George Hotel Huddersfield
Construction Impact Risk Assessment

MK: 10.01.2025

Rev V04b

Ref	Element	Description	Effect / Concern	Likelihood rating (1 - 5)	Impact rating (1 - 5)	Rating	Response/ Mitigating	Risk Owner	Project Viability impact / risk	Likelihood rating	Impact rating	Rating
Block B Works	Facade retention of existing JW street wall	Structural stability of existing wall and its foundations.	Collapse / rebuild costs / Project Viability / H&S / Programme. Risk of JWS Wall collapse not fully mitigated by the previous scheme proposals, which requires further exploration, expense and time.	3	5	15	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	1	5	5
Block B Works	Facade retention of existing JW street wall	Potential damage to JW Street Wall due to its mechanical fixing through and too to the JW Street wall	Retention system will require mechanical fixing into stonework also causing potential harm to the facing stonework which cannot easily be colour matched for repair/ replacement and the concerns around the condition of the lime mortar could potentially lead to significantly more connection points further creating material harm from a conservation perspective as well as undefined cost risk.	4	4	16	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	1	5	5
Block B Works	Facade retention of existing JW street wall	Impact of retention system load upon highway	Project Viability & costs associated with footpath strengthening or Diversions	5	4	20	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	1	4	4
Block B Works	Facade retention of existing JW street wall	Impact of retention system on buried services	Project Viability & costs associated with footpath strengthening or Diversions	5	4	20	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	1	4	4
Block B Works	Facade retention of existing JW street wall	Restriction of highway and working area due to kentledge system	Space required for the Kentledge system will impact on works access, potential impact on the highway, bus routes etc. The significant load of the Kentledge System could have significant impact on below ground utilities and drainage systems, not currently designed to take such loads. The highways may potentially need to be reduced to a single carriageway for a prolonged period of time, not currently taken into consideration.	5	4	20	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	1	4	4
Block B Works	Facade retention of existing JW street wall	Historic degrading of the wall due to water ingress (Washing out of fines)	Compromised stability of the wall during retention or adjacent works. There is evidence of fines washing to the rubble fill section of the wall (mixture of ash and yorkstone quarry fines) which is prevalent to a larger degree at the 1st floor level and concern remains that removal of the 1st floor and its stabilisation may allow for further movement of this element of the wall (separation of inner and outer leaf masonry). It is also noted that the exposed window areas at 2nd floor demonstrate that there has been some significant breakdown of the lime mortar at this level leading to concerns around stone bonding and strength of the bed and perp layers of mortar. The above was borne out during the Phase 2 works which triggered the resetting of the entirety of the JWS parapet due to this issue.	5	4	20	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	1	4	4
Block B Works	Facade retention of existing JW street wall	Existing wall known to be out of alignment (Belly)	Adverse impact upon facade retention system. Conservation - as noted in mortar condition concerns, there is evidence of movement particularly at the 1st floor level which appears from Phase 2 inspection works to be attributable to a mix of fines washing allowing the inner and outer leaves to separate and the washed nature of the lime mortar which has become noticeably friable with evidence during Phase 2 works of loss of lime bonding agents meaning a high likelihood that further movement is only partially controlled via through stones which are on lime bedding of low quality/ condition	4	4	16	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	1	4	4
Block B Works	Interface and connection of JW Street wall and Block A structure and facade	Movement of JW Street wall and impact / Damage upon the structure and facade of the George building	Damage to Principle building (George Hotel) arising from further movement of JWS wall during demolition of remainder of block C and works associated with retention/propping the JWS Wall. Conservation - It is unclear at this time as to how the Block A and JWS elevations are mechanically connected, whilst the JWS elevation is inset behind the main Block A Quoins, the 2 elevations are formed of differing course heights and bed depths leading to concern that any movement of the JWS connection could have significantly detrimental effect on the North facing elevation of Block A and in particular the main Quins which would be incredibly difficult to rectify due to Block A having 5mm or less close bedding stonework	3	5	15	Early engagement with authorities. Prove value and benefits of rebuild proposal. Deconstructing and rebuilding JWS Wall, during demolition of remainder of Block B & C, helps to reduce risk of any further movement and impact on Block A	TBC	Yes	2	5	10
Block B Works	Interface and connection of JW Street wall and Block B roof structure.	Block B at some stage has had problems with the sagging of the level 2 floor. Remedial works have been undertaken to give L2 support from the roof structure.	Potential movement of the JW Street wall due to unforeseen load transfers during the demolition of the roof. Impact upon retention system	4	5	20	Prop off level 2 floor from the ground to reduce load on the roof structure and enable demolition. Take down JW Street wall sequentially with the roof and rear elevation wall. This also reduces risk of further movement and loads being transferred into Block A that JWS Wall is tied into.	TBC	Yes	2	5	10
Block B Works	Interface and connection of JW Street wall and Block B roof structure.	JW Street Wall and Block B rear elevational wall thought to be tied together by roof and Level 2 floor plates	Potential movement of the JW Street wall due to unforeseen load transfers during the removal of the roof trusses and the level 2 floor plate. Impact upon retention system and JW wall stability.	4	5	20	Take down JW Street wall sequentially with the roof and rear elevation wall.	TBC	Yes	2	5	10
Block B Works	Facade rebuild to JW street	Resistance form Heritage and planning to the proposal	Delay in commencement. Impact on project viability. Conservation - It is our view that there remain risks of a significant nature so as to remain concerned around the wholescale removal of the 1930s extension structure supporting JWS wall and the practicalities around demonstrating a facade retention system would sufficiently address the fines wash, mortar degradation and connection concerns to Block A which could be rightfully challenged by the relevant statutory bodies.	3	5	15	Early engagement with authorities. Prove value and benefits of rebuild proposal and mitigated risk resulting from the alternative new proposal.	TBC	Yes	2	5	10
Block B Works	Underpinning of JW street wall.	Structural stability of existing wall and its foundations	Wall movement and uncontrolled collapse. Future movement	3	5	15	Reduce basement depth / remove basement. Remove need for underpinning	TBC	Yes	2	5	10
Block B Works	Underpinning of JW street wall.	Impact of previous underpinning operation's. Has this compromised wall?	Wall movement and uncontrolled collapse. Future movement	3	5	15	Reduce basement depth / remove basement. Remove need for underpinning	TBC	Yes	2	5	10
Block B Works	Underpinning of JW street wall.	Impact of vertical loadings on retention system should existing foundations be compromised	Collapse / rebuild / cost / Project Viability / H&S / Programme / Highway impact (Inc. stats services)	4	5	20	Reduce basement depth / remove basement. Remove need for underpinning	TBC	Yes	1	5	5
Block B Works	Underpinning of existing George hotel	Structural stability of existing wall and its foundations	Damage to listed building / H&S / Programme	4	5	20	Reduce basement depth / remove basement. Reduce need for underpinning	TBC	Yes	2	5	10
Block B Works	Underpinning of existing George hotel	Impact of previous underpinning operation's. Has this compromised the foundations.	Damage to listed building / H&S / Programme	4	5	20	Reduce basement depth / remove basement. Reduce need for underpinning	TBC	Yes	2	5	10
Block B Works	Interdependency of existing block B structure and JW Street wall	Concerns over unpredictable load transfers caused by demolition of block B and existing structure	Damage to JW Street Wall / H&S / Programme / Overloading of retention system.	3	5	15	Take down stonework, record stones conserve wall and rebuild as original.	TBC	Yes	2	5	10
Block B Works	Execution of structural and Civils works within building footprint. (Excavation, piling and lorry movements)	Concern over manoeuvring of construction traffic within limited footprint of the building and potential impact of traffic and the retained Wall. Direct impact of vibration on the stability of the supported wall.	Damage to JW Street Wall / H&S / Programme / Overloading of retention system.	4	5	20	Take down wall and negate use for retention system to generate adequate working space.	TBC	Yes	2	5	10
Block B Works	Basement excavation	Water management during excavation	Programme delays, damage to formation and sub structure. Softening ground bearing strata.	4	3	12	Reduce in basement depth / remove basement.	TBC	Yes	3	3	9
Block B Works	Basement excavation	Extended programme. Works sequence to be developed in conjunction with temporary works requirements	Programme / Project Viability / H&S	4	3	12	Reduce in basement depth / remove basement.	TBC	Yes	2	3	6
Block B Works	Structural Steel fame	Current steel structure. Due to shape of site this has a high piece count relative to tonnage.	High steel costs per ton	5	3	15	Develop in-situe concrete fame solution.	TBC	Yes	1	3	3
Block B Works	Structural steel fame	Complex connection details to JW Street wall	On site fabrication requirements. Need for secondary sub fame (ref line 9)	5	3	15	Develop in-situe concrete fame solution.	TBC	Yes	1	3	3
Block B Works	Structural steel fame	Complex fire and acoustic requirements due to high piece count and number of connections.	Hi Project Viability / programme / interface	5	4	20	Develop in-situe concrete fame solution.	TBC	Yes	2	4	8
Block B Works	Contiguous piled retaining wall	Long duration due to complexity of compact site	Project Viability, long programme. Impact on retained structures. JW Wall and Block George Hotel	5	4	20	Reduce in basement depth / remove basement.	TBC	Yes	1	4	4
Block B Works	Contiguous piled retaining wall	Impact on basement area footprint	Thickness of retaining structures reducing basement footprint size.	5	3	15	Reduce in basement depth / remove basement.	TBC	Yes	1	3	3
Block B Works	Contiguous piled retaining wall	Very restricted access onto the site for piling mat and piling operations	Project Viability / Programme risk / highway impact Damage to JW Wall	5	4	20	Reduce in basement depth / remove basement.	TBC	Yes	1	4	4
Block B Works	Facade retention of existing JW street wall	Concern over the basement wall due to the uncertainty if the current ground floor could be propping the basement wall which is currently unknown	Additional propping could be required depending on the arrangement	4	4	16	Early surveys. Removing the façade retention scheme will make propping easier due to less restrictions on space	TBC	Yes	2	4	8
Block B Works	Facade rebuild vs Propping to JW street	Robustness and longevity of JWS Wall if propped instead of rebuilt.	Despite the propping works, the wall in its current state will have a limited life that does not extend to that of the proposed RC Concrete Frame, walls and floors. Eventually it will degrade far quicker than the new interventions.	4	4	16	Rebuilding the wall allows it to be tied into the RC concrete frame more securely, allowing for enhanced detailing where we can reduce thermal bridging and enhance thermal insulation, all whilst retaining the original aesthetic and character of the wall, resulting in greater robustness and longevity in the life of the wall and building.	TBC	Yes	1	4	4
Block A works	Existing George Hotel	Existing buildings structural integrity, unclear where the original building has been changed / modified and any impact of this.	Project Viability / Programme risk / highway impact	4	4	16	Ensure structural surveys are completed to allow detailed temporary works and impact assessment can be done. Comprehensive T/Works design. Employ T/Works engineer.	TBC	Yes	2	4	8
Block A works	Existing George Hotel	Re use of floor joists and meeting of Acoustic and fire requirements.	Maintenance of door threshold and head levels. Levelness of floor. Inability to achieve acoustic and fire resistance requirements	4	4	16	Survey of existing. Localised replacement or reinforcement with new floor structure. Conservation - this could be achieved with either side strapping or secondary joists to a relevant char rating so as to retain all historic lime lath & plasterwork where reasonably practicable to do so.	TBC	Yes	3	4	12
Block A works	Existing George Hotel	Impact of ongoing works upon the existing structure	Damage to existing building / Project Viability programme	4	5	20	Ensure structural surveys are completed to allow detailed temporary works and impact assessment can be done. Comprehensive T/Works design. Employ T/Works engineer.	TBC	Yes	3	5	15
Block A works	Existing George Hotel	Lack of clarity on existing elements of the building that are to be retained. Skirtings, window reveals, ceilings etc.	Impact on Project Viability programme and expectation.	5	4	20	Comprehensive survey of existing and Schedule of re usable elements to be developed.	TBC	Yes	2	4	8
Block A works	Existing George Hotel	Completeness and acceptability of previously completed restoration works.	Impact on Project Viability programme and expectation.	4	3	12	Dilapidation survey. Handover documentation of preceding works.	TBC	Yes	2	3	6
Block A works	Existing George Hotel	Impact of the works upon the existing. cracks / damage etc	Impact on Project Viability programme and expectation.	4	3	12	Dilapidation survey. Handover documentation of preceding works.	TBC	Yes	2	3	6
Block A works	Existing George Hotel	Maintaining a weather protection to the existing building, avoid water manage	Project Viability / Programme risk / Quality	4	4	16	Develop Water management plan	TBC	Yes	2	4	8
Site Wide works		Inability to agree highway access strategy with KLC. Imposed constraints	Impact on Project Viability and timing of the works	3	5	15	Early engagement and planning	TBC	Yes	1	5	5
Site Wide works		Inability to agree BAPA with NR, or unworkable imposed constraints	Impact on Project Viability and timing of the works	3	5	15	Early engagement and planning	TBC	Yes	1	5	5
Site Wide works		Access restrictions brought about by the Rail upgrade works.	Impact on Project Viability and timing of the works	3	5	15	Early engagement and planning	TBC	Yes	1	5	5
Network Rail Wall	Underpinning of Network rail Elv retaining wall	Structural stability of existing wall and its foundations. Impact of previous underpinning operation's.	Collapse / rebuild Project Viability / H&S / Programme	3	5	15	Reduce in basement depth / remove basement	TBC	Yes	1	5	5
Network Rail Wall	Underpinning of Network rail Elv retaining wall	Ground conditions directly behind wall unknown.	Additional SI required.	4	5	20	Reduce / remove need for Ground Anchor system	TBC	Yes	2	5	10
Network Rail Wall	Underpinning of Network rail Elv retaining wall	Obstruction impacting on Ground anchor operations	Delay in operations. Inability to achieve loadings	4	4	16	Reduce / remove need for Ground Anchor system	TBC	Yes	2	4	8
Network Rail Wall	Underpinning of Network rail Elv retaining wall	Inability to reach agreement with NR	Delay in works	3	5	15	Reduce / remove need for Ground Anchor system	TBC	Yes	1	5	5
Network Rail Wall	Underpinning of Network rail Elv retaining wall	Sequencing of demolition works to enable Ground anchor installation.	Slowed demolition and significant temporary support for the rig	4	4	16	Reduce / remove need for Ground Anchor system	TBC	Yes	2	4	8
Key		High Risk 20-25 score										
		Medium High Risk 15 - 20 score										
		Medium Risk - 10-15 Score										
		Low Risk 0-10 Score										