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Dear Joanna

Applications pursuant to Regulations 29 and 30 of The Railways Infrastructure (Access and Management) Regulations 2005 (the "Regulations")

Introduction and background

- 1 As the Office of Rail and Road ("**ORR**") will be aware, Heathrow Airport Limited ("**HAL**") is the infrastructure manager of the railway infrastructure (including stations) which forms part of the spur from the Great Western Main Line to Heathrow Airport (the "**Heathrow Rail Infrastructure**"). The ORR is at present considering certain issues regarding the charges that HAL is seeking to levy for access to the Heathrow Rail Infrastructure¹.
- 2 Transport for London ("**TfL**") has engaged with HAL for several years in an effort to secure access to the Heathrow Rail Infrastructure for the operation of Crossrail services to the airport. This engagement has been with the support of the Department for Transport (the "**DfT**") as co-sponsor of the Crossrail project and on behalf of TfL and its Crossrail concessionaire from time to time (currently MTR Corporation (Crossrail) Limited ("**MTR Crossrail**")).
- 3 In 2008, in exchange for DfT agreeing not to exercise certain powers set out in the Crossrail Bill, HAL agreed to take the necessary steps to become compliant with the Regulations (it being acknowledged by HAL – as confirmed by the ORR in 2013 (see Appendix 3) – that the Heathrow Rail Infrastructure is subject to the Regulations). This agreement was reflected in a Deed of Undertaking between the DfT and HAL dated 30 May 2008.

¹ <http://orr.gov.uk/consultations/closed-consultations/policy-consultations/charging-framework-consultation>

- 4 In order to comply with the Deed of Undertaking (and more generally to comply with the Regulations) HAL was required to publish a Network Statement and Network Code on or before 30 May 2015 (extended by the DfT, following representations from HAL, until 31 August 2015), in order to facilitate fair and non-discriminatory access to the Heathrow Rail Infrastructure by all users of that infrastructure. HAL published drafts of the HAL Network Statement and HAL Network Code, together with drafts of a HAL Track Access Agreement, HAL Station Access Conditions and HAL Station Access Agreement (including station-specific Annexes) (the "**HAL Access Documentation**") on 01 July 2015, purportedly in compliance with the Deed of Undertaking.
- 5 HAL undertook a consultation in relation to the HAL Access Documentation during July 2015. The Crossrail Sponsors were concerned that the one month allowed by HAL was insufficient for a proper, full and reasonable consultation. Nevertheless, the Crossrail Sponsors separately responded to that consultation before the deadline and (in addition to TfL's comments on the charging framework proposed by HAL) pointed to where the HAL Access Documentation was not fit for purpose in a number of respects and would mean that a railway undertaking could not contract with HAL for access to the Heathrow Rail Infrastructure on a fair and reasonable basis².
- 6 HAL has stated that it had considered the consultation responses. However, it then reissued, on 31 August 2015, part of the HAL Access Documentation (the HAL Network Statement and HAL Network Code) without having made any changes whatsoever. In October 2015, HAL issued the remainder of the HAL Access Documentation which, although minor amendments had been made, remained substantively unchanged from the original drafts.
- 7 At this stage, HAL also issued a table purportedly responding to TfL's comments arising from the consultation. In the vast majority of cases, HAL rejected the concerns of the Crossrail Sponsors without giving any reason – or in any event a satisfactory explanation – for doing so. Many of HAL's responses suggested a lack of understanding of the complexities involved in providing access to existing and prospective beneficiaries.
- 8 In an attempt to assist HAL, from mid-October 2015 until early December 2015, the Crossrail Sponsors met on a weekly basis with HAL with a view to developing the HAL Access Documentation to an acceptable and workable form. It is worth noting that throughout this engagement HAL was not at any stage prepared to discuss any issues relating to charging for access to the Heathrow Rail Infrastructure pending the ORR decision on the charging

² TfL refers to its response to the subsequent ORR consultation on the charging framework for the Heathrow Spur. The Appendix to the response to the ORR's consultation contains TfL's consultation response to HAL dated 31 July 2015. http://orr.gov.uk/_data/assets/pdf_file/0012/21252/charging-framework-consultation-tfl.pdf.

framework for use of that infrastructure – even though there are many aspects of charging which could and should have been resolved in parallel³.

- 9 Ad-hoc tri-partite workshop sessions with Network Rail Infrastructure Limited ("NRIL") were also held during this period to clarify and document the operational arrangements relating to the Heathrow Rail Infrastructure and, in particular, how it would operate alongside NRIL as infrastructure manager of the adjoining Great Western Main Line⁴. Other than meeting minutes and revised versions of Parts B and D of the HAL Network Code (which are broadly acceptable to TfL, subject to the resolution of certain issues on which TfL has provided HAL with detailed comments), TfL has seen no other output from those meetings and workshops.
- 10 HAL agreed to revise and reissue the HAL Access Documentation in draft by the end of December 2015, following the period of engagement with the Crossrail Sponsors. This revised HAL Access Documentation was not received as promised. The Crossrail Sponsors reminded HAL on a regular basis that they were awaiting revised drafts of the HAL Access Documentation and emphasised the urgency. HAL did finally issue some revised documentation (the HAL Network Code and HAL Network Statement only) on 10 March 2016. Again, there was little substantive change and the legitimate and valid concerns of the Crossrail Sponsors remain to be addressed. On this date, HAL also stated that it would no longer be engaging with the Crossrail Sponsors and that it would not be considering any further changes to the HAL Access Documentation.
- 11 In TfL's opinion, HAL has not been fully and properly committed to a process of engagement with the Crossrail Sponsors. HAL has been inadequately resourced and the additional resource which it did eventually appoint was too late and too limited.

Regulation 29 and Regulation 30 Applications

- 12 TfL has expressed its concerns to HAL at every stage of this process. TfL remains aggrieved – at HAL's approach to the complex task of preparing the HAL Access Documentation, the level of access charges (which have no founding in law or economics) and the positions which it has adopted more generally. In the absence of swift progress, it becomes increasingly likely that

³ Although there is an ongoing consultation by the ORR in respect of whether a so-called investment recovery charge can be levied by HAL, there are numerous other issues that TfL has previously raised regarding charging and incentives more widely. One example is the level proposed by HAL for its Common Cost Charge and the overall structure of access charges. Additionally, TfL has sought further dialogue with HAL regarding the performance regime it proposes to implement, but to date, apart from a presentation on freight performance on the NRIL network, HAL has been unwilling to engage with TfL on this issue. TfL understands from NRIL that HAL has recently prepared fresh proposals for a performance regime (please see Appendix 1 for more on this).

⁴ In particular, workshops were held in relation to the performance monitoring system, performance and timetabling (in particular, Parts B and D of the HAL/NRIL Network Codes and Schedule 8 of the track access agreement).

the introduction of the Crossrail service to Heathrow in May 2018 will not occur as planned – for example:

- 12.1 the process for accepting the new class 345 units onto the Heathrow Rail Infrastructure will not be clear;
- 12.2 driver training will not be able to take place as planned; and
- 12.3 restrictions of use on the Heathrow Rail Infrastructure, together with the interaction with NRIL restrictions of use, mean that passenger services cannot be planned with any reasonable degree of certainty.

Urgent resolution of all of the matters set out in the Regulation 29 and Regulation 30 applications is now required to permit fair and non-discriminatory access to the Heathrow Rail Infrastructure.

- 13 HAL stated in its covering email of 10 March 2016 that "*HAL is not inviting any further comment at this time*", rejecting further engagement. In any event, given that the series of meetings with HAL during autumn 2015 has resulted in no significant changes to the documentation, in TfL's view it seems clear that HAL does not intend – and perhaps at no point ever intended – to take into account many of the comments or suggestions which TfL has made. A dispute has therefore arisen between TfL and HAL which cannot be resolved through further discussion. TfL is aggrieved at the decisions made, the processes undertaken and the terms of access offered by HAL. In particular, TfL has concerns in the following areas (although TfL's grievance extends beyond these matters):

- 13.1 the charging structure proposed by HAL – both: (i) proposing to have separate contracts for track and station access but including all charges under the track access agreement, with only a nominal charge payable under the station access agreement; and (ii) the inherently discriminatory circumstances created thereby, whereby users of other stations subsidise the cost of Terminal 5 station;
- 13.2 the level of access charges proposed by HAL and HAL's refusal to engage with us in relation to: (i) how it has reached the proposed levels of charges; and (ii) TfL's valid concerns in relation to those charges;
- 13.3 HAL's proposals in respect of both performance and possessions regimes – which offer little in terms of encouraging minimisation of disruption and are at odds with wider rail industry practice – and HAL's failure to engage with TfL in developing these proposals;
- 13.4 HAL has used the NRIL documentation as the starting point for its draft documents. The NRIL documentation is predicated on the existence of a network licence and HAL is exempt from the requirement to hold a network licence. There is therefore a need to include certain contractual

- provisions in the access documentation in lieu of the requirement for HAL to hold a network licence, which will have an impact on the charging system. This includes, for example, robust asset management strategies to ensure the track and stations are maintained, renewed and repaired so that they operate safely and efficiently;
- 13.5 the lack of a robust cost reflective process to modify the network, stations and terms of access;
 - 13.6 the obstructive behaviours demonstrated by HAL throughout the process⁵; and
 - 13.7 more widely, the other comments set out in TfL's response to HAL's consultation (which have not been adequately addressed).
- 14 As a result, TfL has no choice but to ask the ORR to exercise its statutory obligations and intervene using its powers pursuant to Regulation 29 (Appeals to the regulatory body) and Regulation 30 (Competition in the rail services markets) of the Regulations in order to ensure that access be granted by HAL to TfL or a railway undertaking nominated by TfL (currently its concessionaire MTR Crossrail) on fair and reasonable terms. TfL is a "body or undertaking with public service or commercial interest in procuring infrastructure capacity"⁶ and therefore is entitled to make an application to the ORR under Regulation 29.
- 15 TfL is aware that the ORR has considered Regulation 29 applications in the past. However, TfL is not aware whether the ORR has considered an application pursuant to Regulation 30 of the Regulations⁷. TfL considers that it has been treated unjustly by HAL; that it is the subject of discrimination and that this is an undesirable development in relation to the competition in the rail services markets. These matters fall squarely within the scope of Regulation 30. TfL considers that the ORR must therefore, at the earliest opportunity, determine measures and take appropriate action to correct those developments.
- 16 Appendix 6 to this letter sets out for ease of reference the documents which are enclosed with and form part of these applications. The R29 form (in each case) states that *"where possible, this application form should be accompanied by a draft agreement setting out the contractual terms that the applicant wishes to enter into with the facility owner"*. TfL has done this as far as possible based on

⁵ For example: (i) promising to deliver revised HAL Access Documentation by the end of December 2015, with it actually arriving on 10 March 2016 having not taken into account most of TfL's comments; and (ii) only recently providing revised principles for a performance regime to NRIL (and not to TfL), which remain unsatisfactory.

⁶ Regulation 29 gives an "applicant" a right of an appeal to the ORR on the basis set out in that regulation. Regulation 3(1) sets out the definition of "applicant" which includes (at sub-paragraph (c)) the text set out in italics. TfL is a body with a public service and commercial interest in procuring infrastructure capacity on the Heathrow Rail Infrastructure and therefore is an "applicant" for the purposes of Regulation 29.

⁷ TfL is making the regulation 29 applications in the form prescribed by the ORR and consistently with ORR published guidance on making such appeals. There is no such prescribed form for an application under regulation 30 of the Regulations. TfL has therefore sought to include commentary relating to a regulation 30 application within its application under regulation 29.

its knowledge of the Heathrow Rail Infrastructure (and in light of paragraph 20 below) and submits as part of these applications draft access documentation (the "**TfL Access Documentation**"). This letter also forms part of the applications, which are being submitted electronically to the ORR⁸.

- 17 Each of the documents forming the TfL Access Documentation attached to this application is based on the NRIL model clauses equivalent (modified and annotated as appropriate). Also attached, for the benefit of the ORR's review, is a comparison with the NRIL model clauses. Where there is a choice of model contracts (e.g. relating to station access) TfL has chosen the contract that most closely reflects the infrastructure management arrangements for the Heathrow Rail Infrastructure, as proposed by HAL.
- 18 The TfL Access Documentation incorporates and reflects the comments provided to HAL during the formal consultation and bilateral engagement processes mentioned above. In some cases (for example Part D of the HAL Network Code) they reflect TfL's understanding of the position that could have been agreed by the parties based on discussions. Many of the comments (such as upon Parts B, C and D of the HAL Network Code) have previously been provided to HAL in a substantially similar form. TfL has noted in the TfL Access Documentation where this is the case.
- 19 The track and station access contracts forming part of the TfL Access Documentation also contain proposals relating to charges for access and performance and possessions regimes which TfL has prepared in conjunction with its financial advisors PwC. Please see Appendix 1 for more information as to the nature and quantum of these charges and the proposed principles of the performance and possessions regime. TfL considers these to be consistent with both the Regulations and the charging framework proposed to be established by the ORR based upon its proposed decision on the charging framework for the Heathrow Spur⁹.
- 20 Whilst the TfL Access Documentation is as complete as TfL has reasonably been able to achieve:
 - 20.1 there are a number of areas where TfL is not able to provide drafting at present, for instance where the relationship between HAL and NRIL is not fully developed or understood by TfL. In this case, TfL has annotated the draft to show where it considers changes will be needed once TfL understands the position from HAL; and
 - 20.2 there are other documents that HAL will need to have in place to ensure access on a fair and non-discriminatory basis. TfL has not drafted, nor would it propose to draft, these documents. The HAL Network Statement

⁸ TfL has confirmed with the ORR that no hard copy is required at this stage.

⁹ <http://orr.gov.uk/consultations/closed-consultations/policy-consultations/charging-framework-consultation>

is one example. This should be for the infrastructure manager to prepare, as prescribed by the Regulations. In particular, only HAL will have access to the necessary information relating to the Heathrow Rail Infrastructure and its arrangements with NRIL (as sub-contractor to HAL) required to populate the HAL Network Statement. The list of access documentation that TfL presently considers is required from HAL is set out in Appendix 2 to this letter.

21 In connection with these applications under Regulation 29 and Regulation 30 of the Regulations, TfL is asking the ORR:

21.1 to exercise its powers under Regulation 31 of the Regulations/section 80 of the Railways Act 1993 to require HAL to provide all such information as may be reasonably required to complete the TfL Access Documentation (including the information set out in Appendix 5) by no later than **31 May 2016**;

21.2 to direct HAL to enter into the following access contracts by no later than **31 August 2016**:

21.2.1 a track access agreement (incorporating the HAL Network Code);

21.2.2 a station access agreement in respect of Central Terminals Area station (incorporating the HAL Station Access Conditions and template Annexes); and

21.2.3 a station access agreement in respect of Terminal 4 station (incorporating the HAL Station Access Conditions and template Annexes),

in each case in the respective forms submitted by TfL as part of this application and subject to such forms of TfL Access Documentation being updated by TfL to reflect:

(a) the information received from HAL pursuant to paragraph 21.1; and

(b) the principles set out in the Heads of Terms documents appended to the R29 application forms (as reflected in various notes and footnotes set out in the TfL Access Documentation); and

21.3 to direct HAL to reissue the HAL Network Statement by no later than **31 August 2016** in form and substance which takes into account the principles set out in the Heads of Terms documents appended to the R29 application forms and the TfL Access Documentation.

Costs

- 22 TfL has expended considerable time, effort and resource in preparing this application. This has led to TfL incurring substantial costs so far in undertaking the work which HAL should have undertaken to ensure it is compliant with its obligations as an infrastructure manager. To date, TfL estimates that it has incurred costs in the region of £500,000. TfL reserves its rights to take such steps as may be available to it to recover these costs from HAL, whether pursuant to Regulation 30 or otherwise.

Testing

- 23 In the track access application, TfL is seeking a number of passenger train slots for the purposes of operating the Crossrail passenger services from May 2018. A further separate request is being made for a number of train slots to facilitate driver training from December 2017. However, the full scope of the driver training requirement has not yet been confirmed and access rights ancillary to those set out in the application are likely to be required in due course (as well as to facilitate trial running and trial operations). TfL notes that other parties such as Bombardier Transportation are also likely to require access to the Heathrow Rail Infrastructure any time from January 2017.

Next steps

- 24 As the ORR will be aware, time is pressing for resolution not only of the charging framework, but also the detailed terms and myriad of technical and operational arrangements necessary to enable access to the infrastructure on a fair and non-discriminatory basis. TfL urgently needs to conclude the terms of access to and charges payable for use of the Heathrow Rail Infrastructure.
- 25 TfL wishes to draw particular attention to the duration of the timetabling process to achieve the commencement of the Crossrail services to Heathrow in May 2018. The proposed service doubles the frequency of the existing Heathrow Connect service, providing much needed relief for suburban commuters along the route, as well as for the benefit of airport users. This increased level of service will require careful timetabling through the capacity constrained Great Western Main Line, as well as the Heathrow Rail Infrastructure. The conclusion of satisfactory terms of access to the Heathrow Rail Infrastructure is therefore urgent and therefore TfL requests that the ORR progresses these Regulation 29 and Regulation 30 applications as quickly as possible. TfL will assist in any way it can.
- 26 TfL has kept MTR Crossrail informed about its proposal to make applications under Regulation 29 and Regulation 30. It has also kept the DfT, as co-sponsor of the Crossrail project, informed of the proposal. Both the DfT and MTR Crossrail have reviewed the proposed documentation and have offered letters of support to this application, which are included in Appendix 4.

Yours sincerely



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for and on behalf of
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Appendix 1 – TfL commentary prepared in conjunction with PwC

Proposed access charges for Crossrail services

As part of its Regulation 29 and Regulation 30 applications, TfL have undertaken work to establish the principles and level of access charges which should be levied for use of the Heathrow Rail Infrastructure (including the Central Terminal Area station and Terminal 4 station) in respect of Crossrail services, and the principles for HAL's performance and possessions regimes applying to Crossrail services.

Access charges

Background

ORR's provisional decision (detailed in its February 2016 consultation on the "charging framework for the Heathrow Rail Infrastructure") is that HAL will not be permitted to levy a so-called Fixed Track Access Charge ("FTAC") to recover the historic investment made in the Heathrow Rail Infrastructure. It is TfL's view, therefore, that the default position set out in the Railways Infrastructure (Access and Management) Regulations 2005 should apply. This means that HAL is only able to charge TfL (or such railway undertaking nominated by TfL¹⁰ for the "*cost that is directly incurred as a result of the train service*"¹¹ ("CDI").

HAL sets out what it termed a Common Cost Charge ("CCC") in its Network Statement. However, it is TfL's view that HAL's CCC is not reflective of CDI on the Heathrow Rail Infrastructure. This is because:

- HAL's description of the costs recovered by the charge suggest that it recovers several cost items (e.g. "infrastructure manager overhead staff") that are not "directly incurred" since they do not vary depending on the level of services operated¹²; and
- benchmarking analysis undertaken on behalf of TfL of other charges for CDI on similar infrastructure in Great Britain and across Europe shows the CCC is: (i) at least double the size of the highest comparator, (ii) over ten times the size of the highest analogous Network Rail Infrastructure Limited ("Network Rail") charge, and (iii) over three times the size of the analogous charge levied by HS1 for international services.

Therefore, TfL have undertaken analysis to determine prospective access charges payable to HAL, based on the CDI for Crossrail services to operate on the Heathrow

¹⁰ Although it is TfL making the Regulation 29 and Regulation 30 applications, as noted in various places, it is making the application with the intention either that itself or a railway undertaking nominated by TfL will be party to the relevant contractual agreements. Currently, this is MTR Corporation (Crossrail) Limited.

¹¹ The Railways Infrastructure (Access and Management) Regulations 2005, Schedule 3, Paragraph 1 (4). When considering what "*costs directly incurred*" means in practice, it is important to note that these costs relate to only those incurred as a *result of the train service*, meaning they are marginal or incremental to the service in nature. We note that new regulations to replace the Railways Infrastructure (Access and Management) Regulations 2005 are due to be implemented in late 2016. Nothing in this paper would be impacted by the implementation of the new regulations in the current draft form.

¹² See HAL (2015) "Heathrow Network Statement – Rail June 2015" for more information.

Rail Infrastructure. The charges and a high-level explanation of those charges are set out in this document¹³.

In estimating charges based upon CDI, HAL-specific data has been used where possible. However, the lack of transparency in HAL's cost estimates means that TfL have encountered significant gaps in the data required to estimate charges. Therefore, where necessary, we have supplemented HAL's data with data from Network Rail. Network Rail has been chosen as the most appropriate source of data to establish charges for HAL for the following reasons:

- HAL has told us that maintenance and renewals activities on Heathrow Rail Infrastructure, in respect of non-station assets, will in practice be undertaken by Network Rail (HAL has already entered into, or will enter into, a contract with Network Rail for the provision of such services);
- Network Rail charges reflect the costs directly incurred by an "efficient" infrastructure manager (as required by the ORR); and
- extensive data in respect of Network Rail are available in the public domain.

We emphasise, however, that we have made a number of adjustments to the equivalent Network Rail costs. This is to reflect the fact that the HAL Rail Infrastructure is different to Network Rail infrastructure (e.g. the HAL Rail Infrastructure is all contained within a set of tunnels). Below we set out our approach – at a high level – in calculating the track and station access charges.

Track Access Charge

We have calculated the Track Access Charge for HAL on the basis of the following two charges, which are levied by Network Rail under the general principle of CDI¹⁴:

1. the Variable Usage Charge ("VUC") – which recovers "*operating, maintenance and renewal costs that vary with traffic*" (excluding costs associated with electrification assets)¹⁵; and
2. the Electrification Asset Usage Charge ("EAUC") – which "*recovers the maintenance and renewal costs of electrification assets that vary with traffic*".

In addition, the Crossrail operator will need to pay for traction electricity. At present, it is assumed that traction electricity will be procured from HAL until and unless an alternative arrangement is in place. Traction electricity on Heathrow Rail Infrastructure should be reimbursed on the basis of consumption of electricity per train movement as

¹³ The principles for the access charges are set out in more detail (although not with full legal drafting) in the draft version of the HAL Track Access Agreement submitted with the Regulation 29 and Regulation 30 application.

¹⁴ We expect the nature of services to be relatively constant over time so that HAL's performance regime liability is unlikely to change as a result of traffic growth meaning that a Capacity Charge (or something similar) is unlikely to be appropriate. In the event that a material change in traffic occurs, we have provided an adjustment mechanism in the performance regime for benchmark levels of performance. Such a mechanism would mean that HAL would not incur additional costs through the performance regime, again meaning that a Capacity Charge (or something similar) would not be appropriate or necessary.

¹⁵ All definitions are sourced from the ORR's 2013 Final Determinations of Network Rail's Outputs: ORR (2013) "*Final determination of Network Rail's outputs and funding for 2014-19*".

recorded by on-train meters, reflecting the highly efficient nature of the Crossrail rolling stock.

In using the VUC and EAUC charges as a basis for estimating the appropriate CDI recoverable by HAL, it should be noted that we have used the specific charges that are expected to be levied by Network Rail for Crossrail services. These are based on the vehicle characteristics of the Class 345 rolling stock that the Crossrail train operator will operate.

Network Rail infrastructure and the Heathrow Rail Infrastructure are very different to one another. For example, the Heathrow Rail Infrastructure is entirely contained within tunnels, whereas Network Rail infrastructure is largely above ground, so it is possible that HAL could incur larger civils and structures costs, even on a unitised basis, as well as larger track and signaling maintenance and renewals costs. To reflect the potentially larger directly incurred costs faced by HAL, we have adjusted the VUC and EAUC. We have then summed the adjusted VUC and EAUC to derive a total track charge for the Heathrow Rail Infrastructure. The charge we have calculated (set out below) is several times higher than that levied on Network Rail infrastructure.

Station Access Charges

We have calculated the Station Access Charges for HAL by considering two charges that Network Rail levies to recover its costs at independent (or managed) stations:

1. Qualifying Expenditure (“QX”) – which recovers the costs of the “day-to-day running and operation of stations”, only some of which are likely to be directly incurred. For example, QX typically includes management overheads which are not attributable to train movements, but other items such as utilities are likely to be partially directly incurred; and
2. Station Long Term Charges (“LTC”) – which recover “efficient maintenance, renewal and repair costs” associated with stations (related to station infrastructure, rather than operations as in QX), only some costs of which are likely to be directly incurred.

An estimate of QX for both the Central Terminal Area (“CTA”) station and the Terminal 4 station has been provided by MTRC, which used such figures when bidding for the concession to operate Crossrail services¹⁶. Overheads have been removed from the QX as these are costs that are not considered to vary with traffic. All other elements of QX are assumed to vary with traffic and are therefore treated as “directly incurred” QX to be recovered through charges. Additionally, for the Terminal 4 station, “platform staff” have been excluded as it is assumed that the Crossrail train operator will, as the sole operator at the facility, provide their own platform staff at the Terminal 4 station.

¹⁶ As the Terminal 5 station is not currently proposed to be served by regular Crossrail services no charges relating to that station have been proposed.

In respect of the LTC, we have used the LTC that Network Rail levies in respect of Gatwick Airport as a benchmark, given its size and similarity to HAL stations¹⁷. However, only a subset of LTC for Gatwick is CDI (the remainder is fixed). To estimate the LTC for HAL stations, we have applied the percentage of Network Rail civils costs that are CDI (in the sense that they are recovered through VUC) to the Gatwick Airport LTC. For the CTA station we have assumed the same LTC incurred as for Gatwick Airport. In respect of the Terminal 4 station (given its smaller size when compared to the CTA) we have assumed that HAL will incur half of the LTC incurred at Gatwick Airport.

Summary of charges

Having conducted this analysis, TfL have estimated the following charges as appropriate to its application for track and station access¹⁸:

- **A HAL Track Charge**¹⁹ which recovers the CDI for non-station related operations, maintenance and renewals on a per train movement basis (where a train movement represents a single “one-way” trip in either direction from the tunnel portal to the Terminal 4 station or vice versa)²⁰;
- **A CTA Station Charge** which recovers the CDI for station related operations, maintenance and renewals at the CTA on a “per call” basis; and
- **A Terminal 4 Station Charge** which recovers the CDI for station related operations, maintenance and renewals at the Terminal 4 station on a “per call” basis.

The proposed charges are summarised in table 1 below:

¹⁷ It should be noted that as part of the analysis we considered a number of benchmark stations which share similar characteristics to HAL stations (i.e. those that are either modern and/or subterranean). We have used the LTC levied at Gatwick Airport station as this is the highest LTC levied at benchmark stations.

¹⁸ All of which are reflected in the principles set out in the initial HAL Track Access Agreement, HAL Station Access Agreement and HAL Station Access Conditions (although without full legal drafting) provided with this application.

¹⁹ We propose a single charge to recover non-station related OMR costs (including electrification assets) rather than two separate charges (one for electrification assets and one for track, civils and signalling assets, as is the case on Network Rail infrastructure) because all Crossrail services will be electric. Therefore, all Crossrail services should be expected to contribute to the recovery of electrification OMR costs that HAL incurs as a result of them operating.

²⁰ It is proposed that the HAL Track Charge is levied on a “per train movement basis” as this charge will only apply to Crossrail services which are all expected to be comprised of the same number of vehicles.

Table 1: Proposed charges payable for Crossrail services operating over the Heathrow Rail Infrastructure

Charge	Charge (£, 2015/16 prices)
Track Charge (per movement ²¹) ²²	25.68
CTA Station Charge (per call)	7.72
T4 Station Charge (per call) ²³	5.06

How the charges compare

In order to understand how the proposed charges compare to other charges levied to recover CDI – both in Great Britain and across Europe – we have undertaken benchmarking analysis, the results of which are consolidated in Figure 1 below. These are expressed on a per train kilometre basis, and include both applicable track and station access charges. As part of the analysis we have also included implied figures from various HAL data points for further context.

The proposed charges shown in Table 1 payable by the Crossrail operator, amount to an equivalent total charge per train kilometre of around £6.50²⁴. This has been expressed on a per kilometre basis for the purpose of comparison only: as explained above, charges are to be levied on a per movement basis.

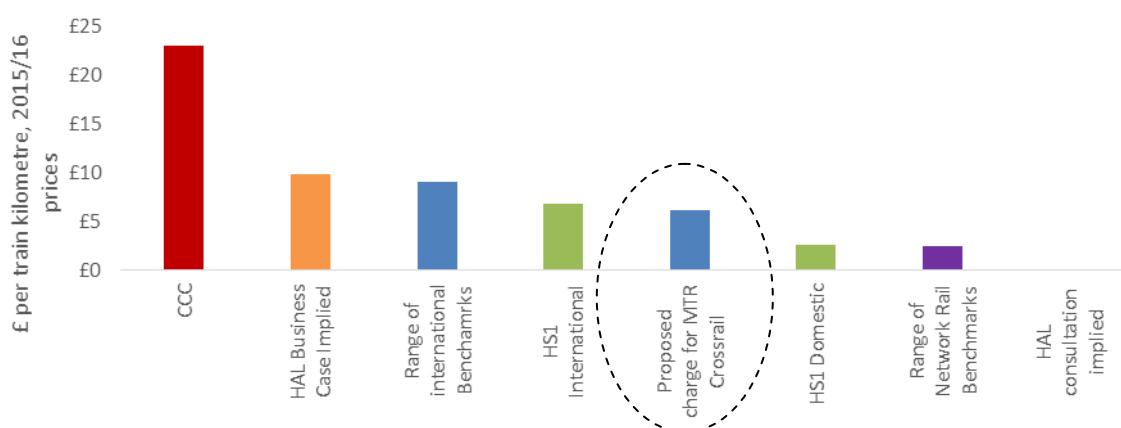
²¹ A train movement represents a single “one-way” trip from the tunnel portal to the Terminal 4 station or vice versa.

²² Traction electricity charges will be levied on top of this Track Charge (per movement). At present, it is assumed that traction electricity will be procured from HAL and will be remunerated on the basis of consumption of electricity per train movement as recorded by on-train meters.

²³ In the event that the Crossrail train operator does not provide its own platform staff at Terminal 4 – with platform staff instead provided by HAL – the Terminal 4 Station Charge would increase to £10.95.

²⁴ Figure calculated by dividing the entire charge levied on Crossrail services (i.e. both the HAL track charge per movement and each station charge per call) – which amounts to £38.47 – by the length of the infrastructure used by Crossrail services. We understand from HAL’s draft network statement that this is 6km.

Figure 1: Benchmarking the proposed charge to recover CDI by HAL on the Heathrow Rail Infrastructure



It is useful to note that the proposed charge is:

- **substantially lower than the CCC initially proposed in HAL’s Network Statement**, which adds weight to the view that HAL’s proposed CCC is unlikely to represent a charge based on CDI;
- **nevertheless significantly higher than equivalent benchmark charges levied by Network Rail**. We have estimated charges to recover CDI for running Crossrail services on Network Rail infrastructure using the base values for the VUC and EAUC from the Network Rail 2015/16 price list and considered LTC from a range of benchmark stations (e.g. Gatwick Airport, London Blackfriars);
- **of similar magnitude to benchmark charges that would be levied by HS1 on international services (and higher than for domestic services)**. Our benchmarking analysis covers applicable approved passenger charges levied on both international and domestic services running on HS1 (including both station charges and the OMRCA charge which recovers OMR costs that vary with traffic);
- **within the range of implied charges derived from HAL-specific cost estimates:**
 - as part of its initial consultation issued in July 2015 “*moving to a regulated railway*”, HAL specified a fixed amount of OMR costs per year. Because this does not vary with the number of services according to HAL, the implication is that HAL actually has a cost directly incurred per service of *£nil*. This in turn implies a charge of *£nil* per kilometre to recover CDI.
 - HAL’s business case for the contribution to Crossrail (compiled by SKM Colin Buchanan) details a projected estimate of £3.4m annually for infrastructure OMR costs attributable to Crossrail services. Altering this figure in respect of (i) the assumed access charge profit margin, and (ii)

the price base, we can then use the figure as the basis for calculating a charge to recover CDI of £9.88 per kilometre in 2015/6 prices²⁵.

However, it is unclear how well the data in the business case relates to costs that are directly incurred; and

- **at the higher end of the range of benchmark charges levied across Europe for access to rail infrastructure between major cities and their airports.**

We have estimated charges to recover CDI between major European cities and their respective airports. To do this we used the latest available infrastructure managers' network statements, and where charges are based on rolling stock characteristics (e.g. weight, maximum speed) we have applied the characteristics of the Class 345 rolling stock.

Schedule 8: Operational Performance Regime

There exist complex, long-standing issues with regard to establishing a well-functioning performance regime which promotes minimisation of disruption in the context of multiple adjoining railway networks (as in the case in respect of the Heathrow Rail Infrastructure). These issues are recognised by the industry and by ORR, and the complexity of the issues poses a real risk to the programme for establishing access arrangements for Crossrail services. Against this backdrop, TfL propose that the HAL performance regime follows the same principles as Network Rail's Schedule 8 performance regime²⁶.

The rationale for this is twofold:

- **The approach to performance monitoring** – according to HAL's proposals, performance on the Heathrow Rail Infrastructure is already, and will continue to be, captured within Network Rail monitoring systems which are designed to monitor performance consistent with Network Rail's Schedule 8²⁷; and
- **The nature of services** – Crossrail services which operate on the Heathrow Rail Infrastructure will also run on adjoining Network Rail (and Crossrail Central Operation Section ("CCOS")) infrastructure. Therefore, consistency between the regimes (albeit with additions to take account of network interactions) will help to ensure the alignment of incentives, operations and train regulation across these infrastructure boundaries.

In particular, the following key components of the HAL performance regime will largely mirror Network Rail's Schedule 8 performance regime: performance will be measured using Average Minutes Lateness, attributed to responsible parties pro rata to Delay Minutes relative to the published timetable; actual performance will be measured relative to an "expected performance" benchmark; performance will be measured on an average basis over each reporting period; payment rates will be calibrated to reflect the long-term revenue effects associated with a change in performance relative to the benchmark; payment rates will be adjusted annually in line with RPI; and a "Sustained

²⁵ SKM Colin Buchanan (2012) "Heathrow Crossrail Business case Evaluation: Transport Modelling and Financial Case Report", 27 June 2012.

²⁶ The principles in this paper are set out (although without full legal drafting) in the drafted HAL Track Access Agreement provided with this application.

²⁷ HAL (2015) "Heathrow Network Statement – Rail June 2015" P.23.

Poor Performance” regime will apply if performance falls below a specified level, in which case the Crossrail train operator would be entitled to claim actual (rather than formulaic) losses.

Given that services which operate on the Heathrow Rail Infrastructure will also run on adjoining Network Rail infrastructure, the principles of Network Rail’s Schedule 8 need to be supplemented to take account of “cross-network” interactions. In particular:

- **“Cross-network” delay attribution** – delay attribution across networks should follow three broad principles:
 - (i) wherever possible, delay is attributed to the prime incident;
 - (ii) delay attribution should be consistent for both performance monitoring and performance regime purposes; but that
 - (iii) for performance regime purposes (but not necessarily delay attribution purposes) a train operator that presents late to either network (HAL or Network Rail) by X minutes is attributed X minutes of delay, regardless of the root cause.

In respect of point (iii), train operator benchmarks will need to recognise that infrastructure managers could cause train operators to present late at the infrastructure boundary; and

- **Contractual structure** – the “star” models of each infrastructure manager will effectively be linked through train operators. Each train operator has a contract with the infrastructure manager whose infrastructure it uses (as in the star model implemented by Network Rail), and so by construction, the train operators that use two or more pieces of infrastructure have two or more contractual relations which will “link” the star models. Hence, if a payment is required to be made between infrastructure managers, we propose that this is done through a train operator that uses both pieces of infrastructure.

We expect calibration of the performance regime parameters (payment rates, benchmarks, Sustained Poor Performance thresholds and so forth) – together with detailed legal drafting of the regime – to take place following the endorsement of these principles by ORR. Thereafter, we would anticipate regime parameters and drafting to be validated by ORR.

We understand the difficulties of implementing an effective performance regime in the context of adjoining networks. We note that the structure described above will not address fully all issues in respect of “cross-network” delay. For example, under these proposals HAL will not suffer the financial consequences of delays caused to services which operate wholly “off” its network (via reactionary delay). Whilst we acknowledge this as an issue, it is a complex and wide-spread problem which will need to be addressed by means of wider industry architecture (e.g. under the leadership of ORR and/or the Rail Delivery Group). We would be very happy to participate in such a development.

HAL proposals in respect of performance regime

TfL have recently received, via Network Rail, information regarding HAL’s latest proposals for a performance regime pertaining to its infrastructure. We have

fundamental concerns with these proposals and consider that the proposals generally lack clarity and definition.

We have identified two aspects of HAL's current proposals with which we are in fundamental disagreement. These are:

1. **HAL's proposed liability cap** – HAL indicate that they wish to set a liability cap in respect of both the operator and the Infrastructure Manager ("IM"). Unless the cap on the IM was set at a very high level, such a regime could (i) expose TfL to significant financial risk in the event of poor performance by HAL, and (ii) eliminate the financial incentive on HAL to improve performance if performance is already below a certain level, to the detriment of passengers. We note that this is entirely contrary to the principles of Network Rail's Schedule 8 performance regime (and the regime TfL are proposing in respect of the CCOS), where compensation potentially increases when performance is unusually poor (e.g. the Sustained Poor Performance mechanism in Network Rail's Schedule 8); and
2. **Delay attribution** – HAL suggests that all "delays westbound to Heathrow are set at zero entering the portal and the calculation start from there". What this effectively means is that late presenting operators are assigned zero delay for the purposes of the performance regime. This is both contrary to what is proposed in respect of the CCOS and, to our knowledge, what has been proposed by Network Rail in respect of "on-off" network delay.

There are a number of areas of HAL's proposals that are unclear and/or incomplete, and require significant further work:

1. How compensation payment rates will be set (e.g. by reference to marginal revenue effects, marginal revenue and societal effects etc);
2. How HAL have determined that cancellations and part cancellations are attributed 30 minute delays and 15 minute delays respectively;
3. How benchmark levels of performance are to be calculated;
4. What the measure of performance to be used as part of the HAL performance regime is; and
5. The payment terms HAL wishes to implement for the performance regime.

We are disappointed with the way in which HAL has engaged with us in respect of the performance regime. Its recent production of new proposals on the performance regime has been typical of the way that HAL has dealt with this important area. Prior to its most recent proposal, the process followed by HAL has been as follows:

1. An initial proposal was made as part of its consultation, in which Section 6.2 of its proposed Network Statement was inconsistent with the accompanying draft access agreement (which appears to be a direct transposition of the Network Rail – Heathrow Express Operating Company regime);
2. HAL has disregarded feedback from Sponsors and advised that no changes would be made to its proposals;

3. After several months, HAL accepted that the regime set out in its initial consultation was defective and engaged consultants to develop a new regime;
4. A presentation was made by the consultants, in which proposals were put forward to base the HAL regime on the wider industry freight performance regime; and
5. Sponsors received no response to their comments and several months elapsed prior to the recent receipt of the revised proposal.

Possessions regime

To date, HAL has maintained that there is no requirement to compensate for possessions (or restrictions of use), as it only intends to undertake engineering work in so-called “white periods” (i.e. non-service periods). Whilst this may be their current intention, no-one can be certain and HAL will not warrant that possessions may need to be taken outside of the agreed white periods. TfL’s preference would be that a Schedule 4 regime is established in order to maintain consistency with wider industry practice. However TfL would be willing to consider an arrangement in which compensation for planned disruption is provided under an alternative part of the contract.

Regardless of where in the contract the arrangements are set out, it is essential that a regime that provides appropriate compensation in instances of planned disruption during service periods is established in respect of the Heathrow Rail Infrastructure. This will ensure that operators are afforded the appropriate protections in the event of planned disruption affecting their services. Equally importantly, it will mean that HAL is incentivised to manage the operational disruption associated with engineering work efficiently.

Having regard to HAL's position, TfL is willing to accept that there is no separate possessions regime in Schedule 4. Instead, we propose that the Crossrail operator will be compensated in the case of possessions being made outside of “white periods” in line with arrangements for unplanned disruption, as set out in Schedule 8. Lateness caused by possessions outside of the “white periods” will be calculated by reference to the published timetable for the relevant period and to services cancelled, retimed or otherwise disrupted. Should the nature of the possession mean that the timetable is yet to be published for the relevant period, lateness will be measured against the most appropriate reference timetable available²⁸.

Schedule 8 review process

Our proposed review process for Schedule 8 benchmarks and payments rates is set out below. There will not be a review process for track and station access charges levied by HAL on train operators, which will be fixed for the duration of the contract.

- The onus will be on the party seeking to trigger a review to issue a review notice demonstrating a “material” financial loss would occur, or is continuing to occur.

²⁸ The precise determination of what the most appropriate timetable to use for reference will be made on a case-by-case basis.

- In order for payment rates or benchmarks to be subject to review, one of more of the following “material” changes would need to occur:
 1. A new entrant operating services on the Heathrow Rail Infrastructure;
 2. Actual service volumes being +/- X% above or below the level expected at the time of setting performance benchmarks;
 3. A material error in the underlying data/calculations used in establishing performance regime benchmarks or payment rates is discovered; or
 4. A material enhancement to the capability or capacity of the Heathrow Rail Infrastructure occurs.
- Following completion of the review, the revised payment rates and benchmarks will apply from the date of the “material” change if prospective. If retrospective they will have immediate effect with the parties agreeing an adjustment from the date of the review notice until the completion of the review.
- Where parties do not agree the case will be dealt with under the contractual dispute resolution mechanism.

Input for Schedule 7 of the Track Access Agreement

This schedule of the TAA will set out the Track Access Charge that will be payable for services using the Heathrow Rail Infrastructure to and from HAL's Tunnel Portal to the Terminal 4 station, via the CTA station.

A "per train movement" charge of **£25.68** (in 2015/6 prices) for use of the track infrastructure between the Tunnel portal and HAL's Terminal 4 station²⁹ (where a train movement represents a single "one-way" trip from the tunnel portal to the Terminal 4 station or vice versa). Such a charge will apply to Class 345 units in standard 9 car formation³⁰.

For each 4 weekly railway reporting period, the total track charge that the Crossrail train operator will be required to pay for running this service shall be calculated in accordance with the following formula:

$$\textbf{Total Track Charge} = \textbf{Rail Period Movements} * \textbf{HAL Track Charge}$$

where:

Rail Period Movements is the total number of movements made by Crossrail per railway reporting period; and

HAL Track Charge is the HAL Track Charge per movement of £25.68.

The HAL Track Charge is calculated in 2015/16 prices. For years commencing 1 April 2016 onwards, the Track Charge will follow the standard terms of annual indexation used by Network Rail, as set out below:

$$T_t = T_{t-1} * \left(1 + \frac{(RPI_{t-1} - RPI_{t-2})}{RPI_{t-2}} \right)$$

where:

T_t is the Track Charge in year t;

RPI_{t-1} means the RPI CHAW published or determined with respect to the month of November in relevant year t-1; and

²⁹ Whilst there is no scheduled Crossrail service to Terminal 5, it is possible that Crossrail services will need to access the Extended HAL Tunnel (i.e. the track infrastructure extending to Terminal 5 defined in HAL's Network Statement) in exceptional circumstances. For example, in the event that Terminal 4 cannot be accessed by Crossrail services, access to the Extended HAL Tunnel may be required in order to turn trains around. In this event, we propose that the same charge (£25.68 per movement) is levied by HAL on Crossrail services, given that Extended HAL Tunnel is similar in length to the tunnel between the CTA and Terminal 4. Since there are no plans for Crossrail services to call at the Terminal 5 station, we do not (at this stage) propose establishing a Station Charge for access to the Terminal 5 station.

³⁰ We propose that HAL levies only a single charge to recover non-station related OMR costs (including electrification assets) rather than two separate charges (one for electrification assets and one for track, civils and signalling assets, as is the case on Network Rail infrastructure) because all Crossrail services will be electrified. Therefore, all Crossrail services should be expected to contribute to the recovery of electrification OMR costs that HAL incurs as a result of them operating.

RPI_{t-2} means the RPI CHAW published or determined with respect to the month of November in relevant year t-2.

The payment of charges will follow the same terms (including periodicity, timing and set off) as stated in Schedule 7, Section 10 of Network Rail's model clauses Track Access Agreement.

Input for the Station Access Agreement

The Station Access Charges that will be payable for services using facilities at HAL's CTA station and Terminal 4 station are set out below.

A "per call" charge for each station (in 2015/6 prices) is set out in the table below for the use of its CTA and Terminal 4³¹ stations respectively:

Station	Charge (£, 2015/16 prices)
CTA Station Charge (per call)	7.72
T4 Station Charge (per call)	5.06

During each railway reporting period, the total charge for the use of the CTA station located on the Heathrow Rail Infrastructure shall be calculated in accordance with the following formula:

$$\text{Total CTA Station Charge} = \text{Rail Period Calls at CTA} * \text{CTA Station Charge}$$

where:

Rail Period Calls at CTA is the total number of calls made by Crossrail per railway reporting period at the CTA station;

CTA Station Charge is the CTA Station Charge per call of £7.72; and

During each railway reporting period, the total charge for the use of the T4 station located on the Heathrow Rail Infrastructure shall be calculated in accordance with the following formula:

$$\text{Total T4 Charge} = \text{Rail Period Calls at T4} * \text{T4 Station Charge}$$

where:

Rail Period Calls at T4 is the total number of calls made by Crossrail per railway reporting period at the Terminal 4 station;

T4 Station Charge is the Terminal 4 Station Charge per call £5.06.

Both station charges are specified in 2015/16 prices. For years commencing 1 April 2016 onwards, the station charges will follow the standard terms of annual indexation used by Network Rail as set out below:

$$X_t = X_{t-1} * \left(1 + \frac{(RPI_{t-1} - RPI_{t-2})}{RPI_{t-2}} \right)$$

³¹ Since there are no plans for Crossrail services to call at the Terminal 5 station, we do not (at this stage) propose establishing a Station Charge for access to the Terminal 5 station.

Where:

- X_t** is the station charge in question (either the CTA Station Charge or T4 Station Charge);
- RPI_{t-1}** means the RPI CHAW published or determined with respect to the month of November in Relevant Year t-1; and
- RPI_{t-2}** means the RPI CHAW published or determined with respect to the month of November in Relevant Year t-2.

The payment of charges will follow the same terms (including periodicity, timing and set off) as stated in Network Rail's standard form Station Access Agreement.

Input for Schedule 8 of the Track Access Agreement

This schedule of the HAL Track Access Agreement will set out the principles of the performance regime which operates on the Heathrow Rail Infrastructure.

The performance regime details the mechanisms through which industry parties - both the IM, in this case HAL, and train operators (TOCs) - are compensated for poor performance and/or rewarded for good performance.

The performance regime for the Heathrow Rail Infrastructure shall follow the same broad principles as the performance regime set out in Schedule 8 of the Network Rail template (or model clauses) TAA. In particular the following principles directly follow those detailed in Schedule 8:

1. **Measure of performance** – performance shall be measured on an “Average Minutes Lateness” basis relative to the published timetable, as defined in Network Rail’s Schedule 8. These minutes will then be attributed to the responsible parties pro rata to so-called “Delay minutes” relative to the published timetable;
2. **Benchmark levels of performance** – actual performance will be assessed against an “expected performance” benchmark³² where industry parties are expected to deliver services at a certain “expected” level (this can be adjusted over time and can be aligned to targets set out elsewhere). It should be stressed that “expected”, refers to the level of performance that should be deliverable by industry parties, given (i) the technology, funding etc available to them and (ii) assuming that industry parties are effective and efficient. This is consistent with the type of benchmarks established as part of Network Rail’s Schedule 8;
3. **Timescale of measurement** – performance shall be measured on an average basis over each reporting period as set out in Network Rail’s Schedule 8;
4. **Payment rates** – payment rates, as in Network Rail’s Schedule 8, will be calibrated to reflect the long-term revenue effects associated with a change in performance relative to the benchmark (based on Average Minutes Lateness across the service). These revenue effects include losses experienced “on the day” as well the impact on demand via longer term reputational effects for both on and off network effects³³. Payment rates will need to be estimated “ex-ante” for May 2018. We propose re-calibrating once Crossrail services are in operation but without a retrospective wash-up;
5. **Indexation** – each payment rate shall be adjusted in respect of Periods in Relevant Year t in accordance with the following formula:

$$R_t = R_{t-1} \cdot \left(1 + \frac{(RPI_{t-1} - RPI_{t-2})}{RPI_{t-2}} \right)$$

where:

³² The precise details of which are to be confirmed.

³³ It should be noted that calibration of payment rates in this way may not completely compensate affected parties for performance payments incurred when presenting to another network. TfL is willing in principle to accept this risk, but notes that this is a problem systemic to all rail network interfaces in Britain. Given the “w hole-industry” nature of the issue, TfL believes that such an issue requires a “w hole-industry” body such as the ORR or the Rail Delivery Group to organise and determine an appropriate solution.

R_t	is the relevant rate in the Relevant Year t ;
R_{t-1}	is the relevant rate in the Relevant Year $t-1$;
RPI_{t-1}	means the RPI CHAW published or determined with respect to the month of November in Relevant Year $t-1$; and
RPI_{t-2}	means the RPI CHAW published or determined with respect to the month of November in Relevant Year $t-2$.

6. **Sustained Poor Performance (SPP)** – a “lower bound” of performance will also be specified, which if breached, means that a SPP regime comes into force as on Network Rail infrastructure. This would allow industry parties to claim for incremental “actual losses” parties if standard performance payments (under the liquidated sums regime exceed a given amount over a specified time period)³⁴ do not cover actual losses. However, in contrast to Sustained Poor Performance Regime of Network Rail, the IM will also be contractually obliged to put a clear mitigation plan in place; and
7. **“On-network” delay attribution** – the performance regime uses a so-called “TOC-on-self” regime and “star model” for attributing delay “on-network”³⁵. This works following two key principles: (i) HAL pays out for all performance deviations it causes as well as all TOC-on-TOC deviations (i.e. where the perpetrator TOC and the TOC experiencing delay are different operators) and (ii) TOCs compensate HAL for TOC-on-self deviations (i.e. where the perpetrator TOC and the TOC experiencing delay are the same operator)³⁶.

Given that services which operate on the Heathrow Rail Infrastructure will also run on adjoining Network Rail infrastructure, the principles of Network Rail’s Schedule 8 need to be supplemented to take account of “cross-network” interactions. In particular:

- **“Cross-network” delay attribution** – delay attribution across networks should follow three broad principles:
 - (i) wherever possible, delay is attributed to the prime incident;
 - (ii) delay attribution should be consistent for both performance monitoring and performance regime purposes; but that
 - (iii) for performance regime purposes (but not necessarily delay attribution purposes) a train operator that presents late to either network (HAL or Network Rail) by X minutes is attributed X minutes of delay, regardless of the root cause.

In respect of point (iii), train operator benchmarks will need to recognise that infrastructure managers could cause train operators to present late at the infrastructure boundary; and

³⁴ Precise threshold level to be determined.

³⁵ “on-network” is defined as delays caused on the Heathrow Rail Infrastructure which affect industry parties also operating on the Heathrow Rail Infrastructure.

³⁶ Where TOC-on-self deviations from the performance benchmark are the deviation in performance felt by the TOC that caused the deviation.

- **Contractual structure** – the “star” models of each infrastructure manager will effectively be linked through train operators. Each train operator has a contract with the infrastructure manager whose infrastructure it uses (as in the star model implemented by Network Rail), and so by construction, the train operators that use two or more pieces of infrastructure have two or more contractual relations which will “link” the star models. Hence, if a payment is required to be made between infrastructure managers, this will be made through a train operator that uses both pieces of infrastructure.

To date, HAL has maintained that there is no requirement for a Schedule 4 regime, as it only intends to undertake engineering work in so-called “white periods” (i.e. non-service periods). Whilst our preference would be that a Schedule 4 regime is established in order to maintain consistency with wider industry practice, we would be willing to accept an arrangement in which compensation for planned disruption is provided under an alternative part of the contract.

However, we emphasise that – regardless of where in the contract the arrangements are set out – it is essential that a regime that provides appropriate compensation in instances of planned disruption during service periods is established in respect of the Heathrow Rail Infrastructure. This will ensure that operators are afforded the appropriate protections in the event of planned disruption affecting their services. Equally importantly, it will mean that HAL is incentivised to manage the operational disruption associated with engineering work efficiently.

We therefore propose that there is no separate possessions regime in Schedule 4. Instead, we propose that the Crossrail operator will be compensated in the case of possessions being made outside of “white periods” in line with arrangements for unplanned disruption, as set out in Schedule 8. Lateness caused by possessions outside of the “white periods” will be calculated by reference to the published timetable for the relevant period and to services cancelled, retimed or otherwise disrupted. Should the nature of the possession mean that the timetable is yet to be published for the relevant period, lateness will be measured against the most appropriate reference timetable available³⁷.

We expect calibration of the performance regime parameters (payment rates, benchmarks, Sustained Poor Performance thresholds and so forth) – together with detailed legal drafting of the regime – to take place following the endorsement of these principles by ORR. Thereafter, we would anticipate regime parameters and drafting to be validated by ORR.

³⁷ The precise determination of what the most appropriate timetable to use for reference will be made on a case-by-case basis.

Appendix 2 – List of access documentation required for access to Heathrow Rail Infrastructure

- 1 Track Access Agreement
- 2 Station Access Agreement
- 3 Network Statement (including the charging framework)
- 4 Network Code (including Access Dispute Resolution Rules)
- 5 Station Access Conditions (incorporating the station-specific Annexes)

- 6 Delay Attribution Guide
- 7 Performance Data Accuracy Code
- 8 Railways Systems Code
- 9 Emergency Access Code
- 10 Railway Operational Code
- 11 Operational Resilience Plan

- 12 Engineering Access Statement
- 13 Timetable Planning Rules
- 14 Rule Book and Sectional Appendix (to supplement the Timetable Planning Rules)

- 15 The equivalent of the “Network Rail standards” for the Heathrow Rail Infrastructure.

Appendix 3 – Letter from the ORR

Appendix 4 – Letters of support from the DfT and MTR Crossrail

Appendix 5 – List of information required to complete the TfL Access Documentation

Appendix 6 – Contents of Regulation 29 and Regulation 30 application

The documents forming part of these regulation 29 and regulation 30 applications are as follows:

	Document	Location	Overview	File
Covering letter				
1	Covering letter	This document	Sets out the background of engagement with HAL leading up to submission of this application.	Please see: "1. TfL covering letter to regulations 29 and 30 application"
2	TfL commentary prepared in conjunction with PwC	Appendix 1 to this covering letter	Sets out the principles underlying the proposed charges for use of the track and stations comprised in the Heathrow Rail Infrastructure and how these have been calculated.	Note: forms part of file #1
3	List of access documentation required for access to Heathrow Rail Infrastructure	Appendix 2 to this covering letter	Sets out all of the documentation which will be required to finalise access to the Heathrow Rail Infrastructure (some of which is entirely within HAL's control).	Note: forms part of file #1
4	Letter from the ORR	Appendix 3 to this covering letter	Confirms that the Heathrow Rail Infrastructure is subject to the Regulations.	Please see separate file: "4. Letter from the ORR to HAL regarding application of the 2005 Regulations in respect of the Heathrow Spur"
5	Letter of support from the DfT	Appendix 4 to this covering letter	Offers support for this application.	Please see separate file: "5. 160427 Signed letter from DfT in support of TfL application to

	Document	Location	Overview	File
				ORR"
6	Letter of support from MTR	Appendix 4 to this covering letter	Offers support for this application.	Please see separate file: "6. MTR Letter of support for Regulation 29 30 submission re HAL"
7	List of information required to complete TfL Access Documentation	Appendix 5 to this covering letter	Sets out information required to fully draft the TfL Access Documentation.	Please see separate file: "7. List of Information required from HAL to complete TfL Access Documentation"
R29 form - track				
8	Form R29 – related to access to track (and associated infrastructure, including traction electricity systems and signalling and control) forming part of the Heathrow Rail Infrastructure		Sets out the completed application form required by the ORR for making a regulation 29 application.	Please see: "8. R29 Application – Track"
9	TfL response to HAL's comments on TfL's initial consultation response	Appendix 1 to the R29 form (track)	Responds to HAL's commentary on TfL's formal response to the HAL consultation.	Please see separate file: "9. TfL response to HAL Comments on TfL Consultation Response"
10	Grounds for application (R29 – track)	Appendix 2 to the R29 form (track)	Sets out the grounds for application or complaint under Regulations 29 and 30 of the Railways Infrastructure (Access and Management) Regulations 2005 and provides examples from the TfL Consultation response.	Note: forms part of file #8
11	Access rights sought – Passenger Train Slots	Appendix 3 to the R29 form (track)	Sets out the access rights sought by TfL to the track comprised in the Heathrow Rail Infrastructure.	Note: forms part of file #8

	Document	Location	Overview	File
12	Key commercial terms relating to track access sought by TfL	Appendix 4 to the R29 form (track)	Sets out commercial heads of terms sought by TfL in relation to the HAL Network Statement, HAL Network Code and HAL Track Access Agreement (which have been reflected in the TfL Access Documentation, where applicable).	Note: forms part of file #8
R29 form - stations				
13	Form R29 – related to access to Central Terminals Area and Terminal 4 stations forming part of the Heathrow Rail Infrastructure		Sets out the completed application form required by the ORR for making a regulation 29 application.	Please see: "13. R29 Application – Stations"
14	TfL response to HAL's comments on TfL's initial consultation response	Appendix 1 to the R29 form (stations)	Responds to HAL's commentary on TfL's formal response to the HAL consultation. Note that this is the same document as #9	Note that this is the same document as #9
15	Grounds for application (R29 – stations)	Appendix 2 to the R29 form (stations)	Sets out the grounds for application or complaint under Regulations 29 and 30 of the Railways Infrastructure (Access and Management) Regulations 2005 and provides examples from the TfL Consultation response.	Note: forms part of file #13
16	Access rights sought – rights complementary to those sought as part of the track access application	Appendix 3 to the R29 form (stations)	Sets out the access rights sought by TfL to the stations comprised in the Heathrow Rail Infrastructure.	Note: forms part of file #13
17	Key commercial terms relating to stations access sought by TfL	Appendix 4 to the R29 form (stations)	Sets out commercial heads of terms sought by TfL in relation to the HAL Station Access Conditions and HAL Station Access	Note: forms part of file #13

	Document	Location	Overview	File
			Agreement (which have been reflected in the TfL Access Documentation, where applicable).	
18	Additional Contractual terms to be included in the HAL access documentation	Annex to the R29 form (stations)	Sets out a copy of the note provided by TfL to HAL in relation to additional contract terms to be included in the access documentation (in lieu of the requirement to hold a network or stations licence).	Note: forms part of file #13
TfL Access Documentation				
19	HAL Track Access Agreement		Sets out TfL's proposed form of access contract for access to the track comprised in the Heathrow Rail Infrastructure.	Please see: "19. R29/R30 HAL Track Access Agreement (TfL Access Documentation)"
20	HAL Track Access Agreement – comparison against Network Rail model form		Provides a comparison between #19 and the Network Rail "model form" track access agreement.	Please see: "20. R29/R30 HAL Track Access Agreement (Comparison against Network Rail model form)"
21	HAL Network Code		Sets out TfL's proposed form of HAL Network Code associated with access to the track comprised in the Heathrow Rail Infrastructure.	Please see: "21. R29/R30 HAL Network Code (TfL Access Documentation)"
22	HAL Network Code – comparison against Network Rail Network Code		Provides a comparison between #21 and the Network Rail Network Code.	Please see: "22. R29/R30 HAL Network Code (Comparison against Network

	Document	Location	Overview	File
				Rail Network Code)"
23	HAL Station Access Agreement		Sets out TfL's proposed form of access contract for access to the stations comprised in the Heathrow Rail Infrastructure.	Please see: "23. R29/R30 HAL Station Access Agreement (TfL Access Documentation)"
24	HAL Station Access Agreement – comparison against Network Rail independent stations model form		Provides a comparison between #23 and the Network Rail "model form" independent stations access agreement.	Please see: "24. R29/R30 HAL Station Access Agreement (Comparison against Network Rail model form)"
25	HAL Station Access Conditions		Sets out TfL's proposed form of HAL Station Access Conditions associated with access to the stations comprised in the Heathrow Rail Infrastructure.	Please see: "25. R29/R30 HAL Station Access Conditions (TfL Access Documentation)"
26	HAL Station Access Conditions – comparison against Network Rail independent stations model form		Provides a comparison between #25 and the Network Rail "model form" Independent Station Access Conditions.	Please see: "26. R29/R30 HAL Station Access Conditions (Comparison against Network Rail model form)"
27	HAL Station Access Conditions (Template Annexes)		Sets out TfL's proposed form of HAL Station Access Conditions Annexes associated with access to the stations comprised in the Heathrow Rail Infrastructure.	Please see: "27. R29/R30 HAL Station Access Conditions Annexes (TfL Access Documentation)"
28	HAL Station Access Conditions		Provides a comparison	Please see:

	Document	Location	Overview	File
	(Template Annexes) – comparison against Network Rail independent stations model form Annexes		between #27 and the Network Rail "model form" Independent Station Access Conditions Annexes.	"28. R29/R30 HAL Station Access Conditions Template Annexes (Comparison against Network Rail model form)"