-17**



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJENPRG098507	WYu	SPs
08-Apr-14	TMCLKDBJENPRG098507 Rev.B	SPs	WYu
28-Aug-14	TMCLKDBJENPRG098507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJENPRG098507 Rev.F	WYu	

Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016					2017								
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May						
MS 3.3.104 Completion of excavation, support and permanent lining for 70% of the total length (measured on plan) of the Northbound	0		30-Sep-16	0%														
MS 3.3.105 Completion of excavation, support and permanent lining for 72.5% of the total length (measured on plan) of the Northbound	0		30-Sep-16	0%														
MS 3.3.106 Completion of excavation, support and permanent lining for 75% of the total length (measured on plan) of the Northbound	0		30-Sep-16	0%														
MS 3.3.107 Completion of excavation, support and permanent lining for 77.5% of the total length (measured on plan) of the Northbound	0		30-Sep-16	0%														
MS 3.3.108 Completion of excavation, support and permanent lining for 80% of the total length (measured on plan) of the Northbound	0		31-Oct-16	0%														
MS 3.3.109 Completion of excavation, support and permanent lining for 82.5% of the total length (measured on plan) of the Northbound	0		31-Oct-16	0%														
MS 3.3.110 Completion of excavation, support and permanent lining for 85% of the total length (measured on plan) of the Northbound	0		31-Oct-16	0%														
MS 3.3.111 Completion of excavation, support and permanent lining for 87.5% of the total length (measured on plan) of the Northbound	0		31-Oct-16	0%														
MS 3.3.112 Completion of excavation, support and permanent lining for 90% of the total length (measured on plan) of the Northbound	0		30-Nov-16	0%														
MS 3.3.113 Completion of excavation, support and permanent lining for 92.5% of the total length (measured on plan) of the Northbound	0		30-Nov-16	0%														
MS 3.3.114 Completion of excavation, support and permanent lining for 95% of the total length (measured on plan) of the Northbound	0		30-Nov-16	0%														
MS 3.3.115 Completion of excavation, support and permanent lining for 97.5% of the total length (measured on plan) of the Northbound	0		30-Nov-16	0%														
MS 3.3.116 Completion of excavation, support and permanent lining for 100% of the total length (measured on plan) of the Northbound	0		30-Nov-16	0%														
MS 3.3.117 Complete tunnel internal structures for 25% of total length (measured on plan) of the Northbound	0		31-Oct-16	0%														
MS 3.3.118 Complete tunnel internal structures for 50% of total length (measured on plan) of the Northbound	0		31-Jan-17	0%														
MS 3.3.121 Complete tunnel internal structures for 25% of total length (measured on plan) of the Southbound	0		31-Oct-16	0%														
MS 3.3.122 Complete tunnel internal structures for 50% of total length (measured on plan) of the Southbound	0		31-Jan-17	0%														
<b>Cross Passages for TBM Tunnel</b>																		
MS 3.3.3 Complete 50% of ground treatment for excavation of all Type 1 Cross Passages(Percentage to be certified for excavation)	0		30-Nov-16	0%														
MS 3.3.5 Complete 50% of excavation and support for all Type 1 Cross Passages(Percentage to be certified for excavation)	0		31-Dec-16	0%														
MS 3.3.7 Complete 50% of excavation and support for all Type 2 Cross Passages(Percentage to be certified for excavation)	0		31-Dec-16	0%														
MS 3.3.9 Complete 50% of permanent lining and internal structures for all Type 1 Cross Passages(Percentage to be certified for excavation)	0		31-Jan-17	0%														
MS 3.3.11 Complete 50% of permanent lining and internal structures for all Type 2 Cross Passages(Percentage to be certified for excavation)	0		28-Feb-17	0%														
<b>Cut-and-cover Tunnels at Southern Landfalls</b>																		
MS 4.1.1 Complete 10% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		31-Oct-15	0%														
MS 4.1.2 Complete 20% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		31-Oct-15	0%														
MS 4.1.3 Complete 30% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		30-Nov-15	0%														
MS 4.1.4 Complete 40% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		30-Nov-15	0%														
MS 4.1.5 Complete 50% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		31-Dec-15	0%														
MS 4.1.6 Complete 60% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		31-Dec-15	0%														
MS 4.1.7 Complete 70% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		30-Jan-16	0%														
MS 4.1.8 Complete 80% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		30-Jan-16	0%														
MS 4.1.9 Complete 90% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		29-Feb-16	0%														
MS 4.1.10 Complete 100% of total length (measured on plan) of temporary retaining walls for excavation of Cut-and-cover tunnel	0		31-Mar-16	0%														
MS 4.1.11 Complete 40% of excavation for Cut-and-cover tunnel	0		30-Jun-16	0%														
MS 4.1.12 Complete 60% of excavation for Cut-and-cover tunnel	0		31-Aug-16	0%														
MS 4.1.13 Complete 80% of excavation for Cut-and-cover tunnel	0		31-Oct-16	0%														
MS 4.1.14 Complete 100% of excavation for Cut-and-cover tunnel	0		31-Dec-16	0%														
MS 4.1.15 Complete 100% of excavation for Cut-and-cover tunnel	0		28-Feb-17	0%														
MS 4.1.16 Complete permanent tunnel structure for 10% of the total length (measured on plan) of Cut-and-cover Tunnel	0		30-Jul-16	0%														
MS 4.1.17 Complete permanent tunnel structure for 20% of the total length (measured on plan) of Cut-and-cover Tunnel	0		31-Aug-16	0%														
MS 4.1.18 Complete permanent tunnel structure for 30% of the total length (measured on plan) of Cut-and-cover Tunnel	0		30-Sep-16	0%														
MS 4.1.19 Complete permanent tunnel structure for 40% of the total length (measured on plan) of Cut-and-cover Tunnel	0		30-Sep-16	0%														
MS 4.1.20 Complete permanent tunnel structure for 50% of the total length (measured on plan) of Cut-and-cover Tunnel	0		31-Oct-16	0%														
MS 4.1.21 Complete permanent tunnel structure for 60% of the total length (measured on plan) of Cut-and-cover Tunnel	0		31-Jan-17	0%														
MS 4.1.22 Complete permanent tunnel structure for 70% of the total length (measured on plan) of Cut-and-cover Tunnel	0		28-Feb-17	0%														
MS 4.1.23 Complete permanent tunnel structure for 80% of the total length (measured on plan) of Cut-and-cover Tunnel	0		28-Feb-17	0%														
MS 4.1.26 Complete excavation for 50% of total length (measured on plan) of all Cross Passages	0		31-Dec-15	0%														
MS 4.1.27 Complete excavation for 100% of total length (measured on plan) of all Cross Passages	0		31-Mar-16	0%														
MS 4.1.29 Complete pavement for 50% of the total length (measured on plan) of Cut-and-cover Tunnel	0		31-Dec-16	0%														
<b>Cut-and-cover Tunnel at Northern Landfall</b>																		
MS 4.2.22 Complete tunnel internal structure for 50% of NB Northern Landfall TBM Tunnel	0		31-Aug-16	0%														
MS 4.2.23 Complete tunnel internal structure for 100% of NB Northern Landfall TBM Tunnel	0		30-Sep-16	0%														
MS 4.2.24 Complete tunnel internal structure for 50% of SB Northern Landfall TBM Tunnel	0		31-Oct-16	0%														
MS 4.2.25 Complete tunnel internal structure for 100% of SB Northern Landfall TBM Tunnel	0		30-Nov-16	0%														
MS 4.2.28 Complete 75% of permanent lining and internal structures for all Northern Landfall Cross Passages	0		30-Sep-16	100%														
MS 4.2.29 Complete 100% of permanent lining and internal structures for all Northern Landfall Cross Passages	0		31-Oct-16	0%														
MS 4.2.30 Complete Permanent tunnel structure for 25% of Cut and Cover Tunnel	0		31-Aug-16	0%														
MS 4.2.31 Complete Permanent tunnel structure for 50% of Cut and Cover Tunnel	0		30-Sep-16	0%														
MS 4.2.32 Complete Permanent tunnel structure for 75% of Cut and Cover Tunnel	0		30-Nov-16	0%														
MS 4.2.34 Complete Permanent junction structure at interface between Cut-and-cover and TBM Tunnel	0		30-Jul-16	0%														
<b>Approach Ramp Structures to Cut-and-cover Tunnel at Southern Landfall</b>																		
MS 5.1.2 Complete 40% of excavation for approach ramp structures	0		31-Mar-16	0%														
MS 5.1.3 Complete 60% of excavation for approach ramp structures	0		31-Mar-16	0%														
MS 5.1.4 Complete 80% of excavation for approach ramp structures	0		30-Apr-16	0%														
MS 5.1.5 Complete 100% of excavation for approach ramp structures	0		30-Apr-16	0%														
MS 5.1.6 Complete retaining wall foundation for 10% of the total length (measured on plan) of approach ramp structure	0		31-Oct-15	0%														
MS 5.1.7 Complete retaining wall foundation for 20% of the total length (measured on plan) of approach ramp structure	0		30-Nov-15	0%														
MS 5.1.8 Complete retaining wall foundation for 30% of the total length (measured on plan) of approach ramp structure	0		30-Nov-15	0%														
MS 5.1.9 Complete retaining wall foundation for 40% of the total length (measured on plan) of approach ramp structure	0		31-Dec-15	0%														
MS 5.1.10 Complete retaining wall foundation for 50% of the total length (measured on plan) of approach ramp structure	0		31-Dec-15	0%														
MS 5.1.11 Complete retaining wall foundation for 60% of the total length (measured on plan) of approach ramp structure	0		30-Jan-16	0%														
MS 5.1.12 Complete retaining wall foundation for 70% of the total length (measured on plan) of approach ramp structure	0		30-Jan-16	0%														
MS 5.1.13 Complete retaining wall foundation for 80% of the total length (measured on plan) of approach ramp structure	0		29-Feb-16	0%														
MS 5.1.14 Complete retaining wall foundation for 90% of the total length (measured on plan) of approach ramp structure	0		29-Feb-16	0%														
MS 5.1.15 Complete retaining wall foundation for 100% of the total length (measured on plan) of approach ramp structure	0		31-Mar-16	0%														
<b>South Ventilation Buildings</b>																		
MS 7.1.1 Complete 100% of cofferdam for excavation	0		30-Sep-16	0%														
MS 7.1.2 Complete 100% of excavation to the formation level	0		30-Sep-16	0%														
MS 7.1.3 Complete 100% of foundation for the ventilation building	0		30-Apr-16	0%														
MS 7.1.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building	0		31-Oct-16	0%														
MS 7.1.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building	0		31-Dec-16	0%														
MS 7.1.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building	0		28-Feb-17	0%														
<b>North Ventilation Buildings</b>																		
MS 7.2.4 Complete concreting works of 25% area of the total construction floor area for the ventilation building	0		30-Jul-16	0%														
MS 7.2.5 Complete concreting works of 50% area of the total construction floor area for the ventilation building	0		31-Oct-16	0%														



Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016			2017				
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
					MS 7.2.6 Complete concreting works of 75% area of the total construction floor area for the ventilation building	0		31-Dec-16	0%			
<b>Facilities Provision for E&amp;M Works for TBM Tunnel, Cut &amp; Cover Tunnels and Cross Passages</b>												
MS 9.1.1 Complete 25% of bonding terminal, opening and accessories, etc.	0		30-Sep-16	0%				◆ 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.	0		30-Sep-16	0%				◆ 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.	0		31-Jan-17	0%				◆ 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.	0		31-Jan-17	0%				◆ MS 9.1.4 Complete 50% of plinth, hoisting facilities and accessories, etc.				
<b>Construction</b>												
<b>Northern Landfall</b>												
<b>North Reclamation (Phase 1)</b>												
<b>Box Culvert Extension</b>												
<b>Construction</b>												
<b>Ch000-010 Culvert Outfall</b>												
Removal of temporary bulk head	18	25-Nov-15	15-Dec-15	0%								
<b>Ch150-250 Marine Section</b>												
<b>ELS &amp; Structure</b>												
<b>Pile A41/A39 CJ to Pile A39/A37 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S2	4	05-Feb-16	16-Feb-16	100%								
Installation of strut S2	6	17-Feb-16	23-Feb-16	100%								
Excavation to 0.5m below strut S1	5	24-Feb-16	29-Feb-16	100%								
Installation of strut S1	5	01-Mar-16	05-Mar-16	100%								
Excavation to FEL	5	07-Mar-16	11-Mar-16	100%								
<b>Box Culvert Structure</b>												
Pile cap construction	10	18-Mar-16	01-Apr-16	100%								
Base slab construction including kicker	6	15-Apr-16	21-Apr-16	0%								
Removal of strut S1	4	22-Apr-16	26-Apr-16	0%								
Sliding formworks 1st assembly	18	27-Apr-16	19-May-16	0%								
Walls & top slab construction	6	20-May-16	26-May-16	0%								
Removal of strut S2 & Backfilling up to required level	6	03-Jun-16	10-Jun-16	0%								
<b>Pile A39/A37 CJ to Pile A37/A35 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S2	4	17-Feb-16	20-Feb-16	100%								
Installation of strut S2	6	22-Feb-16	27-Feb-16	100%								
Excavation to 0.5m below strut S1	5	01-Mar-16	05-Mar-16	100%								
Installation of strut S1	5	07-Mar-16	11-Mar-16	100%								
Excavation to FEL	5	12-Mar-16	17-Mar-16	100%								
<b>Box Culvert Structure</b>												
Pile cap construction	10	02-Apr-16	14-Apr-16	100%								
Base slab construction including kicker	6	22-Apr-16	28-Apr-16	0%								
Removal of strut S1	4	29-Apr-16	04-May-16	0%								
Walls & top slab construction	6	27-May-16	02-Jun-16	0%								
Removal of strut S2 & Backfilling up to required level	6	11-Jun-16	17-Jun-16	0%								
<b>Pile A37/A35 CJ to Pile A35/A33 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S2	4	22-Feb-16	25-Feb-16	100%								
Installation of strut S2	6	26-Feb-16	03-Mar-16	100%								
Excavation to 0.5m below strut S1	5	07-Mar-16	11-Mar-16	100%								
Installation of strut S1	5	12-Mar-16	17-Mar-16	100%								
Excavation to FEL	5	18-Mar-16	23-Mar-16	100%								
<b>Box Culvert Structure</b>												
Pile cap construction	10	15-Apr-16	26-Apr-16	100%								
Base slab construction including kicker	6	29-Apr-16	06-May-16	0%								
Removal of strut S1	4	07-May-16	11-May-16	0%								
Walls & top slab construction	6	03-Jun-16	10-Jun-16	0%								
Removal of strut S2 & Backfilling up to required level	6	18-Jun-16	24-Jun-16	0%								
<b>Pile A35/A33 CJ to Pile A33/P117 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S2	4	26-Feb-16	01-Mar-16	100%								
Installation of strut S2	6	02-Mar-16	08-Mar-16	100%								
Excavation to 0.5m below strut S1	5	12-Mar-16	17-Mar-16	100%								
Installation of strut S1	5	18-Mar-16	23-Mar-16	100%								
Excavation to FEL	5	24-Mar-16	01-Apr-16	100%								
<b>Box Culvert Structure</b>												
Pile cap construction	10	27-Apr-16	09-May-16	100%								
Base slab construction including kicker	6	10-May-16	17-May-16	0%								
Removal of strut S1	4	18-May-16	21-May-16	0%								
Walls & top slab construction	6	11-Jun-16	17-Jun-16	0%								
<b>Pile A33/P117 CJ to Pile P113/P109 CJ</b>												
<b>Box Culvert Structure</b>												
Base slab construction including kicker	6	18-May-16	24-May-16	0%								
Removal of strut S1	4	25-May-16	28-May-16	0%								
Walls & top slab construction	6	18-Jun-16	24-Jun-16	0%								
<b>Pile P113/P109 CJ to Pile P105/P101 CJ</b>												
<b>Box Culvert Structure</b>												
Base slab construction including kicker	6	25-May-16	31-May-16	50%								
Removal of strut S1	4	01-Jun-16	04-Jun-16	0%								
<b>Pile P105/P101 CJ to Pile P97/P93 CJ</b>												
<b>Box Culvert Structure</b>												
Base slab construction including kicker	6	01-Jun-16	07-Jun-16	0%								
Removal of strut S1	4	08-Jun-16	13-Jun-16	0%								
<b>Pile P97/P93 CJ to Pile P89/P85 CJ</b>												
<b>Box Culvert Structure</b>												
Base slab construction including kicker	6	08-Jun-16	15-Jun-16	50%								
Removal of strut S1	4	16-Jun-16	20-Jun-16	0%								
<b>Pile P89/P85 CJ to Pile P81/P77 CJ</b>												
<b>Box Culvert Structure</b>												
Base slab construction including kicker	6	16-Jun-16	22-Jun-16	0%								

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

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Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016		2017					
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
					Removal of strut S1	4	23-Jun-16	27-Jun-16	0%			
<b>Pile P81/P77 CJ to Pile P73/P69 CJ</b>												
<b>Box Culvert Structure</b>												
Base slab construction including kicker	6	23-Jun-16	29-Jun-16	100%								
<b>Ch250-380 Marine Section</b>												
Installation of Dewatering & Observation Well Ch 250-380	23	04-Nov-15	30-Nov-15	100%								
1st Pumping Test & Analysis	17	01-Dec-15	19-Dec-15	100%								
Toe Grouting	106	21-Dec-15	07-May-16	100%								
2nd Pumping test & Analysis	25	08-Apr-16	07-May-16	100%								
Remaining toe grouting Ch250-380	51	09-May-16	09-Jul-16	100%								
NewActivity	0			0%								
<b>ELS &amp; Structure</b>												
Geotextile - Phase 2 Reclamation - along combi wall system	4	03-Dec-16	08-Dec-16	0%								
Sand Blanket - Phase 2 Reclamation - along combi wall system	6	08-Dec-16	15-Dec-16	0%								
Band Drain - Phase 2 Reclamation - along combi wall system	30	15-Dec-16	23-Jan-17	0%								
Public Fill - Phase 2 Reclamation - along combi wall system	14	23-Jan-17	15-Feb-17	0%								
<b>Pile P73/P69 CJ to Pile P65/P61 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S1	9	15-Feb-17	25-Feb-17	0%								
Installation of strut S1	5	25-Feb-17	03-Mar-17	0%								
Excavation to FEL	5	03-Mar-17	09-Mar-17	0%								
<b>Box Culvert Structure</b>												
Base slab construction including kicker	6	16-Mar-17	23-Mar-17	0%								
<b>Pile P65/P61 CJ to Pile P57/P53 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S1	9	22-Feb-17	04-Mar-17	0%								
Installation of strut S1	5	04-Mar-17	10-Mar-17	0%								
Excavation to FEL	5	10-Mar-17	16-Mar-17	0%								
<b>Pile P57/P53 CJ to Pile P49/P45 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S1	9	01-Mar-17	11-Mar-17	0%								
Installation of strut S1	5	11-Mar-17	17-Mar-17	0%								
Excavation to FEL	5	17-Mar-17	23-Mar-17	0%								
<b>Pile P49/P45 CJ to Pile P41/P37 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S1	9	08-Mar-17	18-Mar-17	0%								
<b>Pile P41/P37 CJ to Pile P33/P29 CJ</b>												
<b>ELS</b>												
Excavation to 0.5m below strut S1	9	15-Mar-17	25-Mar-17	0%								
<b>Miscellaneous works</b>												
<b>Inspection Manhole (IM)</b>												
Inspection Manhole IM-01 to IM-04 & backfilling to +6.0mPD	12	24-Sep-15	09-Oct-15	0%								
Inspection Manhole IM-09 to IM-12 & backfilling to +6.0mPD	18	20-Oct-16	09-Nov-16	0%								
<b>Stop Log Opening (SLO)</b>												
SLO-01 to SLO-05 & backfilling to +6.0mPD	24	10-Oct-15	07-Nov-15	0%								
<b>Balance Hole (BH)</b>												
BH-01 to BH-03 & backfilling to +6.0mPD	18	03-Sep-15	23-Sep-15	0%								
BH-04 to BH-06 & backfilling to +6.0mPD	18	05-Sep-16	26-Sep-16	0%								
BH-07 to BH-09 & backfilling to +6.0mPD	18	10-Nov-16	30-Nov-16	0%								
<b>Desilting Opening (DO)</b>												
DO-01 to DO-04 & backfilling to +6.0mPD	18	27-Sep-16	19-Oct-16	0%								
<b>North Launching Shaft</b>												
<b>Design Submission</b>												
<b>(C1) DDA for North C&amp;C Tunnel Permanent Structure</b>												
SO's Review	35	24-May-14	27-Jun-14	90%								
SO Approval with Condition Received	0		27-Jun-14	0%								
<b>North Ventilation Shaft</b>												
<b>Construction</b>												
<b>North Ventilation Shaft Structure</b>												
NVS - ML03 Tunnel Structure	47	19-May-16	15-Jul-16	30%								
NVS - ML02 Tunnel Structure	44	05-Apr-16	27-May-16	46%								
<b>TMCLK VO-008 - Construction of Viaduct Foundations at Portion N6A</b>												
<b>Viaduct Pile Cap</b>												
<b>Construction</b>												
<b>Pier G1b</b>												
Pile Cap G1b - ELS Foundation	24	03-Dec-16	04-Jan-17	0%								
Pile Cap G1b - Removal of Existing ground slab	6	04-Jan-17	11-Jan-17	0%								
Pile Cap G1b - Excavation & ELS Installation	15	11-Jan-17	04-Feb-17	0%								
Pile Cap G1b - Blinding Concrete	3	04-Feb-17	08-Feb-17	0%								
Pile Cap G1b - Rebar & Concreting	18	08-Feb-17	01-Mar-17	0%								
Pile Cap G1b - Backfilling & Temp Reinstatement	6	01-Mar-17	08-Mar-17	0%								
<b>Pier H1b</b>												
Pile Cap H1b - ELS Foundation	24	08-Mar-17	06-Apr-17	0%								
<b>Pier G1c</b>												
Pile Cap G1c - Preparation for ELS	6	24-Oct-14	30-Oct-14	0%								
Pile Cap G1c - Removal of Existing ground slab	6	31-Oct-14	06-Nov-14	0%								
Pile Cap G1c - Excavation & ELS Installation	12	07-Nov-14	20-Nov-14	0%								
Pile Cap G1c - Blinding Concrete	3	21-Nov-14	24-Nov-14	0%								
Pile Cap G1c - Rebar & Concreting	18	25-Nov-14	15-Dec-14	0%								
Pile Cap G1c - Backfilling & Temp Reinstatement	6	16-Dec-14	22-Dec-14	0%								
<b>Pier H1c</b>												
Pile Cap H1c - Preparation for ELS	6	02-Nov-15	07-Nov-15	0%								
Pile Cap H1c - Removal of Existing ground slab	6	09-Nov-15	14-Nov-15	0%								
<b>North Approach TBM Tunnelling &amp; Cross Passage</b>												
<b>Construction</b>												
<b>Northern Landfall Surface Setup for TBM operation</b>												
Gantry Removal at North TBM Launching Shaft	24	17-Mar-17	19-Apr-17	0%								

■ 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 01-Jan-17



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDJBGENPRG98507	WYu	SPs
08-Apr-14	TMCLKDJBGENPRG98507 Rev.B	SPs	WYu
28-Aug-14	TMCLKDJBGENPRG98507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDJBGENPRG98507 Rev.F	WYu	

Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016			2017						
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May		
Slurry Treatment Plant De commissioning & Removal	48	17-Mar-17	19-May-17	0%										
<b>North Approach Tunnel Internal Structure - NB</b>														
CP51 - Excavation & Lining completion	0		09-Nov-16	0%										
NB - North TBM Tunnel - Corbel & Cable Trough installation	42	31-Aug-16	22-Oct-16	91%										
NB - North TBM Tunnel - OHVD Slab installation	42	07-Sep-16	29-Oct-16	0%										
NB - North TBM Tunnel - Fire proofing and Provision to E&MS and TCSS Contract for KD1	42	14-Sep-16	05-Nov-16	0%										
<b>North Approach Tunnel Internal Structure - SB</b>														
SB - North TBM Tunnel - Corbel & Cable Trough installation	42	22-Oct-16	10-Dec-16	91%										
SB - North TBM Tunnel - OHVD Slab installation	42	29-Oct-16	17-Dec-16	3%										
SB - North TBM Tunnel - Fire proofing & Provision to E&MS and TCSS Contract for KD1	42	05-Nov-16	24-Dec-16	0%										
<b>North Approach Cross Passage</b>														
<b>CP55 - Traditional Method</b>														
CP Finishing & Demobilization	18	23-May-16	14-Jun-16	100%										
<b>CP52 - Pipe Jacking Method</b>														
CP Finishing & Demobilization	21	24-Mar-16	22-Apr-16	100%										
<b>CP51 - Traditional Method</b>														
CP Excavation	14	14-Sep-16	28-Sep-16	100%										
CP Lining	14	28-Sep-16	12-Oct-16	100%										
2nd Segment Opening	7	12-Oct-16	19-Oct-16	100%										
CP Finishing & Demobilization	18	19-Oct-16	09-Nov-16	100%										
<b>CP50 - Pipe Jacking Method</b>														
CP Finishing & Demobilization	21	27-Jun-16	21-Jul-16	100%										
<b>North Ventilation Building</b>														
<b>Design Submission</b>														
<b>(A11) Submissions to Design Advisory Panel of ArchSD</b>														
ArchSD's comment	30	10-Jun-14	09-Jul-14	93%										
<b>(I1) DDA for North Vent.Bldgs. GBP &amp; Arch.Submission</b>														
IPs Review	28	21-Aug-14	17-Sep-14	92%										
IP's No Objection Received	0		17-Sep-14	0%										
SO's Review	35	21-Aug-14	24-Sep-14	94%										
SO Approval with Condition Received	0		24-Sep-14	0%										
<b>(I1) DDA for North &amp; South Vent.Bldg. ABWF works</b>														
IPs/ SO's Advance Comments/ ICE Comments	28	03-Dec-14	30-Dec-14	88%										
Comments Received	0		30-Dec-14	0%										
Designer to Reply PtC + Update Submission	21	31-Dec-14	24-Jan-15	0%										
Submit Updated DDA to SO/ ICE/ IPs	0	26-Jan-15		0%										
ICE Approval & Issue Check Cert	18	26-Jan-15	14-Feb-15	0%										
Submit ICE Check Cert to SO	6	16-Feb-15	25-Feb-15	0%										
IPs Review	28	26-Jan-15	22-Feb-15	0%										
IP's No Objection Received	0		22-Feb-15	0%										
SO's Review	35	26-Jan-15	01-Mar-15	0%										
SO Approval with Condition Received	0		02-Mar-15	0%										
<b>(I2) DDA for North Vent.Bldgs.Structural Design incl.Vent.Connections</b>														
IPs Review	28	24-Dec-14	20-Jan-15	92%										
IP's No Objection Received	0		20-Jan-15	0%										
SO's Review	35	24-Dec-14	27-Jan-15	92%										
SO Approval with Condition Received	0		27-Jan-15	0%										
<b>(I3) DDA for North &amp; South Vent.Bldgs. Service and E&amp;M Provision</b>														
ICE Approval & Issue Check Cert	12	15-Jan-15	28-Jan-15	100%										
Submit ICE Check Cert to SO	6	29-Jan-15	04-Feb-15	100%										
IPs Review	28	15-Jan-15	11-Feb-15	92%										
IP's No Objection Received	0		11-Feb-15	0%										
SO's Review	35	15-Jan-15	18-Feb-15	91%										
SO Approval with Condition Received	0		18-Feb-15	0%										
<b>Construction</b>														
Substructure	120	28-Jun-16	19-Nov-16	0%										
Superstructure	120	19-Nov-16	24-Apr-17	0%										
<b>North Reclamation (Phase 2)</b>														
<b>Construction</b>														
Dredging - Phase 2 (Zone G)	18	03-Dec-16	24-Dec-16	10%										
VS - Rock Grade 400 - Zone G	9	24-Dec-16	07-Jan-17	0%										
VS - Levelling Stone & Seawall Block - Zone G	27	07-Jan-17	15-Feb-17	0%										
VS - Rock Type A - Zone G	10	15-Feb-17	27-Feb-17	0%										
Vertical Seawall - Bermstone - (Zone G)	18	27-Feb-17	20-Mar-17	0%										
Vertical Seawall - Seawall Copping - (Zone G)	78	27-Feb-17	06-Jun-17	0%										
Geotextile (Zone G)	11	24-Dec-16	10-Jan-17	0%										
Sand Blanket (Zone G)	21	31-Dec-16	26-Jan-17	0%										
Band Drain (Zone G)	30	14-Jan-17	25-Feb-17	0%										
Reclamation - Phase 2	24	11-Feb-17	11-Mar-17	0%										
Backfilling to +10mPD - Phase 2	48	25-Feb-17	27-Apr-17	0%										
<b>North Surface Roadworks, Utility &amp; Drainage works</b>														
<b>Construction</b>														
North Landfall - Underground Sewerage & Drainage - Summary	408	27-Jan-17	26-Jun-18	0%										
North Landfall - Underground Sewerage & Drainage - Portion N5	139	11-Mar-17	30-Aug-17	0%										
<b>Sub-sea Tunnel</b>														
<b>Sub-sea TBM Tunnelling</b>														
<b>Major Procurement</b>														
<b>Precast Segment ID12.40 - Production for Sub-sea TBM Tunnel</b>														
ID12.40 TBM Segment Ring Fabrication - 12 rings per day	300	22-Nov-14	19-Dec-15	89%										
<b>Design Submission</b>														
<b>(G1) DDA for TBM Tunnel Lining Structural Design - Sub-sea tunnel</b>														
Sub-sea TBM Tunnel Segment - Fabrication	265	06-Oct-14	26-Aug-15	89%										
<b>(G3) DDA for TBM Tunnel Internal Structures (Sub-sea)</b>														
Sub-sea Tunnel - Precast Gallery Fabrication	244	22-Jan-15	18-Nov-15	84%										
<b>Construction</b>														
<b>Sub-sea TBM Tunnel - NB ID12.2m - S881</b>														
NB - Sub-sea TBM Tunnel - CDG with Saturation (Ch5550 to 5330 - 220m)	18	14-Aug-16	02-Sep-16	100%										

■ 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 01-Jan-17



Date	Revision	Checked	Approved
12-Feb-14	TMCLK/DJGEN/PRG/98507	WYu	SPs
08-Apr-14	TMCLK/DJGEN/PRG/98507 Rev.B	SPs	WYu
28-Aug-14	TMCLK/DJGEN/PRG/98507 Rev.C	CLa	WYu
30-Oct-15	TMCLK/DJGEN/PRG/98507 Rev.F	WYu	



Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016						2017							
					2016		2017		2017		2017		2017					
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug			
NB - Sub-sea TBM Tunnel - CDG with Saturation (Ch5330 to 4950 - 380m)	30	02-Sep-16	02-Oct-16	100%														
NB - Sub-sea TBM Tunnel - CDG with Saturation (Ch4950 to 4870 - 80m)	6	02-Oct-16	08-Oct-16	100%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4870 to 4750 - 120m)	8	08-Oct-16	16-Oct-16	100%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4750 to 4600 - 150m)	10	16-Oct-16	26-Oct-16	100%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4600 to 4400 - 200m)	13	26-Oct-16	08-Nov-16	100%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4400 to 4300 - 100m)	6	08-Nov-16	14-Nov-16	100%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4300 to 4200 - 100m)	6	14-Nov-16	20-Nov-16	76%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4200 to 3830 - 370m)	26	20-Nov-16	16-Dec-16	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3830 to 3710 - 120m)	8	16-Dec-16	24-Dec-16	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3710 to 3590 - 120m)	8	24-Dec-16	01-Jan-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3590 to 3460 - 130m)	8	01-Jan-17	09-Jan-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3460 to 3360 - 100m)	7	09-Jan-17	16-Jan-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3360 to 3160 - 200m)	13	16-Jan-17	01-Feb-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3160 to 3060 - 100m)	7	01-Feb-17	08-Feb-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3060 to 2920 - 140m)	10	08-Feb-17	18-Feb-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2920 to 2820 - 100m)	7	18-Feb-17	25-Feb-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch2820 to 2720 - 100m)	6	25-Feb-17	03-Mar-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2720 to 2673 - 47m)	3	03-Mar-17	06-Mar-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2673 to 2574 - 99m)	7	06-Mar-17	13-Mar-17	0%														
NB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2574 to 2512 - 62m)	4	13-Mar-17	17-Mar-17	0%														
<b>Sub-sea TBM Tunnel - SB ID12.2m - S882</b>																		
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4621 to 4421 - 200m)	13	12-Sep-16	25-Sep-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4421 to 4321 - 100m)	6	25-Sep-16	01-Oct-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch4321 to 4221 - 100m)	6	01-Oct-16	07-Oct-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch4221 to 3851 - 370m)	26	07-Oct-16	02-Nov-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3851 to 3731 - 120m)	8	02-Nov-16	10-Nov-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3731 to 3611 - 120m)	8	10-Nov-16	18-Nov-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3611 to 3481 - 130m)	8	18-Nov-16	26-Nov-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3481 to 3381 - 100m)	7	26-Nov-16	03-Dec-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch3381 to 3181 - 200m)	13	03-Dec-16	16-Dec-16	100%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3181 to 3081 - 100m)	7	16-Dec-16	23-Dec-16	80%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch3081 to 2941 - 140m)	10	23-Dec-16	02-Jan-17	0%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2941 to 2841 - 100m)	7	02-Jan-17	09-Jan-17	0%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS sandy with Trimix (Ch2841 to 2741 - 100m)	6	09-Jan-17	15-Jan-17	0%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2741 to 2694 - 47m)	3	15-Jan-17	18-Jan-17	0%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2694 to 2595 - 99m)	7	18-Jan-17	25-Jan-17	0%														
SB - Sub-sea TBM Tunnel - ALLUVIUMS silty with Trimix (Ch2595 to 2533 - 62m)	4	25-Jan-17	01-Feb-17	0%														
SB - TBM Removal at Southern Landfall	60	01-Feb-17	02-Apr-17	0%														
<b>Sub-sea TBM Tunnel - NB - Precast Invert Gallery</b>																		
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP39	3	02-Sep-16	05-Sep-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP38	8	07-Sep-16	15-Sep-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP37	8	15-Sep-16	23-Sep-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP36	8	23-Sep-16	01-Oct-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP35	7	01-Oct-16	08-Oct-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP34	8	08-Oct-16	16-Oct-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP33	4	16-Oct-16	20-Oct-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP32	6	20-Oct-16	26-Oct-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP31	8	26-Oct-16	03-Nov-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP30	6	03-Nov-16	09-Nov-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP29	6	09-Nov-16	15-Nov-16	100%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP28	6	15-Nov-16	21-Nov-16	50%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP27	7	21-Nov-16	28-Nov-16	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP26	7	28-Nov-16	05-Dec-16	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP25	7	05-Dec-16	12-Dec-16	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP24	7	12-Dec-16	19-Dec-16	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP23	6	19-Dec-16	25-Dec-16	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP22	7	25-Dec-16	01-Jan-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21	5	01-Jan-17	06-Jan-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20	8	06-Jan-17	14-Jan-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19	6	14-Jan-17	20-Jan-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18	6	20-Jan-17	26-Jan-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17	7	26-Jan-17	05-Feb-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16	7	05-Feb-17	12-Feb-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP15	7	12-Feb-17	19-Feb-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP14	7	19-Feb-17	26-Feb-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP13	6	26-Feb-17	04-Mar-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP12	7	04-Mar-17	11-Mar-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP11	6	11-Mar-17	17-Mar-17	0%														
NB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP10	6	17-Mar-17	23-Mar-17	0%														
<b>Sub-sea TBM Tunnel - SB - Precast Invert Gallery</b>																		
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP32	6	15-Sep-16	21-Sep-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP31	10	21-Sep-16	01-Oct-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP30	7	01-Oct-16	08-Oct-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP29	6	08-Oct-16	14-Oct-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP28	11	14-Oct-16	25-Oct-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP27	6	25-Oct-16	31-Oct-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP26	11	31-Oct-16	11-Nov-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP25	6	11-Nov-16	17-Nov-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP24	8	17-Nov-16	25-Nov-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP23	13	25-Nov-16	08-Dec-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP22	8	08-Dec-16	16-Dec-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP21	9	16-Dec-16	25-Dec-16	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP20	7	25-Dec-16	01-Jan-17	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP19	7	01-Jan-17	08-Jan-17	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP18	12	08-Jan-17	20-Jan-17	100%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP17	6	20-Jan-17	26-Jan-17	17%														
SB - Sub-sea TBM Tunnel - Precast Invert Gallery - Completion to CP16	10	26-Jan-17	08-Feb-17	0%														

Page 6 of 11

Project ID: TMCLK DWP 16W25

Data Date: 01-Jan-17

- 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 01-Jan-17

Date	Revision	Checked	Approved
12-Feb-14	TMCLKDUBGENPRG98507	WYu	SPs





Activity Name	Orig Dur	DWPF Start	DWPF Finish	% Comp	2016						2017						
					2016			2017			2017		2017				
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May					
CP - Remaining Internal Structure & Finishing	21	04-Feb-17	28-Feb-17	0%													
<b>CP31 - ML03 - Ch4823</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	09-Nov-16	06-Dec-16	0%													
CP - Piping Jacking Method - Break-in & Excavation	10	13-Jan-17	22-Jan-17	0%													
CP - Pipe Jacking Method - Break-out & Demobilization	12	23-Jan-17	03-Feb-17	0%													
CP - Remaining Internal Structure & Finishing	21	04-Feb-17	28-Feb-17	0%													
<b>CP30 - ML03 - Ch4724</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	15-Nov-16	12-Dec-16	0%													
CP - Piping Jacking Method - Break-in & Excavation	10	31-Jan-17	10-Feb-17	0%													
CP - Pipe Jacking Method - Break-out & Demobilization	12	10-Feb-17	22-Feb-17	0%													
CP - Remaining Internal Structure & Finishing	21	22-Feb-17	18-Mar-17	0%													
<b>CP29 - ML03 - Ch4626</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	21-Nov-16	17-Dec-16	0%													
CP - Piping Jacking Method - Break-in & Excavation	10	04-Feb-17	13-Feb-17	0%													
CP - Pipe Jacking Method - Break-out & Demobilization	12	14-Feb-17	25-Feb-17	0%													
CP - Remaining Internal Structure & Finishing	21	27-Feb-17	22-Mar-17	0%													
<b>CP28 - ML03 - Ch4527</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	28-Nov-16	24-Dec-16	0%													
CP - Piping Jacking Method - Break-in & Excavation	10	22-Feb-17	04-Mar-17	0%													
CP - Pipe Jacking Method - Break-out & Demobilization	12	04-Mar-17	16-Mar-17	0%													
CP - Remaining Internal Structure & Finishing	21	16-Mar-17	11-Apr-17	0%													
<b>CP27 - ML03 - Ch4429</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	05-Dec-16	04-Jan-17	0%													
CP - Piping Jacking Method - Break-in & Excavation	10	26-Feb-17	07-Mar-17	0%													
CP - Pipe Jacking Method - Break-out & Demobilization	12	08-Mar-17	19-Mar-17	0%													
<b>CP26 - ML03 - Ch4330</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	12-Dec-16	11-Jan-17	0%													
CP - Piping Jacking Method - Break-in & Excavation	10	16-Mar-17	26-Mar-17	0%													
<b>CP25 - ML03 - Ch4232</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	19-Dec-16	18-Jan-17	0%													
<b>CP24 - ML03 - Ch4133</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	28-Dec-16	24-Jan-17	0%													
<b>CP23 - ML03 - Ch4035</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	03-Jan-17	04-Feb-17	0%													
<b>CP22 - ML03 - Ch3936</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	06-Jan-17	09-Feb-17	0%													
<b>CP21 - ML03 - Ch3838</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	14-Jan-17	17-Feb-17	0%													
<b>CP20 - ML03 - Ch3739</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	20-Jan-17	23-Feb-17	0%													
<b>CP19 - ML03 - Ch3641</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	26-Jan-17	01-Mar-17	0%													
<b>CP18 - ML03 - Ch3542</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	06-Feb-17	03-Mar-17	0%													
<b>CP17 - ML03 - Ch3444</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	13-Feb-17	10-Mar-17	0%													
<b>CP16 - ML03 - Ch3345</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	20-Feb-17	17-Mar-17	0%													
<b>CP15 - ML03 - Ch3247</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	27-Feb-17	24-Mar-17	0%													
<b>CP14 - ML03 - Ch3148</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	04-Mar-17	31-Mar-17	0%													
<b>CP13 - ML03 - Ch3050</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	11-Mar-17	08-Apr-17	0%													
<b>CP12 - ML03 - Ch2951</b>																	
CP - Pipe Jacking Method - Setup & Assembly	23	17-Mar-17	18-Apr-17	0%													
<b>Sub-sea TBM Tunnel - NB - Remaining Internal Structure</b>																	
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP44	5	19-Sep-16	23-Sep-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP43	5	24-Sep-16	29-Sep-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42	5	12-Oct-16	17-Oct-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41	5	17-Oct-16	22-Oct-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP40	5	04-Nov-16	09-Nov-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP39	5	09-Nov-16	14-Nov-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38	5	26-Nov-16	01-Dec-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP37	5	01-Dec-16	06-Dec-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP36	5	19-Dec-16	23-Dec-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP35	5	24-Dec-16	28-Dec-16	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP34	3	09-Jan-17	11-Jan-17	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP33	5	12-Jan-17	16-Jan-17	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP32	5	04-Feb-17	08-Feb-17	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP31	5	09-Feb-17	13-Feb-17	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP30	5	22-Feb-17	27-Feb-17	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP29	5	27-Feb-17	04-Mar-17	0%													
NB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP28	5	16-Mar-17	21-Mar-17	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP44	4	24-Sep-16	27-Sep-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP43	4	29-Sep-16	03-Oct-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP42	4	17-Oct-16	21-Oct-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP41	4	22-Oct-16	26-Oct-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP40	4	09-Nov-16	13-Nov-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP39	4	14-Nov-16	18-Nov-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP38	4	01-Dec-16	05-Dec-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP37	4	06-Dec-16	10-Dec-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP36	4	24-Dec-16	27-Dec-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP35	3	29-Dec-16	31-Dec-16	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP34	6	12-Jan-17	17-Jan-17	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP33	5	18-Jan-17	22-Jan-17	0%													
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP32	4	09-Feb-17	12-Feb-17	0%													

Page 8 of 11  
 Project ID: TMCLK DWPF 16W25  
 Data Date: 01-Jan-17

■ 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 01-Jan-17



Date	Revision	Checked	Approved
12-Feb-14	TMCLKDJGENPRG98507	WYu	SPs
08-Apr-14	TMCLKDJGENPRG98507 Rev.B	SPs	WYu
28-Aug-14	TMCLKDJGENPRG98507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDJGENPRG98507 Rev.F	WYu	

Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016					2017										
					2016		2017			2017		2017								
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May								
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP31	4	14-Feb-17	17-Feb-17	0%																
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP30	4	27-Feb-17	03-Mar-17	0%																
NB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP29	4	04-Mar-17	08-Mar-17	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP44	4	28-Sep-16	01-Oct-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP43	4	03-Oct-16	07-Oct-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP42	4	21-Oct-16	25-Oct-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP41	4	26-Oct-16	30-Oct-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP40	4	13-Nov-16	17-Nov-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39	4	18-Nov-16	22-Nov-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38	4	05-Dec-16	09-Dec-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37	4	10-Dec-16	14-Dec-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36	4	28-Dec-16	31-Dec-16	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP35	9	01-Jan-17	09-Jan-17	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP34	3	18-Jan-17	20-Jan-17	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP33	1	23-Jan-17	23-Jan-17	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP32	3	13-Feb-17	15-Feb-17	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP31	3	18-Feb-17	20-Feb-17	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP30	3	03-Mar-17	06-Mar-17	0%																
NB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP29	3	08-Mar-17	11-Mar-17	0%																
NB - Sub-sea TBM Tunnel - Road Level Fire Proofing	334	17-Mar-17	10-May-18	0%																

Sub-sea TBM Tunnel - SB - Remaining Internal Structure				
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP44	5	19-Sep-16	23-Sep-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP43	5	24-Sep-16	29-Sep-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP42	5	12-Oct-16	17-Oct-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP41	5	17-Oct-16	22-Oct-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP40	5	04-Nov-16	09-Nov-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP39	5	09-Nov-16	14-Nov-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP38	5	26-Nov-16	01-Dec-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP37	5	01-Dec-16	06-Dec-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP36	5	19-Dec-16	23-Dec-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP35	5	24-Dec-16	28-Dec-16	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP34	5	09-Jan-17	13-Jan-17	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP33	5	14-Jan-17	18-Jan-17	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP32	5	04-Feb-17	08-Feb-17	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP31	5	09-Feb-17	13-Feb-17	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP30	5	22-Feb-17	27-Feb-17	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP29	5	27-Feb-17	04-Mar-17	0%
SB - Sub-sea TBM Tunnel - Corbel & Cable Trough - Completion to CP28	5	16-Mar-17	21-Mar-17	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP44	5	24-Sep-16	28-Sep-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP43	5	29-Sep-16	04-Oct-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP42	5	17-Oct-16	22-Oct-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP41	5	22-Oct-16	27-Oct-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP40	5	09-Nov-16	14-Nov-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP39	5	14-Nov-16	19-Nov-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP38	5	01-Dec-16	06-Dec-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP37	5	06-Dec-16	11-Dec-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP36	5	24-Dec-16	28-Dec-16	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP35	5	29-Dec-16	02-Jan-17	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP34	3	14-Jan-17	16-Jan-17	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP33	3	19-Jan-17	21-Jan-17	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP32	5	09-Feb-17	13-Feb-17	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP31	5	14-Feb-17	18-Feb-17	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP30	5	27-Feb-17	04-Mar-17	0%
SB - Sub-sea TBM Tunnel - OHVD Slab installation - Completion to CP29	5	04-Mar-17	09-Mar-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP44	5	29-Sep-16	03-Oct-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP43	5	04-Oct-16	09-Oct-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP42	5	22-Oct-16	27-Oct-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP41	5	27-Oct-16	01-Nov-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP40	5	14-Nov-16	19-Nov-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP39	5	19-Nov-16	24-Nov-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP38	5	06-Dec-16	11-Dec-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP37	5	11-Dec-16	16-Dec-16	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP36	5	29-Dec-16	02-Jan-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP35	7	03-Jan-17	09-Jan-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP34	3	17-Jan-17	19-Jan-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP33	2	22-Jan-17	23-Jan-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP32	3	14-Feb-17	16-Feb-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP31	4	19-Feb-17	22-Feb-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP30	4	04-Mar-17	08-Mar-17	0%
SB - Sub-sea TBM Tunnel - Fire Proofing - Completion to CP29	4	09-Mar-17	13-Mar-17	0%
SB - Remaining Fire Proofing in Tunnel	334	04-Feb-17	23-Mar-18	0%

Southern Landfall				
<b>South Cut &amp; Cover Tunnel</b>				
<b>Design Submission</b>				
<b>(E2) DDA for South C&amp;C Box &amp; Approach Ramp</b>				
Review & Comment by JV	18	09-Dec-14	31-Dec-14	88%
Designer prepare DDA	10	02-Jan-15	13-Jan-15	0%
Formal Submission of DDA to ICE/ IPs	0		13-Jan-15	0%
Advanced Submission to SO	0		13-Jan-15	0%
IPs/ SO's Advance Comments/ ICE Comments	28	14-Jan-15	10-Feb-15	0%
Comments Received	0		10-Feb-15	0%
Designer to Reply RfC + Update Submission	21	11-Feb-15	10-Mar-15	0%
<b>Method Statement Submission</b>				
<b>Method Statement of Construction Methodology of C&amp;C Tunnels</b>				
Preparation Method Statement for C&C Tunnels	25	28-Mar-15	30-Apr-15	0%
Submit Method Statement to SO	0		30-Apr-15	0%
SO Reviews & Comments	28	01-May-15	28-May-15	0%

Page 9 of 11

Project ID: TMCLK DWP 16W25

Data Date: 01-Jan-17

TMCLK - Northern Connection Sub-Sea Tunnel Section

Detailed Works Programme (Rev. F)

Three Months Rolling Programme

Progress as of 01-Jan-17

Date	Revision	Checked	Approved
12-Feb-14	TMCLKDUGENPRG98507	WYu	SPs
08-Apr-14	TMCLKDUGENPRG98507 Rev.B	SPs	WYu
28-Aug-14	TMCLKDUGENPRG98507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDUGENPRG98507 Rev.F	WYu	

Planned Bar

Planned Bar - Critical

Planned Milestone

Progress bar

Progress Milestone

Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營



Activity Name	Orig Dur	DWP Start	DWP Finish	% Comp	2016		2017					
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
					Re-submission	18	29-May-15	18-Jun-15	0%			
<b>Construction</b>												
C&C Tunnel - 2nd 85m - Tunnel Structure	83	14-Jun-16	20-Sep-16	0%	C&C Tunnel - 2nd 85m - Tunnel Structure							
C&C Tunnel - 2nd 85m - Backfilling	9	21-Sep-16	30-Sep-16	0%	C&C Tunnel - 2nd 85m - Backfilling							
C&C Tunnel - 3rd 85m - Tunnel Structure	83	26-Jul-16	02-Nov-16	0%	C&C Tunnel - 3rd 85m - Tunnel Structure							
C&C Tunnel - 3rd 85m - Backfilling	15	03-Nov-16	19-Nov-16	0%	C&C Tunnel - 3rd 85m - Backfilling							
C&C Tunnel - 4th 85m - Tunnel Structure	83	05-Sep-16	13-Dec-16	0%	C&C Tunnel - 4th 85m - Tunnel Structure							
C&C Tunnel - 4th 85m - Backfilling	14	14-Dec-16	31-Dec-16	0%	C&C Tunnel - 4th 85m - Backfilling							
C&C Tunnel - 5th 85m - Excavation by vertical mean	44	22-Aug-16	14-Oct-16	0%	C&C Tunnel - 5th 85m - Excavation by vertical mean							
C&C Tunnel - 5th 85m - Tunnel Structure	83	19-Oct-16	26-Jan-17	0%	C&C Tunnel - 5th 85m - Tunnel Structure							
C&C Tunnel - 5th 85m - Backfilling	19	27-Jan-17	24-Feb-17	0%	C&C Tunnel - 5th 85m - Backfilling							
C&C Tunnel - 6th 85m - Excavation by ramp	27	22-Aug-16	22-Sep-16	0%	C&C Tunnel - 6th 85m - Excavation by ramp							
C&C Tunnel - 6th 85m - Excavation by vertical mean	52	23-Sep-16	24-Nov-16	0%	C&C Tunnel - 6th 85m - Excavation by vertical mean							
C&C Tunnel - 6th 85m - Tunnel Structure	83	29-Nov-16	15-Mar-17	0%	C&C Tunnel - 6th 85m - Tunnel Structure							
C&C Tunnel - 6th 85m - Backfilling	20	16-Mar-17	08-Apr-17	0%	C&C Tunnel - 6th 85m - Backfilling							
C&C Tunnel - 7th 152m - Excavation by ramp	15	03-Nov-16	19-Nov-16	0%	C&C Tunnel - 7th 152m - Excavation by ramp							
C&C Tunnel - 7th 67m - Excavation by vertical mean	42	21-Nov-16	11-Jan-17	0%	C&C Tunnel - 7th 67m - Excavation by vertical mean							
C&C Tunnel - 7th 67m - Tunnel Structure	78	12-Jan-17	24-Apr-17	0%	C&C Tunnel - 7th 67m - Tunnel Structure							
C&C Tunnel - 8th 85m - Excavation by vertical mean	42	04-Jan-17	28-Feb-17	0%	C&C Tunnel - 8th 85m - Excavation by vertical mean							
C&C Tunnel - 8th 85m - Tunnel Structure	88	01-Mar-17	19-Jun-17	0%	C&C Tunnel - 8th 85m - Tunnel Structure							
Intermediate Slab	164	20-Dec-16	18-Jul-17	0%	Intermediate Slab							
<b>South Retrieval Shaft</b>												
<b>Design Submission</b>												
<b>(F4) Gantry Crane Support/Foundations in Southern Landfall</b>												
Preparation of IFA Gantry Crane / Foundation	18	27-Jul-15	15-Aug-15	100%								
Review & Comment by JV	18	17-Aug-15	05-Sep-15	100%								
Designer prepare IFA	10	07-Sep-15	17-Sep-15	100%								
Formal Submission of IFA to ICE/ IPs	0		17-Sep-15	100%								
Advanced Submission to SO	0		17-Sep-15	100%								
IPs/ SO's Advance Comments/ ICE Comments	28	18-Sep-15	15-Oct-15	88%								
Comments Received	0		15-Oct-15	0%								
Designer to Reply RtC + Update Submission	21	16-Oct-15	10-Nov-15	0%								
Submit Updated IFA to SO/ ICE/ IPs	0	11-Nov-15		0%								
ICE Approval & Issue Check Cert	12	11-Nov-15	24-Nov-15	0%								
IPs Review	28	11-Nov-15	08-Dec-15	0%								
SO's Review	35	11-Nov-15	15-Dec-15	0%								
<b>Method Statement Submission</b>												
<b>Method Statement of Construction Methodology of Retrieval Shaft</b>												
Preparation Method Statement for Retrieval Shaft	25	24-Aug-15	21-Sep-15	0%								
Submit Method Statement to SO	0		21-Sep-15	0%								
SO Reviews & Comments	28	22-Sep-15	19-Oct-15	0%								
<b>Construction</b>												
South Landfall GI Works/DW Setting Up	48	06-Aug-15	02-Oct-15	0%								
South Retrieval Shaft - Diaphragm Wall	98	03-Oct-15	29-Jan-16	80%								
Retrieval Shaft - Excavation - Soft (other than Fill)	140	15-Apr-16	30-Sep-16	0%	Retrieval Shaft - Excavation - Soft (other than Fill)							
Retrieval Shaft - Temp. Slab/Prepare for TBM Breakthrough	48	03-Oct-16	28-Nov-16	0%	Retrieval Shaft - Temp. Slab/Prepare for TBM Breakthrough							
<b>South Approach Ramp</b>												
<b>Construction</b>												
Approach Ramp (CH1580-1850) - Pipe Pile/Sheet Piles Wall	126	03-Oct-15	09-Mar-16	0%								
Approach Ramp (CH1580-1850) - Tension Piles	103	03-Oct-15	04-Feb-16	0%								
Approach Ramp (CH1580-1800) - Excavation,	22	16-Mar-17	11-Apr-17	0%								
<b>South Ventilation Building</b>												
<b>Design Submission</b>												
<b>(I1) DDA for South Vent.Bldg. GBP &amp; Arch.Submission</b>												
IPs Review	28	22-Dec-14	18-Jan-15	88%								
IP's No Objection Received	0		18-Jan-15	0%								
SO's Review	35	22-Dec-14	25-Jan-15	91%								
SO Approval with Condition Received	0		26-Jan-15	0%								
<b>(I2) DDA for South Vent.Bldg. Foundation Design</b>												
Review & Comment by JV	18	27-Apr-15	18-May-15	88%								
Designer prepare DDA	10	19-May-15	30-May-15	0%								
Formal Submission of DDA to ICE/ IPs	0		30-May-15	0%								
Advanced Submission to SO	0		30-May-15	0%								
IPs/ SO's Advance Comments/ ICE Comments	28	31-May-15	27-Jun-15	0%								
Comments Received	0		27-Jun-15	0%								
Designer to Reply RtC + Update Submission	21	29-Jun-15	23-Jul-15	0%								
Submit Updated DDA to SO/ ICE/ IPs	0	24-Jul-15		0%								
ICE Approval & Issue Check Cert	18	24-Jul-15	13-Aug-15	0%								
IPs Review	28	24-Jul-15	20-Aug-15	0%								
SO's Review	35	24-Jul-15	27-Aug-15	0%								
<b>(I2) DDA for South Vent.Bldg.Structural Design incl.Vent.Connections</b>												
Review & Comment by JV	18	18-Feb-15	13-Mar-15	76%								
Designer prepare DDA	10	14-Mar-15	25-Mar-15	0%								
Formal Submission of DDA to ICE/ IPs	0		25-Mar-15	0%								
Advanced Submission to SO	0		25-Mar-15	0%								
IPs/ SO's Advance Comments/ ICE Comments	28	26-Mar-15	22-Apr-15	0%								
Comments Received	0		22-Apr-15	0%								
Designer to Reply RtC + Update Submission	21	23-Apr-15	18-May-15	0%								
<b>(J1) DDA Temp.works for Construction of Sth.Vent.Bldg.</b>												
Designer to Reply RtC + Update Submission	21	24-Aug-15	16-Sep-15	90%								
Submit Updated DDA to SO/ ICE/ IPs	0	17-Sep-15		0%								
ICE Approval & Issue Check Cert	12	17-Sep-15	02-Oct-15	0%								
Submit ICE Check Cert to SO	6	03-Oct-15	09-Oct-15	0%								
IPs Review	28	17-Sep-15	14-Oct-15	0%								
IP's No Objection Received	0		14-Oct-15	0%								
SO's Review	35	17-Sep-15	21-Oct-15	0%								
SO Approval with Condition Received	0		22-Oct-15	0%								

■ Planned Bar  
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Date	Revision	Checked	Approved
12-Feb-14	TMCLKDBJENPRG98507	WYu	SPs
08-Apr-14	TMCLKDBJENPRG98507 Rev.B	SPs	WYu
28-Aug-14	TMCLKDBJENPRG98507 Rev.C	CLa	WYu
30-Oct-15	TMCLKDBJENPRG98507 Rev.F	WYu	

Activity Name	Orig Dur	DWPF Start	DWPF Finish	% Comp	2016					2017					
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May			
					<b>Construction</b>										
Mobilization & Setting Up Piling Rigs	64	06-Aug-15	22-Oct-15	0%											
Substructure	95	06-Sep-16	30-Dec-16	0%											
Superstructure	65	31-Dec-16	24-Mar-17	0%											
<b>South Surface Roadworks, Utility &amp; Drainage works</b>															
<b>Design Submission</b>															
<b>(E1) AIP - Southern Landfall Seawall Modification</b>															
Designer Prepare AIP - Southern Landfall Seawall Modification	36	08-Nov-16	19-Dec-16	100%											
Review & Comment by JV	12	20-Dec-16	05-Jan-17	100%											
Designer prepare AIP	6	06-Jan-17	12-Jan-17	100%											
Formal Submission of AIP to ICE/IPs	0		12-Jan-17	100%											
Advanced Submission of AIP to SO	0		12-Jan-17	100%											
Review & Comment by SO/ ICE/ IPs	28	13-Jan-17	09-Feb-17	100%											
Advance Comments from SO/ Comments from ICE/ IPs Received	0		09-Feb-17	100%											
Designer to Prepare RTC & Updated AIP	18	10-Feb-17	02-Mar-17	100%											
Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0		02-Mar-17	100%											
Reply to IPs Comments in RTC	0		02-Mar-17	100%											
ICE Approval & Issue of Design Check Cert.	18	03-Mar-17	23-Mar-17	100%											
SO Review (35 Days)	35	03-Mar-17	06-Apr-17	100%											
<b>(E1) DDA - Southern Landfall Seawall Modification</b>															
Designer to Reply RTC + Update Submission	21	05-Jul-17	28-Jul-17	83.33%											
Submit Updated DDA to SO/ ICE/ IPs	0	29-Jul-17		0%											
ICE Approval & Issue Check Cert	12	29-Jul-17	11-Aug-17	0%											
Submit ICE Check Cert to SO	6	12-Aug-17	18-Aug-17	0%											
IPs Review	28	29-Jul-17	25-Aug-17	0%											
IP's No Objection Received	0		25-Aug-17	0%											
SO's Review	35	29-Jul-17	01-Sep-17	0%											
SO Approval with Condition Received	0		01-Sep-17	0%											
<b>(E3) DDA for Sewerage, Drainage, Waterworks &amp; Utility works for South Landfall</b>															
IPs Review	28	02-Mar-15	29-Mar-15	100%											
IP's No Objection Received	0		29-Mar-15	100%											
SO's Review	35	02-Mar-15	05-Apr-15	100%											
SO Approval with Condition Received	0		08-Apr-15	100%											
<b>Method Statement Submission</b>															
<b>Method Statement of Ground Treatment for TBMs Passing under Southern Landfall Seawall</b>															
Preparation Method Statement for Ground Improvement in South Landfall	9	20-Jul-15	29-Jul-15	0%											
Submit Method Statement to SO	0		29-Jul-15	0%											
SO Reviews & Comments	28	30-Jul-15	26-Aug-15	0%											
Re-submission	6	27-Aug-15	02-Sep-15	0%											
SO's Review	28	03-Sep-15	30-Sep-15	0%											
SO's Approval	0		30-Sep-15	0%											
<b>Construction</b>															
Temporary Platform for Ground Treatment for TBM passing under Southern Seawall	48	06-Aug-15	02-Oct-15	0%											
Grouting Treatment for TBM passing under Southern Seawall	339	03-Oct-15	25-Nov-16	0%											
<b>Testing &amp; Commissioning/Inspection &amp; Handover</b>															
<b>Final Inspection &amp; Handover</b>															
<b>Design Submission</b>															
<b>(A12) Maintenance Matrix</b>															
Preparation of Maintenance Matrix	35	24-Dec-15	05-Feb-16	100%											
Prepare Re-submission	18	12-Mar-16	06-Apr-16	88%											
2nd Submission	0		06-Apr-16	0%											
SO's Condition Approval	35	07-Apr-16	11-May-16	0%											
<b>(A13) Operation &amp; Maintenance Manual</b>															
Preparation of Operation and Maintenance Manual	48	24-Dec-15	27-Feb-16	0%											
1st Submission	0		27-Feb-16	0%											
SO's Comments for 1st Submission	35	28-Feb-16	02-Apr-16	0%											
Prepare Re-submission	24	05-Apr-16	03-May-16	0%											
<b>(A14) As-built &amp; As-fabricated Drawings</b>															
Preparation of As-built and As-fabricated Drawings	48	24-Dec-15	27-Feb-16	0%											
1st Submission	0		27-Feb-16	0%											
SO's Comments for 1st Submission	35	28-Feb-16	02-Apr-16	0%											
<b>(A15) Health &amp; Safety File incl. As-built Dwgs &amp; Records, Maintenance Schedules, O&amp;M Manual</b>															
Preparation of Health and Safety File including as-built drawings and records, maintenance schedules, op	48	24-Dec-15	27-Feb-16	0%											
1st Submission	0		27-Feb-16	0%											
SO's Comments for 1st Submission	35	28-Feb-16	02-Apr-16	0%											

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