

No.	HS2 Risk ID	Business Unit: Business Unit Name	Applicability	Type	Status	Risk Title	Causes	Detailed Description	Consequences	Risk Owner: Full Name	Current Probability	Forecast Probability	Mitigation Actions
R-0042		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Paternoster Square - Network Rail Clearance Compliance	As NR have indicated that they require any new rail structure to be built to modern clearance compliances for the electrification equipment	There is a threat the current design may need to be modified - requiring the structure to be raised above existing ground level.	Resulting in redesign effort, longer discussions with NR.	Rodger Storey	60%	30%	1. Get current design approved by Network Rail and HS2. 2. Obtain all necessary derogations from Network Rail for OLE clearances and any other aspects that don't not comply with current Network Rail standards. 3. Ensure bridge deck works are fully integrated with detailed Urban Realm design. 4. Ensure design takes into account all necessary signal sighting and OLE fixing details required by Network Rail. 5. Ensure all necessary Earthing & Bonding requirements are captured in the detailed design and approved by Network Rail.
R-0102		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Paternoster Square - Network Rail possession availability, overruns and cancellations (Assumption Ref. 22)	As the current bridge deck design requires construction above NR railway track	There is a risk that Network Rail possessions required to build Paternoster Place will not be available to suit the construction programme, agreed NR possessions are cancelled at short notice and/or works undertaken during any possession of the railway may overrun beyond the published access window.	Resulting in construction work activities being delayed	Rodger Storey	60%	40%	1. Establish all pre-approval and possession pre-application requirements 2. Complete and agree construction delivery programme inclusive of all pre-application requirements, design requirements and approvals 3. Liaise with Client team to arrange possession requirements and establish with NR (18 months' notice requirements) 4. Establish all existing booked possessions to understand what project can make use of 5. Construction methodology minimises possession requirements (i.e. use of short rigged piling equipment)
R-0122		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Paternoster Square - Relocation of OLE stanchions (Assumption Ref. 28)	Current design includes the installation of an additional bridge deck. OLE stanchions require relocation, current assumption is it will be moved before BCC Enhanced urban realm works commence	There is a threat that the relocation of an OLE stanchion(s) is not complete on start of works relative to enhanced urban realm.	Resulting in longer discussions with NR, delay in approvals	Rodger Storey	70%	40%	1. Assess completeness of all design pre-approval applications and associated open points/risk items/assumptions (Form 1 application etc.) 2. Early engagement with NR to progress design approval and interface 3. Appoint SQEP personal within MDJV team to manage interface and approval process 4. Escalation process being established to highlight outstanding information and approvals from NR. 5. Single point of contact established with NR (Neil Owen) 6. Establish a design and NR approval programme - MDJV with HS2 support. To be completed as part of Gate 4.
R-0148		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Subcontractor procurement failure	Due to external factors (Brexit, covid)	There is a threat procurement of subcontractors takes much longer than expected or insolvency	Delay in subcontractor activities	Rodger Storey	40%	30%	1. Agree early engagement with subcontractors to mitigate delay of protracted procurement 2. Establish monitoring of performance 3. Where possible give subcontractor upfront pipeline to avoid cashflow issues. To be assessed against commercial interests of the project
R-0087		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Delay to Network Rail approvals	As there is a lack of visibility of NR's approval of the current design	There is a risk of Network Rail not approving the Paternoster Place designs and the acquisition of land and air	Delaying the approval process, redesign effort to obtain NR buy-in.	Rodger Storey	60%	30%	1. Assess completeness of all pre-applications and associated open points/risk items/assumptions (Form 1 application etc.) 2. Early engagement with NR and approval
R-0082		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Design Interface - BCC (Design Development)	The design requirements and interface between the urban realm are subject to change.	There is a risk the station/public realm design does not take BCC into consideration and/or prolonged approval period due to changes	Resulting in lack of design integration, prolonged negotiations with stakeholders for design approval	Rodger Storey	60%	40%	1. Carry out joint design review workshops ahead of Stage 2 - establish clear boundary definition and remaining approval process. 2. Agree joint design delivery programme incorporating discharge of remaining planning conditions for both urban realm and enhanced urban realm
R-0098		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Unidentified third party ownership	As there are assets with unknown ownerships	There is a threat the rightful owner is not kept informed on decisions.	Resulting in the delay of delivery impacting on the ability to complete the works	Rodger Storey	50%	30%	1. Clearly identify asset ownership 2. Complete communication/engagement plan 3. Identify key interface and decision points 4. Carry out regular engagement workshops in conjunction with Client

R-0083		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Design Interface - Network Rail	As a result of delay receiving as-built information requiring design development to incorporate and revalidate	Risk that information regarding Network Rail interfaces is not available at the appropriate time required to progress design	Resulting in lack of design integration, prolonged negotiations with stakeholders for design approval	Rodger Storey	60%	40%	1. Establish clear need dates for as-build information and incorporate within station design programme; communicate this with Client. 2. Establish design maturity requirements for all as-build information and information relating to existing structures; communicate this with client 3. Carry out impact assessment of information received ahead of final design allowing incorporation into final design approval
R-0084		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Additional modifications required to design to accommodate MMA TRAM (Design Development)	Design continues to develop and change during detailed design affecting: 1) additional construction work scope. 2) more onerous methods. 3) additional construction time. 4) stakeholder requests / owners instructions.  Expecting design in August, not received and forecasting October.	There is a risk additional modifications may be required to BCC Enhanced Urban Realm design to accommodate MMA tramway design requirements	Resulting re-design	Rodger Storey	60%	40%	Expecting to receive tram design before station design progresses. Load, position and fire specifications will be designed based on information provided by MMA.  1. Engage regularly with MMA, share design programme and reiterate need dates for tram design to be incorporated
R-0133		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Unidentified buried services	1. Gaps in as built information  2. Non-intrusive surveys of services on bridge	There is a risk that the project encounters unexpected/undocumented service connection/route during works, particularly at bridge deck	1. Revise method of work 2. Divert service	HS2	60%	30%	1. Establish scope and as-build condition of EWC 2. Review in-line with current UR scheme design (inclusive of below ground drainage and service requirements) 3. Early identification of potential clash - utilisation of BIM modelling 4. Engagement with utility providers to review clash points and agree approach (design stage); incorporate within scheme design ahead of construction start.
R-0095		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Lack of information sharing	Due to the lack of robust document management, information sharing systems in place	There is a risk of non-timely receipt of requested information of data, drawings, specifications, exclusions, working restrictions from HS2/Network Rail/other third parties.	Resulting in delay in design activities	Rodger Storey	50%	30%	1. Clarify requirements to inform enabling works, design delivery (and approval) and construction methodology 2. Identify additional information requirements and communicate with Client and 3rd Party organizations 3. Monitor and update requirements and delivery of information
R-0141		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Operations Interface - Network Rail	1. Network Rail have the ability to introduce additional operational requirements after design has been agreed and signed off  2. Assumed that all requirements have been interpreted correctly and are acceptable to Network Rail	There is a risk of misalignment of and/or introduction of new operational requirements	Delay to construction activities	HS2	60%	30%	1. Establish clear need dates for as-build information and incorporate within station design programme; communicate this with Client. 2. Establish design maturity requirements for all as-build information and information relating to existing structures; communicate this with client 3. Carry out impact assessment of information received ahead of final design allowing incorporation into final design approval
R-0187		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Increase in market prices	Due to current market conditions (Brexit, COVID and other market factors)	There is a risk the market price (of cement, aggregates, steel) increases beyond contractual indices  Current forecasts suggests material prices will peak in 2023, then return to the economy trends	Impacting the business case of the programme.	Rodger Storey	70%	60%	1. HS2 to advise and identify support required by MDJV
R-0189		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Gaps between Design and Cost Plan (Design Development)	As design progresses there is the potential for additional gaps not identified in the OQs and market engagement	There is a risk that gaps between packages may not have been picked up in the cost plan.	As a result, the cost plan will need to be reviewed and updated.	Rodger Storey	50%	30%	1. Soben to re-measure scheme design against cost plan and identifying gaps for Stage 2 Target Price
R-0151		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Consents and Approvals (Design Development)	Detailed consenting and permit strategy covering all stakeholders is not currently defined	There is a risk there may be changes to consents or further supporting information is required for BCC Urban Realm Enhanced	Resulting in additional engagements with approval bodies (Digbeth Canal authority, Network Rail, BCC, EA, Asset/ Utility owners, Highways England) Programme delay.	Paul Gallagher	20%	10%	1. Establish current approval status and remaining criterial for final acceptance. 2. Engage with HS2, BCC and other stakeholders to agree approach to discharge inclusive of material samples, design review, mock-up and benchmarking. 3. Include requirements within s/c scope and schedule. 4. Early identification of potential change; notification to HS2 5. Assign management plan and resource 6. Review consents compliance plan

R-0265		Enhanced Urban Realm	MDJV	Threat	New	Movement of NR assets - existing retaining walls start to move	Existing condition of retaining not confirmed and constructions works taking place adjacent to it	There is a risk that impact construction works could cause existing NR retaining wall to move	Remedial work Ground pinning to strengthen structure and prevent further movement	Rodger Storey	20%	10%	
R-0152		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Operations Interface - BCC	As a result of changes to the BCC requirements, interface boundaries or adjacent works.	There is a risk of misalignment of and/or introduction of new operational requirements	Delay to construction activities	Rodger Storey	60%	30%	1. Establish clear need dates for as-build information and incorporate within station design programme; communicate this with Client. 2. Establish design maturity requirements for all as-build information and information relating to existing structures; communicate this with client 3. Carry out impact assessment of information received ahead of final design allowing incorporation into final design approval
R-0188		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Resource availability (materials, specialised subcontractors, labour)	Due to the amount of work planned in the construction of new infrastructures and potential trading/sourcing disruption due to Brexit.	There is a risk there will be abnormal demand for specific plant, material, specialised subcontractors and labour. Particular examples are: - Concrete subcontractors - Pre-cast suppliers - Steel suppliers - Piling subcontractors	Resulting in difficulties to achieving agreements with suppliers. Shortages of key construction suppliers will put more pressure on commercial teams, with an potential cost and/or programme impact on the project.	Rodger Storey	40%	30%	1. Early orders and bulk buying material ahead of need date. 2. Conduct cost benefit analysis to understand saving vs storage costs
R-0259		Enhanced Urban Realm	MDJV	Threat	New	Additional Demolition e.g existing heritage wall to north of site. Scope not clear in Heritage plan	Previously unidentified heritage or existing structures within Enhanced work area	There is a risk that there is requirement for demolition work and associated permissions and approvals need to be established	Cost increase due to conducting works, re-sequencing Programme delay	Rodger Storey	60%	30%	
R-0178		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Legal arrangements between HS2 and BCC	Late legal agreement between HS2 and BCC	Programme delay due to a deadlock in agreeing the final detailed contractual arrangements, including associated cost overruns	Delay to the start of construction works and potential programme impact.		20%	10%	HS2 and BCC have been working in partnership throughout design development and delivery phases of this project with an established working group which meets on a fortnightly basis to discuss all matters relating to the scheme. Discussions on final detailed contractual arrangements are underway. Additionally, HS2 and BCC have successfully agreed legal arrangements on previous projects such as the Curzon Metro Stop project wherein the overall principles are agreed and not dissimilar to the enhanced public realm project
R-0179		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Future Network Rail Commercial development	Network Rail development opportunity	There is a risk that NR may choose to develop adjacent land assets that may impact station operations	Delay to the start of construction works and potential programme impact.	HS2	30%	10%	1. HS2 to advise and identify support required by MDJV
R-0180		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Future HS2 Commercial development	HS2 development opportunity	There is a risk that HS2 may choose to develop adjacent land assets that may impact station operations	Delay to the start of construction works and potential programme impact.	HS2	50%	20%	1. HS2 to advise and identify support required by MDJV
R-0181		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Cost for exceeds funding asks t	Changes to scope	Inability for BCC to secure additional funding to changes in scope beyond business case		BCC	30%	15%	Robust cost assessment has been undertaken with HS2, MDJV and BCC and any risk clearly identified with appropriate allowance included in scheme cost.  The risk is also managed through Section 151 sign-off and agreements between HS2 and BCC. In the unlikely event of any residual risk, if required, can be managed by reviewing the scope and specification of Public Realm projects will manage the risk.
R-0183		Enhanced Urban Realm	BCC	Threat	Active	BCC Urban Realm Enhanced - Ongoing maintenance of Urban Realm area	Increased requirements for ongoing care and maintenance	There is a risk that additional requirements may increase overall maintenance costs for BCC urban realm (NR requirements for bridge deck or change of use of hard/ soft landscaping)	Additional maintenance costs by MDJV for a period of time.	Hs2	60%	40%	HS2 and BCC are currently in the process of agreeing final detailed contract arrangements including the maintenance of the enhanced public realm scheme, likely to be funded through Section 106 agreements and Community Infrastructure Levy (CIL) charges relating to future developments linked to the Curzon Station. In the unlikely occurrence that an agreement around maintenance cannot be reached, BCC will be responsible for any maintenance of BCC land and assets.
R-0192		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Exceeding Vibration Threshold Levels	Construction works cause vibration, noise, dust to areas and buildings in close proximity to site. Also movement in relation to the RBS line.	There is a risk that acceptable vibration levels go above the threshold. Vibration detectors on buildings may trigger unacceptable levels which may mean works have to stop and be re-assessed.	Programme delay if work is required to stop	Rodger Storey	40%	20%	1. Property owner and local authority agreement to work during specific times to undertake work.

R-0267		Enhanced Urban Realm	MDJV	Threat	New	BCC Urban Realm Enhanced - Interpretation of Operational requirements	Assumed that all requirements have been interpreted correctly and are acceptable to Network Rail	There is a risk of misinterpretation of operational requirements received from HS2	Delay to construction activities	Rodger Storey	60%	30%	1. Confirm information received ahead of final design allowing incorporation into final design approval 2.Establish joint review to align and ensure common understanding of requirements
R-0149		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced scope - Failure to engage stakeholders	Lack of a stakeholder management plan	There is a risk stakeholders are not fully engaged through the design and construction programme	Resulting in high numbers of queries and objections leading to delay in the programme.	Rodger Storey	30%	20%	1. Complete stakeholder and interface management plan and execute requirements 2. Carry out/attend stakeholder engagement sessions
R-0139		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Paternoster Square - Joint Bridge ownership (Design Development)	As the current design includes a joint between new and existing bridge deck	There is a threat the ownership, maintenance and liability of this joint will be protracted	Resulting in extended negotiations and potential redesign effort	Rodger Storey	70%	30%	1. Assess completeness of all design pre-approval applications and associated open points/risk items/assumptions (Form 1 application etc.) 2. Early engagement with NR to progress design approval and interface 3. Appoint SQEP personal within MDJV team to manage interface and approval process
R-0185		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Weather	1. As there are a number of activities within the programme which may get affected by extreme wind/rain/snow conditions  2. Site location is known to be disproportionately affected by wind (tunnel effect)	There is a risk the weather conditions are more adverse than expected.	As a result the construction timescales would increase leading to an overall programme delay and the necessity of additional temporary measures with an associated cost increase.	Rodger Storey	70%	50%	1. Application of wind / rain protections, heating, road salts as required.
R-0146		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Mock-Up approvals	BCC required to approve mock ups and sample of materials as per Consents Compliance Reports (Station, Urban Realm, Enhanced Urban Realm)	There is risk that BCC may not approve mock-ups	Additional mock ups Mock ups not approved in line with schedule resulting in prolongation and additional international travel to view factory tests or carry out additional system tests	Rodger Storey	30%	10%	1. Establish programme need dates for mock ups before critical Action Owner: Begona Ventura Date: Dec 21 2. Engaging with BCC, giving early sight of design and materials Action Owner: Jamie Gray (HS2) Date: TBC 3. BCC have signed off consents based on current proposed design Action Owner: Jamie Gray (HS2) Date: TBC
R-0248		Enhanced Urban Realm	MDJV	Threat	New	Available access / possessions	There is a risk that the planned possessions and road closures identified within the MDJV delivery programme are not permitted or are cancelled at short notice	Possessions and road closures required to deliver scope	Delay to works or re-planning requirements	Rodger Storey	40%	20%	1. Engagement with adjacent HS2 and other contracts; establish local work plans and items progressed / agreements made. 2. Engagement with BCC, NR; establish planned events and other highway works. 3. Engauge with MMA; establish programme for interface with tram construction 4. Establish site access restrictions and planned works adjacent to the site 5. Clearly identify working sequence and access requirements (including movement of hoarding lines and access points); communicate and integrate with other planned operations.
R-0249		Enhanced Urban Realm	MDJV	Threat	New	Track drainage system NR	Unidentified location or interface with existing NR track drainage requirements	NR track drainage locations are not currently identified or capacity requirements known leading to additional re-design or abortive works to current scheme design	Re-design, delay to works, abortive works and associated costs	Rodger Storey	40%	20%	Survey or existing drainage systems Desk study of asset records Incorporation within planned design programme
R-0252		Enhanced Urban Realm	MDJV	Threat	New	Operational access requirements - NR or MMA	Change to current understood interface and operational timetable for NR and MMA	Operational access requirements to NR compound area and (planned) MMA operations increase or change in assumed use	Resequencing of operations and potential new interface requirement	Rodger Storey	40%	20%	

R-0153		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Vehicle Movements	As the logistics management is not fully developed	There is a risk the traffic movements/materials supply plan does not take into account Enhanced Urban Realm construction activities in vicinity of paternoster place. Additional pressure placed on permitted vehicle movements as a result of delivering the Enhanced Urban Realm scope.	Resulting in modification to traffic management methodology and delay to programme	Rodger Storey	60%	30%	1. Develop traffic management plan 2. Develop programme to reflect required vehicle movements and road closure requirements 3. Agree delivery strategy for Paternoster Place bridge deck 4. Establish potential relaxation of vehicle movement restrictions with BCC
R-0190		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Delays due to COVID	Due to COVID restrictions being lifted (and/or increase in positive cases and isolation requirements)	There is a risk project team are having to isolate or be away from work.	Resulting in the programme getting delayed.	Rodger Storey	20%	15%	1. Outline project guidance in line with Government recommendations, encourage need for regular testing 2. Support team to get vaccination/booster 3. Regularly review and implement safe working practices appropriate to the situation at any given time
R-0254		Enhanced Urban Realm	BCC	Threat	New	High Water table	Potential for Ground water level to be different than anticipated	Foundations for Urban Realm structures and deep excavations for drainage may be impacted by higher water table	1. Increased design and construction effort for additional dewatering activities.  2. Regulatory consent through permitting required from the Environment Agency to undertake the dewatering works, together with consenting required from Severn Trent Water (STW) for discharge to sewer.  3. In addition, dewatering has potential to affect the serviceability of adjacent offsite structures, such as the RBS retaining wall and live railway line, together with other identified sensitive structures with heritage importance.		30%	20%	
R-0256		Enhanced Urban Realm	BCC	Threat	New	Human remains	Areas of site i.e. existing roads have not yet been excavated	There is a risk that human remains are discovered during ground works	Delay to programme Subcontractor stand down		20%	20%	
R-0257		Enhanced Urban Realm	BCC	Threat	New	UXO	Potential for ux0 to be missed in surveys or ground investigation works	There is a risk of encountering UXO within footprint of works	increased cost and extended programme leading to delays.  Delay to program		10%	10%	
R-0258		Enhanced Urban Realm	BCC	Threat	New	Obstructions	Potential for obstruction to be missed in surveys or ground investigation works	Unforeseen ground obstructions encountered during excavation works	Programme delay Additional cost of breaking out obstructions		30%	20%	
R-0264		Enhanced Urban Realm	MDJV	Threat	New	Breach Section 61 Noise Requirements: Night works / Weekend Works (Assumption Ref. 79)	Section 61 restrictions. Still need to assess night working requirements, work adjacent to the RBS line. University in close proximity of work site. Noise levels have to be below the accepted trigger levels on exam days. Clayton hotel proximity to site.	Due to the location of the project there are restrictions to night time and weekend working. Period of time to undertake works, there is a risk that we could breach the section 61 requirements.	Programme delay resulting in costs and prelims. Reduced working hours.	Rodger Storey	30%	10%	1. Pre plan activities to undertake noise / vibration works at working hours identified in section 61. 2. Propose acceptable works under a section 61 application that have been mitigated. 3. Liaise closely with BCC and NR to avoid section 60 nuisance.
R-0260		Enhanced Urban Realm	BCC	Threat	New	Contaminated waste/land/material	Contaminated material not identified during surveys and ground investigation works	unforeseen contaminated waste material encountered on site	Programme delay Controlled removal and disposal of contaminated material		50%	30%	
R-0161		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Archaeological/heritage assets impact construction programme	1. Enhanced Urban Realm site area outwith the scope of the current GBR, therefore baseline ground information not confirmed  2. Heritage areas of scope uncertainty related to (Eagle and Tun pub, incorporation of 18th century stone into Urban Realm pavement design and approach for Round House area)	There is a risk that changes to the construction methodology and programme are required to deal with, or incorporate, artefacts/remains of archaeological interest	1. Design modification of Urban Realm 2. Instruction of specialist archaeological advice 3. increased construction programme	Rodger Storey	20%	10%	1. Establish clear need dates for as-build information and incorporate within station design programme; communicate this with Client. 2. Establish design maturity requirements for all as-build information and information relating to existing structures; communicate this with client 3. Carry out impact assessment of information received ahead of final design allowing incorporation into final design approval



R-0191		Enhanced Urban Realm	MDJV	Threat	Active	BCC Urban Realm Enhanced - Vandalism / Protestors	Protestors/vandals occupying the site	There is a threat the project team are not able to be mobilised, potential safety incidents.	Programme disruption, HSE impact to staff and/or public. Reputational impact	Rodger Storey	20%	10%	1. Additional security. 2. Improved communications Hs2 security and BTP for advance warning. 3. Plans for secondary access points to enable staff to access projects if main accesses are blocked. 4. Different access routes to site agreed with BCC in the event of road blocks
R-0266		Enhanced Urban Realm	BCC	Threat	New	BCC local temporary access - i.e. local events	Programme of local events is not developed for full duration on the works	There is a risk that BCC introduce additional restrictions on site works to accommodate access for local events	programme delay resequencing Additional hoarding Additional security		30%	30%	
R-0251		Enhanced Urban Realm	MDJV	Threat	New	Incident on Network requires track access via RRAP	Incident on network (train collision or similar event)	Emergency Services and other require immediate access to network to react to event	Delay and disruption to works; abortive works and re-work	Rodger Storey	5%	2%	
R-0269		Enhanced Urban Realm	BCC	Threat	New	BCC Urban Realm Enhanced - Behavioural change relating to COVID-19 not captured in the scheme's forecast benefits in the Business Case.	Long lasting behavioural change resulting from the COVID-19 pandemic will impact future economic assumptions (such as land values and occupancy rates) that have been applied in the calculation of the scheme's monetary benefits.	Long lasting behavioural changes resulting from the COVID-19 pandemic which impact the future economic assumptions (such as land values and occupancy rates) that have been applied in the calculation of the scheme's monetary benefits have not been captured in the FBC.	The scheme's monetary benefits are lower than the FBC core benefits resulting in a lower than forecast benefit cost ratio.	James Betjemann	10%	5%	The FBC includes a COVID-19 sensitivity to test future economic assumptions that could be impacted by the COVID-19 pandemic. Sensitivity testing shows even with reduced benefits a high benefit cost ratio for the scheme is achieved (XX). Following GBSLEP independent assurance, any further sensitivity can be reviewed and appropriately considered, an allowance for resources has been made within the risk register.
BCC-01		Enhanced Urban Realm	BCC	Threat	New	Park Street Bridge Condition	Concerns regarding the Park Street Bridge condition.	Network Rail concerns regarding bridge condition with the enhanced scope means that the bridge structure needs to be repaired or replaced.	Existing Park St Bridge needs to be repaired or replaced.  Delay to Paternoster scheme		30%	20%	Undertake PTSI assessment of structure. Carry out recommendations in Aceom risk review and risk assessment report July 2021.
BCC-05		Enhanced Urban Realm	BCC	Threat	New	NR As-builts	Lack of as built information, or incorrect information.	As-built information is incorrect for Network Rail assets	Rework / redesign / programme delay	HS2	30%	20%	Receive as-built info from NR. Incorporate into desktop and site survey. Input into design.
BCC-06		Enhanced Urban Realm	BCC	Threat	New	Air Rights	NR require compensation for permanent air rights	Network Rail require payment for permanent air rights	ease in cost for land acquisition	HS2	50%	50%	
BCC-07		Enhanced Urban Realm	BCC	Threat	New	NR design consents	Network Rail unreasonably refuse design consent	Network Rail unreasonably refuse design consent	Redesign and programme delay.	HS2	20%	15%	Continued dialogue / early engagement with NR throughout design process
BCC-08		Enhanced Urban Realm	BCC	Threat	New	NR Construction Consents	Network Rail unreasonably refuse operational / construction consent	Network Rail unreasonably refuse operational / construction consent	Programme delay	HS2	20%	15%	Continued dialogue / early engagement with NR
BCC-09		Enhanced Urban Realm	BCC	Threat	New	NR Possession Costs	Higher number in possessions required, and / or possessions are more expensive / complex that envisaged.	NR possession costs are higher than anticipated.	Increased cost to be paid to Network Rail.	HS2	50%	25%	Continued dialogue / early engagement with NR, utilisation of existing possessions.
BCC-10		Enhanced Urban Realm	BCC	Threat	New	NR Possession Consents	Lack of possession/isolation availability	Network Rail do not approve Possessions & isolations when required	Programme Delay	HS2	50%	30%	Continued dialogue / early engagement with NR, utilisation of existing possessions.
BCC-11		Enhanced Urban Realm	BCC	Threat	New	Asset Ownership	Lack of agreement as to future asset ownership of the existing Park Street Bridge.	Disputes over asset ownership delay design / construction activities.	Delays to design and / or construction.	HS2	20%	20%	Early dialogue with Network Rail, facilitate tri-partite discussions
BCC-12		Enhanced Urban Realm	BCC	Threat	New	Price and Programme Development	Curzon St price and programme still under development	Changes to the price and programme as a result of changes between Gates 3 and 4.	Changes to price/programme/risk register	HS2	40%	30%	Undertake assurance governance process and contract arrangement to ensure governance for stage 2.