

From: [REDACTED]
To: [REDACTED]; [REDACTED]@london.gov.uk; Richard Zavitz; Julie Breden; [REDACTED]; David Rowe; Mike Hardaker; Lucinda Turner; Peter McNaught
Subject: Old Oak Common Strategic Steering Group Minutes 31/10/23
Date: 02 November 2023 15:19:51
Attachments: [Old Oak Common Station – Strategic Steering Group ToR.docx](#)

Hi all

Please find below minutes and actions for comment from Tuesdays Strategic Steering Group.

Attendees

[REDACTED] DfT ([REDACTED])
[REDACTED], DfT ([REDACTED])
[REDACTED], NR ([REDACTED])
[REDACTED], NR ([REDACTED])
[REDACTED] HS2 Ltd ([REDACTED])
Mike Hardaker, TfL (MH)
David Rowe, TfL (DR)
Peter McNaught, TfL (PM)
Lucinda Turner, TfL (LT)
Richard Zavitz, TfL (RZ)
[REDACTED] ([REDACTED])

Terms of Reference

[REDACTED] presented the Terms of Reference and sought comments from attendees.
[REDACTED] clarified the 'updates from Co-Chairs' was an update from the working group chair.
LT asked if we can set up groups within this hierarchy to tackle specific issues, [REDACTED] agreed we could and suggested surface transport should have a first meeting on the 3rd.
[REDACTED] set out that clarity should be provided around this SSG being different from the Old Oak West Strategic Steering Group.

Elizabeth Line Level Boarding

[REDACTED] and RZ presented the level boarding paper highlighting work done to date and conclusions reached over a retrofit solution offering a compromise between programme and cost preservation whilst delivering level boarding capability. This might be through a hump or full platform solution.
[REDACTED] outlined we need to be fully sure that we're not missing benefits to customers and outlined concern about the cost estimates.
[REDACTED] noted there are three points. (1) How the wider population react to humps? (2) Performance of the railway is extremely tight, with TfL looking to uplift frequencies on the relief lines once more, so delays will have impacts across the whole route thus access / egress time reduction is critical. (3) Lowering the track may have a programme impact and we do need to be mindful of impacts on other rolling stock.
DR asked what further work was done in terms of understanding the complexity of raising / lowering the track bed from 2022 stating derogations were raised and design impacts also. Queried the cost estimates and platform topper geometry.
LT stated appreciation for the focus group looking into this but still feels uncomfortable entering an sub-optimal design option based on the work done, noting reputation issues here. There is no

certainty about Euston so OOC could be permanent terminus.

■ agreed humps are sub-optimal and asked how much detail has gone into the impacts on resilience.

■ noted all modelling done assumes non-level boarding but we know level boarding would help passengers to get on and off faster.

■ explained the programme constraints, noting that foundations are being piled and by early 2024 platform construction would be advanced. This drives the programme towards Dec-26's first possession which we may risk missing.

■ stated he was struggling on the timing. Feels like piling stage shouldn't be an issue for engineering changes. Costs seem incredibly high.

■ responded by outlining the work done to date, noting it's a desk-stop study and further design work would require remit. Noted the programme impact.

Outcome: SSG endorsed DfT seeking a remit from HS2 for detailed design of retrofit solutions, however clarified that this should not rule out further work on other options in parallel or in future. SSG did not fully endorse continuing with the existing design pending further questions over design changes but acknowledged that HS2 Ltd would continue to progress construction to the current plan unless instructed to do otherwise.

Updates

■ provided an update on the Government's changes to the HS2 programme and sought brief round table updates.

LT - Request for a focus group started and moving forward on surface transport issues. TfL's view is that the current design does not fully integrate with (a) junction capacity, (b) bus interchange design and capacity, (c) healthy streets context for walking and cycling. Other issue that would be good to discuss is the OOC tunnelling to Euston which has a time critical window.

■ updated that the supplementary planning document for OOW had been released. OPDC is shortly going out to market to seek a JV partner for a sustainable heat recovery network for which it had been awarded a £36m grant from DESNZ. Working hard to acquire private development sites around OOC - 4 have been acquired and more are coming.

■ - sch 17 application has been received for a temporary train crew building at the moment which conflicts with potential eastern access pedestrian bridge. This will need to be discussed.

Actions

■ to update ToR to correct 'updates from co-chairs' and to provide clarity on SSG remit regarding Old Oak West [attached].

■ and RZ to set up a more detailed meeting between TfL (MH, DR, PM) and HS2 Ltd / NR to run through why analysis showed the programme and cost impacts it did.

■ To consider setting up specific surface transport focus group following initial meeting on the 3rd November.

Kind regards

■

■ | Head of Old Oak Common Sponsorship, HS2 Delivery
Directorate, Department for Transport

Post to: ■

-----Original Appointment-----

From: [REDACTED]
Sent: Thursday, September 28, 2023 4:41 PM
To: [REDACTED] Network Rail Mail Contact);
[REDACTED]@opdc.london.gov.uk; Richard
Zavitz; [REDACTED]@tfl.gov.uk; [REDACTED]; David Rowe; [REDACTED]@tfl.gov.uk; Lucinda
Turner; [REDACTED]@tube.tfl.gov.uk
Subject: Old Oak Common Strategic Steering Group
When: 31 October 2023 13:30-14:30 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.
Where: Microsoft Teams Meeting

Hi all

As mentioned this is the first Old Oak Common Strategic Steering Group. Agenda to follow.

Could TfL attendees please be looped in by [@Richard Zavitz](#) and [@Julie Breden](#)
[REDACTED]@tfl.gov.uk>

Kind regards

[REDACTED]

Microsoft Teams meeting

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Old Oak Common Surface Transport Project Plan

Workstream 1:
TfL – HS2 Ltd discussions over detail within existing design.

Workstream 2:
Understanding the impact of updated modelling work on the existing OOC ST design

Governance meetings:
SWG, SSG and STT&FG

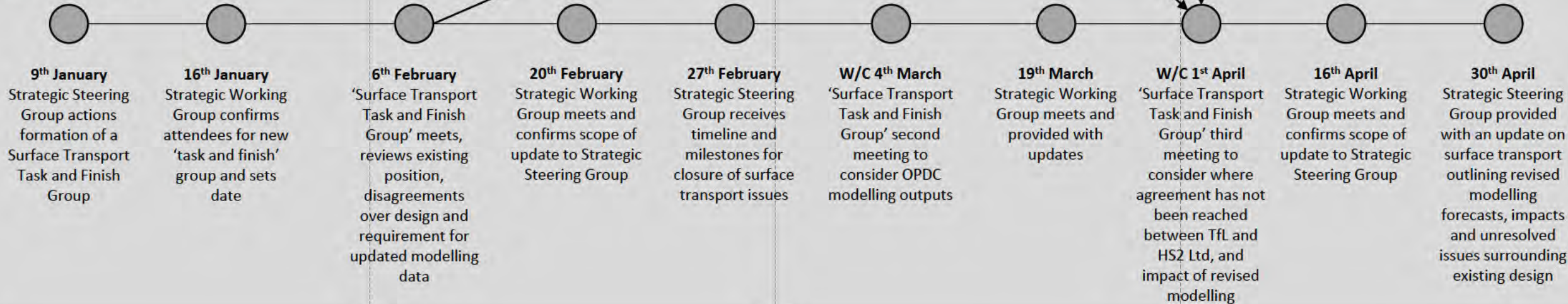
Ongoing - March
HS2 Ltd, supplier and TfL meetings over TfL's rejection of HS2's existing designs to work through issues

W/C 26th February
OPDC receives updated modelling with growth accounted for

W/C 4th March
OPDC share modelling with HS2 / TfL, who will begin considering OPDC's modelling to understand scale of change on existing modelling

W/C 18th March
HS2 Ltd* / TfL each reach a position on the impact and whether changes would be needed due to new modelling

**HS2 Ltd early view, any support from BBVS/WSP would require additional time*

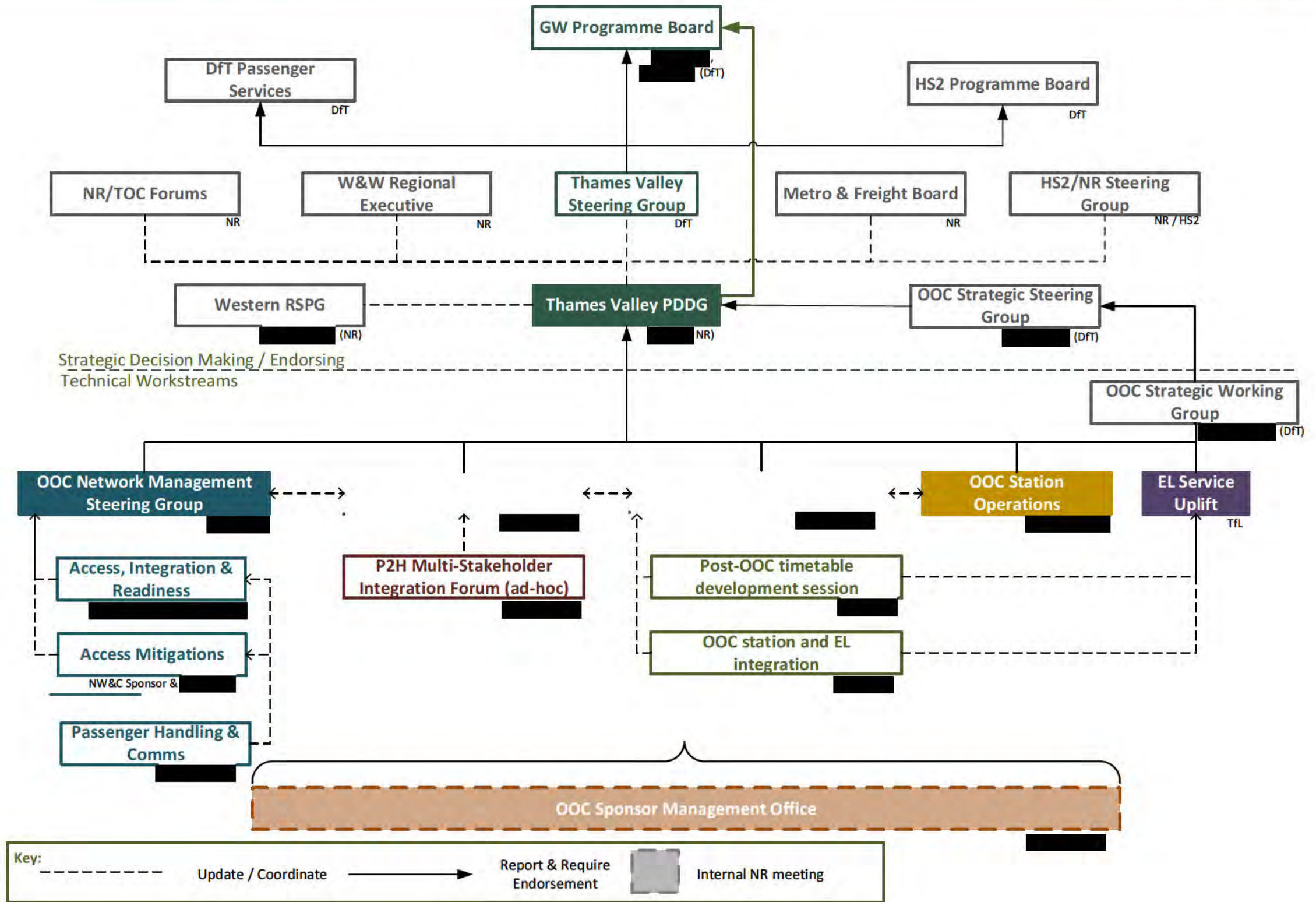


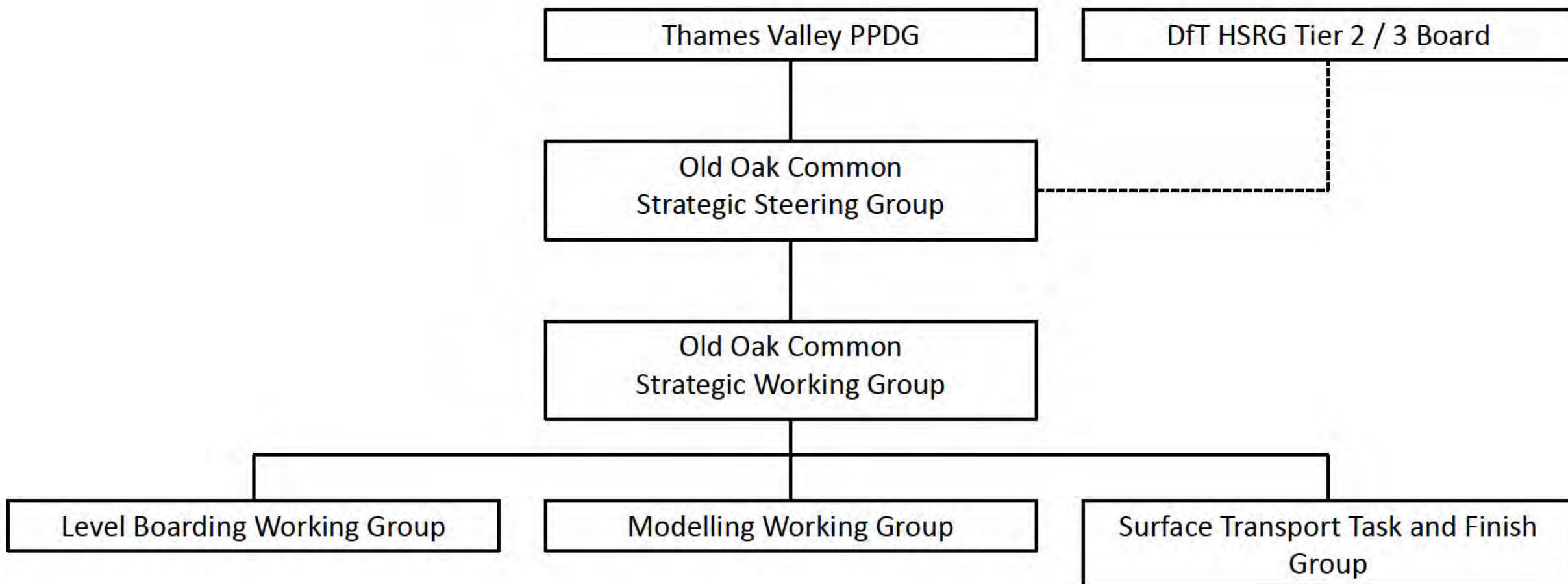
January

February

March

April





OOO Station Operations

- Station Design [S4] [redacted]
- Railway Systems [redacted]
- OOO Station Systems [redacted]

OOO Network Management Steering Group

Access, Integration & Readiness

Short Term Access Planning (up to Dec '26)

- PSN part 1 [redacted]
- Readiness for Blockades [redacted]
- Regional Driver Training [redacted]
- NOIS & Network Change [redacted]
- Operational Readiness & Stabling [redacted]
- Passenger Handling Strategy [redacted]

Access Mitigations

Long Term Access Planning (from Dec '26)

- PSN part 2 [redacted]
- Diversions [redacted]
- Full electrification of the Poplar line [redacted]
- GWR & MTR ALB Depot Strategy [redacted]
- Freight Mitigations [redacted]
- Long term Passenger Handling Strategy [redacted]
- 2 Track Timetable [redacted]
- ALB Timetable (TBC)
- 2026 Timetable Recast (TBC)

Passenger Handling & Comms

- Short & Long term Passenger Handling Strategy [redacted]

OOO Sponsor Management Office

Post OOC

- OOC Vision [redacted]
- OOC Staged Opening [redacted]
- OOC Maintenance Accommodation [redacted]
- Performance Mitigations in TV [redacted]
- Post-OOO Operational resilience [redacted]

Post-OOO timetable development session

- Post OOC Timetable & Performance Modelling [redacted]
- Impact of New Permanent Speed [redacted]

EL Service Uplift

- EL Service Uplift & Stabling feasibility (TfL & [redacted])
- EL Uplift – Relief Line CTP (TfL & [redacted])

OOO station and EL integration

Key:  Internal NR meeting

Key:	 Internal Meetings	 External Meetings	Week 1	Week 2	Week 3	Week 4
Thames Valley Infrastructure Integration Forum (TVIIF)			Tue 1000-1200			
Paddington to Heathrow Stakeholder Integration Forum			Every third NR period Tue 1030-1130			
Post-OOO Timetable Development Session			Ad-hoc 5 th Sep 1400-1500		Ad-hoc 10 th Oct 1400-1500	
OOO Access, Integration & Readiness / Mitigations Steering Group				Mon 1430-1630		
OOO Network Management Steering Group (NMSG)				Thu 1300-1530		
OOO Station Operations Working Group						Every third NR period Thu 1400-1500
Sponsor's Management Office (SMO)				Mon 1530-1630		Tue 1330-1430
Western route OOO timetable and connectivity strategy					Wed 1400-1600	
OOO Station Working Group (DfT)					Tues 1400-1500	
OOO station and EL integration						Thu 1100-1200
OOO Passenger Handling 23/24						Thu 1030-1200
Programme Development & Delivery Group (PDDG)						Thu 1330-1530

Meeting Date	Agenda			
	Item 1	Item 2	Item 3	Item 4
27-Feb	Round Table Updates	OPDC Old Oak West OBC Update	Surface Transport Task and Finish Group Update	Elizabeth Line Updates (Level Boarding and Frequency)
30-Apr	Round Table Updates	Surface Transport Task and Finish Group Update	NR - Case for GWML calls	
25-Jun	Round Table Updates	Elizabeth Line Level Boarding		
27-Aug	Round Table Updates			
29-Oct	Round Table Updates			
31-Dec	Round Table Updates			

OOO Strategic steering group

Date: 27/2/24

Agenda

From: [REDACTED]
Sent: Tuesday, February 20, 2024 4:29 PM
To: [REDACTED] <[\[REDACTED\]@hs2.org.uk](mailto:[REDACTED]@hs2.org.uk)>; [REDACTED] <[\[REDACTED\]@dft.gov.uk](mailto:[REDACTED]@dft.gov.uk)>;
[REDACTED] (Network Rail Mail Contact) <[\[REDACTED\]@networkrail.co.uk](mailto:[REDACTED]@networkrail.co.uk)>; [REDACTED] <[\[REDACTED\]@networkrail.co.uk](mailto:[REDACTED]@networkrail.co.uk)>;
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Zavitz <[\[REDACTED\]@tfl.gov.uk](mailto:[REDACTED]@tfl.gov.uk)>; [REDACTED] <[\[REDACTED\]@tfl.gov.uk](mailto:[REDACTED]@tfl.gov.uk)>; David Rowe
<[\[REDACTED\]@TfL.gov.uk](mailto:[REDACTED]@TfL.gov.uk)>; [REDACTED] <[\[REDACTED\]@tfl.gov.uk](mailto:[REDACTED]@tfl.gov.uk)>; Lucinda Turner
<[\[REDACTED\]@tfl.gov.uk](mailto:[REDACTED]@tfl.gov.uk)>; [REDACTED] <[\[REDACTED\]@tube.tfl.gov.uk](mailto:[REDACTED]@tube.tfl.gov.uk)>;
Subject: RE: Old Oak Common Strategic Steering Group

Hi all

In advance of next weeks Strategic Steering Group, please see below the suggested agenda and actions from the last meeting.

Agenda

- Discussion on governance and forward look
- OPDC Update on OOW OBC
- DfT / TfL joint Surface Transport Task and Finish Group update (project plan to be circulated later this week)
- DfT update on Elizabeth Line rolling stock and level boarding

Actions from 9th January SSG:

- ACTION: Surface Transport discussion at the next strategic steering group. **On agenda.**
- ACTION: OPDC to give an OOW update to SSG post Tier 2 board. **On agenda.**
- ACTION: [REDACTED] to confirm new name. **TBC – discuss if needed.**
- ACTION: [REDACTED] to create a governance map showing the relationships between the various forums for discussion at the next SSG. Circulate 2 weeks in advance. [REDACTED] to create a forward look of other big issues in the area and for future meetings. **Closed as attached, apologies for the delay as working group confirmed these today. On agenda.**

Kind regards

[REDACTED]

From: [REDACTED]
To: [REDACTED] (Network Rail Mail Contact); [REDACTED]@opdc.london.gov.uk; Richard Zavitz; Julie Breden; [REDACTED]; David Rowe; Mike Hardaker; Lucinda Turner; Peter McNaught
Subject: Old Oak Common Strategic Steering Group Agenda / Papers
Date: 27 October 2023 12:54:31
Attachments: [231031_SSG_Paper_on_Level_Boarding.docx](#)
[Old_Oak_Common_Station_Strategic_Steering_Group_ToR.docx](#)

Hi all

In advance of the first meeting of this group next week, please see below the proposed agenda:

- Item 1: Introductions (5 mins)
- Item 2: Review Terms of Reference (10 mins)
- Item 3: SSG Paper on Level Boarding (25 mins)
- Item 4: Round Table Updates (15 mins)
 - DfT
 - HS2 Ltd
 - Network Rail
 - TfL
 - OPDC
- Item 5: AOB (5 mins)

Kind regards

[REDACTED]

[REDACTED] | Head of Old Oak Common Sponsorship, HS2 Delivery
Directorate, Department for Transport

Post to: [REDACTED]

—Original Appointment—

From: [REDACTED]

Sent: Thursday, September 28, 2023 4:41 PM

To: [REDACTED] (Network Rail Mail Contact); [REDACTED]@opdc.london.gov.uk; Richard Zavitz; [REDACTED]@tfl.gov.uk; [REDACTED]; David Rowe; [REDACTED]@tfl.gov.uk; Lucinda Turner; [REDACTED]@tube.tfl.gov.uk

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When: 31 October 2023 13:30-14:30 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

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Could TfL attendees please be looped in by [@Richard Zavitz](#) and [@Julie Breden](#)

[REDACTED]@tfl.gov.uk>

Kind regards

[REDACTED]

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Old Oak Common Station – Strategic Steering Group
Terms of Reference for Transport for London and Department for Transport
Engagement

Background

Once complete, the HS2 Old Oak Common station (OOC) will be the largest sub-surface station in the UK, as well as the largest station ever built in the UK as a single project. The station will consist of six subterranean HS2 platforms and eight platforms for the conventional rail network. Once operational OOC has been designed to be one of the most sustainable railway stations in the world, aiming to operate with net zero carbon energy, including; controlling the station's temperature with air source heat pumps, generating renewable energy from solar panels on the roof and harvesting rainwater.

OOC will be used by up to 250,000 passengers each day making it one of the busiest stations in the country. OOC will act as the temporary London terminus for HS2 until the HS2 Euston station is delivered. Whilst operating as a temporary terminus the station will have the capacity to accommodate up to 6 HS2 trains per hour.

Construction will also have a significant impact on the existing railway and passenger and freight services. Relocating all four tracks (main and relief lines) of the Great Western Main Line (GWML) into the new conventional rail station will require, at different times, part or all of the existing GWML to be closed, restricting access to London Paddington for Great Western Railway (GWR), Elizabeth Line (EL), Heathrow Express (HEX) and freight services. Further, journey time impacts to services on the GWML resulting from the time taken for trains to stop in the end state will occur.

Transport for London is acknowledged as a key stakeholder in both the construction and operation of Old Oak Common's conventional rail station. It is proposed to establish a monthly working-level meeting (referred to as the 'Strategic Working Group') and a bi-monthly senior level 'Strategic Steering Group' to formalise engagement between TfL, DfT, HS2 Ltd, Network Rail and OPDC.

The meetings will be structured to focus on all elements included within the following key areas for the various stages of the new OOC Station to prioritise the most pressing issues:

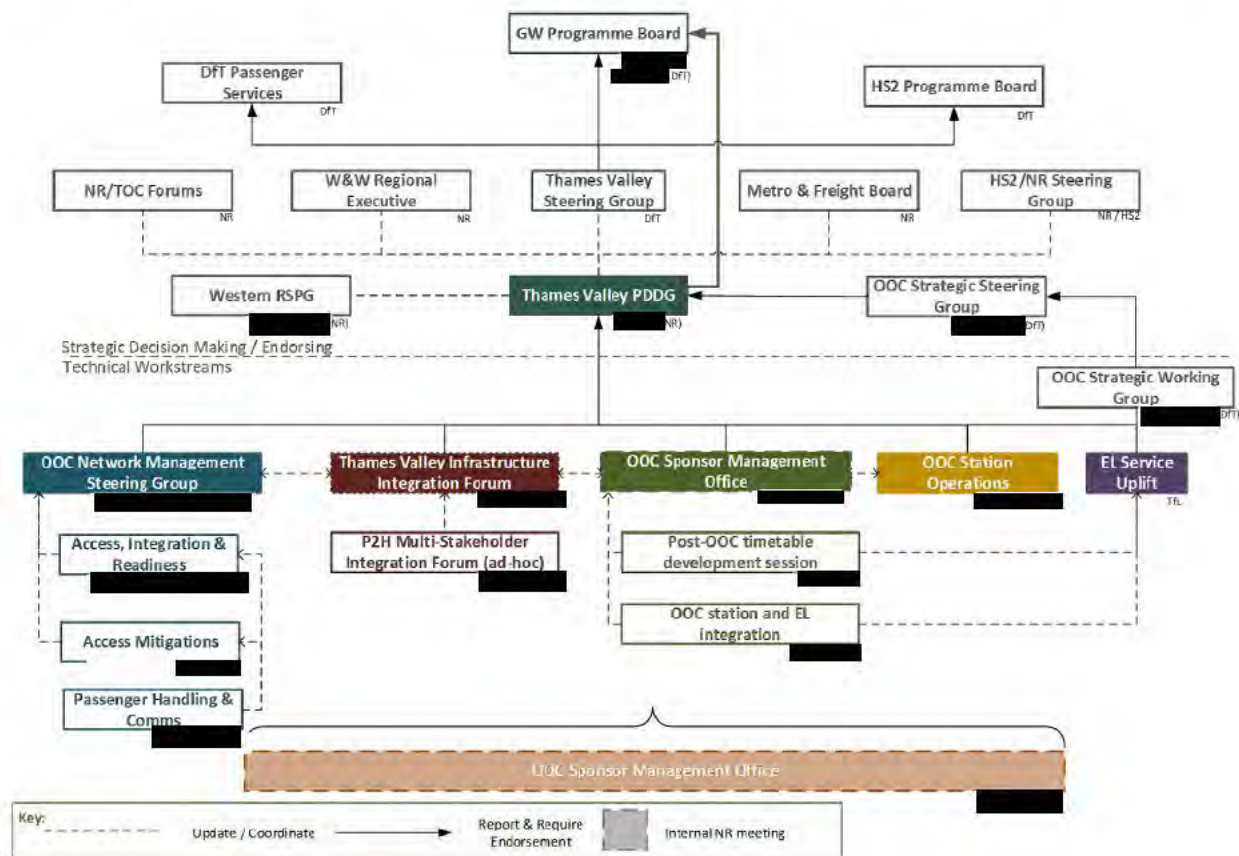
1. Requirements
2. Design
3. Construction
4. Operations during delivery of OOC
5. Operations of the end state OOC
6. Local development interface and implementation

Current topics for discussion within the key areas will include:

- Activities to support construction of the new HS2 station and the new GWML station

- Planning and operational aspects for:
 - Buses and other surface transport
 - Elizabeth Line, including level boarding aspirations and end-state service levels
 - Local development
 - OOC vision
 - Other
- London Underground
 - Avoiding timings of planned closures of the Piccadilly, District and Central Lines aligning with 2 track working and all lines blocked closures on the GWML.
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- OPDC aspirations and other local planning
- Impact of GWML main line calls, timing of their introduction, and options to mitigate any performance, train service or operational impacts

The Strategic Steering Group will be a sub group of the Thames Valley Area Programme Development & Delivery Group. The Strategic Working Group will support the Strategic Steering Group by commissioning, reviewing and gathering evidence for key topics of discussion. The Strategic Steering Group is generally sufficiently senior to take ownership of many decisions within its remit, though where wider operational impacts exist this may need escalation to PDDG.



Strategic Working Group

Purpose: To pull together priorities a variety of materials from workstreams that interface with and are enabled by the construction and delivery of OOC as per the list of requirements and current topics above. To join up parties involved in ensuring that Old Oak Common operates effectively in its end state and as a temporary terminus until HS2 Euston opens, supporting successful introduction of HS2 configuration states C, D and E.

Timing: Monthly

Agenda:

- Workstream updates
- Risks and issues register, to be maintained by the DfT
- Escalations, decisions, notifications and actions

Strategic Working Group invitees will be required to raise concerns, increase awareness and provide updates relative to their organisational objectives and priorities, to support effective discussions and collaborative working. Agreement will be required for items that need to be escalated from the Strategic Working Group to the Strategic Steering Group.

Proposed Invitees:

Organisation	Invitee
Department for Transport (DfT)	[REDACTED] (Chair)
High Speed 2 Limited (HS2)	[REDACTED]
Network Rail (NR)	[REDACTED]
Old Oak and Park Royal Development Corporation (OPDC)	[REDACTED]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[REDACTED]

Strategic Steering Group

Purpose: To oversee all the elements of ongoing work to ensure a collaborative 'best for programme' approach and effective prioritisation. To support in reaching a consensus among group members prior to any decisions being put to PDDG.

Timing: Bi-monthly

Agenda:

- Updates from co-chairs

- Review dashboard / governance process
- Risks
- Item specific discussion
- AOB

The Strategic Steering Group attended by senior leaders will receive a strategic oversight of all live/forecast issues, to manage risks and drive consensus on issues at a senior level. Whilst this forum is sufficiently senior to take ownership of decision making regarding many elements of the scope, any decisions interfacing with operations on the GWML should be escalated to the PDDG. Further, any significant risks to realisation of the HS2 configuration states should be raised to the HS2 Integration Steering Group (HISG). The Department for Transport representative will be the single accountable point for the strategic overview.

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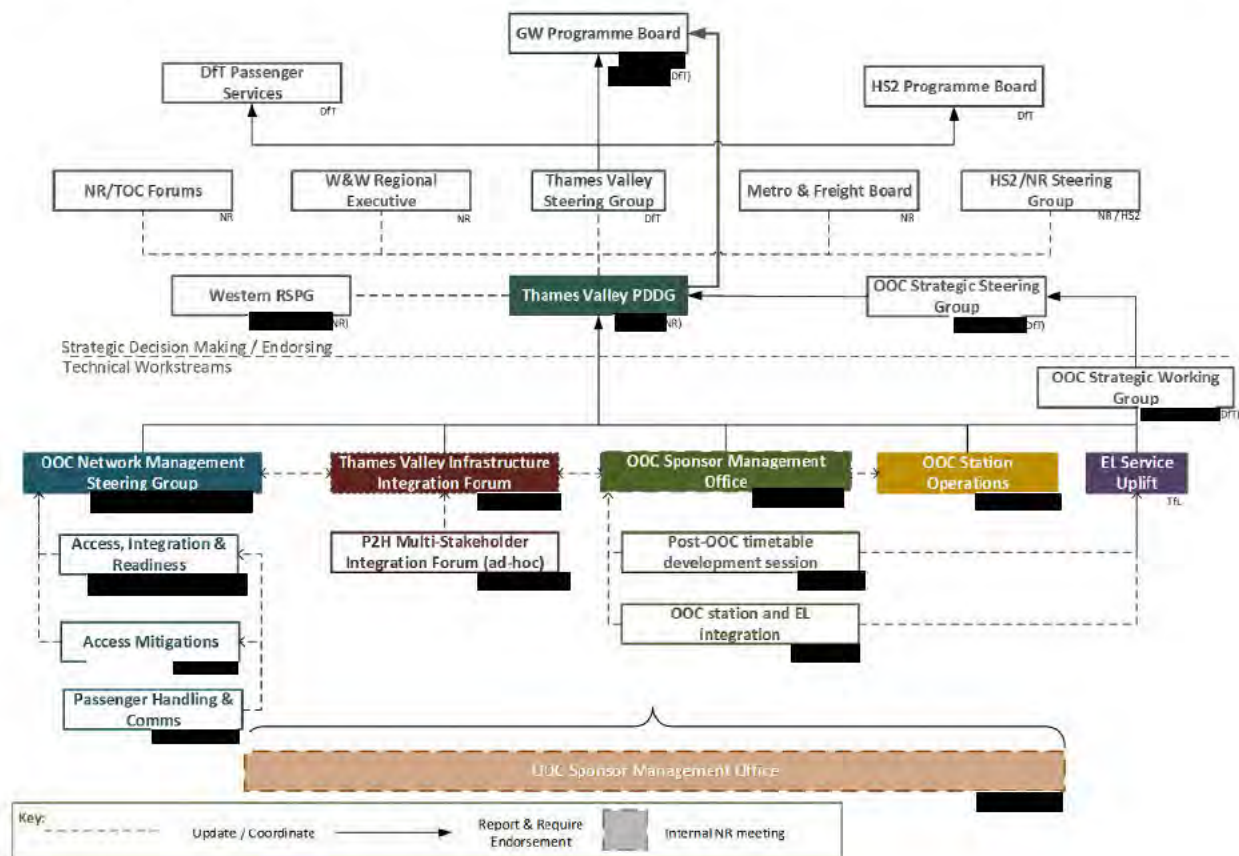
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Transport for London (TfL)	David Rowe Peter McNaught Mike Hardacre Lucinda Turner

31st October 2023

OLD OAK COMMON STRATEGIC STEERING GROUP
LEVEL BOARDING UPDATE

Introduction

Old Oak Common (OOC) is designed to have fully step-free access from street to platform level across the station, with level boarding provided on HS2 services and boarding planned via passenger assistance ramps on Elizabeth Line (EL), GWR and HEx services. The difference in approach is due to the captive nature of HS2 infrastructure which allows a solution designed for HS2 rolling stock, whilst there is a requirement to design platforms on the conventional rail network to rail industry standards to allow use of the platforms by multiple rolling stock types.

DfT, Network Rail, HS2 Ltd and TfL all agree on the importance of providing accessible stations to enable access for all. The benefits of providing level boarding include customer and performance benefits. The customer benefits include:

- Reduces Platform Train Interface hazard for all passengers with particular benefit for those with luggage, buggies and other mobility issue. Passengers are more confident when entering and exiting the train.
- Independent access for passengers that require wheelchairs and scooters (manual and motorized) for mobility without having to wait for access ramps, or potentially need them at all.
- Provides a seamless interchange for all passengers on and off the Elizabeth line. Level access provided for HS2 and at Heathrow across full length of platform.

The performance benefits include:

- Reduces demand on platform staff and provides opportunity to manage other customer needs.
- Decreases the boarding and alighting times and reduces risk of train delays.
- Reducing the dwell time of trains at the platform to provide resilience to the timetable.

Work has been underway over the summer between all parties to revisit the issue of level boarding at OOC for EL services to understand whether some form of level boarding could be made feasible within the constraints of the national rail network. Six options have been considered;

1. Continuing to deliver existing designs with no further work on level boarding
2. Redesigning the GWML relief line platforms by lowering the proposed track and horizontally offsetting the platforms, introducing a gap filler technology
3. Redesigning the GWML relief line platforms by raising the platforms and horizontally offsetting the platforms, introducing a gap filler technology
4. A combination of (2) and (3)
5. Continuing to deliver the existing designs and simultaneously developing designs for a full platform topper with gap filler retrofit solution
6. Continuing to deliver the existing designs and simultaneously developing designs for a Harrington Hump with gap filler retrofit solution

This paper sets out the analysis undertaken to date and makes recommendations for next steps.

Recommendation

The Strategic Steering Group is asked to endorse a recommendation to;

- Continue delivering the station to current designs.
- Seek an estimate of the costs of instructing HS2 Ltd and Network Rail to simultaneously progress design work, and cost and schedule impact, on delivering two retrofit solutions;
 - Full platform toppler with gap fillers (Option 5)
 - Harrington Hump with gap fillers (Option 6)

This instruction may be placed once full clarity is known on the future train service specification of HS2.

Background

Transport for London and the Department for Transport both have an objective to improve the accessibility of the railway network. This includes delivering step-free access at new build stations and when delivering station upgrades, with TfL also aspiring to deliver level boarding. It follows that there is a joint aspiration to deliver level boarding at OOC for Elizabeth Line services if this is feasible and viable in consideration of potential impacts to the existing programme and budget constraints.

All Elizabeth Line stations on the GWML and GEML provide step free access to platform level with boarding via assistance ramps. Off the mainline network, platforms for the newly built central section of the Elizabeth Line between Abbey Wood and Paddington were constructed at 1100mm above rail height to provide level boarding. In addition, it should be noted that platforms at both Heathrow Terminal stations and Paddington mainline station for HEx services provide level boarding through incorporating a higher platform height.

The current plan for OOC would provide consistent experience with all other GWML and GEML Elizabeth Line stations and presents an opportunity to provide level boarding and provide a consistent experience with the central section stations. Forecasts suggest more than 20,000 customers in the peak periods to board Elizabeth line services at Old Oak Common which is comparable to the demand at the central London Elizabeth line stations where full platform level boarding is provided.

OOC platforms on the Great Western Main Line (GWML) have been designed to be 915mm above rail height and have an offset of 730mm. This is the standard RSSB have set for the main line British rail network and is required for compliance to Railway (Interoperability) Regulations 2011, as detailed in the National Technical Specification Notices. It is worth noting that Crossrail attained a deviation from the standards from RSSB for all of the 1100mm platforms in the central section, and that HS2 is also constructing to non-standard dimensions on its captive network, so there is precedence.

However, interoperability is potentially more critical at Old Oak Common on the GWML. This is due to the many different types of passenger and freight rolling stock that operate along the network; these dimensions have been designed to position platforms as close to the doors as possible without fouling the gauge of any type of rolling stock in use, and allow the oversailing of train footsteps on curved platforms. During two track timetable operation, which is a regular occurrence during evenings and weekends / bank holidays, all stock types will be required to work with both the OOC GWML main and relief line platforms.

There are a variety of rolling stock characteristics in operation along the GWML through OOC.

- GWR Class 800s and 802s have a 1185 or 1290mm floor height with footsteps at 1143mm
- GWR Class 387s have a 1145mm floor height
- EL Class 345s have a 1145mm floor height with footsteps at 1125mm.
- Freight gauge W6a, W7, and W8 loading gauges (W7 and W8 are upper sector loading gauges which sit on W6a lower sector wagons) are also cleared to operate along this stretch of railway.

Two sets of analysis have been undertaken to determine whether level boarding could be provided at OOC for the EL trains.

- DfT Engineering. This analysis tests full length platform height increases to 1000mm+ to enable level boarding (as per Elizabeth Line Core Operating Section) but with no horizontal offset. This tests for fouling loading gauges.
- Network Rail (Arcadis). This analysis tests platform height at COS equivalent with a horizontal offset so freight gauge fouls could be accommodated.

These two series of analysis show us whether a raised / offset platform works (irrespective of the method used to achieve these platform dimensions in construction). If the geometry doesn't work, a more advanced technical solution will be needed. Assumptions and outcomes from this analysis are explained in **Annex A**.

Issue

The analysis in **Annex A** shows limitations to the means by which a level boarding solution can be provided at Old Oak Common. Any solution will need to find a way to raise platform heights to 1100mm from track, with a greater than standard horizontal offset and a gap filler to plug the gap this creates. Gap fillers will need to be sufficiently sized and to align with doors, as is already done on Heathrow and Elizabeth Line and indeed many applications on metros worldwide.

This leaves six options for OOC level boarding next steps:

1. Continuing to deliver existing designs with no further work on level boarding
2. Redesigning the GWML relief line platforms by lowering the proposed track and horizontally offsetting the platforms, introducing a gap filler technology
3. Redesigning the GWML relief line platforms by raising the platforms and horizontally offsetting the platforms, introducing a gap filler technology
4. A combination of (2) and (3)
5. Continuing to deliver the existing designs and simultaneously developing designs for a full platform topper with gap filler retrofit solution
6. Continuing to deliver the existing designs and simultaneously developing designs for a Harrington Hump with gap filler retrofit solution

These options are considered in this section, with a summary appraisal table following.

Option 1 Continuing to deliver existing designs with no further work on level boarding

This option forms the baseline. There would be no programme and cost impacts to HS2, and the station's safety case and plans for regulatory approvals would remain unimpacted. However, there would be potential reliability impacts resulting from increased dwell times resulting from passengers with luggage and the deployment of manual assistance ramps

taking time. This may need to be accounted for with pathing time or could lead to unreliable departure times, however dwells on the GEML are only c. 1 minute so this may not be necessary and would require validation through analysis. Furthermore, transport user disbenefit would be incurred by persons of reduced mobility who would have to seek assistance for boarding and alighting.

Ramps are used on the existing network only as a last resort and customers may expect a newly constructed station to have full level access. TfL have suggested the use of manual boarding ramps is also out of step with the Public Sector Equality Duty under the Equality Act 2010, to eliminate unlawful discrimination, foster good relations and advance equality of opportunity. This may present a risk of reputational damage. There are a number of considerations, notably that many people using OOC will be travelling with luggage to central London or Heathrow, and luggage can have negative impacts on the timetable. Further, wheelchair users may well turn up unannounced from both the core or HS2 and as such there will be a requirements for additional platform staff to be employed to manage the ramps which will have a commercial cost which does not appear to be covered. In addition, the length of time it take to deploy a wheelchair ramp on a Class 345 could impact the achieved frequency.

Option 2 - redesign the GWML relief line platforms by lowering the track bed and horizontally offsetting the platforms, introducing a gap filler technology to bridge the horizontal gap.

Network Rail and HS2 Ltd have advised the potential impact of this redesign would likely be to [REDACTED] which is planned to connect the newly constructed first six platforms into the Great Western Main Line, thus freeing up space to construct the remaining two platforms. Should this occur, prolongation costs are estimated at [REDACTED] [REDACTED] cannot be recouped in the programme. In addition to this impact, costs would be expected at [REDACTED] for redesign and construction of the alternative plans, noting that construction has commenced. There is a risk that drainage and track alignment may not work with the new designs, and clearance would be needed from regulatory authorities for overhead line equipment clearances (this has been achieved at Abbey Wood). HS2 transport user benefit loss of [REDACTED] due to delay. Due to these impacts, this option is not proposed for progression.

Option 3 - redesign the GWML relief line platforms by raising the platforms and horizontally offsetting the platforms, introducing a gap filler technology to bridge the horizontal gap.

This would introduce a minimum [REDACTED] delay to the programme owing to the extensive need for redesign and reconstruction of station platform elements already under construction. Cost impacts would be estimated at least [REDACTED] due to programme prolongation with between [REDACTED] incurred in redesign and reconstruction costs. This is higher than Option 2 given the need to also redesign the footbridge and vertical transport (VT) area. Risk would be introduced through a need to rework the safety case and seek derogations from regulatory bodies from standards for the new design. HS2 transport user benefit loss of [REDACTED] due to delay. Due to these impacts, this option is not proposed for progression.

Option 4 - a combination of Options 2 and 3 to consider whether a mix of lowering the track and raising the platform could be a better way forward.

The impacts generally represent the higher risks of both options. Programme would be impacted by [REDACTED] due to the need to redesign station elements already under construction. Cost impacts would hence include [REDACTED] for programme prolongation with the additional requirement of [REDACTED] for redesign and reconstruction. There is a risk

that drainage and track alignment may not work with the new designs, and clearance would be needed from regulatory authorities for overhead line equipment clearances. (this has been achieved at Abbey Wood). HS2 transport user benefit loss of [REDACTED] due to delay. Due to these impacts, this option is not proposed for progression.

Option 5 - continue to deliver the existing designs and simultaneously develop designs for a full platform topper with gap filler retrofit solution.

As no decision would need to be taken on the delivery of a platform topper solution in the immediate future and any such solution would be retrofit on top of the existing design, there would be no anticipated programme impacts or prolongation costs and no need for reconstruction (requires HS2 Ltd confirmation). Any design work would be expected to take place in parallel with the current delivery. HS2 Ltd will be able to back-date from the expected entry into service through the construction programme to determine when an instruction to deliver would be required. Quite significant issues have been detected by a Network Rail / HS2 Ltd desktop study of this concept, however, which have found that it may be geometrically impossible to accommodate the ramps between lifts and escalators / stairs to the raised platform whilst keeping to standards. However, other novel possibilities still exist, such as considering introducing a crossfall to the level boarding area up to the platform edge. Given the lack of programme or cost risk at this stage, and the potential for a full platform solution to be delivered should alternative methods of resolving the challenge of reaching the area of level boarding from the VT lifts and escalators area be identified, it is recommended to progress this option for further analysis until other concepts are evaluated. Passenger and reliability benefit is greatest owing from the ability to deliver full level boarding.

Option 6 - continue to deliver the existing designs and simultaneously develop designs for a Harrington Hump with gap filler retrofit solution.

As no decision would need to be taken on the delivery of a Harrington Hump solution in the immediate future and any such solution would be retrofit on top of the existing design, there would be no anticipated programme impacts or prolongation costs and no need for reconstruction (requires HS2 Ltd confirmation). There are some issues which will need to be worked through with further design;

- the location of the hump would need to be confirmed and must align with carriage 5 of the Elizabeth Line rolling stock. This may require revisions to stopping locations as carriage 5 is currently planned within proximity of the VT area, thus potentially causing conflict. Such issues would be worked through as a part of the design.
- Assessment of hump length and interactions in terms of door positions for all passenger train types which would stop at the platform
- a reasonable cost estimate would need to be identified
- the programme for retrofitting would need to be defined
- a supplier would need to be selected (TfL advise that London Underground utilised a supplier that delivered the installations within a 52 hour closure of the platform).

This option will give us a partial solution for wheelchair users and a limited solution for other users including those with luggage, buggies and other mobility issues. It will require different operational procedures for level and non-level sections that will require staff attention and add complexity for customer information. Passenger and operational benefit isn't as good as with a full platform solution as it risks PRMs being stuck in non-level boarding carriages having boarded elsewhere in the central operating section. It also fails to deliver level boarding benefits for passengers with wheeled suitcases and crowding may limit the ability

for some passengers with luggage or buggies to make use of the platform hump. There will be no reduction to platform train interface hazard for all passengers and a potential hazard of passengers boarding on a shoulder of the hump will need to be reduced through design considerations.

However, level boarding is delivered to at least one carriage. It also risks train doors aligning with the ramp between standard and raised platform heights, importing a novel hazard which will need managing. It is recommended to progress this option for further analysis. This option would require additional signage to provide directions to the PRM carriage already designated.

Next Steps

Following endorsement for continuing Options 5 and 6 into detailed design, the DfT would seek a cost estimate for a remit instruction from HS2 Ltd. This would then progress through DfT governance and, if endorsed, lead to a formal instruction to HS2 Ltd to instruct its supply chain to undertake this analysis. We will then establish a regular check-in throughout the delivery of this work. Once advice is received for the costs, impacts and a plan for delivering these options with key points of consideration, we will return to the SSG with this update.

Option	Programme Impact	Cost Impact	Feasibility and Approvals Challenges	Transport User Benefits	Operational Impacts
Option 1: Continue with existing designs	No impact	No Impact	No impact	No level boarding – passengers requiring level boarding to use passenger assistance ramps. Difficulty boarding and alighting for suitcase and buggies.	Dwell time modelling required in combination with timetable modelling to ensure required frequency can be achieved. Possible need for additional platform staff during operation hours to deploy ramps.
Option 2: Lower track by 185mm	Unknown but places increased risk on [redacted] possession. Likely we would miss this due to redesign and reconstruction, leading to [redacted] delay.	Redesign and abortive construction between [redacted] Assuming this contributes to [redacted] would add prolongation costs [redacted]	Reduction in OLE electrical clearance requires RAM approval / derogation (implemented at Abbey Wood). NTSN platform derogation (likely RSSB oppose) <ul style="list-style-type: none"> +1mm to swept path assumed required agree probability / frequency of contact between gap filler and rolling stock Track alignment may not work Drainage solution may not work	<ul style="list-style-type: none"> [redacted] lost in HS2 transport user disbenefit per year delay. Reduces Platform Train Interface hazard for all passengers with luggage, buggies and other mobility issue. Passengers are more confident when entering and exiting the train. 	<ul style="list-style-type: none"> Reduces demand on platform staff and provides opportunity to manager other customer needs. Decreases the boarding and alighting times and reduces risk of train delays. Reducing the dwell time of trains at the platform to provide resilience to the timetable.
Option 3: Lift platform 185mm	Minimum [redacted] delay due to station redesign whilst foundations are under construction (platforms due to be constructed [redacted]). Possessions in [redacted] need to shift by [redacted]	Redesign and abortive construction between [redacted] Prolongation of [redacted]	Reduction in OLE electrical clearance requires RAM approval / derogation (implemented at Abbey Wood). NTSN platform derogation (likely RSSB oppose) <ul style="list-style-type: none"> +1mm to swept path assumed required agree probability / frequency of contact between gap filler and rolling stock 	<ul style="list-style-type: none"> Independent access for passengers that require wheelchairs and scooters (manual and motorized) for mobility without having to wait for access ramps, or potentially need them at all. Provides a seamless interchange for all passengers on and off the Elizabeth line. Level access provided for HS2 and at Heathrow across full length of platform. 	
Option 4: Combination of lift platform, lower track	Minimum [redacted] delay due to station redesign whilst foundations are under construction (platforms due to be constructed in [redacted]). Possessions in [redacted] need to shift by [redacted]	Redesign and abortive construction between [redacted] Prolongation of [redacted] impacting HS2 opening date.	Reduction in OLE electrical clearance requires RAM approval / derogation (implemented at Abbey Wood). NTSN platform derogation (likely RSSB oppose) <ul style="list-style-type: none"> +1mm to swept path assumed required agree probability / frequency of contact between gap filler and rolling stock Track alignment may not work. Drainage solution may not work.		
Option 5: Retrofit full platform 'topper' with gap fillers	None (assumed) due to retrofit solution.	Unknown – limited GB experience with this option	<u>Desktop study outlined not feasible</u> due to RAMP aligning the alighting section of VT (Stairs and escalators) not being geometrically possible in existing designs. Potential to reconsider whether a slope from platform edge to the VT could be incorporated and remain compliant with standards, or alternative stopping locations for trains.		
Option 6: Retrofit Harrington Hump with gap fillers	None (assumed) due to retrofit solution.	[redacted] based on [redacted] /platform on Thameslink ~2017 [redacted] Likely to cost more with costs including client, redesign and remitting the supply chain.	Reduction in OLE electrical clearance requires RAM approval / derogation (implemented at Abbey Wood). NTSN platform derogation (likely RSSB oppose) <ul style="list-style-type: none"> +1mm to swept path assumed required agree probability / frequency of contact between gap filler and rolling stock PRM Class 345 carriage 5 position may not work due to clash with VT, further to consideration of the location of slopes as per Option 5. This would require revision of stop car positions and may prohibit the ability to extend C1345s to 11 car, however TfL are willing to consider this as potential mitigations exist. Train stopping position / tolerance critical to assess & control.	<ul style="list-style-type: none"> Different boarding/alighting approaches for level and non-level sections of the platform adds complexity to customer information Partial solution for wheelchair users and a limited solution for other users including those with luggage, buggies and other mobility issue. No reduction to Platform Train Interface hazard for all passengers. Potential hazard of passengers boarding on a shoulder of the hump should be reduced through design considerations. Crowding may limit ability for some passengers with luggage or buggies 	<ul style="list-style-type: none"> Different operational procedures required for level and non-level sections of the platform that will require staff attention Introduces a dependency for trains to stop at a particular location to align doors of car 5 with the hump. Manual boarding ramps may still need to be deployed at other locations if passengers boarded outside of car 5 in the central section. This may increase the dwell time of trains at the platform and impact on the resilience of the timetable.

				may not make use of platform hump.	
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Annex A – Technical Analysis

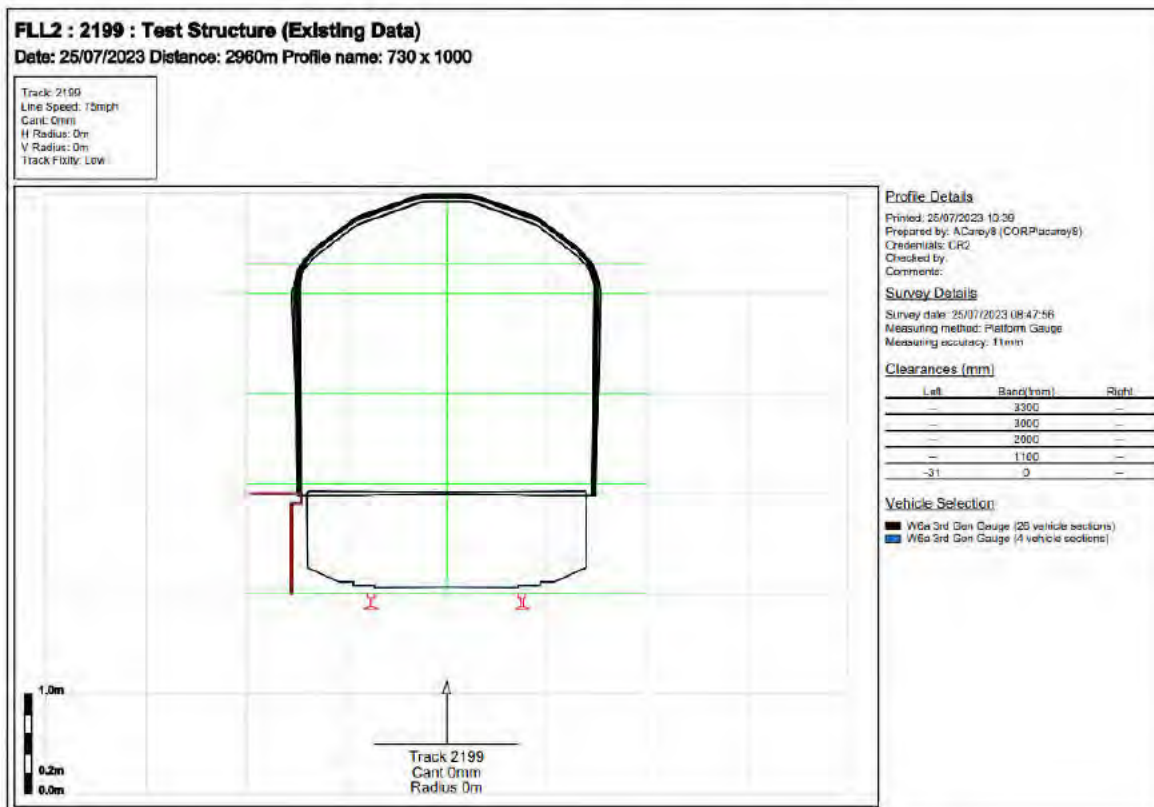
This Annex is divided into the two streams of analysis undertaken.

- DfT Engineering
- Network Rail (Arcadis)

DfT Engineering

This analysis shows that simply raising the platform would foul freight gauges and so a horizontal offset with gap fillers would be required for any level boarding solution.

The stretch of railway where OOC is located currently has route clearance for W6a, W7, and W8 loading gauges (W7 and W8 are upper sector loading gauges which sit on W6a lower sector wagons). There is a twice-per-day freight movement into Paddington New Yard and Network Rail have confirmed with the operators these use W6a wagons. These trains carry gravel and concrete supplies which supply the only yard from which any central London construction site can be serviced within 25 minutes. The track layout between Paddington New Yard and OOC prevents crossover onto the fast lines without a reversing movement before Acton West Junction, which is compounded when the mains and reliefs operate under a two track timetable. Therefore, W6a vehicles must be able to pass through the relief lines at OOC. Gauging analysis was conducted for W6a gauge vs. 1000mm high platforms above rail level at a 730mm standard offset from running edge assuming straight, level track with low track fixity. The result shows that W6a would foul a 1000mm platform. This does, however, assume freight travelling at 70mph which would not be the case after OOC's construction. The cross section shows that if the platform was at the standard 915mm height (as is currently being constructed), the upper sector overhang would sit above the coper edge by design allowing freight to pass without issue. It also demonstrates that a greater horizontal offset could be implemented at this height to allow gauge clearance.



Network Rail (Arcadis)

Analysis undertaken by Arcadis, commissioned by Network Rail, also considered various types of rolling stock and alternative platform dimensions. Network Rail's analysis assumed;

- Medium track fixity reflecting the ballasted track system that will be employed
- Lower speed with curvature, reflective of the proposed design
- Platform height at 1100mm to match EL Central Operating Section
- Offset at 760mm, as a nominal offset to allow further investigation

However, these results also show foul for a variety of passenger rolling stock types. With the 760mm offset and 1100m height (and above parameters) analysis shows the following clearances, noting that this is worst case and would vary platform by platform:

- Class 345; -21mm
- Class 387; clear
- Class 800/802 IETs; clear
- HST / Mark 3 stock (HSTRT plus potential charter operations or express freight) assuming plug door stock removed; -5mm
- Mark 1 / Mark 2 stock (Charter operations); -10mm
- Freight (Incl Infrastructure trains at W6a, W10, W10a, W12, W6a, W7, W8, W9); -20mm (assessed at 50mph, would run at c.35mph)
- Several other stock are foul but informal indications from TOCs imply these can be removed from sectional appendix

The analysis shows that the Class 345 represents the greatest foul due to its middle step, as below. As such any platform design option needs to include a gap filler solution.

The table below shows the resultant worst-case stepping distances should the platform horizontal offset need to be increased to 782mm to achieve clearance to the Class 345 middle footstep, and the maximum width gap-filler which would therefore need to be installed:

Stock	Stepping distance if platform is at 760mm X and 1100mm Y		Moving platform back keep 'hard edge' clear of swept path (782mm X)		Stepping offsets for Class 345 to be level access as per PRM NTSN		Gap filler required to achieve +1mm (As Thameslink).	Gap filler required to achieve Western Routes +20mm
	X	Y	X	Y	X	Y		
345 middle	84	20	106	20	75	20	31mm (possible)	50mm (supply chain engagement needed to test feasibility)
345 end	65	23	87	23	56	23		
800 (1)	119	43	141	43	110	43	This is a large horizontal gap with only a small vertical remainder.	
800 (2)	93	43	115	43	84	43		
387	99	12	121	12	90	12	This is another large horizontal gap with an even smaller vertical remainder.C	

The maximum allowable stepping distance defined by Standards is 230mm vertical and 275mm horizontal, as per GM/RT2173. Therefore, the distances shown in the table above are well within these limits, but do not meet the more stringent requirements for achieving level boarding (50mm vertical and 75mm horizontal, as per PRM-TSI). In some of the possible cases identified in the table above there are examples where the vertical gap is small in comparison to the horizontal gap, and this can introduce some PTI risks which are not normally associated with stepping distances found more commonly at platforms. Vertical gaps present the issue of people expecting a step to be a standard size and hence tripping. Horizontal gaps present the issue of either being too small (and presenting a gauge foul in which the rolling stock collides with the platform) or being too large and risking wheelchair wheels getting stuck, or people who may only take small steps being unable to cross the gap. Its also an increased fall hazard.

Old Oak Common Station – Strategic Steering Group
Terms of Reference for Transport for London and Department for Transport
Engagement

Background

Once complete, the HS2 Old Oak Common station (OOC) will be the largest sub-surface station in the UK, as well as the largest station ever built in the UK as a single project. The station will consist of six subterranean HS2 platforms and eight platforms for the conventional rail network. Once operational OOC has been designed to be one of the most sustainable railway stations in the world, aiming to operate with net zero carbon energy, including; controlling the station's temperature with air source heat pumps, generating renewable energy from solar panels on the roof and harvesting rainwater.

OOC will be used by up to 250,000 passengers each day making it one of the busiest stations in the country. OOC will act as the temporary London terminus for HS2 until the HS2 Euston station is delivered. Whilst operating as a temporary terminus the station will have the capacity to accommodate up to 6 HS2 trains per hour.

Construction will also have a significant impact on the existing railway and passenger and freight services. Relocating all four tracks (main and relief lines) of the Great Western Main Line (GWML) into the new conventional rail station will require, at different times, part or all of the existing GWML to be closed, restricting access to London Paddington for Great Western Railway (GWR), Elizabeth Line (EL), Heathrow Express (HEX) and freight services. Further, journey time impacts to services on the GWML resulting from the time taken for trains to stop in the end state will occur.

Transport for London is acknowledged as a key stakeholder in both the construction and operation of Old Oak Common's conventional rail station. It is proposed to establish a monthly working-level meeting (referred to as the 'Strategic Working Group') and a bi-monthly senior level 'Strategic Steering Group' to formalise engagement between TfL, DfT, HS2 Ltd, Network Rail and OPDC.

The meetings will be structured to focus on all elements included within the following key areas for the various stages of the new OOC Station to prioritise the most pressing issues:

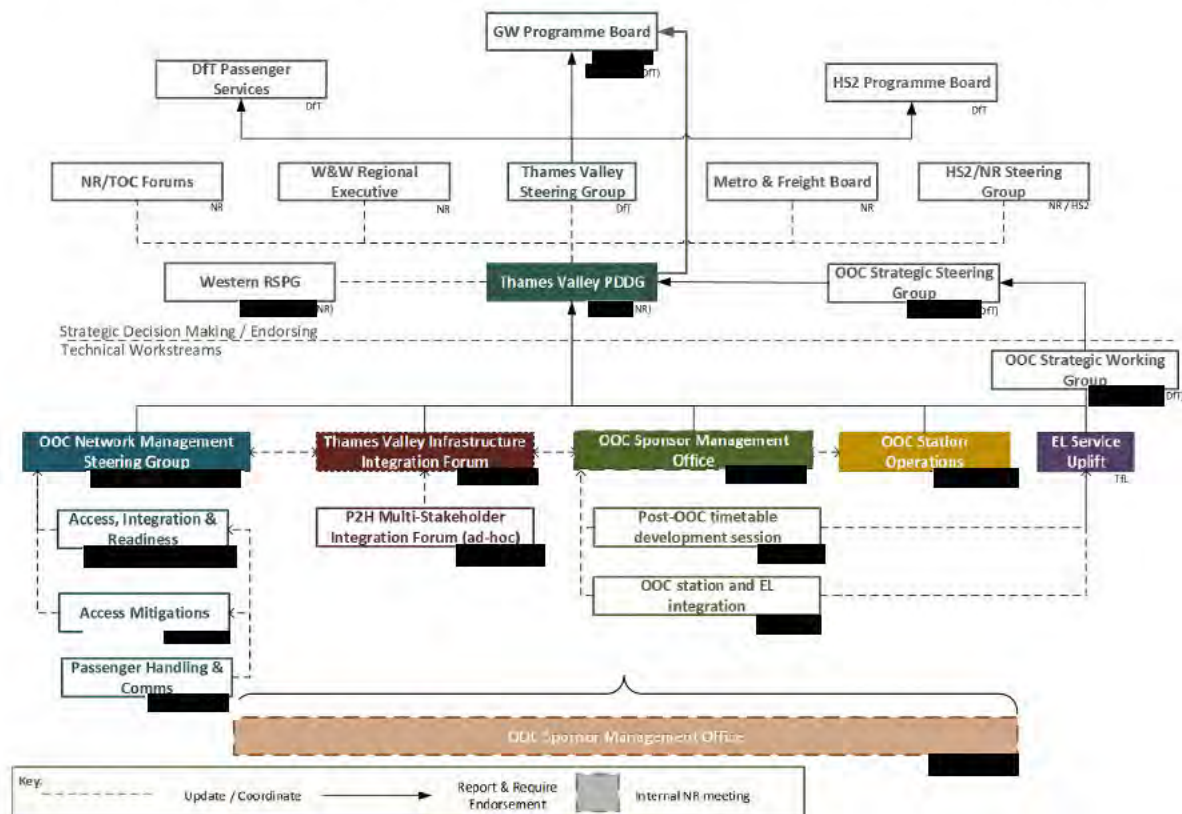
1. Requirements
2. Design
3. Construction
4. Operations during delivery of OOC
5. Operations of the end state OOC
6. Local development interface and implementation

Current topics for discussion within the key areas will include:

- Activities to support construction of the new HS2 station and the new GWML station

- Planning and operational aspects for:
 - Buses and other surface transport
 - Elizabeth Line, including level boarding aspirations and end-state service levels
 - Local development
 - OOC vision
 - Other
- London Underground
 - Avoiding timings of planned closures of the Piccadilly, District and Central Lines aligning with 2 track working and all lines blocked closures on the GWML.
 - Rolling stock upgrades and capacity (including Piccadilly Line upgrades and other London Underground upgrades).
- OPDC aspirations and other local planning
- Impact of GWML main line calls, timing of their introduction, and options to mitigate any performance, train service or operational impacts

The Strategic Steering Group is a sub group of the Thames Valley Area Programme Development & Delivery Group. The Strategic Working Group will support the Strategic Steering Group by commissioning, reviewing and gathering evidence for key topics of discussion. The Strategic Steering Group is generally sufficiently senior to take ownership of many decisions within its remit, though where wider operational impacts exist this may need escalation to PDDG. The Strategic Steering Group will acknowledge and consider the regeneration at Old Oak Common but does not duplicate responsibilities held by the Old Oak West Strategic Steering Group.



Strategic Working Group

Purpose: To pull together priorities a variety of materials from workstreams that interface with and are enabled by the construction and delivery of OOC as per the list of requirements and current topics above. To join up parties involved in ensuring that Old Oak Common operates effectively in its end state and as a temporary terminus until HS2 Euston opens, supporting successful introduction of HS2 configuration states C, D and E.

Timing: Monthly

Agenda:

- Workstream updates
- Risks and issues register, to be maintained by the DfT
- Escalations, decisions, notifications and actions

Strategic Working Group invitees will be required to raise concerns, increase awareness and provide updates relative to their organisational objectives and priorities, to support effective discussions and collaborative working. Agreement will be required for items that need to be escalated from the Strategic Working Group to the Strategic Steering Group.

Proposed Invitees:

Organisation	Invitee
Department for Transport (DfT)	[Redacted] (Chair)
High Speed 2 Limited (HS2)	[Redacted]
Network Rail (NR)	[Redacted]
Old Oak and Park Royal Development Corporation (OPDC)	[Redacted]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[Redacted]

Strategic Steering Group

Purpose: To oversee all the elements of ongoing work to ensure a collaborative 'best for programme' approach and effective prioritisation. To support in reaching a consensus among group members prior to any decisions being put to PDDG.

Timing: Bi-monthly

Agenda:

- Updates from Strategic Working Group chair

- Review dashboard / governance process
- Risks
- Item specific discussion
- AOB

The Strategic Steering Group attended by senior leaders will receive a strategic oversight of all live/forecast issues, to manage risks and drive consensus on issues at a senior level. Whilst this forum is sufficiently senior to take ownership of decision making regarding many elements of the scope, any decisions interfacing with operations on the GWML should be escalated to the PDDG. Further, any significant risks to realisation of the HS2 configuration states should be raised to the HS2 Integration Steering Group (HISG). The Department for Transport representative will be the single accountable point for the strategic overview.

Proposed invitees:

Organisation	Invitee
Department for Transport (DfT)	[REDACTED] (Chair)
High Speed 2 Limited (HS2)	[REDACTED]
Network Rail (NR)	[REDACTED]
Old Oak and Park Royal Development Corporation (OPDC)	[REDACTED]
Transport for London (TfL)	David Rowe Peter McNaught Mike Hardacre Lucinda Turner

Gemma Jacob

From: [REDACTED]@dft.gov.uk>
Sent: 02 November 2023 15:19
To: [REDACTED] (Network Rail Mail Contact); [REDACTED]
[REDACTED]@opdc.london.gov.uk; Richard Zavitz; Julie Breden; [REDACTED]
David Rowe; Mike Hardaker; Lucinda Turner; Peter McNaught
Subject: Old Oak Common Strategic Steering Group Minutes 31/10/23
Attachments: Old Oak Common Station – Strategic Steering Group ToR.docx

Hi all

Please find below minutes and actions for comment from Tuesdays Strategic Steering Group.

Attendees

[REDACTED] DfT ([REDACTED])
[REDACTED], DfT ([REDACTED])
[REDACTED], NR ([REDACTED])
[REDACTED], NR ([REDACTED])
[REDACTED] HS2 Ltd ([REDACTED])
Mike Hardaker, TfL (MH)
David Rowe, TfL (DR)
Peter McNaught, TfL (PM)
Lucinda Turner, TfL (LT)
Richard Zavitz, TfL (RZ)
[REDACTED], OPDC ([REDACTED])

Terms of Reference

[REDACTED] presented the Terms of Reference and sought comments from attendees.

[REDACTED] clarified the 'updates from Co-Chairs' was an update from the working group chair.

LT asked if we can set up groups within this hierarchy to tackle specific issues [REDACTED] agreed we could and suggested surface transport should have a first meeting on the 3rd.

[REDACTED] set out that clarity should be provided around this SSG being different from the Old Oak West Strategic Steering Group.

Elizabeth Line Level Boarding

[REDACTED] and RZ presented the level boarding paper highlighting work done to date and conclusions reached over a retrofit solution offering a compromise between programme and cost preservation whilst delivering level boarding capability. This might be through a hump or full platform solution.

[REDACTED] outlined we need to be fully sure that we're not missing benefits to customers and outlined concern about the cost estimates.

[REDACTED] noted there are three points. (1) How the wider population react to humps? (2) Performance of the railway is extremely tight, with TfL looking to uplift frequencies on the relief lines once more, so delays will have impacts across the whole route thus access / egress time reduction is critical. (3) Lowering the track may have a programme impact and we do need to be mindful of impacts on other rolling stock.

DR asked what further work was done in terms of understanding the complexity of raising / lowering the track bed from 2022 stating derogations were raised and design impacts also. Queried the cost estimates and platform topper geometry.

LT stated appreciation for the focus group looking into this but still feels uncomfortable entering an sub-optimal design option based on the work done, noting reputation issues here. There is no certainty about Euston so OOC could be permanent terminus.

[REDACTED] agreed humps are sub-optimal and asked how much detail has gone into the impacts on resilience.

[REDACTED] noted all modelling done assumes non-level boarding but we know level boarding would help passengers to get on and off faster.

[REDACTED] explained the programme constraints, noting that foundations are being piled and by early 2024 platform construction would be advance. This drives the programme towards Dec-26's first possession which we may risk missing.

MH stated he was struggling on the timing. Feels like piling stage shouldn't be an issue for engineering changes. Costs seem incredibly high.

[REDACTED] responded by outlining the work done to date, noting it's a desk-stop study and further design work would require remit. Noted the programme impact.

Outcome: SSG endorsed DfT seeking a remit from HS2 for detailed design of retrofit solutions, however clarified that this should not rule out further work on other options in parallel or in future. SSG did not fully endorse continuing with the existing design pending further questions over design changes but acknowledged that HS2 Ltd would continue to progress construction to the current plan unless instructed to do otherwise.

Updates

█ provided an update on the Government's changes to the HS2 programme and sought brief round table updates.

LT - Request for a focus group started and moving forward on surface transport issues. TfL's view is that the current design does not fully integrate with (a) junction capacity, (b) bus interchange design and capacity, (c) healthy streets context for walking and cycling. Other issue that would be good to discuss is the OOC tunnelling to Euston which has a time critical window.

█ updated that the supplementary planning document for OOW had been released. OPDC is shortly going out to market to seek a JV partner for a sustainable heat recovery network for which it had been awarded a £36m grant from DESNZ. Working hard to acquire private development sites around OOC - 4 have been acquired and more are coming.

█ - sch 17 application has been received for a temporary train crew building at the moment which conflicts with potential eastern access pedestrian bridge. This will need to be discussed.

Actions

█ to update ToR to correct 'updates from co-chairs' and to provide clarity on SSG remit regarding Old Oak West [attached].

█ and RZ to set up a more detailed meeting between TfL (MH, DR, PM) and HS2 Ltd / NR to run through why analysis showed the programme and cost impacts it did.

█: To consider setting up specific surface transport focus group following initial meeting on the 3rd November.

Kind regards

█ | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: █

-----Original Appointment-----

From: █

Sent: Thursday, September 28, 2023 4:41 PM

To: █ (Network Rail Mail Contact); █
█@opdc.london.gov.uk; Richard Zavitz;
█@tfl.gov.uk; David Rowe; █@tfl.gov.uk; Lucinda Turner;
█@tube.tfl.gov.uk

Subject: Old Oak Common Strategic Steering Group

When: 31 October 2023 13:30-14:30 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

Where: Microsoft Teams Meeting

Hi all

As mentioned this is the first Old Oak Common Strategic Steering Group. Agenda to follow.

Could TfL attendees please be looped in by @Richard Zavitz and @Julie Breden █@tfl.gov.uk>

Kind regards

█

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From: [REDACTED]@dft.gov.uk>
Sent: 16 January 2024 16:38
To: [REDACTED]; Richard Zavitz; [REDACTED]; Andy Gemmell; [REDACTED]
[REDACTED]; Jenny Hamilton; James Smith; Olabiyi Oladeji; Ross Harper;
Cc: [REDACTED]; Mark Gerrard; [REDACTED]; Simon Galbraith
Subject: RE: Old Oak Common Station – Strategic Working Group

Hi all

Please see below minutes from today's working group. Please let me know any comments or corrections.

- Main agenda item for HISG update on configuration states planning deferred until February.
- Round table updates:
 - DfT
 - Elizabeth Line Level boarding - Remit has been shared and discussed at the last working group, now at final stages and awaiting costs. Expected to be completed in the next 1-2 weeks and then will go through governance for sign off.
 - Elizabeth Line Frequency - discussions progressing at senior level between DfT, TfL and Alstom with the hope a deal can be agreed for new rolling stock imminently.
 - HS2 Update
 - Design and procurement works are nearing completion - 75% of contracts awarded. Expectation the box will be fully excavated by July 2024. Fit out contracts awarded for station roof.
 - Piling underway for Platforms 3-8, completed later this month. Completed platforms first appearing in March/April.
 - Utilities diversions ongoing as well for first possessions.
 - On Network Works
 - Four day blockade over Christmas - OHLE works at each end of the site, installing drainage across operational tracks. Start of many blockades going forwards, possessions each weekend over spring.
 - Design programmes very much in full flow.
 - Network Rail
 - Received [REDACTED] review, translated into actions, and now work ongoing to understand owners. Lots of recommendations are around passenger handling, construction, end state. [REDACTED] to own.
 - Key focus on the Elizabeth Line services in the end state and the timetable we reach in the end state.
 - Outline Business Case on the new HS2 CS-D which will consider GWML interchange and incorporating more recent knowledge on concept train plan for train calls.
 - Looking into main line speeds through the station, separate work into Dec-26. AECOM looking into increasing line speeds during construction, output expected by Mid-Feb / March.
 - Possessions strategic notice for Dec-26 onwards has started consultation. Aiming to get PSN out in August. Broadly speaking passenger handling at Ealing Broadway and Reading were

good during December possessions. In March, test trains for diversions into Euston and Waterloo will be taking place. Euston likely the preferred option.

TfL

- Elizabeth Line - nothing else to add on whats already been discussed. Verifying requirements at OOC but those discussions had with NR and HS2, awaiting evidence to be sent. Not expecting major changes.
- Surface Transport - discussed at Strategic Steering Group, need to establish a proper working group focused on this. Suggestion DfT lead and also loop in LB Ealing.

OPDC

- Strategic transport update work is continuing, aiming for May / June.
- Outline Business Case going to DfT Tier 2 Board next week.
- Old Oak West supplementary planning document going to OPDC board in February. Community Infrastructure Levy going for adoption in February as well.

AOB

- Poplars electrification - gone to Ministers for sign off, gone through all the boards.

Actions

- [REDACTED] to establish first surface transport meeting, [REDACTED] to advise on potential LB Ealing attendee.

Kind regards

[REDACTED]
[REDACTED] | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: [REDACTED]

-----Original Appointment-----

From: [REDACTED]

Sent: Monday, September 4, 2023 12:08 PM

To: [REDACTED]; Zavitz Richard; [REDACTED]; Andy Gemmell; [REDACTED]

[REDACTED] Jenny Hamilton; James Smith; Olabiyi Oladeji; Ross Harper; [REDACTED]

Cc: [REDACTED]; Mark Gerrard; [REDACTED]; Simon Galbraith

Subject: Old Oak Common Station – Strategic Working Group

When: 16 January 2024 14:00-15:25 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

Where: Microsoft Teams Meeting

Morning all

As per the discussions over the last few weeks, this will be the meeting series of the Old Oak Common Strategic Steering Group between the DfT, HS2 Ltd, NR, TfL and OPDC. I've attached the ToR which we will seek to endorse.

I understand we may not have everyone at this first meeting given its quite soon, but this time seemed to work best for accommodating at least someone from each organisation. Going forwards, hopefully availabilities will align but we'll make time to discuss when is best for a recurring meeting in case we need to change this.

Agenda as per ToR with additional items for first meeting–

- 1) Introductions
- 2) Terms of Reference

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- 8) AOB

*As per ToR but initial discussions will be around what information we need and the creation of these items.

Invitees as below. Could [@Zavitz Richard](#) please forward on to missing TfL attendees.

Organisation	Invitee
Department for Transport (DfT)	[Redacted] (Chair)
High Speed 2 Limited (HS2)	[Redacted]
Network Rail (NR)	[Redacted]
Old Oak and Park Royal Development Corporation (OPDC)	[Redacted]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[Redacted]

Kind regards



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[REDACTED]

From: [REDACTED]@dft.gov.uk>
Sent: 10 October 2023 10:42
To: [REDACTED] Richard Zavitz; [REDACTED]
[REDACTED] Jenny Hamilton; James Smith; Olabiyi Oladeji; Andy Gemmell; Ross Harper
Cc: Fred Raphael; Mark Curran; Simon Galbraith
Subject: RE: Old Oak Common Station – Strategic Working Group

Morning all

Please find below suggested agenda items for next week's discussion at 1400 on Tuesday. Please let me know any suggestions to this.

- 1) Actions run through [REDACTED] 1400-1405
- 2) Surface transport detailed update (Jenny Hamilton) 1405-1420
- 3) Modelling update, following meeting as per action below ([REDACTED] n) 1420-1435
- 4) OPDC, TfL, DfT, NR, HS2 Ltd round the table updates (1435-1455)
- 5) AOB

Also, actions from last meeting:

- ACTION: [REDACTED] to edit ToR to show SSG as primary senior forum but will flag anything necessary up for info to PDDG. Also to name this group the Strategic Working Group in the ToR as name was agreed. **COMPLETE**
- ACTION: [REDACTED] to seek update from the OOC Station Working Group. To check with the forum what its remit is, determine what discussions they are having and seek to check if there's any link.
- ACTION: [REDACTED] to seek availability for first seniors meeting w/c 30th Oct or 6th Nov. **COMPLETE**
- ACTION: Jenny Hamilton to bring update on surface transport in detail to next meeting. – **ADDED TO AGENDA FOR THIS SESSION**
- ACTION: Group to review modelling assumptions from across the various modelling workstreams in this forum. This will include looking into the phasing of delivery and demand realisation. [REDACTED] to set up follow up between below to bring this together. **COMPLETE**
 - [REDACTED] to arrange modellers coming along to next meeting to discuss assumptions and emerging numbers.
 - [REDACTED] to loop in rail analysts for station usage too into same modelling session, including [REDACTED] for NR analysis.
 - Richard Zavitz to bring station analysis along to next meeting, with EL frequency uplifts impact on demand.
 - [REDACTED] to find out latest on new HS2 modelling / revised HS2 demand.
 - [REDACTED] to bring OOC industry vision information.
- ACTION: [REDACTED] to circulate draft issues and risks. **COMPLETE**

Kind regards

[REDACTED]

[REDACTED] | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: [Redacted]
 -----Original Appointment-----
 From: [Redacted]
 Sent: Monday, September 4, 2023 12:08 PM
 To: [Redacted]; Zavitz Richard; [Redacted]
 [Redacted]; Jenny Hamilton; James Smith; Olabiyi Oladeji; Andy Gemmell;
 Ross Harper
 Cc: Fred Raphael; Mark Curran; Simon Galbraith
 Subject: Old Oak Common Station – Strategic Working Group
 When: 17 October 2023 14:00-15:25 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.
 Where: Microsoft Teams Meeting

Morning all

As per the discussions over the last few weeks, this will be the meeting series of the Old Oak Common Strategic Steering Group between the DfT, HS2 Ltd, NR, TfL and OPDC. I've attached the ToR which we will seek to endorse.

I understand we may not have everyone at this first meeting given its quite soon, but this time seemed to work best for accommodating at least someone from each organisation. Going forwards, hopefully availabilities will align but we'll make time to discuss when is best for a recurring meeting in case we need to change this.

Agenda as per ToR with additional items for first meeting--

- 1) Introductions
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 - e. Operations of the end state OOC
 - f. Local development interface and implementation
- 8) AOB

*As per ToR but initial discussions will be around what information we need and the creation of these items.

Invitees as below. Could @Zavitz Richard please forward on to missing TfL attendees.

Organisation	Invitee
Department for Transport (DfT)	[Redacted]
High Speed 2 Limited (HS2)	[Redacted]
Network Rail (NR)	[Redacted]

	[REDACTED]
Old Oak and Park Royal Development Corporation (OPDC)	[REDACTED]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[REDACTED]

Kind regards

[REDACTED]

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[REDACTED]

From: [REDACTED]@dft.gov.uk>
Sent: 19 October 2023 14:01
To: [REDACTED]; Richard Zavitz; [REDACTED]
[REDACTED]
Jenny Hamilton; James Smith; Olabiyi Oladeji; Andy Gemmell; Ross Harper;
Cc: [REDACTED]
Subject: RE: Old Oak Common Station – Strategic Working Group
Attachments: OOC Dft Surface Oct23 v3.0 (002).pdf; Old Oak Common Station – Strategic Steering Group ToR.docx; TOR - OOC GWML Station Station Operations Working Group.pdf; TOR - OOC GWML Station Steering Group.pdf

Hi all

Please find below notes and actions from Tuesday's working group for review. I've also attached ToRs for this and the two other discussed working groups, and the TfL slides as presented.

- ACTION: [REDACTED] to send across ToRs for OSC Stations Meeting and GWML Stations Steering Group (before 24th Oct. meeting). **COMPLETE WITH THIS EMAIL**
- ACTION: Jenny Hamilton to bring update on surface transport in detail to next meeting. **COMPLETE**
- ACTION: [REDACTED] to invite Jenny Hamilton to the modelling meeting series **COMPLETE**
- ACTION: [REDACTED] to feedback on programme dates for points at which change may be possible to design.
- ACTION: To discuss modelling further at next meeting

General Updates

- Attendees happy with agenda structure and list of actions from last meeting
- [REDACTED] reiterated his longstanding ask that relevant ToRs, including name of meeting Chair and agenda, are collated and sent across. **ACTION: [REDACTED] to send across ToRs for OSC Stations Meeting and GWML Stations Steering Group (before 24th Oct. meeting).**
- Requirement for a meeting regularly on the surface transport issue as we have been on level boarding. [REDACTED], suggestion that modelling workstream could own this for now. **ACTION: [REDACTED] to invite Jenny Hamilton to this meeting series**

Surface Transport Update

- Presentation slides attached.
- [REDACTED] - OPDC modelling work will inform bus interchange requirements. So awaiting the outcomes of this work. Modelling will conclude in the spring next year. Looks at bus, PHV but not cycle parking - [REDACTED] to check.
- TfL are keen for HS2 to share relevant modelling, as the flows do appear to be quite low.
- Jenny - We have designs that we have concerns about, but the window for design revisions is tight.
- [REDACTED] - Required clarity from HS2 as to when the drop off date for design changes would be. For example, changes related to levels and drainage design would need to be done within the next 3-6 months. **ACTION - [REDACTED] to feedback on programme dates for points at which change may be possible to design.**
- Jenny - main concerns relate to further integration of inter-modal travel, the constraints of the site itself, and the design of OOC lane (potential creation of informal crossing points, as the segregated cycle lane means there is only one pavement for people to walk on). [REDACTED] in agreed, everything is so tight that it'll really impact buses on and off the site to deliver cycle facilities. T-Junction is only route on and off the site.

Modelling Update

- [REDACTED] provided an overview of modelling, relating to HS2 3-6tph, EL frequency uplift and increases in demand and inter-change numbers. Plus, NR are continuing the business case for GWR calling at OOC when 6tph.
- ACTION: To discuss modelling further at next meeting
- ACTION: Jenny to be sent the invite to the modelling meeting on 3rd Nov.

Kind regards

[REDACTED] | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: [REDACTED]

-----Original Appointment-----

From: [REDACTED]

Sent: Monday, September 4, 2023 12:08 PM

To: [REDACTED]; Zavitz Richard; [REDACTED]

[REDACTED] Jenny Hamilton; James Smith; Olabiye Oladeji; Andy Gemmell; Ross Harper;

Cc: [REDACTED]

Subject: Old Oak Common Station – Strategic Working Group

When: 17 October 2023 14:00-15:25 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

Where: Microsoft Teams Meeting

Morning all

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Invitees as below. Could @Zavitz Richard please forward on to missing TfL attendees.

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Department for Transport (DfT)	[REDACTED] (Chair)
High Speed 2 Limited (HS2)	[REDACTED]
Network Rail (NR)	[REDACTED]
Old Oak and Park Royal Development Corporation (OPDC)	[REDACTED]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[REDACTED]

Kind regards

[REDACTED]

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James Smith

From: [REDACTED]@dft.gov.uk>
Sent: 19 December 2023 16:15
To: [REDACTED]; Andy Gemmell; [REDACTED]; Richard Zavitz; [REDACTED]
[REDACTED]; Jenny Hamilton; James Smith; Olabiyi Oladeji; Ross Harper; [REDACTED]
Cc: Simon Galbraith; [REDACTED]
Subject: RE: Old Oak Common Station – Strategic Working Group

Hi all

Thanks for the discussion today. Please see below actions from this meeting.

- Action: [REDACTED] to feed back to this group the timeline of events leading to understanding the TSS in each configuration state scenario. [REDACTED] to bring an update on CS-F to the SWG in Jan/Feb.
- Action: [REDACTED] to set up workshop / next steps on onward distribution and disruption.
- Action: [REDACTED] to add into level boarding instruction to study lowering track bed first, and for the study to outline how each option may be delivered and what the impacts are. Regulatory compliance analysis also required from the study. Otherwise, any final comments on level boarding draft instruction to me by COP 21st, then DfT / HS2 Ltd to take NRAPSI through governance.
- Action: [REDACTED] to arrange SSG slot in January on [REDACTED] review.
- Action: [REDACTED] to arrange surface transport meeting between TfL and HS2 Ltd / DfT.

Kind regards
[REDACTED]

[REDACTED] | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: [REDACTED]
-----Original Appointment-----

From: [REDACTED]
Sent: Monday, September 4, 2023 12:08 PM
To: [REDACTED]; Andy Gemmell; [REDACTED]; Zavitz Richard; [REDACTED]
[REDACTED]; Jenny Hamilton; James Smith; Olabiyi Oladeji; Ross Harper; [REDACTED]
Cc: Simon Galbraith; [REDACTED]
Subject: Old Oak Common Station – Strategic Working Group
When: 19 December 2023 14:00-15:25 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.
Where: Microsoft Teams Meeting

Morning all

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Invitees as below. Could [@Zavitz Richard](#) please forward on to missing TfL attendees.

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Department for Transport (DfT)	[Redacted] (Chair)
High Speed 2 Limited (HS2)	[Redacted]
Network Rail (NR)	[Redacted]
Old Oak and Park Royal Development Corporation (OPDC)	[Redacted]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[Redacted]

Kind regards

[Redacted Signature]

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From: [redacted]@dft.gov.uk>
Sent: 18 December 2023 16:40
To: [redacted]; Andy Gemmell; [redacted]; Richard Zavitz; [redacted];
[redacted]; Jenny Hamilton; James Smith; Olabiyi Oladeji; Ross Harper;
Cc: Simon Galbraith; [redacted]
Subject: RE: Old Oak Common Station – Strategic Working Group
Attachments: 231219 Instruction for Level Boarding Study.docx

Hi all

In advance of tomorrow's Strategic Working Group, please find below the agenda and discussion points.

- Introductions, actions
- Old Oak Common Onward Distribution (NR, [redacted])
- Draft level boarding study instruction for comment (DfT, [redacted])
- AOB

In addition, we agreed the below items on a forward look last month. I've not received any further update on these, however we'd still be happy to discuss if there are any updates ready for this meeting – please let me know. I suspect we have about 30 minutes free in the agenda.

- Timetabling update into Elizabeth Line frequency uplift ([redacted])
- Access notice of intended scope ([redacted])
- Construction, access and passenger handling review (TBC - Network Rail, though DfT can provide a high-level update as well)
- Surface transport update, pending earlier meeting (Jenny Hamilton)

Kind regards

[redacted] | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: [redacted]
-----Original Appointment-----

From: [redacted]
Sent: Monday, September 4, 2023 12:08 PM
To: [redacted]; Andy Gemmell; [redacted]; Zavitz Richard; [redacted];
[redacted]; Jenny Hamilton; James Smith; Olabiyi Oladeji; Ross Harper;
Cc: Simon Galbraith; [redacted]
Subject: Old Oak Common Station – Strategic Working Group
When: 19 December 2023 14:00-15:25 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.
Where: Microsoft Teams Meeting

Morning all

As per the discussions over the last few weeks, this will be the meeting series of the Old Oak Common Strategic Steering Group between the DfT, HS2 Ltd, NR, TfL and OPDC. I've attached the ToR which we will seek to endorse.

I understand we may not have everyone at this first meeting given its quite soon, but this time seemed to work best for accommodating at least someone from each organisation. Going forwards, hopefully availabilities will align but we'll make time to discuss when is best for a recurring meeting in case we need to change this.

Agenda as per ToR with additional items for first meeting–


- 1) Introductions
- 2) Terms of Reference
- 3) Meeting schedule (including leaders group meeting)
- 4) Updates from co-chairs
- 5) Review dashboard / governance process*
- 6) Risks*
- 7) Item specific discussion
 - a. Requirements
 - b. Design
 - c. Construction
 - d. Operations during delivery of OOC
 - e. Operations of the end state OOC
 - f. Local development interface and implementation
- 8) AOB

*As per ToR but initial discussions will be around what information we need and the creation of these items.

Invitees as below. Could [@Zavitz Richard](#) please forward on to missing TfL attendees.

Organisation	Invitee
Department for Transport (DfT)	[Redacted] (Chair)
High Speed 2 Limited (HS2)	[Redacted]
Network Rail (NR)	[Redacted]
Old Oak and Park Royal Development Corporation (OPDC)	[Redacted]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[Redacted]

Kind regards




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[REDACTED]

From: [REDACTED]@dft.gov.uk>
Sent: 20 February 2024 16:09
To: [REDACTED]; Andy Gemmell; [REDACTED]
[REDACTED] Jenny Hamilton; Richard Zavitz; James Smith; Olabiya
Oladeji; Ross Harper; [REDACTED]
Cc: [REDACTED]; Simon Galbraith; Mark Gerrard
Subject: RE: Old Oak Common Station – Strategic Working Group
Attachments: Surface Transport Task and Finish Group Project Plan.pptx; OOC SWG Forward Look.xlsx; SSG SWG –
Thames Valley Governance Map v0.6.pptx

Hi all

Thanks for the meeting just now. As discussed, please could the attached Surface Transport Task and Finish Group Project Plan please be reviewed and comments to me by COP Thursday 22nd February so I can issue to the SSG before the weekend.

Other actions, I'll pick up both, were –

- To loop [REDACTED] into the surface transport t&f group
- To seek an update from [REDACTED] on his work on OOC disruption and perturbation at the next working group.

Also attached the governance diagram and SSG forward look as discussed.

Thanks

[REDACTED] | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: [REDACTED]
-----Original Appointment-----

From: [REDACTED]
Sent: Monday, September 4, 2023 12:08 PM
To: [REDACTED]

[REDACTED] Jenny Hamilton; Zavitz Richard; James Smith; Olabiya Oladeji;
Ross Harper;
Cc: [REDACTED] Simon Galbraith; Mark Gerrard
Subject: Old Oak Common Station – Strategic Working Group
When: 20 February 2024 14:00-15:25 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.
Where: Microsoft Teams Meeting

Morning all

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Network Rail (NR)	[Redacted]
Old Oak and Park Royal Development Corporation (OPDC)	[Redacted]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[Redacted]

Kind regards



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[REDACTED]

From: [REDACTED]@dft.gov.uk>
Sent: 21 November 2023 14:58
To: [REDACTED]; Richard Zavitz; [REDACTED]; Andy Gemmell; [REDACTED]
[REDACTED] Jenny Hamilton; James Smith; Olabiyi
Oladeji; Ross Harper; [REDACTED]
Cc: [REDACTED]; Fred Raphael; Simon Galbraith
Subject: RE: Old Oak Common Station – Strategic Working Group

Hi all

Thanks for the discussion just now. As discussed at the end, please see below our forward look for the next meetings.

Strategic Working Group (December)

- Timetabling update into Elizabeth Line frequency uplift ([REDACTED])
- Access notice of intended scope ([REDACTED])
- Construction, access and passenger handling review (TBC - Network Rail)
- Surface transport update, pending earlier meeting (Jenny Hamilton)

Strategic Steering Group (January)

- Level Boarding Update ([REDACTED])
- Surface transport update (Jenny Hamilton)

Kind regards

[REDACTED]

[REDACTED] IEng MCIHT MAPM | Head of Old Oak Common Sponsorship, HS2 Delivery Directorate, Department for Transport

Post to: [REDACTED]

-----Original Appointment-----

From: [REDACTED]

Sent: Monday, September 4, 2023 12:08 PM

To: [REDACTED]; Zavitz Richard; [REDACTED] Andy Gemmell; [REDACTED]
[REDACTED] Jenny Hamilton; James Smith; Olabiyi

Oladeji; Ross Harper; [REDACTED]

Cc: [REDACTED]; Fred Raphael; Simon Galbraith

Subject: Old Oak Common Station – Strategic Working Group

When: 21 November 2023 14:00-15:25 (UTC+00:00) Dublin, Edinburgh, Lisbon, London.

Where: Microsoft Teams Meeting

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High Speed 2 Limited (HS2)	[Redacted]
Network Rail (NR)	[Redacted]
Old Oak and Park Royal Development Corporation (OPDC)	[Redacted]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[Redacted]

Kind regards



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DRAFT FOR COMMENT

Old Oak Common Relief Line Level Boarding

Following the last Strategic Steering Group between DfT, Network Rail, HS2 Ltd, TfL and OPDC held on the 31st October 2023, DfT is instructing HS2 Ltd to seek costs and timescales for undertaking a comprehensive study into options to deliver level boarding on Platforms 5-8 at Old Oak Common for Class 345's on the Elizabeth Line. This requires two key deliverables:

- A design study into the delivery of level boarding solutions to identify costs / impact on the existing Old Oak Common scheme.
- A gauging analysis based on current station designs to identify whether rolling stock within the sectional appendix through Old Oak Common can be accommodated with the options considered above.

Assumptions

The following assumptions should be used for the study.

- Old Oak Common is being delivered for entry into service between 2029 – 2033 as per the current programme and target delivery into service dates.
- Planned 'All Line Block' possessions scheduled for Dec-26 and Dec-28 are retained.
- Old Oak Common station designs are considered as per the current specifications, including line speeds and track layouts.
- The Elizabeth Line will continue operating Class 345's in the current 9 car formation.
- Carriage 5 of the Class 345's is the Persons of Reduced Mobility carriage.
- A frequency of up to 24 trains per hour will operate on the Elizabeth Line, with up to 12 trains per hour continuing on the Great Western Mainline.
- Elizabeth Line services will primarily use Platforms 5-8 (on the relief lines).
- Platforms 1-4 are outside the scope of this study, owing to their primary use being GWR and Heathrow Express services.
- All relevant design guidance and regulations should be followed.
- Any solution identified must be compatible with all rolling stock included within the sectional appendix through Old Oak Common.

Level Boarding Options

Options to be considered are:

- Retrofit solutions, whereby level boarding options can be incorporated within the existing station design at no programme impact. These solutions should include;
 - Localised platform humps, similar to those in use on Thameslink, which raise the effective platform height to provide level boarding to Class 345's and align with the PRM carriage 5 on these trains. The gradients to these humps should be to standard and not conflict with existing designs. Where there is conflict, potential solutions and the impacts of those solutions on programme and budget, and risks, should be outlined.
 - Full platform 'topper' solution, which effectively raise the whole platform height without the need for redesigning the platform.

- Track lowering solution, whereby the existing design (foundations, drainage etc) is maintained as far as possible, but an investigation is undertaken to determine whether a change to current designs for the track bed can accommodate a reduced rail height to enable the existing planned platform height to become effective level boarding for Class 345's. Any solution identified must be possible to accommodate within existing programme constraints and the timeline for an instruction to change should be outlined.

Gauge Analysis

In addition to the above design options, DfT would also like to seek costs for a further study into the gauge clearance of trains expected to pass through Old Oak Common platforms 5-8. This study should be based off of the latest infrastructure designs and assumptions. This study is necessary because previous gauging analysis assumed higher freight speeds and lower track fixity than is now expected to be delivered, which may indicate different outcomes.

This analysis should show any potential gauge fouls with rolling stock cleared for use through the Old Oak Common area when considered against a standard horizontal platform offset (as would be delivered under the 'track lowering solution') and level boarding platform height of 1100mm.

If there is a gauge foul, what level of horizontal offset would be required for 'retrofit' solutions to work effectively and what is the deliverability risk to this.

Summary

Once completed, the work should outline clearly whether level boarding solutions can be delivered to Old Oak Common Platforms 5-8 and what the costs, programme impact and risks of any such options would be. Next steps for successful delivery and clear recommendations against each option should be provided.

Old Oak Common Station – Strategic Steering Group
Terms of Reference for Transport for London and Department for Transport
Engagement

Background

Once complete, the HS2 Old Oak Common station (OOC) will be the largest sub-surface station in the UK, as well as the largest station ever built in the UK as a single project. The station will consist of six subterranean HS2 platforms and eight platforms for the conventional rail network. Once operational OOC has been designed to be one of the most sustainable railway stations in the world, aiming to operate with net zero carbon energy, including; controlling the station's temperature with air source heat pumps, generating renewable energy from solar panels on the roof and harvesting rainwater.

OOC will be used by up to 250,000 passengers each day making it one of the busiest stations in the country. OOC will act as the temporary London terminus for HS2 until the HS2 Euston station is delivered. Whilst operating as a temporary terminus the station will have the capacity to accommodate up to 6 HS2 trains per hour.

Construction will also have a significant impact on the existing railway and passenger and freight services. Relocating all four tracks (main and relief lines) of the Great Western Main Line (GWML) into the new conventional rail station will require, at different times, part or all of the existing GWML to be closed, restricting access to London Paddington for Great Western Railway (GWR), Elizabeth Line (EL), Heathrow Express (HEX) and freight services. Further, journey time impacts to services on the GWML resulting from the time taken for trains to stop in the end state will occur.

Transport for London is acknowledged as a key stakeholder in both the construction and operation of Old Oak Common's conventional rail station. It is proposed to establish a monthly working-level meeting (referred to as the 'Strategic Working Group') and a bi-monthly senior level 'Strategic Steering Group' to formalise engagement between TfL, DfT, HS2 Ltd, Network Rail and OPDC.

The meetings will be structured to focus on all elements included within the following key areas for the various stages of the new OOC Station to prioritise the most pressing issues:

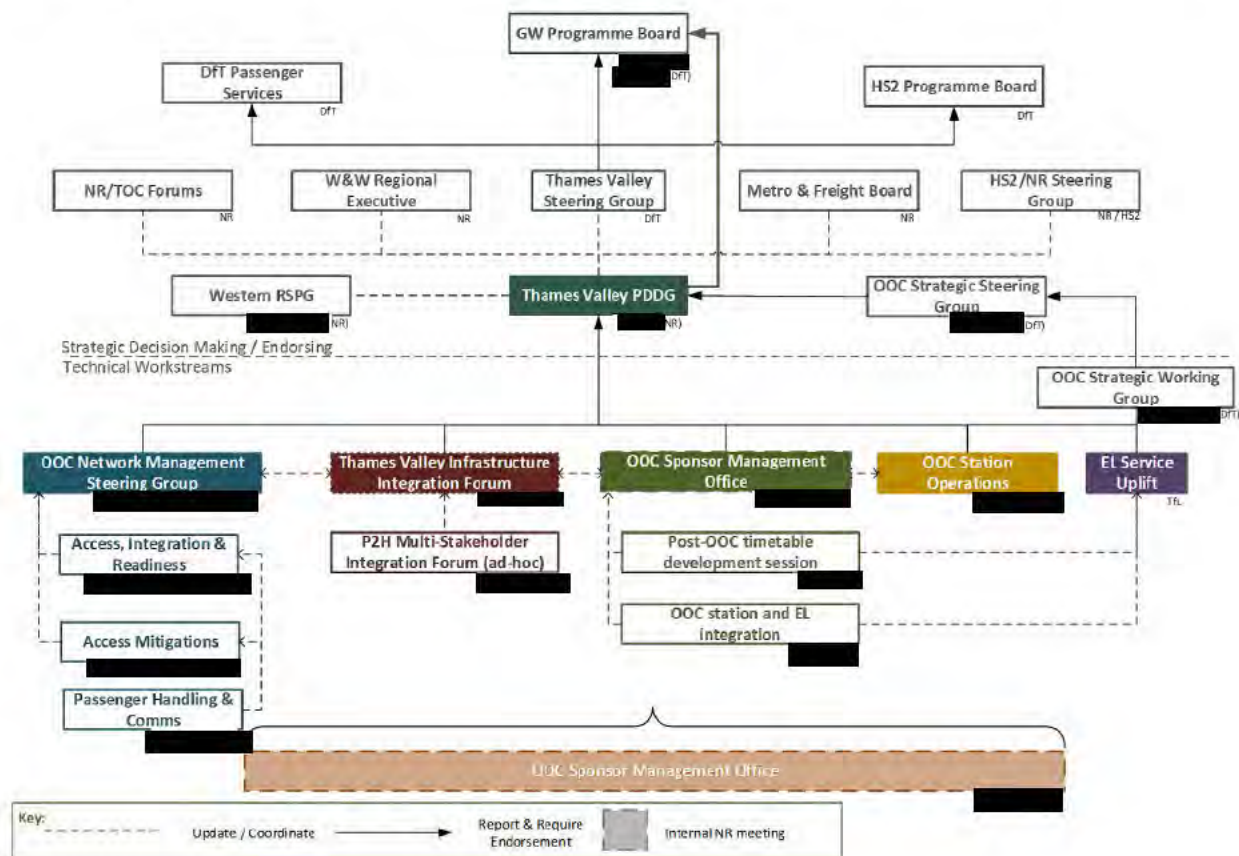
1. Requirements
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6. Local development interface and implementation

Current topics for discussion within the key areas will include:

- Activities to support construction of the new HS2 station and the new GWML station

- Planning and operational aspects for:
 - Buses and other surface transport
 - Elizabeth Line, including level boarding aspirations and end-state service levels
 - Local development
 - OOC vision
 - Other
- London Underground
 - Avoiding timings of planned closures of the Piccadilly, District and Central Lines aligning with 2 track working and all lines blocked closures on the GWML.
 - Rolling stock upgrades and capacity (including Piccadilly Line upgrades and other London Underground upgrades).
- OPDC aspirations and other local planning
- Impact of GWML main line calls, timing of their introduction, and options to mitigate any performance, train service or operational impacts

The Strategic Steering Group will be a sub group of the Thames Valley Area Programme Development & Delivery Group. The Strategic Working Group will support the Strategic Steering Group by commissioning, reviewing and gathering evidence for key topics of discussion. The Strategic Steering Group is generally sufficiently senior to take ownership of many decisions within its remit, though where wider operational impacts exist this may need escalation to PDDG.



Strategic Working Group

Purpose: To pull together priorities a variety of materials from workstreams that interface with and are enabled by the construction and delivery of OOC as per the list of requirements and current topics above. To join up parties involved in ensuring that Old Oak Common operates effectively in its end state and as a temporary terminus until HS2 Euston opens, supporting successful introduction of HS2 configuration states C, D and E.

Timing: Monthly

Agenda:

- Workstream updates
- Risks and issues register, to be maintained by the DfT
- Escalations, decisions, notifications and actions

Strategic Working Group invitees will be required to raise concerns, increase awareness and provide updates relative to their organisational objectives and priorities, to support effective discussions and collaborative working. Agreement will be required for items that need to be escalated from the Strategic Working Group to the Strategic Steering Group.

Proposed Invitees:

Organisation	Invitee
Department for Transport (DfT)	[Redacted] (Chair)
High Speed 2 Limited (HS2)	[Redacted]
Network Rail (NR)	[Redacted]
Old Oak and Park Royal Development Corporation (OPDC)	[Redacted]
Transport for London (TfL)	Jenny Hamilton Richard Zavitz James Smith Ola Oladeji Andy Gemmell Ross Harper
MTREL	[Redacted]

Strategic Steering Group

Purpose: To oversee all the elements of ongoing work to ensure a collaborative 'best for programme' approach and effective prioritisation. To support in reaching a consensus among group members prior to any decisions being put to PDDG.

Timing: Bi-monthly

Agenda:

- Updates from co-chairs

- Review dashboard / governance process
- Risks
- Item specific discussion
- AOB

The Strategic Steering Group attended by senior leaders will receive a strategic oversight of all live/forecast issues, to manage risks and drive consensus on issues at a senior level. Whilst this forum is sufficiently senior to take ownership of decision making regarding many elements of the scope, any decisions interfacing with operations on the GWML should be escalated to the PDDG. Further, any significant risks to realisation of the HS2 configuration states should be raised to the HS2 Integration Steering Group (HISG). The Department for Transport representative will be the single accountable point for the strategic overview.

Proposed invitees:

Organisation	Invitee
Department for Transport (DfT)	[REDACTED] (Chair)
High Speed 2 Limited (HS2)	[REDACTED]
Network Rail (NR)	[REDACTED]
Old Oak and Park Royal Development Corporation (OPDC)	[REDACTED]
Transport for London (TfL)	David Rowe Peter McNaught Mike Hardacre Lucinda Turner

OOC Intermodal Area – Surface Transport Issues

17 October 2023



Old Oak Common Surface – High level concerns

Design has not evolved as surrounding plans have changed

- Layout remains same despite removal of through road (bridge), OPDC adopting a new Local Plan, and HS2 terminating services on the site. Material changes impacting what the highway needs to support.
- HS2 view site as primarily a rail interchange but it also needs to stimulate local growth. Surface transport is key component to knit together these outcomes.

Lack of local connectivity [physical constraints]

- Site layout being designed before access capacity determined. New signalised junction does not look like it can cope even with optimistic view of demand. Making changes post-opening will be highly disruptive to HS2 especially with OPDC build out at same time.
- Pedestrian access is only possible from east as terminus buildings/high voltage cabling prevent bridges landing.



Old Oak Common Surface – High level concerns

Disjointed assessment

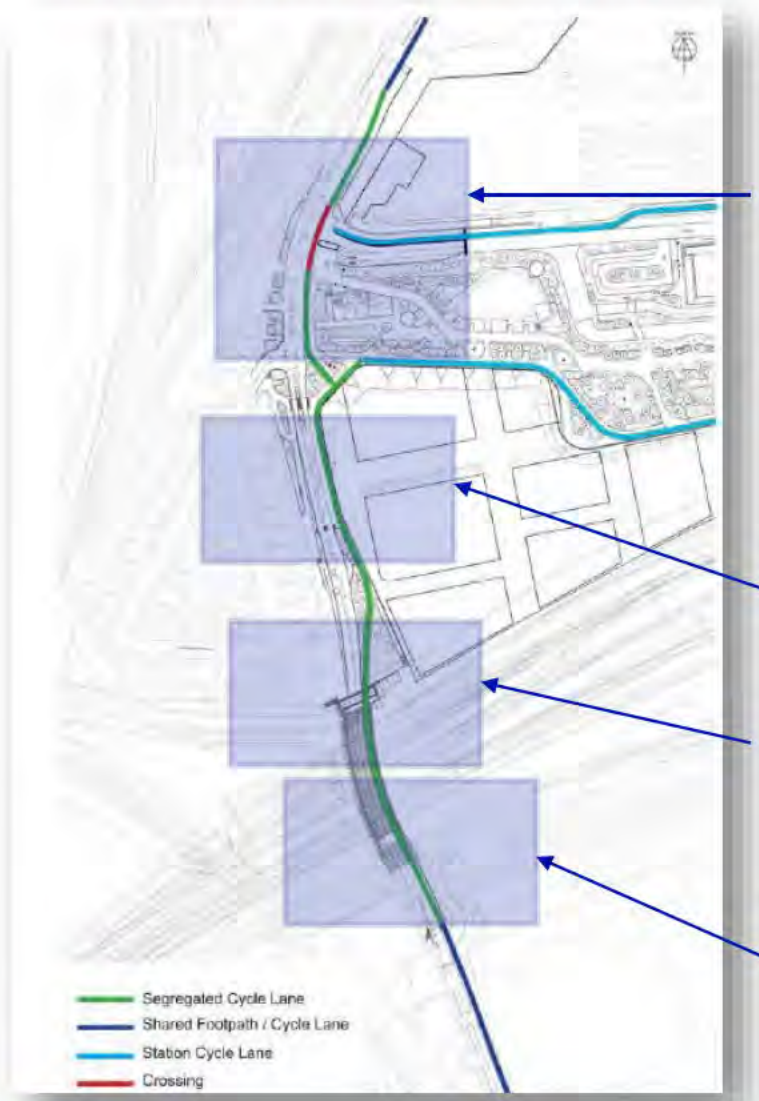
- HS2 surface modelling does not account for OPDC growth or terminus operations. No assessment of on-site congestion. Very light touch approach for such a significant interface.
- HS2 design packages have split the site (access/intermodal/station) but they must work together and then liaise with OPDC plans for wider area.
- Current approach for understanding surface transport is unorthodox. For example;
 - Vehicle forecasts have unclear lineage to strategic models with departures agreed between HS2/BBVS. TfL have requested numerous times to see source data as numbers appear low.
 - Pedestrian forecasts do not include OPDC growth, ASD, and terminus operations. Design therefore does not account for all sources of people who might be attracted to OOC like visitors, staff, on site residents, etc.

TfL role

- Not highway authority so reactive to both HS2 and OPDC. Seeking to deliver the most appropriate and reliable PT level of service.
- We need to understand potential displacement of passengers to/from OOC to surrounding stations.
- Significant experience with input provided for several years but limited influence on design.
- Keen to promote active travel to support car-free growth and reduce pressure on local highway network.
 - Accurate highway modelling will help understand level of mode shift or TDM needed



Old Oak Common – Specific Concerns (WP34.5)



- New signalised junction is potential bottleneck with opposed right turn and separately phased cycleway. Only way on and off site so congestion will impact bus reliability. No opportunity for bus priority.
- High wait times for pedestrians at critical crossover. Crowding/impatience may be safety issue. West London Orbital may land adjacent to the junction.
- Light touch traffic modelling – not audited by TfL – risky approach for critical location.
- ASD will need vehicle entry for construction/servicing but no plans available. Will be close to HS2 access so should be considered in design now.
- OOCL single lane with in-carriageway bus stops. Potential to block back.
- Current plan is to restrict pedestrian access to one side of OOCL to accommodate cycle lane under bridge. All northbound pedestrians will need to cross carriageway to access HS2 site. High risk as informal crossings proposed.



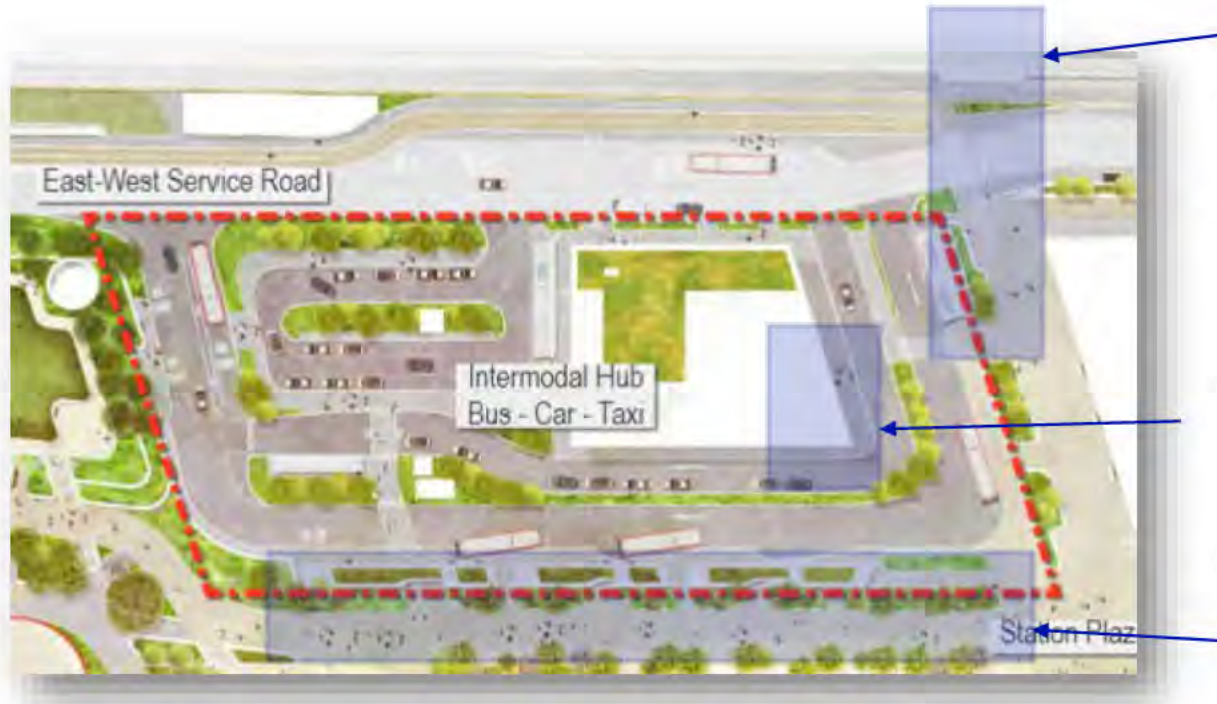
Old Oak Common – Bus Concerns (WPI3)



- Not enough stops and stand spaces to deliver OPDC future bus network.
- Passing tolerances between stationary and moving buses are extremely tight on bus loop. Increased risk of collision and closures.
- Blue badge parking means private vehicles will share bus loop. Mixing non-operational vehicles is high risk.
- Safety issues with unfamiliar sawtooth stop arrangement being used to save space.
- Bus recovery is not possible from the loop. Wrecker vehicles do not track.
- Driver welfare is too small. No natural light or ventilation. No fit out design provided.
- No operational TfL parking for incident response to manage signals or buses.
- Crowding has not been modelled outside station with no assessment of perturbations.



Old Oak Common – General highway concerns (WPI3)



- Terminus security means non-HS2 vehicles can only turn within interchange, i.e. the bus loop, to exit site. If loop is restricted then no way for vehicles to leave?
- Overall layout is constrained and does not track large vehicles without kerb overrun.
- Layout so tight it contains departures on road markings from TSRGD legislation.
- Electric taxi has not been tracked through taxi loop but will form majority of fleet by station opening.
- No plan to manage unplanned rail disruption outside station. If EL/GWML has problems then HS2 will deliver passengers to a location with limited onward options or long walks.
- Rail replacement services have been requested to use TfL stops and displace timetabled services. Not sustainable as local buses key to move people off site.



Old Oak Common – Other Design Issues



- Cycle Hub made smaller to integrate smoking shelter and dog spend area. Less sheltered cycle parking. Missed opportunity to make it fully secure.

- E-W cycle lane ends on other side of concourse to hub so cyclists may conflict with people traversing to enter station.
- No strategy for dockless cycles/e-mobility providers. No assessment of space required and access needed by operators to manage fleet.
- No PHV strategy for app based pick up – local honeypotting/circulating may become issue. Compounded by lack of turnaround on site.
- Undefined operational plans. Need to understand availability during maintenance.
- No on-site maintenance storage for urban realm but also no loading/parking bays within vicinity.



Discussion Points

Alignment of modelling between HS2, NR and OPDC. What scenario is best to use to test whether the highway network can cope?

Confidence. TfL have expertise/existing processes to audit demand estimates and then traffic models. Is this useful?

Modal priority. There is limited highway capacity/space on approach and within the site so is the balance of need correct?

Levels of service. TfL will adjust service levels to make sure they are reliable within the facilities provided but these might be below the level needed to support OPDC growth and HS2 when it's a terminus.

Requirements. OOC should be a world class facility for customers travelling locally to/from the site. Can we share the same vision given the limited space?

Operational integrity. TfL need concepts of operation at the detailed design stage to understand potential OPEX. How can we work together to minimise these costs?



Contact

TfL HS2 Sponsorship Team

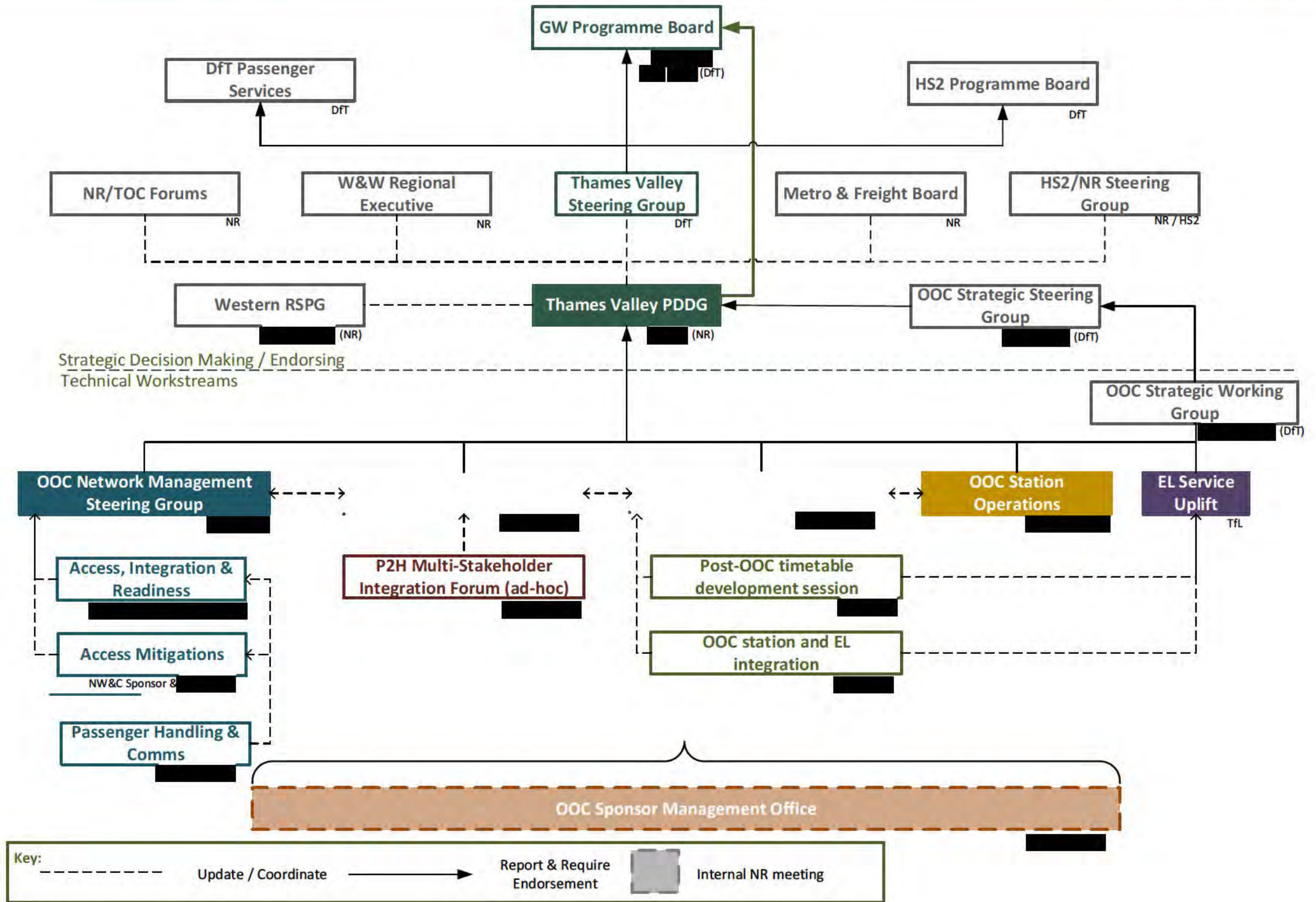
██████████@tfl.gov.uk

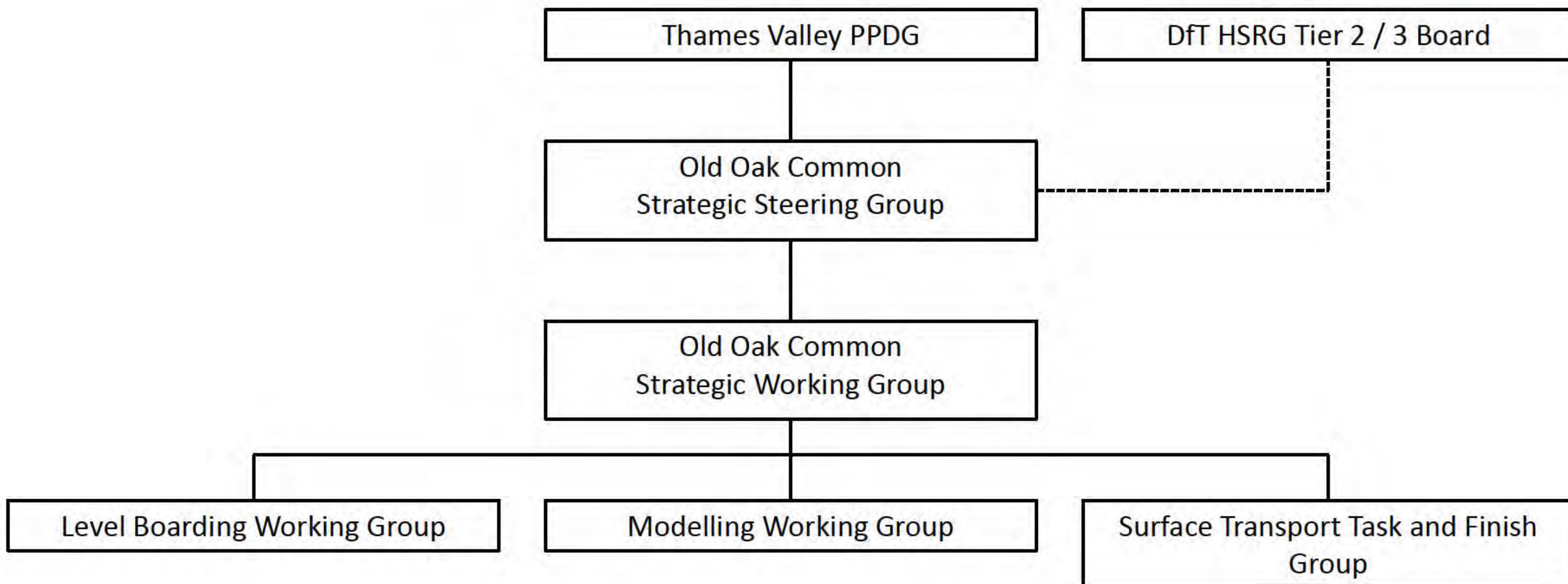


Questions?



Meeting Date	Agenda		
	Item 1	Item 2	Item 3
27-Feb	Round Table Updates	Surface Transport Task and Finish Group Update	Elizabeth Line Updates (Level Boarding and Frequency)
30-Apr	Round Table Updates	Surface Transport Task and Finish Group Update	NR - Case for GWML calls
25-Jun	Round Table Updates	Elizabeth Line Level Boarding	
27-Aug	Round Table Updates		
29-Oct	Round Table Updates		
31-Dec	Round Table Updates		





OOO Station Operations

- Station Design [S4] ()
- Railway Systems ()
- OOO Station Systems ()

OOO Network Management Steering Group

Access, Integration & Readiness

- Short Term Access Planning (up to Dec '26)
- PSN part 1 ()
 - Readiness for Blockades ()
 - Regional Driver Training ()
 - NOIS & Network Change ()
 - Operational Readiness & Stabling ()
 - Passenger Handling Strategy ()

Access Mitigations

- Long Term Access Planning (from Dec '26)
- PSN part 2 ()
 - Diversions ()
 - Full electrification of the Poplar line ()
 - GWR & MTR ALB Depot Strategy ()
 - Freight Mitigations ()
 - Long term Passenger Handling Strategy ()
 - 2 Track Timetable ()
 - ALB Timetable (TBC)
 - 2026 Timetable Recast (TBC)

Passenger Handling & Comms

- Short & Long term Passenger Handling Strategy ()

OOO Sponsor Management Office

- Post OOC
- OOC Vision ()
 - OOC Staged Opening ()
 - OOC Maintenance Accommodation ()
 - Performance Mitigations in TV ()
 - Post-OOO Operational resilience ()


Post-OOO timetable development session

- Post OOC Timetable & Performance Modelling ()
- Impact of New Permanent Speed ()

EL Service Uplift

- EL Service Uplift & Stabling feasibility (TfL & ())
- EL Uplift – Relief Line CTP (TfL & ())

OOO station and EL integration

Key:  Internal NR meeting

Key:	 Internal Meetings	 External Meetings	Week 1	Week 2	Week 3	Week 4
Thames Valley Infrastructure Integration Forum (TVIIF)			Tue 1000-1200			
Paddington to Heathrow Stakeholder Integration Forum			Every third NR period Tue 1030-1130			
Post-OOO Timetable Development Session			Ad-hoc 5 th Sep 1400-1500		Ad-hoc 10 th Oct 1400-1500	
OOO Access, Integration & Readiness / Mitigations Steering Group				Mon 1430-1630		
OOO Network Management Steering Group (NMSG)				Thu 1300-1530		
OOO Station Operations Working Group						Every third NR period Thu 1400-1500
Sponsor's Management Office (SMO)				Mon 1530-1630		Tue 1330-1430
Western route OOO timetable and connectivity strategy					Wed 1400-1600	
OOO Station Working Group (DfT)					Tues 1400-1500	
OOO station and EL integration						Thu 1100-1200
OOO Passenger Handling 23/24						Thu 1030-1200
Programme Development & Delivery Group (PDDG)						Thu 1330-1530

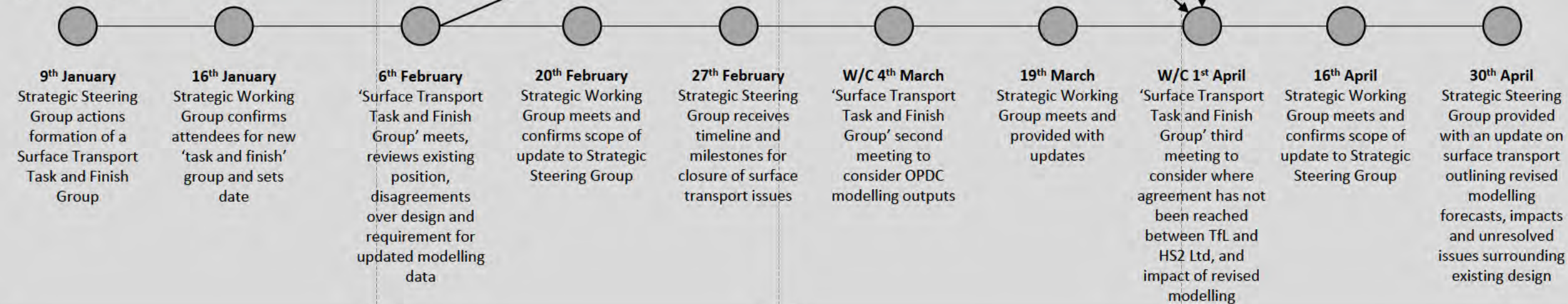
Old Oak Common Surface Transport Project Plan

Workstream 1:
TfL – HS2 Ltd discussions over detail within existing design.

Ongoing - March
HS2 Ltd, supplier and TfL meetings over TfL's rejection of HS2's existing designs to work through issues

Workstream 2:
Understanding the impact of updated modelling work on the existing OOC ST design

Governance meetings:
SWG, SSG and STT&FG



January

February

March

April

Old Oak Common GWML Station – Station Operations

Chair:
Project Sponsor

Working Group – an integrated industry approach for all OOC GWML Station specific issues

Frequency:
As required

Purpose

The purpose of this meeting is to act as the key forum for all station specific issues relating to GWML station(s). These will be considered, debated and then escalated where needed to the OOC GWML Station Steering Group.

Members & Attendees

- Network Rail
 - Project Sponsor (OOC GWML Station) (Chair)
 - Project Manager (OOC GWML Station)
 - Project Engineering Manager (OOC GWML Station)
 - Scheme Sponsor (Secretary)
 - Station Manager
 - Station Interface Manager
 - Architect
- HS2
 - Station Operations Lead
 - Senior Project Engineer
- Great Western Railway
 - Route Station Manager
 - Customer Experience Manager
 - Network Development Manager
- MTR Representative
- Heathrow Express Project Manager Operations and Planning

Core Members

Outline Agenda

Topic	Accountable
1. Welcome, Introductions & Purpose: Clear purpose and current priorities for the group.	Chair
2. Review of actions from previous meeting	Scheme Sponsor (Secretary)
3. Project Update: General project update and current project status	Project Sponsor/Project Manager
4. Key Station Operations Discussion Area:	All/Key presenters
5. Review of Assumptions and Issues Log	
6. Review of Actions from meeting	Scheme Sponsor (Secretary)
7. A.O.B	All

Quorum

Whilst the concept of a quorum does not apply, the core members are expected to attend regularly or provide a deputy with appropriate knowledge, experience and seniority.

Expected Outcomes

- **Unified understanding** of the station issues, the project status key risks and the impact to the industry
- **Agreement** on an integrated industry approach for the station.
- **Clear actions and decisions** - accountable owners for follow-up tasks, escalations to OOC GWML Station Steering Group

Meeting Linkages (NR Governance)



Inputs

- HS2 Phase 1 Industry Update
- Outputs from Rail Ops and Access Strategy Working Groups
- Access Plan
- Action and Decisions Tracker
- Issues log

Outputs

- Resolution of issues and actions
- Assumptions/issues discussed raised at OOC GWML Station Steering Group
- Escalation to OOC GWML Station Steering Group

Old Oak Common GWML Station – Steering Group

an integrated industry approach for the development of Old Oak Common Great Western Main Line Station

Chair:
Programme Sponsor

Frequency:
Every 2.5 months

Purpose

The purpose of this meeting is to act as the strategic industry forum, for wider industry 'System' issues relating to the development and design of the Old Oak Common Great Western Main Line Station. In addition, the forum will identify conflicting requirements between the various programmes which interface at OOC and propose solutions to these.

Members & Attendees

- Network Rail
 - Programme Sponsor (OOC GWML Station) (Chair)
 - Project Sponsor (OOC GWML Station)
 - Senior Programme Manager (OOC GWML Station)
 - Sponsorship Assistant (Secretary)
 - Senior Sponsor Western
 - Senior Programme Integration Manager
 - Lead Strategic Planner
- HS2
 - Senior Project Manager
 - Senior Project Manager
- DfT
 - One Railway Rep
 - High Speed Rep
 - Specification Manager
 - Planning Manager
 - West Principal Planner
- Great Western Railway
 - Network Access Manager
- TfL Crossrail
 - Lead Sponsor
- MTR Representative
- Heathrow Express Representative
- Chiltern Representative
- DB Cargo Representative

Quorum

Whilst the concept of a quorum does not apply, the core members are expected to attend regularly or provide a deputy with appropriate knowledge, experience and seniority.

Expected Outcomes

- **Unified understanding** of the station issues, the project status key risks and the impact to the industry
- **Agreement** on an integrated industry approach for the station.
- **Clear actions and decisions** - accountable owners for follow-up tasks, escalations to OOC GWML Station Steering Group

Outline Agenda

Topic	Accountable
1. Welcome and Introductions	Chair
2. Review of actions from previous meeting	Sponsorship Asst. (Secretary)
3. Integrated Delivery Team Update	Project Sponsor
4. HS2 Ltd. Update	HS2 Senior Project Manager
5. TfL Update	TfL Rep
6. Emerging Issues	Chair/All
7. Confirm Actions from meeting	Sponsorship Asst. (Secretary)
8. A.O.B	All

Core Members

Meeting Linkages (NR Governance)



Inputs

- HS2 Phase 1 Industry Update
- Working Group Outputs
- Action and Decisions Tracker
- WHIRG Minutes and Actions

Outputs

- Resolution of issues and actions
- Escalation to Rail Industry Steering group as required
- Support for regulatory process