

April 2020



EXPANSION OF ANFIELD ROAD STAND, ANFIELD

D3/3 - Environmental Statement, Volume 3: Non-Technical Summary



Turley

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1. Introduction

- 1.1 This Environmental Statement (ES) is part of a suite of documents that support a detailed planning application for a new Anfield Road Stand, alongside an application for the permanent use of the whole stadium for events (hereafter collectively referred to as the 'Application') by Liverpool Football Club and Athletic Grounds Limited (the 'Applicant'). The proposals are hereafter referred to as the 'Proposed Scheme'.
- 1.2 The ES is one of the documents submitted in support of the Application and has the status of a material consideration during the determination of the Application by Liverpool City Council (LCC), who are the determining authority. The ES is the output of the Environmental Impact Assessment (EIA) process undertaken in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (SI 2017/571) (the 'EIA Regulations').
- 1.3 Under Regulation 26 of the EIA Regulations, the decision maker must integrate into the decision (as to whether the planning permission should be granted); their reasoned conclusions on the significant effects of the Proposed Scheme taking into account the information in the ES.
- 1.4 The ES is provided in three parts:
- **Volume 1: Main Text and Figures**, provides the results of the EIA which is divided into 'Chapters' and supported by a series of figures and technical appendices (see Volume 2 below);
 - **Volume 2: Technical Appendices**, encompasses a range of technical reports which have informed the technical assessment presented in **Volume 1: Main Text and Figures**; and
 - **Volume 3: Non-Technical Summary** (this volume), provides a summary of the ES in non-technical language to aid communication and understanding of the Proposed Scheme and the EIA process undertaken.
- 1.5 In line with Schedule 4, Paragraph 9 of the EIA Regulations, the ES should include a non-technical summary of the information presented within **Volume 1: Main Text and Figures**.
- 1.6 As defined in Planning Practice Guidance¹, the non-technical summary should be written in '*plain English*', so as to ensure that the findings reported in **Volume 1: Main Text and Figures** (and where applicable **Volume 2: Technical Appendices**) can be easily understood by non-experts (i.e. the general public).
- 1.7 Therefore, the information that is presented within this Volume is written in a non-technical language (as far as reasonably possible) and presents the main findings of the

¹ PPG, Paragraph 035, Reference ID: 4-035-20170728

assessments undertaken. This Volume should be read in conjunction with **Volumes 1** and **2** of the ES for further technical details.

1.8 This Volume has been structured as follows:

- The EIA Process that has been undertaken;
- The Site and Proposed Scheme, explaining the existing environment and the proposals for which planning consent is sought;
- Environmental Effects of the Proposed Scheme;
- Cumulative Effects, in terms of multiple effects across different topics and in combination with other projects proposed; and
- What Happens Next, which summarises the determination process of the application.

1.9 Given that the information presented within this Volume is a summary and non-technical in nature, at the beginning of each Section of this Volume, a reference is provided to the main text (**Volume 1**) and technical appendices (**Volume 2**) of the ES where a greater level of information is available (within the grey sections at the top of each section). Therefore, should the reader wish to read the technical documents or understand the conclusions presented in more detail, they are able to do so.

2. EIA Process

Volume 1: Main Text and Figures, Chapter 1: Introduction

Volume 1: Main Text and Figures, Chapter 2: Approach to EIA

- 2.1 The aim of Environmental Impact Assessment (EIA) is *'is to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process.'*²
- 2.2 EIA is a tool to support the response for approving projects and is concerned with the assessment of environmental impacts.
- 2.3 EIA comprises a series of steps, which are summarised in **Extract 1**. It should be noted that the first step (Screening) can be skipped and the second stage (Scoping) is voluntary.

Screening

Determination of whether the project falls within the remit of the Regulations and therefore requires an EIA. This is either determined by the testing of the project against criteria set out in the Regulations or an EIA Screening Opinion provided by the determining authority, unless the Applicant makes the decision to prepare an EIA in any case.

Scoping

When it has been determined that the project requires an EIA, the Applicant may request a Scoping Opinion from the determining authority, as to the 'scope' and the level of detail to be provided in the Environmental Statement.

Environmental Statement

The ES reports the assessment of 'likely significant effects' associated with the project so the determining authority has sufficient information to inform their determination of the planning application.

Extract 1 – Summary of EIA Process

- 2.4 Given the characteristics of the Proposed Scheme, the Applicant elected to undertake an EIA and proceed straight to EIA Scoping, rather than carry out the EIA Screening process.

² PPG, Paragraph 002, Reference ID: 4-002-20140306

Figure 3.1: Site Location Plan

Table 3.1: Summary of the Key Site Characteristics

Location and existing use	<p>The Site is located within the administrative boundary of Liverpool City Council (LCC), and extends to approximately 2.6 hectares (Figure 3.1). The Site comprises areas of hard standing at the Anfield Road Stand of Liverpool Football Club's (LFC's) Anfield Stadium, and is positioned as its northernmost stand. Directly to the south/south west of the Site lies the Stadium's football pitch and remaining stands. Skerries Road and Alroy Road are located the south east and west respectively. Stanley Park bounds the Site to the north, and is part of a wider expanse of open space, including Anfield Cemetery, extending to 101ha. The wider area surrounding the Site is predominantly of residential use, alongside commercial and community facilities. The city centre of Liverpool is approximately 2.5km to the south west of the Site.</p>
Connections and access	<p>Several streets surrounding the Stadium have movement restricted to one direction, with Alroy Road (southbound onto Gilman Street), Skerries Road (southbound), Wylfa Road (northbound) and Arkles Lane (southbound). There is a Temporary Traffic Regulation Order (TTRO) – the LCC controlled Football Match Parking Zone (FMPZ) – currently operating between 1 August and 31 May, which required the display of residents and visitors parking permits. Bus routes service the Site via stops outside of the Kop Stand. The nearest railway station is Sandhills, located approximately 2.2km/26 minute walk from the Site, which offers services to Northern Line destinations (Southport, Ormskirk and Kirby), and services operating via Liverpool Central in the city centre. Car parking is available via Stanley Park car park to the north of the Site, and three private car park operated by LFC; the first being between Anfield Road and Stanley Park; the second outside the Sir Kenny Dalglish stand; and the third on the corner of Priory Road and Utting Avenue. In total these car parks provide 1,944 parking spaces, including 73 disabled spaces.</p>
Designations	<p>The Site is located near to the following designations:</p> <ul style="list-style-type: none">• Liverpool – Maritime Mercantile City World Heritage Site (2.6km west);• Mersey Narrows & North Wirral Foreshore Ramsar Site (6.2km north west);• Mersey Estuary Ramsar Site (7km south east);• Liverpool Bay Special Protection Area (marine) (3.2km west);• Mersey Narrows Site of Special Scientific Interest (SSSI) (4.2km west);• North Wirral Foreshore SSSI (5.3km north west);• New Ferry SSSI (6.8km south);• Croxteth Local Nature Reserve (LNR) (4.7km east);• Brook Vale LNR (5.2km north east);• Childwall Woods & Fields (6.9km south east);• Wild Bird General License Exclusion Zone (2.9km west);

	<ul style="list-style-type: none"> • Within Nitrate Vulnerable Zone 642 for surface water; • Within an area of High Groundwater Vulnerability (for Major Aquifers); • 1 scheduled monument within 5km of the Site; and • 2 Grade II*, 92 Grade II and 1 Grade I listed building within 2km of the Site.
Environmental characteristics	<p>The Site and surrounding area includes the following environmental characteristics:</p> <ul style="list-style-type: none"> • The Site has low biodiversity potential, with the exception of some very limited use by bats; • Stanley Park, a Grade II* Listed Park lies immediately north of the Site; • Located within the Liverpool City Air Quality Management Area (AQMA), having been identified as exceeding annual mean nitrogen dioxide (NO₂) air quality objectives; • Flood Zone 1, so at low risk of flooding; and • Bedrock geology of Chester Formation (a designated aquifer), comprising course-grained sandstones mixed with pebbles, gravel and siltstones.
Events Uses	<p>The pitch at the Stadium is currently used for:</p> <ul style="list-style-type: none"> • A specified list of team sporting events or televising certain of those events if played away; and • Up to 6 concerts or other major events (for example boxing) to take place on the pitch in the football close season in any one year, apart from the month of July, at a noise limit of 75 dB.
Evolution of the Site	<p>In the absence of the Proposed Scheme, the baseline of the Site is largely anticipated to remain in similar condition to the present.</p>

Proposed Scheme Characteristics

3.2 The Proposed Scheme is set out below, with key information provided within **Table 3.2**.

“Full planning permission for:

(i) The partial demolition and extension of the Anfield Road Stand to provide up to 7,000 additional seats and internal facilities including general admission concourses, hospitality lounges, a family fan zone, club offices, staff facilities and plant and equipment; with associated public realm; lighting; landscaping and associated infrastructure.

(ii) Use of Anfield Stadium for other team sporting events and to host up to 12 concerts and / or major events per annum”

Table 3.2: Key Characteristics of the Proposed Scheme

Key characteristics	<p>The key characteristics of the Proposed Scheme are as follows:</p> <ul style="list-style-type: none"> • Construction of a new roof, supported by new steel tower structures at the each end of the building (elements of which being up to 20m in length); • Extension of the Anfield Road Stand to be constructed behind the existing to its full height; • Demolition of the existing roof of the Anfield Road Stand (following the new roof's construction) and the steel/concrete upper tier (following the grandstand extension); • The Proposed Scheme shall increase seating capacity in the Anfield Road Stand from 8,962 to approximately 16,000, along with the provision of the following facilities: <ul style="list-style-type: none"> – Facilities – Home supporters (incl. Toilets, Concessions and Circulation (5,840m² Gross Internal Area (GIA)); – Facilities – Visitors (incl. Toilets, Concessions and Circulation (2,170m² GIA); – Fanzone (1,790m² GIA); – Hospitality Facilities (incl. Toilets, Concessions and Circulation (3,075m² GIA); – Staff Facilities (1,780m²); – Storage/Plant/Back of House Facilities (975m² GIA); and – Catering Facilities (incl. Holding Kitchen, Goods Lobbies and Food Cart Stations) (270m² GIA).
Events	<p>The Proposed Scheme seeks approval for the pitch to be used:</p> <ol style="list-style-type: none"> i. For a wider range of team sporting events (such as Gaelic games and American Football); and ii. For hosting up to 12 concerts and other major events, 6 events with a music noise level at a limit of 75 dB and up to 6 events at a reduced limit of 70 dB. Events would conclude by 23:00hrs, with the exception of the potential for up to 2 of the events (e.g. boxing) extending to 23:30hrs due to broadcasting requirements.
Access and circulation	<ul style="list-style-type: none"> • Access to the Site during construction will likely be via Priory Road, Arkles Land and then Anfield Road from the east; • The preferred route will be agreed within the Construction Environmental Management Plan (CEMP) and Construction Traffic Management Plan (CTMP); • Construction traffic will not travel along Anfield Road from Walton Lane, except to allow the very few deliveries of roof members to the Site; and • On match days an Access Zone sufficient for the safe operation of the Stadium will be provided between the construction site

	and Anfield Road Stand, to allow match-goers access to the Stadium.
Built form	<ul style="list-style-type: none"> • Built Form of the Proposed Scheme will be limited to the Anfield Road Stand, part of the existing Anfield Road car park, and land directly to the west (Figure 3.1); and • Structure will include the expanded Anfield Road Stand, and the proposed Welfare and Office and Accommodation space, directly west of the Anfield Road car park (Figure 3.1).
Operational strategies	<p>The completed project includes the following key strategies:</p> <ul style="list-style-type: none"> • Transport Strategy shall update the current Strategy, which includes the control of parking provisions; the existence of a Football Match Parking Zone (FMPZ) to prevent on-street parking without residential permits; the temporary closure of Anfield Road and Walton Breck Road before/following matches for pedestrian safety; the provision of a match day bus service between the City Centre and Walton Breck Road/Anfield Road; a Soccerbus service between Standhills Station and Walton Lane; the provision of taxi ranks; wayfinding signage from the City Centre and Sandhills Stations; and of cycle parking at the Stadium; • Lighting Strategy includes accordance with best practice and relevant British / European / UEFA standards to ensure lighting is appropriate to the work undertaken, and the operation of the Stadium; • Open Space Strategy includes the connection of Stanley Park to the Stadium with significant tree planting and greening; and the recognition of historical linked and views to the Park by increasing pedestrian movement to the Stadium; and • Surface Water Drainage Strategy includes a Sustainable Urban Drainage System (SuDS) to limit the risk of flooding, by providing attenuation of runoff water and limiting discharge rates; in operate in accordance with the National Planning Policy Framework (NPPF))³, local planning requirements and the SuDS Manual - CIRIA 753⁴.
Construction practices	<p>It is anticipated that the Proposed Scheme will take up to two years to complete, with the earliest construction start date anticipated to be in 2021.</p> <p>A commitment has been made to a number of management practices during the construction phase. These will be secured by a Construction Environmental Management Plan.</p>

³ Ministry of Housing, Communities and Local Government (2019). National Planning Policy Framework. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed 28/11/2019].

⁴ CIRIA (December 2015). The SuDS Manual (C753).

Reasonable Alternatives

- 3.3 The EIA Regulations require “*a description of the reasonable alternatives studied by the developer*”. Alternatives considered included:
- Alternative sites;
 - Alternative design;
 - Alternative technology; and
 - ‘Do nothing’.
- 3.4 Within **Volume 1: Main Text and Figures**, the above were appraised and alternatives designs were considered relevant to the Proposed Scheme, the justification for which is summarised below.
- 3.5 Throughout the design evolution of the Proposed Scheme, measures have been incorporated into the design to reduce its environmental effects, particularly on the landscape and visual environment. This includes the following:
- Improving economic viability through maximising capacity and optimising spectator viewing standards;
 - Complying with design standards and guidance, including complying with accessibility standards;
 - Operational improvements, including for visiting fans and through match day security provision;
 - Visual improvement and Reducing visual impact through finessing upper seating tier profiles and a roof solution which does not require obtrusive trusses, along with including appropriate materials commensurate with the Main Stand; and
 - Retention and realignment of Anfield Road, rather than closure.

4. Effects of the Proposed Scheme

Volume 1: Main Text and Figures, Chapter 2: Approach to EIA

Volume 1: Main Text and Figures, Technical Chapters 6 – 12

- 4.1 The EIA Regulations specify that EIA must '*identify, describe and assess the direct and indirect significant effects*' of the Proposed Scheme on a number of '*factors*'. These factors, generally broken down into specific sensitive receptors, have been considered/assessed within a number of technical topics and appraised at each stage of the EIA.
- 4.2 The Proposed Scheme has adopted best practice guidance, in that the design development process was undertaken in conjunction with the EIA process. As such, the design has been influenced by an understanding of the environmental constraints within the Site and surrounding area and has been altered so as to avoid direct and indirect effects as far as reasonably possible. Such design changes are termed '*primary mitigation*'.
- 4.3 Determination of 'significant effects' was first considered at the EIA Scoping stage, where an EIA Scoping Report, informed by a series of baseline studies, was prepared and submitted to LCC.
- 4.4 The EIA Scoping Report undertook a preliminary assessment in order to identify technical topics and/or specific effects which were 'not significant'. This process was used to '*scope*' the necessity for continued assessment (i.e. required consideration and reporting within the ES). The Scoping Opinion from LCC confirmed/agreed the approach set out within the EIA Scoping Report. As such, the ES reported the assessment of *likely significant effects* for the following technical topics:
- Socio-Economics and Human Health;
 - Townscape and Visual;
 - Built Heritage;
 - Biodiversity;
 - Transport;
 - Noise and Vibration; and
 - Climate Effects (Wind Microclimate).

BOX 1.

The EIA Scoping Report scoped out the following technical topics:

- Air Quality;
- Climate Change and Greenhouse Gases;
- Water Resources, Flood Risk and Drainage;
- Ground Contamination;
- Archaeology;
- Risk of Major Accidents and Disasters;
- Waste;
- Daylight, Sunlight and Overshadowing; and
- Obtrusive Light.

- 4.5 The assessment of likely significant effects does vary between technical topics, but all are informed by industry guidance. The adopted methodology for each technical topic was confirmed through the EIA Scoping process. The methodologies adopted are clearly outlined for each technical topic within the ES.
- 4.6 The assessments of likely significant effects are largely determined by considering the '*sensitivity*' of the receptors/receiving environment and the anticipated '*magnitude of change*', i.e. the scale of change from the current baseline situation based on an understanding of the Proposed Scheme. This is completed for both the construction and operation phases of the Proposed Scheme. Professional judgement is then used to determine the 'level of effect', which range from negligible (i.e. no effect) up to major and can be beneficial or adverse.
- 4.7 During the assessment of likely significant effects, the EIA (in line with requirements of the EIA Regulations) has considered *measures to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects*, commonly termed as 'mitigation'.
- 4.8 There are three forms of mitigation that can be considered within EIA when assessing likely significant effects (**Box 2**). Each type of mitigation is considered at various stages of the assessment.
- 4.9 Finally, each assessment determines if the level of effect reported is 'significant' or not. This determination is based on professional judgement and the information presented within each assessment.
- 4.10 A summary of the assessment and the *likely significant effects* reported within **Volume 1: Main Text and Figures**, taking each topic in turn, is provided below.

BOX 2.

Primary Mitigation – modifications to the location or design of the Proposed Scheme;

Secondary Mitigation – further actions required in order to achieve an anticipated outcome: and

Tertiary Mitigation – actions that would occur with or without input from the EIA feeding into the design process.

Socio-Economics and Human Health

- 4.11 The ES found that the Proposed Scheme is predicted to incur approximately £42 million in construction costs (excluding inflation), which could be sufficient to directly support an average of 145 gross construction jobs through the construction period of two years. The considerable expenditure on materials, goods and other services associated with construction will be purchased by a wide range of suppliers, meaning that the expenditure during construction of the Proposed Scheme will generate far-ranging economic benefits. The employment opportunities provided by the Proposed Scheme are amplified when the 'multiplier effect'⁵ is considered, which accounts for the wider

⁵ Homes and Communities Agency (2014) Additionality Guide: fourth edition. A multiplier of 1.1 is representative of '*the majority of interventions*' at neighbourhood level. A multiplier of 1.25 is the mean for all forms of intervention at the sub-regional scale, of Liverpool. A multiplier of 1.5 is average at the regional level, and therefore considered appropriate for the Liverpool City Region.

geographical effects of economic investment, and results in the generation of 217 jobs per annum in the Liverpool City Region during construction of the Proposed Scheme. This effect was considered to be moderate beneficial and significant.

- 4.12 The increase in seating capacity of the Stadium, created during the operation of the Proposed Scheme, is estimated to create requirements for an additional 400 members of staff; a 17% increase on the existing 2,400 staff members. In addition to this proportional increase of staff members, matchday spectator capacities are expected to increase by 14%. Accounting for these statistics, it is estimated that approximately 5,323 jobs will be created by LFC in the Liverpool City Council area, and a total of 6,655 jobs in the Liverpool City Region. These figures demonstrate an increase in employment provision by LFC, from the respective 4,564 and 5,706 jobs supported in 2017/18. This effect was considered to be moderate beneficial and significant.
- 4.13 The Proposed Scheme is predicted to increase the accommodation of matchday spectators to 61,000 per match, which across the football season will equate to the attraction of up to 1.95 million spectators; an increase of around 244,000 people (14%) from normal levels. As approximately 32% of match tickets were purchased from UK supporters travelling from beyond Liverpool, and 10% sold to travellers from abroad last season, the expanded stadium could conceivably attract an additional 24,000 overseas visitors, and 78,000 travelling UK visitors each year. It is estimated that the total annual spending associated with this match visitation would equate to £3,900,000 during the day, and £20,500,000 during overnight stays, as the average individual spend on these trips is £38 and £201 respectively.
- 4.14 The Proposed Scheme will additionally facilitate the use of the Stadium for concerts and major events, approximately 8,900 people can be attracted to the Liverpool area per event. It is estimated that the expenditure of these attendees could equate to £340,000 during day visits, and £1,800,000 during overnight stays per event. The effect of this expenditure was considered to be moderate beneficial and significant.
- 4.15 Beneficial (but not significant) effects in relation to economic productivity during both construction and operation were also reported.

Townscape and Visual

- 4.16 The Proposed Scheme has been designed through a lengthy iterative process involving environmental assessment and consultation. This process has allowed site constraints and opportunities to directly influence the proposals. As a result, mitigation measures form part of the detailed design and many potential adverse effects have been 'designed out' in relation to townscape and visual effects.



Figure 4.1: Viewpoint Plan Excerpt

4.17 One significant adverse townscape effect during the construction phase effects is predicted and is summarised below:

- Temporary adverse effects on the landscape character of Stanley Park within the Site as a heritage asset, due to use of a small area as a construction compound. The assessment reflects the sensitive nature of the Park and a Grade II* registered landscape. Following completion, the compound area within Stanley Park will be restored to current conditions, or improved. Should vegetation loss occur, this will be replaced.

4.18 A total of 5 key viewpoints are predicted to result in significant temporary adverse visual effects during the construction phase due to visibility of the Proposed Scheme. This is primarily due to the location of key views within Stanley Park. The nature of the sensitive landscape means that visual receptors are likely to be focussed on the landscape and sensitive to change. The 5 viewpoints are:

- View 1: View north west from Anfield Road;
- View 3: View south west from Priory Road;
- View 4: View south from Stanley Park (south);
- View 7: View south from Stanley Park (north); and

- View 9: View south west from Stanley Park.
- 4.19 A total of four significant beneficial townscape effects during the operational phase are predicted and are summarised below:
- Townscape/landscape character. The Proposed Scheme will create an enhanced relationship between the Stadium and Stanley Park.
 - Movement and linkages. The Proposed Scheme will include new, high quality public realm which prioritises pedestrian movement and enhances connectivity to Stanley Park.
 - Public open space and tree cover. The Proposed Scheme will include removal of 20 existing trees of varying quality. The landscape proposals include 19 new trees (of greater quality), which will help to achieve the key principle of bringing the 'green' from the park into the Stadium setting.
 - Site Character. The key principles embedded into the Proposed Scheme will enhance site character.
- 4.20 One viewpoint is predicted to result in a significant adverse effect during the operational phase as a result of the Proposed Scheme, and is outlined below:
- View 8: View south east from Anfield Road. The Proposed Scheme will terminate views along Anfield Road, foreshortening the view and adversely impacting on the character of the street.

Built Heritage

- 4.21 The Built Heritage assessment considered the implications of the Proposed Scheme on the character and setting of key built heritage assets surrounding the Site. The assessment focused on designated and non-designated heritage assets within a 1km Study Area and additional assets outside the Study Area, where it was considered there was potential inter visibility, have been assessed.
- 4.22 During the construction of the Proposed Scheme, it has been determined that the presence of mobile cranes, visible machinery, earthworks and material management and construction traffic may result in a change in setting of heritage assets and increased visual intrusion and noise. This is predicted to induce moderate adverse effects on:
- Stanley Park (grade II* registered park and garden);
 - 35-37, 39-41 and 43-45 Anfield Road (grade II listed buildings); and
 - 73 Anfield Road (non-designated heritage asset).
- 4.23 Effects associated with the operation of the Proposed Scheme which could affect the setting and therefore significance of the heritage assets include, visual and other changes associated with the development of the new stand, removal and relocation of Anfield Road and landscaping. Other effects include noise associated with the general

operations of the Proposed Scheme. These environmental changes would induce a minor to moderate adverse effect (considered to be significant) on Stanley Park and Anfield Cemetery.

- 4.24 All other heritage effect were, whilst being reported in the ES Chapter and supporting appendices, not considered to be significant.

Biodiversity

- 4.25 Due to the low ecological value of the Site, the assessment of effects on biodiversity was scoped to a single species – bats.



Figure 4.2: Confirmed and Potential location of bat roosts

- 4.26 Due to the known presence of a transitional bat roost in the Kop Stand of the Stadium, the disturbance of this roost during the operational phase of the Proposed Scheme was assessed within the ES. It was determined that bats were recorded as hibernating within the Kop Stand in January 2020 (during the football season), meaning that these bats will have a high tolerance to noise disturbance. As the Proposed Scheme would not increase the frequency of football matches being held at the Stadium during the roosting season, and as the proposed extension of the Stadium's license to include summer events would be external to the roosting season, disturbance of the bat roost was considered negligible and not significant.

- 4.27 The roost in the Kop Stand is not anticipated to be impacted by construction as works will be carried out in summer months when bats are considered to be absent from the Stadium and the Kop Stand will not be subject to construction works.
- 4.28 The Anfield Road Stand was additionally assessed for its suitability to support roosting bats, which was determined as low. It is highly unlikely that a bat roost is present in the Anfield Road Stand, as signs were not identified during survey work. However, there is suitable commuting habitat between the Site and Stanley Park (adjacent), meaning that a roost could be opportunistically found within the Stand. Considering the low suitability of the Anfield Road Stand overall, the effect of Proposed Scheme on roosting bats during construction and operational phases has been deemed negligible, and not significant.

Transport

- 4.29 The transport chapter of the ES considered the temporary closure of Anfield Road during the construction phase effecting driver severance, journey delay and safety on alternative routes due to increased traffic flows on these routes as they accommodate diversion traffic from Anfield Road.
- 4.30 The assessment considered these effects on drivers and passengers, as well as pedestrians and cyclists. In all instances, the effects were not considered significant.

Noise and Vibration

- 4.31 The Noise and Vibration assessment was concerned with the assessment of long-term effects on existing noise sensitive receptors from predicted construction and operational noise associated with the Proposed Scheme.
- 4.32 During construction, there are a number of best practice measures that would be included in a CEMP that will reduce noise and vibration. This includes construction activities only being carried out during set daytime working hours⁶ and the fitting of equipment with silencers or mufflers.
- 4.33 The effects of noise associated with the Proposed Scheme have been assessed to derive from numerous construction activities, including the construction of the foundations and substructure; superstructure; roof; steel frame erection; existing upper tier and roof demolition of the Anfield Road Stand; and the construction of the new Anfield Road alignment. These effects were considered to be potentially significant.
- 4.34 The re-alignment of Anfield Road as part of the Proposed Scheme was determined to impact the northwest facing façade of a sensitive noise receptor, 73 Anfield Road. During the operation of the re-aligned Anfield Road, a low speed designation for traffic,

⁶ In accordance with Liverpool City Council *Construction hours of work Guidance note for contractors and developers*: <https://liverpool.gov.uk/media/2779/construction-site-noise-guidance.pdf> (accessed in November 2019)

traffic calming measures, and the regular maintenance of the road surface would be implemented to reduce the effects of noise on 73 Anfield Road.

- 4.35 All other effects considered, including those associated with noise from events, were not determined to be significant.

Climate Effects (Wind and Microclimate)

- 4.36 Wind tunnel results for the existing situation showed wind conditions ranging from suitable for sitting use to walking use during the windiest season, with the windiest area around the northern corner of the Main Stand. Several instances of strong winds would occur in the baseline scenario at the western corner of the Main Stand and to the north of the Stadium along Anfield Road and within Stanley Park.
- 4.37 The inclusion of the proposed landscaping scheme tested for the Proposed Scheme and in the cumulative scenario would improve wind conditions at and surrounding the Proposed Scheme, and the extent of the strong winds would be substantially reduced along Anfield Road and within Stanley Park. However, some significant wind conditions would occur during the windiest weather at:
- Some Stadium entrance locations; and
 - Limited areas which would experience strong winds.

5. Cumulative Effects

- 5.1 It is a requirement of the EIA Regulations for the EIA to assess the cumulative effects arising from the Proposed Scheme. There is no standard methodology for the assessment of cumulative effects but it is common for cumulative effects to be broken down into two types of effect, *Effect Interactions* and *In-combination Effects*, which are defined in **Box 3**. Both of these cumulative effects have been assessed.

BOX 3.

Effect Interactions: the interaction of environmental effects of the Proposed Scheme affecting the same receptor, either within the Site or in the local area.

In-combination Effects: the combination of environmental effects of the Proposed Scheme with approved project(s), affecting the same receptor.

Effect Interactions

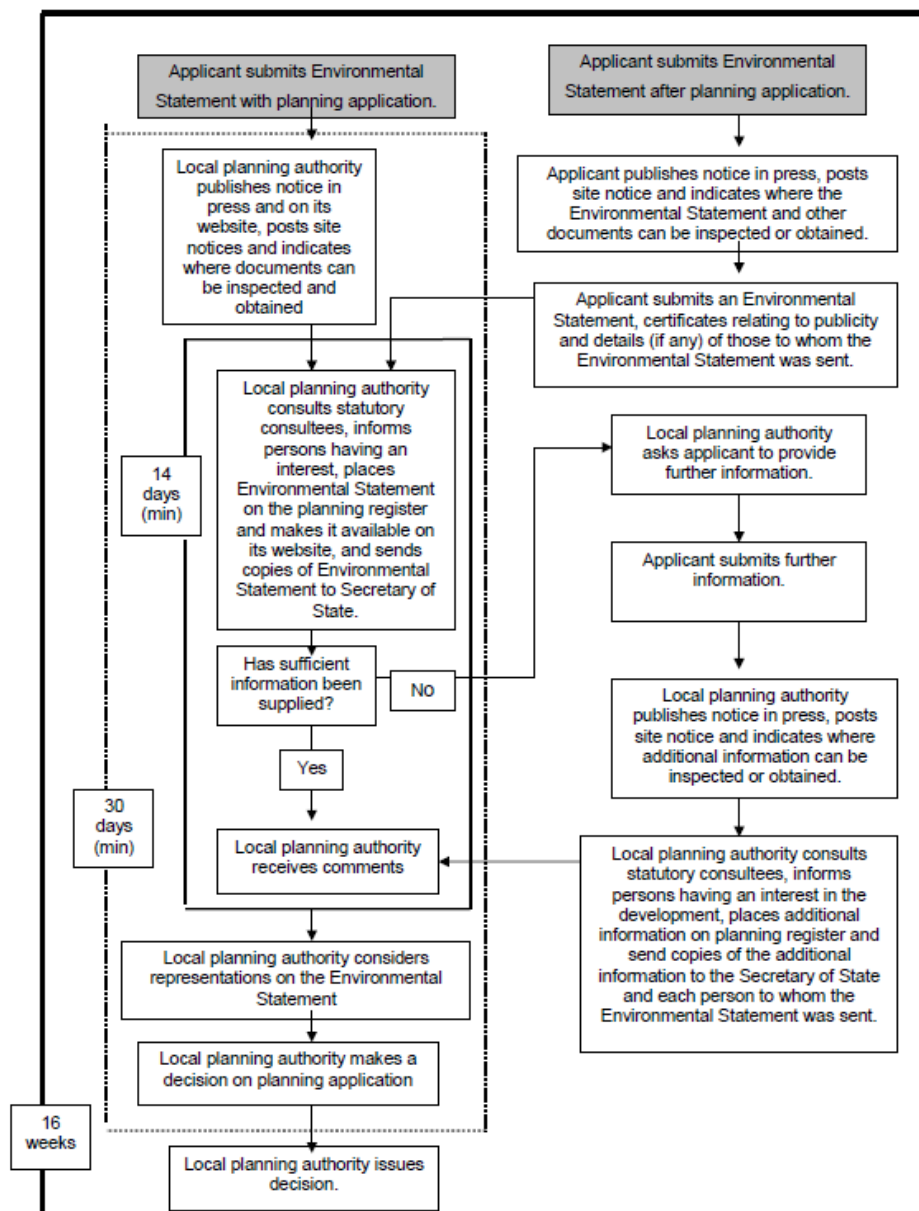
- 5.2 The assessment of effect interactions identified that interactions were limited to a single receptor group: *Population and Human Health*, as a result of increased employment and economic activity during both the construction and operation of the Proposed Scheme. This is alongside adverse noise effects from construction activities and as a result of the realignment of Anfield Road (limited to a single property) during operation.

In-Combination Effects

- 5.3 11 Approved Projects were identified in consultation with LCC, for consideration within the ES.
- 5.4 The assessment of in-combination effects identified that, overall where common receptors between the Proposed Scheme and the Approved Projects are evident, in-combination effects were generally considered to be no greater than that reported at the project level (i.e. the Proposed Scheme in isolation). Effects were not considered to be significant (beyond those at a project level) for all topics and at all receptors.

6. What Happens Next

- 6.1 As outlined within the Introduction of this Non-Technical Summary, the Environmental Statement comprising of all three volumes, has been submitted to LCC in support of the Application and is a material consideration during the determination of the Application by LCC.
- 6.2 The process for the submission and determination of the Application, including anticipated timeframes, is outlined in **Extract 2**.



Extract 2 – Summary of Submission and Determination Process