

17 SUMMARY OF MITIGATION & RESIDUAL EFFECTS

17.1 INTRODUCTION

This chapter of the ES provides a summary of the mitigation measures recommended and the final residual effects of the proposed development.

17.2 MITIGATION MEASURES SUMMARY

Table 17.1 presents the collated mitigation measures recommended throughout the ES for reference purposes.

These are typically identified as being secured via planning condition or Section 106 obligation.

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

Table 17.1
Mitigation Measures Summary

TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Transport	Construction	Severance, pedestrian delay, pedestrian amenity, driver delay, road safety	<u>Construction Environmental Management Plan (CEMP)</u> Prior to construction commencing, a CEMP will be submitted to LCC for approval. This will contain a range of measures to reduce the traffic impact of the construction of the development. A draft version of the measures that will be employed at the site to reduce transport impacts, and which will be included within the CEMP in due course, are provided in Chapter 4 Construction Strategy and CEMP. These measures include: <ul style="list-style-type: none">Construction Travel PlanConstruction workers to be encouraged to use public transport, walking and cycling wherever possible and discouraged from parking in nearby streets.Remote car parks to be used by construction workers who choose to drive.Designated HGV access routes so that HGVs do not adversely impact the most sensitive areas. Where appropriate, the CEMP will identify temporary traffic management measures which can be deployed on the local road network to mitigate impact, this can include temporary signalised pedestrian crossing points.	Planning Condition
Transport	Operation	Severance, pedestrian delay, pedestrian amenity, driver delay, road safety	<u>Travel Plan</u> Within a defined period following occupation, a staff and residents travel plan will be agreed with LCC which contains a series of measures to encourage the sustainable travel of staff and residents of the proposed development. The measures will seek to reduce travel by single occupancy vehicles and encourage sustainable travel where practical.	Planning Condition
Transport	Operation	Severance, pedestrian delay, pedestrian amenity, road safety.	New pedestrian crossing points connecting the site to the existing pedestrian and cycle network. The Transport Assessment identifies a number of potential new crossing point locations. Following planning permission, new crossing points will be provided as the phased development is built out, following the approval of subsequent Reserved Matters submissions.	Planning Condition / Section 278
Transport	Operation	Road Safety	All new road junctions, pedestrian and vehicle routes will be subject to safety audit both in the design and operation stages.	S278
Air Quality	Construction	Dust associated with demolition, construction, earthworks and trackout	Mitigation within Section 7.1 (Appendix 8.1, ES Vol III) to be incorporated into Construction and Environmental Management Plan (CEMP)	Planning condition
Noise & Vibration	Construction	Noise associated with demolition and other construction works on sensitive receptors surrounding the proposed development site during the construction phase.	Best practice noise mitigation techniques, set out in full in Appendix C of Appendix 9.1, ES Vol III, to be incorporated into the CEMP. 2.4m solid hoarding to be erected around the site boundary.	CEMP, secured by planning condition
Noise & Vibration	Operation — Building Services Plant	Potential noise breakout from Building Services Plant	Noise emission limits in relation to breakout from building services plant has been specified at 64.9 dB(A) at 1m or 55.3 dB(A) at 3m during the daytime, and 59.5 dB(A) at 1m or 49.9 dB(A) at 3m during the night-time, to achieve levels at least 10 dB below background noise levels.	Secured by planning condition, built into the scheme upon construction

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TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Noise & Vibration	Operation – Proposed Sensitive Receptors at the application site	Noise intrusion from surrounding existing sources, primarily from road traffic noise surrounding the proposed development site	<p>Residential spaces on façades which are exposed to Walton Lane to the south of the site will feature enhanced glazing with a specification of $R_w + C_{tr}$ 37 dB and an alternative means of ventilation which matches the performance of this glazing. This can be provided in several ways from acoustic trickle vents (which need to have a minimum sound reduction equal to or greater than the glazing) to other passive and mechanical ventilation systems. All other façades will feature standard double glazing with a sound reduction of up to $R_w + C_{tr}$ 33 dB. Alternative ventilation will be required for façades adjacent to the surrounding road network.</p> <p>Internal noise levels within proposed indicative educational spaces (Plot F) are expected to meet internal noise criteria assuming a windows-closed scenario, featuring standard double glazing with a sound reduction of $R_w + C_{tr}$ 33 dB. Façades adjacent to the road network will require an alternative means of ventilation which can be provided in several ways from acoustic trickle vents (which need to have a minimum sound reduction equal to or greater than the glazing) to other passive and mechanical ventilation systems.</p> <p>Internal noise levels within the proposed indicative employment spaces (Plot A) are expected to meet internal noise criteria assuming a windows-closed scenario, featuring standard double glazing with a sound reduction of $R_w + C_{tr}$ 33 dB. Façades adjacent to the road network will require an alternative means of ventilation which can be provided in several ways from acoustic trickle vents (which need to have a minimum sound reduction equal to or greater than the glazing) to other passive and mechanical ventilation systems.</p>	Glazing and ventilation strategy secured by planning condition
Townscape & Visual	Operation	Landscape and visual effects	The DAS Addendum includes a series of development Plot Briefs. This provides additional design guidance to aid the successful delivery of Reserved Matters planning applications in the future and to ensure that the design of the proposed development is high quality and cohesive and that it reflects its character and setting.	Planning condition to secure compliance of the future Reserved Matters submissions with the Plot Briefs submitted.
Built Heritage	Operation	Further retention of the historic/cultural value of the existing site use	Potential retention of the pitch centre spot, or a representation of it, in the central space at the centre of the application site. Landscaping details to further emphasise the position of the pitch within the site.	Landscaping details to be confirmed at reserved matters stage
Built Heritage	Operation	Enhanced architectural quality	A Site Specific Design Code to ensure that new development on the site is high quality, cohesive and reflects its character and setting.	Planning condition to secure compliance with the Site Specific Design Code established in the Design & Access Statement Addendum.
Ground Conditions	Construction	Construction workers coming into contact with potentially contaminated materials on site	Implementation of good health and safety working practices and appropriate PPE.	CEMP secured by planning condition.
Ground Conditions	Construction	Adjacent properties and land users coming into contact with soil or contaminated materials (if present) from on-site	<p>Implementation of good construction practices and dust suppression during the construction phase, as per the following:</p> <ul style="list-style-type: none">■ Contaminated soils stockpiled in suitable skips or bunded areas;■ Dampening down of material;■ Vehicle washing;■ Designated site haulage routes; and,■ Dust monitoring and covering of exposed work faces. <p>These measures will be included within the CEMP in due course.</p>	CEMP secured by planning condition.
Ground Conditions	Construction	Adjacent properties and land users – Stanley Park coming into contact with soil or contaminated materials (if present) from on-site	<p>Implementation of good construction practices and dust suppression during the construction phase, as per the following:</p> <ul style="list-style-type: none">■ Contaminated soils stockpiled in suitable skips or bunded areas;■ Dampening down of material;■ Vehicle washing;■ Designated site haulage routes; and,■ Dust monitoring and covering of exposed work faces. <p>These measures will be included within the CEMP in due course.</p>	CEMP secured by planning condition.

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TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Ground Conditions	Construction	Infiltration and migration of contamination (if present) to Principal Aquifer beneath site	<p>Following demolition of existing structures on site, a ground investigation, including ground water monitoring will be undertaken to more fully understand the ground conditions beneath the site and the risk assessment for effects on the Principal Aquifer will be refined (including possible piling risk assessment). Should the results of the refined risk assessment indicate that remediation is necessary, a remediation strategy will be prepared and submitted to LCC for approval. Once approved, the contamination source (if present) would be removed in accordance with the agreed strategy.</p> <p>The following environmental controls will also be implemented on-site during the construction phase (and included within the CEMP):</p> <ul style="list-style-type: none">control of water encountered — i.e. runoff collected and disposed of appropriately;Minimise stockpiling of material — place material in skip or bunded areas; and,Minimise infiltration where possible — place contaminated material in segregated areas of site, within skip or bunds.	Ground investigation, possible Remediation Strategy and CEMP to be secured by planning condition.
Ground Conditions	Construction	Infiltration and migration of contamination (if present) to lake within Stanley Park	<p>Following demolition of existing structures on site, a ground investigation, including groundwater monitoring will be undertaken to more fully understand the ground conditions beneath the site and the risk assessment for effects on the lake within Stanley Park will be refined. Should the results of the refined risk assessment indicate that remediation is necessary, a remediation strategy will be prepared and submitted to LCC for approval. Once approved, the contaminated source (if present) would be removed in accordance with the agreed strategy.</p> <p>The following environmental controls will also be implemented on-site during the construction phase (and included within the CEMP):</p> <ul style="list-style-type: none">Control of water encountered — i.e. runoff collected and disposed of appropriately;Minimise stockpiling of material — place material in skip or bunded areas; and,Minimise infiltration where possible — place contaminated material in segregated areas of site, within skip or bunds.	Ground investigation, possible Remediation Strategy and CEMP to be secured by planning condition.
Ground Conditions	Operation	Future site users coming into contact with potentially contaminated soil	<p>Following the construction phase, which will include a ground investigation and possible remediation in order to refine the risks from contamination at the site, validation of such works may be required to ensure compliance with the agreed strategy. A validation report (if required) will be prepared and submitted to the LCC for approval.</p> <p>In soft landscaped areas, if required (based on the results of the refined risk assessment), importation of suitably clean material and marker layer would be placed over impacted material on-site.</p>	Potential requirement for a Validation Report to be secured by planning condition.
Ground Conditions	Operation	Ground gas/vapour build up in buildings to affect future site users	<p>As part of the ground investigation, ground gas monitoring will be undertaken following demolition of the structures on site to refine the risk to future site users posed by ground gas/vapour build up. Should the results indicate a risk to future site users then either source removal or ground gas mitigation measures may be installed in buildings. If required, the works will follow an approved Remediation Strategy, which will be validated and reported in a Validation Report or Gas Verification Plan which may be submitted to LCC for approval.</p>	Potential requirement for a Validation Report or Gas Verification Plan to be secured by condition.
Ground Conditions	Operation	Infiltration and migration of contamination (if present) to Principal Aquifer beneath site	<p>Following demolition of existing structures on site and following a ground investigation (including ground water monitoring) to fully understand the ground conditions beneath the site and the effects on the Aquifer, if necessary, a Remediation Strategy and piling risk assessment (if required) would have been prepared and submitted to the LCC for approval. During the operation phase, validation of these works would be carried out to ensure compliance with the approved strategy. If necessary, a Validation Report would be written which would be submitted to the LCC for approval.</p>	Potential requirement for Validation Report and Piling Risk Assessment secured by planning condition.
Ground Conditions	Operation	Infiltration and migration of contamination (if present) to lake within Stanley Park	<p>Following demolition of existing structures on site and following a ground investigation (including ground water monitoring) to fully understand the ground conditions beneath the site and the effects on the lake within Stanley Park, should remediation be required, a Remediation Strategy would have been prepared and submitted to the LCC for approval. During the operation phase, validation of these works would be carried out to ensure compliance with the approved strategy. If necessary, the Validation Report would be submitted to the LCC for approval.</p>	Potential requirement for Validation Report to be secured by planning condition.
Ground Conditions	Operation	Loss of flora following uptake of contaminants (if present)	<p>Following demolition of existing structures on site and following a ground investigation to fully understand the ground conditions beneath the site and the effects on flora, should remediation be required, a Remediation Strategy would have been prepared and submitted to the LCC for approval. During the operation phase, validation of these works would be carried out to ensure compliance with the approved strategy. If necessary, the Validation Report would be submitted to LCC for approval.</p> <p>In soft landscaped areas, if required (based on the results of the refined risk assessment and Remediation Strategy), importation of suitably clean material for planting with marker layer would be placed over impacted material on-site.</p>	Potential requirement for Validation Report to be secured by planning condition.

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TECHNICAL AREA	PHASE	POSSIBLE EFFECT BEING MITIGATED	MITIGATION MEASURE	HOW SECURED / TRIGGER
Ground Conditions	Operation	Future Built Environment (below ground concrete and water supply pipelines)	<p>Following demolition of existing structures on site and following a ground investigation to fully understand the ground conditions beneath the site and the effects on the built environment, should remediation be required, a Remediation Strategy would have been prepared and submitted to the LCC for approval. During the operation phase, validation of these works would be carried out to ensure compliance with the approved strategy. If necessary, the Validation Report would be submitted to LCC for approval.</p> <p>If required, the Remediation Strategy will detail an appropriate concrete classification for the ground conditions and if necessary, water supply pipe work would also be upgraded.</p>	Potential requirement for Validation Report to be secured by planning condition.
Water Resources and Flooding	Construction	Increase in potable water demand	Given the essential use of water during the construction phase, it is not feasible to actively restrict water usage. Nevertheless, standard measures will be incorporated into the construction phase to limit potable water demand, use and wastage wherever practicable (i.e. ensure water supply connections are not leaking etc.). These measures will be formalised in the CEMP for the proposed development.	Planning condition
Water Resources and Flooding	Operation	Increase in potable water demand	Standard measures will be incorporated through the detailed design of the proposed development to reduce water use. Such measures will likely include installation of water efficient welfare devices, and landscaping and open space areas designed to be of low water use. Confirmation will also be sought from United Utilities to ascertain whether their existing infrastructure is sufficient to supply the proposed development, with any necessary off-site reinforcement works being undertaken as part of the construction phase.	Planning condition
Socio-economics	Operation	Increased demand for education facilities	As the small amount of primary aged children brought forward as a result of the proposed development would put more pressure on the future school capacity, the Applicant would enter into discussions with LCC and agree appropriate mitigation which is likely to comprise the Applicant making financial contributions which LCC would use to provide additional education capacity. This would be secured by means of an appropriately worded legal agreement. It should be noted that if one of the flexible uses on-site is developed as an education facility for children then this mitigation measure would not apply.	Financial contribution — Section 106 Agreement (if required)
Socio-economics	Operation	Increased demand for healthcare facilities	<p>As the small amount of residents brought forward as a result of the proposed development would put more pressure on the future healthcare capacity, the Applicant would enter into discussions with LCC and agree appropriate mitigation which is likely to comprise the Applicant making financial contributions which LCC would use to provide additional healthcare capacity. This would be secured by means of an appropriately worded legal agreement.</p> <p>It should be noted that if one of the flexible uses on-site is developed as a healthcare facility with GPs then this mitigation measure would not apply.</p>	Financial contribution — Section 106 Agreement (if required)
Socio-economics	Operation	Provision of open space & playspace	As the new residents and children associated with the proposed development would put more pressure on local open space and playspace facilities, the Applicant would enter into discussions with LCC and agree appropriate mitigation which is likely to comprise the Applicant making financial contributions which LCC would use to provide additional open space and playspace provision or alternatively the Applicant providing playspace within the site as part of the proposed development at reserved matters stage. This would be secured by means of an appropriately worded planning condition.	Planning Condition (or Section 106 Agreement if required)

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17.3 RESIDUAL EFFECTS SUMMARY

The residual effects are summarised in the following tables below:

- Proposed Development Scenario: **Table 17.2**; and
- Proposed Development + Cumulative Schemes Scenario: **Table 17.3**

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Table 17.2
Proposed Development Scenario - Summary of Residual Effects

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Transport	Construction	Gwladys Street/ Bullens Road/ Walton Lane/ Langham Street/ Spellow Lane/ Goodison Road/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of construction traffic on severance	Negligible	ADV	ST	D	T	R
Transport	Construction	Gwladys Street/ Bullens Road/ Walton Lane/ Langham Street/ Spellow Lane/ Goodison Road/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of construction traffic on Pedestrian Delay	Negligible	ADV	ST	D	T	R
Transport	Construction	Gwladys Street/ Bullens Road/ Walton Lane/ Langham Street/ Spellow Lane/ Goodison Road/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of construction traffic on Pedestrian Amenity	Negligible	ADV	ST	D	T	R
Transport	Construction	Walton Lane / Priory Road Signal Junction & Walton Lane / Spellow Lane / Langham Street Junction	Effects of construction traffic on Driver Delay	Negligible	ADV	ST	D	T	R
Transport	Construction	Gwladys Street/ Bullens Road / Langham Street/ Spellow Lane/ Goodison Road/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of construction traffic on Road Safety	Negligible	ADV	ST	D	T	R
Transport	Construction	Walton Lane North of Priory Road	Effects of construction traffic on Road Safety	Minor	ADV	ST	D	T	R
Transport	Operation	Gwladys Street/ Bullens Road/ Walton Lane/ Langham Street/ Spellow Lane/ Goodison Road/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of operation traffic on Severance	Negligible	ADV	LT	D	P	IRR
Transport	Operation	Gwladys Street/ Bullens Road/ Walton Lane/ Langham Street/ Spellow Lane/ Goodison Road/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of operation traffic on Pedestrian Delay	Negligible	ADV	LT	D	P	IRR
Transport	Operation	Gwladys Street/ Bullens Road/ Walton Lane/ Langham Street/ Spellow Lane/ Goodison Road/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of operation traffic on Pedestrian Amenity	Negligible	ADV	LT	D	P	IRR
Transport	Operation	Walton Lane / Priory Road Signal Junction & Walton Lane / Spellow Lane / Langham Street Junction	Effects of operation traffic on Driver Delay	Negligible	ADV	LT	D	T	IRR
Transport	Operation	Langham Street/ Andrew Street/ Nimrod Street/ City Road north & Walter Street	Effects of operation traffic on Road Safety	Negligible	ADV	LT	D	T	IRR

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TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Transport	Operation	Walton Lane North of Priory Road, Gwladys Street, Goodison Road South of Gwladys Street, Bullens Road North of site access, Spellow Lane West of Goodison Road.	Effects of operation traffic on Road Safety	Minor	ADV	LT	D	T	IRR
Air Quality	Construction	R1-R22 (Sensitive receptors and residential properties on surrounding roads and within the vicinity of the site) R23-R31 (Sensitive receptors located in Anfield Cemetery) and R32-R43 (Sensitive receptors located in Stanley Park)	Effects from dust associated with demolition, construction, earthworks and trackout on sensitive receptors	Negligible	ADV	ST	IND	T	R
Air Quality	Operation (Long Term NO ₂)	R1-R22 (Sensitive receptors and residential properties on surrounding roads and within the vicinity of the site) R23-R31 (Sensitive receptors located in Anfield Cemetery) and R32-R43 (Sensitive receptors located in Stanley Park)	Effects from NO ₂ associated with increased traffic flows on sensitive receptors	Negligible	ADV	LT	D	P	IRR
Air Quality	Operation (Long Term PM ₁₀)	R1-R22 (Sensitive receptors and residential properties on surrounding roads and within the vicinity of the site) R23-R31 (Sensitive receptors located in Anfield Cemetery) and R32-R43 (Sensitive receptors located in Stanley Park)	Effects from NO ₂ associated with increased traffic flows on sensitive receptors	Negligible	ADV	LT	D	P	IRR
Air Quality	Operation (Long Term PM _{2.5})	R1-R22 (Sensitive receptors and residential properties on surrounding roads and within the vicinity of the site) R23-R31 (Sensitive receptors located in Anfield Cemetery) and R32-R43 (Sensitive receptors located in Stanley Park)	Effects from NO ₂ associated with increased traffic flows on sensitive receptors	Negligible	ADV	LT	D	P	IRR
Noise & Vibration	Construction	R01-R10 (9, 29a and 41 Goodison Road , St Lukes C of E Church Goodison Road, 21, 63a, 105 Gwladys Street, Gwladys Street Community Primary and Nursery School, 2 Muriel Street, 1 Bullens Road) P01 (Proposed Multi-Storey Residential Development, Walton Lane (Planning Ref. 18F/1316)	Noise associated with demolition and construction works on sensitive receptors surrounding the proposed development site during the construction phase (including the cumulative effects of the proposed development alongside the proposed residential development on the adjacent site bounded by Walton Lane, Bullens Road, and Diana Street (Planning Ref. 18F/1316).	Minor	ADV	ST	IND	T	R
Noise & Vibration	Operation – Traffic (Short-term)	TR01-TR02 (161 Walton Lane, 56a Spellow Lane), TR04 (9 Goodison Road), TR06 (59 Andrew Street), TR08-TR11(71 Goodison Road, 1 Frodsham Street, 77a City Road & 20 City Road), TR14-TR16 (267, 293 & 333 Walton Lane)	Noise associated with increased vehicle movements	Minor	ADV	ST	D	P	IRR
Noise & Vibration	Operation – Traffic (Short-term)	TR05 (37 Goodison Road), TR07 (41 Nimrod Street), TR12-TR13 (63a Gwladys Street & 1 Bullens Road)	Noise associated with increased vehicle movements	Moderate	ADV	ST	D	P	IRR
Noise & Vibration	Operation – Traffic (Short-term)	TR03 (Spellow Lane Church, Spellow Lane)	Noise associated with increased vehicle movements	Negligible	ADV	ST	D	P	IRR

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				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Noise & Vibration	Operation — Traffic (Long-term)	TR01-TR02 (161 Walton Lane & 56a Spellow Lane), TR04-TR16 (9 Goodison Road, 37 Goodison Road, 59 Andrew Street, 41 Nimrod Street, 71 Goodison Road, 1 Frodshame Street, 77a City Road, 20 City Road, 267, 293 & 333 Walton Lane)	Noise associated with increased vehicle movements	Minor	ADV	LT	D	P	IRR
Noise & Vibration	Operation — Traffic (Long-term)	TR03 (Spellow Lane Church, Spellow Lane)	Noise associated with increased vehicle movements	Negligible	ADV	ST	D	P	IRR
Noise & Vibration	Operation — Building Services Plant	R01-R03 (9, 29a & 41 Goodison Road) R05-R10 (21, 63a & 105 Gwladys Street, Gwladys Street Community Primary and Nursery School, 2 Muriel Street and 1 Bullens Road) P01 (Proposed Multi-Storey Flats, Walton Lane)	Noise associated with proposed roof-mounted building services plant across the development	Minor	ADV	LT	D	P	IRR
Noise & Vibration	Operation — Building Services Plant	R04 (St Luke’s C of E Church, Goodison Road)	Noise associated with proposed roof-mounted building services plant across the development	Negligible	ADV	LT	D	P	IRR
Noise & Vibration	Operation — Proposed Sensitive Receptors at the Application Site	PR1-PR34 (All facades on Plots A-G)	Noise associated with the surrounding road network	Minor	ADV	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Salop Chapel, 62 Spellow Lane	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	67 Spellow Lane	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	5 Goodison Road	Effects on internal daylight levels	Moderate	ADV	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	7 Goodison Road	Effects on internal daylight levels	Moderate	ADV	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	9 Goodison Road	Effects on internal daylight levels	Moderate	ADV	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	11 Goodison Road	Effects on internal daylight levels	Minor	ADV	LT	D	P	IRR

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				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Daylight, Sunlight & Overshadowing	Operation	13 Goodison Road	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	15-17 (odds) Goodison Road	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	19-29 (odds) Goodison Road	Effects on internal daylight levels	Minor to Moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Winslow Hotel Public House	Effects on internal daylight levels	Minor to Moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	33A – 43 (odds) Goodison Road	Effects on internal daylight levels	Minor to Moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Church of St Luke the Evangelist	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Little Lukes Preschool	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	5-13 (odds) Gwladys Street	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	15-23 (odds) Gwladys Street	Effects on internal daylight levels	Negligible to Minor	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	25-33 (odds) Gwladys Street	Effects on internal daylight levels	Major	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	35-43 (odds) Gwladys Street	Effects on internal daylight levels	Major	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	45-53 (odds) Gwladys Street	Effects on internal daylight levels	Major	BEN	LT	D	P	IRR

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				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Daylight, Sunlight & Overshadowing	Operation	55-65 (odds) Gwladys Street	Effects on internal daylight levels	Negligible to Minor	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Gwladys Street Primary School	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	2 Muriel Street	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	1A, 3A & 5A Diana Street	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	1 Bullens Road, 2A & 4A Diana Street	Effects on internal daylight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Salop Chapel, 62 Spellow Lane	Effects on internal sunlight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	67 Spellow Lane	Effects on internal sunlight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	5 Goodison Road	Effects on internal sunlight levels	Negligible <i>(Retained values over 25% and 5%)</i>	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	7 Goodison Road	Effects on internal sunlight levels	Negligible <i>(Retained values over 25% and 5%)</i>	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	9 Goodison Road	Effects on internal sunlight levels	Negligible <i>(Retained values over 25% and 5%)</i>	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	11 Goodison Road	Effects on internal sunlight levels	Negligible <i>(Retained values over 25% and 5%)</i>	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	13 Goodison Road	Effects on internal sunlight levels	Negligible <i>(Retained values over 25% and 5%)</i>	NEU	LT	D	P	IRR

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				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Daylight, Sunlight & Overshadowing	Operation	5-17 (odds) Goodison Road	Effects on internal sunlight levels	Negligible <i>(Retained values over 25% and 5%)</i>	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	19-29 (odds) Goodison Road	Effects on internal sunlight levels	Minor to Moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Winslow Hotel Public House	Effects on internal sunlight levels	Major	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	33A – 43 (odds) Goodison Road	Effects on internal sunlight levels	Major	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Church of St Luke the Evangelist	Effects on internal sunlight levels	Minor to moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	Little Lukes Preschool	Effects on internal sunlight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	5-13 (odds) Gwladys Street	Effects on internal sunlight levels	Negligible to Minor	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	15-23 (odds) Gwladys Street	Effects on internal sunlight levels	Moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	25-33 (odds) Gwladys Street	Effects on internal sunlight levels	Moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	35-43 (odds) Gwladys Street	Effects on internal sunlight levels	Moderate to Major	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	45-53 (odds) Gwladys Street	Effects on internal sunlight levels	Moderate	BEN	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	55-65 (odds) Gwladys Street	Effects on internal sunlight levels	Minor to Moderate	BEN	LT	D	P	IRR

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Daylight, Sunlight & Overshadowing	Operation	Gwladys Street Primary School	Effects on internal sunlight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	2 Muriel Street	Effects on internal sunlight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	1A, 3A & 5A Diana Street	Effects on internal sunlight levels	Negligible	NEU	LT	D	P	IRR
Daylight, Sunlight & Overshadowing	Operation	1 Bullens Road, 2A & 4A Diana Street	Effects on internal sunlight levels	Negligible	NEU	LT	D	P	IRR
Townscape & Visual	Construction	Memorial plaques on site boundary walls either side of Walton Lane/Spellow Lane entrance gates and statue of Ralph ‘Dixie’ Dean	Effects on townscape character	No effect	NEU	ST	D	T	R
Townscape & Visual	Construction	Goodison Park stadium	Effects on townscape character	Major: Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	NCR 810	Effects on townscape character	Major: Significant (as immediately passes the site) Negligible - for the route as a whole	ADV	ST	D	T	R
Townscape & Visual	Construction	National Character Area 58: Merseyside Conurbation	Effects on townscape character	Negligible: Not Significant	NEU	ST	D	T	R
Townscape & Visual	Construction	Sports Ground Townscape Character Area	Effects on townscape character	Major: Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Grid Iron Terraces Townscape Character Area	Effects on townscape character	Moderate: Not Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Public Park and Cemetery Townscape Character Area	Effects on townscape character	Minor: Not Significant	ADV	ST	D	T	R
Townscape & Visual	Construction	Mixed Use Urban Townscape Character Area	Effects on townscape character	Negligible: Not Significant	NEU	ST	D	T	R
Townscape & Visual	Operation	Memorial plaques on site boundary walls either side of Walton Lane/Spellow Lane entrance gates and statue of Ralph ‘Dixie’ Dean	Effects on townscape character	No effect	NEU	LT	D	P	R
Townscape & Visual	Operation	Goodison Park stadium	Effects on townscape character	Major: Significant	ADV	LT	D	P	R
Townscape & Visual	Operation	NCR 810	Effects on townscape character	Major: Significant (as immediately passes the site) Negligible - for the route as a whole	BEN	LT	D	P	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation	National Character Area 58: Merseyside Conurbation	Effects on townscape character	Negligible: Not Significant	NEU	LT	D	P	R
Townscape & Visual	Operation	Sports Ground Townscape Character Area	Effects on townscape character	Moderate: Not Significant	BEN	LT	D	P	R
Townscape & Visual	Operation	Grid Iron Terraces Townscape Character Area	Effects on townscape character	Moderate: Not Significant	BEN	LT	D	P	R
Townscape & Visual	Operation	Public Park and Cemetery Townscape Character Area	Effects on townscape character	Minor: Not Significant	ADV	LT	D	P	R
Townscape & Visual	Operation	Mixed Use Urban Townscape Character Area	Effects on townscape character	Negligible: Not Significant	NEU	LT	D	P	R
Townscape & Visual	Construction	Viewpoint 01 Anfield Cemetery Parterre	Effects on view	Minor: Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 02 Ince Avenue	Effects on view	No effect – Pedestrians / Cyclists/ Road users Minor: Not Significant - Residential	NEU/ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 03 Stanley Park – Path junction	Effects on view	Minor: Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 04 Stanley Park – Formal Terrace	Effects on view	Moderate: Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 05 Walton Hall Park	Effects on view	No effect	NEU	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 06 Goodison Road	Effects on view	Moderate: Not Significant – Pedestrians/Cyclist Minor: Not Significant – Residential /Road Users	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 07 Walton Lane	Effects on view	Moderate: Not Significant – Pedestrians/Cyclists Minor: Not Significant – Residential /Road Users	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 08 Priory Road junction with Walton Lane	Effects on view	Pedestrians/Cyclists/ Cemetery visitors -Moderate: Significant Vehicular road users -Moderate : Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Viewpoint 09 Spellow Lane	Effects on view	Moderate: Significant - Pedestrians /Cyclists Minor: Not Significant – Residential / Road users	ADV	ST	IND	T	R

SUMMARY OF MITIGATION & RESIDUAL EFFECTS

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Construction	Viewpoint 10 Anfield Cemetery	Effects on view	Minor: Not Significant	ADV	ST	IND	T	R
Townscape & Visual	Construction	Residents within close proximity to the site on Goodison Road, Gwladys Street, Diana Street, and Bullens Road.	Effects on view	Major: Significant	ADV	ST	IND	T	R
Townscape & Visual	Operation	Viewpoint 01 Anfield Cemetery Parterre	Effects on view	Minor: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 02 Ince Avenue	Effects on view	Minor: Not Significant - Residential No effect – Pedestrians / Cyclists/ Road users	BEN/NEU	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 03 Stanley Park – Path junction	Effects on view	Minor: Not Significant	BEN	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 04 Stanley Park – Formal Terrace	Effects on view	Moderate: Not Significant	BEN	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 05 Walton Hall Park	Effects on view	No effect	NEU	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 06 Goodison Road	Effects on view	Moderate: Not Significant – Pedestrians /Cyclist Minor: Not Significant – Residential/ Road Users	BEN	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 07 Walton Lane	Effects on view	Moderate: Not Significant – Pedestrians /Cyclists Minor: Not Significant – Residential/ Road Users	BEN	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 08 Priory Road junction with Walton Lane	Effects on view	Pedestrians /Cyclists / Cemetery visitors - Moderate: Not Significant Vehicular road users - Moderate: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 09 Spellow Lane	Effects on view	Moderate: Not Significant - Pedestrians /Cyclists Moderate: Not Significant – Residential / Road users	ADV	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 10 Anfield Cemetery	Effects on view	Minor: Not Significant	BEN	LT	IND	P	R
Townscape & Visual	Operation	Residents within close proximity to the site on Goodison Road, Gwladys Street, Diana Street, and Bullens Road.	Effects on view	Major : Significant	BEN	LT	IND	P	R

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TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Built Heritage	Construction	Goodison Park Stadium: HER No. MME17858	Removal of the existing stadium but retention of some existing historic/cultural assets on site	Minor	ADV	LT	D	P	IRR
Built Heritage	Operation	Stanley Park: Grade II* List Entry Number 1001000	Effects on the setting of the heritage asset.	Minor	BEN	LT	IND	P	IRR
Built Heritage	Operation	Bridge Over Lake: Grade II List Entry Number 1359844	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Shelter to South East of Lake: Grade II List Entry Number 1218067	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Bridge at East End of Lake: Grade II List Entry Number: 1292166	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Bridge at North East End of Lake: Grade II List Entry Number: 1063333	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Bridge to North West of Pavilion to East of Lake: Grade II List Entry Number 1063297	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Boathouse on east side of Lake: Grade II List Entry Number 1292134	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Bridge to East of Pavilion: Grade II List Entry Number 1063334	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Bandstand in front of Conservatory: Grade II List Entry Number 1292149	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Conservatory: Grade II List Entry Number 1359843	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Lodge on Anfield Road: Grade II List Entry Number 1063332	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Pavilion at West End of Main Section of Screen Wall: Grade II List Entry Number 1218013	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Terrace to North of Screen Wall: Grade II List Entry Number 1218028	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Pavilion at East End of Main Section of Screen Wall: Grade II List Entry Number 1063330	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Screen Wall: Grade II List Entry Number 1359842	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Shelter at East End of Park: Grade II List Entry Number 1063298	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Anfield Cemetery Grade II* List Entry Number 1000993	Effects on the setting of the heritage asset.	Minor	BEN	LT	IND	P	IRR
Built Heritage	Operation	No.302, Lodge to Anfield Cemetery: Grade II List Entry Number 1062568	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR

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TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Built Heritage	Operation	No. 242, Lodge to Anfield Cemetery: Grade II List Entry Number 1365823	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Main Entrance to Anfield Cemetery: Grade II List Entry Number 1025284	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Lansdown House: Grade II List Entry Number 1072971	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Priory Road Entrance to Anfield Cemetery: Grade II List Entry Number 1365824	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	No.238, Lodge to Anfield Cemetery: Grade II List Entry Number 1025267	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Crematorium at Anfield Cemetery: Grade II List Entry Number 1072972	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	South Chapel: Grade II List Entry Number 1356295	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	South Catacomb: Grade II List Entry Number 10668391	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	McClennan Monument to North West of crossing of Main Paths: Grade II List Entry Number 1205269	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	North catacomb: Grade II List Entry Number 1068390	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Walton Lane Entrance to Anfield Cemetery: Grade II List Entry Number 1062570	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	No. 304, Lodge to Anfield Cemetery: Grade II List Entry Number 1062569	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Cherry Lane Entrance to Anfield Cemetery: Grade II List Entry Number 1280396	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Milepost on corner of Tetlow Street: Grade II List Entry Number 1062571	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Church of St Luke the Evangelist: HER No. MME16142	Effects on the setting of the heritage asset.	Minor	BEN	LT	IND	P	IRR
Built Heritage	Operation	No.38 City Road: HER No. MME15242	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	Spellow Lane Church: HER No. MME18435	Effects on the setting of the heritage asset.	Negligible	BEN	LT	IND	P	IRR
Built Heritage	Operation	87 Langham Street	Effects on the setting of the heritage asset.	Minor	BEN	LT	IND	P	IRR
Built Heritage	Operation	Salop Chapel: HER No. MME19234	Effects on the setting of the heritage asset.	Minor	BEN	LT	IND	P	IRR

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TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Ground Conditions	Construction	Adjacent Properties/Land Users (including Stanley Park)	Potential during earthworks for the creation of preferential pathways for on-site contaminants (if present) to migrate off-site to adjacent properties and land users.	Negligible	ADV	ST	IND	P	IRR
Ground Conditions	Construction	Construction Workers/ Maintenance Workers	Potential for construction workers to come into contact with contaminated soils (if present) during earthworks.	Negligible	ADV	ST	D	T	IRR
Ground Conditions	Construction	Principal Aquifer	Potential for contaminant (if present) infiltration and migration to the Principal Aquifer.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Construction	Surface Waters (lake - Stanley Park)	Potential for contaminant (if present) infiltration and migration to this receptor.	Negligible	ADV	ST	IND	T	R
Ground Conditions	Operation	Future Site Users	Potential for future site users to come into contact with contaminants (if present) via direct/indirect ingestion, inhalation and / or dermal contact.	Negligible	BEN	LT	D	P	IRR
Ground Conditions	Operation	Future Site Users/Buildings	Potential for ground gas / vapour to build up and migrate into the proposed buildings.	Negligible	BEN	LT	IND	P	IRR
Ground Conditions	Operation	Principal Aquifer	Potential for increased infiltration and migration to the Principal Aquifer via preferential pathways.	Negligible	BEN	LT	IND	T	R
Ground Conditions	Operation	Surface Waters (lake - Stanley Park)	Potential for increased infiltration and migration to the receptor via preferential pathways.	Negligible	BEN	LT	IND	T	R
Ground Conditions	Operation	Flora	Potential for uptake of contaminants (if present) by newly introduced flora at the site.	Negligible	BEN	LT	D	P	IRR
Ground Conditions	Operation	Future Built Environment	Potential for contamination (if present) to affect below ground concrete (sulphate attack) and for hydrocarbons to penetrate water supply pipelines.	Negligible	BEN	LT	D	P	IRR
Water Resources & Flood Risk	Construction	Flood risk at the application site	The application site is located within Flood Zone 1 and at low risk of flooding from all other sources assessed. As such, construction activities, such as the mounding of materials and placement of other structures, are not anticipated to occur within areas identified as being at risk of flooding and therefore there will be no loss of floodplain storage and/or the alteration of overland flow characteristics / routes. The flood risk posed to the application site and in the surrounding area is not expected to change as a result of the construction of the proposed development therefore no significant effects are anticipated.	Negligible	No impact	-	-	-	-
Water Resources & Flood Risk	Construction	Surface water drainage at the application site	Given the existing developed nature of the application site, construction activities will not alter the amount of impermeable surfacing across the application site, and therefore no significant alteration in the rate and/or volume of surface water runoff is anticipated. Furthermore, as confirmed in the Construction Strategy (Chapter 4 of this ES Volume), the main drainage and sewer system, including SuDS, will be installed early in the construction works and all construction works on site will be undertaken in accordance with Best Practice, as governed by a Construction Environmental Management Plan (CEMP). Overall, the change to the capacity of the receiving environment (i.e. public sewer) is expected to be small, therefore no significant effects are anticipated.	Negligible	No impact	-	-	-	-

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TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Water Resources & Flood Risk	Construction	Foul water drainage at the application site	There will be a peak of approximately 100 operatives and 20 staff on site, including subcontractors during demolition / site preparation and construction, the duration of which is expected to be 4 years 2 months. Foul discharges will be limited to ‘standard’ construction activities and associated welfare facilities. Compared to the baseline peak foul flow, which peaks and falls based on the stadium use and capacity, the peak foul flow during construction will increase. However, the change to the capacity of the receiving environment (i.e. public sewer) is expected to be small, therefore no significant effects are anticipated.	Negligible	No impact	-	-	-	-
Water Resources & Flood Risk	Construction	Potable water demand at the application site	With the implementation of the proposed mitigation, the magnitude of effect is expected to reduce to small, still resulting in a negligible effect.	Negligible	No impact	-	-	-	-
Water Resources & Flood Risk	Operation	Flood risk at the application site	The application site is located within Flood Zone 1, and at low risk of flooding from all other sources assessed. As such, operational activities, such as the placement of proposed structures and buildings, are not anticipated to occur within areas identified as being at risk of flooding and therefore there will be no loss of floodplain storage and/or the alteration of overland flow characteristics / routes. The flood risk posed to the application site and in the surrounding area is not expected to change as a result of the operation of the proposed development therefore no significant effects are anticipated.	Negligible	No impact	-	-	-	-
Water Resources & Flood Risk	Operation	Surface water drainage at the application site	Surface water runoff from the developed site will be managed on site and discharged at a controlled rate to the public sewer network, which offers a significant betterment from the existing drainage arrangements. The inclusion of SuDS elements within the surface water drainage strategy provides adequate treatment of surface water, thereby mitigating the potential impact on surface water and groundwater quality. As such, there is expected to be a substantial beneficial alteration to the capacity of the receiving environment (i.e. public sewer) as a result of the proposed ‘design intervention’.	Minor	BEN	LT	D	P	R
Water Resources & Flood Risk	Operation	Foul water drainage at the application site	Whilst the occupation and use of the proposed development will increase the rate and volume of foul water generated within the application site, no significant impact is anticipated based on the new foul water drainage system ‘design intervention’. This is designed to manage and discharge foul water in accordance with current guidance, thereby ensuring the capacity of the receiving sewer network is not exceeded and human health, including that of future application site occupants, and the general population within the study area, is not adversely impacted.	Negligible	No impact	-	-	-	-
Water Resources & Flood Risk	Operation	Potable water demand at the application site	With the implementation of the proposed mitigation, the magnitude of effect is expected to reduce to small, still resulting in a negligible effect.	Negligible	No impact	-	-	-	-
Socio-economics	Construction	Labour Market & Employment	Generation of construction employment	Moderate	BEN	ST	D	T	R
Socio-economics	Construction	Labour Market & Skills	Generation of training and apprenticeship opportunities	Minor	BEN	ST	D	T	R
Socio-economics	Construction	Local Economy	Generation of GVA	Moderate	BEN	ST	D	T	R

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TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Socio-economics	Operation	Labour Market & Employment	Generation of operational employment	Minor	BEN	LT	D	P	R
Socio-economics	Operation	Labour Market & Employment	Generation of GVA	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional household income	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional expenditure	Minor	BEN	LT	D	P	R
Socio-economics	Operation	Local Community	Generation of societal value	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Community	Provision of new housing	Minor	BEN	LT	D	P	R
Socio-economics	Operation	Local Social Infrastructure	Increased demand for education facilities	Minor	BEN	LT	D	P	R
Socio-economics	Operation	Local Social Infrastructure	Increased demand for healthcare facilities	Minor	BEN	LT	D	P	R
Socio-economics	Operation	Local Social Infrastructure	Provision of open space and playspace	Minor	BEN	LT	D	P	R
Key: ADV/BEN = Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									

Table 17.3
Proposed Development + Cumulative Schemes Scenario: Summary of Residual Effects

TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Transport	Effects remain as reported in Table 17.2								
Air Quality	Effects remain as reported in Table 17.2								
Noise & Vibration	Effects remain as reported in Table 17.2								
Daylight, Sunlight & Overshadowing	Effects remain as reported in Table 17.2								
Townscape & Visual	Operation	NCR 810	Effects on townscape character	Negligible: Not Significant	NEU	LT	IND	P	R
Townscape & Visual	Operation	Sports Ground Townscape Character Area	Effects on townscape character	Moderate: Not Significant	BEN	LT	D	P	R
Townscape & Visual	Operation	Grid Iron Terraces Townscape Character Area	Effects on townscape character	Minor: Not Significant	ADV	LT	IND	P	R
Townscape & Visual	Operation	Viewpoint 08 Priory Road junction with Walton Lane	Effects on viewpoint	Moderate: Not Significant	ADV	LT	IND	P	R

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TECHNICAL AREA	PHASE	RECEPTOR	RESIDUAL IMPACT	RESIDUAL EFFECT					
				SIGNIFICANCE	ADV/BEN/NEU	ST/MT/LT	D/IND	P/T	R/IRR
Townscape & Visual	Operation	Viewpoint 09 Spellow Lane	Effects on viewpoint	Negligible: Not Significant	NEU	LT	IND	P	R
Townscape & Visual	Operation	Residents within close proximity to the site on Goodison Road, Gwladys Street, Diana Street, and Bullens Road.	Effects on viewpoint	Minor: Not Significant	BEN	LT	IND	P	R
Built Heritage	Effects remain as reported in Table 17.2								
Ground Conditions	Effects remain as reported in Table 17.2								
Water Resources	Effects remain as reported in Table 17.2								
Socio-economics	Construction	Labour Market & Employment	Generation of construction employment	Major	BEN	ST	D	T	R
Socio-economics	Construction	Labour Market & Skills	Generation of training and apprenticeship opportunities	Moderate	BEN	ST	D	T	R
Socio-economics	Construction	Local Economy	Generation of GVA	Major	BEN	ST	D	T	R
Socio-economics	Operation	Labour Market & Employment	Generation of operational employment	Major	BEN	LT	D	P	R
Socio-economics	Operation	Labour Market & Employment	Generation of GVA	Major	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional wage/household income	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Economy	Generation of additional expenditure	Major	BEN	LT	D	P	R
Socio-economics	Operation	Local Community	Generation of societal value	Major	BEN	LT	D	P	R
Socio-economics	Operation	Housing	In regards to Ten Streets, it is considered the additional 706 new homes would result in a Moderate Beneficial effect.	Moderate	BEN	LT	D	P	R
Socio-economics	Operation	Local Social Infrastructure	In regards to Ten Streets, it is assumed that the additional 1,700 residents putting further pressure on the education facilities, healthcare facilities and open space and playspace would be mitigated accordingly through the scheme. This would therefore remain a Minor Beneficial effect.	Minor	BEN	LT	D	P	R
Key: ADV/BEN = Adverse/Beneficial; ST/MT/LT = Short-term/Medium-term/Long-term; D/IND = Direct/Indirect; P/T = Permanent/Temporary; R/IRR = Reversible/Irreversible									

17.4 LIKELY SIGNIFICANT EFFECTS

17.4.1 Likely Significant Scenarios

17.4.1.1 Construction Phase

Following implementation of mitigation measures, the proposed development would produce the following likely significant environmental effects during construction:

- Effects on townscape character of Goodison Park stadium– **Major Adverse**;
- Effects on townscape character of NCR 810 as it immediately passes the site and Sport Ground Townscape Character Area- **Major Adverse**;
- Effects on Viewpoints 08 Priory Road junction with Walton Lane by Pedestrians /Cyclists / Cemetery visitors and Viewpoint 09 Spellow Lane by Pedestrians /Cyclists – **Moderate Adverse**;
- Effects on Viewpoints of residents within close proximity to the site on Goodison Road, Gwladys Street, Diana Street and Bullens Street– **Major Adverse**;
- Generation of construction employment- **Moderate Beneficial**; and
- Generation of GVA- **Moderate Beneficial**;

17.4.1.2 Operational Phase

Following implementation of mitigation measures, the proposed development would produce the following likely significant environmental effects during operation:

- Noise effects on receptors TR05 (37 Goodison Road), TR07 (41 Nimrod Street), TR12-TR13 (63a Gwladys Street- 1 Bullens Road) (short-term 2023 and 2028) associated with increased vehicle movements – **Moderate Adverse**;
- Internal daylight effects on 5, 7, 9 Goodison Road – **Moderate Adverse**;
- Internal daylight effects on Winslow Hotel Public House, 19-29 (odds) & 33A – 43 (odds) Goodison Road – **Minor to Moderate Beneficial**;
- Internal daylight effects on 25-33 (odds) Gwladys Street, 35-43 (odds) Gwladys Street and 45-53 (odds) Gwladys Street– **Major Beneficial**;
- Sunlight effects on 19-29 (odds) Goodison Road – **Minor to Moderate Beneficial**;
- Sunlight effects on Winslow Hotel Public House and 33A – 43 (odds) Goodison Road- **Major Beneficial**;
- Sunlight effects on 15-23 (odds), 25-33 (odds), 45-53 (odds) - **Moderate Beneficial**;
- Sunlight effects on 55-65 (odds) Gwladys Street and Church of St Luke the Evangelist – **Minor to Moderate Beneficial**;

- Sunlight effects on 35-43 (odds) Gwladys Street – **Moderate to Major Beneficial**;
- Effects on townscape character of Goodison Park stadium– **Major Adverse**;
- Effects on townscape character of NCR 810 as it immediately passes the site - **Major Beneficial**;
- Effects on Viewpoints of residents within close proximity to the site on Goodison Road, Gwladys Street, Diana Street and Bullens Street– **Major Beneficial**;
- Generation of GVA- **Moderate Beneficial**;
- Generation of additional household income- **Moderate Beneficial**; and
- Generation of societal value- **Moderate Beneficial**.

17.4.2 Proposed Development + Cumulative Schemes Scenario

17.4.2.1 Construction Phase

Following implementation of mitigation measures, the following changes to the likely significant environmental effects of the proposed development, as a result of the interaction of the development with the cumulative schemes, are anticipated during the construction phase:

- Generation of construction employment and GVA- **Major Beneficial** (assessed as Moderate Beneficial under Proposed Development Scenario); and
- Generation of training and apprenticeship opportunities- **Moderate Beneficial** (assessed as Minor Beneficial under Proposed Development Scenario).

17.4.2.2 Operational Phase

Following implementation of mitigation measures, the following changes to the likely significant environmental effects of the proposed development, as a result of the interaction of the development with the cumulative schemes, are anticipated during the operational phase:

- Generation of operational employment and GVA - **Major Beneficial** (assessed as Minor Beneficial under Proposed Development Scenario);
- Generation of additional expenditure- **Major Beneficial** (assessed as Minor Beneficial under Proposed Development Scenario);
- Generation of societal value- **Major Beneficial** (assessed as Moderate Beneficial under Proposed Development Scenario); and
- Provision of new housing- **Moderate Beneficial** (assessed as Minor Beneficial under Proposed Development Scenario).