CCOS RAILWAY OPERATIONAL CODE INTRODUCTORY AND GENERAL SECTION

There is no explanatory note for this introductory section of the CCOS ROC.

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2. Introduction

2.1 The Railway Operational Code and its Objective

- 2.1.1 This CCOS Railway Operational Code ("CCOS ROC") and each Section of this CCOS ROC is established:
 - (a) under Part H of the CCOS Network Code; and

- (b) with effect from 5th July 2018.
- 2.1.2 The objective ("**Objective**") of this CCOS ROC is to sustain and, where necessary, restore expeditiously the operation of Services in accordance with the Working Timetable, having regard to:
 - (a) the needs of passengers;
 - (b) the interests of safety and security; and
 - (c) the efficient and economical operation of a network designated as specialised infrastructure for use by high capacity metro passenger rail services.

3. Definitions

- 3.1 Unless the context otherwise requires:
 - 3.1.1 words and expressions defined in the CCOS Network Code shall bear the same meanings in this ROC; and
 - 3.1.2 "Contingency Plan" has the meaning given to it in CCOS ROC Section 1 Control Arrangements.

4. Interpretation

- 4.1 Unless the context otherwise requires:
 - 4.1.1 this CCOS ROC shall be interpreted in the same way as set out in Part A of the CCOS Network Code:
 - 4.1.2 references to a CCOS ROC Section or to a section shall be to a section of this CCOS ROC;
 - 4.1.3 references to a paragraph shall be to a paragraph of a section; and
 - 4.1.4 references to a Condition shall be to a Condition of the CCOS Network Code.
- 4.2 In the event of any conflict of interpretation between the CCOS Network Code and this CCOS ROC, the CCOS Network Code will prevail.

5. Common Elements - Variations

- In proposing a variation to a CCOS ROC Section under Condition H5.1, RfL(I) must comply with Condition H5.5. In doing so, it must, if the variation falls within any modification procedure contained in the relevant CCOS ROC Section, follow that procedure.
- 5.2 The modification procedure set out in this paragraph 5 shall apply to every variation of each section of this CCOS ROC, including this section, unless the relevant section otherwise provides.
- In order to start the modification procedure, RfL(I) shall give notice of the proposed variation. The notice shall specify the reason for the variation and the timing for implementing the variation (which shall be not less than 30 days from the date of notification of the proposed variation). Such notice shall be given to each Train Operator who may reasonably be expected to be affected by such variation and to those persons entitled to be consulted under paragraph 5.3.2 and shall be copied to the Office of Rail and Road. As soon as reasonably practicable on or after the date on which it gives that notice, RfL(I) shall:
 - 5.3.1 consult each such Train Operator in relation to the parts of the proposed variation relevant to such Train Operator, and invite the submission to it of representations or objections in respect of the proposed variation;
 - 5.3.2 if the Health and Safety Executive, the Office of Rail and Road, or Transport for London gives notice to RfL(I) that it wishes to be consulted on any matter concerning the relevant CCOS ROC Section(s), consult with that body; and
 - 5.3.3 specify in a notice to all parties who are entitled to be consulted a date for concluding the consultation, and conclude the consultation by that date.
- 5.4 If RfL(I) wishes to hold a meeting or if any relevant Train Operator gives notice to RfL(I) requesting such a meeting within 10 days of the date on

which the proposed variation is notified to that Train Operator (and that request is not withdrawn), RfL(I) shall:

- 5.4.1 give at least 10 days' notice to all parties who are entitled to be consulted under paragraph 5.3 of a meeting to discuss the proposed variation; and
- 5.4.2 attend that meeting.
- 5.5 Each Train Operator or other body so consulted shall:
 - 5.5.1 consider the matters on which RfL(I) has consulted it; and
 - 5.5.2 give notice to RfL(I) of any representations and objections it wishes to make in relation to the consultation no later than the specified date for concluding the consultation.
- 5.6 Following consideration of all representations and objections received under the preceding paragraph, RfL(I) shall:
 - 5.6.1 decide whether the proposed variation is to be made and if so, in what form; and
 - 5.6.2 if the proposed variation is to be made, then, subject to Condition A3, republish the relevant CCOS ROC Section(s) as varied and send a copy to each affected Train Operator and any other party entitled to be consulted under paragraph 5.3, and so, subject to paragraph 5.7, establish the variation.
- 5.7 The establishment of the variation is subject to a right of appeal for any Train Operator. If and while Condition H5.5 specifies that right of appeal, the specified right shall apply accordingly. If and while Condition H5.5 provides that the right of appeal shall be contained in this modification procedure, then paragraph 5.8 shall apply.
- 5.8 Any Train Operator who is dissatisfied as to any matter concerning or in connection with the variation may bring an appeal in relation to the variation. Such appeal must be brought within 30 days of the later of the date on which it is published and the date on which it is notified to that Train Operator under

paragraph 5.6.2. If a Train Operator does not bring an appeal in relation to such variation within such period, it shall be deemed to have agreed to the variation. Condition H4 applies to the appeal.

6. Common Elements - Reviews

- 6.1 The review procedure set out in paragraphs 6.2 and 6.3 below is to be treated as incorporated in each section of this CCOS ROC, excluding this present section, unless the relevant section otherwise provides.
- 6.2 RfL(I) shall review the effectiveness of the relevant CCOS ROC Section annually. In undertaking such a review, RfL(I) shall consult Train Operators and such other persons as it shall consider appropriate and shall inform all consultees of the outcome of such review.
- 6.3 If the outcome is such that RfL(I) reasonably considers that it may be necessary that changes be made to the relevant CCOS ROC Section:
 - 6.3.1 to promote the achievement of any objective which that CCOS ROC Section is to secure; or
 - 6.3.2 to modify that objective for the better achievement of the Objective,
 - then RfL(I) will identify and pursue the steps required for a proposal to be made for such changes.
- 6.4 RfL(I) will review this present section at annual intervals. In undertaking such an annual review, RfL(I) shall consult Train Operators and such other persons as it shall consider appropriate and shall inform all consultees of the outcome of such review. Paragraph 6.3 will then apply.

7. Common Elements – Conflict with CCOS Standards

7.1 If there is any conflict between this CCOS ROC and the provisions of any CCOS Standard, the provisions of that CCOS Standard shall, to the extent of any inconsistency, prevail.

8. Common Elements – Relationship with performance regimes

8.1 The provisions of the CCOS ROC shall have effect without prejudice to any

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regime established between RfL(I) and a Train Operator in or pursuant to their Access Agreement in relation to any incentives and payments associated with the performance of their respective obligations under that agreement.

CCOS ROC SECTION 1 – CONTROL ARRANGEMENTS

This section details the protocols, principles and interfaces necessary in respect of each party to enable the provision of effective arrangements for operational control of the CCOS in a safe and efficient manner.

The following terms used in this section are defined elsewhere:

• the CCOS Network Code defines "Disruptive Event", "establishment" (when used in the context of establishing this section), the "Objective" in Part H and "Access Parties", the "CCOS", "Services", "Train Crew", "Train Operator" and "Working Timetable" in Part A; and "Ancillary Movements" in Part D.

The section introduces definitions for matters relating to operational control that supplement the definitions in Part H of the CCOS Network Code.

This explanatory note does not form part of this CCOS ROC.

1. Definitions

- 1.1 In this section, unless the context otherwise requires:
 - 1.1.1 "Contingency Plan" means a plan of action in relation to a Disruptive Event or Events, being a Contingency Plan prepared in accordance with this CCOS ROC. Such plans may be those prepared under this section, the section "CCOS ROC Section 3 Arrangements for Provision of Equipment to Deal with Adverse and Extreme Weather Conditions; and the Preparation for and Response to Seasonal Disruptions." or the section "CCOS ROC Section 5 Arrangements for Clearance of Track Blockages and Assistance for Failed Trains". In each case, "Contingency Plan" refers to such plans as subsequently amended or replaced in accordance with the CCOS Railway Operational Code. A non-exhaustive list of types of Contingency Plan is set out in Annex A to this section;
 - 1.1.2 "Control Office" means an office or location at which Operational Control is carried out (whether independent, co-located or integrated so far as concerns the functions of RfL(I) Operational Control and

Train Operator Operational Control) and which:

- (a) excludes the operation of signalling equipment; and
- (b) may include within the same office or location resource management and additional non-Operational Control functions;
- 1.1.3 "Crossrail Network Control Manual" refers to the procedures described in paragraph 7.1;
- 1.1.4 "Operational Control" means, in respect of RfL(I), the function as described in paragraph 4.1 ("CCOS Operational Control") and, in respect of a Train Operator, the function as described in paragraph 4.2 ("Train Operator Operational Control");
- 1.1.5 "RfL(I) Control Office" means the Control Office for the CCOS, where RfL(I) carries out its Operational Control for the CCOS, including Operational Control in respect of Disruptive Events; and
- 1.1.6 "Train Operator Control Office" means the Control Office for a Train Operator, where that Train Operator carries out its Operational Control, including Operational Control in respect of Disruptive Events.

2. Contents of this section

This section describes:

- 2.1 the nature of Operational Control and the establishment of Control Offices;
- the arrangements for establishing Operational Control processes, including those for provision of information, changes to Operational Control arrangements, and Contingency Plans; and
- 2.3 the operation of processes for dealing with Disruptive Events.

- 3. Not used.
- 4. Operational Control and the Objective

4.1 RfL(I) Operational Control

The RfL(I) Operational Control function is as follows:

- 4.1.1 RfL(I) shall on a "real time" basis in its capacity as operator of the CCOS, in accordance with paragraph 4.1.2:
 - (a) direct and manage the movements of trains on the CCOS in sustaining the operation of the CCOS; and
 - (b) determine the capacity of the CCOS and direct and manage the movements of trains on the CCOS in the event of degraded operations subject to the availability and provision of Train Operators' operational resources; and
- 4.1.2 RfL(I) shall do this to fulfil the Objective and, without prejudice to its right and obligation of direction and management, shall use all reasonable endeavours to do so on a co-operative basis with Train Operators.

4.2 Train Operator Operational Control

Each Train Operator shall on a "real time" basis in its capacity as an operator of trains on the CCOS provide a control function in relation to the rolling stock, Train Crew and other operational resources of the Train Operator relevant to the operation of its Services, the management of passengers carried by its Services and arrangements for the dissemination of information to its customers. This control function (the Train Operator Operational Control function):

- 4.2.1 will be responsible for dealing with any Disruptive Event, insofar as it applies to that Train Operator's rolling stock, Train Crew or other operational resources, wherever located;
- 4.2.2 may undertake functions extending beyond the CCOS route

boundaries; and

- 4.2.3 may include within the same control location resource management and additional non-Operational Control functions.
- 4.3 RfL(I) shall in performing the RfL(I) Operational Control function use all reasonable endeavours to meet the Objective and will at all times have due regard to the interests of passengers and the restoration of the operational railway, considering the terms of the Objective in light of the following factors:
 - 4.3.1 the reasonable interests of safety and security must take priority;
 - 4.3.2 in considering the needs of passengers, the primary objective should be to maximise available capacity utilisation (in trains per hour), maintain even service intervals at all stations located adjacent to the CCOS and minimise lateness imparted to trains operated on the CCOS by other operators; and
 - 4.3.3 in pursuing the Objective:
 - (a) disproportionate delay should be avoided;
 - (b) the specific needs of high capacity metro passenger rail services which operate to destinations off (and furthest from) the CCOS should be recognised (in particular, the risk of excessive delay to passengers, including those travelling to Heathrow Airport, Shenfield, Maidenhead and Reading);
 - (c) account should be taken of the need to avoid transferring disproportionate delay onto or off the CCOS at the interfaces with other connected networks (including the NR Network); and
 - (d) account should be taken of TfL's needs consistent with pursuit of the Objective.
- 4.4 In performing the Train Operator Operational Control function, each Train Operator shall use all reasonable endeavours to do so in a manner which

- supports the fulfilment of the Objective by RfL(I) and includes co-operation with RfL(I) in making and implementing "real time" decisions.
- 4.5 The fulfilment by RfL(I) of its obligations in respect of an existing or impending Disruptive Event under paragraphs 4.1 and 4.3 and by each Train Operator under paragraphs 4.2 and 4.4 shall be undertaken in liaison and co-operation, using the supporting procedures for which this section provides. This is without prejudice to RfL(I)'s responsibilities for leading the response to such events under paragraph 4.1 and its powers of direction, management and taking other action under that paragraph.

5. Control Offices

- 5.1 RfL(I) shall maintain a Control Office which provides Operational Control of the CCOS.
- 5.2 Each Train Operator shall establish and maintain (or procure that there is established and maintained on its behalf) a Train Operator Control Office which provides Train Operator Operational Control of every train movement on the CCOS for which it is the Train Operator.
- 5.3 Control Offices may be established on an independent basis or, as provided in paragraph 6, on a co-located or an integrated basis.

6. Operational Control Information and Practices

- 6.1 RfL(I) shall advise each Train Operator of such details regarding its RfL(I) Operational Control arrangements, and each Train Operator shall advise RfL(I) of such details regarding its Train Operator Operational Control arrangements, as the other may reasonably require in connection with its operation of the CCOS or of trains on the CCOS.
- 6.2 In relation to the RfL(I) Control Office and each Train Operator Control Office, RfL(I) and the relevant affected Train Operators shall establish and document together with a view to fulfilling the Objective:
 - 6.2.1 the chain of command for all RfL(I) Operational Control and Train Operator Operational Control decisions;

- 6.2.2 defined interfaces between RfL(I) Operational Control and Train Operator Operational Control, setting out the accountability of the controllers on each side of the interface and the responsibilities for, and means of communication across, the interface:
- 6.2.3 arrangements for incident management with clearly defined roles and procedures, including decision making processes;
- 6.2.4 arrangements for the structured management and communication of relevant information in relation to Operational Control arrangements, including identification of communications methods and establishment of communications protocols; and
- 6.2.5 business continuity arrangements in the event of an evacuation of a Control Office.
- 6.3 The processes established under paragraph 6.2 shall reflect the relevant status of the Control Office concerned as between RfL(I) and the relevant affected Train Operator as independent, co-located or integrated.
- 6.4 RfL(I) and each Train Operator shall:
 - 6.4.1 use all reasonable endeavours to comply with the processes established under paragraph 6.2;
 - 6.4.2 keep those processes under regular review with a view to fulfilling better the Objective;
 - 6.4.3 liaise and cooperate with the other parties affected by any change proposed by it to those processes or any change proposed to its arrangements which is reasonably likely to affect those processes; and
 - 6.4.4 provide as much notice as reasonably practicable of any material change to its practices relevant to those processes and endeavour to make any such change in a manner which promotes the achievement of the Objective.
- 6.5 RfL(I) may consult with any Train Operator regarding the establishment of

Operational Control arrangements between them on a co-located or integrated basis and that Train Operator will cooperate as reasonably required by RfL(I) in that consultation process. Annex C to this section describes in outline, for information purposes, characteristics of different bases of Operational Control and Control Offices.

- If it is agreed between RfL(I) and the relevant affected Train Operators that there should be a change to the Operational Control arrangements then in place, RfL(I) shall be responsible for establishing and agreeing with the relevant affected Train Operators a plan and timetable to implement the agreed change. The relevant affected Train Operators shall liaise and cooperate with RfL(I) in the establishment and agreement of that plan and timetable, and shall not unreasonably withhold agreement to the plan and timetable. Each relevant Access Party shall use its reasonable endeavours to implement the agreed plan in accordance with the agreed timetable and use its reasonable endeavours to agree with the others any alterations to the plan reasonably required to give effect as soon as reasonably practicable to the agreed plan.
- 6.7 It is acknowledged that any such agreed plan for amending Operational Control arrangements may need to address requirements set out in the ROGS, employment arrangements, liability issues, insurance, arrangements for assured access to Control Office facilities and systems, asset responsibilities, transitional arrangements, allocation of costs and expenses relating to the change and the ongoing revised arrangements between the relevant parties and the funding of those costs and expenses and consequent revisions to the Crossrail Network Control Manual and Contingency Plans.

7. Crossrail Network Control Manual and Contingency Plans

7.1 Crossrail Network Control Manual

7.1.1 The Crossrail Network Control Manual shall constitute subsidiary documentation for the purposes of this section, and further details of its development, approval and establishment in conjunction with

- activities in relation to Contingency Plans are set out in Annex B.
- 7.1.2 Each Train Operator shall participate, in conjunction with RfL(I), in the development of the Crossrail Network Control Manual, together with other Train Operators on the CCOS.
- 7.1.3 The Crossrail Network Control Manual shall:
 - (a) conform with the Objective;
 - (b) establish in general terms the roles and responsibilities of RfL(I) and Train Operators responding to a Disruptive Event and be supplementary to any mandatory emergency plans required by ROGS or otherwise; and
 - (c) be a record of the principal information necessary or desirable to help achieve the Objective and in particular, detail, processes and information in respect of the following matters:
 - (i) communications between RfL(I) and Train Operators following a Disruptive Event;
 - (ii) arrangements as to the utilisation of railway vehicles and information on the availability of any relevant route and traction knowledge of Train Crews in relation to the railway vehicles;
 - (iii) the contingent arrangements for passengers in respect of the CCOS;
 - (iv) Train Operators' arrangements for communications with passengers;
 - (v) the response to any failures on the CCOS and deployment of engineering resources to incidents;
 - (vi) the arrangements that will apply in the incidence of aDisruptive Event escalating, including on-call

procedures;

- (vii) the identification of any relevant Contingency Plans (including any specifically owned by the Train Operator which apply to its rolling stock, depots and customer operations);
- (viii) business continuity in the event that it is necessary to evacuate a Control Office;
- (ix) the arrangements for a daily operational readiness statement envisaged by paragraphs 8.1 and 8.2; and
- (x) those matters that are documented under paragraph 6.2.
- 7.1.4 The Crossrail Network Central Manual may set out protocols for the formulation or amendment of Contingency Plans for that route.
- 7.1.5 RfL(I) will lead the process of keeping the Crossrail Network Control Manual under review, including by taking into account material changes in circumstances affecting the CCOS or any Access Party, Contingency Plans which are established or changed or types of Disruptive Event which are not adequately addressed in the then existing Contingency Plans.

7.2 Development and establishment of Contingency Plans

- 7.2.1 RfL(I) and each Train Operator shall, as soon as reasonably practicable following the date on which the Access Agreement between them comes into effect, participate (together, where appropriate, with other relevant affected Train Operators) in the development and establishment of Contingency Plans in relation to the Services covered by that Access Agreement.
- 7.2.2 RfL(I) shall lead the process for the establishment, co- ordination and agreement and subsequent periodic review of all Contingency Plans with the participation of all affected Access Parties. The processes

to be applied in respect of the contingency arrangements covered by the Seasonal Arrangements (as defined in CCOS ROC Section 3 - Arrangements for Provision of Equipment to Deal with Adverse and Extreme Weather Conditions; and the Preparation for and Response to Seasonal Disruptions.) are set out in that section. Where the processes to be applied in respect of a Contingency Plan are affected by any mandatory requirements involving third parties (which may include civil emergency contingency plans, as described in Annex A), then the process to be applied is to be such as shall enable those requirements to be accommodated.

- 7.2.3 In co-ordinating the arrangements for joint Contingency Plans, RfL(I) will ensure that each Train Operator is kept aware of the validity and extent of Contingency Plans in relation to those parts of the CCOS that the Train Operator has permission to use and of any changes to those parts such as may be relevant to the Contingency Plans and their currency. This includes any material change in circumstances or proposals for change to the Contingency Plans of RfL(I) or other Train Operators which may be relevant to the Contingency Plans of that Train Operator. RfL(I) will also keep each Train Operator informed of the other Train Operators for which that Train Operator's Contingency Plan is relevant and of any changes to those other Train Operators' identities or contact details.
- 7.2.4 Notwithstanding RfL(I)'s leadership of the process to establish and review Contingency Plans, any other party may make a proposal for a Contingency Plan or an amendment to an existing Contingency Plan, and the parties will use all reasonable endeavours to agree joint Contingency Plans and any amendments to them, and:
 - (a) where any such agreement is not forthcoming, and any such party is of the reasonable opinion that, having regard to the representations made under that consultation, the establishment or amendment of the Contingency Plan would fulfil better the Objective, then that party may:

- (i) give notice to the others stating its reasons for sustaining that opinion; and
- (ii) bring an appeal in relation to such establishment or amendment as though Condition H4 applied, within 30 days of giving such notification. If the outcome of the appeal as finally concluded is the adjustment of the Contingency Plan or its amendment, then it shall be treated as adjusted accordingly;
- (b) pending the outcome of any such appeal, any relevant Contingency Plan already established shall continue to apply, except to the extent that may be agreed between the relevant parties;
- (c) the arrangements for amending Contingency Plans contained in this paragraph 7.2 shall be in substitution for the arrangements set out in Condition H5 which apply to variations to this CCOS ROC; and
- (d) Contingency Plans established or required under this CCOS ROC Section constitute subsidiary documentation for the purposes of this CCOS ROC Section.
- 7.2.5 In the preparation and review of a Contingency Plan, RfL(I) and each Train Operator will have regard to their obligations under CCOS ROC Section 2 Emergency Timetabling Procedure in the Event of Extended Disruption.
- 7.2.6 RfL(I) shall, following the establishment or agreement with all relevant Train Operators of a Contingency Plan or of any amendment to a Contingency Plan, ensure prompt distribution of the plan (or, where applicable, the relevant amended part) to all Train Operators affected. RfL(I) may, but is not required to, publish a Contingency Plan or an amendment to it, beyond such distribution.

8. Regular Reports and Notification of a Disruptive Event

- 8.1 RfL(I) and each Train Operator shall prepare and issue to each other, or (as may be agreed) jointly each day, a daily operational readiness statement in respect of that day.
- 8.2 The operational readiness statement:
 - 8.2.1 will detail (in the case of RfL(I)) the availability of the infrastructure and resources to operate the CCOS, and (in the case of the Train Operator) the rolling stock, Train Crews and other operational resources to meet the timetable requirements and so as to include all operational activity necessary to meet the Objective including the Train Operators' reasonable requirements;
 - 8.2.2 will include a performance report in respect of operations on the preceding day (but so that the report may constitute a separate part of the statement and may be issued on that preceding day);
 - 8.2.3 will (as regards RfL(I) and Train Operators) include information on the then current status of relevant "real time" operations issues affecting the CCOS and a plan of action where issues require to be addressed; and
 - 8.2.4 will be in a format that is documented under the Crossrail Network Control Manual.
- 8.3 RfL(I) shall notify a Train Operator of the occurrence or likely occurrence of any Disruptive Event which has disrupted or is reasonably likely to disrupt the operation of trains by that operator. RfL(I) shall make such notification as soon as reasonably practicable after it becomes aware of that actual or likely Disruptive Event and the applicable Contingency Plan.
- 8.4 The Train Operator shall notify RfL(I) of the occurrence or likely occurrence of any Disruptive Event which has disrupted or is reasonably likely to disrupt either the operation of trains by that operator or the operation of that part of the CCOS which it has permission to use. The Train Operator shall make such notification as soon as reasonably practicable after it becomes aware of

that actual or likely Disruptive Event.

8.5 Any notice of a Disruptive Event under paragraphs 8.3 or 8.4 shall contain such information regarding the nature, extent, timing and duration of the relevant Disruptive Event as is reasonably practicable in the circumstances and likely to be material to enable RfL(I) and the relevant affected Train Operators to fulfil the Objective (including by providing relevant information to staff and customers) and shall be updated as soon as practicable after any material additional information becomes available.

9. Action following notification of a Disruptive Event

9.1 Determination by RfL(I)

- 9.1.1 RfL(I) shall, as soon as reasonably practicable following notification of a likely Disruptive Event or following the occurrence of a Disruptive Event determine the most appropriate action to be taken to fulfil best the Objective, having regard to the matters referred to in paragraph 4.3 and any applicable Contingency Plans or action defined in the Crossrail Network Control Manual and (whether before, during or after such determination, as the circumstances admit) RfL(I) shall consult with each Train Operator affected or likely to be affected by the Disruptive Event, as fully and regularly as is reasonably practicable in the circumstances, regarding the action it proposes to take, the implementation of that action and its subsequent review.
- 9.1.2 In undertaking such action, RfL(I) shall have overall accountability for the direction and management of train movements on the CCOS in accordance with the Objective. Each Train Operator will remain responsible for its own Train Operator Operational Control and carry out that function in accordance with paragraph 4.4.
- 9.1.3 RfL(I) will be responsible as part of its Operational Control function for:
 - (a) directing the response to the Disruptive Event in terms of

- incident response staff and the deployment of its maintenance and repair resources in respect of the CCOS;
- (b) directing the movements of trains on the CCOS, subject to the availability of relevant rolling stock, Train Crews and other necessary operational resources;
- co-ordinating and directing the manner and extent of service provision where a Disruptive Event results in degraded operations; and
- (d) taking action in accordance with and as applicable with any other section of this CCOS ROC.

9.2 Access Parties' response to Disruptive Events

- 9.2.1 Where RfL(I) considers a Contingency Plan should be implemented, the relevant Access Parties shall co-operate in this and use all reasonable endeavours to adapt such implementation so as to meet the specific circumstances of and surrounding the relevant Disruptive Event.
- 9.2.2 Where no Contingency Plan exists or deals adequately with a particular Disruptive Event, the relevant Access Parties shall use all reasonable endeavours to work together in the application of measures contained within the Crossrail Network Control Manual including where appropriate for the formulation of a Contingency Plan.
- 9.2.3 Where no Contingency Plan exists or where timing does not make it reasonably practicable to establish a Contingency Plan, the relevant Access Parties shall use all reasonable endeavours to work together in accordance with the Objective to mitigate as appropriate the circumstances and restore the Working Timetable as soon as reasonably practicable.
- 9.2.4 Where RfL(I) is reasonably satisfied that the relevant Disruptive Event is or will be an Extended Disruption and notifies this

accordingly, the relevant Access Parties shall comply with CCOS ROC Section 2 – Emergency Timetabling Procedure in the Event of Extended Disruption.

9.3 Action during a Disruptive Event

Access Parties will each:

- 9.3.1 monitor the effects on, and recovery of, the Services;
- 9.3.2 co-operate by participating in such action as is necessary and appropriate to fulfil the Objective, having regard to the matters referred to in paragraph 4.3; and
- 9.3.3 share information on Disruptive Events:
 - (a) in order to facilitate appropriate communications by the relevant party to passengers and customers; and
 - (b) to help identify the root cause of the incident, the circumstances arising and the effectiveness of the action taken or proposed to be taken.

9.4 Disruptive Events affecting only one operator of trains

Where a Disruptive Event is likely to, or only affects the operation of trains of one Train Operator, RfL(I) shall follow the requirements of this section and, as applicable, CCOS ROC Section 2 – Emergency Timetabling Procedure in the Event of Extended Disruption, taking into account, where those sections permit, any such actions as the Train Operator shall reasonably specify in relation to the maintenance or restoration of the Working Timetable.

ANNEX A

Types of Contingency Plan

1. Service Recovery Contingency Plan

Service recovery plans that detail specific actions with individual trains or service groups forming part of a larger plan to restore the Working Timetable in "real time" during and following a Disruptive Event.

2. Route Blockage Contingency Plan

Route blockage plans that detail specific actions with individual trains or service groups when one or more lines on a route has been blocked and will remain so for a material period, including plans for moving from total to partial blockage and plans for degraded hand-back.

3. Adverse Weather and Seasonal Arrangements Contingency Plan

A Contingency Plan that has been derived as part of the arrangements for dealing with adverse weather or a specific season.

4. Train Operator Contingency Plan

A Contingency Plan that has been designed specifically by the Train Operator to deal with a single event or circumstance affecting rolling stock, Train Crew, a depot or siding or customer arrangement, excluding a plan as described under paragraphs 6 or 8 of this Annex and any other plan relating to compliance with CCOS Rule Book requirements in relation to safety defects.

5. Engineering Work Contingency Plan

A Contingency Plan that is designed to mitigate the effects of specific engineering work in anticipation of circumstances, which may be otherwise unforeseen, causing the work to overrun, which plan may provide measures to minimise those effects and could incorporate elements of other Contingency Plans.

6. "On Train" Defective Equipment Contingency Plan

A specific plan that is provided by the Train Operator and authorised by RfL(I) to comply with the CCOS Standard requirements in the report and managing of "on train" defective equipment.

7. Civil Emergency Contingency Plan

A plan to address responses to civil emergencies.

8. Passengers Taken III on Trains Contingency Plan

A specific plan that is provided by the Train Operator and authorised by RfL(I) in the reporting and management of passengers taken ill on trains on the CCOS.

ANNEX B

- 1. The arrangements for developing the Crossrail Network Control Manual shall include the following actions and matters.
- 2. RfL(I) shall arrange a forum of RfL(I) and the Train Operators that shall meet to comply with the requirements of this section, and shall provide an agenda for the forum and the forum:
 - 2.1 shall seek to take account of what is considered to be good practice in any relevant present arrangements; and
 - 2.2 shall investigate measures that will enhance Contingency Plans and advance those enhancements through appropriate channels.
- 3. All such parties shall identify the key participants from their own organisations who will make up the forum and additional individuals for specific sub or working groups that may be required from time to time.
- 4. RfL(I) shall arrange the meeting structure and frequency to discuss, arrange and formulate any Contingency Plan or activity required by a plan, including review of the Crossrail Network Control Manual (whether initiated by RfL(I) or reasonably requested by the participants).
- 5. The Crossrail Network Control Manual shall:
 - 5.1 have regard to the desirability of working with templated forms for overall consistency, so far as is reasonably practicable;
 - 5.2 detail how 'on call' arrangements by each organisation including contact details will be made available to each party, their use and notification procedure;
 - 5.3 include an outline account of the management structure of each organisation, which has the responsibility for response to Disruptive Events;
 - 5.4 include a definitive list of all of the Contingency Plans (individual or joint), by type and including their validity, review process and

variation procedures;

- 5.5 comply with the arrangements contained in paragraphs 7.1.3 and 7.1.4 of this section; and
- be prepared in accordance with timescales that allow for template development and which are to be agreed (and modified, if need be) through the forum described in paragraph 2 of this Annex.

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ANNEX C

Basis of Operational Control and Control Offices – for information

Definitions: Annex C

In this Annex:

"Route Control Centre" ("RCC") means a Control Office, which:

(a) is a RfL(I) led integrated Control Office controlling the CCOS, and

(as between RfL(I) and the relevant participating Train Operators) is

entirely responsible for the direction and management of the

movements of trains over the CCOS;

(b) has a RfL(I) led organisation and management structure, additionally

with one or more Train Operators' controllers with responsibilities as

described in this Annex;

"Satellite Control" means an independent Train Operator function of

Operational Control located within another Control Office served by a single

Train Operator where circumstances exist justifying the requirement; and

"Sub-Control" means a Train Operator "out based" desk reporting to RCC

which is provided where exceptional circumstances exist requiring a control

presence within a specific geographical area.

Full integration of CCOS Route Control Centre (RCC)

Under such integration:

a RfL(I) Service and Infrastructure Manager has overall responsibility for all

aspects of the management and direction of the movements of trains and

associated railway operations in the Control Office operating area, reporting

to the RfL(I) Network Operations Manager;

RfL(I) Traffic Managers manage and direct the movements of trains on the

CCOS, subject to the provision of Train Crew and rolling stock;

the Controllers of each Train Operator participating in the RCC will within the

RCC and in respect of that Train Operator continue to manage its rolling

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stock fleet, its Train Crew and the dissemination of information to its customers; and

RfL(I) shall maintain appropriate train control arrangements with other Train
Operators which are not participating directly in the RCC but which operate
over the routes managed by the RCC.

CCOS ROC SECTION 2 – EMERGENCY TIMETABLING PROCEDURE IN THE EVENT OF EXTENDED DISRUPTION

This section governs the arrangements for implementing an emergency timetable, when an Extended Disruption occurs.

The availability of a Contingency Plan should first be considered. This may prescribe an emergency timetable, or provide a procedure for arriving at one. If there is not a Contingency Plan covering the position (or the Contingency Plan does not include an emergency timetable), then RfL(I) or Train Operators can initiate procedures leading to the adoption of an emergency timetable.

Once such an emergency timetable is in operation, it must be kept under review, and analogous procedures apply to modifications resulting from that review. The Working Timetable is to be restored as soon as possible after the end of the Extended Disruption, and the transitional arrangements for restoration are kept under review until completed.

The following terms used in this section are defined elsewhere:

- the CCOS Network Code defines Disruptive Event, Extended Disruption,
 CCOS, the Objective (in Part H), the Working Timetable (in Part A) and
 Decision Criteria (set out in Condition D4.6);
- the Introductory and General Section of the CCOS ROC defines Contingency Plan and provides that references to Conditions are to Conditions of the CCOS Network Code.

The processes involved in implementing and withdrawing an emergency timetable are illustrated in Appendix 1. Neither the flowchart contained therein nor the remainder of this explanatory note forms part of this CCOS ROC.

1. Definitions

1.1 "Affected Train Operator" means any Train Operator affected or likely to be affected by the relevant Extended Disruption or by any timetable amendment under this section;

- 1.2 "Applicable Timetable" has the meaning given to it in Part A of the CCOS Network Code:
- 1.3 "Control Office" has the meaning given to it in CCOS ROC Section 1 Control Arrangements; and
- 1.4 "RfL(I) Control Office" has the meaning given to it in CCOS ROC Section 1– Control Arrangements.
- 2. Not used.

3. Emergency Timetabling Objective

- 3.1 The Emergency Timetabling Objective is, in a manner consistent with the Objective:
 - 3.1.1 to minimise the effects of an Extended Disruption;
 - 3.1.2 to permit the operation of trains in accordance with the Applicable Timetable as it would have applied in the absence of the Extended Disruption as soon as reasonably practicable after the end of that Extended Disruption; and
 - 3.1.3 to ensure that, in accommodating the effects of the Extended Disruption, the most efficient and economical use of available resources is made so as to maximise the utilisation of available system capacity for high capacity metro passenger rail services and provide regular service intervals at stations located on the CCOS.

4. Provision for amended Working Timetables in Contingency Plans

- 4.1 RfL(I) and each Train Operator shall, when preparing and regularly reviewing a Contingency Plan, consider whether it is appropriate to include in that Contingency Plan:
 - 4.1.1 amendments to the Working Timetable which are reasonably likely to be required; and
 - 4.1.2 procedures or criteria to guide affected parties in the decisions as to when and how to apply any such amendments which are prepared in

advance; and

- 4.1.3 procedures or criteria to guide affected parties in the establishment of any such amendments not prepared in advance.
- 4.2 Any amendments to the Working Timetable provided for in the Contingency Plan shall seek to achieve the Emergency Timetabling Objective and be established as part of the process for establishing Contingency Plans or as part of a process for which the Contingency Plan provides, having due regard to the Decision Criteria set out in Condition D4.6.

5. Agreed amendment of Working Timetable

- Any Affected Train Operator shall, if it considers that an Extended Disruption exists or may exist, notify RfL(I) accordingly. If RfL(I) is reasonably satisfied that an Extended Disruption exists or may exist (with or without that notification), it shall take the steps set out below, as applicable.
- 5.2 If a Contingency Plan governs such Extended Disruption, RfL(I) shall as soon as is reasonably practicable:
 - 5.2.1 consult with all Affected Train Operators as regards the implementation of the relevant sections of the Contingency Plan; and
 - 5.2.2 (unless otherwise agreed and having regard to the feasibility of implementation insofar as it impacts on Affected Train Operators) implement the relevant sections of that Contingency Plan, including amendments to the Working Timetable for which it may provide, and Affected Train Operators shall afford all reasonable co-operation with such implementation.
- 5.3 If there is no such Contingency Plan (or if the Contingency Plan does not govern the Extended Disruption):
 - 5.3.1 RfL(I) shall as soon as is reasonably practicable consult with all Affected Train Operators and consider whether the Emergency Timetabling Objective will be better achieved by an amendment to the Working Timetable; and, if so:

- 5.3.2 RfL(I) shall use all reasonable endeavours to agree with all Affected Train Operators, having due regard to the Decision Criteria, an amendment to the Working Timetable to achieve the Emergency Timetabling Objective.
- 5.4 Each Affected Train Operator shall cooperate with such consultation and, if requested, use all reasonable endeavours to agree an amendment to the Working Timetable to achieve the Emergency Timetabling Objective. RfL(I) shall implement any amendment to the Working Timetable which is agreed as required by paragraph 5.3.2 as soon as reasonably practicable to achieve better the Emergency Timetabling Objective.
- 5.5 If, following such consultation, despite RfL(I) having used all such reasonable endeavours to reach agreement as required by paragraph 5.3.2:
 - 5.5.1 RfL(I) has reached agreement on amendment of the Working Timetable with two thirds or more of the Affected Train Operators, but has been unable to reach agreement with the remainder;
 - 5.5.2 RfL(I) is of the reasonable opinion that the Emergency Timetabling Objective will be better achieved with such amendment, despite the absence of agreement with the remainder of the Affected Train Operators, having considered any representations made by Affected Train Operators as to the practicality of so proceeding; and
 - 5.5.3 RfL(I) has given notice to the Affected Train Operators, stating the amendment to be made, who has and has not agreed it, and its reasons for sustaining the opinion mentioned in paragraph 5.5.2 in the light of any representations made,

then RfL(I) shall implement such an amendment to the Working Timetable as soon as is reasonably practicable without the agreement of the remainder of the Affected Train Operators, in order to achieve better the Emergency Timetabling Objective.

6. RfL(I) to Establish Amended Working Timetable

6.1 Where an amended Working Timetable is to be implemented under

paragraph 5, RfL(I) shall promptly produce a revised Working Timetable reflecting the amendment and shall notify all Affected Train Operators of it (which may include notifying all Affected Train Operators of a pre-prepared revised Working Timetable held in the signalling system which reflects the amendment).

6.2 Where the RfL(I) Control Office predicts the Extended Disruption will last longer than 72 hours, appropriate dialogue between the RfL(I) Control Office, the Affected Train Operators and Network Rail's Capacity Planning department shall begin at the earliest opportunity to establish whether an amended Working Timetable should be introduced and the timescales for such a timetable to be implemented. Given the connections between the CCOS and the NR Network, if RfL(I) so notifies the Affected Train Operators, the Affected Train Operators may be required to work directly with Network Rail to implement an amended working timetable which covers both the NR Network and the CCOS.

7. Review of Revised Working Timetable

- 7.1 With the objective of ensuring that the revised Working Timetable achieves the Emergency Timetabling Objective, RfL(I) shall keep the revised Working Timetable under review. RfL(I) shall propose modifications to the revised Working Timetable whenever it reasonably considers such modifications are necessary for the purpose of better achieving the Emergency Timetabling Objective.
- 7.2 Any Affected Train Operator may propose to RfL(I) such modifications to the revised Working Timetable as it reasonably considers necessary for the purpose of better achieving the Emergency Timetabling Objective.
- 7.3 If RfL(I) makes or receives any proposal under paragraphs 7.1 or 7.2 to modify the revised Working Timetable (and, in the case of a request received, it reasonably considers that the Emergency Timetabling Objective will be better achieved by any such modifications), it shall promptly consult all Affected Train Operators.
- 7.4 RfL(I) shall use all reasonable endeavours to agree with all Affected Train

Operators, having due regard to the Decision Criteria, the proposed modifications to the revised Working Timetable to achieve better the Emergency Timetabling Objective.

- 7.5 Each Train Operator consulted by RfL(I) in respect of any proposal made under paragraphs 7.1 or 7.2 shall cooperate with such consultation and shall use all reasonable endeavours to agree such modifications to the revised Working Timetable to achieve better the Emergency Timetabling Objective.
 - RfL(I) shall implement any such modifications to the revised Working Timetable which are agreed as required by paragraph 7.4 as soon as reasonably practicable to achieve better the Emergency Timetabling Objective.
- 7.6 If, following such consultation, despite RfL(I) having used all such reasonable endeavours to reach agreement as required by paragraph 7.4:
 - 7.6.1 RfL(I) has reached agreement on modifications to the revised Working Timetable with a majority of the Affected Train Operators but has been unable to reach agreement with the remainder;
 - 7.6.2 RfL(I) is of the reasonable opinion that the Emergency Timetabling Objective will be better achieved with such modifications, despite the absence of agreement with the remainder of the Affected Train Operators, and having considered any representations made by Affected Train Operators as regards the practicality of proceeding without such agreement; and
 - 7.6.3 RfL(I) has given notice to the Affected Train Operators, stating the modifications to be made, who has and has not agreed them, and its reasons for sustaining the opinion mentioned in paragraph 7.6.2 in the light of any representations made,

then RfL(I) shall implement such modifications to the revised Working Timetable as soon as reasonably practicable without the agreement of the remainder of the Affected Train Operators, in order to achieve better the Emergency Timetabling Objective.

7.7 Where a modification to the revised Working Timetable is to be implemented under this paragraph 7, RfL(I) shall promptly produce a further revised Working Timetable reflecting the modification and shall notify all Affected Train Operators of it.

8. Not used.

9. Restoration of Working Timetable

9.1 Subject to paragraph 10, as soon as is reasonably practicable after the end of an Extended Disruption to which a revised Working Timetable applies, the Applicable Timetable as it would have applied in the absence of such Extended Disruption shall be restored and RfL(I) shall propose this and follow the procedures under paragraph 7 as though such restoration were the making of a modification to the revised Working Timetable.

10. Continuation of Emergency Timetable

- 10.1 Pending the restoration of the Applicable Timetable as it would have applied in the absence of such Extended Disruption, the latest revised Working Timetable established under this section shall continue, whether or not the Extended Disruption shall have ended, but without prejudice to:
 - 10.1.1 the arrangements for reviewing the revised Working Timetable under paragraph 7;
 - 10.1.2 the obligations in relation to the restoration of the Applicable Timetable under paragraph 9; and
 - 10.1.3 the obligations of RfL(I) under paragraph 10.2.3.
- 10.2 If RfL(I) reasonably considers that permitting the operation of trains in accordance with the Applicable Timetable as it would have applied in the absence of such Extended Disruption after the end of an Extended Disruption is not reasonably practicable, then it shall promptly:
 - 10.2.1 give to each Affected Train Operator notice of its opinion together with its reasons;

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- 10.2.2 take into account any representations or objections which any of them shall make in relation to the matter; and
- 10.2.3 if the revised Working Timetable established pursuant to this section has been or is likely to be in operation for a longer period than was expected when it was established, reconsider the revised Working Timetable and re- comply with the procedures specified in paragraph 7, without prejudice to its powers and responsibilities for the exercise of "on the day" operational control of the CCOS.

Appendix 1: Emergency Timetable Process Flowchart



CCOS ROC SECTION 3 - ARRANGEMENTS FOR PROVISION OF EQUIPMENT TO DEAL WITH ADVERSE AND EXTREME WEATHER CONDITIONS; AND THE PREPARATION FOR AND RESPONSE TO SEASONAL DISRUPTIONS.

This section governs the arrangements for the preparation, planning for, response to, and provision of equipment to manage operational disruption arising from adverse weather conditions including seasonal conditions.

Access Parties are to work to a network seasonal calendar with key dates for activities to take place in relation to the preparation of arrangements for each season and mitigation measures for all year round hazards.

The following terms used in this section are defined elsewhere:

- the CCOS Network Code defines Disruptive Event, establish and establishment (when used in the context of establishing this section), Extended Disruption, Objective, (in Part H), CCOS, Access Parties, Train Operator, Services and Working Timetable (in Part A) and Decision Criteria (set out in Condition D4.6);
- the Introductory and General Section of the CCOS ROC defines
 Contingency Plan and provides that references to Conditions are to
 Conditions of the CCOS Network Code.

This explanatory note does not form part of this CCOS ROC.

1. Definitions

- 1.1 "Seasonal, Adverse and Extreme Weather Objective" is the objective set out in paragraph 3.1;
- 1.2 "Seasonal Arrangements" means a statement issued by RfL(I) prior to the applicable season that:
 - 1.2.1 contains the arrangements in respect of preparing and planning for, and responding to, seasonal weather conditions, which may include weather-related hazards, that (so far as concerns the measures to

- be observed or performed by the affected Train Operators) have been agreed between the affected Train Operators and RfL(I) as applicable during the relevant season;
- 1.2.2 includes any specific Contingency Plans as part of such arrangements; and
- 1.2.3 identifies any applicable emergency timetables with key route strategies;
- 1.3 "Seasonal Calendar" means a RfL(I) annual process map that contains the planning arrangements and the measurements of activity of preparedness for weather-related hazard;
- 1.4 "Summer" is treated as beginning on 1 April each year and ending on 30 September, "Autumn" is treated as beginning on 1 October and ending on 13 December, "Winter" is treated as beginning on 1 October and ending on 31 March next year (and so overlaps with Autumn); and references to "season" or "seasonal" shall be interpreted accordingly; and
- 1.5 "Weather Management Standards" means RfL(I)'s relevant company standards pertaining to weather management (referred to in the RfL(I) Crossrail Network Control Manual 5.1 Adverse Weather or any amendment or replacement of this).
- 2. Not used.
- 3. Adverse and extreme weather conditions and the preparation for seasonal disruption: the Seasonal, Adverse and Extreme Weather Objective
- 3.1 The Seasonal, Adverse and Extreme Weather Objective is, in a manner consistent with the ROC Objective (which is to sustain and, where necessary, restore expeditiously the operation of Services as further described in the ROC Objective) set out in paragraph 2.1 of the Introductory and General Section of this CCOS ROC:
 - 3.1.1 to publish combined Train Operator and RfL(I) response to seasonal

- disruption and weather- related hazards;
- 3.1.2 to detail the contingency arrangements for each season including the provision of emergency timetables (where applicable) and key strategies for use of the CCOS; and
- 3.1.3 to identify specific tasks and measures to ensure that, in accommodating the effects of seasonal disruption and weather-related hazards, the most efficient and economical use of available resources is made so as to fulfil so far as reasonably practicable the needs of passengers.
- 3.2 RfL(I) shall, in its capacity as operator of the CCOS, and the other Access Parties shall respectively undertake their activities envisaged by this section in a manner which supports the fulfilment of the Seasonal, Adverse and Extreme Weather Objective.

4. Weather Management Standards and forecast arrangements

4.1 RfL(I):

- 4.1.1 shall comply with the Weather Management Standards and shall issue daily weather information to the other Access Parties in accordance with the procedure set out in that standard;
- 4.1.2 shall maintain the Weather Management Standards under review for the purpose of its better fulfilment of the Seasonal, Adverse and Extreme Weather Objective;
- 4.1.3 shall make available the Weather Management Standards to all other Access Parties upon establishing this section and to any Access Party subsequently on request and notify promptly any changes to the Weather Management Standards to such Access Parties; and
- 4.1.4 may (but is not obliged to) publish the Weather Management Standards further.

5. Seasonal Arrangements

5.1 Planning and provision of documentation

- 5.1.1 RfL(I) shall be responsible for the timely formulation and dissemination of the Seasonal Arrangements and shall facilitate the involvement of the other Access Parties in their preparation and review.
- 5.1.2 Access Parties shall participate in consultations and support the planning and production of the Seasonal Arrangements for Summer, Autumn and Winter in conjunction with RfL(I), and so that agreement shall not be unreasonably withheld or delayed in respect of those matters to which paragraph 1.2.1 refers as to be agreed. RfL(I) shall in the formulation of the Seasonal Arrangements have due regard to representations made by the other Access Parties in the course of such consultations.

5.2 Implementation of Seasonal Arrangements

- 5.2.1 RfL(I) shall so far as reasonably practicable comply with the procedures contained in the Seasonal Arrangements for the response to weather hazards, acting in accordance with implementation procedures contained in the Weather Management Standards.
- 5.2.2 Access Parties shall comply as far as reasonably practicable with the joint procedures contained within the Seasonal Arrangements for the response to seasonal weather conditions, which may include weather-related hazards, referred to in paragraph 1.2.1 (compliance with Contingency Plans mentioned in paragraph 1.2.2 being a matter for "CCOS ROC Section 1 Control Arrangements", and establishment and implementation of emergency timetables mentioned in paragraph 1.2.3 being a matter for "CCOS ROC Section 2 Emergency Timetabling Procedure in the Event of Extended Disruption").

5.2.3 When a specific hazard or risk is identified from prevailing or predicted weather conditions outside the season under which the Seasonal Arrangements address that hazard or risk, then, if the Seasonal Arrangements are capable of being applied to it, the Access Parties shall so far as reasonably practicable seek to implement them accordingly.

6. Seasonal Calendar

- 6.1 RfL(I) shall maintain a Seasonal Calendar and:
 - 6.1.1 shall be responsible for the design, operation and safeguard of the data contained within the Seasonal Calendar; and
 - 6.1.2 may maintain it in a website or other format.
- 6.2 In maintaining the seasonal calendar:
 - 6.2.1 the other Access Parties and such other persons as RfL(I) shall consider appropriate, shall meet the reasonable requirements of RfL(I) to populate the revised Seasonal Calendar with seasonal precautionary measures and progress with activities;
 - 6.2.2 following any necessary transitional arrangements, the revised Seasonal Calendar shall be the Seasonal Calendar for the purposes of this section; and
 - 6.2.3 RfL(I) shall fulfil its obligation to populate the revised Seasonal Calendar with seasonal precautionary measures and progress with activities.

7. Weather Strategy Code

- 7.1 RfL(I) shall produce a code (the "Weather Strategy Code") that will draw together the arrangements for engagement with the other Access Parties in relation to seasonal, adverse and extreme weather conditions on a strategic basis and shall include:
 - 7.1.1 contact arrangements;

- 7.1.2 RfL(I) responsibilities;
- 7.1.3 formulation of Contingency Plans;
- 7.1.4 RfL(I) contracts relevant to the provision of equipment to deal with adverse and extreme weather conditions:
- 7.1.5 other Access Parties' responsibilities;
- 7.1.6 defined joint activities between each of the Access Parties; and
- 7.1.7 the arrangements for on-going review of the Weather Strategy Code.
- 7.2 The Weather Strategy Code shall:
 - 7.2.1 be consistent with the responsibilities and arrangements under this section and shall be prepared by RfL(I) in consultation (including as to the timing of its production) with other Access Parties;
 - 7.2.2 be capable of being varied by the procedures under Conditions H5.1 to H5.8, and shall apply to all Access Parties; and
 - 7.2.3 be issued by RfL(I) to all other Access Parties upon its establishment and to any Access Party subsequently on request, and RfL(I) may (but is not obliged to) publish it further.

8. Weather-related general and localised hazards

8.1 Where risks exist in respect of adverse and extreme weather conditions, which may include weather-related hazards and which are not addressed as part of the Seasonal Arrangements, RfL(I) and the Access Parties shall collaborate to produce local arrangements and Contingency Plans and shall agree joint plans so as best to promote the Seasonal, Adverse and Extreme Weather Objective.

9. Joint Seasonal reviews

- 9.1 RfL(I) shall hold annual seasonal reviews, inviting the relevant Access Parties.
- 9.2 Not used.

9.3 Under such reviews, RfL(I) and the relevant Access Parties shall, using reasonable endeavours, participate in sharing best practice and revising any arrangements, plans and the Seasonal Calendar in light of experience or the identification of new hazards.

10. Provision of assistance and distribution of equipment

- 10.1 RfL(I) shall, in its sole discretion, provide such equipment, distributed at such locations, as it shall reasonably consider appropriate to accommodate the effects of adverse and extreme weather conditions in relation to the operation of the CCOS.
- 10.2 If a Train Operator holds any equipment which it has not agreed to provide to RfL(I) for this purpose in any of the plans or other arrangements under this section, and that equipment in the reasonable opinion of RfL(I), may assist in fulfilling that purpose, then:
 - 10.2.1 the Train Operator shall, where reasonably requested to do so by RfL(I), make that equipment available and otherwise provide reasonable assistance for this purpose; and
 - 10.2.2 RfL(I) shall be responsible for the Train Operator's reasonable costs as shall be agreed between the parties.

11. Subsidiary documentation

11.1 The Weather Management Standards shall constitute subsidiary documentation for the purposes of this ROC Section.

12. Reviews

12.1 This section shall be reviewed as set out in the Introductory and General Section.

CCOS ROC SECTION 4 – TRAIN REGULATION POLICY

This section provides for RfL(I) to establish and comply with Train Regulation Policy. This is the documented policy governing the regulation of trains by RfL(I), for the promotion of the Train Regulation Objective.

Train Operators or RfL(I) may propose changes to the Train Regulation Policy, to be consulted upon prior to their determination. Alternatively, new policies may be developed through agreed trials.

The following term used in this section is defined elsewhere:

The CCOS Network Code defines the Objective (of the CCOS ROC) in Part
 H.

This explanatory note does not form part of this CCOS ROC.

1. Not used.

2. Train Regulation Objective

- 2.1 The Train Regulation Objective is the striking of a fair and reasonable balance between:
 - 2.1.1 the most efficient use of the CCOS in its capacity as a railway designated as specialised infrastructure for use by high capacity metro passenger rail services;
 - 2.1.2 maintenance of regular service intervals;
 - 2.1.3 minimising the lateness of the trains concerned;
 - 2.1.4 maintaining timetable path connections between the CCOS and neighbouring infrastructure (including the NR Network);
 - 2.1.5 priorities or other requirements determined from time to time by Operations Control; and
 - 2.1.6 avoiding undue discrimination between Train Operators.
- 2.2 The interests of safety and security, as set out in Condition A1.1 of the

CCOS Network Code, are at all times paramount.

3. RfL(I)'s Obligation

3.1 RfL(I) shall establish and thereafter comply with the Train Regulation Policies.

4. Train Operators' Obligation

- 4.1 Train Operators shall cooperate with RfL(I) in relation to such compliance, including as follows.
- 4.2 Train Operators shall, for the purposes of achievement of the Train Regulation Objective, whenever the situation so demands (and in any event upon reasonable request by RfL(I)) provide to RfL(I) such information or knowledge relating to their current or "real-time" train operations as may reasonably be expected to have a material impact on the ability to regulate trains effectively.
- 4.3 RfL(I) and the Train Operators shall agree the means by which this information will be transmitted and jointly incorporate these in the working arrangements for Operations Control.

5. Train Regulation Policy

- 5.1 The Train Regulation Policy is the policy governing train regulation by RfL(I) for promotion, so far as is reasonably practicable, of the Train Regulation Objective and they constitute subsidiary documentation for the purposes of this CCOS ROC Section.
- 5.2 The Train Regulation Policy shall consist of the train regulation statements.
- 5.3 The Train Regulation Policy may be changed from time to time in whole or in part by means of the variation procedure set out in paragraph 7. It may also, for the duration of any trial, be governed by the trial procedure set out in paragraph 6, without the need to use the variation procedure in paragraph 7.

6. Trials for developing the Train Regulation Policy

6.1 RfL(I) and all affected Train Operators may agree arrangements for the trial

use of a new or modified Train Regulation Policy, which shall include as to:

- 6.1.1 the terms of the new or modified Train Regulation Policy;
- 6.1.2 the scope of the trial, which may be as regards the geographic extent and/or the services covered;
- 6.1.3 the duration of the trial and/or the circumstances in which the trial may be terminated;
- 6.1.4 the suspension of the existing Train Regulation Policy for the duration and extent of the trial; and
- 6.1.5 the review of the trial and the appropriateness of any further changes to those new or modified Train Regulation Policy, any extension to the trial or the permanent adoption (under the procedures in paragraph 7) of the new or modified Train Regulation Policy.
- 6.2 Nothing in this paragraph 6 prevents or constrains the proposal of trial Policy under the procedures set out in paragraph 7. The trial Policy may be varied by agreement between RfL(I) and the relevant Train Operators, or under the procedures set out in paragraph 7.

7. Changing the Train Regulation Policy

- 7.1 The Train Regulation Policy may be varied from time to time or a new or modified Train Regulation Policy substituted, whether in whole or in part, under the procedures set out below. These procedures apply to the exclusion of any variation procedure under the Introductory and General CCOS ROC Section.
 - 7.1.1 RfL(I) or any affected Train Operator may propose a variation to the Train Regulation Policy if it reasonably considers it will better promote the Train Regulation Objective (and/or the Objective of this CCOS ROC (as described in paragraph 2.1 of the Introductory and General section of this CCOS ROC)). A proposal must include a statement of:
 - (a) the details of the proposed variation;

- (b) the reasons why it is considered the variation will better promote the Train Regulation Objective; and
- (c) the intended timing of implementing such variation which must provide for the further operation of these procedures as set out below.
- 7.1.2 A proposal for variation made by a Train Operator must be evaluated by RfL(I) to consider whether it accepts the variation will better promote the Train Regulation Objective (and/or the Objective of this CCOS ROC (as described in paragraph 2.1 of the Introductory and General section of this CCOS ROC)). If, on this basis, RfL(I) decides it does not propose to implement the variation it must, within 28 days from when the proposal was made, give its reasons to the Train Operator. A Train Operator who is dissatisfied with RfL(I)'s evaluation of its proposal may, at its discretion, appeal as though Condition H4 applied.
- 7.1.3 RfL(I) shall, in the case of any variation it proposes should be made (including those proposals initiated by a Train Operator which have been accepted by a Train Operator or which, on the final outcome of any appeal, RfL(I) is required to accept), notify each Train Operator who may reasonably expect to be affected by the variation. The notification must be provided not less than 45 days before the date at which it is intended the variation shall take effect.
- 7.1.4 As soon as reasonably practicable on or after the date on which RfL(I) sends the proposed variation to each relevant Train Operator, RfL(I) shall consult each affected Train Operator in relation to the parts of the proposed variation relevant to such Train Operator and invite the submission to it of representations or objections in respect of the proposal. RfL(I) shall specify a date for concluding such consultation that is consistent with the date at which it is intended to effect the proposed variation.
- 7.1.5 Each Train Operator so consulted shall:

- (a) consider the matters on which RfL(I) has consulted it; and
- (b) give notice to RfL(I) of any representations or objections it wishes to make no later than the specified date for concluding the consultation.
- 7.1.6 RfL(I) may, in initiating such consultation, propose to carry it out by means of a meeting of all the affected Train Operators at which the proposed variation will be considered. Such a meeting must be set for a date that gives reasonable notice of the need to attend and is consistent with the date by which consultation is to be concluded. Such a meeting will be deemed to be the means by which consultation is completed except that, where a Train Operator is unable to attend, this shall not preclude that Operator or relevant consultee from making representations or objections by notice to RfL(I).
- 7.1.7 Following consideration of all representations and objections received, RfL(I) shall as soon as reasonably practicable:
 - (a) decide whether to establish the proposed variation so as to change the Train Regulation Policy from the proposed date and if so, in what form (and so that in cases where the consultation has been effected by a meeting, the proposal for implementation may be altered to take account of the outcome of such consultation); and
 - (b) if the proposed variation is to be made, then notify this by sending a copy to each affected Train Operator and so give effect to the variation.
- 7.1.8 The variation shall then become effective from the date of sending such copy unless the notification of such sending refers to a later date (which may be the date notified in the proposal in accordance with paragraph 7.1.1 or any other date for implementation that has been determined in the course of the consultation), in which case the variation shall become effective from that later date.

- 7.1.9 An affected Train Operator may bring an appeal in relation to the variation as though Condition H4 applied, within 30 days of receiving notification under paragraph 7.1.7 and:
 - (a) pending the final conclusion of the appeal and subject to its outcome, RfL(I) may implement the variation if reasonably satisfied that any benefits to users and providers of railway services generally resulting from such implementation will outweigh any detriment to the person appealing; and
 - (b) if the outcome of the appeal as finally concluded is the adjustment of the variation, RfL(I) shall send a copy of the variation as adjusted to each affected Train Operator.
- 7.1.10 RfL(I) or any affected Train Operator may, within 30 days of effect being given to a variation as provided in paragraph 7.1.8, propose a further variation that it reasonably considers will better promote the Train Regulation Objective (and/or the Objective of this CCOS ROC (as described in paragraph 2.1 of the Introductory and General section of this CCOS ROC)). In such a case, this further proposal will be dealt with in accordance with paragraphs 7.1.1 to 7.1.9, except that where RfL(I) and all affected Train Operators so agree, the period between the date of RfL(I) notifying the proposal and the date for implementing the proposed further variation may be reduced. This paragraph 7.1.10 is without prejudice to the Train Operator's general rights to propose variations under paragraph 7.1.1.
- 7.2 Where the Train Regulation Policy has previously been governed by trials in accordance with paragraph 6, RfL(I) and all affected Train Operators may agree that the Train Regulation Policy shall be varied so as to reflect the trial policies, without the need to follow the procedures referred to in paragraph 7.1, from a date that shall have been agreed by the parties.

8. Publication and Review of Train Regulation Policy

8.1 RfL(I) may, but is not required to, publish the Train Regulation Policy referred

to in paragraph 5.2. Where the Train Regulation Policy is varied or modified, RfL(I) shall, upon this taking place, send a copy to each affected Train Operator. RfL(I) is not required to publish beyond the issue of such copies.

8.2 When the effectiveness of this Section is reviewed under paragraph 6 of the Introductory and General Section, this shall include consideration as to whether a review as regards the effectiveness of some or all of the Train Regulation Policies shall also take place. If so, those Train Regulation Policies shall be reviewed accordingly.

CCOS ROC SECTION 5 - ARRANGEMENTS FOR CLEARANCE OF TRACK BLOCKAGES AND ASSISTANCE FOR FAILED TRAINS

This section details the principles and arrangements that will apply to the management of failed and disabled trains in order to clear the running lines. The purpose of the section is to identify the fundamental principles of operating rolling stock and traction upon the CCOS so that failures can be quickly identified and assisted, and so as to ensure that where trains are disabled, arrangements can be applied by all parties that enable safe rescue of the stranded train and passengers.

The processes and arrangements for the management of track blockages in terms of network operation are contained within the CCOS ROC sections "CCOS ROC Section 1 – Control Arrangements", "CCOS ROC Section 2 – Emergency Timetabling Procedure in the Event of Extended Disruption" and CCOS ROC Section 3 - Arrangements for Provision of Equipment to Deal with Adverse and Extreme Weather Conditions; and the Preparation for and Response to Seasonal Disruptions.".

The following terms are used in this section and defined elsewhere:

 The CCOS Network Code defines Disruptive Event, establishment (when used in the context of establishing this section), Objective (in Part H), Restriction Of Use (in Part D) and Access Agreement, Access Parties, CCOS, Services, Train Crew and Train Operator (in Part A).

This section introduces definitions for matters relating to a train unable to move when it has not failed.

This explanatory note does not form part of this CCOS ROC.

1. Definitions

- 1.1 In this section, unless the context otherwise requires:
 - 1.1.1 "Appropriate Location" means, in respect of a Failed Train or a Disabled Train:
 - (a) which is a passenger train, the nearest point at which it is

- reasonably practicable for its passengers to alight so as to continue with their journeys; and
- (b) which is a non-passenger train, the nearest point at which it is reasonably practicable to stable it;
- 1.1.2 "Cut and Run Policy" is a policy agreed in advance between RfL(I) and the relevant Access Party that states the maximum time that may be allowed for a driver to investigate (including where guidance is sought from an Access Party or rolling stock provider's technical support personnel or agents) and attempt to resolve a fault or failure on the train, to enable it to move under its own power (even if this is in a degraded mode) before the driver must declare to the Traffic Manager that his or her train has become a Failed Train or a Disabled Train;

1.1.3 "Disabled Train" means a train that:

- (a) is unable to move due to reasons external to the train (including, but not limited to, the absence of electric traction supply, where applicable); or
- (b) is rendered inoperable due to damage to the train caused by contact with an external object, in the absence of which the train could operate normally (including, but not limited to, damage to brakes or to running gear locking the train wheels);
- 1.1.4 "Evacuation Train" means a train that has been positioned on the same line or an adjacent line to a Failed Train or a Disabled Train for the purpose of evacuating the passengers from that Failed Train or Disabled Train, which may involve the use of bridging equipment between the Failed Train or the Disabled Train and the Evacuation Train, such as ladders or other devices as appropriate to the circumstances:
- 1.1.5 "Failed Train" means a train that is subject of a Train Failure, other

- than a Disabled Train;
- 1.1.6 "RfL(I) Control Office" has the meaning given to it in "CCOS ROC Section 1 Control Arrangements";
- 1.1.7 "Service and Infrastucture Manager" has the meaning given to it in Annex C of "CCOS ROC Section 1 Control Arrangements"
- 1.1.8 "Standby Rescue Traction" means a locomotive, multiple unit or other form of motive power, provided or procured to assist a Failed Train or Disabled Train;
- 1.1.9 "Traffic Manager" has the meaning given to it in Annex C of "CCOS ROC Section 1 Control Arrangements"
- 1.1.10 "Train Failure" means any failure of a train to move under its own power (including as a result of breakdown or any failure properly to load or prepare a train) which adversely affects either:
 - (a) the operation of other trains on the CCOS; or
 - (b) any works carried out or to be carried out by or on behalf of RfL(I) during a Restriction of Use to which RfL(I) is entitled pursuant to the CCOS Network Code or any Access Agreement; and
- 1.1.11 "Train Operator Control Office" and "RfL(I) Control Office" have the respective meanings given to them in "CCOS ROC Section 1 – Control Arrangements".

2. Contents of this section

- 2.1 This section describes:
 - 2.1.1 the arrangements for dealing with Failed Trains and Disabled Trains within the Crossrail Network Control Manual established in accordance with "CCOS ROC Section 1 Control Arrangements".
 - 2.1.2 the policy for determining a Failed Train or Disabled Train and the arrangements to be applied for the provision of an assisting train;

- 2.1.3 the arrangements for the provision of an Evacuation Train; and
- 2.1.4 the arrangements for reviewing the compatibility of traction types for assisting Disabled Trains and Failed Trains.
- 3. Not used.

4. Objective and Obligations

4.1 Objective

- 4.1.1 The objective of this section is:
 - (a) to facilitate the rapid clearance of a Failed Train or Disabled
 Train as appropriate, so as to clear the running lines; and
 - (b) to provide the guiding principles to enable this to be achieved in each case, so as to support the CCOS ROC Objective set out in paragraph 2.1 of the Introductory and General section of this CCOS ROC.

4.2 RfL(I) and other Access Parties' Obligations

- 4.2.1 RfL(I) shall in its capacity as operator of the CCOS undertake its activities envisaged by this section in a manner which supports the fulfilment of the objective of this section.
- 4.2.2 The Access Parties shall undertake their activities envisaged by this section in a manner which supports the fulfilment of the objective of this section.

5. Arrangements to deal with Failed Trains and Disabled Trains within the Crossrail Network Control Manual

- 5.1 RfL(I) shall develop with the relevant Train Operators provisions to deal with Failed Trains and Disabled Trains within the Crossrail Network Control Manual established under paragraph 7 of "CCOS ROC Section 1 Control Arrangements" as follows:
 - 5.1.1 a Cut and Run Policy that is specific to a particular traction type but

which is mutually agreed to be compatible with the maximum duration that could be allowed, taking account of the impact that such failure or disablement may be anticipated to have on the overall operation of the CCOS;

- 5.1.2 provisions for making available expeditiously appropriate technical assistance (including attendance, where appropriate) for the rectification of faults on Failed Trains and Disabled Trains by the Train Operators on the CCOS for themselves and for each other. Such provisions shall include arrangements between the parties for the securing and maintenance of sufficient competence in the staff providing such technical assistance related to the relevant types of train.
- 5.2 Train Operators shall co-operate with RfL(I) in the development and agreement of the Cut and Run Policies in accordance with paragraph 5.1.

6. Failure of a Train Operator's Train

6.1 Notification of Train Failure

6.1.1 If a Train Failure occurs in respect of a train operated by a Train Operator, it shall promptly notify RfL(I) of the location of the Failed Train, the time at which such train is declared to be a failure and any other details reasonably required by RfL(I) in respect of the Failed Train.

6.1.2 Each Train Operator:

- (a) shall have procedures that ensure that its Train Crew immediately contact the Traffic Manager when either their train has stopped out of course due to an apparent fault or is otherwise mandated to do so;
- (b) shall have procedures that ensure information concerning a Train Failure reported to their particular Train Operator Control Office is promptly advised to the RfL(I) Rail Control Office; and

(c) shall ensure that the Traffic Manager is notified of any Train Failures in accordance with the Cut and Run Policy.

6.2 RfL(I)'s obligation to consult Train Operators

- 6.2.1 On becoming aware that a Train Failure has occurred, RfL(I) shall promptly:
 - (a) consult with the Train Operator of the Failed Train in order to ascertain the reason for the Train Failure and to obtain such other information as may be necessary in order to effect a safe and expeditious removal of the Failed Train; and
 - (b) consult with other Train Operators whose trains are or are likely to be in the vicinity of the Failed Train in order to assess the capability of those trains to move the Failed Train.

6.3 Movement of Failed Train by its Train Operator

6.3.1 if, after consultation in accordance with paragraph 6.2.1(a), RfL(I) reasonably believes that the Train Failure in question can be remedied by action taken by or on behalf of the Train Operator's Train Crew at the site of the Train Failure, it shall require the Train Operator to take such action as is necessary to move the Failed Train. Such requirement may be subject to such time limits as RfL(I) shall reasonably specify to the Train Operator in accordance with the Cut and Run Policy having due regard to the effect of the Train Failure on trains on the same or adjoining sections of track.

6.4 Consultation where assistance required

6.4.1 If after consultation in accordance with paragraph 6.2.1 and, if relevant, the expiry of any time limit specified by RfL(I) pursuant to paragraph 6.3.1, RfL(I) reasonably believes that the Failed Train can only be moved with the assistance of another train, RfL(I) shall consult with the Train Operator operating the Failed Train as to the capabilities of any trains which are available to assist the Failed

Train or the nature of other assistance.

6.5 Compliance with RfL(I)'s instructions

6.5.1 The Train Operator shall, subject to RfL(I) having consulted with it in accordance with paragraphs 6.2.1 and 6.4.1, comply with any reasonable instructions of RfL(I) for the purpose of ensuring, with any such assistance as referred to in paragraph 6.4.1, the prompt removal of the Failed Train to an Appropriate Location.

7. Assistance to a Failed Train

7.1 Use of following train

7.1.1 If, after consultation in accordance with paragraph 6, RfL(I) reasonably believes that the train immediately following a Failed Train is able to move the Failed Train by pushing or pulling it, RfL(I) may commission the Train Operator of such train to use it to push or pull the Failed Train under the guidance and control of the Train Operator of the Failed Train to such Appropriate Location as RfL(I) shall notify to that Train Operator.

7.2 Procurement of other trains

- 7.2.1 If a Failed Train cannot, in the opinion of RfL(I), be moved by the train immediately following the Failed Train, RfL(I) may procure that any Train Operator in control of a train in the vicinity of the Failed Train moves the Failed Train to such Appropriate Location as RfL(I) shall notify to it. RfL(I) may only procure the Train Operator's train:
 - (a) with the consent of that Train Operator (which consent shall not be unreasonably withheld or delayed); and
 - (b) if, having had due regard to all relevant factors (including the factors set out in paragraph 7.3), it reasonably believes the Train Operator's train is the most appropriate means to move the Failed Train.
- 7.2.2 Such consent by the Train Operator shall be requested from the

Train Operator Control Office but this shall not preclude such request and consent from being communicated through the driver of the train unless otherwise agreed.

7.3 Relevant factors

- 7.3.1 The factors referred to in paragraph 7.2 are, in relation to the relevant train:
 - its traction capability for the intended purpose (for example, in relation to the tonnage of the train to be assisted and the gradients which it is to encounter);
 - (b) the current use of the train; and
 - (c) the route knowledge, competency in terms of traction knowledge, and ability to provide assistance of its Train Crew;

7.4 Compliance with directions

- 7.4.1 Where it provides an assisting train, a Train Operator shall comply with any directions given by RfL(I) to move that Failed Train to such Appropriate Location as has been notified to it and:
 - (a) subject to such directions, the Train Crew of the train that is assisting shall, during the course of moving the Failed Train, act under the guidance and control of the Train Operator of the Failed Train; and
 - (b) nothing in this paragraph 7.4.1 shall oblige any Train Operator to contravene any CCOS Standard.

7.5 Movement to Appropriate Location

7.5.1 RfL(I) shall use all reasonable endeavours to ensure that a Failed Train is moved to the Appropriate Location notified to the Train Operator in accordance with this paragraph 7. A Train Operator whose train has been procured to move a Failed Train under this

paragraph 7 shall be obliged to move such Failed Train only to an Appropriate Location notified to the Train Operator in accordance with this paragraph 7.

7.6 Timely release of assisting train

7.6.1 RfL(I) shall use all reasonable endeavours to release the assisting train to the assisting Train Operator as soon as reasonably practicable and in any event within a period of 3 hours from the time at which such train was procured by RfL(I) in accordance with this paragraph 7.

7.7 Assistance in reaching intended destination

7.7.1 RfL(I) shall use all reasonable means to assist a Train Operator whose train has been procured to move a Failed Train, so that its train can reach its intended destination, as soon as reasonably practicable.

8. Compensation for moving Failed Trains

8.1 Obligation to reimburse RfL(I)

8.1.1 Except as provided for in paragraph 8.4, if one of a Train Operator's trains is subject to a Train Failure due to a mechanical defect or other cause attributable to the Train Operator and such train is moved in accordance with paragraphs 6 and 7, the Train Operator shall pay RfL(I) the sum of the amounts payable under paragraph 8.2.

8.2 Right to payment for assisting Failed Train

- 8.2.1 Except as provided for in paragraph 8.4, where a train of a Train Operator has been procured for use to assist a Failed Train in accordance with paragraph 7.1 and 7.2, RfL(I) shall pay to the Train Operator:
 - (a) £3,600; and

(b) £360 for every hour which the train is assisting the Failed Train over and above 3 hours.

8.3 Price Variation

- 8.3.1 The amounts specified in paragraph 8.2.1 shall remain in force until 31 March 2020, and:
 - (a) on 1 April each year commencing with 1 April 2020 the amounts specified in paragraph 8.2.1 which applied in the immediately preceding year shall be adjusted by multiplying them by the Adjustment Factor rounded to three decimal places, to be calculated in accordance with the following formula:

Adjustment Factor =
$$1 + \frac{(RPI \ t-1-RPI \ t-2)}{RPI \ t-2}$$

where:

RPI t-1 means the average monthly value of the Retail Prices Index All Items ("RPI") issued by the Office for National Statistics for the 12 months up to and including the month of February immediately preceding the relevant 1 April;

RPI t-2 means the average monthly value of the Retail Prices Index referred to above applicable for the 12 months up to and including the month of February which is 12 months before the month of February immediately preceding the relevant 1 April;

- (b) the amounts calculated in accordance with paragraph (b) above shall be rounded to the nearest £10; and
- (c) as soon as reasonably practicable after 1 April each year,
 RfL(I) shall give notice to each Train Operator of the
 adjusted amounts calculated in accordance with paragraph

(a) above.

8.4 Alternative financial arrangements

8.4.1 The provisions of paragraph 8.1, 8.2 and 8.3 shall apply subject to any alternative financial arrangements which may be agreed between Train Operators who are to pay and receive amounts under those conditions, provided such alternative arrangements have first been notified to and approved by RfL(I) (such approval not to be unreasonably withheld or delayed).

8.5 Liability of assisting Train Operator for payments to RfL(I)

8.5.1 Without prejudice to any obligation arising as a result of its failure to perform any obligation or its negligence, no Train Operator who assists a Failed Train in accordance with this CCOS ROC Section 5 shall be liable to pay to RfL(I) any amount (whether in respect of permission to use track, signalling or other equipment or the provision of electricity or any service or otherwise) which it would, but for this paragraph 8.5, have become liable to pay as a result of assisting a Failed Train.

9. Disabled Trains

- 9.1 Paragraphs 6, 7 and 8 shall apply as appropriate to the circumstances for providing assistance to Disabled Trains, except that:
 - 9.1.1 RfL(I) shall investigate, where relevant, loss of traction supply, and shall endeavour to restore the supply; and
 - 9.1.2 if the supply cannot be restored within a reasonable period, RfL(I) in accordance with "CCOS ROC Section 1 Control Arrangements" and subject to paragraph 7 shall make arrangements to provide assistance to the Disabled Train.

10. The provision of Evacuation Trains

10.1 If the Service and Infrastructure Manager has decided, in consultation with the relevant Train Operator, that an Evacuation Train is required at the

location of a Failed Train or Disabled Train, RfL(I) shall:

- 10.1.1 identify the size and type of Evacuation Train required; and
- 10.1.2 consult and agree with the relevant Train Operators operating in the vicinity of the Disabled Train which train(s) shall be utilised as the Evacuation Train.
- 10.2 RfL(I) shall ensure that the arrangements for the Evacuation Train are recorded and advised to the Train Operator who will supply the Evacuation Train.
- 10.3 Train Operators requested to provide an Evacuation Train shall not unreasonably withhold or delay their consent to such provision.
- 10.4 RfL(I) may, in the absence of any agreement, and provided it is acting in accordance with the objective of this CCOS ROC Section and with due regard to the urgency of the situation, direct the provision of an Evacuation Train.

11. Provision of Standby Rescue Traction

- 11.1 RfL(I) shall, from time to time, review the arrangements (if any) for the provision of Standby Rescue Traction in conjunction with the review of contingency arrangements required within "CCOS ROC Section 1 Control Arrangements".
- 11.2 The factors to be taken into account in such review shall include (but not be limited to):
 - 11.2.1 the Services provided on the CCOS;
 - 11.2.2 traction types;
 - 11.2.3 the coupling compatibility between trains operating on the CCOS, including the provision of adaptor couplings;
 - 11.2.4 the provision of engineering response to Failed Trains or Disabled Trains;

- 11.2.5 suitable stabling locations and any other relevant factors;
- 11.2.6 the route knowledge and competency in terms of traction knowledge of Train Crew who may be engaged;
- 11.2.7 the availability of suitable traction to provide a standby rescue capability; and
- 11.2.8 the likely availability of traction capable of being procured for the purposes of assisting a failed train in accordance with paragraph 7 of this Section.
- 11.3 The assessments of risk will also take into account relevant activities arising under "CCOS ROC Section 3 Arrangements for Provision of Equipment to Deal with Adverse and Extreme Weather Conditions; and the Preparation for and Response to Seasonal Disruptions.".
- 11.4 RfL(I) and the affected Access Parties shall decide upon the conclusions of the review and as to the arrangement to provide Standby Rescue Traction, as appropriate.
- 11.5 Nothing in this paragraph 11 creates any obligation on any party with regard to the provision of such Standby Rescue Traction or its funding.
- 11.6 The arrangements under paragraph 11.5 will not preclude RfL(I) from investigating and evaluating the feasibility of providing, procuring and/or operating its own fleet of Standby Rescue Traction, and if RfL(I) shall determine to do so, then:
 - 11.6.1 RfL(I) and the affected Access Parties shall review the arrangements under paragraph 11.5; and
 - 11.6.2 this section will be reviewed, whether or not such a review is due in accordance with paragraph 6 of the CCOS ROC Section entitled "Introductory and General Section".

12. Compatibility between traction types

12.1 RfL(I) and other Access Parties shall co-operate in establishing coupling

compatibility between every type of train. In undertaking such co-operation the following non exhaustive list of factors shall be considered:

- 12.1.1 the minimum requirement for through control that is required when assisting a Failed Train or Disabled Train;
- 12.1.2 through control in terms of brake, power and multiple working;
- 12.1.3 CCOS Standards applicable;
- 12.1.4 the different designs of physical coupling and associated connectors; and
- 12.1.5 haulage capability of each train.
- The purpose of the process of co-operation is to identify which types of train can be coupled together to inform the activities in Sections 7.1 to 7.3 and 9 above. The circumstances of and use of adaptor couplings when assistance is to be provided for a Failed Train or Disabled Train shall be incorporated by RfL(I) into the Crossrail Network Control Manual.
- 12.3 Nothing in this paragraph 12 creates an obligation on any party with regard to the provision of anything consequential upon the outcome of the cooperation exercise and any recommendations arising therefrom or the funding of any such recommendations.

CCOS ROC SECTION 6 – PROVISION OF CUSTOMER SERVICE INFORMATION

This section details the principles and arrangements that will apply to the management of the provision of Customer Service Information during normal operations, times of disruption and the occurrence of severe incidents extensively affecting the CCOS.

This Section provides the arrangements for disseminating information to relevant customers, including the process or procedures contained within those other sections if applied.

The following terms are used in this section and defined elsewhere:

 The CCOS Network Code defines Disruptive Event, establishment (when used in the context of establishing this section), Extended Disruption, Objective and Subsidiary Documentation (in Part H) and Access Agreement, CCOS, Services, Train Operator and Working Timetable (in Part A).

This explanatory note does not form part of this CCOS ROC.

1. Definitions

In this section, unless the context otherwise requires:

- 1.1 "Communications Plan" is a comprehensive plan in respect of a Train Operator's area and RfL(I) Route that defines the flow of information from Operational Control and other sources (for example, signalling centres), the roles and responsibilities within an organisation for its dissemination and is co-ordinated with standard information terminology that applies across the industry;
- 1.2 "Contingency Plan", "Control Office", "Crossrail Network Control Manual" and "Operational Control" have the respective meanings given to them in "CCOS ROC Section 1 Control Arrangements";
- 1.3 "CRL Operations Concept" refers to the Crossrail Operations Concepts
 Chapter 8 Customer Information Systems (document reference CRL1-

XRL-K2-GUI-CR001) which sets out the customer information process for the CCOS;

- 1.4 A "Customer" is the receiver of a service and may include a Passenger;
- 1.5 "Customer Service Information" is Operational Information that has been converted into a format that is easily understood by external Customers (that is, Customers of Passenger Train Operators);
- 1.6 "Operational Information" means information which is used to manage real time operations during normal running service and Disruptive Events which is categorised in a consistent operational language for the benefit of the industry's operational controls, signallers, and other operational employees engaged in managing trains or the CCOS;
- 1.7 "Passenger" means a person who is travelling or intending to travel;
- 1.8 "Passenger Information ACOP" means the Rail Delivery Group (RDG) accepted code of practice ATOC/ACOP2014 'Approved Code of Practice Provision of Passenger Information' which sets out the Customer and Passenger information process from end to end and provides guidance on standards that can be applied across the industry and are further described in paragraph 6;
- 1.9 "Service Interval Threshold" means 140% of the interval between departures of Services from a particular station on the CCOS, as reflected in the Working Timetable; and
- 1.10 "Service Status Declaration Guidelines" refers to RfL(I) Company standard "Guidelines For Declaring Service Status".

2. Contents of this section

This section describes:

- 2.1 the definitions used in this section;
- 2.2 the effective date for the establishment of this section;
- 2.3 the objective of this section;

- 2.4 the consistent treatment of Customer Service Information; and
- 2.5 the provision of the Passenger Information ACOP and CRL Operations Concept.

If at any time there is a conflict or discrepancy between the Passenger Information ACOP and the CRL Operations Concept, the CRL Operations Concept shall have precedence.

3. Not used.

4. Objective and obligations

4.1 Objective

The objective of this section is to:

- 4.1.1 facilitate the flow of 'real time' information from operational sources, and summarise it into accurate and timely information that:
 - (a) is in a standard format with generic categories;
 - (b) has common recognition and interpretation;
 - (c) is supported and sustained in all relevant systems and processes;
 - (d) provides quality information to Customers; and
 - (e) is as complete as is reasonably practicable; and
- 4.1.2 provide the guiding principles and documents that will be required to enable this to be achieved, so as to support the Objective (as defined in paragraph 2.1 of the Introductory and General section of this CCOS ROC).

4.2 RfL(I) and Train Operators' obligations

4.2.1 RfL(I) shall, in its capacity as operator of the CCOS, undertake its activities envisaged by this section in a manner which, to the greatest extent reasonably practicable, supports the fulfilment of the

- objective of this section.
- 4.2.2 Train Operators shall undertake their activities defined by this section in a manner which, to the greatest extent reasonably practicable, supports the fulfilment of the objective of this section.
- 4.2.3 RfL(I) shall, as far as is reasonably practicable, ensure that Disruptive Events are categorised in Operational Information in a consistent way by:
 - recording events in the appropriate control logging system,e.g. SAFE;
 - (b) defining the event in the appropriate logging system list of 'incident types'; and
 - (c) using the procedures contained within the Crossrail Network Control Manual.
- 4.2.4 RfL(I) and Train Operators shall through their respective Control Offices, when responding to Disruptive Events as envisaged under paragraph 9.2 of "CCOS ROC Section 1 Control Arrangements", (whether implementing a Contingency Plan, applying measures contained within the Crossrail Network Control Manual or otherwise working together) use their respective reasonable endeavours to provide timely input of complete and accurate data which, directly or indirectly, may become Customer Service Information relating to the relevant Disruptive Event or its consequences.
- 4.2.5 Train Operators will ensure that control instructions referring to operational incidents are categorised in a consistent way, and shall ensure as far as is reasonably practicable that information is supplied to the customer information function in accordance with the arrangements contained within the Passenger Information ACOP and the CRL Operations Concept.
- 4.2.6 The obligations in this section shall not duplicate or override the requirements for provision of information as between RfL(I) and Train

- Operators in "CCOS ROC Section 1 Control Arrangements".
- 4.2.7 RfL(I) and Train Operators shall co-operate as regards the timely communication of Operational Information or Customer Service Information, as the case may be, which relates to matters other than Disruptive Events, but which under the Passenger Information ACOP or the CRL Operations Concept are appropriate to be communicated to Passengers in accordance with the standards set out in them, for example:
 - (a) platform alterations; or
 - (b) on board issues that concern the loss or amendment of an amenity.
- 4.2.8 At stations where RfL(I) directly provides passenger information through its own systems i.e. Operating Information System (OIS) screens, the information provided will be, as far as is reasonably practicable, consistent with the station operator's information at that station.
- 4.2.9 The RfL(I) provided information, as far as is reasonably practicable, will supplement all other information at that station and must convey an overall picture of the Disruptive Event as it applies to that station (which may include the affected line of route on the CCOS and/or the NR Network) (as distinct from communicating individual changes to train services).
- 4.2.10 During major and severe disruption, so far as reasonably practicable, RfL(I) information systems must not display their usual suite of messaging/animations, which should be removed to facilitate Passengers having timely access to information applicable to the relevant Disruptive Event.
- 4.2.11 To better enable Passengers to have more accurate information during times of disruption, RfL(I) will take such steps as are reasonably practicable to improve the provision of data in real time

- between train planning/operational systems and industry and third party systems that supply Customer Service Information.
- 4.2.12 If the CRL Operations Concept includes any obligation on the part of a Train Operator for production of a Communications Plan, RfL(I) will afford all reasonable co-operation in relation to that production.

5. Customer Service Information

- 5.1 Operational Information will be converted into Customer Service Information before being disseminated externally (that is, to Customers of Train Operators).
- The Service Status Declaration Guidelines shall be used in the supply of Customer Service Information to Customers for normal working, following notification of a Disruptive Event and/or during periods of Extended Disruption.

6. Provision of Passenger Information - Approved Code of Practice

- 6.1 The Passenger Information ACOP is produced by the Rail Delivery Group and provides a framework for the provision of customer information by Train Operators. The CRL Operations Concept outlines RfL(I)'s obligations regarding information during disruption. These documents:
 - 6.1.1 contain the arrangements and provisions to manage the flow of information from the operational environment into standard information produced for dissemination through all forms of media to Customers;
 - 6.1.2 offer guidance on the production of Communications Plans that provide an overview of relevant information flows and related process applicable to the CCOS (and passenger services operating from the CCOS to destinations on networks other than the CCOS);
 - 6.1.3 contain guidance with regards the availability, production and review of good practice guides (of which National Rail Enquiries and the Train Operators have produced a suite) constituting industry best

practice and complementing the component parts of the Passenger Information ACOP, including guides detailed below:

- (a) Information on train;
- (b) Information at station; and
- (c) Information off-station; and
- 6.1.4 shall be provided to RfL(I) to enable it to have regard to the Passenger Information ACOP's contents in so far is reasonably practicable and appropriate in relation to the operation of those stations of which it is the operator.
- 6.2 The Passenger Information ACOP and the CRL Operations Concept do not constitute Subsidiary Documentation for the purposes of this section.

VERSION CONTROL

	Date	Summary of amendment(s)
1	October 2017	Final Railway Operational Code published
2	April 2018	Correction of minor errata